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DHARANI: A 3D Developing Human-Brain Atlas Resource to Advance Neuroscience Internationally Integrated Multimodal Imaging and High-Resolution Histology of the Second Trimester

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ABSTRACT

We introduce DHARANI, the first online platform with three-dimensional (3D) histological reconstructions of the developing human brain from 14 to 24 gestational weeks (GW) across the five fetal brains. DHARANI features 5132 Nissl, hematoxylin and eosin stained, 20 μm coronal and sagittal sections, postmortem MRI, and a neuroanatomical atlas with 466 annotated sections covering \sim 500 brain structures. It is accessible online at <https://brainportal.humanbrain.in/publicview/index.html>. The 3D reconstruction enables a volumetric view of the fetal brain, allowing visualization in all three planes akin to MRI, previously unachievable with histological datasets from the fetal brain. This allowed qualitative assessment of the growth of brain regions and layers throughout the second trimester. “DHARANI” documents the initiation of sulci, with the lateral fissure, calcarine, parieto-occipital, and cingulate sulci, at 14 GW. The central and postcentral sulci appear by 24 GW; however, cytoarchitectonic boundaries become visible before sulcal patterns. Cortical plate (CP) lamination begins at 24 GW in the parietal and occipital cortices. The frontal cortex lacks lamination at 24 GW, although putative Betz cells are already visible and show early patterning

Richa Verma, Mihail Bota, Keerthi Ram, and Jaikishan Jayakumar contributed equally to this study.

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in the intermediate zone. The cell-sparse layer between the CP and subplate, containing late migratory neurons, begins in the orbital cortex at 14 GW and reaches the frontal cortex by 17 GW. The appearance of the honeycomb pattern in the occipital and parietal cortex occurs after 14 GW. Additionally, we describe the development of the thalamic pregeniculate with the rotation of the lateral geniculate nucleus. Cerebellar nuclei and an early Purkinje cell layer appear by 21 GW in the already foliated cerebellar cortex.

1 | Introduction

The development of the human central nervous system is a complex biological process, with a greatly extended prenatal period and several key stages that result in various cell types, molecules, and intricate connections that cannot be directly compared with experimental animal models (Molnár 2011; Silbereis et al. 2016; Stiles and Jernigan 2010; Vasung et al. 2019). To date, openly accessible high-resolution histology atlases for the entire human brain during development are scarce (Ding et al. 2022) compared to similar datasets in other species, such as laboratory rodents and nonhuman primates, where multimodal imaging and three-dimensional (3D) reconstruction (Dong 2008; Woodward et al. 2018) have been possible. Advances in imaging and computational tools have facilitated the 3D reconstruction of the whole brain in animal models (Hawrylycz et al. 2011) through high-resolution histology (Lin et al. 2019; Pinskiy et al. 2015) and the generation of multimodal and probabilistic atlases in adult humans (Amunts et al. 2013, Amunts et al. 2020; Amunts and Lippert 2021; Ding et al. 2016). Generating high-quality histological datasets from the whole fetal human brain with minimal tissue loss and shrinkage has been challenging, even though histology remains the gold standard for the characterization of the transient features of the developing human brain (Altman and Bayer 2002; Vasung et al. 2019). The primary challenge contributing to this lies in the lack of methodological advancements (Crick and Jones 1993), hindering the processing of large-volume brains with high throughput, and computational tools for analyzing terabytes and petabytes of data from high-resolution imaging. Additionally, acquiring good-quality postmortem tissue poses practical challenges (Molnár 2011; Vasung et al. 2019).

Over the last five decades, various tools and techniques have been employed to explore fundamental questions regarding the anatomical organization of the human brain, with seminal work on the organization of the fetal brain conducted using the Yakovlev and the Zagreb collections (Altman and Bayer 2002; Bayer and Altman 2005; Kostovic et al. 1991); however, most of these collections predate advanced imaging techniques like MRI and in utero ultrasonography (USG) and often lack detailed clinical information and prenatal history. Robust datasets integrating clinical information are essential for meaningful correlations between clinical findings, imaging, and histology. Studying the developing human brain offers insights into the organization of the adult human brain regarding cell types, neuronal density, connections, and laminar organization across brain regions (Altman and Bayer 1990; Bayer and Altman 2005; Bystron et al. 2005; Chi, Dooling, and Gilles 1977; Rakic 1968; Rakic 1988; Stiles and Jernigan 2010; Vasung et al. 2019; Verma et al. 2024). Advances in molecular techniques in the last two decades have provided a further understanding of the biological mechanisms

and categorization of cell types with molecular signatures in the developing human brain (Bhaduri et al. 2021; Ding et al. 2022; Eze et al. 2021; Hansen et al. 2010; Kim et al. 2023); Additionally, generating robust spatiotemporal molecular maps relies on a high-quality histological reference atlas, ideally with volume datasets. Whole-brain atlases that provide volume datasets in fetal brains primarily rely on MRI (Gholipour et al. 2017; Vasung et al. 2016) and USG (Namburete et al. 2023), which lack cellular resolution and specificity, hampering the systematic evaluation of key transitional stages and the understanding of the neurogenic process.

The Sudha Gopalakrishnan Brain Centre (SGBC), at the Indian Institute of Technology, Madras (IITM), India, has taken the initiative to bridge the gap between whole-volume datasets and cellular details in the developing human brain. The neuroanatomical investigation of serial fetal human brain sections, by freezing the whole brain as a single block, instead of using multiple slabs of tissue, was reported earlier for younger gestational ages (Verma et al. 2024) and was achieved using an engineering and technology-driven approach, involving monitoring and optimizing parameters (Kumarasami et al. 2023) previously applied to rodent brains (Pinskiy et al. 2013).

DHARANI, digital histology datasets from the whole human brain in the second trimester, are accessible at <https://brainportal.humanbrain.in/publicview/index.html> along with an interactive interface that allows navigation through annotated representative sections with high sampling density. These histological datasets are complemented by postmortem MRI and block-face imaging (BFI), facilitating multimodal comparison (Verma et al. 2024), thus enabling a comprehensive spatial and temporal visualization of the developing human brain. Compared to the earlier study by Verma et al. (2024) where histological characterization of early second-trimester (13–16 gestational weeks [GW]) brains was reported, the current study expands to the entire second trimester, until 24 GW, hence allowing spatiotemporal characterization of the developing whole brain spanning the entire second trimester. Furthermore, the 3D reconstruction provided a unique perspective of the growth of brain regions from 14 to 24 GW, specifically the decrease in size of the lateral ventricles as the cerebral cortex develops, the development of sulci, and the corpus callosum.

A customized BFI technique aided in visualizing macro-level features for the registration of high-resolution histological tissue sections (Karthik et al. 2023). Histological processing of large whole brains was achieved through automated large-format stainers (Sithambaram et al. 2023) and cover slippers for 6 × 8-in. slides (Narayanan et al. 2023), ensuring consistent high-quality results for thousands of sections per brain encompassing the early to late second trimester. The workflow for the whole-fetal

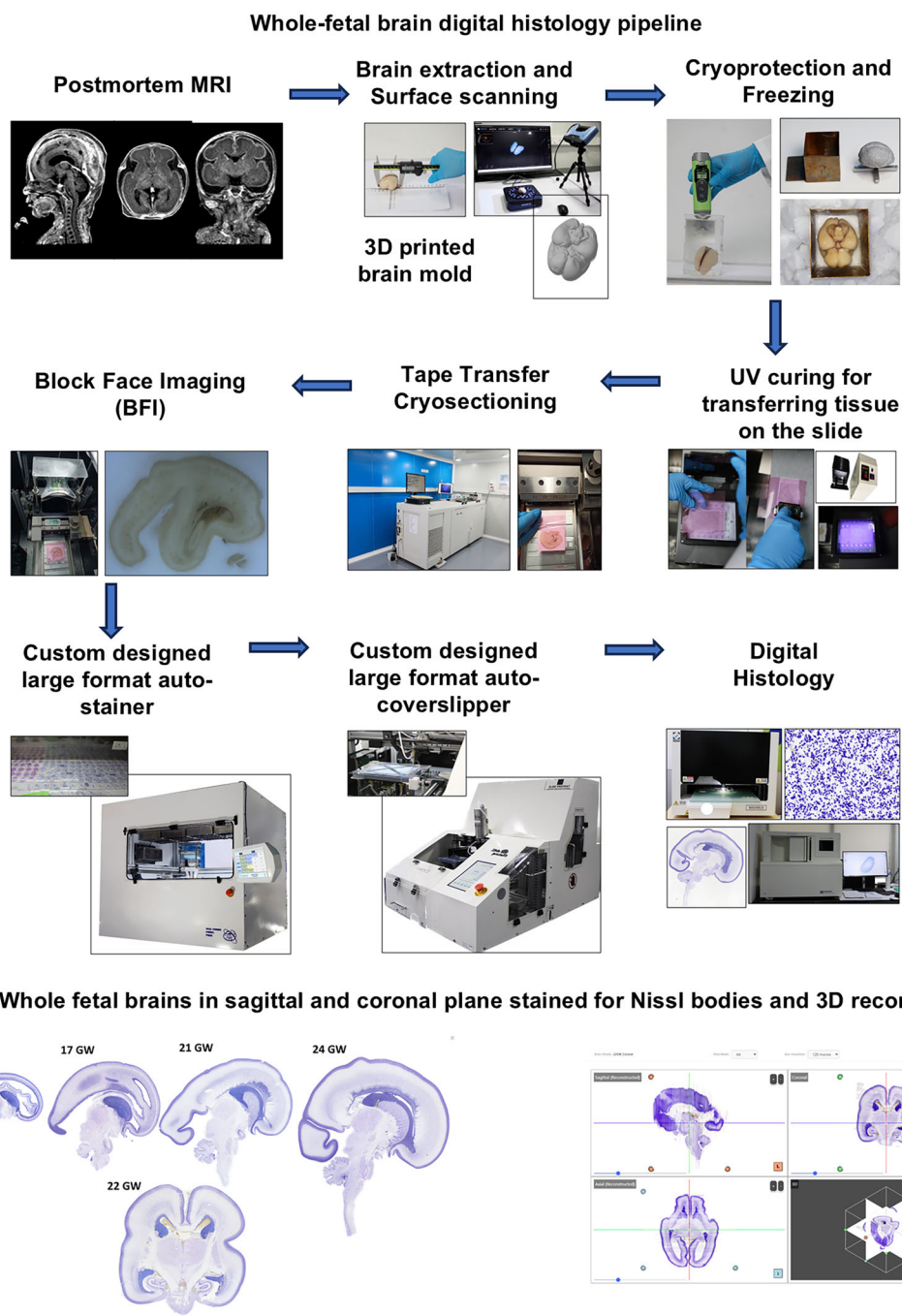


FIGURE 1 | 3D reconstruction of fetal brains at 14, 17, 22, and 24 gestational Weeks (GW).

brain processing pipeline from postmortem MRI to digitization is depicted in Figure 1. The digitized histological sections were stack-aligned and co-registered to *in-skull* MRIs to generate 3D volumes and visualization in all three planes. To summarize, Table 1 compares the DHARANI atlas from the second trimester to the currently available state-of-the-art fetal brain histological atlases.

We use these high-resolution histological datasets to construct 466 annotated sections (see Atlas Plates in Appendix A) from 5 brains with ~60–120 sections per brain and to characterize the spatial-temporal changes detectable across regions, fiber tracts, and transient structures from 14 to 24 GW. This is the largest

publicly accessible digital dataset of the human fetal brain to date and to the best of our knowledge. This large cell-level dataset from the second trimester developing human brain revealed several new findings in the cerebral cortex, thalamus, hypothalamus, and pretecal region. In the developing cerebral cortex, the cortical transient zones, sites for key neurogenic events, show early subregional boundaries. We describe the topographical relationship of the pregeniculate complex in the human fetal brain with the developing lateral geniculate nucleus (LGN), aligning with the rotation and maturation between 14 and 24 GW. Furthermore, we report the presence of several distinct white matter tracts in the thalamus and hypothalamus. In the pretecal area, we delineated key pretecal nuclei from 17 GW onward that

TABLE 1 | Comparison of DHARANI to the currently available human developmental atlases.

Features of the currently available fetal atlases—second trimester	Bayer and Altman (2005)	Allen Brain Institute (2021)	DHARANI, IIT Madras (2024)
Details of dataset	2D Print Atlas (300 dpi) Nissl (88 sections from 9 brains)	2D Digital (1 $\mu\text{m}/\text{pixel}$) and Print Atlas (300 dpi) Nissl (168 sections from 3 brains)	2D Digital (1 $\mu\text{m}/\text{pixel}$) and Print Atlas (300 dpi) 3D reconstruction from histology and co-registered to MRI Nissl and H&E (5132 sections from 5 brains)
Multimodal imaging MRI and BFI	X	X	MRI BFI
Number of brains	9 Whole brains—13.5–24 GW	2 Half brains: 17 GW (15PCW), 23 GW (21PCW) and 1 brainstem 23 GW (21PCW)	5 Whole brains —14, 17, 21, 22 and 24 GW
Number of annotated sections (Nissl)	88 Annotated sections	168 Annotated sections	466 Annotated sections
Maximum number of annotated sections—per brain	20	81	124 Annotated sections
Thickness of each section	35 μm	20 μm	20 μm
Spacing between annotated sections	Uneven spacing	250–1200 μm spacing	60–1000 μm spacing
Embedding	9 Whole brain—embedded in celloidin	1 Hemisphere from 2 brains and 1 brainstem—embedded in OCT	5 Whole brains embedded in OCT as a single block
Staining series	2 Series—Nissl and Myelin	4 Series—Nissl, ISH, AChE, and Myelin	3 Series —Nissl, H&E, and Myelin/IHC ^a

Abbreviations: AChE, acetylcholinesterase; BFI, blockface imaging; GW, gestational weeks; ISH, in situ hybridization; OCT, optimal cutting temperature embedding medium; PCW, postconceptional week.

^aMyelin and immunohistochemistry (IHC) datasets are not part of this study.

have not been described previously in the developing human brain, to the best of our knowledge.

This large cell-level dataset from the developing human brain revealed several new findings in the second trimester in the cerebral cortex, thalamus, hypothalamus, and pretectum of the developing human brain.

2 | Methods

2.1 | Specimen Procurement

De-identified specimens ($n = 5$), with a postmortem interval (PMI) of 2–4 h, were collected after due consent from next of kin, in accordance with the declaration of Helsinki, along with prenatal ultrasound scans. Specimens from 14 to 24 GW (postconception week, PCW 12–22) were obtained from the Department of Pathology at Mediscan Systems Pvt. Ltd., Chennai, India (Mediscan). We use “GW” to facilitate comparison (Verma et al. 2024) with published atlases (Bayer and Altman 2003, 2005). On the basis of the prenatal USG, postmortem MRI, medical autopsy examination, and high-resolution whole-brain histology with hematoxylin and eosin (H&E) staining, the brain specimens were classified as non-pathological. Post extraction, the mass and

dimensions of each specimen were measured and recorded, as shown in Table 2.

We describe below each of the processing steps and the several technologies developed at SGBC for processing the whole human brain as one single block, with large histological sections placed on 6 \times 8-in. slides.

2.2 | Postmortem MRI

We performed a postmortem *in-skull* MRI at the Department of Radiology, Sri Ramachandra Institute of Higher Education and Research. MRI was performed on the brains using 3 T (version DV28.0_R05_2.34.a, Signa Architect, GE medicals, USA) (Figure 1). The imaging utilized 16-channel medium flex surface coils with an inner diameter of 30 cm. For all specimens, 14–24 GW (S1–S5), a 3D T1-weighted gradient MP-RAGE sequence was acquired with a matrix size of 512 \times 512 with varying numbers of slices: 88, 84, 132, 108, and 152, respectively (parameters: repetition time 2500 ms; echo time 3 ms; flip angle 8°; field of view 140 mm; slice thickness 0.5 mm with no interleaving space; voxel spacing 0.23 \times 0.23 \times 0.5 mm³). The T1W MRI data was used as a reference during the 3D reconstructions of stacked histological sections.

TABLE 2 | Specimen details.

Specimen	Mass (g)	Dimensions (cm)		
		A-P	RL-LL	D-V
S1 (14 GW)	8.6	4.4	2.8	2
S2 (17 GW)	24.4	4.5	4	3.5
S3 (21 GW)	53.3	6	5	4.8
S4 (22 GW)	56.9	6.3	5.3	4.4
S5 (24 GW)	109.4	7.7	6.1	5.5

Abbreviations: A-P, anterior to posterior; D-V, dorsal to ventral; RL-LL, right lateral to left lateral.

2.3 | Fixation, Cryoprotection, and Freezing

Brain specimens, following MR imaging and removal from the skull, were fixed in 4% paraformaldehyde (PFA) in 0.01 M phosphate buffer (PB) at room temperature, for a minimum of 2 weeks before histological processing. For cryosectioning large brains, cryoprotection was a critical step to minimize freezing artifacts and osmotic shock at the cellular level, in superficial as well as deeper structures (Kumarasami et al. 2023). Cryoprotection of the brains started with 10% sucrose in 4% PFA and 0.01 M PB, followed by 20% and 30% sucrose in 0.01 M PB at 4°C, until the specimen was equilibrated at each concentration. Given the wide range of brain size from 14 to 24 GW, the cryoprotection duration varied from 12 to 22 days. The volume of the immersion solution used was approximately five times that of the specimen.

A technology platform was designed to freeze large brains, where a custom-designed brain master pattern (for alignment) and a copper base mold were generated (see Kumarasami et al. 2023). To design the custom brain master pattern for each specimen, 3D surface scans (Einscan Pro, SHINING 3D Technology GmbH, Germany) of the extracted brain were obtained and 3D-printed (in metal) (Kumarasami et al. 2023). This allowed aligning the brain in anatomical coordinates during the preparation of the cryoblock, as closely as possible to that observed *in skull in the MRI* (Figure 1). Copper cubicles, designed to embed the specimen in optimal cutting temperature (OCT) embedding medium, were used to create cryoblocks. Each specimen was frozen using an isopentane dry ice bath, enabled with continuous temperature monitoring using a Re146 resistance temperature detector (RTD) sensor, with an accuracy of $\pm 0.25^\circ\text{C}$. The freezing process was conducted in two stages: creating a cryomold and then freezing the brain tissue. First, the base mold, containing the brain master pattern and embedding medium, was placed in the isopentane container. Dry ice was added to the mixture as and when required to ensure minimal deviation from the desired -80°C isopentane temperature. The isopentane and dry ice mixture has been shown to freeze the brain tissue at a rate of $2\text{--}3^\circ\text{C}/\text{min}$ uniformly for tissues with thicknesses up to 40 mm (Kumarasami et al. 2023). Once the embedding medium froze, the master pattern was removed with the aid of a heat gun, creating a negative impression of the brain surface in the frozen embedding medium with the desired alignment. The brain tissue was placed in the base mold and covered with the embedding medium. Once the embedding medium froze, heat was further applied to

remove the frozen block from the base mold. The frozen block was then transferred to a -80°C refrigerator for storage until cryosectioning.

2.4 | BFI and Cryosectioning Using the Tape Transfer Technique

Immediately prior to cryosectioning, the exposed surface of the cryoblock is imaged serially using a BFI camera (Figure 1) (Karthik et al. 2023). This series of images was used to reconstruct a 3D volume which can be used as a reference to quantify any distortions or shrinkage that may occur due to the histological processing and staining.

We custom-designed the BFI setup for imaging large-volume tissues ($>600\text{ cm}^3$) and can image a very large field of view (upto $20 \times 20\text{ cm}^2$) at a resolution of $70\text{ }\mu\text{m}/\text{pixel}$ under white light illumination. This system was also designed to work under extreme subzero temperatures of up to -30°C . Most importantly, it was designed to maintain its optical focus over a significant depth of tissue ($\sim 7\text{ cm}$) and over long periods of time without the need for readjustments. In addition, we have also used two adhesive fluorescent fiducial markers ($1 \times 1\text{ cm}^2$) which were used to align the images to compensate for any planar shifts that might occur during sectioning due to conveyor belt stoppage tolerances.

Using the Leica CM1520 and CM3600 (cryomacrotome) cryostats (Leica Biosystems, India), the frozen whole brains (S1: ~ 1400 , S2: ~ 1700 , S3: ~ 2100 , and S5: ~ 2400 , number of sections at $20\text{ }\mu\text{m}$ thickness) were serially sectioned in the sagittal plane, whereas S4 (~ 2200) was serially sectioned in the coronal plane ($20\text{ }\mu\text{m}$ thick sections). Prior to cryosectioning, the block was acclimatized for at least 30 min at -20°C (the chamber temperature of the cryostat). The tape transfer technique, which has been employed for small animal brains such as rodents and marmosets (Pinskiy et al. 2015), was optimized for use with the large $75 \times 50\text{ mm}^2$ and $200 \times 150\text{ mm}^2$ glass slides, specific to the human brains (Verma et al. 2024). The tape transfer technique employs ultraviolet (UV)-sensitive adhesive tape (Custom Converting Inc., USA) that is wrapped onto the exposed surface of the frozen tissue block, and upon cryosectioning, the sliced section adheres to the tape. The tape with the section is placed on the polymer-coated glass slide that is activated by UV light (Figure 1), resulting in a hands-free transfer of the sections onto the glass slide, which minimizes tissue damage. For tape transfer sectioning, the slides were prepared before mounting the sections by coating them with a solution of (trimethoxysilyl) propyl methacrylate, 0.1 M acetic acid (ratio: 4:1) in acetone, for 24 h, followed by an application of a UV curable optical adhesive (Norland NOA 63, Edmund Optics) using Pasteur pipettes and a clean glass rod. The total volume required to coat one $75 \times 50\text{ mm}^2$ and $200 \times 150\text{ mm}^2$ slide was 40–50 and 200–250 μL , respectively.

2.5 | Staining and Coverslipping

After cryosectioning, the sections were divided into three series and stained for Nissl substance, H&E, and the third series was

kept for myelin and immunohistochemical staining (IHC) not reported herein. The sections were stained for Nissl substance using 0.2% thionine and for H&E using Harris' regressive protocol. The Nissl and H&E staining were performed using an autostainer designed specifically to accommodate the large slides (Sithambaram et al. 2023). The developing human brain, specifically at a younger gestational stage, is high in water content, and hence, following staining, the sections were dried for 3 days in a temperature-controlled chamber at 33°C. For high throughput of the thousands of sections per brain, an automated large-format custom-designed coverslipper was built that utilized DPX (Merck) mounting media to coverslip the sections immersed in xylene (Narayanan et al. 2023).

2.6 | Scanning and Quality Check (QC)

Histological sections were digitized using a large format scanner (TissueScope LE120, Huron Digital Pathology, Canada) with an in-plane resolution of 0.5 $\mu\text{m}/\text{pixel}$ (Figure 1). The full-resolution images underwent quality control to address issues related to imaging such as stitching, white balance, or focus in addition to any staining-related artifacts. Only sections that passed these QCs were included in the analysis and ranged from 85% to 95% of the total sections across five brains.

2.7 | Atlas Annotation

Figure 2 shows Nissl-stained representative sections from four different gestational ages sectioned in the sagittal plane from the right to the left hemisphere. Annotations were performed using an online custom-designed atlas annotation tool (see Section 2.8.1) to mark identified structures, including brain regions, fiber tracts, ventricles, and other developmental structures such as the ganglionic eminence. The identification and naming of brain structures were performed using primarily the available human developmental atlases (Bayer and Altman 2005; Ding et al. 2022). Additionally, we have used the available adult human brain atlases (Ding et al. 2016; Paxinos et al. 2012) for regions that were ambiguous in the developmental atlases. In addition, we have also used the primate (marmoset) brain atlas of Paxinos et al. (2012) for detailed comparison. The identification and naming of brain structures is, therefore, a combination, as well as “common ground,” of several nomenclatures. Finally, the primary literature has been used extensively to identify and annotate structures for each basic division (see below). For example, the seven transient layers of the developing cerebral cortex were annotated using the classification and nomenclature provided by the Boulder committee (Bystron, Blakemore, and Rakic 2008) and include the ventricular zone (VZ), subventricular zone (SVZ), intermedial zone (IZ), subplate (SP), cortical plate (CP), marginal zone (MZ), and subgranular zone (SGZ). The abbreviations used for each identified structure follow the commonly employed approach: first letter upper case for gray matter regions and lower case for fiber tracts and transitory structures.

This composite nomenclature is hierarchically organized (mixed hierarchical approach), using the spatial partitioning relationship “part of.” Following previous approaches (Bota and Swanson

2008; Dong 2008; Swanson 2018), the most general categories of the hierarchically organized nomenclature are defined by the type of structure: gray matter, axonal pathway, migratory stream, neuro- or glioepithelium, or ventricles. Hence, these most general categories are the following: “brain,” “spinal cord,” “fiber tracts,” “developmental structures,” and “ventricles.” The first two categories include all identified and delineated gray matter parts and their parents in the brain and in the spinal cord of the human developing brain, respectively. The children of the “brain category” are the “telencephalon,” “diencephalon,” and “brainstem.” The “fiber tracts” category includes all axonal pathways identified in the literature used for annotations. The “developmental structures” include the migratory streams and the neuro- and glioepithelia, described in the literature and identified in our specimens. Finally, the category “ventricles” includes the lateral, third, the fourth ventricle, their parts, and the respective parts of the choroid plexus.

We aimed to identify and delineate the smallest brain regions (the leaves of the nomenclature tree) as defined and described in the used references. However, sometimes these regions could not be identified, because of objective reasons. For example, the individual raphe nuclei of the brainstem could not be identified in sagittal sections only based on cytoarchitecture and topographical positions. In such situations, we used the name of the parent structure to identify those regions. Therefore, the raphe nuclei are delineated as a set of nuclei in sagittal sections. Similarly, few sections had minor tissue damage. We annotated the boundaries in the damaged portion, with the parent structure, or with the name used in the adjacent section where the tissue was not damaged. We also had sections that showed thin portions like the SGZ, detached from the main section, and in such cases, we chose not to annotate as it was difficult to specify the small pieces of tissue with certainty. The annotation sampling across 5 brains ranged from 0.06 to 1 mm resulting in annotations of at least 1 section for every 50 sections. These annotated 466 Nissl sections across the five brains are also available online and at the end of this manuscript. The online repository has 5132 Nissl and H&E sections from five specimens, where 466 annotated sections are at 1 and 4666 4 $\mu\text{m}/\text{pixel}$ in-plane resolution.

These annotations along with the supporting histological sections result in the developing human brain atlas of the second trimester with 414 identified brain regions, fiber tracts, ventricles, and developmental structures (the smallest leaves). Overall, the developed hierarchically organized nomenclature includes about 500 terms to date.

2.8 | Computational Processing of Brain Section Images

Each section image of DHARANI dataset was captured in 8-bit 3-channel (RGB) at 0.5 $\mu\text{m}/\text{pixel}$ in-plane imaging resolution. The image was subjected to a sequence of computational processing steps to extract geometric and photometric parameters, followed by the preparation of image tiles that are suitable for display on a web-based high-resolution image rendering software application. In the current data release, the pixel resolution of the histological sections with annotations is rendered as 1 $\mu\text{m}/\text{pixel}$.

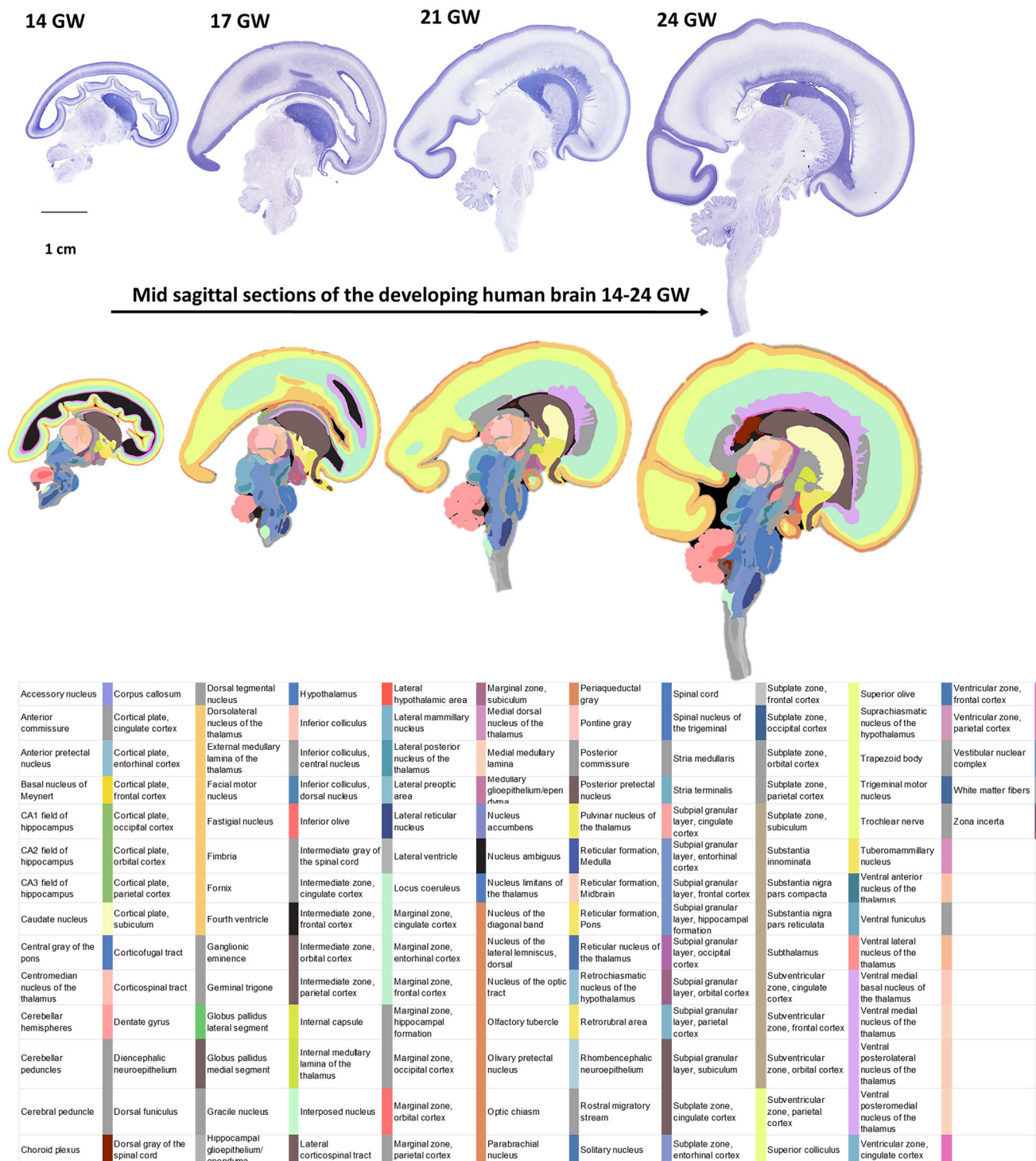


FIGURE 2 | Whole fetal brain histology pipeline, starting from postmortem in-skull MRI to digital histology datasets (20 μ m section thickness) obtained using the tape transfer cryosectioning technique. Due to the large size of sections (2 \times 3 to 6 \times 8 in.) and high throughput, with 1400–2500 sections from each brain, a large format auto-stainer and an automated cover-slipper were custom-built at the SGBC. Histological sections were digitized using a large format Huron, TissueScope LE120 Scanner (0.5 μ m/pixel in-plane resolution). The digitized images that passed quality checks were utilized for analysis.

2.8.1 | Digital Annotation

Following digitization of the images, we performed detailed anatomical delineation using cytoarchitectural boundaries ascertained from the staining for Nissl substance. These

delineations were performed within 1 mm intervals across the whole brain (left to right in four samples and the full anterior–posterior extent for one sample). The data were stored in .json format for visualization and further analysis.

2.8.2 | Computation of 3D Geometric Parameters

The physical process of sectioning entails the geometrical transformation of the tissue slices with respect to the tissue block. We estimated the transformation parameters by computing the global 3° of freedom (rotation, shift in x -, and y -direction). The high-resolution images were down-sampled to 16 μm per pixel in-plane resolution. The series of images were then stack-aligned using the steps described in the following:

1. Alignment seeding: For the sagittal sections, an initial section I_0 was selected at the approximate location of the midline where the brain stem could also be visualized, and also tissue area was maximal. The I_0 section was manually rotated based on the anatomical landmarks (e.g., the angle of the brainstem to vertical) and padded so that the tissue region was centered in a square canvas of 5000×5000 pixels ($80 \times 80 \text{ mm}^2$). This large padding allowed for any change in the size of the pixels during object rotation.
2. Alignment propagation: Neighboring sections were aligned to this initial seed section using automated image keypoint detection and descriptor matching on the luminosity channel, using Fiji Image processing plugin (SIFT: Lowe 2004; RRID: SCR_002285). A relative rotation and translation were computed for each section to align it to the seed section I_0 . These computed parameters were applied to create a 60- μm isotropic Nissl stack. For sagittal sections, the direction cosines were x : AP, y : SI, z : RL. For coronal sections, the direction cosines are x : RL, y : SI, z : AP, anterior (A), posterior (P), superior (S), inferior (I), right (R), and left (L).
3. Registration to MRI: The postmortem in-skull MRI was skull-stripped and resampled to 60- μm isotropic resolution using bicubic interpolation. The resampled MRI was aligned to the Nissl stack by using moments-based registration with 6° of freedom (rotation and translation in AP, LR, and SI axes).
4. Alignment of interleaved H&E sections: Each H&E section was paired with the nearest Nissl section and aligned rigidly to it. The pairing was used in the viewer to display as overlays (H&E layer beneath the Nissl layer).

2.8.3 | 3D Visualization

The histological (Nissl) 3D reconstructions computed at 16- μm in-plane resolution and 60- μm slice separation (as described in Section 2.8.2) are saved as a 3D RGB volume in the same coordinate space of the MRI, in Nifti format (RRID: SCR_007117). A 4- μm in-plane resolution (and 60- μm slice separation) volume was created in grayscale, inverting the contrast, and saved as raw array data. This raw volume is visualized using Nvidia IndeX software, with direct volume rendering and shaded rendering of orthogonal planes and pseudo coloring with a colormap theme representing cell density from blue (low) to orange (high) density (see Videos 1–8 in the Supporting Information). Videos 1–5 display 3D-histological reconstructions of five brain specimens at 14, 17, 21, 22, and 24 GW. Videos 6–8 show 3D reconstructions in the coronal (video 6), axial (video 7) and sagittal (video 8) view of four brains at 14, 17, 22, and 24 GW.

The low-footprint web viewer also has a 3D visualization at 128 and 64 μm in-plane resolution to provide a quick 3D view of the whole dataset in RGB, and each plane in the 3D view is linked to the high-resolution two-dimensional (2D) viewer application. The quick 3D view shows a four-quadrant display, with the sectioned view (same as the sectioning plane), reconstructed orthogonal views (digitally sectioned from the 3D reconstruction), and a three-plane 3D view in the fourth quadrant. This 3D view is interactive, with digital re-slicing happening based on cursor positions, enabling the user to see the same position in three views and also locate it in a 3D MRI reference space.

2.8.4 | Histogram Matching and Color Adjustments

Contrast and brightness computation for each section was done using reference image-based calibration: A set of reference images was selected across the sections that had good brightness and contrast, and the nearby sections were color-adjusted using linear and histogram operations (matching image intensity range, histogram mode, and spread). These effective correction parameters for each image were computed and stored at a lower resolution (16 μm per pixel). The parameters were applied at render time to produce color-corrected views of the section images at arbitrary display resolutions.

2.8.5 | Low Footprint Web-Based Viewer

It is important to note that individual section images were tens of GBs in data volume and required significant computation to render as a whole volume which consisted of hundreds of individual sections. We designed and developed an online viewer, where the acquired image from the scanner (tif format 8-bit RGB) was loaded as a pixmap, transformed and color corrected, followed by conversion to deep zoom tiles of an image pyramid using the libvips (Martinez and Cupitt 2005) “dzsave” command. This step prepared an organized collection of image tiles at multiple resolutions that can be requested by the viewer application rendering the relatively low data usage to the user. DHARANI dataset display (Figure 3) is rendered using open-source library, OpenLayers image tile layer with image source setup with the Zoomify protocol.

3 | Results

We describe below the human fetal brain, from 14 to 24 GW, and based on high-quality Nissl preparations. The online repository from the five specimens can be accessed at <https://brainportal.humanbrain.in/publicview/index.html>, and it includes the histological sections and their annotations but also includes 3D reconstructions of the five brains, providing visualizations and comparisons of each brain in all three standard planes. The online repository consists of 5132 Nissl- and H&E-stained sections covering the whole brain of the 5 specimens, out of which 466 Nissl-stained sections were annotated. The 466 Nissl and the corresponding H&E sections are available at 1 μm per pixel in-plane resolution. The remaining sections are available at 4 μm per pixel in-plane resolution. Our high-quality Nissl preparations have allowed cytoarchitectural-based annotations

DHARANI Online Viewer

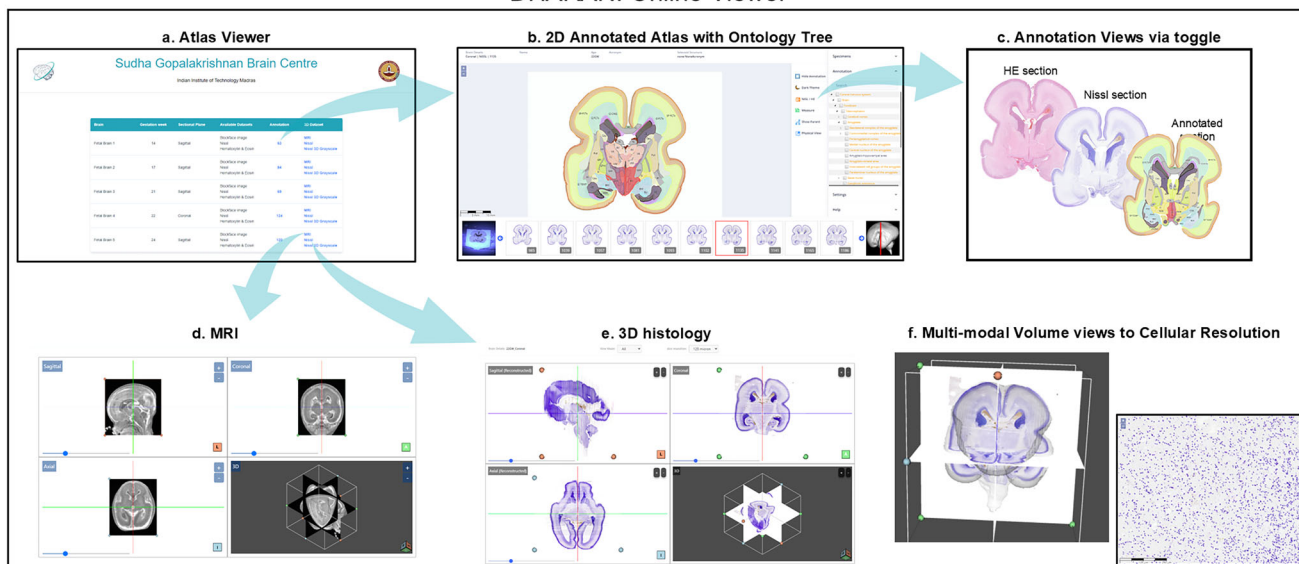


FIGURE 3 | Representative sagittal sections, 20 μm thickness, stained with thionin to reveal Nissl bodies in 14–24 GW specimens. Using the Boulder Committee nomenclature (Bystron, Blakemore, and Rakic 2008), the cerebral cortex atlas annotation highlights the subplial granular zone (SGZ), the marginal zone (MZ), the cortical plate (CP), the subplate (SP), the intermediate zone (IZ), the subventricular zone (SVZ), and the ventricular zone (VZ) (see results for detailed laminar description and nomenclature used in different brain basic subdivision). The custom-designed atlas annotation tool was employed for annotating over 466 histological sections from five brains. Any region that lacked distinct cytoarchitectural characteristics was categorized under the parent name.

pioneered by Brodmann (detailed in Brodmann and Garey 2006). These annotations have been performed in 60–120 sections per brain, revealing region-specific cytoarchitectural differences based on the density and morphology of cells, patterns of cell arrangement and orientation, the developing white matter, and developmental structures. The current reference atlases on the developing human brain are primarily detailed from a coronal perspective. The data presented here were sectioned in the sagittal plane (except one brain sectioned coronally). Hence, we provide brief descriptions in this manuscript to help navigate this large dataset. We present two specimens in the 21–22 GW, which have been sectioned in coronal and sagittal planes to facilitate comparisons between the two perspectives.

The regional description and analysis below follow the classic topographical arrangement of the mammalian brain. We make our observations starting with the oldest specimen, as the subregions and nuclei are more apparent, and we highlight differences from the younger specimens, including cytoarchitectural and shape changes that occur during development.

3.1 | Gross Features

We noted a 10 \times linear increase in brain size from 14 to 24 GW (Table 2, Figure 2). At early gestation, 14 GW, the lateral ventricle occupies most of the cerebral mantle, and the brain is mostly lissencephalic (Chi, Dooling, and Gilles 1977; Li et al. 2019). We observed the lateral fissure and early infolds of calcarine, parieto-occipital, and cingulate sulci at 14 GW (Verma et al. 2024; Zhang et al. 2010, 2013). By 17 GW, the cingulate sulcus, including the marginal branch, and the calcarine sulcus show a more advanced stage of development than the parieto-occipital

sulcus (which becomes well-defined by 21 GW). By 24 GW, we further note two developing sulci in the parietal cortex, the central sulcus and the postcentral sulcus. The corpus callosum is already partially developed by 14 GW, and by 21 GW, it has a well-defined genu and splenium. Furthermore, at the midsagittal level, we note the relative rotation of key structures, such as the hypothalamus, amygdala, LGN, superior colliculus (SC), and inferior colliculus (IC), as the brain develops from the early to late second trimester. The 3D reconstructions from histology, in all five brains, allowed visualization and comparison of these key developmental features in all three planes, from 14 to 24 GW, as shown in Figure 4.

3.2 | Telencephalon

3.2.1 | Developing Cerebral Cortex

3.2.1.1 | The Occipital Cortex. During the early second trimester, the layers of the developing occipital cortex, from the SGZ to the VZ, are readily identified. To study the development of the occipital cortex, we used the developing calcarine sulcus at the midsagittal level as a central landmark. The CP appears to be the most cell-dense layer with Nissl staining on the dorsal surface (Figure 5) just below the cell sparse, thin MZ. As the CP matured and thickness increased from 14 to 24 GW, we observed early signs of lamination in the CP in 24 GW. At this stage, CP comprises three sublayers, where the putative layer IV (based on cell density) and V can be well demarcated, and the future layer VI appears as a cell-sparse layer, interposed between the upper thick CP and the SP (Figure 5). Despite the lamination observed at 24 GW, very few small scattered pyramidal-like cells, based on the shape of the soma (Spruston 2008), were noted in this region.

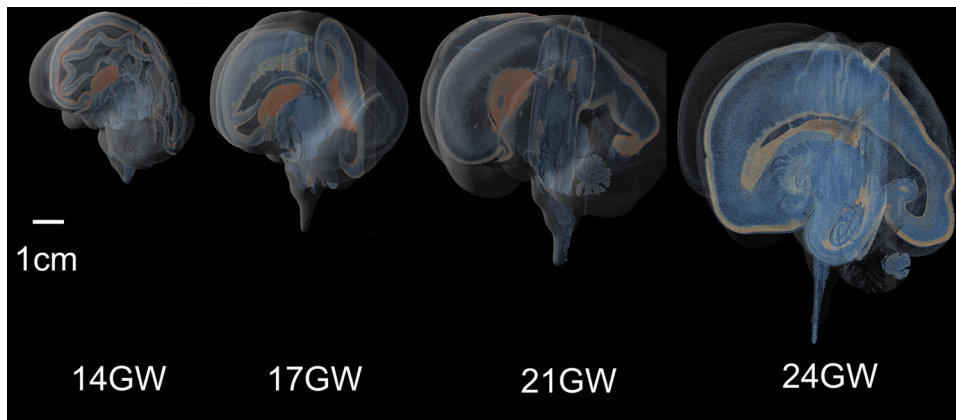


FIGURE 4 | Summary of open-access interactive online viewer <https://brainportal.humanbrain.in/publicview/index.html>.

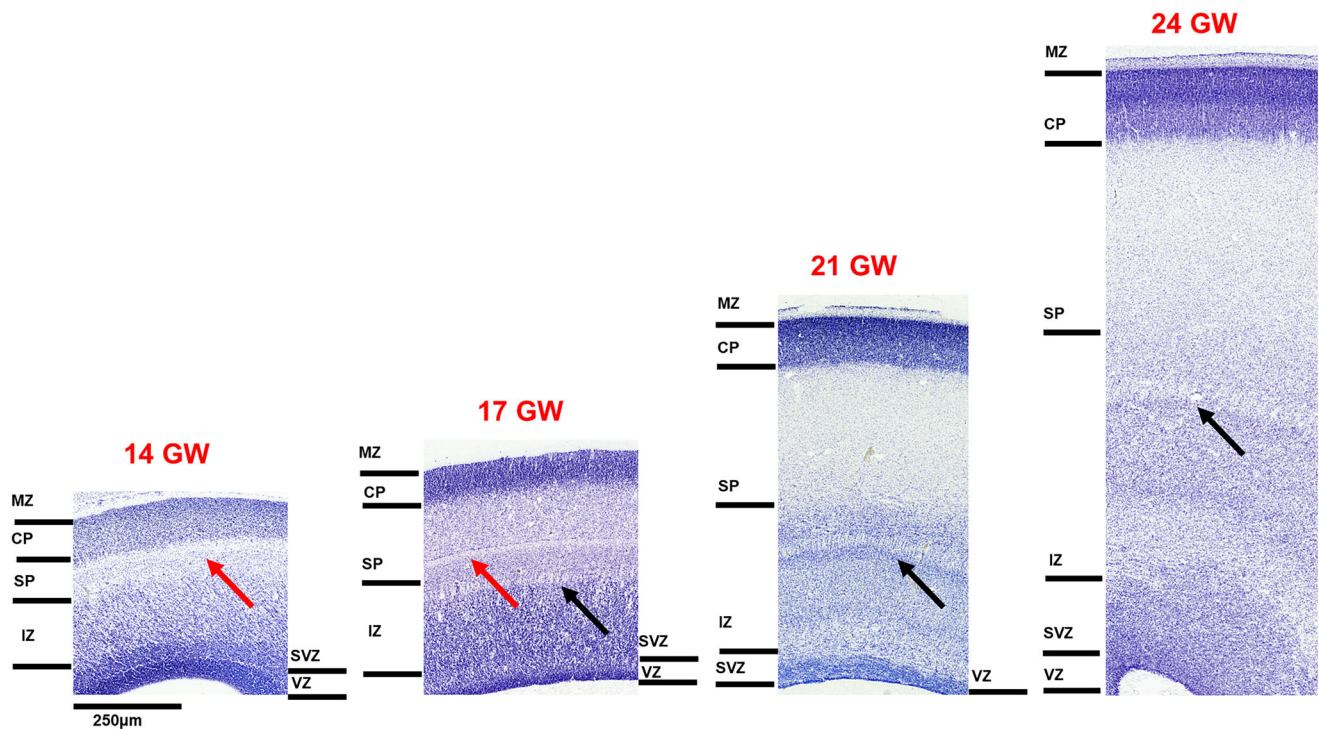


FIGURE 5 | The laminar organization of the developing occipital cortex, revealed with Nissl staining, from 14 to 24 GW. The laminar organization from the ventricular zone (VZ) to the marginal zone (MZ) is readily demarcated. At 14 GW, the subplate (SP) shows the formation stage with an extra cell-sparse layer (red arrow) that shifts ventral by 17 GW as the SP matures. The intermediate zone (IZ) lacks the honeycomb pattern at 14 GW, which appears at 17 GW and is more prominent by 24 GW (black arrow). The cortical plate (CP) shows lamination at 24 GW, along with an increase in thickness. The SP thickness increases significantly from 14 to 24 GW, attaining a thickness three times that of the CP.

In comparison at 14 GW, the lower boundary of the CP is marked by a cell-sparse layer within the SP, which is at the “formation stage” (Kostovic and Rakic 1990).

The SP formation stage in the occipital cortex is very specific and includes three sublayers in the occipital region; the outermost layer is cell-dense, internal to which is a cell-sparse layer, below which the cells are arranged horizontally (Figure 5, red arrows; Kostovic and Rakic 1990; Verma et al. 2024). This unique lamination of the SP was noted at 17 GW, but the cell-sparse layer appears to move deeper as the CP and SP mature (see Figure 5, red arrows). The thickness measurements showed that the SP is

twice the thickness of the CP at 14 GW, and as the brain develops, it expands to approximately three times the thickness of CP by 17 GW and tends to maintain that ratio until 24 GW, as has been previously reported (Kostovic and Rakic 1990).

The IZ in the occipital cortex shows the highest number of subbands at all gestational ages, ranging from 4 at 14 GW to 6 sub-bands by 24 GW. The peculiar feature of the occipital cortex IZ is the honeycomb pattern, with migrating cells arranged vertically as striations, distinctly from 17 to 24 GW compared with the 14 GW specimen (see Figure 5, black arrow). Previously, this honeycomb pattern has been reported at 13.5 GW (Bayer and

Altman 2005). The honeycomb-patterned STF3, part of the IZ, represents the developing thalamocortical connections specific to the granular cortex (Altman and Bayer 2002; Bayer and Altman 2005), although we observed this pattern from 17 GW. In other specimens (unpublished data), this pattern appears between 15 and 16 GW first in the caudal occipital cortex before expanding across the cortical mantle. Further investigation of this honeycomb pattern is needed, particularly regarding its correlation with the developmental timeline of thalamic nuclei such as the LGN, which matures between 21 and 24 GW, showing lamination (Hitchcock and Hickey 1980; Yamaguchi 2018) as observed in this study (see below). In order to address this discrepancy in the developmental timeline of this feature, investigation of more specimens between 13 and 17 GW is required.

In the most lateral part of the occipital cortex, the honeycomb pattern allows clear demarcation of its boundary with the adjacent temporal cortex and medially with the parietal cortex. The SVZ is readily identified as a thick darkly stained, cell-dense layer and shows a distinct fiber layer between the IZ and SVZ. The thickness of this fiber layer increases from 14 to 24 GW. The VZ decreases in thickness with age and appears as a thin neuroepithelial lining by the end of the second trimester.

3.2.1.2 | The Parietal Cortex. Densely packed, strongly stained cell bodies define the CP in the parietal cortex. Between 14 and 21 GW, the CP shows that cells are round and evince an early developmental stage. As the CP matures, we observed several key changes specific to the parietal cortex by 24 GW. In 21–22 GW specimens, a few rare and scattered pyramidal cells are observed, and the majority of cells show well-developed chromatin material. In 24 GW, the CP not only increases in thickness but also shows incipient lamination where adult-like layers I, IV, and V are readily identified (see Figure 6) (Krsnik et al. 2017). At this stage, the developing somatosensory cortex (posterior to central sulcus) displays an additional band of densely packed cells, and well-developed pyramidal cells are found below the developing layer IV. This pattern is consistent across all sections, with the number of pyramidal neurons being high compared to any other region at this stage. In addition, this dense cell band associated with the developing layer IV lies between the central sulcus and the posterior central sulcus, defining the anterior and posterior boundaries of the future somatosensory cortex. This relatively advanced morphogenesis of the CP in the parietal cortex, compared to adjacent regions, is possibly guided by synaptogenesis, with prior studies indicating that developing thalamocortical connections in the somatosensory cortex appear almost 2 weeks before those in the occipital and frontal cortices (Kostovic and Rakic 1990; Krsnik et al. 2017).

At early gestation ages, 14–17 GW, the parieto-occipital sulcus is not completely formed; however, the boundary between the occipital cortex and the parietal cortex is marked by changes in the SP and the IZ. The IZ comprises three to four sublayers and exhibits a honeycomb pattern that is much broader than the occipital region (Figure 6, arrows). Furthermore, this honeycomb pattern is present only in the anterior parietal cortex, posterior to the incipient central sulcus, and is more specific to the developing somatosensory cortex in older gestational ages. Below the IZ, we observed a white fiber layer, which increases in thickness and appears more prominent as the brain develops. The SVZ and the

VZ are densely packed layers that decrease in thickness with age. It is important to highlight that in the midsagittal level, on the ventral aspect, where we observed the appearance of the cingulate cortex, demarcation of the IZ was difficult.

3.2.1.3 | The Frontal Cortex. In the developing frontal cortex, we observed maturation of the CP from 14 to 24 GW, indicated by an increase in thickness with dense CP. However, no clear lamination of the CP was observed (Figures 7 and 8). As the CP matures, in the dorsal region of the frontal cortex of the 24 GW specimen, we observed a few very large pyramidal-like cells (see Figure 7B) located anterior to the developing central sulcus. On the basis of the size, morphology, and location, these are possibly the developing Betz cells. These cells have a width of 10–12 μm and are much larger than adjacent cells (Figure 7B, right panel). These cells are arranged in clusters most likely future layer V, similar to that observed in the giraffe primary motor cortex (Badlangana et al. 2007). Studies detailing the developing Betz cells in human fetuses are sparse. Previous studies (Nolan et al. 2024) have reported the presence of these cells at 18 GW, which we did not observe in the three specimens between the ages of 17–22 GW. These large pyramidal cells show a unique morphology as reported in several mammalian species (Jacobs et al. 2018), and this requires detailed characterizations to be made, like size and density in the developing human brain.

The boundary between the CP and the SP at 14 GW is difficult to delineate, but at 17 GW, the lower band of the CP shows cells with a cell-sparse band, located internal to the CP (see Figure 8A, arrow, 17 GW) similar to the orbital cortex (described below). The cell-sparse layer interposed between the CP and the SP was noted in the frontal cortex at 17 GW, extending from the orbital cortex and ending posteriorly at the boundary between the frontal and the parietal cortex. This cell-sparse layer between CP and SP has been reported in the orbital cortex by Kopic et al. (2023) and Verma et al. (2024) at the early gestational stage, 13–15 GW. Previous work using deep projection neuron (DPN) markers (Kopic et al. 2023) showed that this cell-sparse layer gives CP a “double plate” appearance, where the lower plate has migratory neurons that were densely labeled with Tbr1 and the cell-sparse layer labeled with doublecortin, DCX. In this study, we observed the extension of this cell-sparse layer from the orbital to the frontal cortex by 17 GW that disappeared by 21 GW when the SP is well developed. Here, by studying the older age group and the adjacent frontal cortex, we show that this additional layer extends to the frontal cortex by 17 GW, which might again represent the lower band of CP, as migrating cells which is more prominent at a later stage in this region. However, this needs to be confirmed using specific IHC or DPN markers. These temporal changes in the transient layers may be guided by new connections developing in the frontal and orbital cortices (Altman and Bayer 2002) by 20 GW. As reported previously, the SP at this stage expands (Kostovic and Rakic 1990). This cell-sparse layer/double plate layer disappears, as observed in 21 GW, and most likely merges with the maturing SP.

As the central sulcus is absent at younger gestational ages (14 GW), the boundary of the frontal and parietal cortex is marked by changes in the appearance of the SP and the IZ, specifically, by the absence of the honeycomb pattern in the frontal cortex.

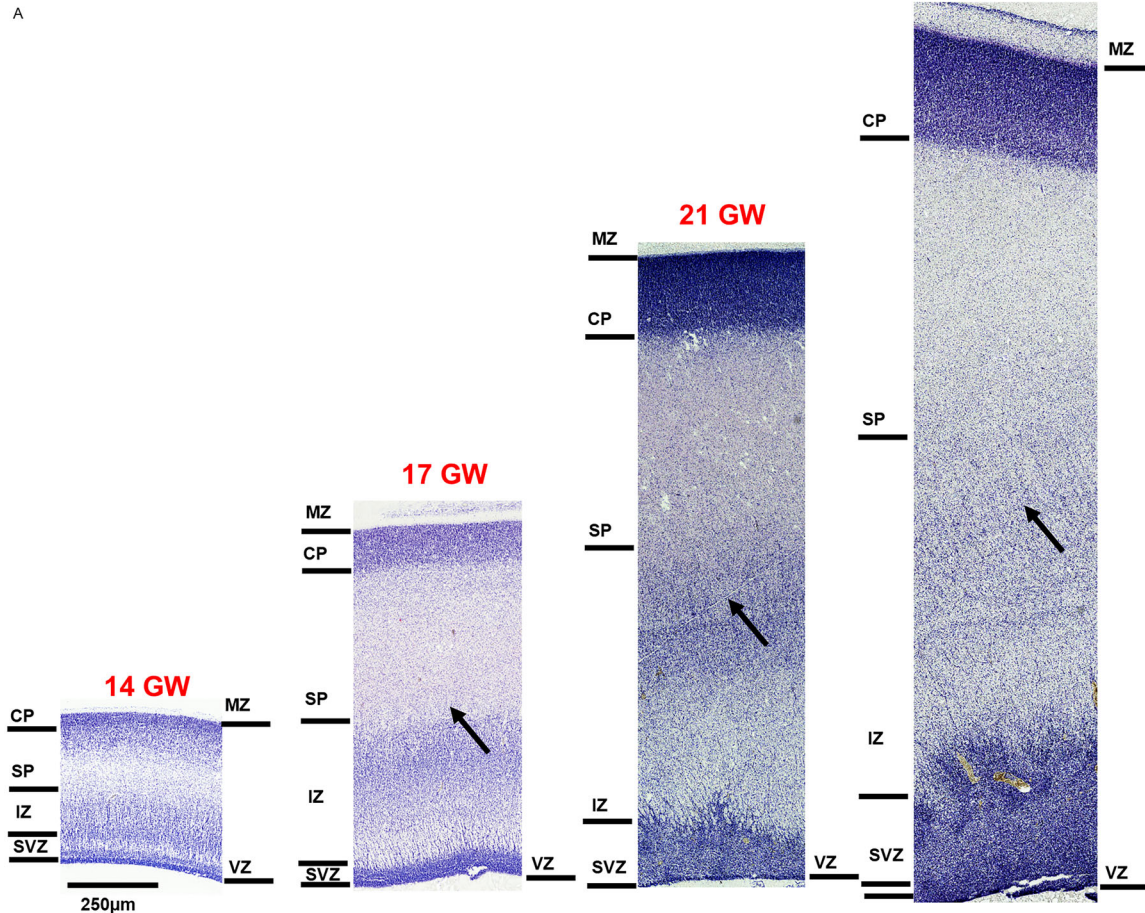


FIGURE 6 | Laminar organization of the developing parietal cortex revealed with Nissl staining from 14 to 24 GW. The laminar organization from the ventricular zone (VZ) to the marginal zone (MZ) is readily demarcated where the CP is separated from the MG by densely labeled neurons. At 14 GW, similar to the occipital cortex, the subplate (SP) in the parietal cortex shows the formation stage. At 14 GW, the intermediate zone (IZ) lacks the honeycomb pattern that appears at 17 GW (black arrow) and is more prominent at 21–24 GW (black arrows).

Specific to the developing frontal cortex and during 21–24 GW are the differences between the dorsal and the ventral aspects of the IZ. Close observation of the IZ reveals changes in the appearance of the sub-bands of IZ. The frontal cortex region adjacent to the parietal cortex presents a broad upper band of the IZ that becomes sharper in the middle zone, with an additional thick middle sub-band (Figure 7, black arrows, Panel B). The additional thick middle band is absent in the ventral portion of the frontal cortex, adjacent to the orbital cortex. Three subregions, which we refer to as Zones 1–3 within the developing frontal cortex, possibly representing the early patterning of developing motor, prefrontal, and orbitofrontal, respectively, can be identified at 21 GW and are more prominent at 24 GW. Previous studies have investigated the patterning in the frontal lobe with changes in the CP and the SP using the DPNs expression dynamics, from 9 to 15 PCW (11–17 GW) but not in IZ (Kopić et al. 2023). Other studies compared the overall IZ changing patterns of the adjacent parietal cortex and not the subzones in the frontal cortex (Altman and Bayer 2002; Bayer and Altman 2005). The boundary with the adjacent parietal and orbital cortex is marked by a disappearing honeycomb pattern in the IZ from the parietal cortex and the thick vertically oriented cells of the IZ in the orbital cortex. The boundary with the adjacent orbital cortex is demarcated

by observing cell orientation in the IZ and the thinning of the SP.

The SVZ and the VZ are thick and densely labeled at early stages, with the white fiber layer superficial to the SVZ being prominent only in the dorsal portion of the developing frontal cortex at 17 GW when compared to the parietal and the occipital cortex. The SVZ and the VZ are still readily identified at 21–24 GW but appear significantly thinner than earlier in gestation.

3.2.1.4 | The Orbital Cortex. From 14 to 24 GW, similar to other cortical regions, the MZ in the orbital cortex is a cell-sparse layer internal to which is the CP (Figure 9). It forms a well-defined layer with a dense uniform distribution of cells. Specific to the orbital region, at 14 GW, is a thin cell-sparse band internally adjacent to the CP, which broadens by 17 GW (black arrow in Figure 9). As described above, this cell-sparse layer extends toward the frontal cortex and ends at the boundary with the parietal cortex (Kopić et al. 2023; Verma et al. 2024). As described earlier, this cell-sparse layer extends toward the frontal cortex and ends at the boundary with the parietal cortex. The CP and the SP show maturation by 21 GW, marked by the disappearance of the

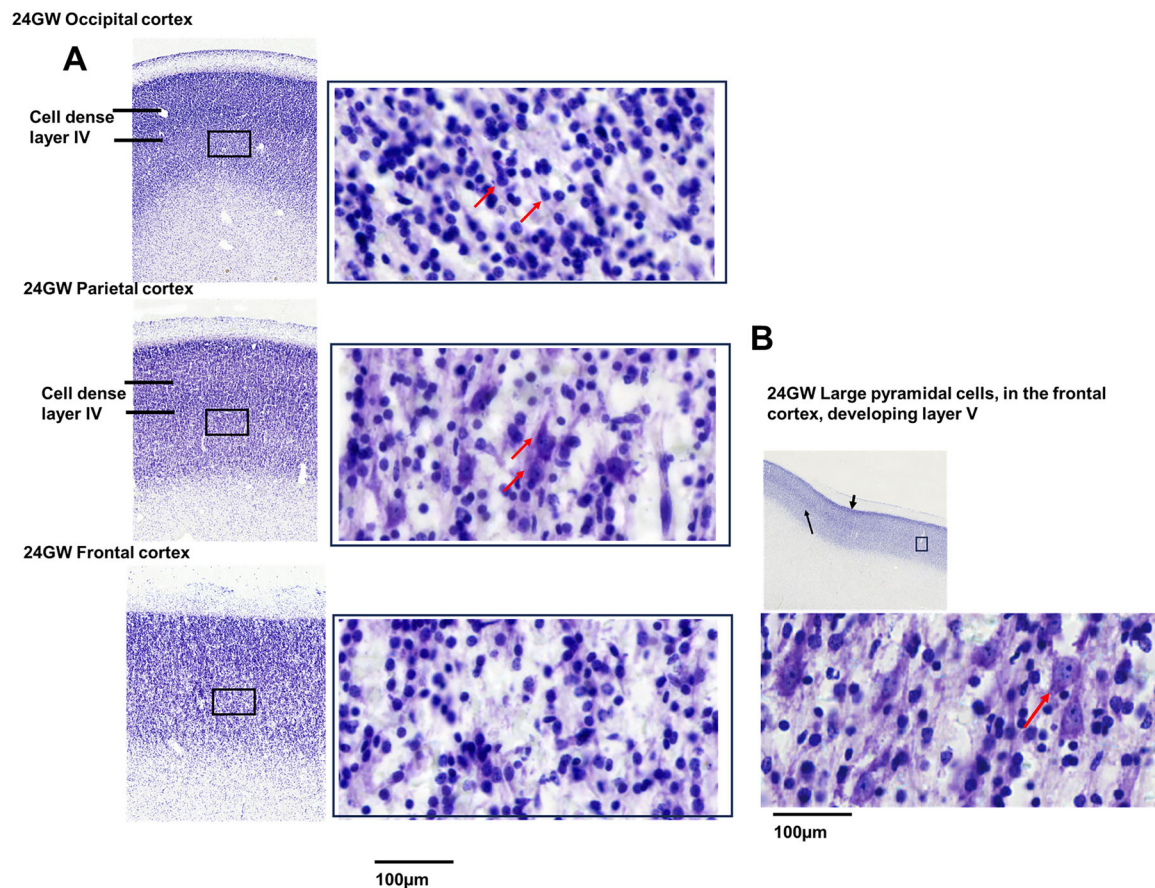


FIGURE 7 | Development of cortical plate. Panel A shows the comparison of the development of lamination in the occipital, parietal, and frontal cortex at 24 GW. The zoomed-in images show the cell type in the middle of the cortical plate, which has a cell-dense layer, developing layer IV in the occipital and the parietal cortex, where red arrows point to the developing pyramidal-like cells. The right Panel, B, shows the large pyramidal-like cells, located anterior to the developing central sulcus, shown in the top panel black arrow where the developing layer IV ends.

interposed cell-sparse layer. However, the CP lacks lamination by the end of the second trimester as observed in 24 GW specimen.

From 14 GW, the IZ shows three sub-bands and a distinct vertical arrangement of cells that are maintained throughout the second trimester. Changes in the pattern of IZ and the upper SP allowed the demarcation of the boundary between the orbital and the frontal cortex. At later gestational stages, the sub-bands within the IZ are not as pronounced, but the SVZ and the VZ are thick cell-dense layers between 14 and 17 GW and decrease in thickness with gestational age.

3.2.1.5 | The Temporal Cortex. In the developing temporal cortex, we observed an increase in the thickness of CP with age and presented with a very dense upper band of 21 GW (Figure 10). However, at 24 GW, the CP does not show a similar stage of lamination compared to the occipital and the parietal cortex. Moreover, the cells within the temporal CP are rounded and do not include pyramidal-like cells. We noted in the more medial aspect of the temporal cortex at 24 GW, the upper band of CP is very distinct compared to the adjacent insula and entorhinal cortices. The SP has two bands in the formation stage, where the upper band does not have a well-demarcated border with the CP, but the lower band is cell sparse and depicts a clear boundary with the IZ. The IZ shows two to three sub-bands at 14 GW, but

as early as 17 GW, their number decreases and shows a uniform pattern by 24 GW. Importantly, our observations in the temporal cortex highlight that the IZ lacks as many sub-bands compared to other cortices, by 24 GW, and the CP does not show adult-like lamination or mature neurons at 24 GW.

3.2.2 | The Claustrum (CLA) and the Insular Cortex

The CLA is well identified from 14 GW onward, adjacent to the insula and separated by the external capsule. CLA has a uniform distribution of cells, which are dense compared to the fibrous external capsule and the SP of the insula. Anteriorly, it shares a boundary with the insula SP and the external capsule. The posterior boundary of the CLA is marked by the thick fiber tract of the external capsule, and a large, oval-shaped anterior commissure is readily identified on the ventral aspect. The insular cortex is bounded by the olfactory cortex on the ventral aspect and the frontal cortex on the dorsal aspect. In the 22 GW coronally cut specimen, the SP of the insular region is traversed by the CLA. The insula is readily identified from early gestation at 14 GW, adjacent to the lateral fissure. By 24 GW, the CP of the insula shows a cell-dense band with lamination, relative to the adjacent orbital cortex both in the lateral and the medial aspect. The cell-dense band predominantly shows small, rounded cells.

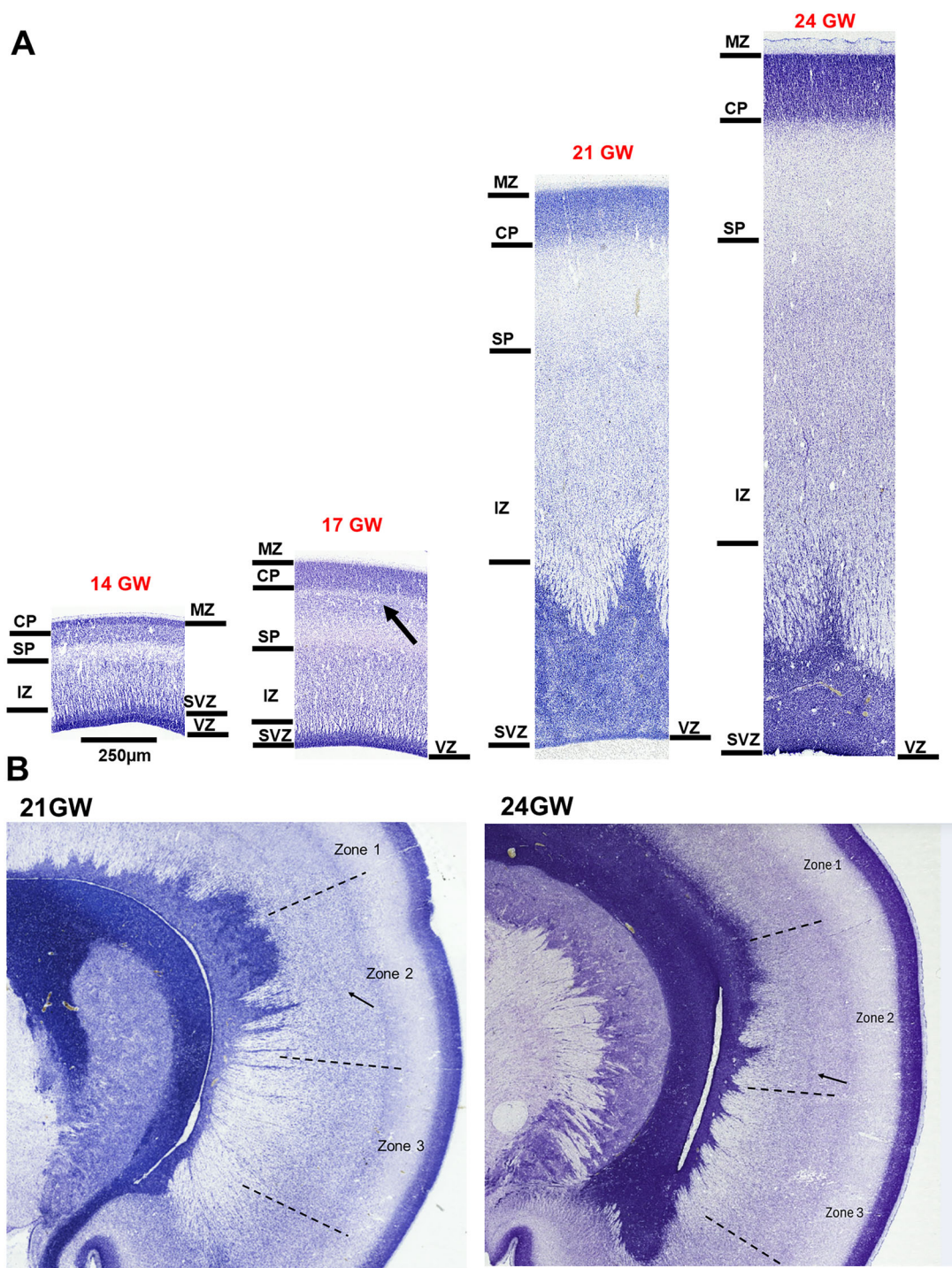


FIGURE 8 | Development of the frontal cortex. Panel A shows the laminar organization of the developing frontal cortex revealed with Nissl staining from 14 to 24 GW. The laminar organization from the ventricular zone (VZ) to the marginal zone (MZ) is well demarcated and the CP shows dense packing of cells below the marginal zone (MZ). At 14 GW, the subplate (SP) shows the formation stage, with an extra cell-sparse layer (black arrow) between the CP and the SP at 17 GW. The intermediate zone (IZ) lacks the honeycomb pattern. The cortical plate (CP) does not show lamination at 24 GW. Panel B shows the three zones of the developing frontal cortex in 21 and 24 GW that can be demarcated based on the changing pattern of the IZ. Zone 1 depicts the broad band of the IZ, Zone 2 shows the additional dense layer in the middle of the IZ that disappears in Zone 3. The subzones in the developing frontal cortex were observed as early as 21 GW.

3.2.3 | The Olfactory Cortex

The olfactory cortex, also referred to as the piriform cortex, is located rostral to the entorhinal cortex that includes the endopiriform nucleus and the olfactory bulb. Rostrally, the

olfactory cortex is bounded by the orbital cortex on the dorsal aspect and by the insula ventrally. The medial boundary is shared with the endopiriform nucleus. Delineation of the boundary with the adjacent orbital cortex is distinct as the seven layers—SG to VZ—of the orbital cortex are not discernible

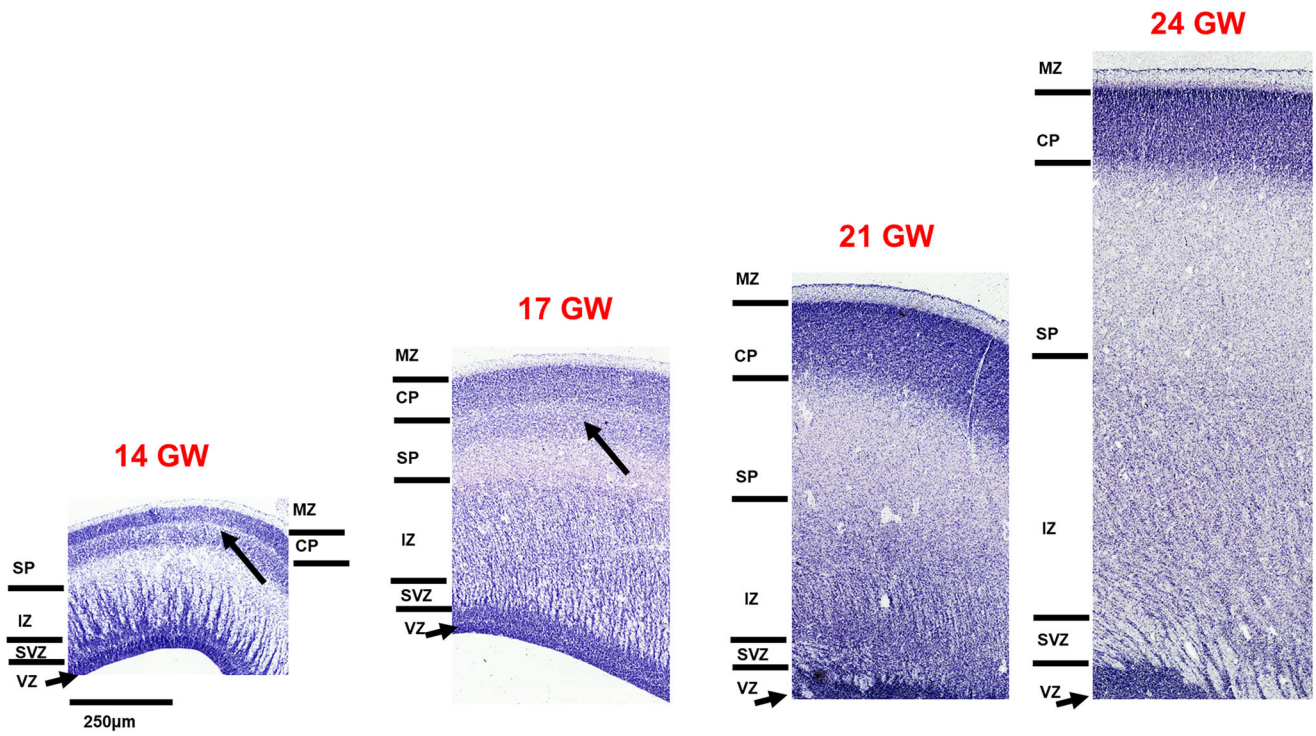


FIGURE 9 | Representative sections demonstrating the development of the orbital cortex from 14 to 24 GW. The orbital cortex shows a cell-dense, thick CP at all gestational ages, and uniquely depicts an extra cell-sparse layer below the CP at 14 and 17 GW (black arrows), that disappears as the SP matures. The IZ shows dense vertically oriented cells that are prominent at all gestational ages.

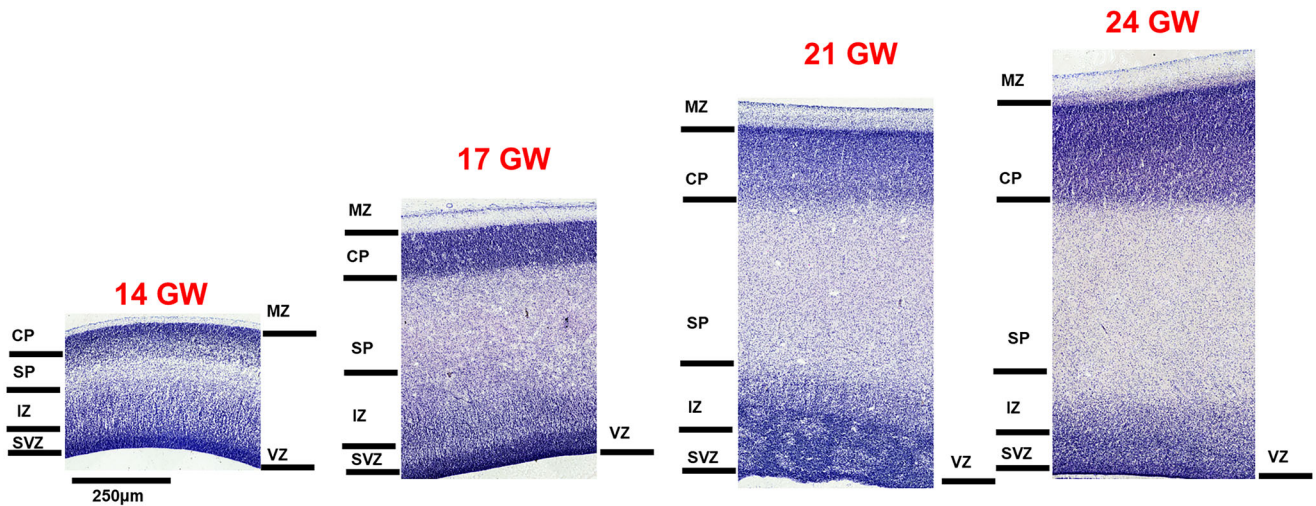


FIGURE 10 | Representative sections showing the developing temporal cortex from 14 to 24 GW. The developing temporal cortex shows a dense thick upper cortical plate at all gestational ages, and with age shows an increase in thickness where the middle band is cell-dense but does not show mature neurons at 24 GW. The SP increases in thickness with age and by 24 GW is twice the thickness of the CP. The IZ shows 2 sub-bands at 14–17 GW, but these sub-bands are difficult to demarcate at 24 GW.

in the olfactory cortex noted in all the specimens. The three layers of the olfactory cortex are well defined by 21 GW where layer II shows thinning compared to the CP of the orbital cortex. Caudally, the olfactory cortex shares a boundary with the entorhinal cortex and the cortical amygdala, and on the medial aspect, it is bounded by the olfactory tubercle (OT). The boundaries, with the adjacent regions, are well demarcated from 14

GW onward. The endopiriform nucleus is a small telencephalic nucleus characterized by a distinct cytoarchitecture and cellular density with a columnar appearance. It shares the ventral boundary with the orbital cortex anteriorly and posteriorly with the cortical nucleus of the amygdala (COA). This small region was identified in 17–24 GW, but not in the 14 GW specimen.

3.2.4 | Amygdala

The cytoarchitectural description of the amygdala in this study employs the nomenclature from previous studies (Mulc et al. 2024; Sorvari et al. 1995) that parcel it into two main subdivisions: the basolateral complex of amygdala (BLA) and corticomедial complexes. We describe the organization of the developing amygdala from lateral to medial sections at 24 GW and highlight the still-developing nuclei in younger age groups. The BLA comprises the lateral nucleus of the amygdala (LA), the basomedial nucleus of the amygdala (BM), and the basal nucleus of the amygdala (BA). In the most lateral aspect of the amygdala, the LA is readily identified in all ages and is positioned ventral from the anterior commissure, putamen (Put), and internal capsule. It exhibits a distinct vertical palisade arrangement of cells in the rostral region and a uniform clustered appearance caudally and ventrally. These cytoarchitectural variations may highlight possible subparts of the LA. At earlier gestational ages, 14 and 17 GW, the palisade pattern (Mulc et al. 2024; Ulfing, Setzer, and Bohl 1998) of the LA is less prominent and occupies a small amygdala region compared to older gestational ages. By mid-gestation (21–22 GW), the LA of the amygdala shows a prominent palisade cytoarchitecture in both coronal and sagittal planes, and this pattern is more distinct in the coronal plane.

A prominent fiber tract in the BLA of the amygdala separates the BM and the BA (Ulfing, Setzer, and Bohl 1998). As the BLA expands, the ventral boundary above the ventricles shows a dense patch of migrating cells, and the developing paralaminar limitans nucleus (Mulc et al. 2024) may be identified above the ganglionic eminence from 21 GW onward, in both coronal and sagittal perspective. Within the BA and from 17 GW onward, we could identify the basal nucleus, dorsal part (BLdl), basal nucleus, intermediate part (BLi), and basal nucleus, ventral part (BLvl; Paxinos et al. 2012). The BA subdivisions are based on the variation in the overall cell density (see Figure 11). We also note that the BLdl is more cell-dense by 24 GW as compared with the earlier stages. The BM appears more cell-dense and includes several cell clusters. In the dorso-caudal aspect of the amygdala, ventral to the anterior commissure, from 14 GW onward, the cell-sparse region is identified as the amygdaloid striatal transitional area (ASTA). These nuclei are defined by the overall cell size and density and by the presence of fiber tracts, similar to those reported in adult humans (Ding et al. 2016) and in the marmoset (Paxinos et al. 2012) brains, but not in the developing fetal brain. Its boundary with the hippocampal formation is not well demarcated in the younger age groups 14–17 GW. In the dorsal aspect of the amygdala, ventral to the dorsal striatum, ASTA shows dense cell clusters from 17 to 24 GW.

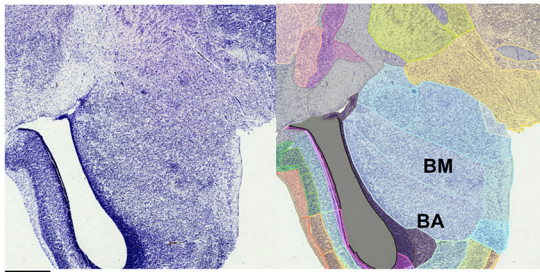
In the dorsal aspect of the corticomедial complex, the central nucleus of the amygdala (CEA) was delineated from 14 GW onward as a distinct cell-sparse, circular-to-oval region and surrounded by fibers. Furthermore, from 21 GW onward, several possible subdivisions may be identified in Nissl staining. Posteriorly, the corticomедial complex contains the periamygdaloid cortex (PAC), located adjacent to the entorhinal cortex that was readily delineated from 14 GW. The PAC has a cell-dense thick layer II and the boundary with the entorhinal cortex and PAC is marked by the disappearance of the *lamina dissecans* of the entorhinal cortex. Dorsal to PAC is the COA, which shows

thinning of the cell-dense cortical layer II at 14–17 GW. COA forms an inverted “C” shaped discontinuous cortical layer that is thinner than the adjacent PAC and the medial cortex of the amygdala (MEA). In 21 GW and older specimens, the inverted “C” shape is maintained but is a continuous layer.

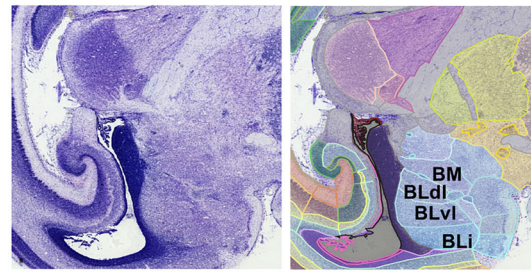
In the dorsal amygdala, the transition zone from the substantia innominata (SI) to the amygdala, specifically the anterior amygdaloid area (AAA), appears as a cell-sparse region with uniformly distributed cells. At the mid-sagittal level, ventral to the optic tract, the MEA of the amygdala is identified by loosely packed cells with a broad middle band, compared to the adjacent cortical amygdaloid nucleus. It is important to note that we observed the rotation of the amygdala from 14 to 24 GW, which results in changes in the orientation of the cortical regions of the amygdala with the adjacent olfactory cortex and the entorhinal cortex (Mulc et al. 2024; Nikolić and Kostović 1986). Our observations of subregions in the amygdala are made at an earlier stage compared to what has been previously reported (Mulc et al. 2024; Ulfing, Setzer, and Bohl 1998).

3.2.5 | The Hippocampal Formation and the Entorhinal Cortex

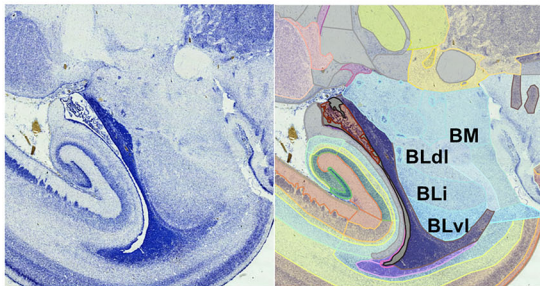
Ammon’s horn (CA3, CA2, and CA1 fields) of the hippocampus is readily identified, exhibiting the developing transitional layers from the sub-granular zone to the VZ from 14 GW onward. During early gestation, 14–17 GW, the boundaries between CA fields are delineated by variations in cell density, where the CA3 is a cell-sparse region adjacent to the dentate gyrus (DG). The relative changes in the CP thickness allow demarcation of the boundary between CA3 and CA1, where CP is thicker in CA3, thinner in CA2, and becomes thicker again in CA1. The SP shows a similar thickness in all three CA fields but is not well-defined in 14 and 17 GW, respectively. By 21 GW, the CP, SP, and IZ boundaries are readily identified. The DG is seen as a cell-dense structure located within the curve of Ammon’s horn, where at 14 GW, a dense layer of future granular cells is observed; however, the boundaries with the molecular layer (ML) and the SGZ cannot be delineated. By 21 GW, the boundaries between the three layers of DG are well defined. In CA1, CP shows several pyramidal cells adjacent to the SP by 21 GW and granular cells toward the broad MZ (Kostović et al. 1989). CA2–CA3 fields show similar patterns, but the identifiable pyramidal neurons are more numerous in CA1. We identified the subiculum, presubiculum, and parasubiculum at 14 GW (Hevner and Kinney 1996; Kier et al. 1997; Kostović et al. 1989; Šimić et al. 2022). The subiculum border with CA1 is marked by the diffuse appearance of the CP and a more well-defined cell-sparse SP, compared to CA1. The subiculum shows a clear SP only by 17 GW. Similarly, in 14 GW, the presubiculum is delineated by the broadening of the CP compared to its appearance in the CA1, and the upper layer of the CP in the presubiculum is cell sparse, revealing a split appearance of the CP. The typical *lamina dissecans* of the presubiculum can be readily identified by 17 GW. The parasubiculum has a cell-dense and readily defined CP in the dorsal component. At 14 and 17 GW, the parasubiculum is adjacent to the entorhinal cortex, is a small region, and is difficult to delineate. Compared to the subicular complex, the lamination in the entorhinal cortex can be readily delineated at 14 GW, as

14GW

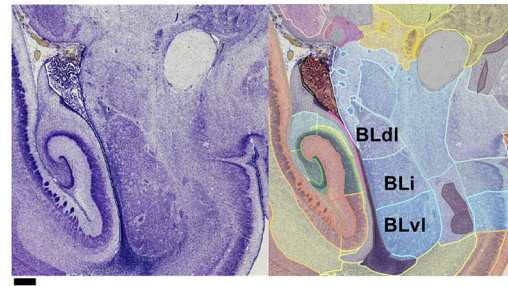
1 mm

17GW

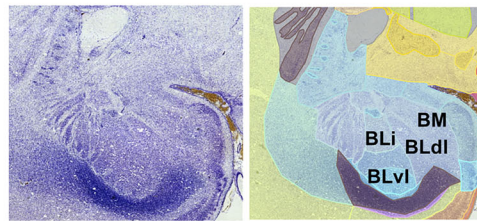
1 mm

21GW

1 mm

24GW

1 mm

22 GW Coronal

1 mm

FIGURE 11 | Development of the basal nucleus of the amygdala (BA), from 14 to 24 GW, sectioned in the sagittal plane, and 22 GW coronally. The subnuclei basal nucleus-dorsolateral (BLdl), basal nucleus intermediate (BLi), and basal nucleus ventral (BLvl) were delineated in age group 17–24 GW. In 14 GW none of the subnuclei could be identified.

described previously (Šimić et al. 2022). The entorhinal cortex reveals a distinct cytoarchitecture and shows the maturation of the CP with the formation of the *lamina dissecans* as early as 14 GW (Šimić et al. 2022). As early as 14 GW, we could delineate the CA fields and the subdivisions of the subicular complex. By comparison, most studies of the presubiculum and parasubiculum have been identified from 15 GW onward, and with specific IHC markers and Dil tracing (Hevner and Kinney 1996; Kier et al. 1997; Šimić et al. 2022).

3.2.6 | The Striatum

3.2.6.1 | Dorsal Striatum. The dorsal striatum consists of two large nuclei, the caudate (Cau) and the Put. The Cau is a cell-dense, large, curved structure that courses along the ventral aspect of the lateral ventricle, from anterodorsal to posteroventral, and comprises a head, body, and tail. In the most medial aspect, Cau and Put are separated by the internal capsule (int). The Put

occupies a large volume, is cell-dense, with a patchy appearance (Kostović 1986; Mai and Ashwell 2004) within the sub-cortical telencephalon lateral to the int, emerging from the head of the Cau nucleus. The patchy appearance of the Put is observed at an earlier age, 14 GW compared to the Cau (Mai and Ashwell 2004) which gets more prominent with a fan-shaped expansion of the internal capsule over the Put. From 14 GW onward, both regions show round granular cells, and by 24 GW, there is an increase in mature cells with distinct cytoplasm and cell nucleus.

In the sagittal perspective, from 14 to 24 GW, specimens show prominent vertically oriented bands of three key structures—the anterior commissure (ac), Put (identified by its cell-dense, but patchy appearance), and the vertical fiber tract of the int that can be readily demarcated throughout its antero-posterior extent. The main difference noted with the increasing gestational age was that the size of these nuclei and the prominence of the white matter fiber tracts were more apparent, allowing more confident identification in the older specimens.

3.2.6.2 | Ventral Striatum. The nuclei included in the ventral striatum are the nucleus accumbens (NAc) and the OT. NAc is identified ventrally adjacent to the Put as a cell-dense nucleus with several white matter tracts passing through, creating its patchy appearance. On the ventral aspect is the anterior commissure, which separates NAc from the SI, described in a later subsection. Anteriorly and coronally, NAc is observed on the dorsal aspect, and posteriorly, dorsal boundary is with the SI. The hypothalamus and amygdala share the boundary in the medial-lateral aspect, respectively.

The OT in the sagittal perspective is bounded by the olfactory cortex anteriorly and by the SI postero-laterally and by the amygdala postero-medially. Cytoarchitecturally, the OT exhibits dense labeling, with layer II being much thicker than the olfactory cortex. We noted parts of the rostral migratory streams in OT across all ages.

3.2.6.3 | Pallidum. Bounded dorsally by the Put and ventrally by the anterior commissure are the two subdivisions of the globus pallidus (lateral and medial). The lateral division, which occupies the dorsal position, has a uniform density of cells and includes few large cells from 21 GW. The globus pallidus medial segment appears more cell sparse but the large cells are more prominent from 21 GW. At 17 GW, few scattered, large, dense labeled cells are observed in the medial segment of the globus pallidus. The medial medullary lamina distinctly separates the medial and lateral subdivisions from 14 GW onward.

3.2.7 | The Septal Region and the Bed Nucleus of the Stria Terminalis (BST)

Anteriorly and beneath the corpus callosum is the septum, which is seen as a cell-sparse region occupying a position between the third ventricles medially and fornix laterally. Posteriorly, at the level of the third ventricle, the ventral boundary is with the hypothalamus. The ventral aspect shares a boundary with the arc or boomerang-shaped (Kostović 1986) region, the nucleus of the diagonal band (NDB). NDB consists of large mature cells, identified distinctly from 21 GW onward, and is oriented in the direction of several fiber tracts, prominent in this region.

Lateral to the septal region is the cell-dense BST, transected by the anterior commissure. The relative cell density, compared to the septum, is consistent from 14 to 24 GW, where mature cells are more prominent by 21 GW. However, it shows an indistinct boundary with the septum. In the sagittal perspective, at the most medial aspect, BST is located ventral to the stria terminalis (stt) and shares a boundary with SI ventrally. In the coronal perspective, the BST has a lateral border with the GP, and the internal capsule separates these two regions. Rostrally, the dorsal portion adjacent to the ganglionic eminence shows darker cell labeling, possibly indicating local migratory cell streams.

3.2.8 | The SI

The SI shows a heterogeneous distribution of cells with specific scattered islands of large, intensely stained cells identified as the

basal nucleus of Meynert (BM) (Ding et al. 2016, 2022), from 17 GW onward. At 14 GW, the large, densely labeled cytoarchitecture of BM was not distinctly observed. Anteriorly, the SI is oriented in the dorsal-ventral direction and ventrally borders the lateral hypothalamus. At the level where the lateral hypothalamus area (LHA) and SI are widest, both regions form an inverse arch, in the dorsal and ventral aspects, respectively. Posteriorly, the SI, at its lateral extent, borders the amygdala ventrally, where we identify a cell-sparse region, the transition zone, or ASTA, delineating the SI from the amygdala.

The tenia tecta, considered a component of the cerebral cortex that extends into the septum (Dong 2008), was observed anteriorly below the corpus callosum and dorsal to the cingulate cortex. Posteriorly, it is positioned ventral to the septum. In the sagittal perspective, between the OT and the orbital cortex, it appears as a cell-dense region between 14 and 24 GW.

3.2.9 | Migratory Streams

From 14 to 24 GW, we identified the lateral migratory stream in the CLA, endopiriform nucleus, and the LA (Bayer and Altman 2005), and the lateral migratory stream is observed with the receding SVZ, between the subcortical nuclei and the lateral cortex. The rostral migratory stream (Bayer and Altman 2005), also identified in our specimens, includes the mitotic and postmitotic cells of the forebrain, from the lateral ventricle and the olfactory bulb to the olfactory peduncles. Additionally, several other possible migratory streams, more localized, have been annotated under the general category “migratory stream, general.”

3.3 | Diencephalon

The diencephalon is typically divided into three components: dorsal thalamus, ventral thalamus, and epithalamus, and it often includes the hypothalamus (Jones 2007). We acknowledge that gene expression studies of the developing brain reveal that the preoptic region and hypothalamus develop from a distinct segmental component of the prosencephalon, which also gives rise to the telencephalon and thus cannot be considered part of the traditionally defined diencephalon (Puelles et al. 2013). However, in the current description, we include the preoptic region and hypothalamus as separate divisions of the diencephalon, as done traditionally, for ease of comparison to other studies of human brain development.

3.3.1 | Preoptic Region

The preoptic region and the hypothalamic nuclei were identified and defined within four regions from anterior to posterior: the preoptic, anterior (referred to as supraoptic by Le Gros Clark 1938), tuberal, and mammillary body regions. Each of these regions was then analyzed from the lateral to medial zone, based on the three distinct longitudinal zones described by Crosby and Woodburne (1940): the lateral, medial, and periventricular zone (Simerly 2015). In the 22 GW, coronally sectioned specimen allowed the delineation of several nuclei based on their position

and cytoarchitecture (Ding et al. 2022; Simerly 2015) as per the existing literature (Koutcherov et al. 2002).

In the oldest specimen, 24 GW, the most lateral sections have the optic tract ventrally, with an elongated supraoptic nucleus extending from the preoptic to the anterior region of the hypothalamus. At the level of the optic chiasm, in the rostral aspect, dorsal to the suprachiasmatic nucleus, we identified the medial preoptic nucleus as an elongated and dense patch of cells. Dorsal to the supraoptic nucleus, we identified the lateral hypothalamus (LHA) which extended throughout the anteroposterior extent of the hypothalamus. The lateral preoptic area (LPO) showed dense patches of cells that could be easily demarcated, from the relatively uniform and cell-sparse LHA.

3.3.2 | Hypothalamus

We describe the hypothalamus in three regions: anterior, tuberal, and mammillary. The anterior region, from lateral to medial, shows the LHA, the anterior hypothalamic nucleus, and the paraventricular nucleus. In the most lateral aspect, the boundary between the LHA and the SI was marked by large cells that appeared in patches, the cells of Meynert, and a fiber tract that separated the two regions. Medially, in the periventricular zone, a dense nucleus adjacent to the ventricle is identified as the paraventricular nucleus of the hypothalamus, both in the anterior and posterior aspects. We observed the retrochiasmatic nucleus dorsal to the optic chiasm and ventral to the pituitary gland.

A dense patch of cells demarcated the boundary between the anterior hypothalamic nucleus and the tuberal region, further delineated by a fiber tract. In the most lateral aspect, the tuberal region has the LHA extending from the anterior region. Medially, the tuberal region contained the large ventromedial hypothalamic and dorsomedial hypothalamic nuclei. These nuclei are distinctly oriented at almost 135° to each other and separated from the mammillary region by a fiber tract.

The most caudo-lateral aspect of the lateral hypothalamus, a cell-dense vertically oriented patch in the mammillary region, was demarcated as the tuberomammillary nucleus. The mammillary body was readily identified in the mammillary region due to its oval shape and relatively high cell density. Dorsally, the posterior hypothalamic area is a distinct large region with a uniform distribution of cells located ventral to the field of Forel (FF) and is bordered laterally by the mammillothalamic tract. The supramammillary area was in the dorsal aspect, and the mammillothalamic tract was seen to exit the mammillary body. We also observed the dorsal, ventral, premammillary, and lateral mammillary nuclei in the mammillary region of the hypothalamus. We also identified the supramammillary decussation and the mammillary peduncles. All the nuclei reported here were identified across the five specimens (14–24 GW) examined.

3.3.3 | Dorsal Thalamus

We identified several nuclei in the dorsal thalamus, ventral thalamus (also referred to as prethalamus, e.g., Nagalski et al.

2016; Puelles et al. 2013), and the epithalamus, as well as the subthalamus and the surrounding white matter (Bayer and Altman 2005; Mai and Majtanik 2019) from 14 to 24 GW. Within the dorsal thalamus, nuclei were grouped into six complexes: dorsal, ventral, anterior, posterior, central, and periventricular. Our observations from sagittal sections are described from the lateral to medial aspect, and we report the changes observed with gestational age.

3.3.3.1 | Posterior Complex. Within the posterior complex, the LGN, pulvinar, medial geniculate nucleus (MGN), lateral posterior nucleus, supragenulate nucleus, and nucleus limitans of the thalamus were well delineated in all gestational ages examined (14–24 GW). In the oldest specimen, the LGN was identified about 1.5 cm from the midline, in the most lateral aspect of the gray matter mass forming the dorsal thalamus. In 14 GW LGN, it occupied a larger volumetric proportion of the dorsal thalamus in the early second trimester compared to other nuclei in this complex, as the pulvinar nucleus is not yet well developed. The LGN has an elongated shape and appears unlaminated but cell-dense. Between 14 and 17 GW, we noted that the ventral half of the LGN showed a cell-sparse region, which was included as a part of LGN as it was most likely at a different stage of development. By 21 GW, the LGN shows nascent signs of lamination but still contains immature cells. At 24 GW, the LGN is laminated, with four well-defined layers, and prominent fiber tracts are present in the medial portion. Between 14 and 17 GW, the developing pregeniculate nucleus (described later in the ventral thalamus section) was observed in a position ventral and medial to the reticular nucleus (RT) and the LGN, respectively (see Figure 12). Note that as the LGN is located in a progressively ventrally location, we observed the pregeniculate nucleus appear as a cap superior to the LGN by 17 GW (see Figure 9 and details in the ventral thalamus section). From 17 to 24 GW, a cell-sparse patch, the pregeniculate nucleus, appears like a cap surrounding the LGN that has moved from a vertical position to a ventral one, when compared to the 14 GW. The fan-shaped fiber tract that was observed in the developing brain between 14 and 24 GW has also been studied in adult humans using imaging techniques and identified as thalamic prefrontal peduncles (Sun et al. 2018); however, this requires further detailed investigations in the developing human brain.

Surrounding the LGN, we observed the external medullary lamina, which runs adjacent and parallel to the RT and extends between the pulvinar and the LGN laterally. Medial and dorsal to the LGN, the pulvinar is identified as a cell-sparse region, but the boundary with the LGN is well-demarcated due to the characteristic intense labeling of the LGN. The pulvinar is a cell-sparse region at gestational ages before 21 GW. However, it becomes more cell-dense with increasing age and occupies a progressively larger proportional volume of the posterior complex. In contrast to the LGN, the MGN shows three subdivisions and a “blob-like” cytoarchitecture in the central portion as early as 17 GW, which appears to be more cell-dense by 24 GW. Furthermore, the MGN appears to be positioned more medially with the developing gestational ages. White matter separates the LGN and MGN throughout their extent, and the cell-dense supragenulate nucleus (SbGN) is identified posteriorly between the MGN and the pulvinar. In all specimens, in the medial and caudal portion of the developing dorsal thalamus, we delineated the nucleus

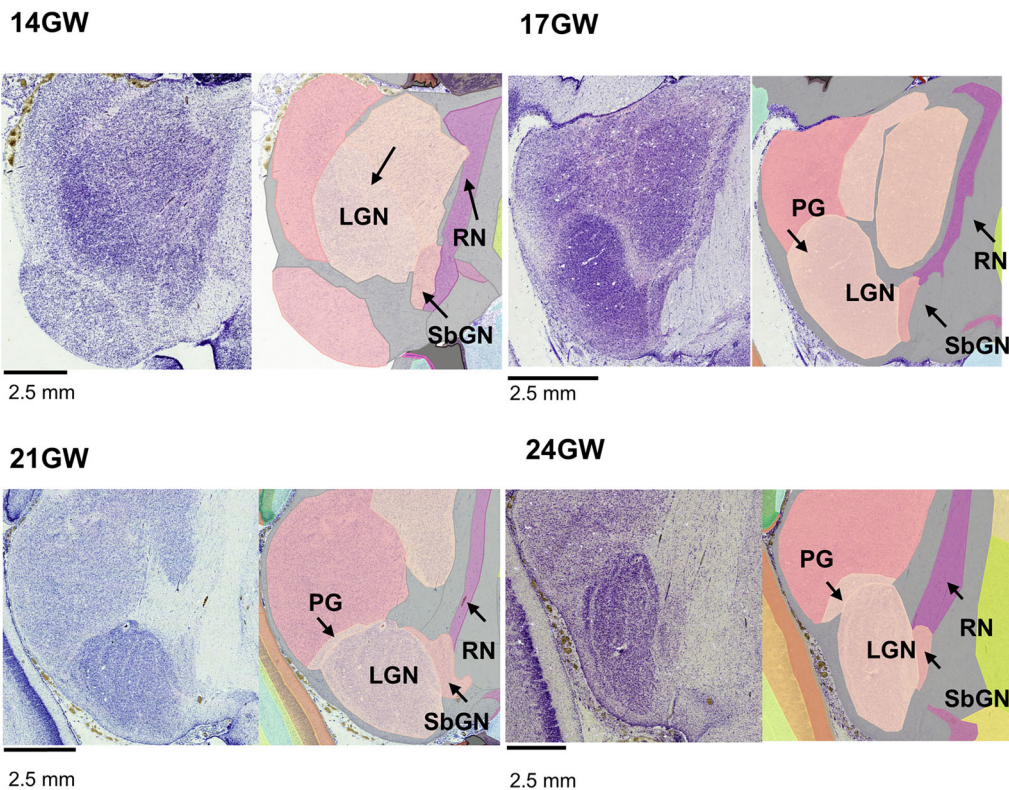


FIGURE 12 | Topographical development of the pregeniculate complex with the changing position of dorsal lateral geniculate nucleus (dLGN) in the ventral thalamus from 14 to 24 GW. PG, pregeniculate; RN, reticular nucleus; SbGN, subgeniculate.

limitans of the thalamus located between the pulvinar and the pretectal nuclear complex of the midbrain. It has a non-homogenous cytoarchitecture with cell density higher than the pulvinar and the pretectum. Other atlases have grouped this under the SbGN (Ding et al. 2022). Lateral to the pulvinar complex and dorsal to the ventral posterolateral nucleus (VPL), we identified the lateral posterior nucleus of the thalamus in the lateral aspect of the dorsal thalamus.

3.3.3.2 | Ventral Complex. In the ventral complex, several nuclei were delineated under the ventral posterior group and the lateral group in all specimens from 14 to 24 GW. All the nuclei within the ventral complex showed high density with dense labeling from early 14 GW and were separated by prominent fiber tracts. CD15 labeling in the developing human brain has been used to indicate earlier maturation of these nuclei compared to the nuclei in the dorsal complex (Forutan et al. 2001). From the sagittal perspective, the VPL appears first in the most lateral sections and borders with the pulvinar dorsally and the LGN ventrally at 14 and 17 GW. At the level where the MGN is well delineated, the ventral posterior inferior nucleus (VPI) is located at the most inferior aspect of the MGN and appears as a cell-sparse region. In the rostral aspect, most aspect is the ventral anterior nucleus (VA) caudal to which is the ventral lateral nucleus (VL). The ventral posteromedial nucleus (VPM) was observed more medially, whereas in the sagittal perspective, the centromedian nucleus was delineated in the caudal aspect in all specimens (14–24 GW). The VL, VP, and VPM appear as elongated structures in the sagittal perspective from 14 GW onward. The cell densities and shapes of these nuclei in the ventral complex were maintained from 14 to 24 GW.

3.3.3.3 | Central Complex. In the central complex of the thalamus, we identified the centromedian and central lateral nuclei. The centromedian nucleus appears as a distinct circular structure surrounded by a white matter tract, the internal medullary lamina, and it was observed in the youngest specimen (14 GW). In the coronally sectioned specimen, the central lateral nucleus delineated in 22 GW evinces a wing-shaped appearance extending laterally from the central medial nucleus. The nucleus is not identified in the sagittal sectioned specimens.

3.3.3.4 | Dorsal Complex. In the dorsal complex, we identified the medial dorsal nucleus of the thalamus (MD) and the dorsolateral nucleus (DL), in examined ages (14–24 GW). Dorsal to the centromedian nucleus, MD was readily demarcated, bordering the subparafascicular tract caudally. At the mid-sagittal plane, the ventral portion of the thalamus contains a region with clusters of cells identified as the nucleus limitans, whereas the most dorsal aspect reveals the crescent-shaped DL nucleus, appearing as a uniform patch of cells separated from the anterior complex and centromedian nucleus by a thick fiber tract. The MD nucleus is a large nucleus, surrounded anteriorly by the ventral complex, posteriorly by the pulvinar, and ventrally by the centromedian nucleus and well demarcated even in 14 GW when the pulvinar appears as a cell-sparse region.

3.3.3.5 | Anterior Complex. In the anterior complex of the dorsal thalamus, we identified the anterodorsal, anteroventral, and anteromedial nuclei in all ages examined (14–24 GW). The anteromedial nucleus is located adjacent to the third ventricle, and the anteroventral nucleus borders the lateral aspect of the anteromedial nucleus. Dorsally within this complex, we

identified the anterodorsal nucleus, which occupies a more medial position in the rostral aspect of the dorsal thalamus. Rostrally, the mammillothalamic tract forms the boundary between the anterior and the ventral complexes.

3.3.3.6 | Periventricular Complex. The periventricular complex comprises several nuclei located adjacent or close to the lateral walls of the third ventricle. The nuclei identified in the older specimens (22–24 GW) are the paraventricular, paratenial, reuniens, central median, parafascicular nucleus, and rhomboid nuclei, which we could most readily identify in the coronally sectioned specimen. Between the paraventricular nucleus and the fiber bundle stria terminalis, there is a dense patch of cells identified as paratenial nucleus; however, in the 14–17 GW specimens with a thick neuroepithelium, it was difficult to delineate this nucleus with certainty near the ventricles. The boundaries with the surrounding gray matter are demarcated by a white matter tract that shows the distinct parafascicular nucleus on its lateral aspect. In the ventral aspect, the nucleus reuniens appears as a region with a dense patch of cells adjacent to the fornix. Posterior to the nucleus reuniens, a uniform cell-sparse region is identified as the FF. In the sagittal plane, closer to the midline, the third ventricle appears to turn around the thalamus, this being more apparent in younger specimens when compared to the older specimens (24 GW), where the diencephalon and the brainstem have a more vertical, adult-like orientation.

3.3.4 | Ventral Thalamus

The ventral thalamus, also referred to as the prethalamus (Paxinos et al. 2012; Puelles et al. 2013; Puelles and Rubenstein 1993), originates from prosomere 3, which includes the pregeniculate, subgeniculate, and reticular nuclei (Paxinos et al. 2012) and comprises the thalamic RT, the pregeniculate nucleus (LGv), zona incerta (ZI), and the FF. From 14 to 24 GW, RT was readily delineated, and it surrounds the rostral and the lateral boundaries of the dorsal thalamus, separated from the dorsal thalamus by the external medullary lamina. The external medullary lamina courses parallel to the RT and ventrally surrounds the LGN. The pregeniculate nucleus was observed in a position ventral to the RT in the 22 GW coronally sectioned specimen. The pregeniculate nucleus is referred to as the ventral LGN in non-primates (Livingston and Mustari 2000). We observed the pregeniculate nucleus in ventral, medial, and dorsal aspects relative to the LGN, due to the developmental rotation of the LGN from the dorsomedial to the ventrolateral aspect of the dorsal thalamus (see Figure 12), as reported in monkeys (Livingston and Mustari 2000). Furthermore, at 14 GW, in the ventral aspect of the RT, a homogeneous cell-dense region, compared to the RT, is delineated as the subgeniculate nucleus, similar to that described for the marmoset (Paxinos et al. 2012) but not described previously in the developing human brain. This was a consistent observation in all specimens (14–24 GW), where the subgeniculate nucleus was adjacent in its caudal aspect to the ZI.

In the sixth- to seventh-month-old fetal human brain, the pregeniculate nucleus was identified as a subregion of the RT (Ulfig, Nickel, and Bohl 1998). A much earlier study by Cooper (1945) described the pregeniculate nucleus as scattered cells around the LGN. Based on these reports and several descriptions of the

pregeniculate and subgeniculate nuclei in primates (Paxinos et al. 2012; Ulfig, Nickel, and Bohl 1998), our observations show that the fetal pregeniculate nuclear complex can also be subdivided into dorsal, lateral, and medial subdivisions, similar to that described in monkeys and related to the rotation of the LGN. As the LGN matures and rotates, the pregeniculate region appears as a triangular cap at 22 GW in the sagittal and coronal planes and becomes thicker by 24 GW. This pregeniculate maturation is similar to observations made in macaques and marmosets (Livingston and Mustari 2000). However, the pregeniculate has not been studied in the developing fetal human brain at the start of the second trimester (Hitchcock and Hickey 1980).

The ZI, which appears as a palely stained cell-sparse region, is often considered to be a rostral extension of the midbrain tegmentum. The ZI was located ventral to the dorsal thalamus, and the FF appeared as a medially located continuation of it.

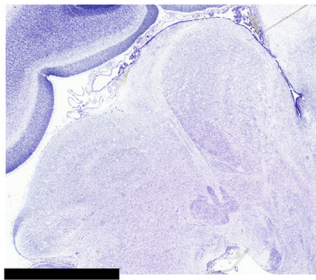
3.3.5 | Epithalamus

The epithalamus, depending on the used definition, comprises several nuclei, some of which are described elsewhere (see above, the paraventricular nuclei; Ding et al. 2022). The lateral habenula (LH) and medial habenula (MH) nuclei were observed adjacent to the third ventricle. MH is located posterior to the pineal gland. LH appears less cell-dense than MH and is located more laterally and rostrally in sagittal sections. From 14 to 24 GW, we delineated the habenulo-interpeduncular tract (hi) as a prominent tract coursing ventrally toward the red nucleus (Figure 13). This tract has been reported in the developing fetal human brain from 8 to 12 GW (Cho et al. 2014). As previously reported (Cho et al. 2014), we see IHT in older specimens (21–24 GW), adjacent, embedded, and coursing around the red nucleus.

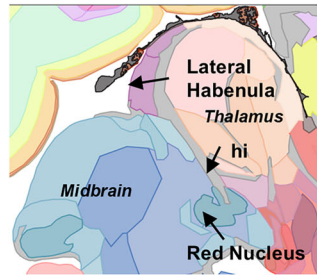
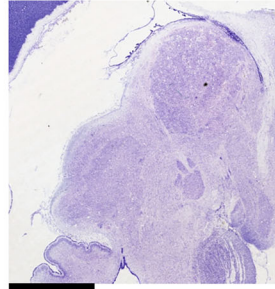
3.4 | Brainstem and Cerebellum

3.4.1 | Brainstem

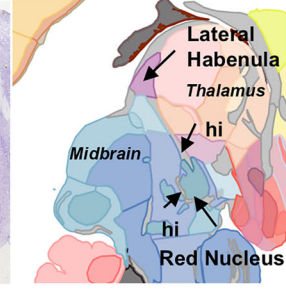
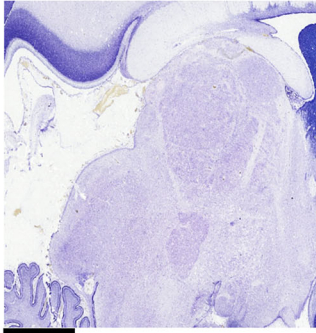
The brainstem is a very complex central nervous system subdivision, which includes more than 100 nuclei. Therefore, for simplicity, we apply the classic topographical subdivisions of the midbrain, pons, and medulla to the developing brainstem, although we acknowledge that this terminology needs revision (Watson, Bartholomaeus, and Puelles 2019). The nuclei and fiber tracts identified in the brainstem are listed in Table 3. The nuclei are further grouped in three general categories: “cranial nerves nuclei,” “other nuclei” which include the brainstem intrinsic and neuromodulatory nuclei (Manger 2020), and the “undifferentiated gray matter,” which includes the reticular formation and the central gray of the pons. The annotations of the brainstem reticular formation are further subdivided by the brainstem classical divisions. The fiber tracts included in Table 3 are those pathways that are at least partially present in any of the topographical brainstem subdivisions. Each identified nucleus and fiber tract is also grouped by the age group (specimen) in which they were identified. Finally, those nuclei that extend both in the midbrain and pons, or pons and medulla, are in italic or bold italic, respectively.

14GW

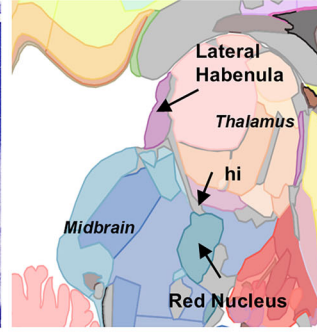
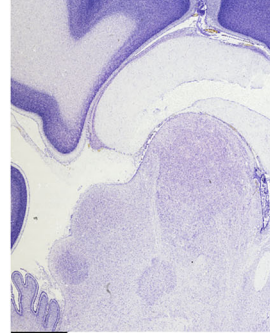
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**17GW**

5 mm

**21GW**

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**24GW**

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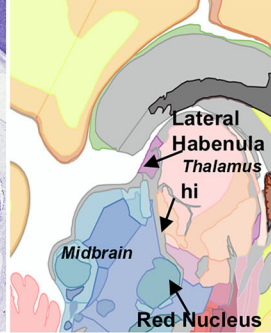


FIGURE 13 | The development of the habenulo-interpeduncular tract (hi) in the developing brain from 14 to 24 GW, in the sagittal plane. At 14 GW, hi extends rostrally from the lateral habenula, across its entire dorso-ventral extent, and traverses the red nucleus. By 24 GW, the tract starts from the ventro-rostral corner of the lateral habenula and curves around the red nucleus dorsally.

Overall, we have identified 74 brainstem nuclei and 29 fiber tracts in different age groups, as listed in Table 3. A comprehensive description of each identified brainstem nucleus and fiber tract is beyond the scope of this article; therefore, we briefly describe several key nuclei.

The pretectum (PRT) includes a collection of nuclei of the rostro-dorsal brainstem, anterior to the SC, and in the transition zone between the midbrain and thalamus. Cytoarchitecturally and topographically, the PRT is usually divided into five distinct nuclei: the nucleus of the optic tract (NOT), the olivary pretectal nucleus (OPT), the anterior pretectal nucleus (APT), medial pretectal nucleus (MPT), and posterior pretectal nucleus (PPT). At 14 GW, the APT and PPT are traversed by fiber tracts which may include migratory streams, and which are no longer visible at 24 GW. In the brainstem, we describe the pretectal nuclei NOT, APN, PPN, MPN, and OPN that have not been fully reported in the developing human brain, to the best of our knowledge, but have been described in adult humans (Borostyánkői-Baldauf and Herczeg 2002).

The IC can be readily identified in Nissl stain from 14 GW onward, and it is located laterally from the periaqueductal gray and ventral from the SC. However, its subparts, the central nucleus of inferior colliculus (ICc), the dorsal nucleus (ICd), and the external nucleus (ICe) (Geniec and Morest 1971; Tardif and Clarke 2001), can be reliably identified only in later stages of development, from 22 GW onward. The ICc has an ovoid shape,

and it is Nissl-stained more intensely. ICd appears like a cap of the ICc in sagittal cuts, and the ICe can be identified in the ventral IC, sharing a rather diffuse border with it.

The interpeduncular nucleus (IPN) is located rostrally to the interpeduncular fossa. IPN appears as a cluster of immature cells at 14 GW. At 22 GW, IPN can be subdivided into a dorsomedial and a caudal part, based on the cytoarchitecture. The dorsomedial part appears denser in Nissl stain than the caudal part. However, the two IPN parts could be identified only in the coronally cut specimen.

The pontine gray (PG) is composed of a dense aggregate of neurons in the ventral pons. This nucleus can be identified from 14 GW onward with corticofugal and transverse fibers serrating it. At 14 GW, the lateral area of this nucleus includes dense streams of neuro- and glioepithelia, which disappear by 17 GW. The PG cytoarchitecture becomes mostly homogeneous by 24 GW.

The superior olive (SO) is situated caudally near the facial nucleus, in the caudal pons. At 14 GW, this nuclear complex is small and cannot be subdivided into subparts. However, at 24 GW, the SO can be subdivided cytoarchitecturally into two parts.

The inferior olive (IO) nuclei are located in the superior medulla, just inferior to the pons. This complex is visible from 14 GW at the anterior tegmentum of the medulla. At 14 GW, the largest

TABLE 3 | The list of brainstem nuclei and fiber tracts identified in our Nissl-stained specimens and grouped by major topographical division (midbrain, pons, medulla), general category, and age groups (see text for details).

Brain part	14 GW	17 GW	21–22 GW	24 GW
Cranial nerve nuclei				
Midbrain				
Oculomotor nuclear complex (III)	+	+	+	+
Edinger–Westphal nucleus (III)			+	+
Trochlear nerve nucleus (IV)	+	+	+	+
Mesencephalic nucleus of trigeminal (V)	+	+	+	+
Pons				
Principal sensory nucleus of trigeminal (V)	+	+	+	+
Spinal nucleus of the trigeminal (V) ^a	+	+	+	+
Abducens nerve nucleus (VI)	+	+	+	+
Facial motor nucleus (VII)	+	+	+	+
Cochlear nuclei (VIII)^a				
Dorsal cochlear nucleus ^a			+	+
Ventral cochlear nucleus ^a			+	+
Medulla				
Vestibular nuclear complex (VIII) ^a	+	+	+	+
Dorsal motor vagal nucleus (X)	+	+	+	+
Dorsal sensory vagal nucleus (X)	+	+	+	+
Solitary nuclear complex (X) (XI)	+	+	+	+
Nucleus ambiguus (X) (XI)	+	+	+	+
Hypoglossal nucleus (XI)	+	+	+	+
Accessory nucleus (XII)	+	+	+	+
Other nuclei				
Midbrain				
Anterior pretectal nucleus	+	+	+	+
Medial pretectal nucleus		+	+	+
Posterior pretectal nucleus	+	+	+	+
Nucleus of the optic tract		+	+	+
Olivary pretectal nucleus		+	+	+
Precommissural nucleus				+
Nucleus of the posterior commissure	+	+	+	+
Superior colliculus	+	+	+	+
Inferior colliculus	+	+	+	+
Inferior colliculus, central nucleus	+	+	+	+
Periaqueductal gray ^b	+	+	+	+
Parabigeminal nucleus	+	+	+	+
Interpeduncular nucleus	+	+	+	+
<i>Interpeduncular nucleus dorsomedial</i>			+	
<i>Interpeduncular nucleus, caudal</i>			+	
Substantia nigra pars compacta	+	+	+	+
Substantia nigra pars reticulata	+	+	+	+
Red nucleus	+	+	+	+

(Continues)

TABLE 3 | (Continued)

Brain part	14 GW	17 GW	21–22 GW	24 GW
Ventral tegmental area	+	+	+	+
<i>Paranigral nucleus of the VTA</i>			+	
Retrorubral area (parabrachial pigmented nucleus)	+	+	+	+
Nucleus of the lateral lemniscus, dorsal ^b	+	+	+	+
Nucleus of the lateral lemniscus, ventral ^b	+	+	+	+
Parabrachial nucleus ^b	+	+	+	+
<i>Parabrachial nucleus, lateral part^b</i>			+	
<i>Parabrachial nucleus, medial part^b</i>			+	
Dorsal tegmental nucleus ^b	+	+	+	+
<i>Rhabdoid nucleus</i>			+	
Raphe nuclei ^{a,b}	+	+	+	+
<i>Dorsal raphe nucleus</i>			+	
<i>Rostral linear raphe nucleus</i>			+	
<i>Caudal linear raphe nucleus</i>			+	
<i>Median raphe nucleus</i>			+	
Nucleus of Darkschewitsch			+	+
Pons				
Locus coeruleus	+	+	+	+
Superior olive	+	+	+	+
Reticular tegmental nucleus	+	+	+	+
Raphe Nuclei ^{a,b}	+	+	+	+
<i>Raphe interpositus nucleus</i>			+	
<i>Raphe magnus nucleus^a</i>			+	
Medulla				
Area postrema	+	+	+	+
Cuneate nucleus	+	+	+	+
Gracile nucleus	+	+	+	+
Inferior olivary complex	+	+	+	+
Intercalated nucleus of medulla	+	+	+	+
Nucleus prepositus	+	+	+	+
Lateral reticular nucleus	+	+	+	+
Arcuate nucleus of the medulla	+	+	+	+
Nucleus of roller		+	+	+
Commissural nucleus		+	+	+
Raphe nuclei ^{a,b}	+	+	+	+
<i>Raphe obscurus nucleus</i>			+	
<i>Raphe pallidus nucleus</i>			+	
Undifferentiated gray matter				
Reticular formation ^{a,b}	+	+	+	+
Central gray of pons	+	+	+	+
Major fiber tracts				
Cerebral peduncles	+	+	+	+

(Continues)

TABLE 3 | (Continued)

Brain part	14 GW	17 GW	21–22 GW	24 GW
Posterior commissure	+	+	+	+
Habenulo-interpeduncular tract (fasciculus retroflexus)	+	+	+	+
Cerebellar peduncles	+	+	+	+
Trapezoid body	+	+	+	+
Corticofugal tract	+	+	+	+
Corticospinal tract	+	+	+	+
Pyramidal decussation	+	+	+	+
Dorsal funiculus	+	+	+	+
Brachium of superior colliculus			+	
Brachium of the inferior colliculus	+	+	+	+
Lateral lemniscus	+	+	+	+
Superior colliculus commissure			+	+
Lateral funiculus		+	+	+
Ventral funiculus		+	+	+
<i>Dorsal tegmental decussation</i>			+	
<i>Ventral tegmental decussation</i>			+	
<i>Superior cerebellar decussation</i>			+	

Note: *Italicized* = observed in coronal plane.

^aExtends into both Medulla and Pons.

^bExtends into both midbrain and Pons.

part of this complex appears only as a ring. IO complex appears corrugated at 24 GW.

The lateral reticular nuclei (LRN) are located as a complex of cellular aggregates in the medullary reticular formation, close to the inferior olivary complex. LRN appears as densely strained bands at 14 GW, which differentiate into aggregates of cells with different sizes by 22 GW. Subparts of this nucleus may be identified in Nissl stain by 24 GW.

The complex of the solitary nucleus (SOL) and tract can be identified from 14 GW onward, extending from the upper medulla to its lower part, medial to the vestibular nuclear complex at the top, and the cuneate and gracile nuclei at the bottom. Clusters of individual SOL nuclei are visible from 14 GW onward. A dense subnucleus, the commissural part of SOL, located medially, is also visible in Nissl preparation from 17 GW onward.

3.4.2 | Cerebellum

3.4.2.1 | Cerebellar Nuclei. In the developing cerebellar nuclei from 21 GW onward, we identified the dentate (DN), fastigial, and interposed nuclei. The cell-dense DN is the largest of these three nuclei and is located in the middle of the cerebellar white matter, and it has its typical lobular appearance by 24 GW. The fastigial nucleus is located medial to the DN and appears as a cell-dense patch but is smaller in size and does not have the lobular appearance of the DN. The interposed nucleus, found

between the DN and fastigial nucleus, could be identified by its patchy appearance, at 24 GW with several fiber tracts passing through and around the cells forming the nucleus.

3.4.2.2 | Cerebellar Cortex. The lamination of the developing cerebellum is readily demarcated in all age groups; however, at younger gestational ages, the Purkinje cell layer was not identified. The foliation is seen as early as 17 GW. The Purkinje cell layer becomes well-defined at 21 GW, containing a few large cells, but no well-defined Purkinje cells were observed by the end of the second trimester. The cerebellar cortex showed an increased foliation with age.

The ventral aspect of the cerebellum housed the cell-dense germinal trigone in all the specimens examined. The germinal trigone had a thick neuroepithelium in younger gestational ages (14–17 GW) and was found adjacent to the fourth ventricle.

4 | Discussion

Compared to previous atlases (Bayer and Altman 2005; Ding et al. 2016), we have used in DHARANI high sampling density (60–1000 μm), annotated 466 plates (see Appendix A) from serial sections, and systematically reported our results from 60 to 120 serial sections per specimen. Although human fetal specimens offer crucial insights into developmental human neuroanatomy, the acquisition, digitization, and open online accessibility of this data posed several technological challenges. The work described herein highlights technological advances and interdisciplinary

collaborative work, both nationally and internationally, between clinicians, neuroscientists, and engineers, to address the challenges of studying the whole human brain, and indeed human neuroanatomy, as highlighted by Crick and Jones (1993) three decades ago. In this study, the need to freeze and cryosection the whole brain as one single block was guided by computational requirements. Misalignment from 1000-plus sections with nonuniform tissue shrinkage is often strenuous for 3D reconstruction, especially if the brain is slabbed in many pieces and each piece is processed separately (Amunts et al. 2020; Ding et al. 2016). This technological approach resulted in the first 3D reconstruction of the developing human brain in the second trimester.

These large, high-quality histological datasets enabled us to present new insights in the telencephalon, diencephalon, and pretectum. The systematic investigation of the developing cerebral mantle from 14 to 24 GW reveals unique region-specific morphogenesis throughout the cerebral cortex. We present our findings in region-specific and layer wise and compare them with the previous reports (Altman and Bayer 2002; Bayer and Altman 2003; Kopic et al. 2023; Kostovic and Rakic 1990; Krsnik et al. 2017; Rakic 1988; Vasung et al. 2016; Verma et al. 2024). Recognizing these patterns is critical during the lissencephalic stage of the developing human brain as it allows a clear demarcation of the boundary with the adjacent cortices.

Key findings include the early patterning of the frontal cortex based on the intermediate zone (IZ) from 21 GW, the appearance of the honeycomb pattern in the occipital and parietal cortex after 14 GW, and the presence of putative Betz cells at 24 GW. The IZ in the second trimester is a crucial transitional layer where cells pause their migration and sort themselves among the developing fiber tracts, also referred to as a *sojourn* (a temporary stay) by Altman and Bayer (2002), before migrating toward their final destination in the cortex. Here, we specifically highlight the spatial-temporal pattern of the IZ for the entire cerebral mantle. Compared to previous studies that delineated thalamic nuclei (histology) in the developing human brain in the second trimester (Bayer and Altman 2005; Ding et al. 2022; Forutan et al. 2001; Mai and Schönlaue 1992), we outline in this study the developmental trajectory of the ventral thalamus, the fetal pregeniculate complex in relation to the LGN, and the RT.

The atlas includes delineations of the subregions of the subicular complex by 14 GW, identifies subnuclei within the BA from 17 to 24 GW, and describes the topographical development trajectory of the ventral thalamus. Furthermore, we report several fiber tracts, such as the fan-shaped fiber tracts, referred to as the funnel of thalamocortical axons (Bayer and Altman 2007) in the dorsal thalamus in the first trimester, the development of the IHT from 14 to 24 GW, the commissure of the SC, and the supramammillary and mammillary peduncles in the hypothalamus. The fan-shaped fiber tract that was observed in the developing brain between 14 and 24 GW has also been studied in adult humans using imaging techniques and identified as thalamic prefrontal peduncles (Sun et al. 2018); however, this requires further detailed investigations into the developing human brain.

In Nissl preparation, we identified and delineated about 74 cranial nerves, intrinsic, and neuromodulatory brainstem nuclei.

Detailed IHC is required for the systematic mapping of the developing brainstem in humans. However, from 14 GW onward, we identify the pretectal nuclei: APN, PPN, and from 17 GW onward the NOT, MPN, and OPN. For brain parts classification and organization, we adopted a “common ground” approach across the already existing brain atlas nomenclatures (Bayer and Altman 2005; Ding et al. 2022). We acknowledge the recent advancement in understanding the spatial-temporal molecular trajectories during development (Ding et al. 2022; Kim et al. 2023; Nagalski et al. 2016) and its importance in characterization of the fetal brain from 14 to 24 GW as presented in this study. However, given the uncertainty of applying the neuromeric model to the developing human brain at present, we have used the classical neuroanatomical subdivisions to avoid potential misassignment of specific nuclei to the incorrect neuromere (Puelles et al. 2013; Puelles and Rubenstein 1993). The alignment of the current demarcations applied to the developing human brain herein can be readily altered to reflect the neuromeric model, when greater precision of the neuromeric model in terms of which nuclei are precisely located in which neuromere is consolidated.

We do identify the current limitations in DHARANI, where in the future it will expand by adding other developmental ages and specific IHC markers to classify region- and layer-specific cell types.

5 | Conclusions

The current 3D reconstructed datasets provide a qualitative assessment of brain growth, but the potential lies in quantifying the changes in size and volume of brain structures across the entire prenatal stage. Our integrated histological neuroanatomical atlases with 3D reconstruction of the whole brain can be utilized for systematic evaluation and generation of morphometric data at different developmental stages, while simultaneously studying cellular organization. These data can be correlated with MRI and USG findings in both neurotypical and pathological conditions, contributing to a deeper understanding of human brain development and the deviations and insults that occur in cases of developmental disorders. Furthermore, correlating the histological datasets with spatial molecular maps will be crucial.

Author Contributions

Richa Verma, Mihail Bota, Keerthi Ram, Jaikishan Jayakumar: conceptualization, data curation, formal analysis, methodology, project administration, visualization, writing—original draft. **Rebecca Folkerth:** writing—review and editing. **Karthika Pandurangan, Jivitha Jyothi Ramesh, Moitrayee Majumder, Rakshika Raveendran, Reetuparna Nanda:** investigation, formal analysis. **Sivamani K., Amal Dhivahar S., Srinivasa Karthik, Ramdayalan Kumarasami, Suresh S., S. Lata, E. Harish Kumar, Rajeswaran Rangasami, Chitra Srinivasan, Jayaraman Kumutha, Sudha Vasudevan, Koushik Bhat, Chrisline Sam C., Sivathanu Neelakantan, Stephen Savoia:** resources. **Partha P. Mitra, Jayaraj Joseph:** conceptualization, supervision, resources, methodology, funding. **Paul R. Manger:** conceptualization, data curation, investigation, writing—review and editing. **Mohanasankar Sivaprakasam:** conceptualization, supervision, resources, methodology, funding, writing—review and editing.

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Ethics Statement

The study was conducted according to the guidelines approved by the IITM Institutional Human Ethics Committee (EC/2021-01/MS/06). All specimens were obtained based on the guidelines approved by the Review Board and Ethics Committee of Mediscan Systems Pvt. Ltd Chennai, India (Mediscan).

Consent

All postmortem specimens were obtained after due consent was from the next of kin in accordance with the Declaration of Helsinki.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available online <https://brainportal.humanbrain.in/publicview/index.html> and available from the corresponding author upon reasonable request.

References

- Altman, J., and S. A. Bayer. 1990. "Horizontal Compartmentation in the Germinal Matrices and Intermediate Zone of the Embryonic Rat Cerebral Cortex." *Experimental Neurology* 107, no. 1: 36–47. [https://doi.org/10.1016/0014-4886\(90\)90061-V](https://doi.org/10.1016/0014-4886(90)90061-V).
- Altman, J., and S. A. Bayer. 2002. "Regional Differences in the Stratified Transitional Field and the Honeycomb Matrix of the Developing Human Cerebral Cortex." *Journal of Neurocytology* 31, no. 8–9: 613–632. <https://doi.org/10.1023/a:1025787427576>.
- Amunts, K., C. Lepage, L. Borgeat, et al. 2013. "BigBrain: An Ultrahigh-Resolution 3D Human Brain Model." *Science* 340, no. 6139: 1472–1475. <https://doi.org/10.1126/science.1235381>.
- Amunts, K., and T. Lippert. 2021. "Brain Research Challenges Supercomputing." *Science* 374, no. 6571: 1054–1055. <https://doi.org/10.1126/science.abl8519>.
- Amunts, K., H. Mohlberg, S. Bludau, and K. Zilles. 2020. "Julich-Brain: A 3D Probabilistic Atlas of the Human Brain's Cytoarchitecture." *Science* 369, no. 6506: 988–992. <https://doi.org/10.1126/science.abb4588>.
- Badlangana, N. L., A. Bhagwandin, K. Fuxe, and P. R. Manger. 2007. "Observations on the Giraffe Central Nervous System Related to the Corticospinal Tract, Motor Cortex and Spinal Cord: What Difference Does a Long Neck Make?" *Neuroscience* 148, no. 2: 522–534. <https://doi.org/10.1016/j.neuroscience.2007.06.005>.
- Bayer, S. A., and J. Altman. 2003. *The Human Brain During the Third Trimester*. Boca Raton: CRC Press. <https://doi.org/10.1201/9780203494943>.
- Bayer, S. A., and J. Altman. 2005. *The Human Brain During the Second Trimester*. Boca Raton: CRC Press. <https://doi.org/10.1201/9780203507483>.
- Bayer, S. A., and J. Altman. 2007. *The Human Brain During the Early First Trimester*. Boca Raton: CRC Press. <https://doi.org/10.1201/9781420003284>.
- Bhaduri, A., C. Sandoval-Espinosa, M. Otero-Garcia, et al. 2021. "An Atlas of Cortical Arealization Identifies Dynamic Molecular Signatures." *Nature* 598, no. 7879: 200–204. <https://doi.org/10.1038/s41586-021-03910-8>.

- Borostyánkői-Baldauf, Z., and L. Herczeg. 2002. "Parcellation of the Human Pretectal Complex: A Chemoarchitectonic Reappraisal." *Neuroscience* 110, no. 3: 527–540. [https://doi.org/10.1016/S0306-4522\(01\)00462-6](https://doi.org/10.1016/S0306-4522(01)00462-6).
- Bota, M., and L. W. Swanson. 2008. "BAMS Neuroanatomical Ontology: Design and Implementation." *Frontiers in Neuroinformatics* 2: 2. <https://doi.org/10.3389/neuro.11.002.2008>.
- Brodmann, K., and L. J. Garey. 2006. *Brodmann's Localisation in the Cerebral Cortex: The Principles of Comparative Localisation in the Cerebral Cortex Based on Cytoarchitectonics* (Translated From Original German). Berlin: Springer.
- Bystron, I., C. Blakemore, and P. Rakic. 2008. "Development of the Human Cerebral Cortex: Boulder Committee Revisited." *Nature Reviews Neuroscience* 9, no. 2: 110–122. <https://doi.org/10.1038/nrn2252>.
- Bystron, I., Z. Molnár, V. Otellin, and C. Blakemore. 2005. "Tangential Networks of Precocious Neurons and Early Axonal Outgrowth in the Embryonic Human Forebrain." *Journal of Neuroscience* 25, no. 11: 2781–2792. <https://doi.org/10.1523/JNEUROSCI.4770-04.2005>.
- Chi, J. G., E. C. Dooling, and F. H. Gilles. 1977. "Gyral Development of the Human Brain." *Annals of Neurology* 1: 86–93.
- Cho, K. H., S. Mori, H. S. Jang, et al. 2014. "The Habenulo-Interpeduncular and Mammillothalamic Tracts: Early Developed Fiber Tracts in the Human Fetal Diencephalon." *Child's Nervous System* 30, no. 9: 1477–1484. <https://doi.org/10.1007/s00381-014-2432-5>.
- Clark, L. G., J. Beattie, G. Riddoch, and N. M. Dott. 1938. "The Hypothalamus: Morphological, Functional, Clinical and Surgical Aspects." *Nature* 142: 595–595. <https://doi.org/10.1038/142595c0>.
- Cooper, E. R. A. 1945. "The Development of the Human Lateral Geniculate Body." *Brain: A Journal of Neurology* 68, no. 3: 222–239. <https://doi.org/10.1093/brain/68.3.222>.
- Crick, F., and E. Jones. 1993. "Backwardness of Human Neuroanatomy." *Nature* 361, no. 6408: 109–110. <https://doi.org/10.1038/361109a0>.
- Crosby, E., and R. Woodburne. 1940. "The Hypothalamus and Central Levels of Autonomic Function. III. The Comparative Anatomy of the Pre-optic Area and the Hypothalamus." *Research Publications – Association for Research in Nervous and Mental Disease* 20: 51–169.
- Ding, S., J. J. Royall, S. M. Sunkin, et al. 2016. "Comprehensive Cellular-Resolution Atlas of the Adult Human Brain." *Journal of Comparative Neurology* 524, no. 16: 3127–3481. <https://doi.org/10.1002/cne.24080>.
- Ding, S.-L., J. J. Royall, P. Lesnar, et al. 2022. "Cellular Resolution Anatomical and Molecular Atlases for Prenatal Human Brains." *Journal of Comparative Neurology* 530, no. 1: 6–503. <https://doi.org/10.1002/cne.25243>.
- Dong, H. W. 2008. *The Allen Reference Atlas: A Digital Color Brain Atlas of the C57Bl/6J Male Mouse*. Hoboken: John Wiley & Sons Inc.
- Eze, U. C., A. Bhaduri, M. Haeussler, T. J. Nowakowski, and A. R. Kriegstein. 2021. "Single-Cell Atlas of Early Human Brain Development Highlights Heterogeneity of Human Neuroepithelial Cells and Early Radial Glia." *Nature Neuroscience* 24, no. 4: 584–594. <https://doi.org/10.1038/s41593-020-00794-1>.
- Forutan, F., J. K. Mai, K. W. Ashwell, et al. 2001. "Organisation and Maturation of the Human Thalamus as Revealed by CD15." *Journal of Comparative Neurology* 437, no. 4: 476–495. <https://doi.org/10.1002/cne.1296>.
- Geniec, P., and D. K. Morest. 1971. "The Neuronal Architecture of the Human Posterior Colliculus. A Study With the Golgi Method." *Acta Oto-Laryngologica. Supplementum* 295: 1–33.
- Gholipour, A., C. K. Rollins, C. Velasco-Annis, et al. 2017. "A Normative Spatiotemporal MRI Atlas of the Fetal Brain for Automatic Segmentation and Analysis of Early Brain Growth." *Scientific Reports* 7, no. 1: 476. <https://doi.org/10.1038/s41598-017-00525-w>.

- Hansen, D. V., J. H. Lui, P. R. L. Parker, and A. R. Kriegstein. 2010. "Neurogenic Radial Glia in the Outer Subventricular Zone of Human Neocortex." *Nature* 464, no. 7288: 554–561. <https://doi.org/10.1038/nature08845>.
- Hawrylycz, M., R. A. Baldock, A. Burger, et al. 2011. "Digital Atlas and Standardization in the Mouse Brain." *PLoS Computational Biology* 7, no. 2: e1001065. <https://doi.org/10.1371/journal.pcbi.1001065>.
- Hevner, R. F., and H. C. Kinney. 1996. "Reciprocal Entorhinal-Hippocampal Connections Established by Human Fetal Midgestation." *Journal of Comparative Neurology* 372, no. 3: 384–394. [https://doi.org/10.1002/\(SICI\)1096-9861\(19960826\)372:3<384::AID-CNE4>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1096-9861(19960826)372:3<384::AID-CNE4>3.0.CO;2-Z).
- Hitchcock, P. F., and T. L. Hickey. 1980. "Prenatal Development of the Human Lateral Geniculate Nucleus." *Journal of Comparative Neurology* 194, no. 2: 395–411. <https://doi.org/10.1002/cne.901940207>.
- Jacobs, B., M. E. Garcia, N. B. Shea-Shumsky, et al. 2018. "Comparative Morphology of Gigantopyramidal Neurons in Primary Motor Cortex Across Mammals." *Journal of Comparative Neurology* 526, no. 3: 496–536. <https://doi.org/10.1002/cne.24349>.
- Jones, E. G. 2007. "The Thalamus", Second. ed. University of California, Davis, USA: Cambridge University Press.
- Karthik, S., J. Joseph, J. Jayakumar, et al. 2023. "Wide Field Block Face Imaging Using Deep Ultraviolet Induced Autofluorescence of the Human Brain." *Journal of Neuroscience Methods* 397: 109921. <https://doi.org/10.1016/j.jneumeth.2023.109921>.
- Kier, E. L., J. H. Kim, R. K. Fulbright, and R. A. Bronen. 1997. "Embryology of the Human Fetal Hippocampus: MR Imaging, Anatomy, and Histology." *AJNR American Journal of Neuroradiology* 18, no. 3: 525–532.
- Kim, C. N., D. Shin, A. Wang, and T. J. Nowakowski. 2023. "Spatiotemporal Molecular Dynamics of the Developing Human Thalamus." *Science* 382, no. 6667: eadf9941. <https://doi.org/10.1126/science.adf9941>.
- Kopić, J., A. Junaković, I. Salamon, M.-R. Rasin, I. Kostović, and Ž. Kršnik. 2023. "Early Regional Patterning in the Human Prefrontal Cortex Revealed by Laminar Dynamics of Deep Projection Neuron Markers." *Cells* 12, no. 2: 231. <https://doi.org/10.3390/cells12020231>.
- Kostović, I. 1986. "Prenatal Development of Nucleus Basalis Complex and Related Fiber Systems in Man: A Histochemical Study." *Neuroscience* 17, no. 4: 1047–1077. [https://doi.org/10.1016/0306-4522\(86\)90077-1](https://doi.org/10.1016/0306-4522(86)90077-1).
- Kostovic, I., M. Judas, L. Kostovic-Knezevic, et al. 1991. "Zagreb Research Collection of Human Brains for Developmental Neurobiologists and Clinical Neuroscientists." *International Journal of Developmental Biology* 35, no. 3: 215–230.
- Kostovic, I., and P. Rakic. 1990. "Developmental History of the Transient Subplate Zone in the Visual and Somatosensory Cortex of the Macaque Monkey and Human Brain." *Journal of Comparative Neurology* 297, no. 3: 441–470. <https://doi.org/10.1002/cne.902970309>.
- Kostović, I., L. Seress, L. Mrzljak, and M. Judas. 1989. "Early Onset of Synapse Formation in the Human Hippocampus: A Correlation With Nissl-Golgi Architectonics in 15- and 16.5-Week-Old Fetuses." *Neuroscience* 30, no. 1: 105–116. [https://doi.org/10.1016/0306-4522\(89\)90357-6](https://doi.org/10.1016/0306-4522(89)90357-6).
- Koutcherov, Y., J. K. Mai, K. W. S. Ashwell, and G. Paxinos. 2002. "Organization of Human Hypothalamus in Fetal Development." *Journal of Comparative Neurology* 446, no. 4: 301–324. <https://doi.org/10.1002/cne.10175>.
- Kršnik, Ž., V. Majić, L. Vasung, H. Huang, and I. Kostović. 2017. "Growth of Thalamocortical Fibers to the Somatosensory Cortex in the Human Fetal Brain." *Frontiers in Neuroscience* 11: 233. <https://doi.org/10.3389/fnins.2017.00233>.
- Kumarasami, R., R. Verma, K. Pandurangan, et al. 2023. "A Technology Platform for Standardized Cryoprotection and Freezing of Large-Volume Brain Tissues for High-Resolution Histology." *Frontiers in Neuroanatomy* 17: 1292655. <https://doi.org/10.3389/fnana.2023.1292655>.
- Li, Z., F. Xu, Z. Zhang, et al. 2019. "Morphologic Evolution and Coordinated Development of the Fetal Lateral Ventricles in the Second and Third Trimesters." *AJNR: American Journal of Neuroradiology* 40, no. 4: 718–725. <https://doi.org/10.3174/ajnr.A6013>.
- Lin, M. K., Y. S. Takahashi, B.-X. Huo, et al. 2019. "A High-Throughput Neurohistological Pipeline for Brain-Wide Mesoscale Connectivity Mapping of the Common Marmoset." *Elife* 8: e40042. <https://doi.org/10.7554/eLife.40042>.
- Livingston, C. A., and M. J. Mustari. 2000. "The Anatomical Organization of the Macaque Pregeniculate Complex." *Brain Research* 876, no. 1–2: 166–179. [https://doi.org/10.1016/S0006-8993\(00\)02647-0](https://doi.org/10.1016/S0006-8993(00)02647-0).
- Lowe, D. G. 2004. "Distinctive Image Features From Scale-Invariant Keypoints." *International Journal of Computer Vision* 60, no. 2: 91–110. <https://doi.org/10.1023/B:VISI.0000029664.99615.94>.
- Mai, J., and K. Ashwell. 2004. "Fetal Development of the Central Nervous System." In *The Human Nervous System*, 49–94. <https://doi.org/10.1016/B978-012547626-3/50004-1>.
- Mai, J. K., and M. Majtanik. 2019. "Toward a Common Terminology for the Thalamus." *Frontiers in Neuroanatomy* 12: 114.
- Mai, J. K., and C. Schönlau. 1992. "Age-Related Expression Patterns of the CD15 Epitope in the Human Lateral Geniculate Nucleus (LGN)." *Histochemical Journal* 24, no. 11: 878–889. <https://doi.org/10.1007/BF01046359>.
- Manger, P. R. 2020. "Consistencies and Variances in the Anatomical Organization of Aspects of the Mammalian Brain Stem." In *Evolutionary Neuroscience*, edited by J. H. Kaas, 377–396. Cambridge: Academic Press. <https://doi.org/10.1016/B978-0-12-820584-6.00015-5>.
- Martinez, K., and J. Cupitt. 2005. "VIPS—A Highly Tuned Image Processing Software Architecture." *IEEE International Conference on Image Processing 2005* 2: 574. <https://doi.org/10.1109/ICIP.2005.1530120>.
- Molnár, Z. 2011. "The Need for Research on Human Brain Development." *Brain* 134, no. 7: 2177–2185. <https://doi.org/10.1093/brain/awr140>.
- Mulc, D., D. Smilović, Ž. Kršnik, et al. 2024. "Fetal Development of the Human Amygdala." *Journal of Comparative Neurology* 532, no. 1: e25580. <https://doi.org/10.1002/cne.25580>.
- Nagalski, A., L. Puelles, M. Dabrowski, T. Wegierski, J. Kuznicki, and M. B. Wisniewska. 2016. "Molecular Anatomy of the Thalamic Complex and the Underlying Transcription Factors." *Brain Structure & Function* 221: 2493–2510. <https://doi.org/10.1007/s00429-015-1052-5>.
- Namburete, A. I. L., B. W. Papież, M. Fernandes, et al. 2023. "Normative Spatiotemporal Fetal Brain Maturation With Satisfactory Development at 2 Years." *Nature* 623, no. 7985: 106–114. <https://doi.org/10.1038/s41586-023-06630-3>.
- Narayanan, H., S. Chandrasekaran, J. K. Vasan, R. Kumarasami, M. Sivaprakasam, and J. Joseph. 2023. "Cover Slip Handling and Mounting Media Dispensation for Reliable Automated Cover Slipping of Large Tissue Sections." In *2023 IEEE International Symposium on Medical Measurements and Applications (MeMeA) 2023*. Second ed. edited by G. Paxinos, and J. K. Mai, San Diego: Academic Press. 1–6. <https://doi.org/10.1109/MeMeA57477.2023.10171950>.
- Nikolić, I., and I. Kostović. 1986. "Development of the Lateral Amygdaloid Nucleus in the Human Fetus: Transient Presence of Discrete Cytoarchitectonic Units." *Anatomy and Embryology* 174, no. 3: 355–360. <https://doi.org/10.1007/BF00698785>.
- Nolan, M., C. Scott, P. R. Hof, and O. Ansorge. 2024. "Betz Cells of the Primary Motor Cortex." *Journal of Comparative Neurology* 532, no. 1: e25567. <https://doi.org/10.1002/cne.25567>.
- Paxinos, G., C. Watson, M. Petrides, M. Rosa, and H. Tokuno. 2012. *The Marmoset Brain in Stereotaxic Coordinates*. Amsterdam: Elsevier Science.
- Pinskiy, V., J. Jones, A. S. Tolpygo, N. Franciotti, K. Weber, and P. P. Mitra. 2015. "High-Throughput Method of Whole-Brain Sectioning, Using the Tape-Transfer Technique." *PLoS ONE* 10, no. 7: e0102363. <https://doi.org/10.1371/journal.pone.0102363>.
- Pinskiy, V., A. S. Tolpygo, J. Jones, K. Weber, N. Franciotti, and P. P. Mitra. 2013. "A Low-Cost Technique to Cryo-Protect and Freeze Rodent

- Brains, Precisely Aligned to Stereotaxic Coordinates for Whole-Brain Cryosectioning." *Journal of Neuroscience Methods* 218, no. 2: 206–213. <https://doi.org/10.1016/j.jneumeth.2013.03.004>.
- Puelles, L., M. Harrison, G. Paxinos, and C. Watson. 2013. "A Developmental Ontology for the Mammalian Brain Based on the Prosomeric Model." *Trends in Neurosciences* 36, no. 10: 570–578. <https://doi.org/10.1016/j.tins.2013.06.004>.
- Puelles, L., and J. L. R. Rubenstein. 1993. "Expression Patterns of Homeobox and Other Putative Regulatory Genes in the Embryonic Mouse Forebrain Suggest a Neuromeric Organization." *Trends in Neurosciences* 16, no. 11: 472–479. [https://doi.org/10.1016/0166-2236\(93\)90080-6](https://doi.org/10.1016/0166-2236(93)90080-6).
- Rakic, P. 1968. "Studies of the Processes of Proliferation, Migration, and Differentiation of Neuroblasts During Mammalian Neurogenesis." PhD Thesis. University of Belgrade Medical School.
- Rakic, P. 1988. "Specification of Cerebral Cortical Areas." *Science (New York, N.Y.)* 241, no. 4862: 170–176. <https://doi.org/10.1126/science.3291116>.
- Silbereis, J. C., S. Pochareddy, Y. Zhu, M. Li, and N. Sestan. 2016. "The Cellular and Molecular Landscapes of the Developing Human Central Nervous System." *Neuron* 89, no. 2: 248–268. <https://doi.org/10.1016/j.neuron.2015.12.008>.
- Simerly, R. B. 2015. "Organization of the Hypothalamus." In *The Rat Nervous System*, edited by G. Paxinos, 267–294. Cambridge: Academic Press. <https://doi.org/10.1016/B978-0-12-374245-2.00013-9>.
- Šimić, G., Ž. Krsnik, V. Knezović, et al. 2022. "Prenatal Development of the Human Entorhinal Cortex." *Journal of Comparative Neurology* 530, no. 15: 2711–2748. <https://doi.org/10.1002/cne.25344>.
- Sithambaram, P., R. Kumarasami, M. Sivaprakasam, and J. Joseph. 2023. "Image Quality Assessment of Large Tissue Samples Stained Using a Customized Automated Slide Stainer." In *2023 IEEE International Symposium on Medical Measurements and Applications (MeMeA) 2023*, 1–6. <https://doi.org/10.1109/MeMeA57477.2023.10171900>.
- Sorvari, H., H. Soininen, L. Paljärvi, K. Karkola, and A. Pitkänen. 1995. "Distribution of Parvalbumin-Immunoreactive Cells and Fibers in the Human Amygdaloid Complex." *Journal of Comparative Neurology* 360, no. 2: 185–212. <https://doi.org/10.1002/cne.903600202>.
- Spruston, N. 2008. "Pyramidal Neurons: Dendritic Structure and Synaptic Integration." *Nature Reviews Neuroscience* 9, no. 3: 206–221. <https://doi.org/10.1038/nrn2286>.
- Stiles, J., and T. L. Jernigan. 2010. "The Basics of Brain Development." *Neuropsychology Review* 20, no. 4: 327–348. <https://doi.org/10.1007/s11065-010-9148-4>.
- Sun, C., Y. Wang, R. Cui, et al. 2018. "Human Thalamic-Prefrontal Peduncle Connectivity Revealed by Diffusion Spectrum Imaging Fiber Tracking." *Frontiers in Neuroanatomy* 12: 24. <https://doi.org/10.3389/fnana.2018.00024>.
- Swanson, L. W. 2018. "Brain Maps 4.0—Structure of the Rat Brain: An Open Access Atlas With Global Nervous System Nomenclature Ontology and Flatmaps." *Journal of Comparative Neurology* 526, no. 6: 935–943. <https://doi.org/10.1002/cne.24381>.
- Tardif, E., and S. Clarke. 2001. "Intrinsic Connectivity of Human Auditory Areas: A Tracing Study With DiI." *European Journal of Neuroscience* 13, no. 5: 1045–1050. <https://doi.org/10.1046/j.0953-816x.2001.01456.x>.
- Ulfing, N., J. Nickel, and J. Bohl. 1998. "Transient Features of the Thalamic Reticular Nucleus in the Human Foetal Brain." *European Journal of Neuroscience* 10, no. 12: 3773–3784. <https://doi.org/10.1046/j.1460-9568.1998.00390.x>.
- Ulfing, N., M. Setzer, and J. Bohl. 1998. "Transient Architectonic Features in the Basolateral Amygdala of the Human Fetal Brain." *Acta Anatomica* 163, no. 2: 99–112. <https://doi.org/10.1159/000046489>.
- Vasung, L., E. Abaci Turk, S. L. Ferradal, et al. 2019. "Exploring Early Human Brain Development With Structural and Physiological Neuroimaging." *Neuroimage* 187: 226–254. <https://doi.org/10.1016/j.neuroimage.2018.07.041>.
- Vasung, L., C. Lepage, M. Radoš, et al. 2016. "Quantitative and Qualitative Analysis of Transient Fetal Compartments During Prenatal Human Brain Development." *Frontiers in Neuroanatomy* 10: 11. <https://doi.org/10.3389/fnana.2016.00011>.
- Verma, R., J. Jayakumar, R. Folkerth, et al. 2024. "Histological Characterization and Development of Mesial Surface Sulci in the Human Brain at 13–15 Gestational Weeks Through High-Resolution Histology." *Journal of Comparative Neurology* 532, no. 4: e25612. <https://doi.org/10.1002/cne.25612>.
- Watson, C., C. Bartholomaeus, and L. Puelles. 2019. "Time for Radical Changes in Brain Stem Nomenclature—Applying the Lessons From Developmental Gene Patterns." *Frontiers in Neuroanatomy* 13: 10. <https://doi.org/10.3389/fnana.2019.00010>.
- Woodward, A., T. Hashikawa, M. Maeda, et al. 2018. "The Brain/MINDS 3D Digital Marmoset Brain Atlas." *Scientific Data* 5, no. 1: 180009. <https://doi.org/10.1038/sdata.2018.9>.
- Yamaguchi, K. 2018. "Development of the Human Lateral Geniculate Nucleus: A Morphometric and Computerized 3D-Reconstruction Study." *Neuroscience Letters* 676: 1–7. <https://doi.org/10.1016/j.neulet.2018.04.002>.
- Zhang, Z., Z. Hou, X. Lin, et al. 2013. "Development of the Fetal Cerebral Cortex in the Second Trimester: Assessment With 7T Postmortem MR Imaging." *AJNR American Journal of Neuroradiology* 34, no. 7: 1462–1467. <https://doi.org/10.3174/ajnr.A3406>.
- Zhang, Z., S. Liu, X. Lin, B. Sun, T. Yu, and H. Geng. 2010. "Development of Fetal Cerebral Cortex: Assessment of the Folding Conditions With Post-Mortem Magnetic Resonance Imaging." *International Journal of Developmental Neuroscience: The Official Journal of the International Society for Developmental Neuroscience* 28, no. 6: 537–543. <https://doi.org/10.1016/j.ijdevneu.2010.05.001>.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Appendix A

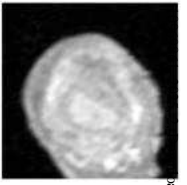
This article includes an online appendix which includes the Atlas Plates from 14 to 24 gestational weeks (GW). This plate section appears in the online PDF of the article (appended to the end of the article), and is also included as a standalone section as a PDF file in the supporting information.

14 Gestational Week (GW)

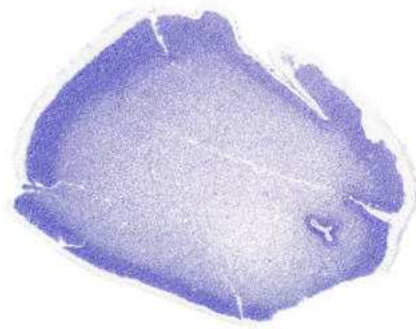
Sagittal

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Age: 14 GW

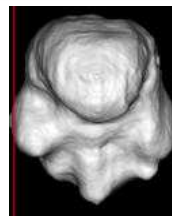


L-R Level: 12.78 mm



5 mm

Age: 14 GW



L-R Level: 12.78 mm

Transient Layers

- SP
- CP
- MZ
- SGL



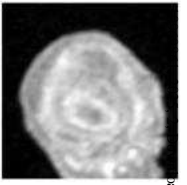
Cortical Areas

- TEMP

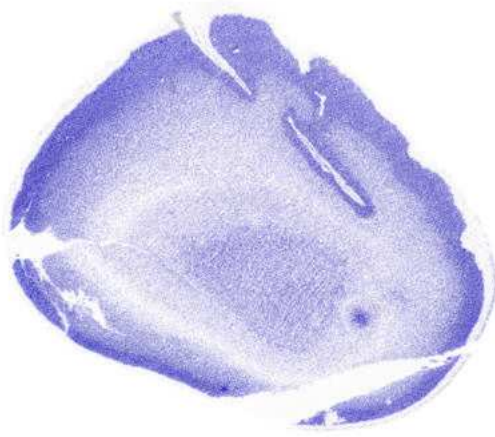


5 mm

Age: 14 GW

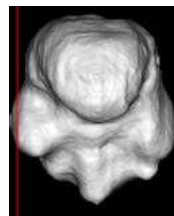


L-R Level: 12.3 mm



5 mm

Age: 14 GW



L-R Level: 12.3 mm

Transient Layers

- IZ
- SP
- CP
- MZ
- SGL

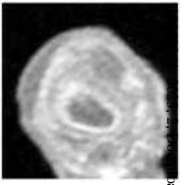
Cortical Areas

- TEMP

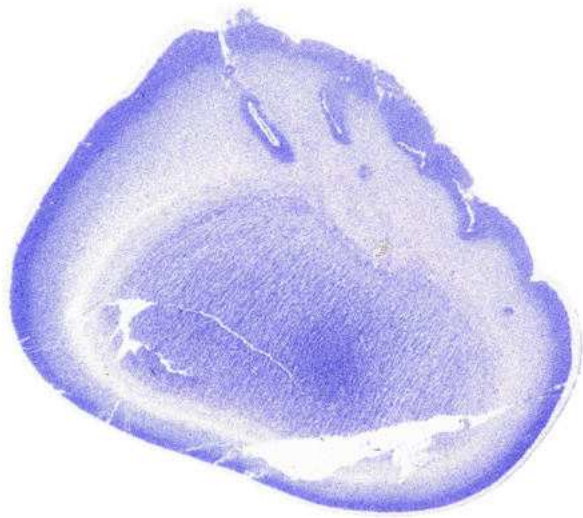


5 mm

Age: 14 GW

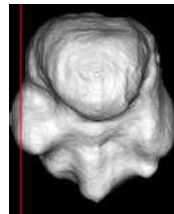


L-R Level: 11.7 mm



5 mm

Age: 14 GW



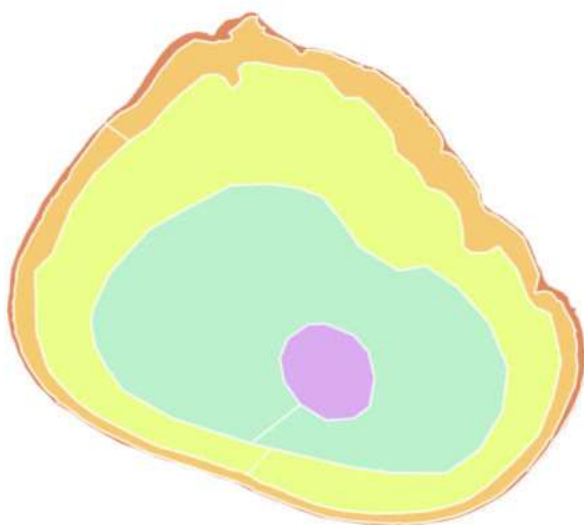
L-R Level: 11.7 mm

Transient Layers

- SVZ
- IZ
- SP
- CP
- MZ
- SGL

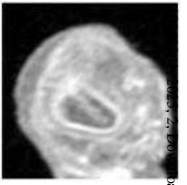
Cortical Areas

- TEMP

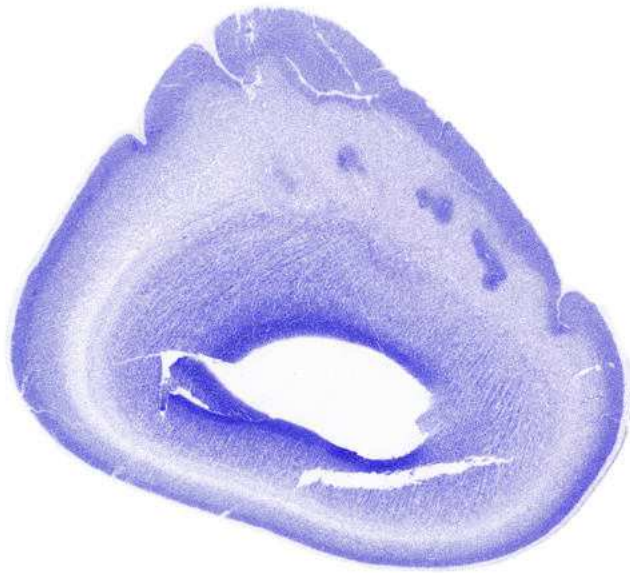


5 mm

Age: 14 GW

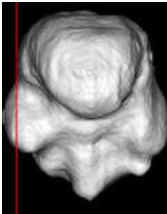


L-R Level: 11.28 mm

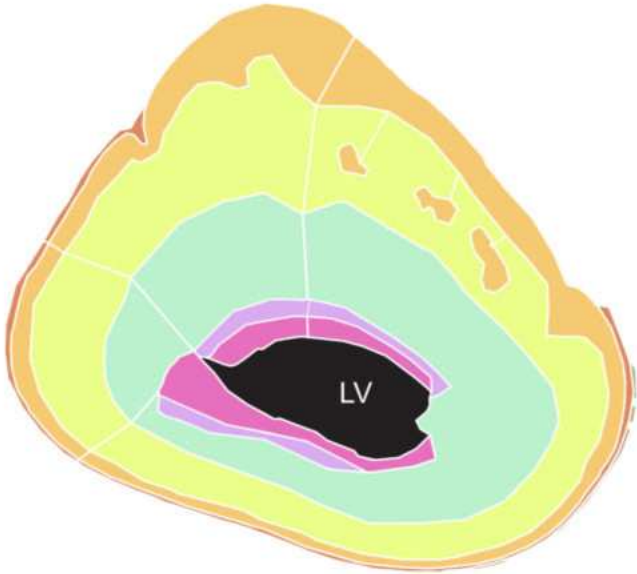
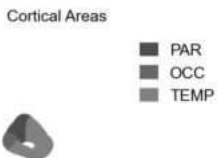
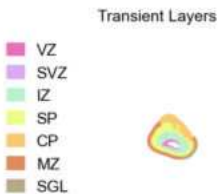


5 mm

Age: 14 GW



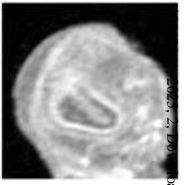
L-R Level: 11.28 mm



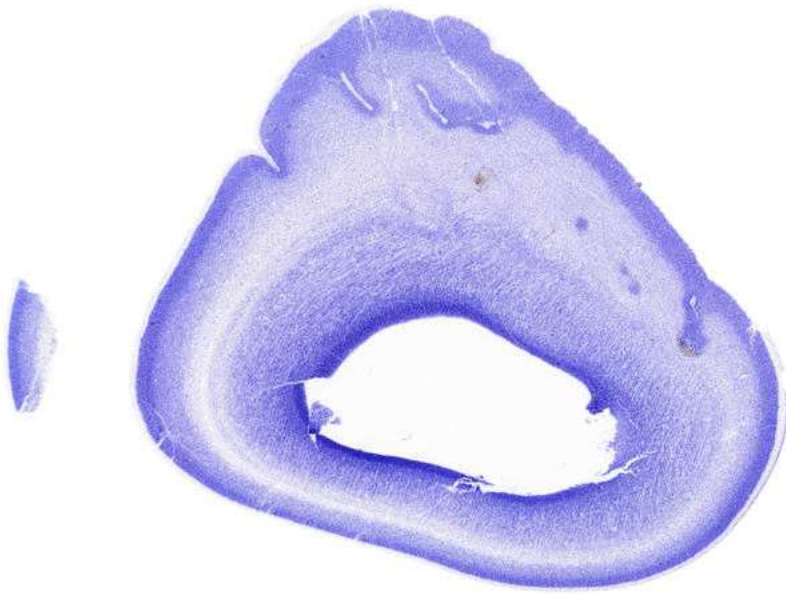
■ LV: Lateral ventricle

5 mm

Age: 14 GW

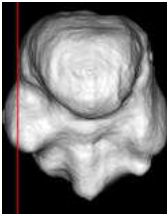


L-R Level: 11.04 mm

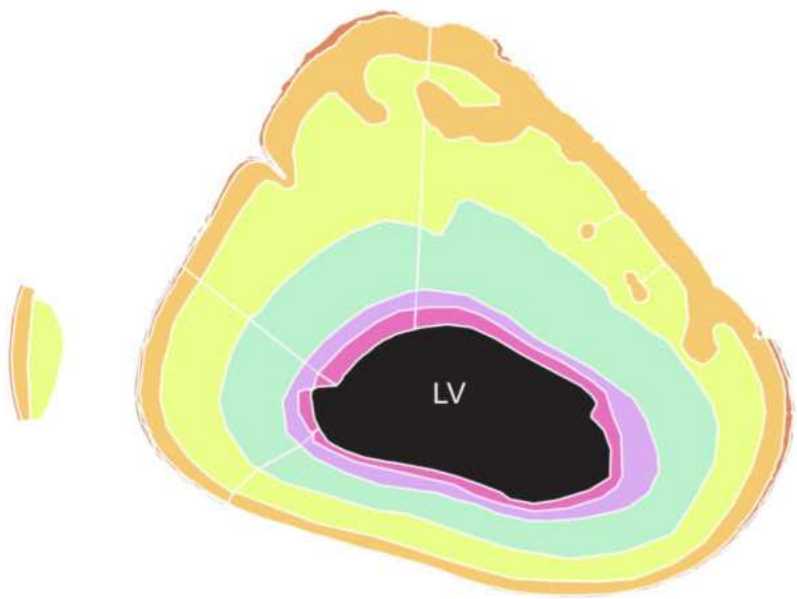
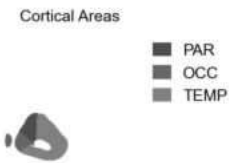
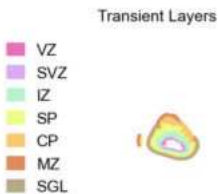


5 mm

Age: 14 GW



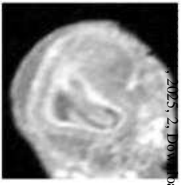
L-R Level: 11.04 mm



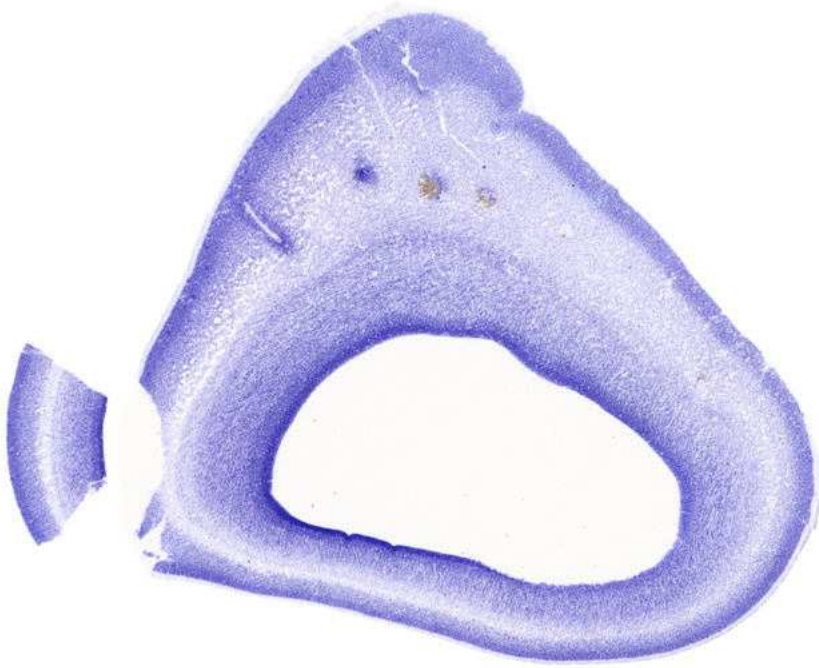
■ LV: Lateral ventricle

5 mm

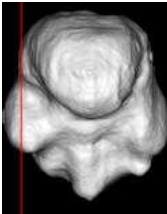
Age: 14 GW



L-R Level: 10.5 mm

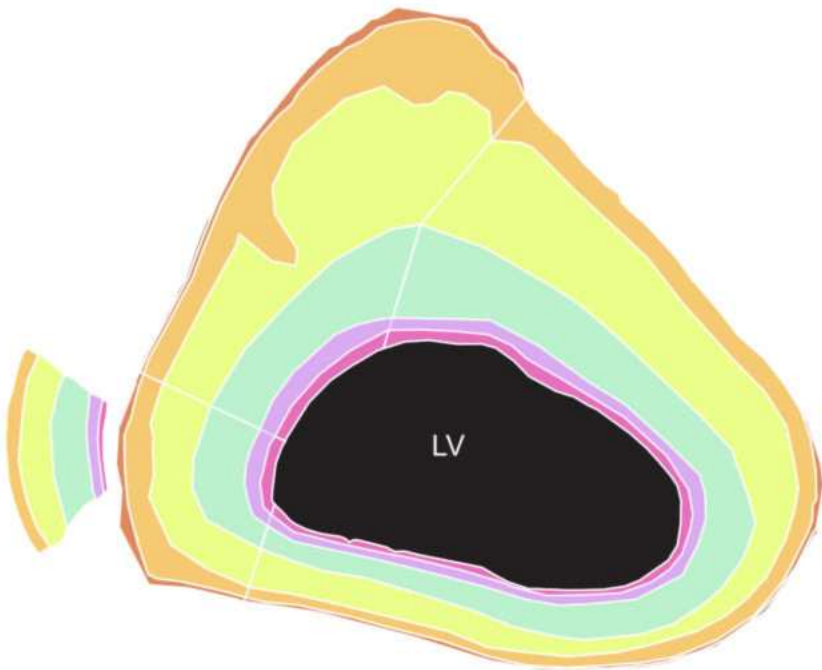


5 mm



L-R Level: 10.5 mm

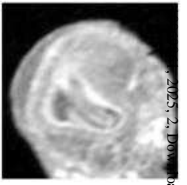
- Transient Layers
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas
- PAR
 - OCC
 - TEMP



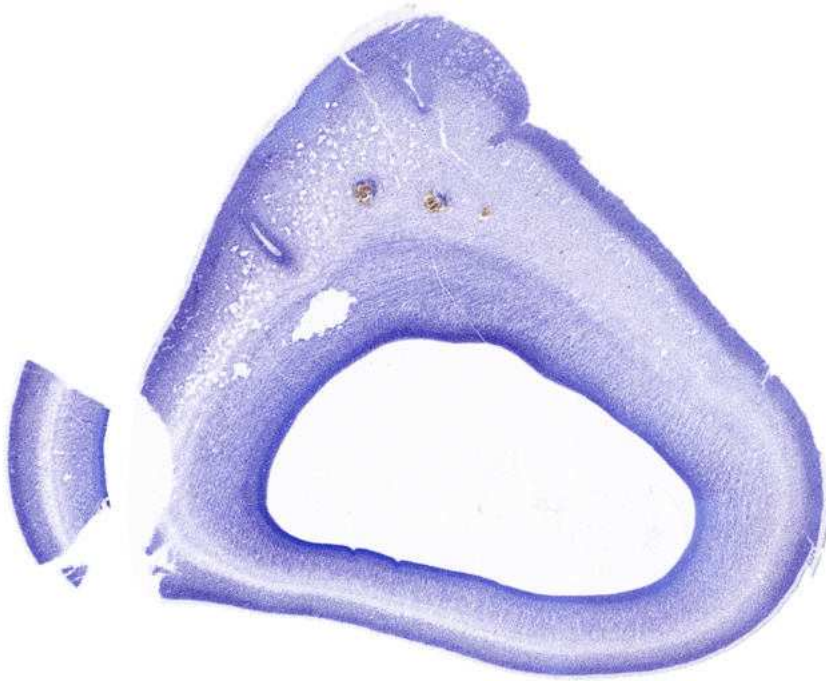
5 mm

■ LV: Lateral ventricle

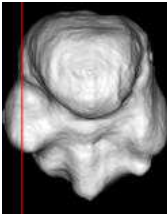
Age: 14 GW



L-R Level: 10.38 mm

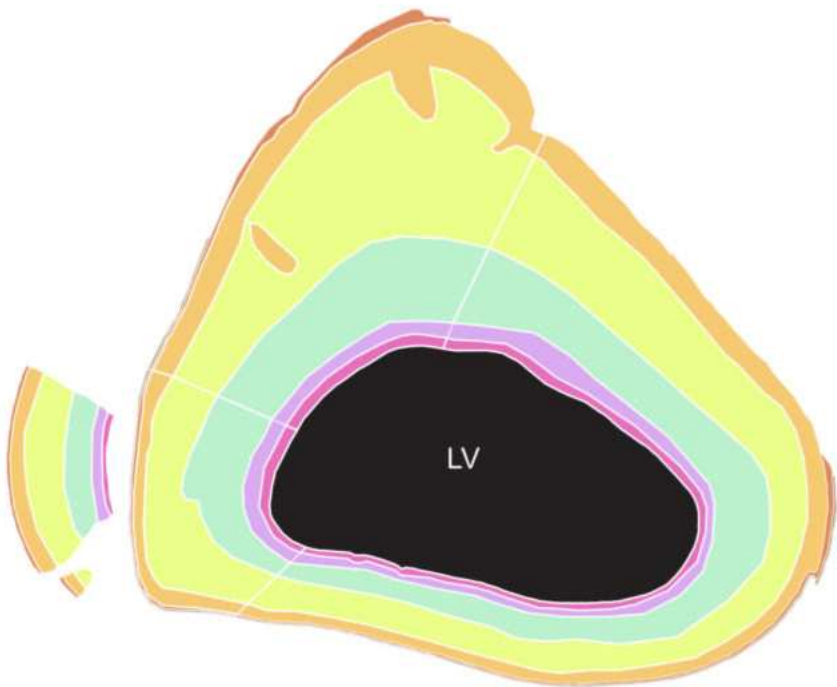


5 mm



L-R Level: 10.38 mm

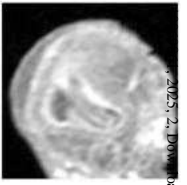
- Transient Layers
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas
- PAR
 - OCC
 - TEMP



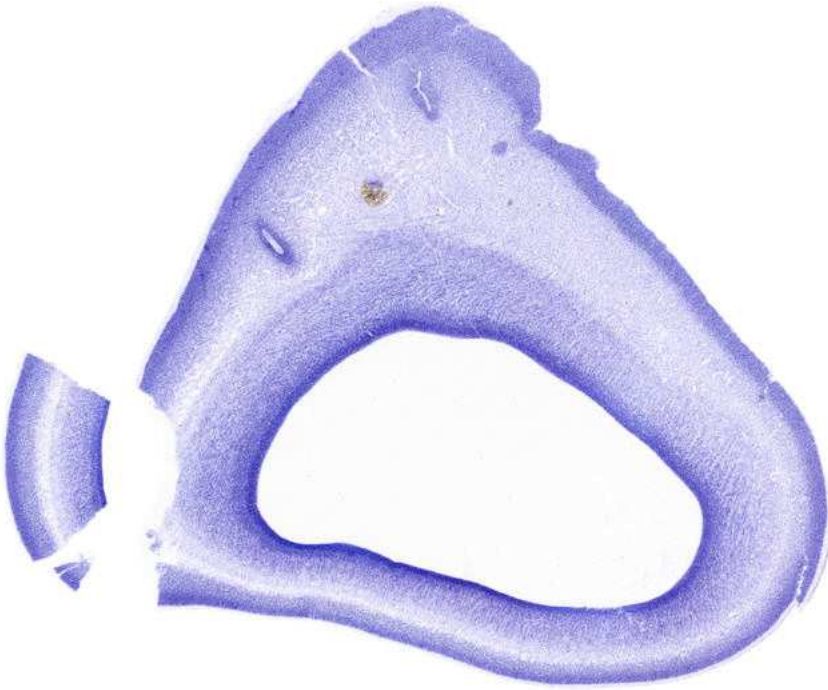
■ LV: Lateral ventricle

5 mm

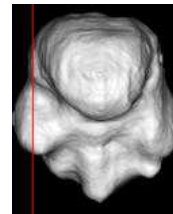
Age: 14 GW



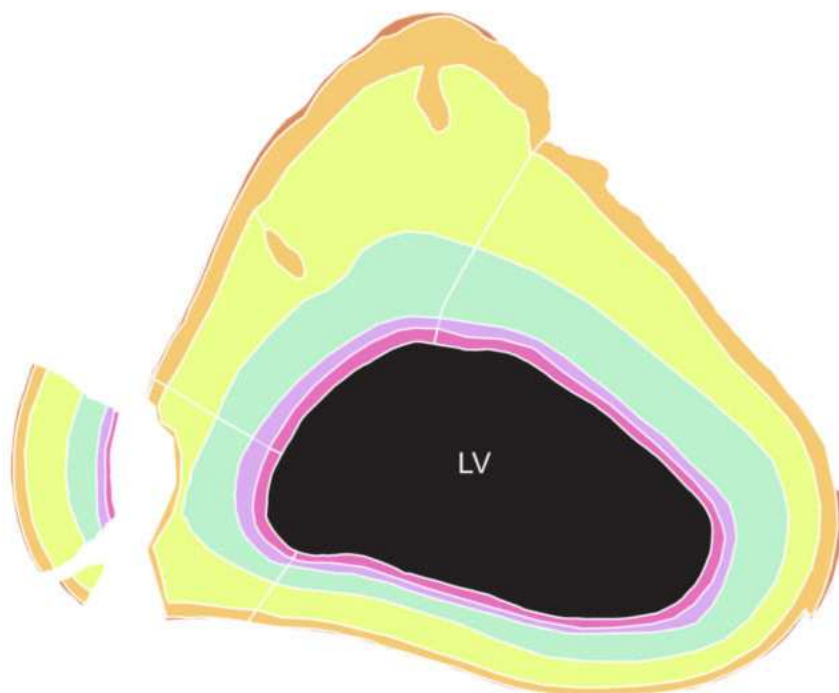
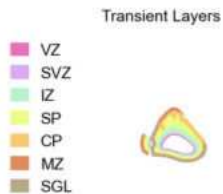
L-R Level: 10.26 mm



5 mm

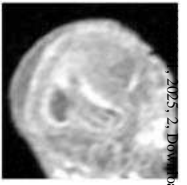


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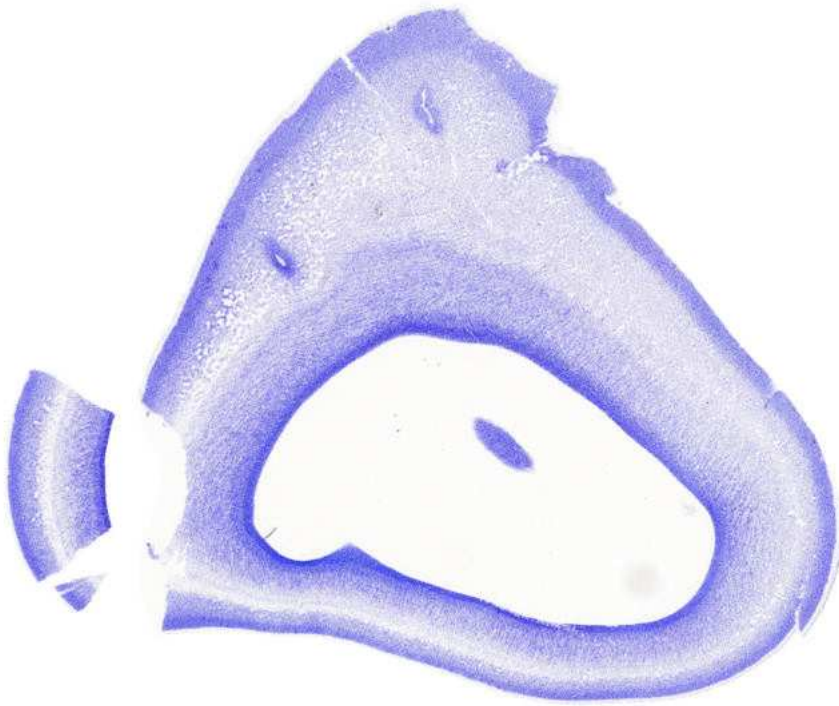


■ LV: Lateral ventricle

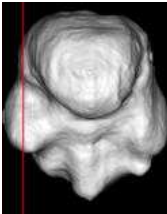
Age: 14 GW



L-R Level: 10.14 mm

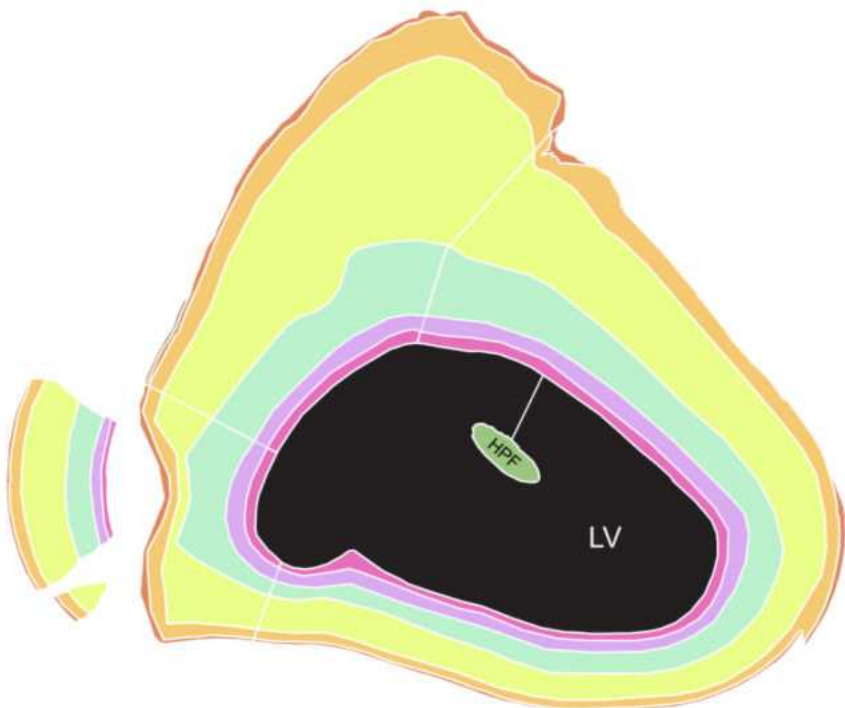


5 mm



L-R Level: 10.14 mm

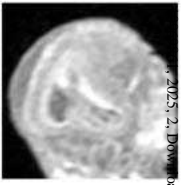
- Transient Layers
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas
- PAR
 - OCC
 - TEMP



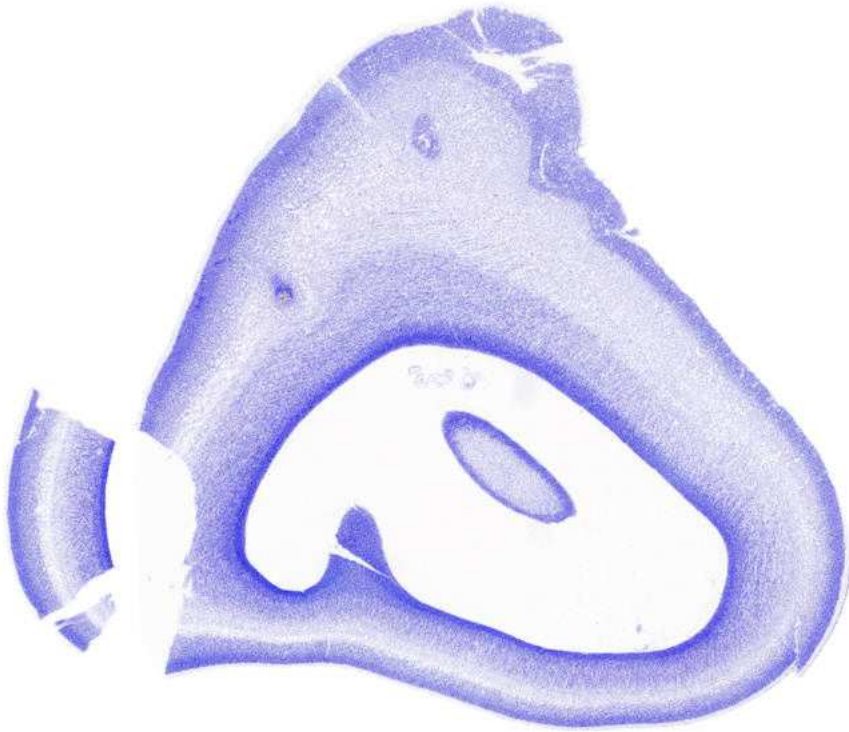
5 mm

HPF: Hippocampal formation LV: Lateral ventricle

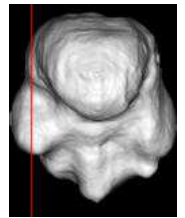
Age: 14 GW



L-R Level: 9.96 mm

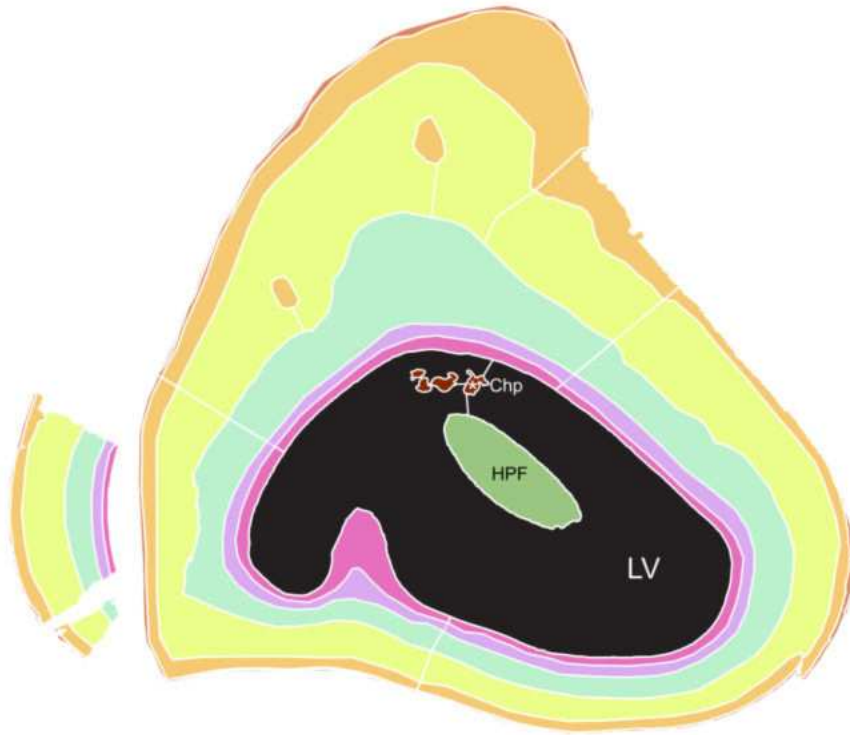


5 mm



L-R Level: 9.96 mm

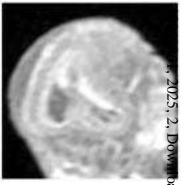
Age: 14 GW



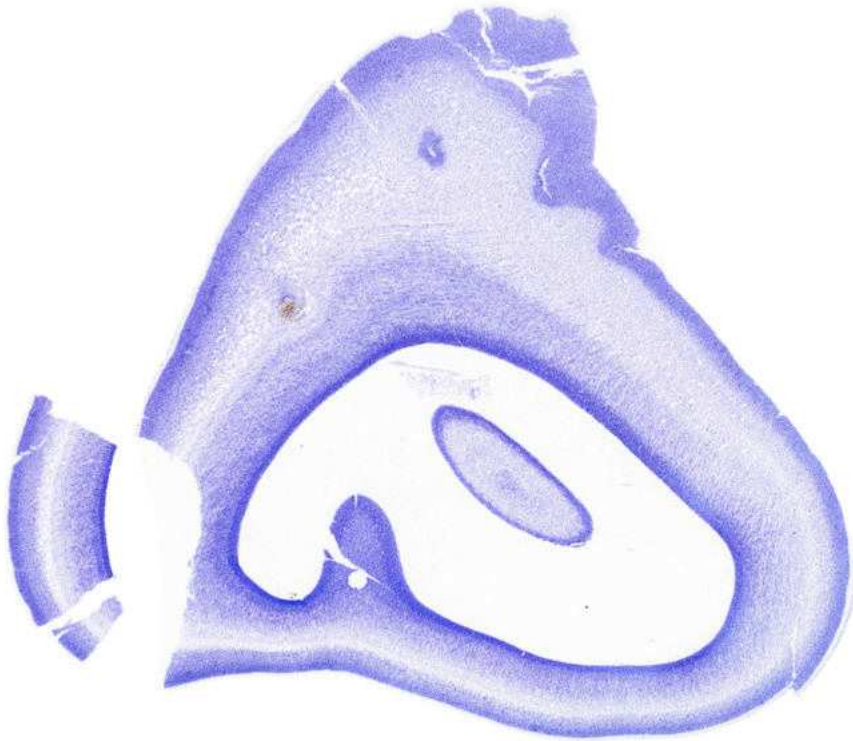
5 mm

Chp: Choroid plexus HPF: Hippocampal formation LV: Lateral ventricle

Age: 14 GW



L-R Level: 9.84 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

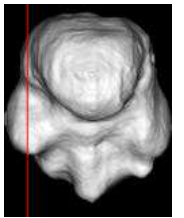


Cortical Areas

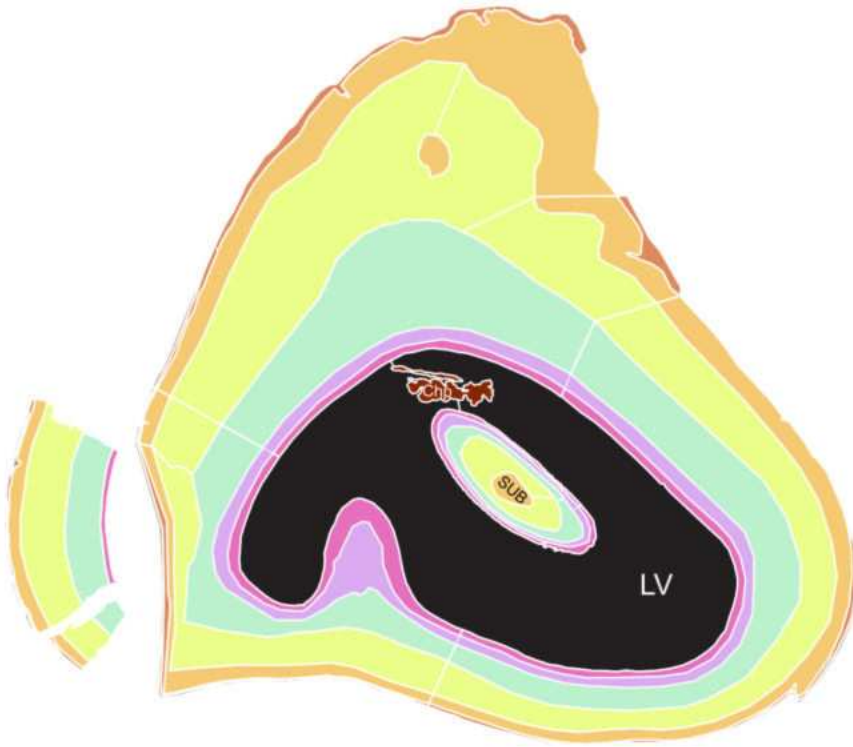
- PAR
- TEMP
- OCC
- INS



Age: 14 GW



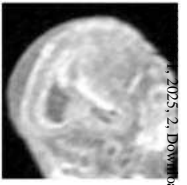
L-R Level: 9.84 mm



5 mm

- Chp: Choroid plexus
- LV: Lateral ventricle
- SUB: Cortical plate, subiculum

Age: 14 GW



L-R Level: 9.6 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

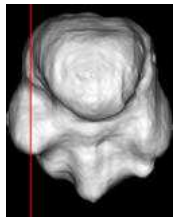


Cortical Areas

- PAR
- TEMP
- OCC
- INS



Age: 14 GW



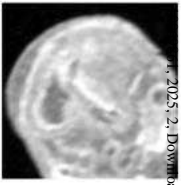
L-R Level: 9.6 mm



5 mm

- Chp: Choroid plexus
- LV: Lateral ventricle
- SUB: Cortical plate, subiculum

Age: 14 GW



L-R Level: 9.24 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

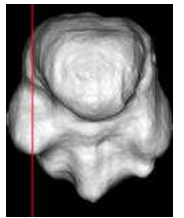


Cortical Areas

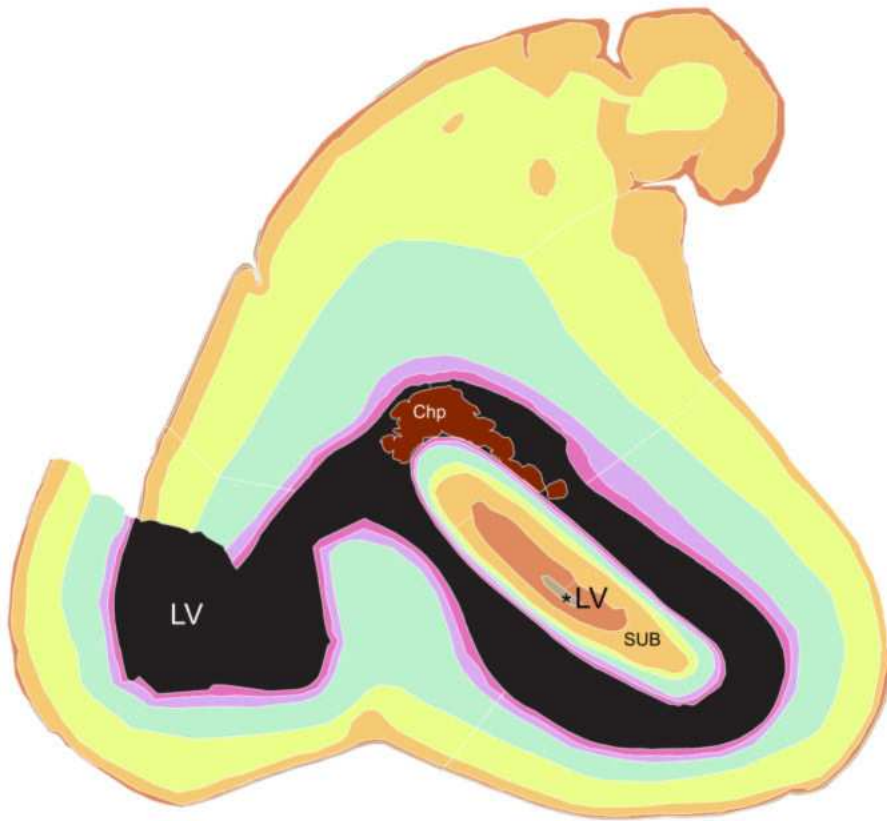
- PAR
- TEMP
- OCC
- INS



Age: 14 GW



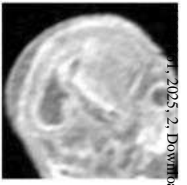
L-R Level: 9.24 mm



5 mm

- Chp: Choroid plexus
- LV: Lateral ventricle
- SUB: Cortical plate, subiculum

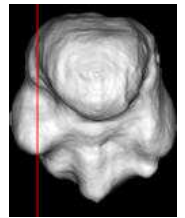
Age: 14 GW



L-R Level: 9.0 mm

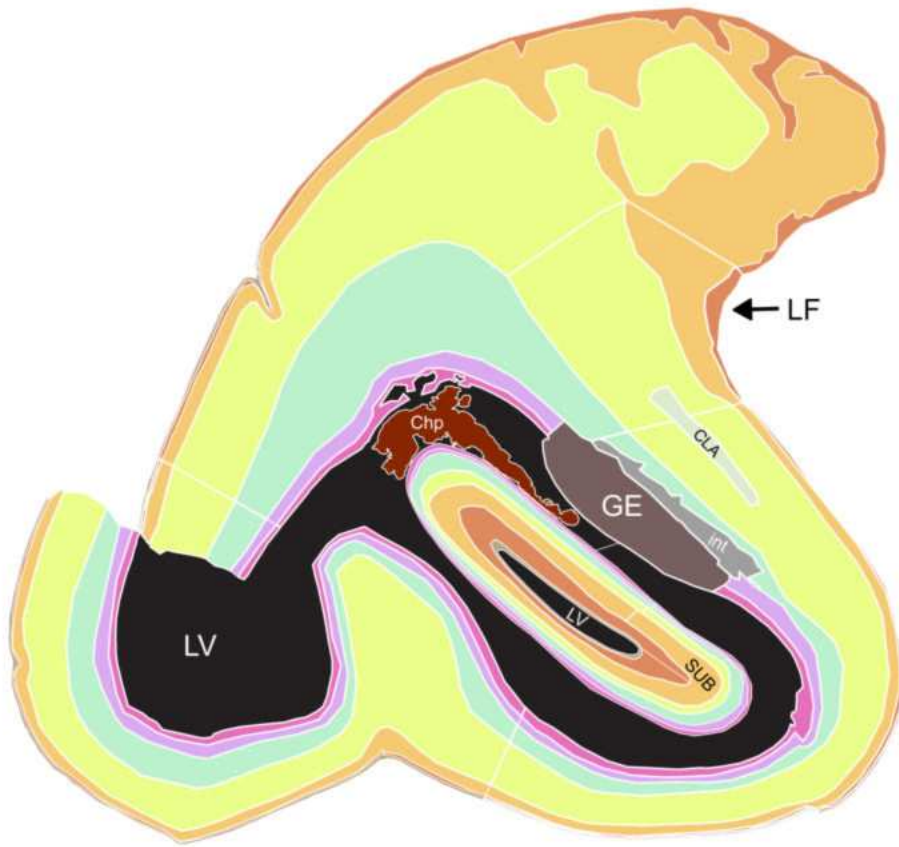
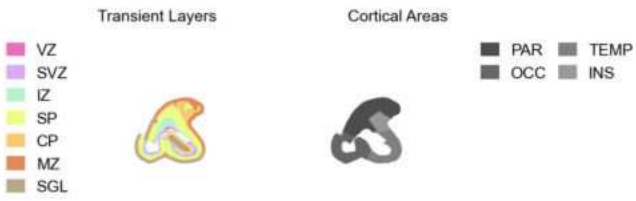


5 mm



L-R Level: 9.0 mm

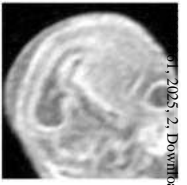
Age: 14 GW



5 mm



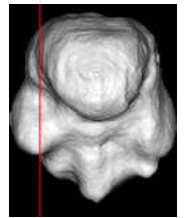
Age: 14 GW



L-R Level: 8.58 mm



5 mm



L-R Level: 8.58 mm

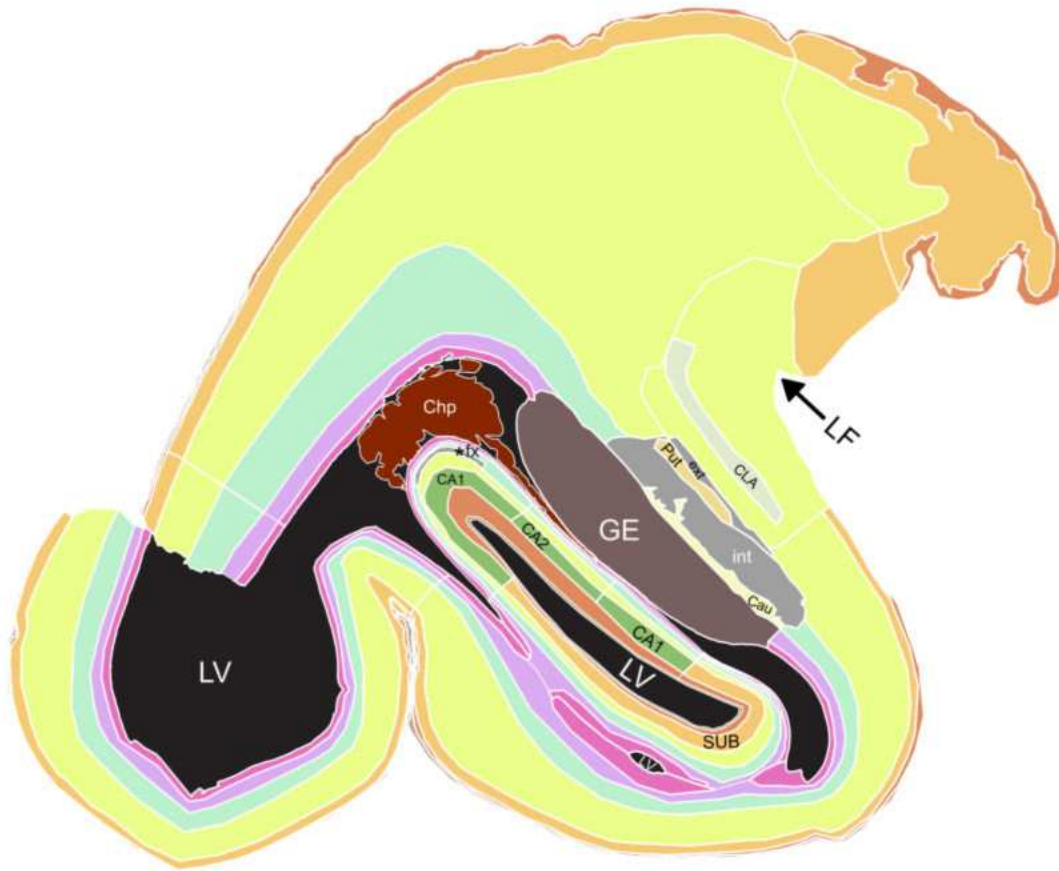
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

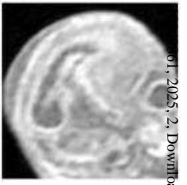
Cortical Areas

- FCTx
- PAR
- OCC
- TEMP
- INS



- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CLA: Claustrum
- Cau: Caudate nucleus
- Chp: Choroid plexus
- GE: Ganglionic eminence
- LV: Lateral ventricle
- Put: Putamen
- SUB: Cortical plate, subiculum
- ext: External capsule
- fx: Fornix
- int: Internal capsule
- Lateral fissure

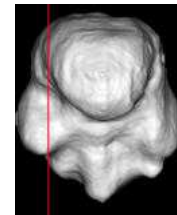
Age: 14 GW



L-R Level: 8.16 mm



5 mm



L-R Level: 8.16 mm

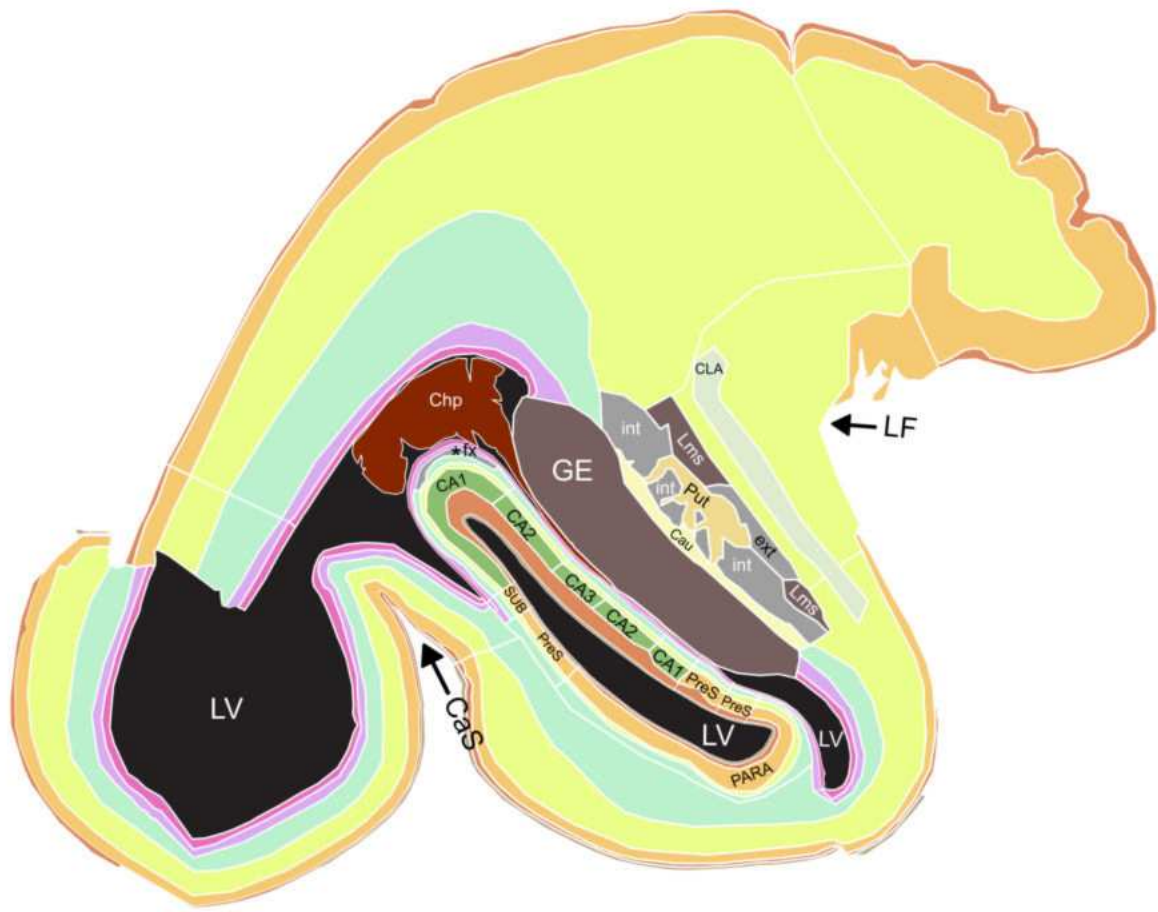
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

Cortical Areas

- FCTx
- PAR
- OCC
- TEMP
- INS

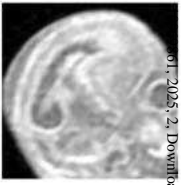


5 mm

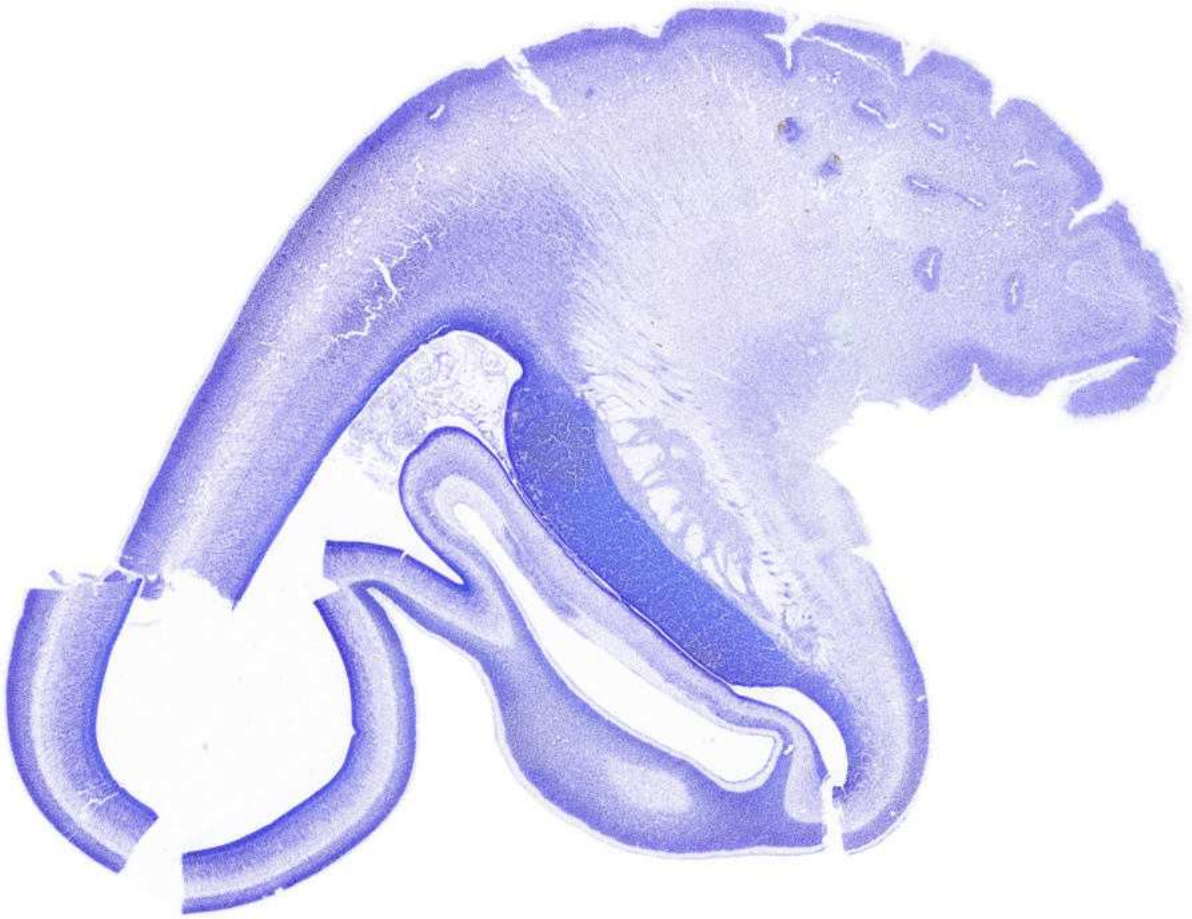
CA1: CA1 field [hippocampus]	Cau: Caudate nucleus	Lms: Lateral migratory stream	SUB: Cortical plate, subiculum
CA2: CA2 field [hippocampus]	Chp: Choroid plexus	PARA: Cortical plate, parasubiculum	ext: External capsule
CA3: CA3 field [hippocampus]	GE: Ganglionic eminence	PreS: Cortical plate, presubiculum	fx: Fornix
CLA: Claustrum	LV: Lateral ventricle	Put: Putamen	int: Internal capsule

→ CaS: Calcarine Sulcus
→ LF: Lateral fissure

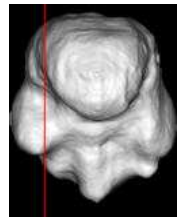
Age: 14 GW



L-R Level: 7.86 mm

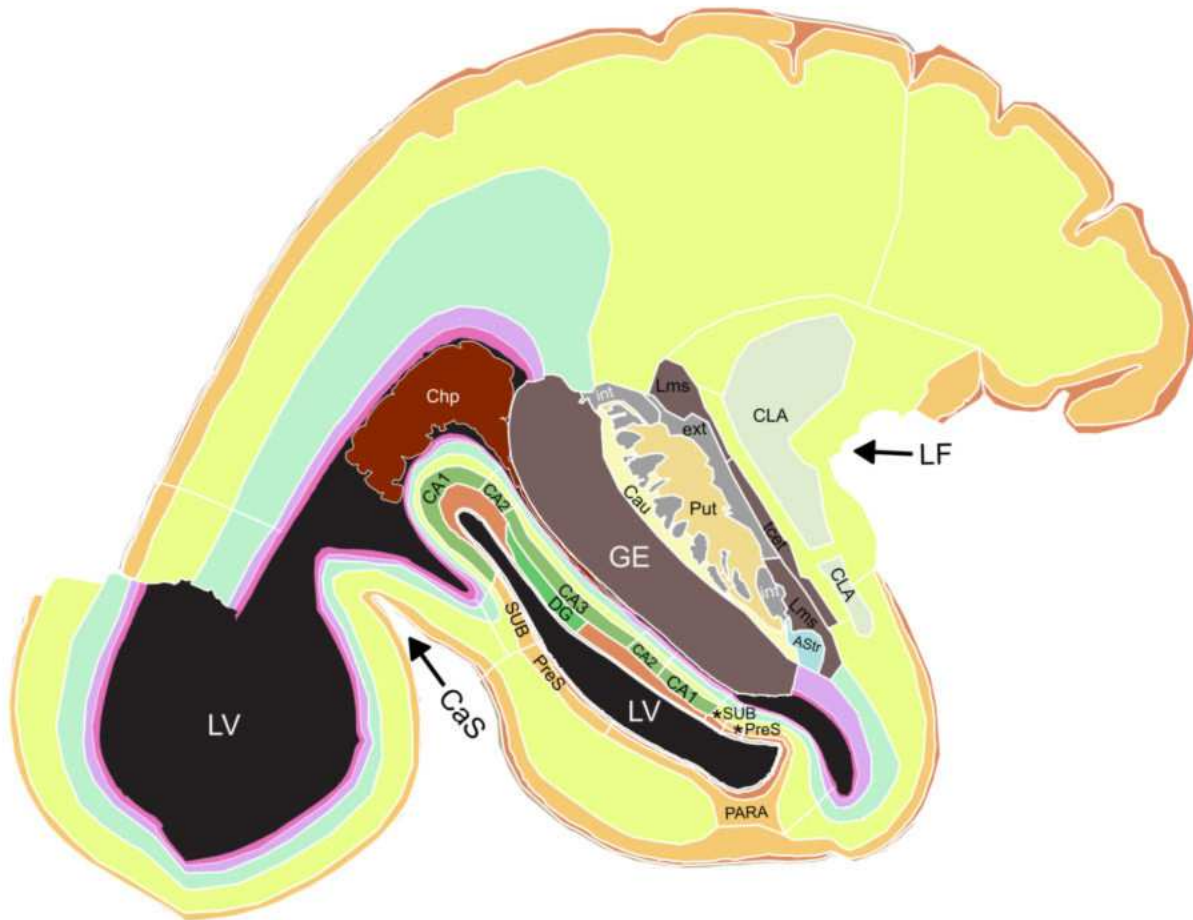
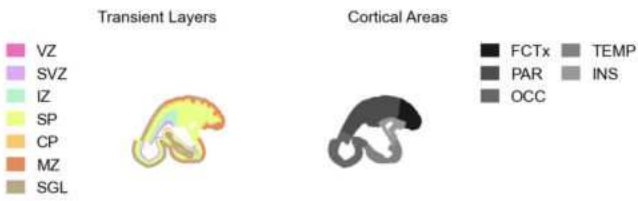


5 mm



L-R Level: 7.86 mm

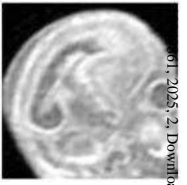
Age: 14 GW



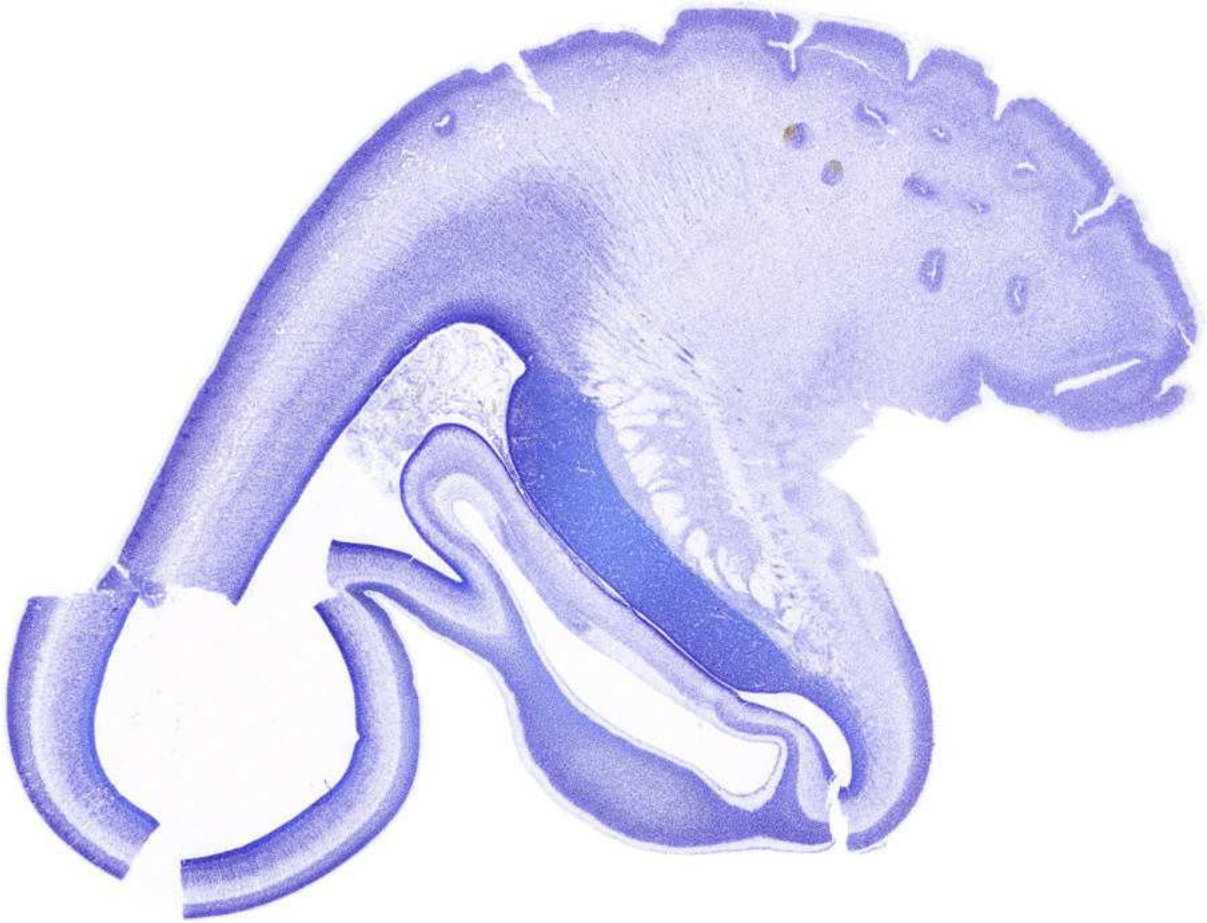
5 mm

- | | | | |
|--|--|--|--|
| <ul style="list-style-type: none"> AStr: Amygdalo-striatal area CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ext: External capsule int: Internal capsule tcet: Transient cell zone in the external capsule CaS: Calcarine Fissure LF: Lateral Fissure |
|--|--|--|--|

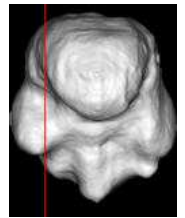
Age: 14 GW



L-R Level: 7.74 mm



5 mm



L-R Level: 7.74 mm

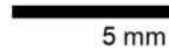
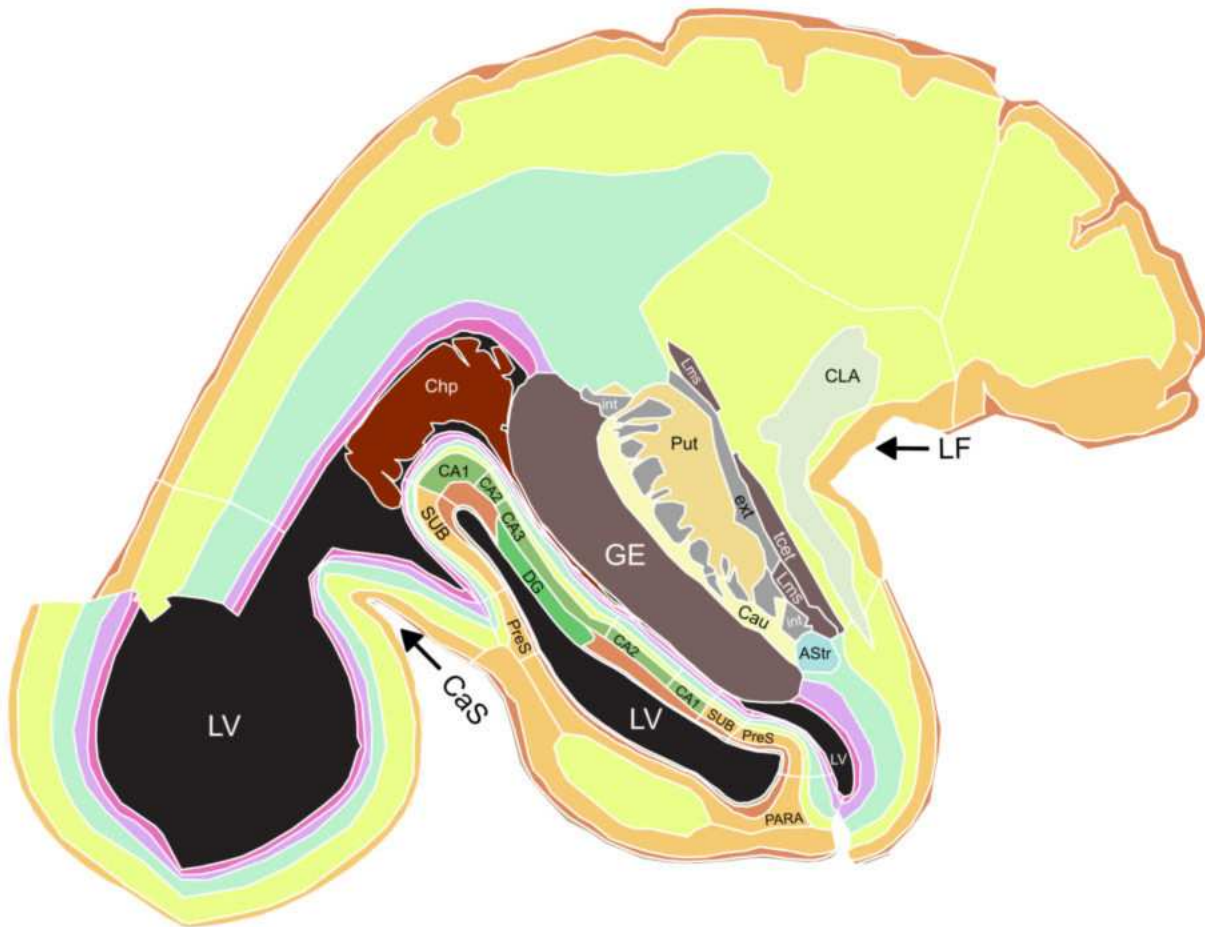
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

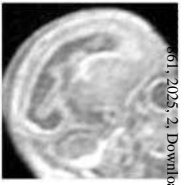
Cortical Areas

- FCTx
- PAR
- OCC
- TEMP
- INS



- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> AStr: Amygdalo-striatal area CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen | <ul style="list-style-type: none"> SUB: Cortical plate, subiculum ext: External capsule int: Internal capsule tcet: Transient cell zone in the external capsule CaS: Calcarine sulcus LF: Lateral fissure |
|--|--|--|---|

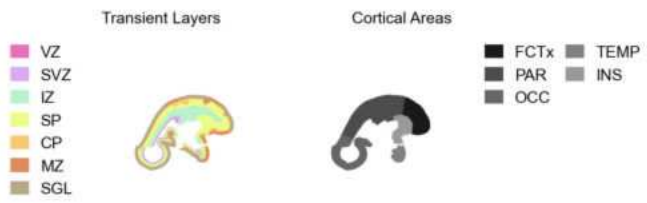
Age: 14 GW



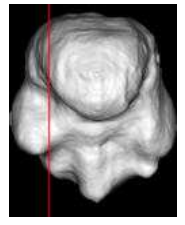
L-R Level: 7.08 mm



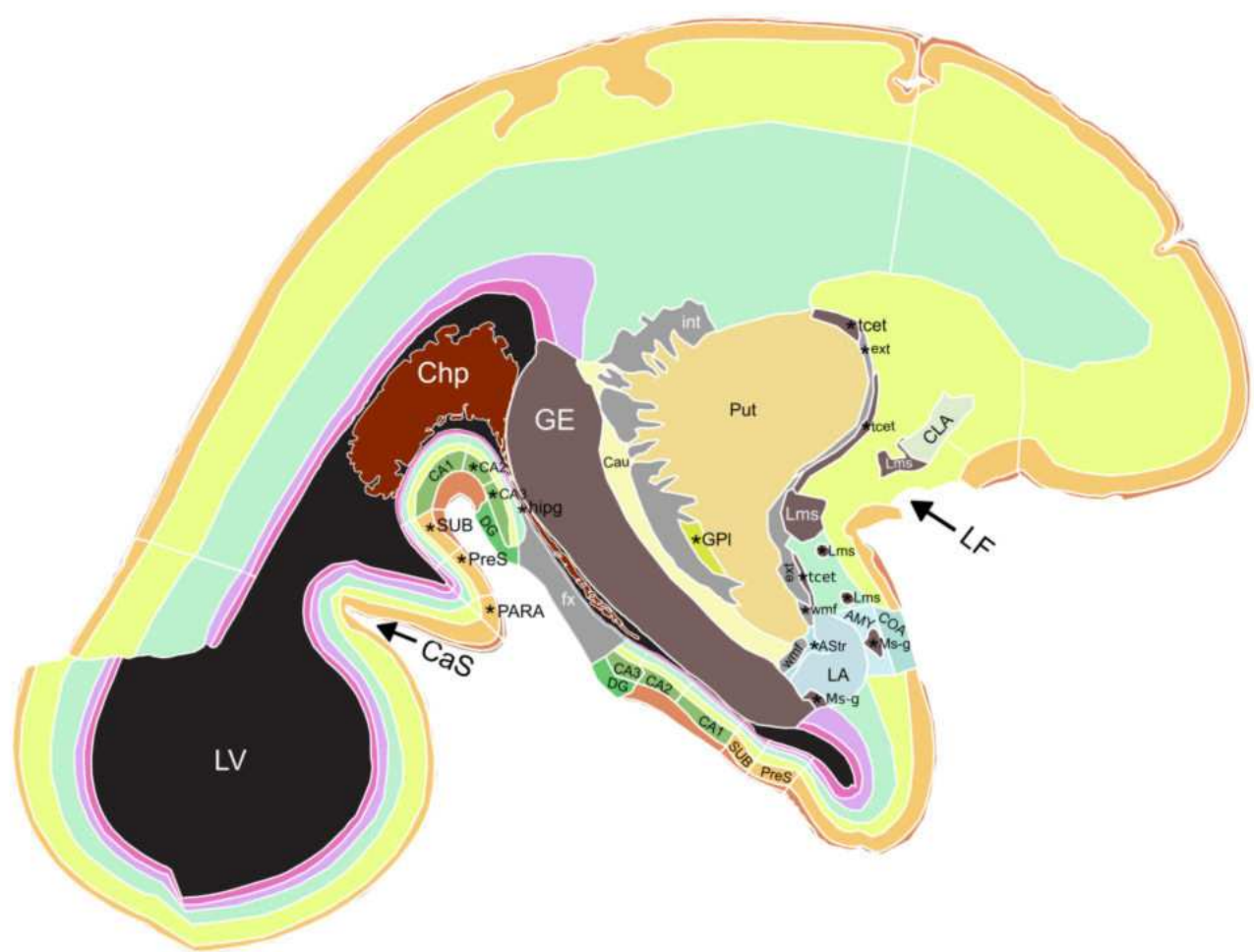
5 mm



Age: 14 GW



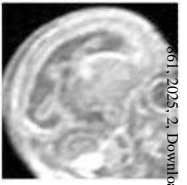
L-R Level: 7.08 mm



5 mm

- | | | | |
|----------------------------------|--------------------------------------|-------------------------------------|--|
| AMY: Amygdala | Cau: Caudate nucleus | Lms: Lateral migratory stream | ext: External capsule |
| AStr: Amygdalo-striatal area | Chp: Choroid plexus | Ms-g: Migratory stream, general | fx: Fornix |
| CA1: CA1 field [hippocampus] | DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | int: Internal capsule |
| CA3: CA3 field [hippocampus] | GPI: Globus pallidus lateral segment | Put: Putamen | tctet: Transient cell zone in the external capsule |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | SUB: Cortical plate, subiculum | wmf: White matter fibers |
| COA: Cortical nucleus [amygdala] | LV: Lateral ventricle | | → CaS: Calcarine sulcus |
| | | | → LF: Lateral fissure |

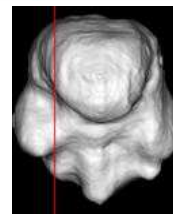
Age: 14 GW



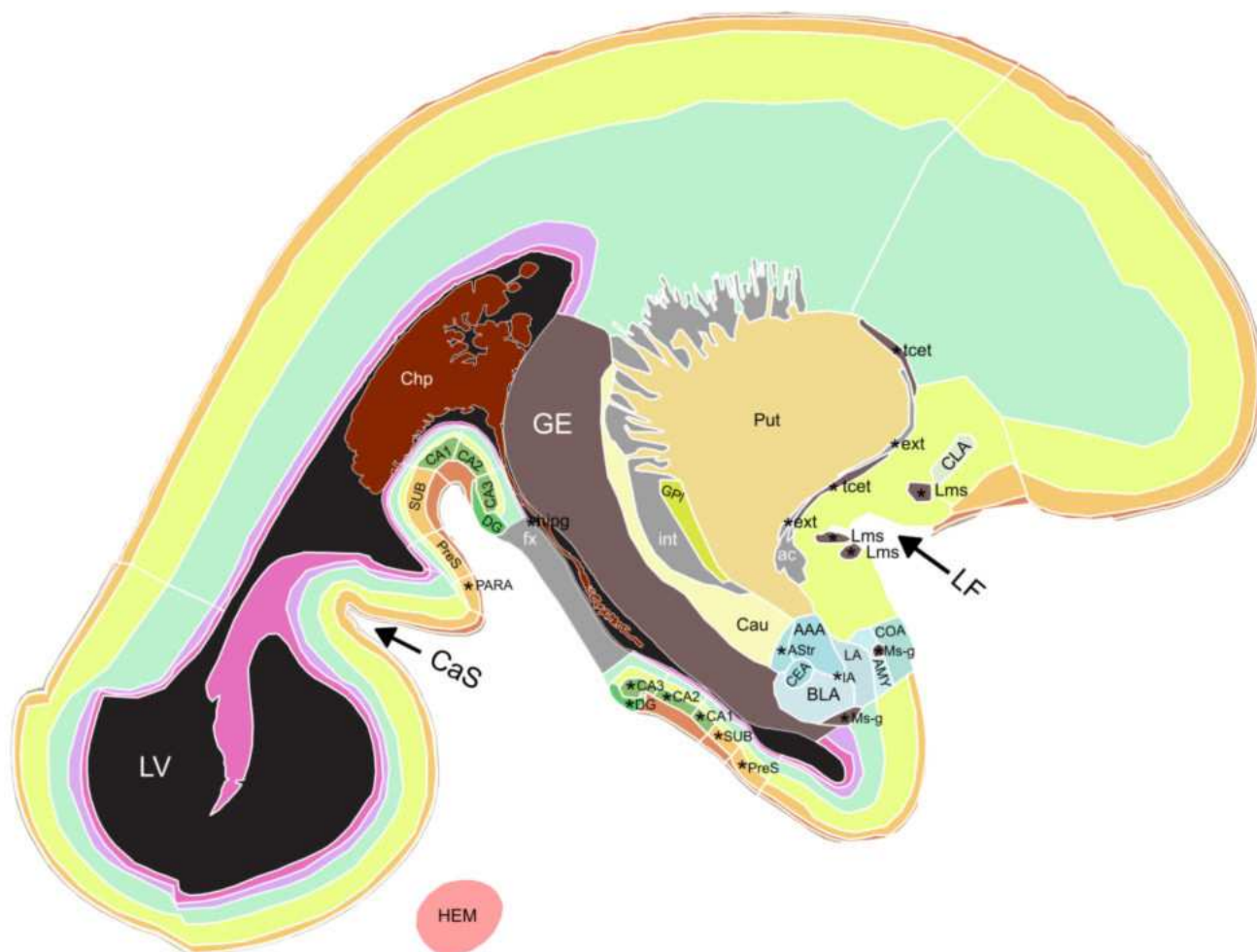
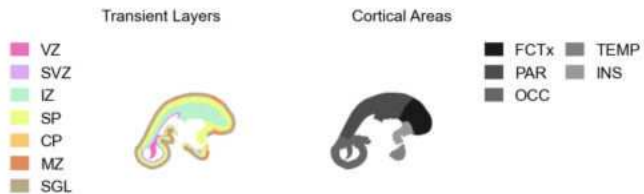
L-R Level: 6.66 mm



5 mm

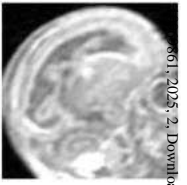


L-R Level: 6.66 mm



- | | | |
|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum ac: Anterior commissure ext: External capsule fx: Fornix hipg: Hippocampal glioeepithelium/ependyma int: Internal capsule tcet: Transient cell zone in the external capsule | <ul style="list-style-type: none"> CaS: Calcarine sulcus LF: Lateral fissure |
|---|---|--|

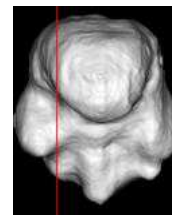
Age: 14 GW



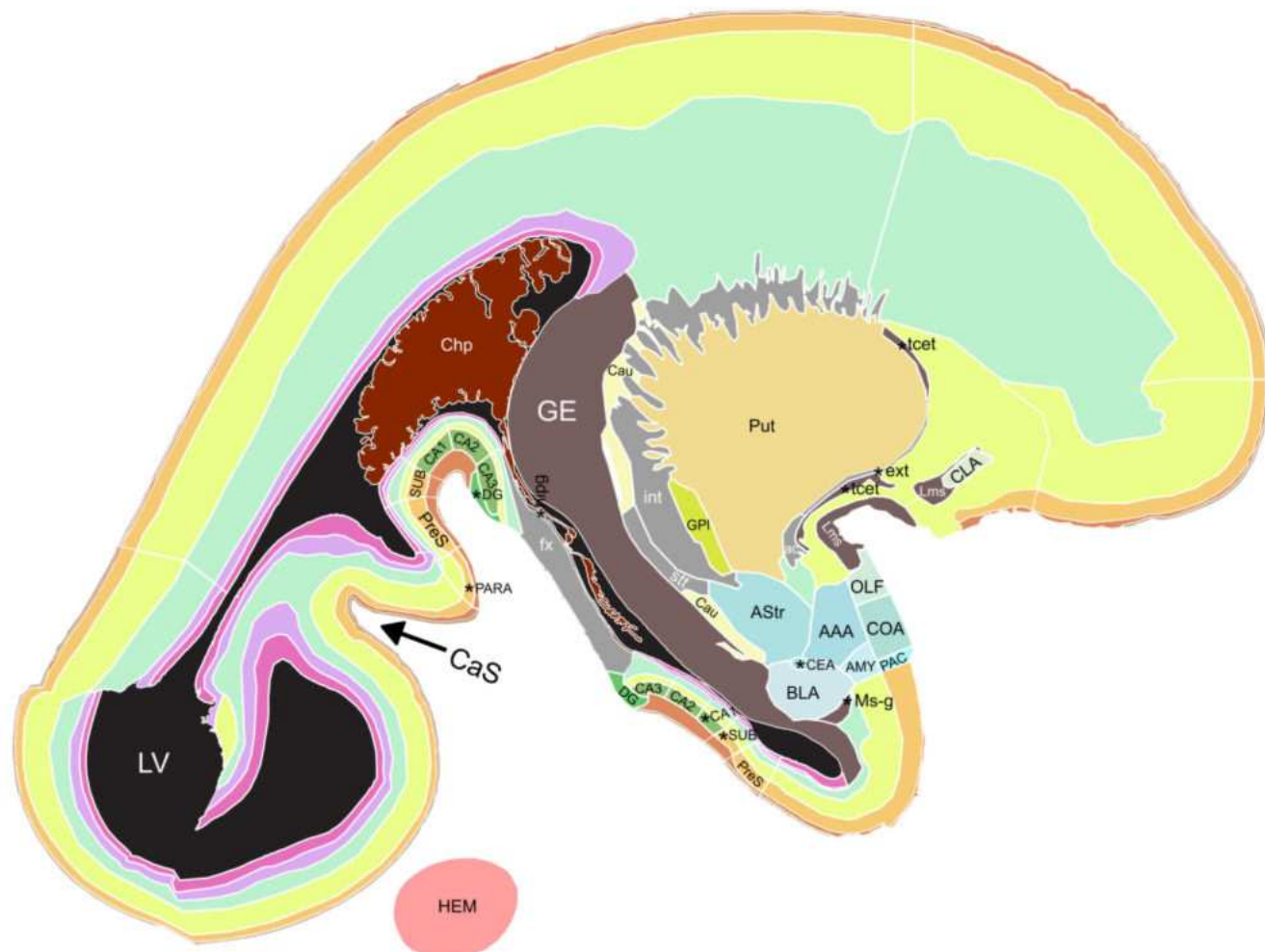
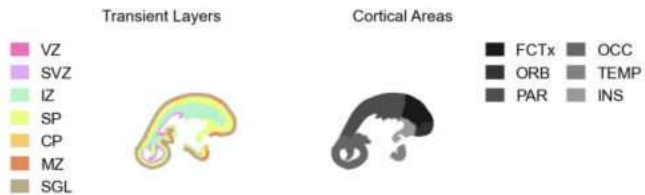
L-R Level: 6.48 mm



5 mm



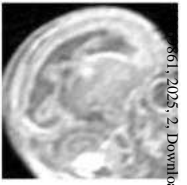
L-R Level: 6.48 mm



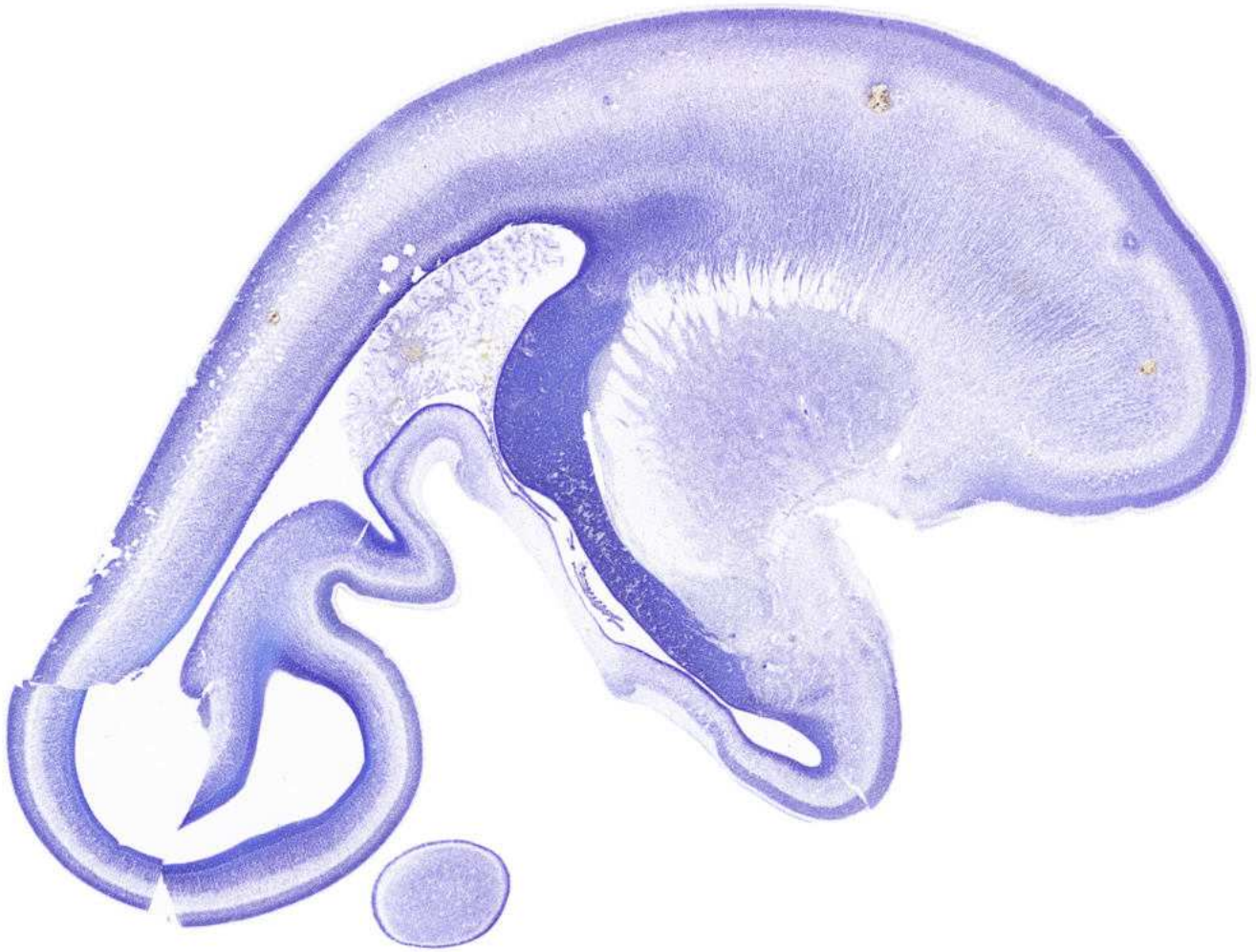
5 mm

- | | | | |
|---|--|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] | <ul style="list-style-type: none"> CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule → CaS: Calcarine sulcus |
|---|--|--|--|

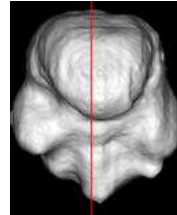
Age: 14 GW



L-R Level: 6.42 mm



5 mm



L-R Level: 6.42 mm

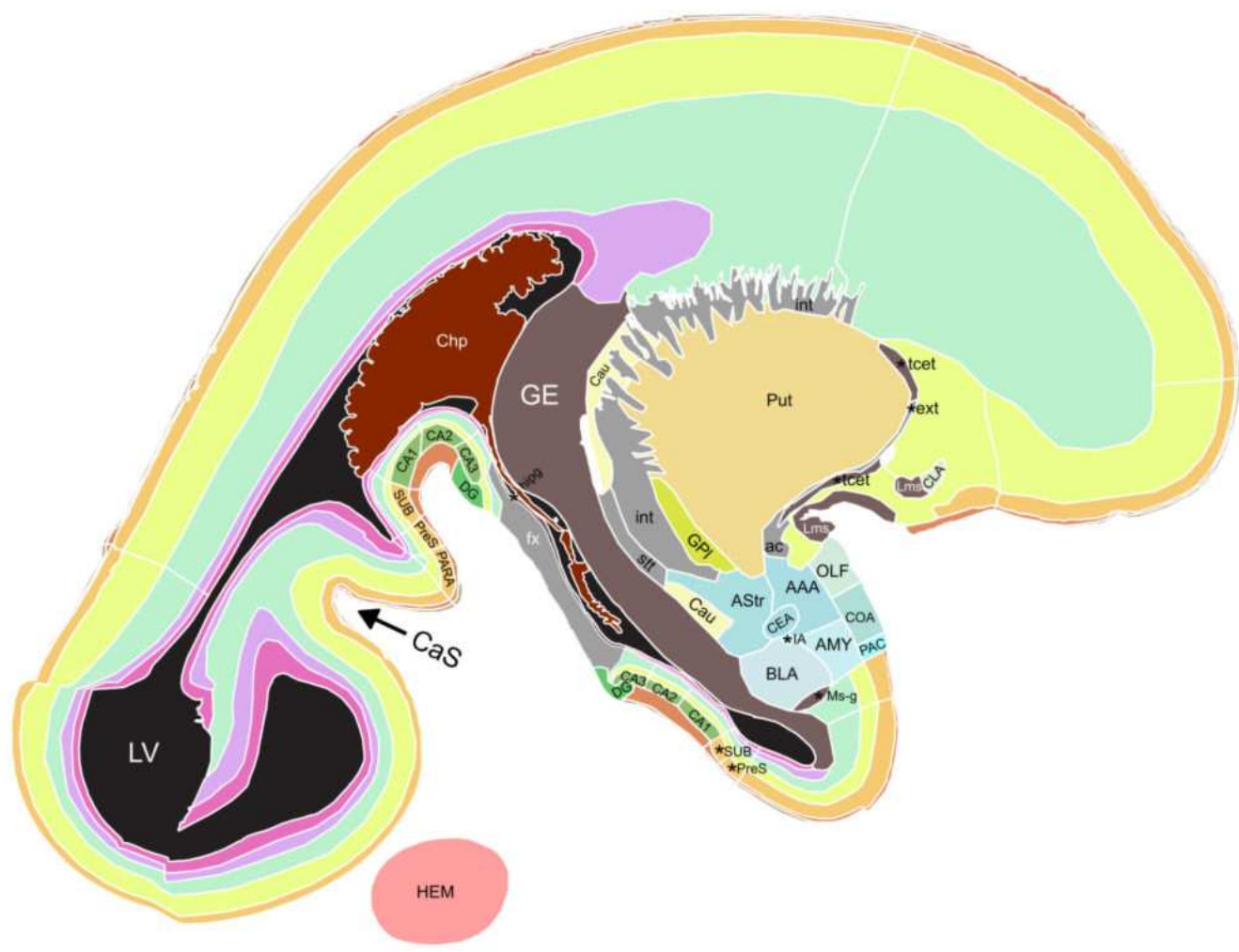
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

Cortical Areas

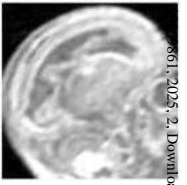
- FCTx
- ORB
- PAR
- OCC
- TEMP
- INS
- ENT



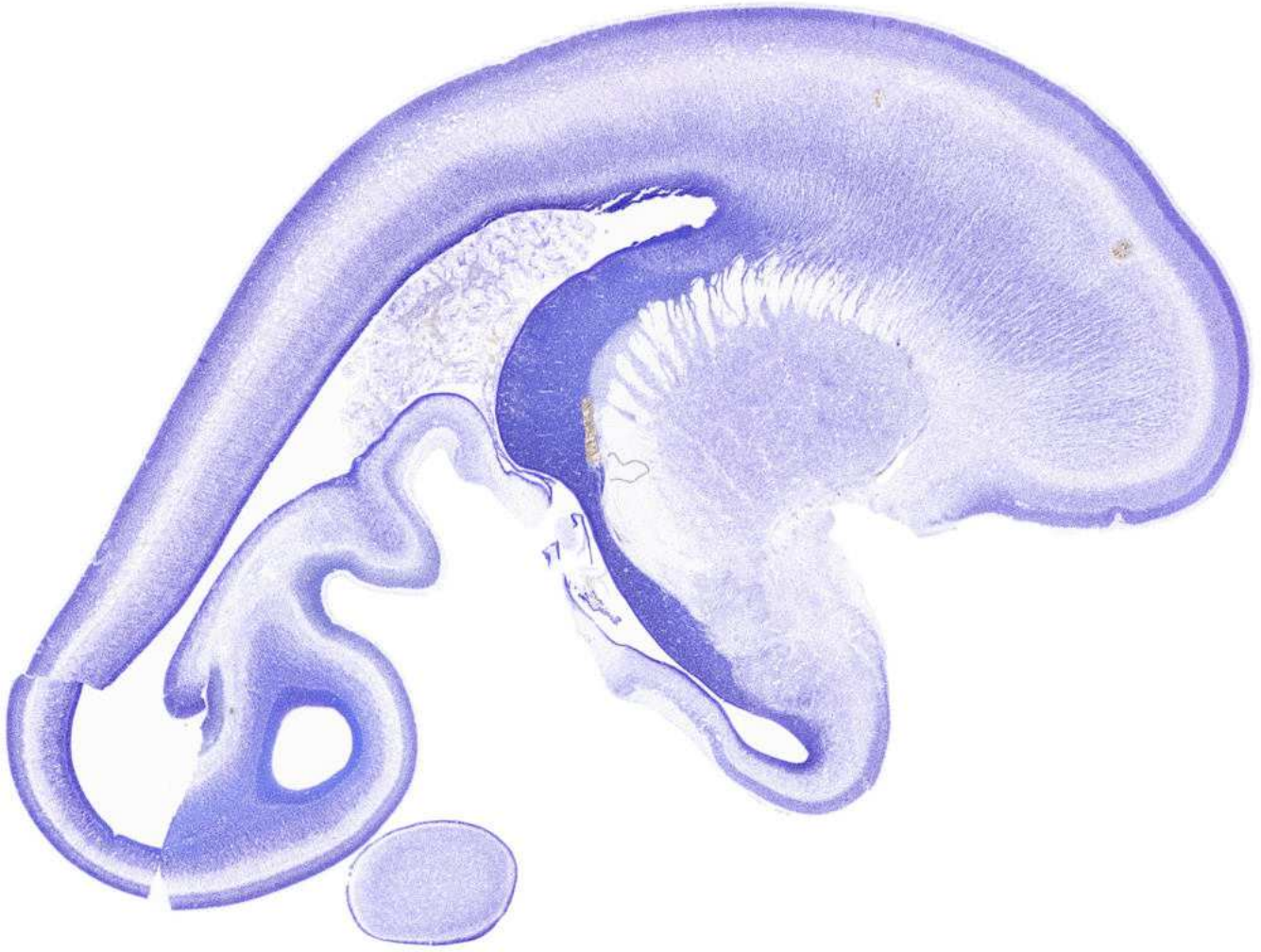
5 mm

- | | | | |
|---|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] | <ul style="list-style-type: none"> CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> IA: Intercalated cell groups [amygdala] LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule → CaS: Calcarine sulcus |
|---|--|---|--|

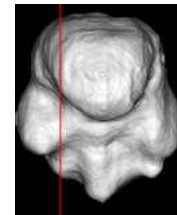
Age: 14 GW



L-R Level: 6.18 mm



5 mm



L-R Level: 6.18 mm

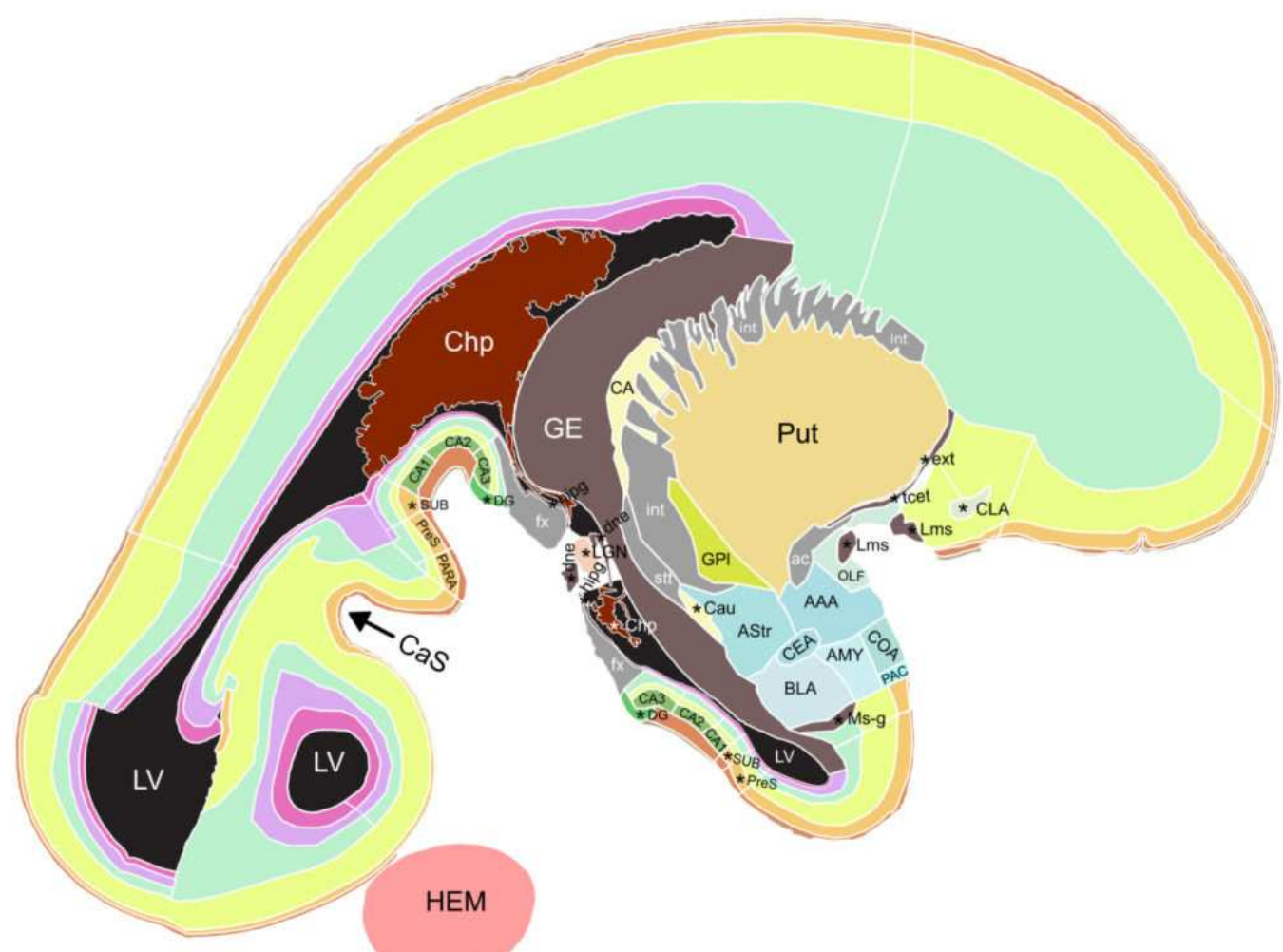
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

Cortical Areas

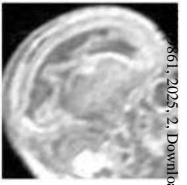
- FCTx
- ORB
- PAR
- OCC
- TEMP
- INS
- ENT



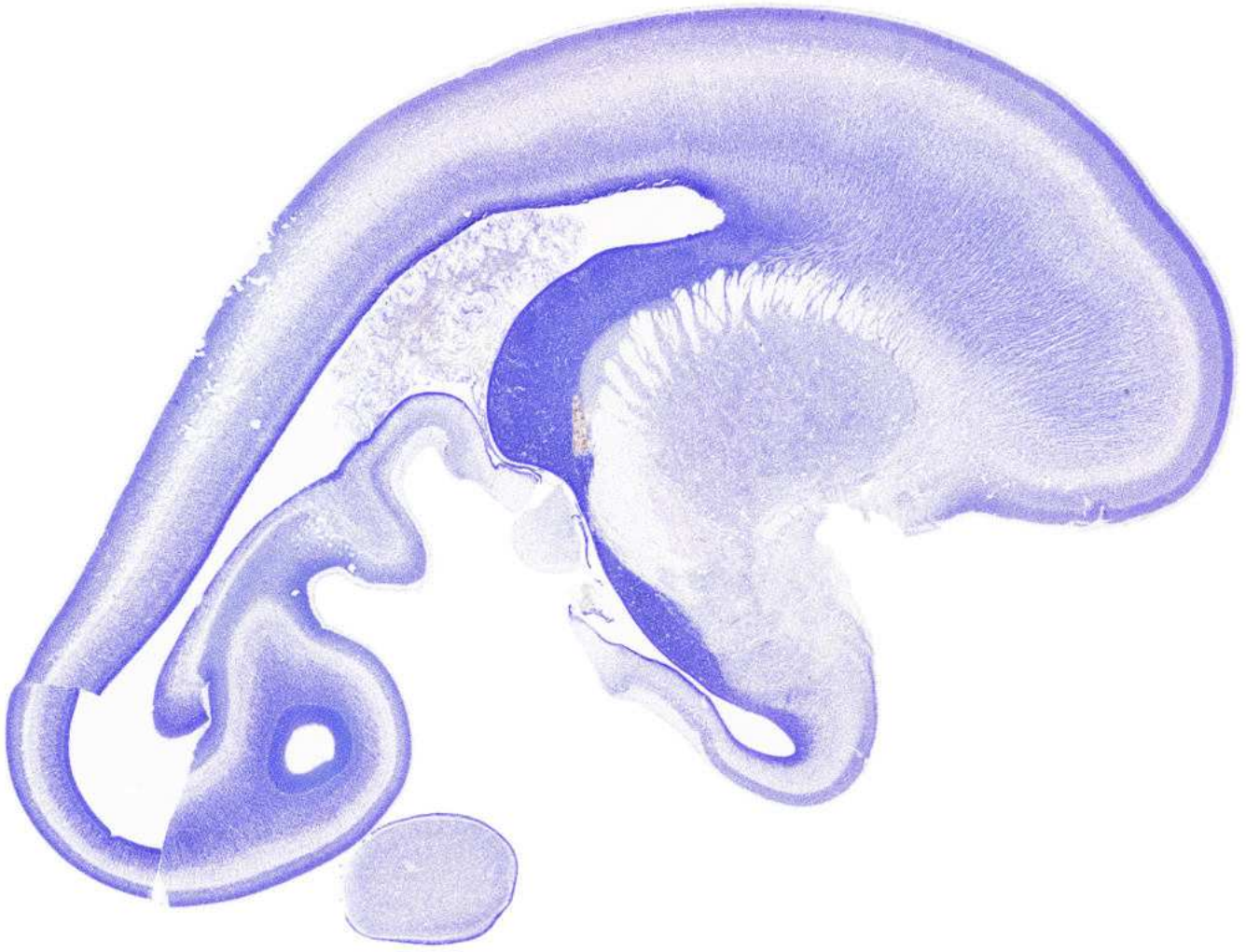
5 mm

- | | | | |
|---|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] | <ul style="list-style-type: none"> CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure dne: Diencephalic neuroepithelium ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule → CaS: Calcarine sulcus |
|---|--|---|--|

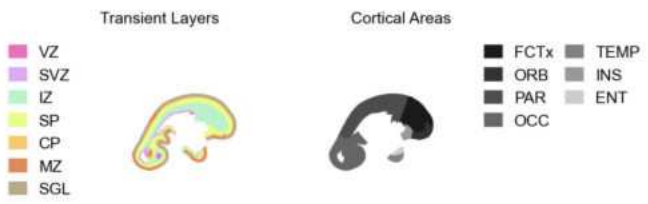
Age: 14 GW



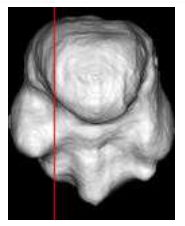
L-R Level: 6.06 mm



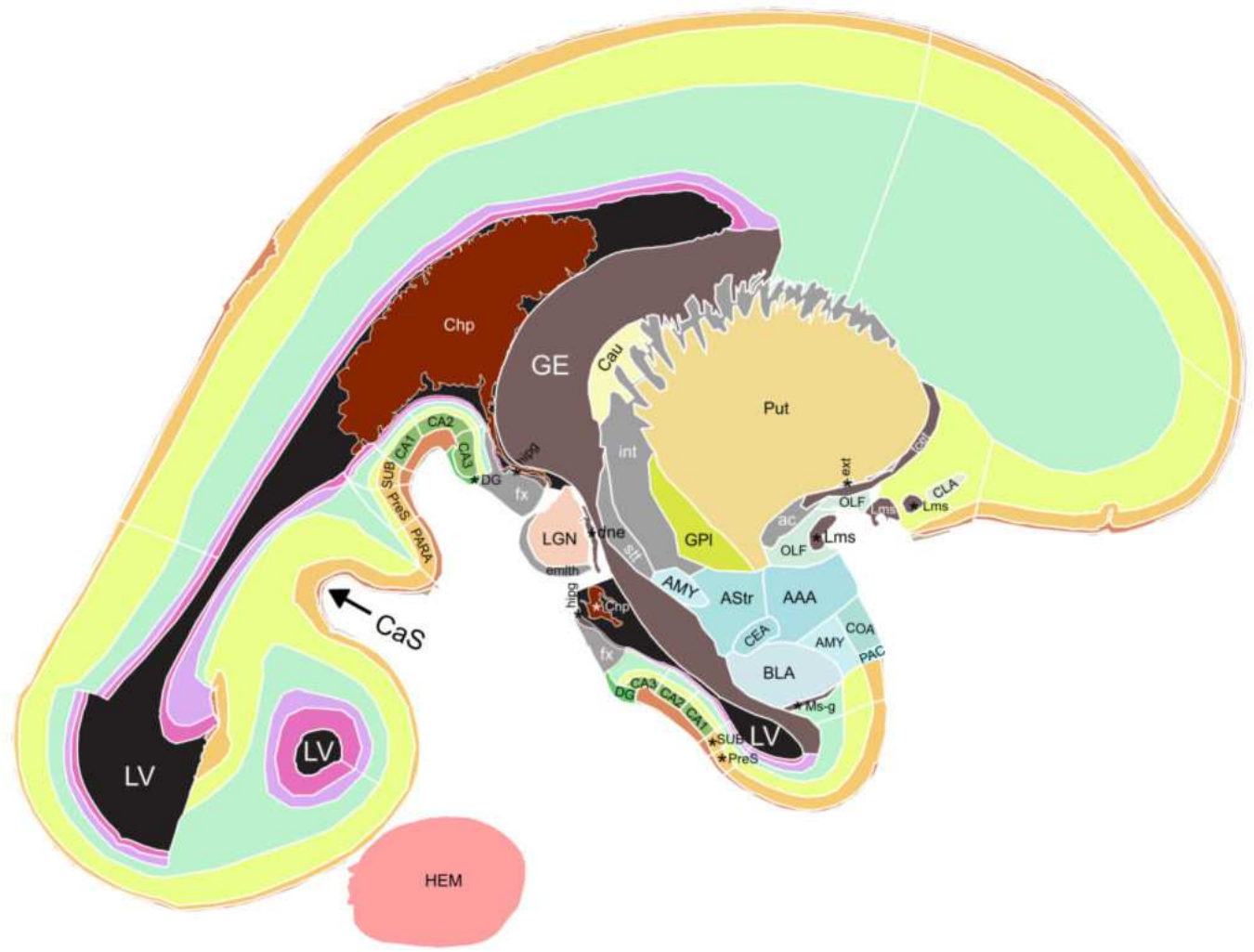
5 mm



Age: 14 GW



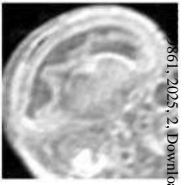
L-R Level: 6.06 mm



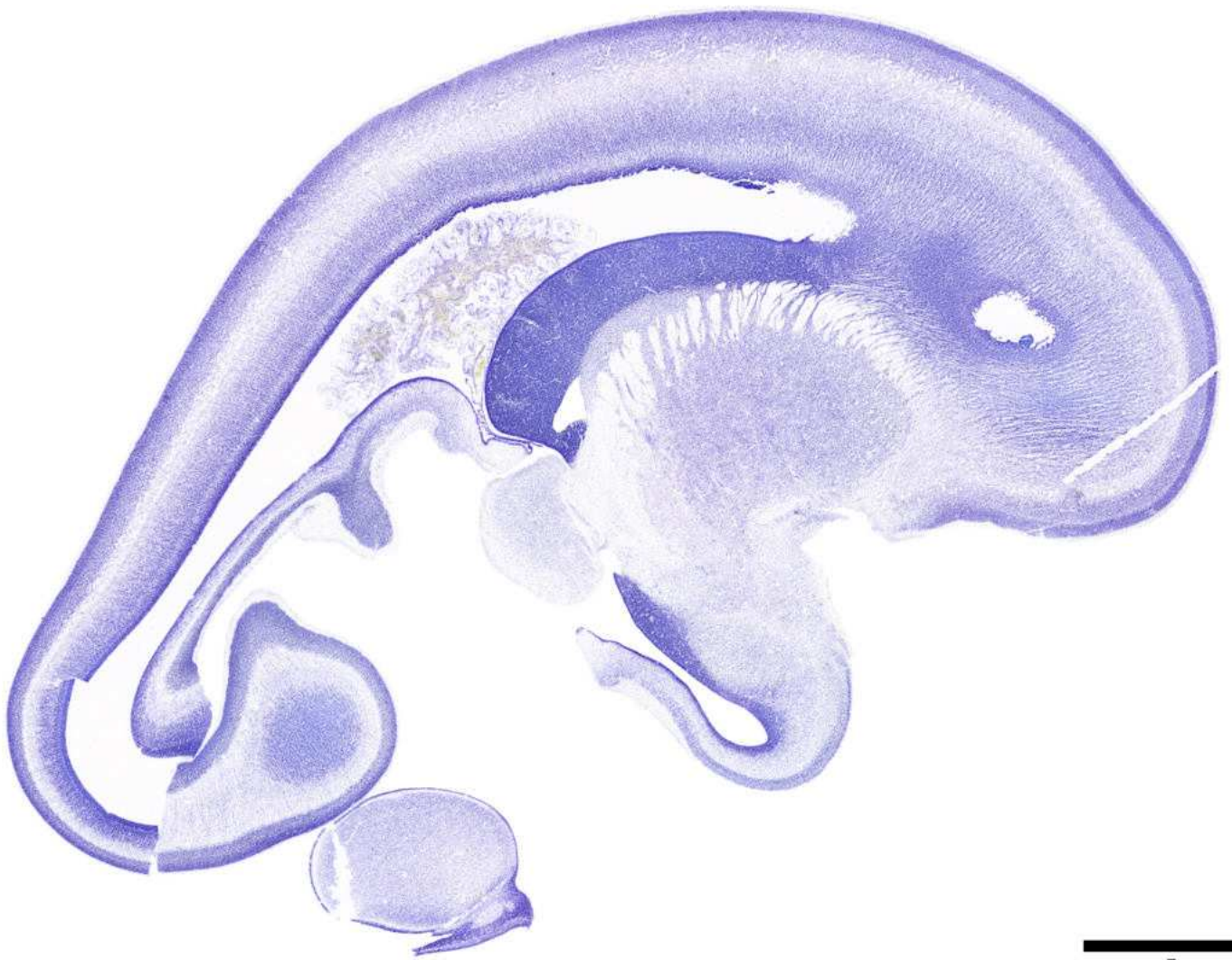
5 mm

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|---|---|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule → CaS: Calcarine sulcus |
|---|---|---|---|

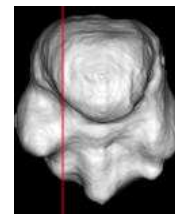
Age: 14 GW



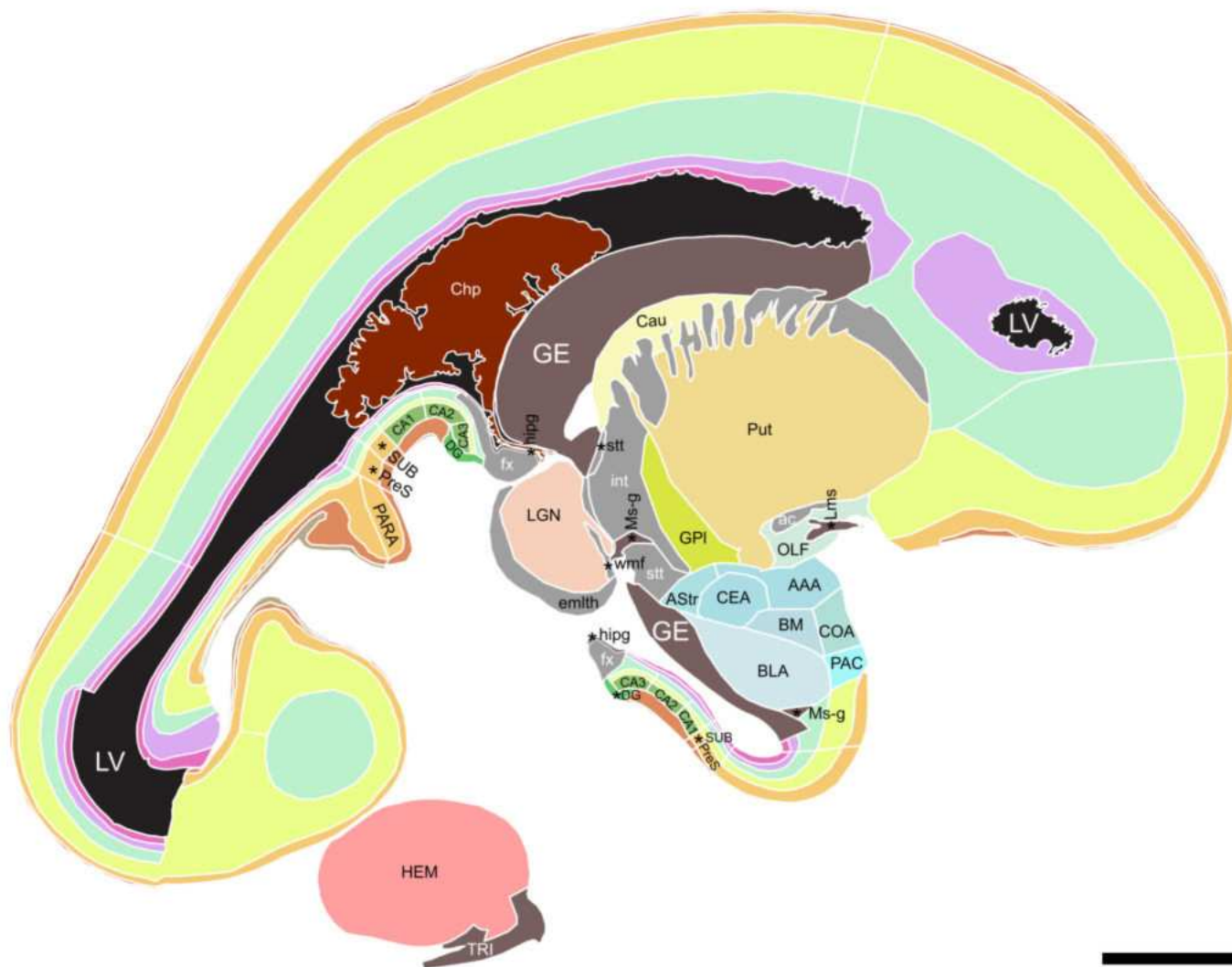
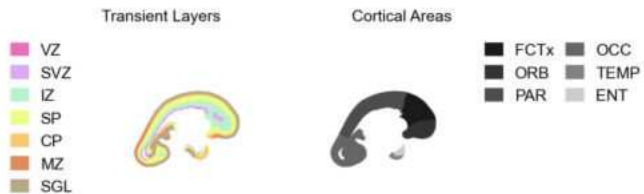
L-R Level: 5.7 mm



5 mm



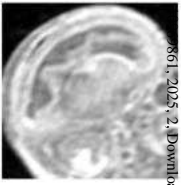
L-R Level: 5.7 mm



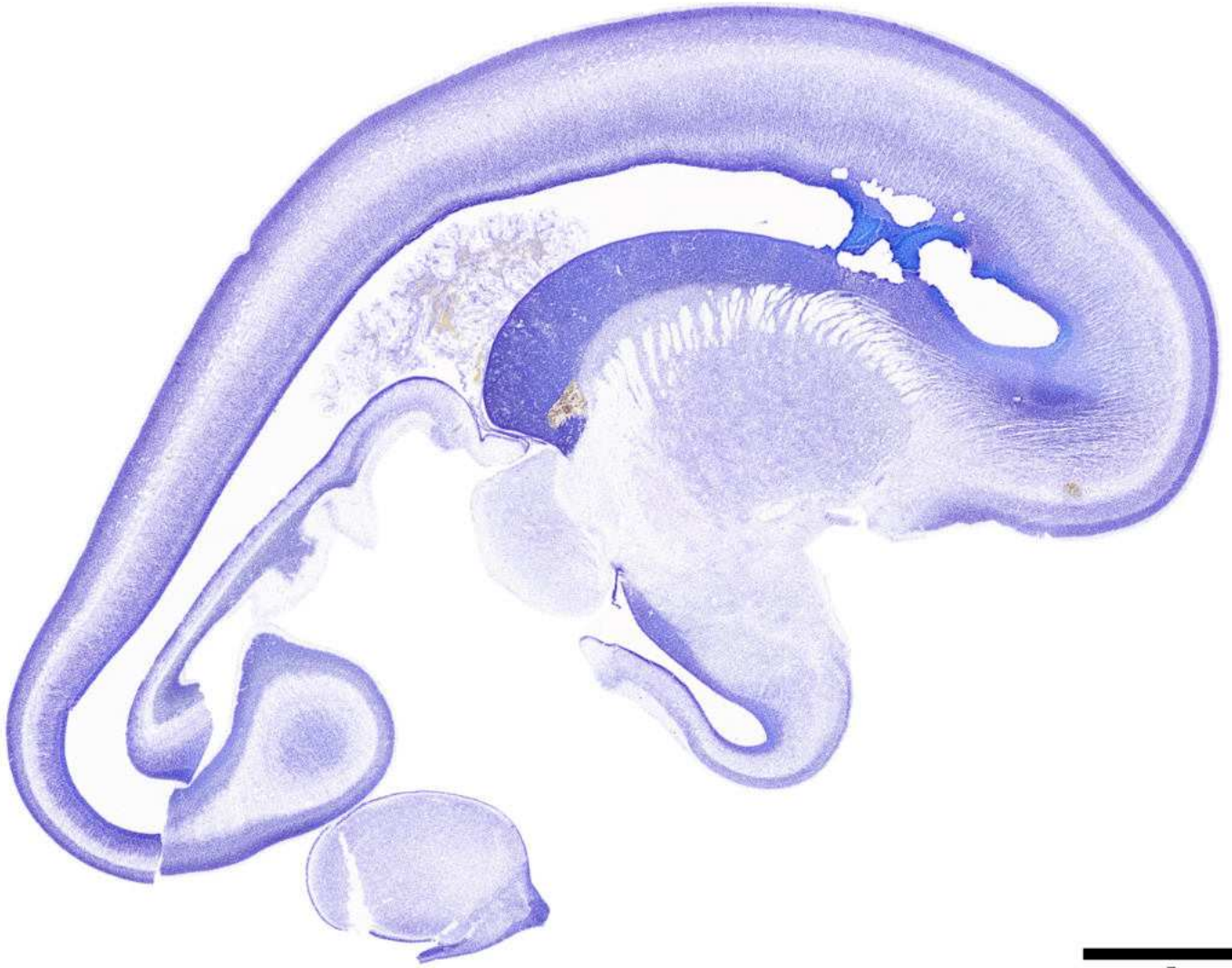
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|---|---|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum TRI: Germinal trigone | <ul style="list-style-type: none"> ac: Anterior commissure emith: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis wmf: White matter fibers |
|---|---|---|---|

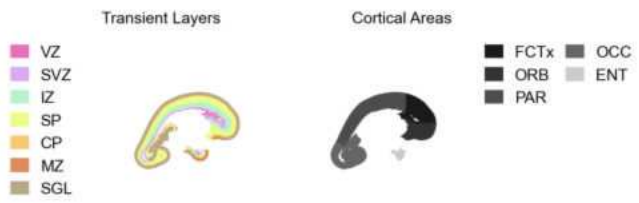
Age: 14 GW



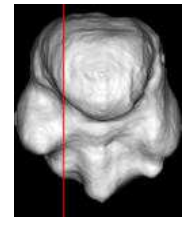
L-R Level: 5.58 mm



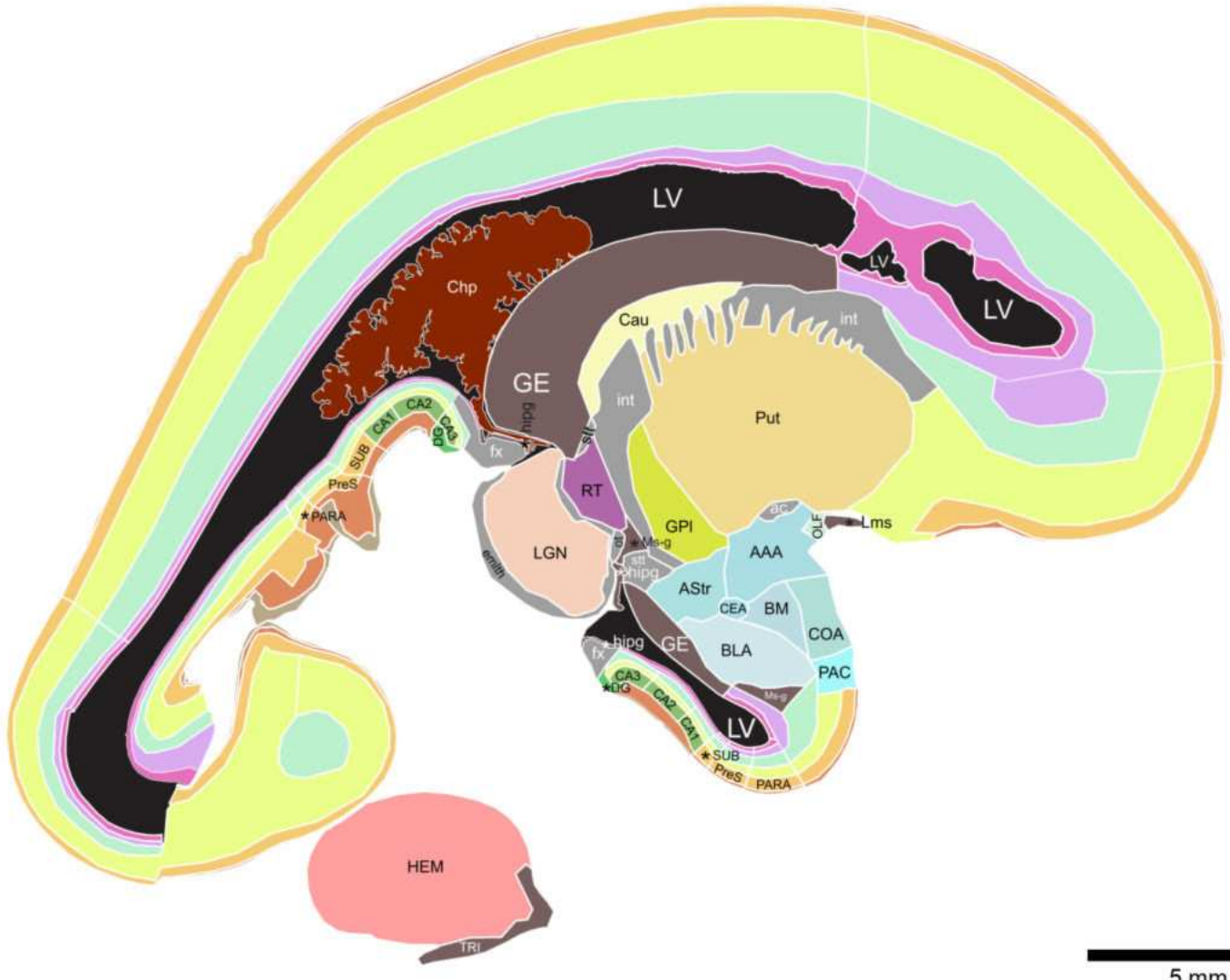
5 mm



Age: 14 GW



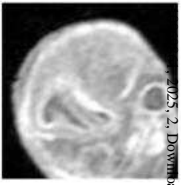
L-R Level: 5.58 mm



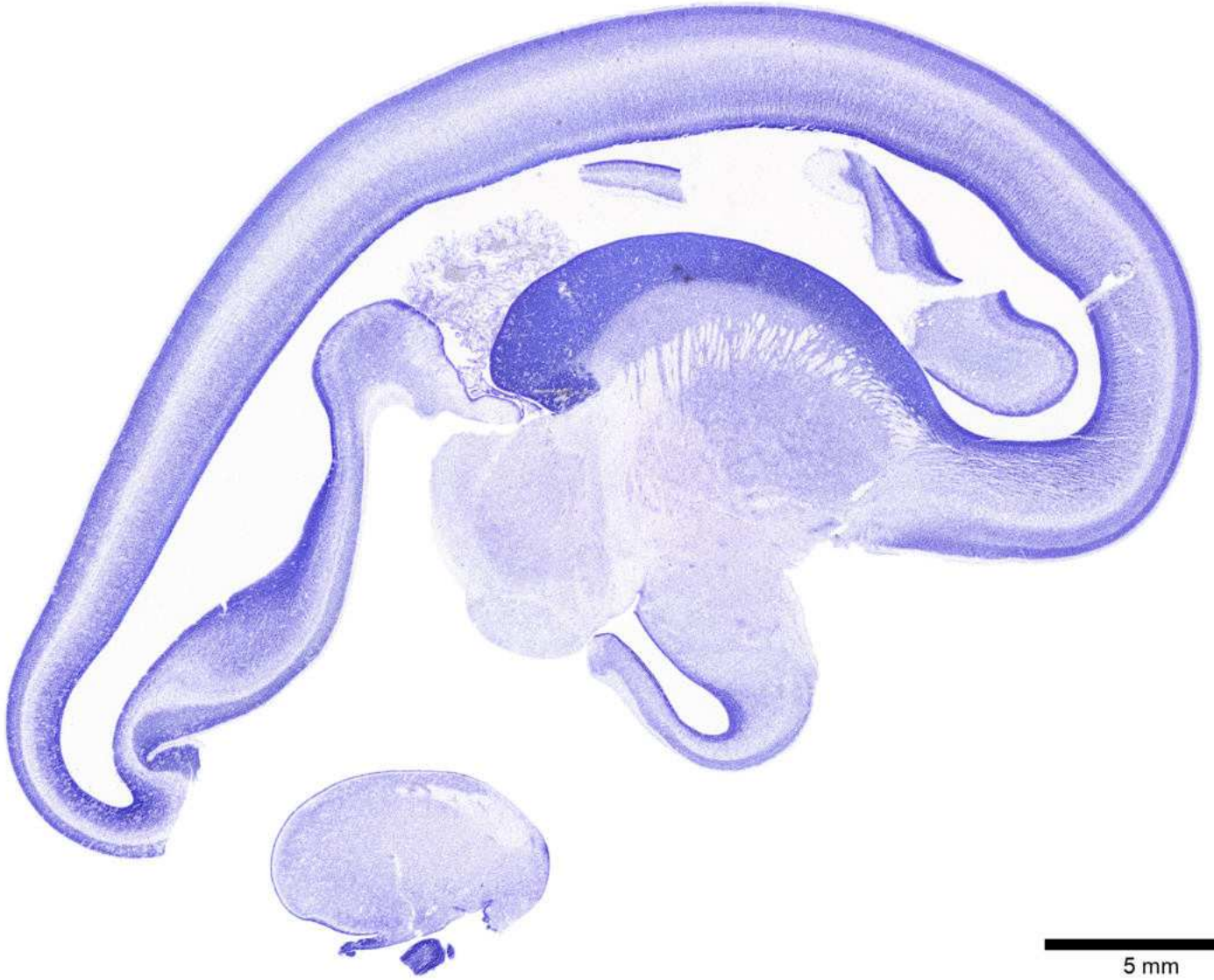
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> TRI: Germinal trigone ac: Anterior commissure emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule ot: Optic tract stt: Stria terminalis |
|---|---|--|--|

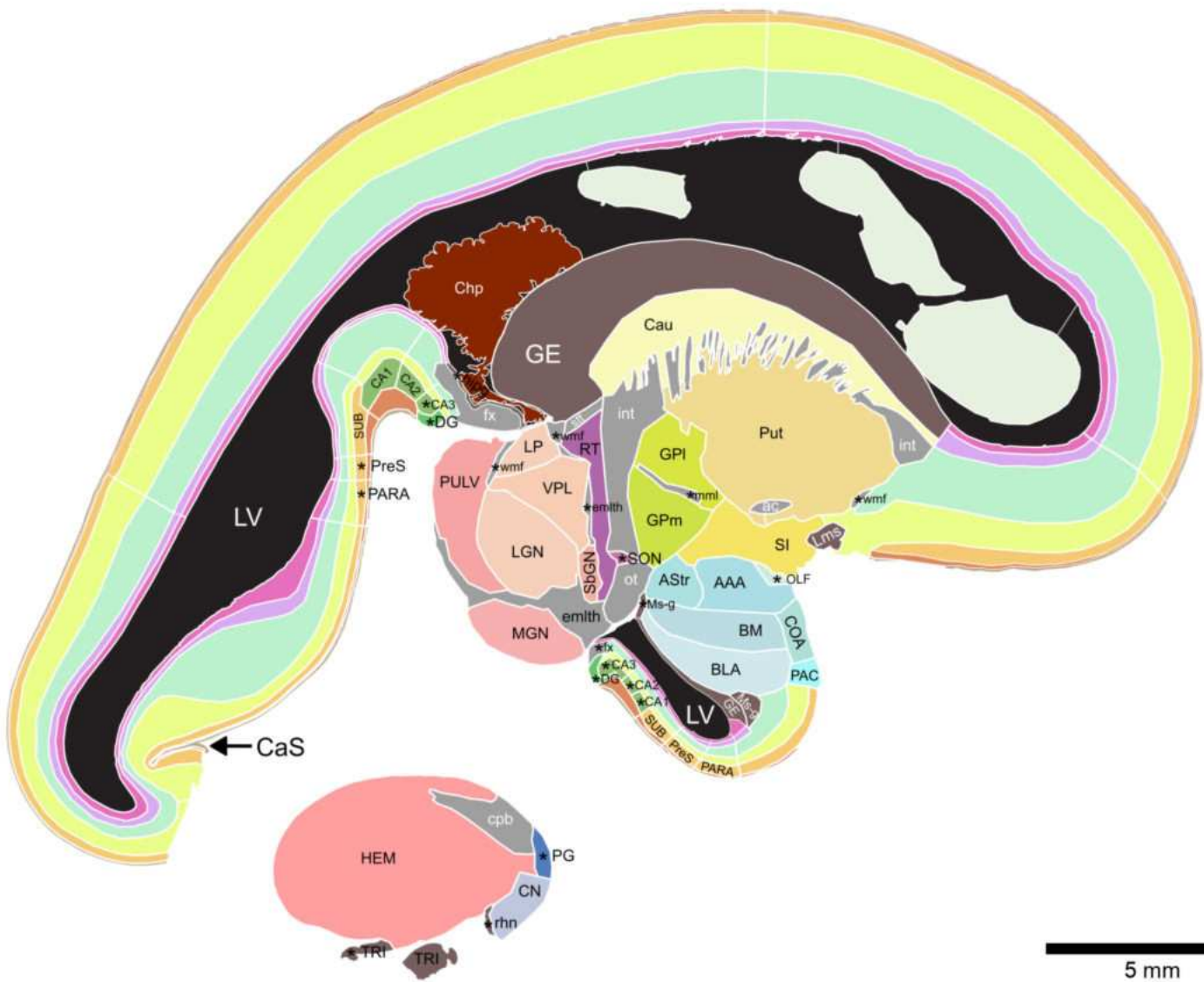
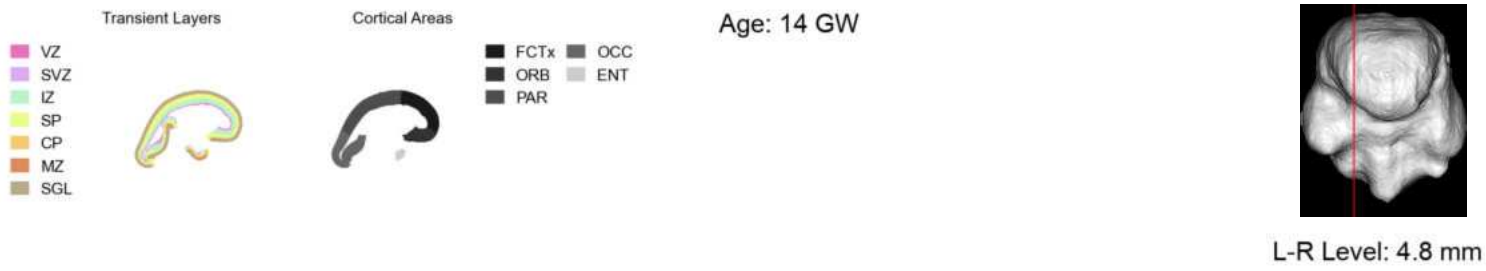
Age: 14 GW



L-R Level: 4.8 mm

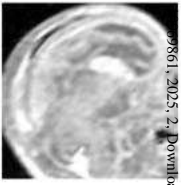


5 mm

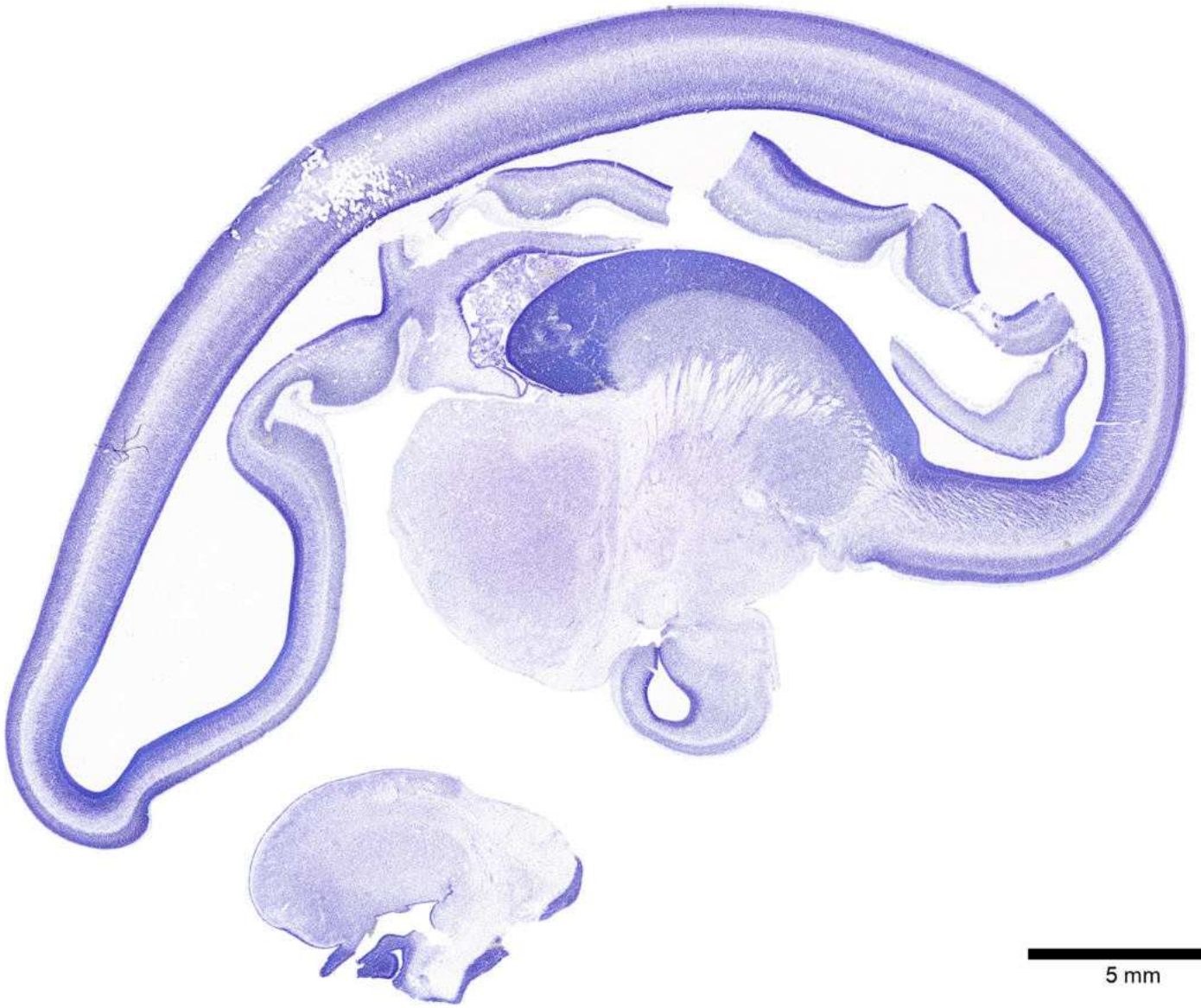


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|---|--|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MGN: Medial geniculate nucleus Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fomix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule mmI: Medial medullary lamina ot: Optic tract rhN: Rhombencephalic neuroepithelium stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
|---|--|--|---|

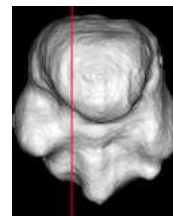
Age: 14 GW



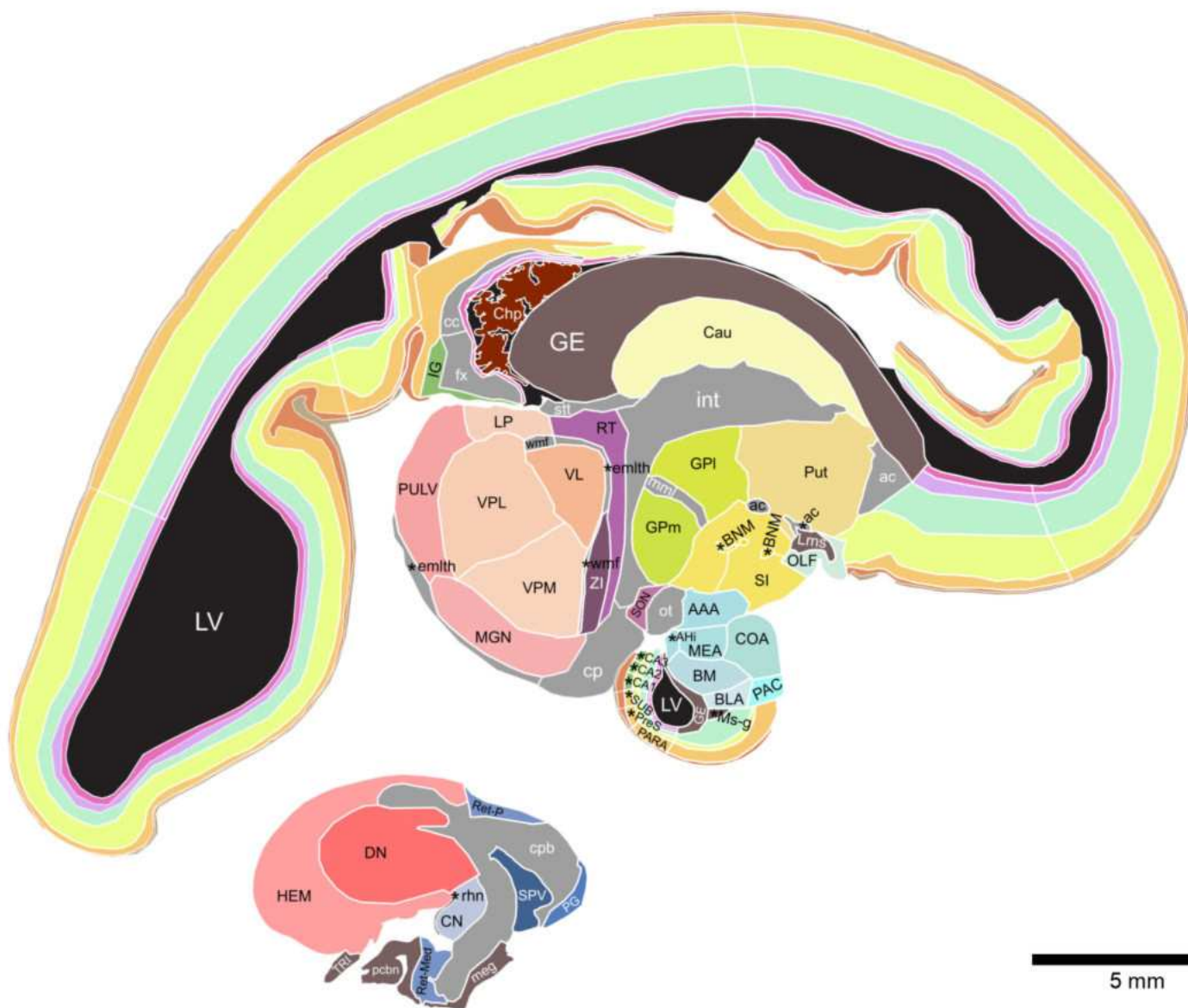
L-R Level: 3.96 mm



5 mm



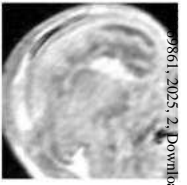
L-R Level: 3.96 mm



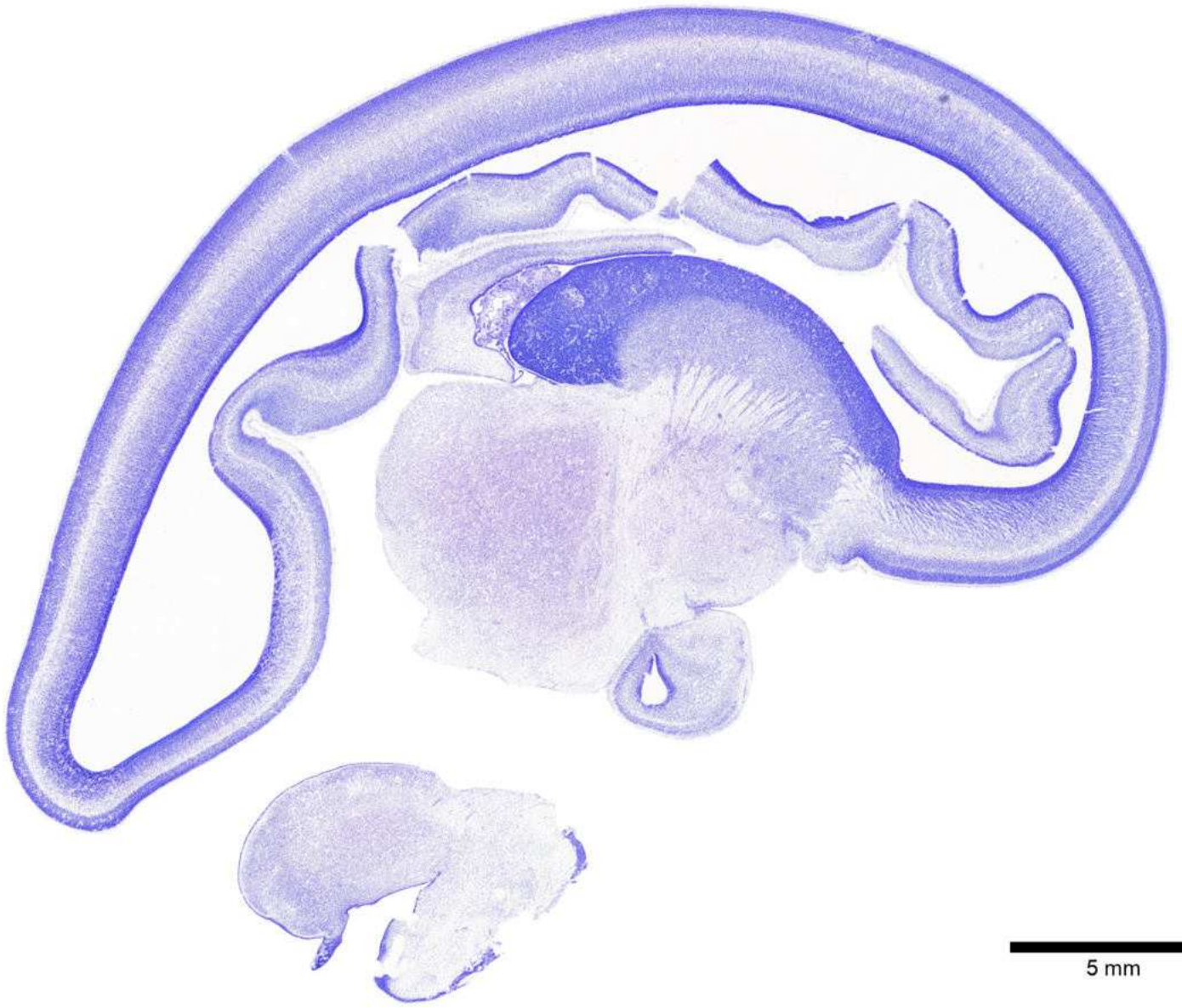
5 mm

- AAA: Anterior amygdaloid area
- AHi: Amygdalo-hippocampal area
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CN: Cochlear nuclei
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- IG: Induseum griseum
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- MEA: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- Ms-g: Migratory stream, general
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SI: Substantia innominata
- SON: Supraoptic nucleus [hypothalamus]
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- VL: Ventral lateral nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- cc: Corpus callosum
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- emlth: External medullary lamina [thalamus]
- fx: Fornix
- int: Internal capsule
- meg: Medullary glioepithelium/ependyma
- mml: Medial medullary lamina
- ot: Optic tract
- pcb: Precerebellar neuroepithelium
- rhn: Rhombencephalic neuroepithelium
- stt: Stria terminalis
- wmf: White matter fibers

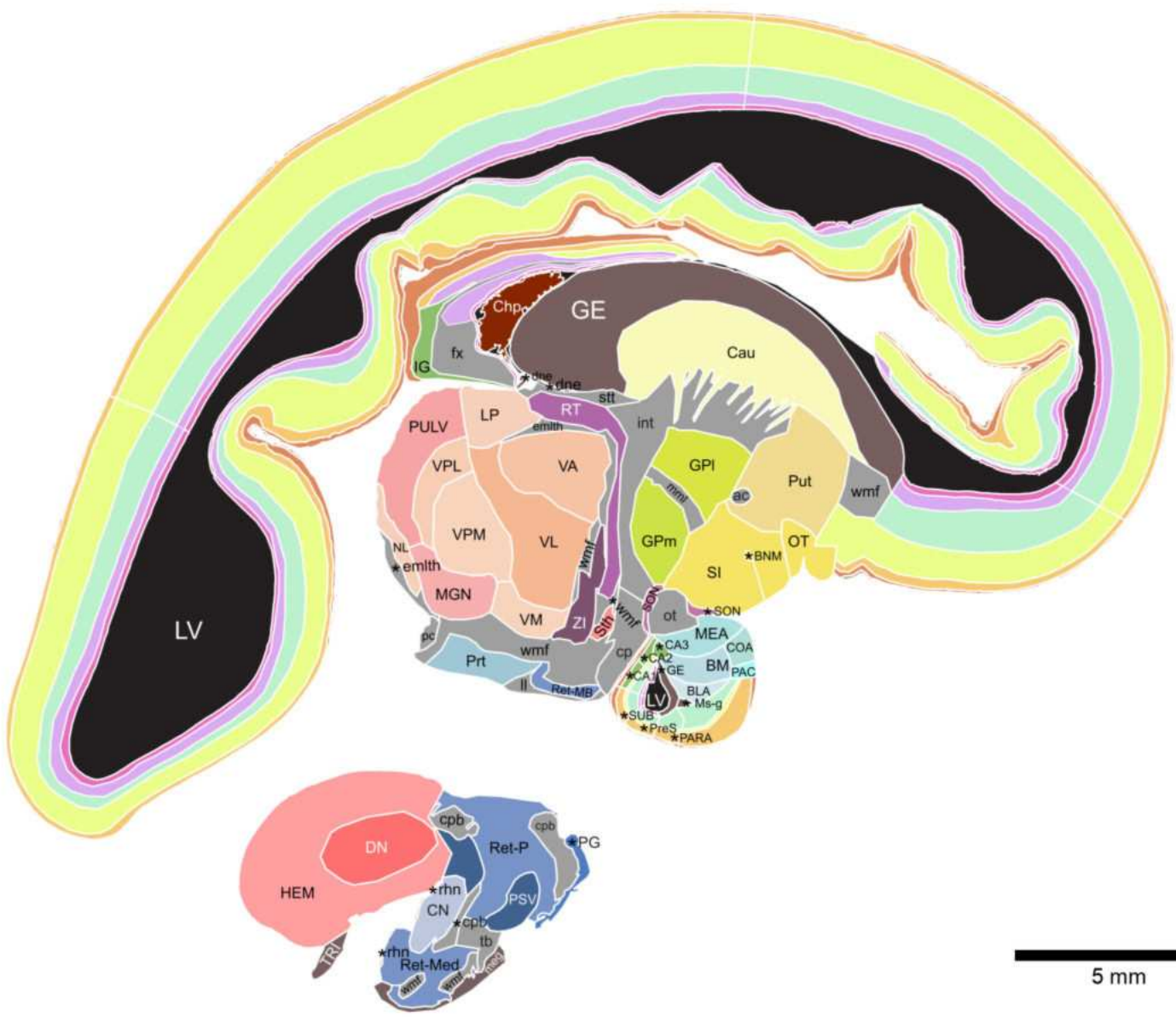
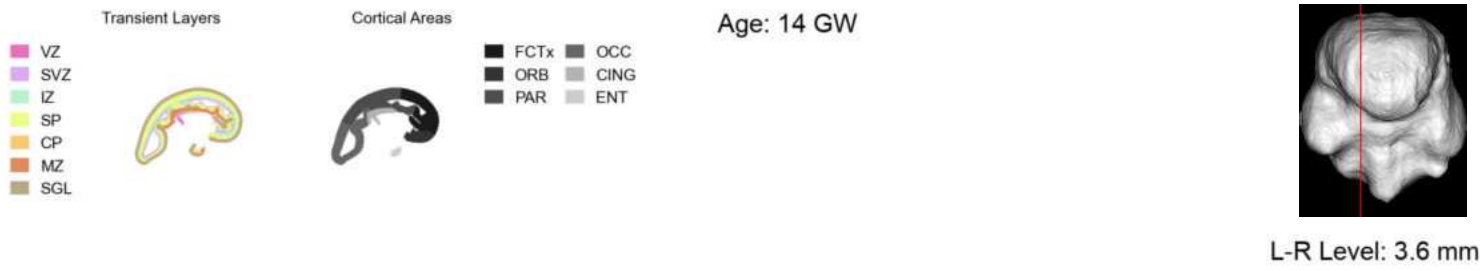
Age: 14 GW



L-R Level: 3.6 mm

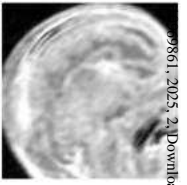


5 mm

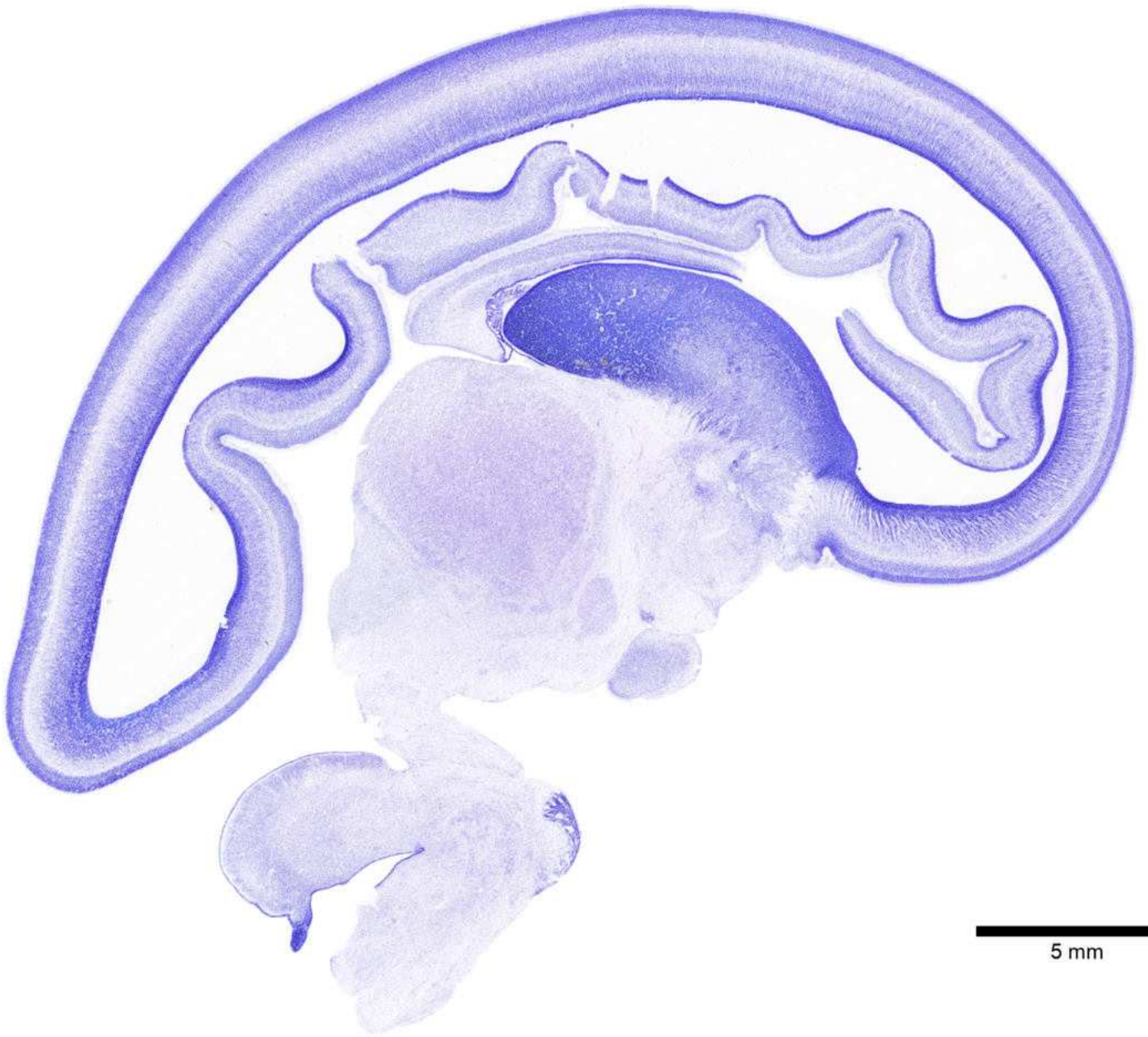


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|--|--|--|---|
| <ul style="list-style-type: none"> BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IG: Induseum griseum | <ul style="list-style-type: none"> LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus Ms-g: Migratory stream, general NL: Nucleus limitans [thalamus] OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Prt: Pretectum Put: Putamen RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain | <ul style="list-style-type: none"> Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum StH: Subthalamus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix int: Internal capsule li: Lateral lemniscus meg: Medullary gliopithelium/ependyma mm: Medial medullary lamina ot: Optic tract pc: Posterior commissure rh: Rhombencephalic neuroepithelium stt: Stria terminalis tb: Trapezoid body wmf: White matter fibers |
|--|--|--|---|

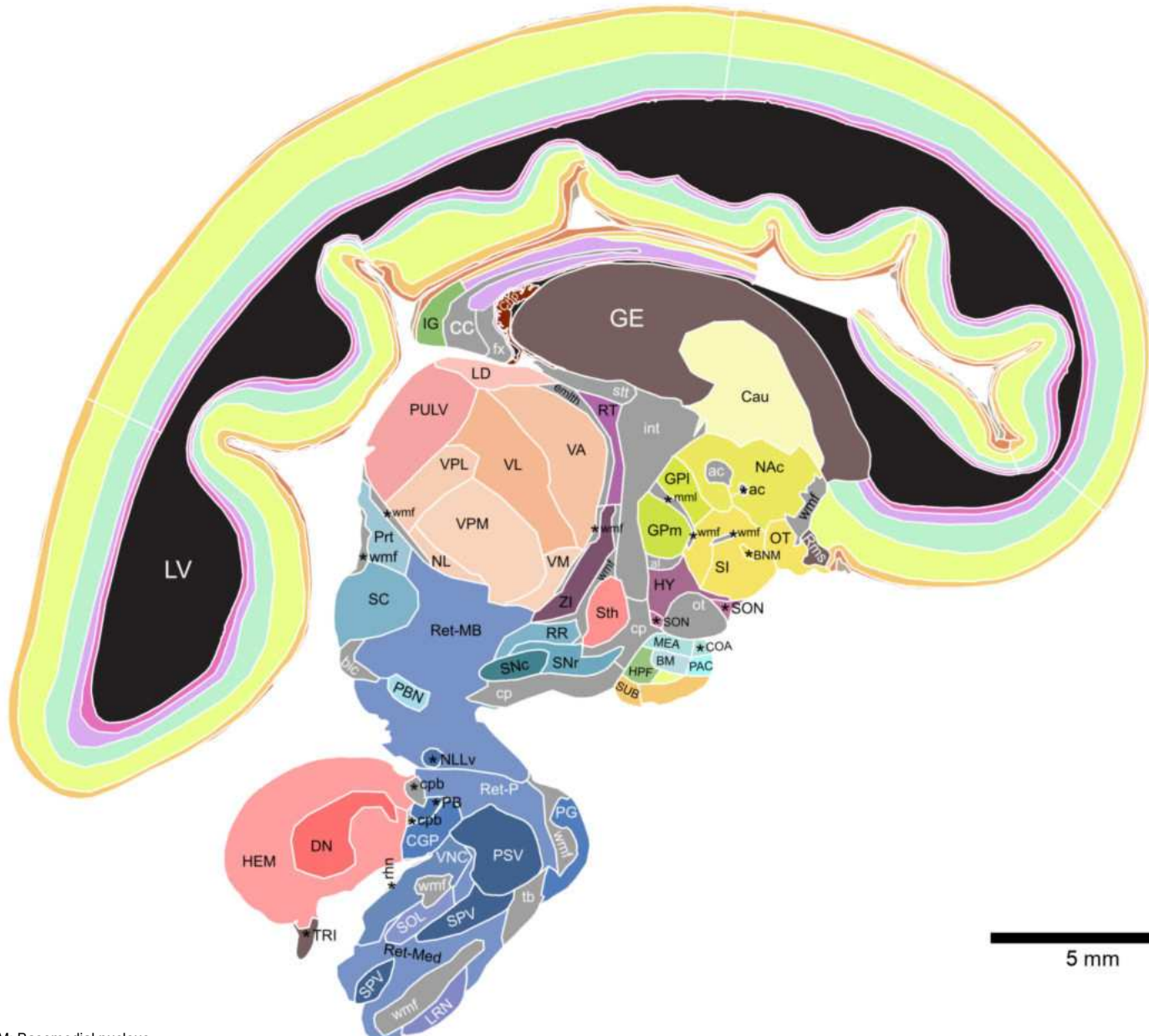
Age: 14 GW



L-R Level: 3.06 mm



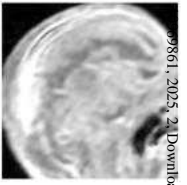
5 mm



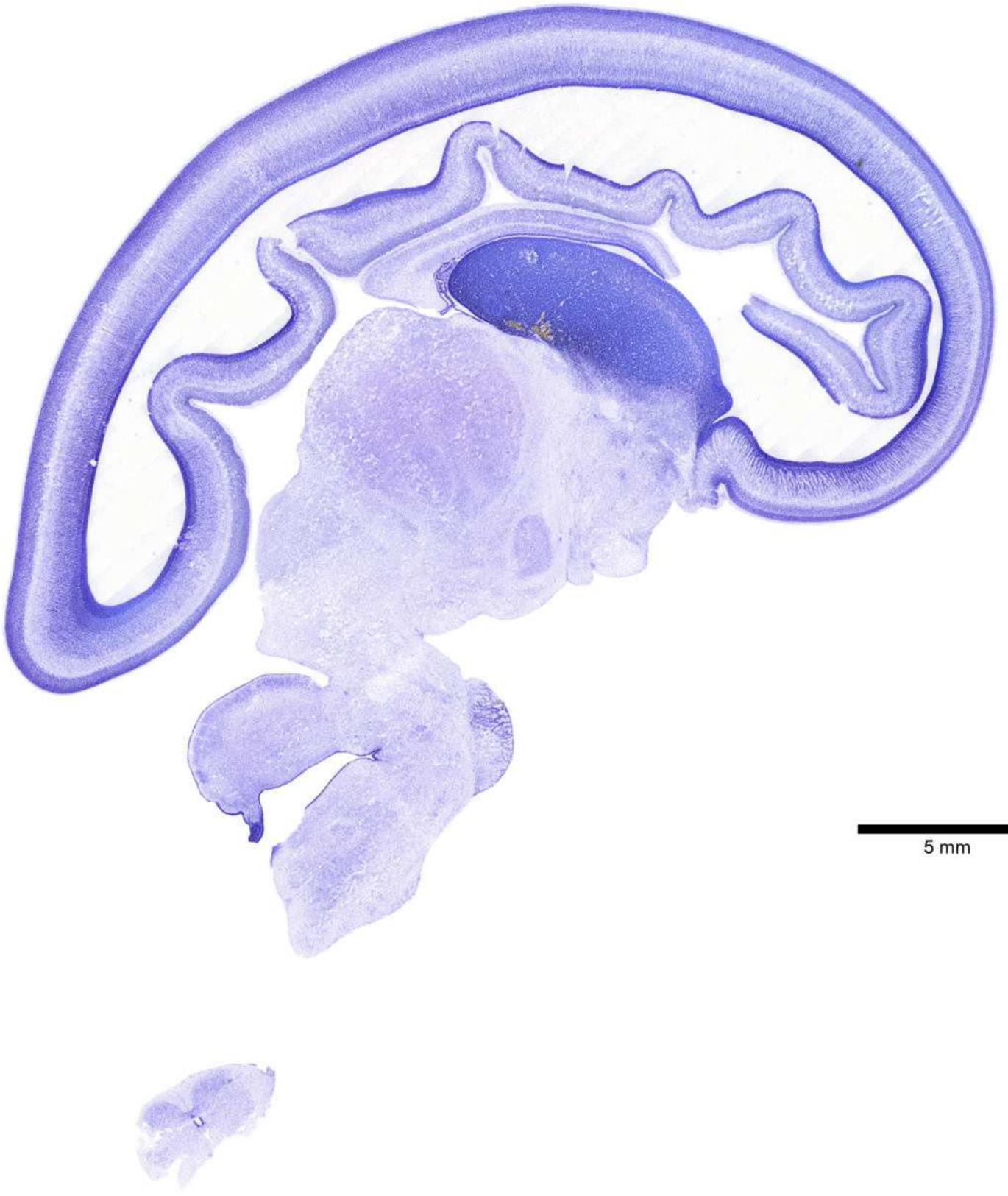
5 mm

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|---|---|---|--|
| <ul style="list-style-type: none"> BM: Basomedial nucleus [amygdala] BNN: Basal nucleus of Meynert CGP: Central gray of the pons COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HPF: Hippocampal formation HY: Hypothalamus IG: Induseum griseum LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LRN: Lateral reticular nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens NL: Nucleus limitans [thalamus] NLLV: Nucleus of the lateral lemniscus, ventral OT: Olfactory tubercle PB: Parabrachial nucleus PBN: Parabrachial nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] Prt: Pretectum RR: Retrorubral area RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons | <ul style="list-style-type: none"> Rms: Rostral migratory stream SC: Superior colliculus SI: Substantia innominata SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SOL: Solitary nucleus SON: Supraoptic nucleus [hypothalamus] SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum Sth: Subthalamus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VNC: Vestibular nuclear complex | <ul style="list-style-type: none"> VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure al: Ansa lenticularis bic: Brachium of the inferior colliculus cc: Corpus callosum cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix int: Internal capsule mmf: Medial medullary lamina ot: Optic tract rhn: Rhombencephalic neuroepithelium stt: Stria terminalis tb: Trapezoid body wmf: White matter fibers |
|---|---|---|--|

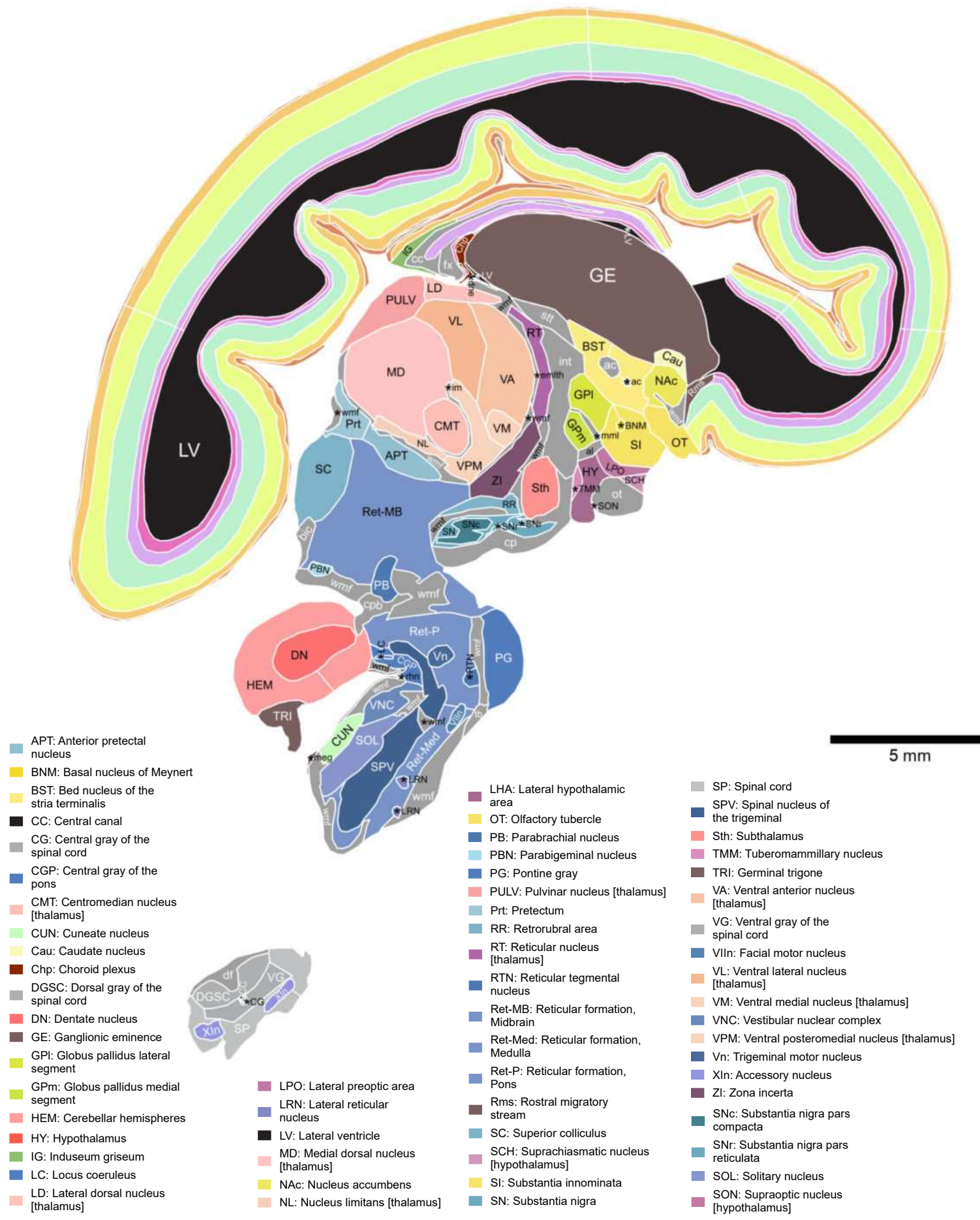
Age: 14 GW



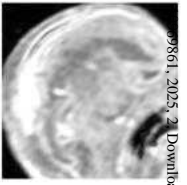
L-R Level: 2.64 mm



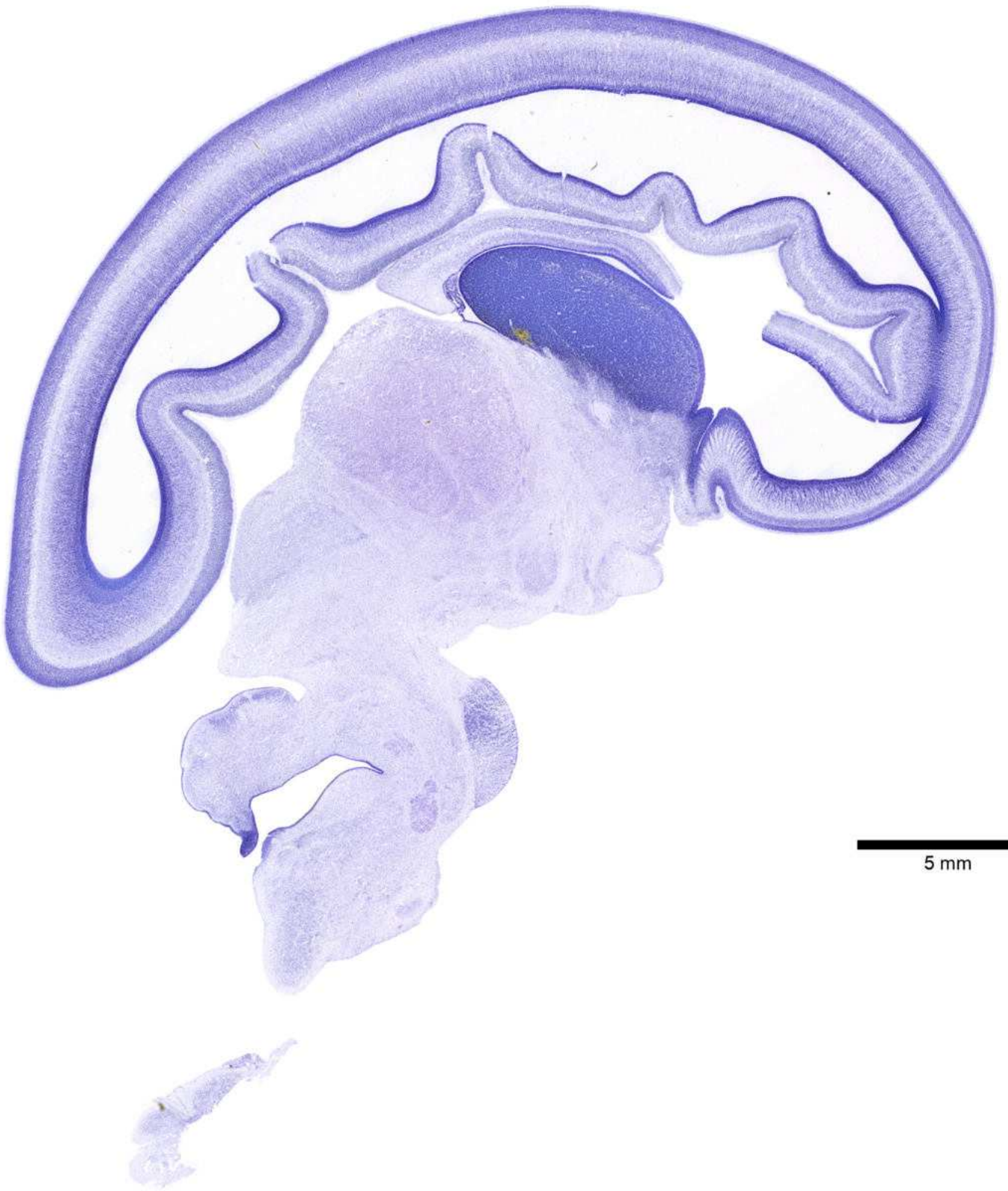
109861, 2025, 21 Downloaded from <https://onlinelibrary.wiley.com/doi/10.1002/ene.70006> by Test, Wiley Online Library on [06/02/2025]. See the Terms and Conditions (<https://onlinelibrary.wiley.com/terms-and-conditions>) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License



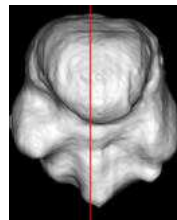
Age: 14 GW



L-R Level: 2.28 mm



5 mm



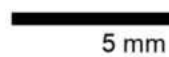
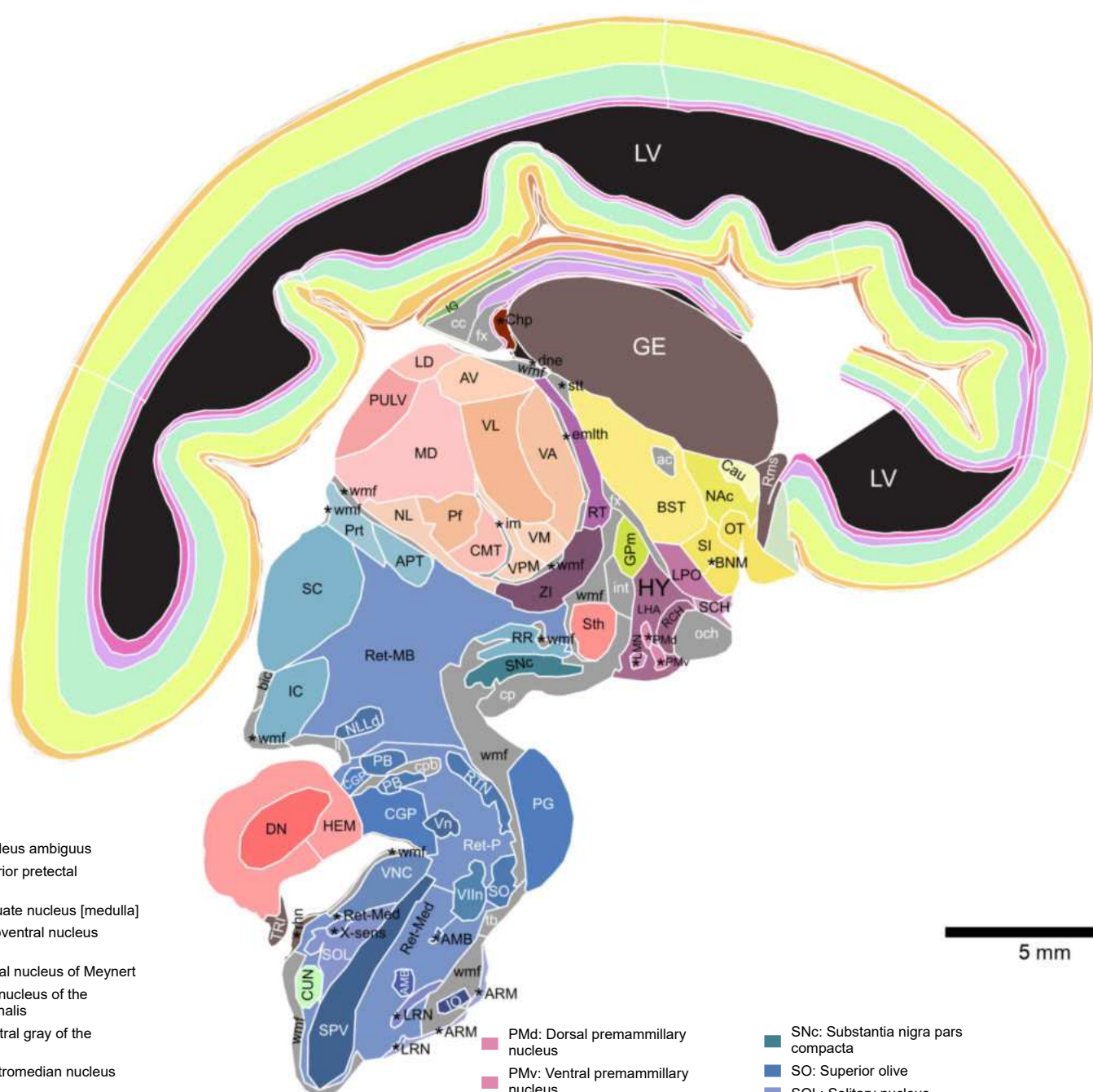
L-R Level: 2.28 mm

Age: 14 GW

Transient Layers

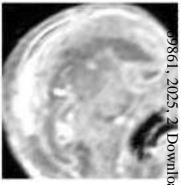
Cortical Areas

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL
- FCTx
- OCC
- ORB
- CING
- PAR

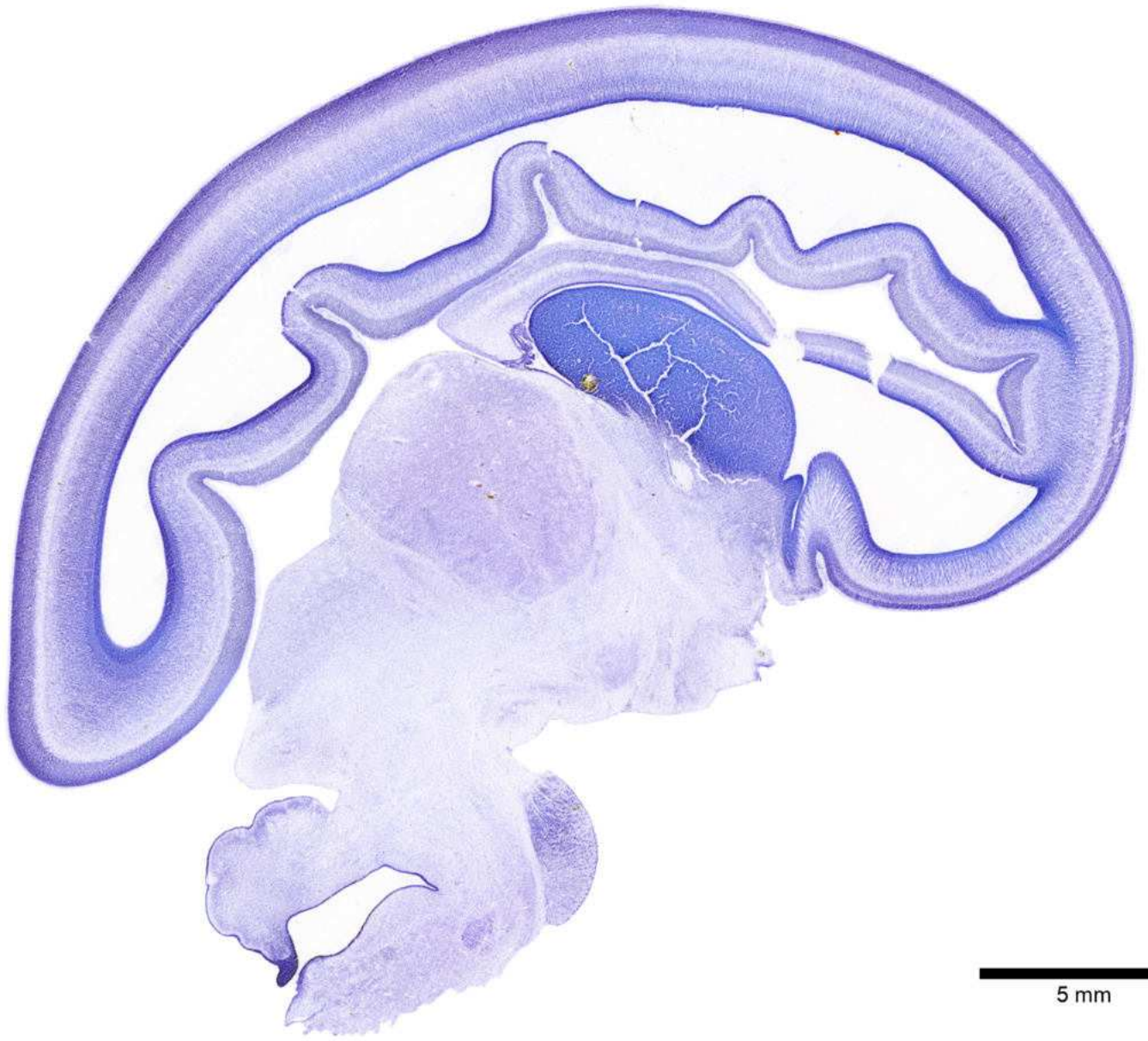


- AMB: Nucleus ambiguus
- APT: Anterior pretectal nucleus
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BNM: Basal nucleus of Meynert
- BST: Bed nucleus of the stria terminalis
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NL: Nucleus limitans [thalamus]
- NLLd: Nucleus of the lateral lemniscus, dorsal
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SO: Superior olive
- SOL: Solitary nucleus
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- Sth: Subthalamus
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- Vlln: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VNC: Vestibular nuclear complex
- Vn: Trigeminal motor nucleus
- X-sens: Dorsal sensory nucleus X
- ZI: Zona incerta

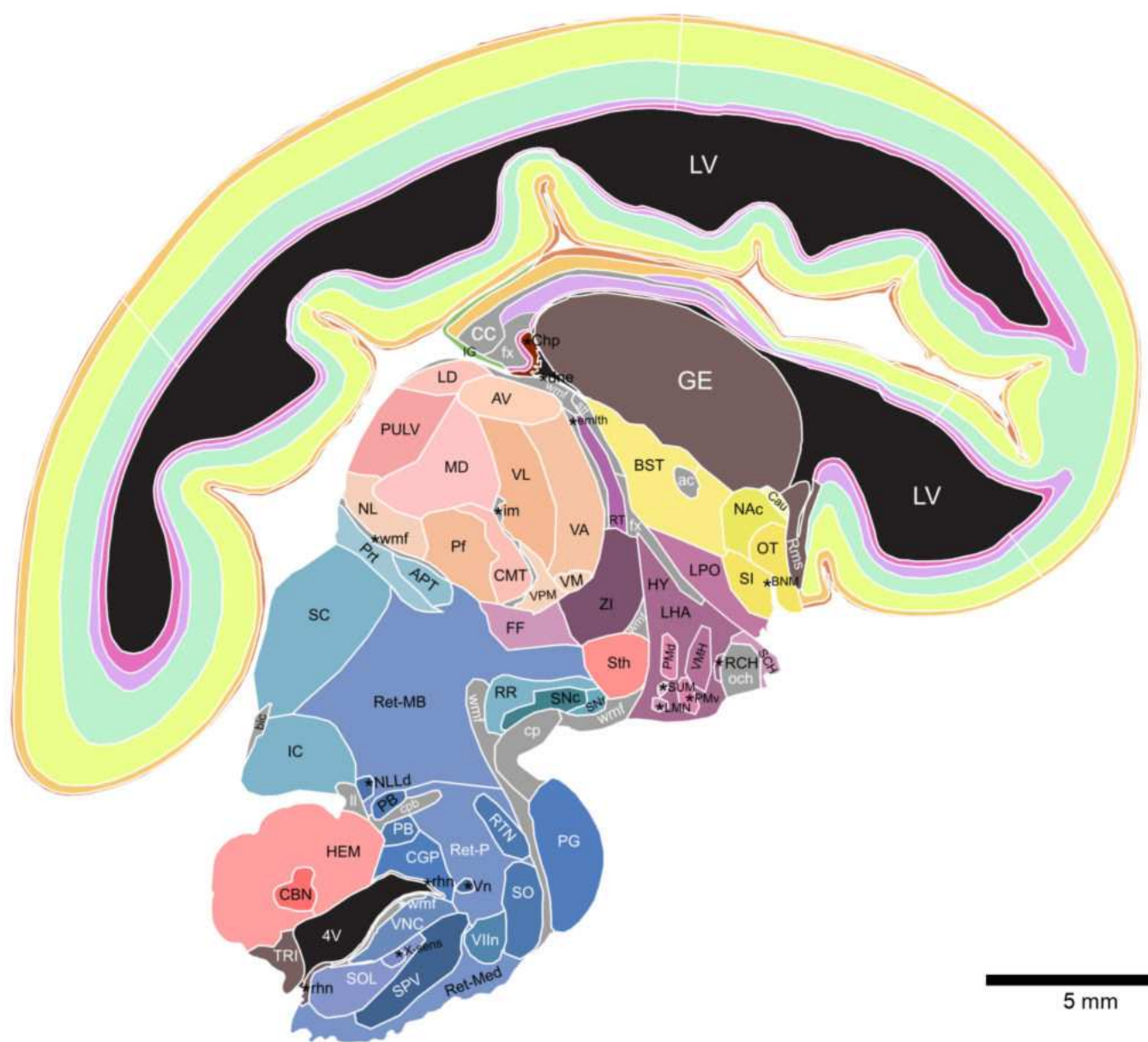
Age: 14 GW



L-R Level: 2.1 mm

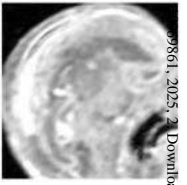


109861, 2025, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/ene.70006 by Test, Wiley Online Library on [06/02/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

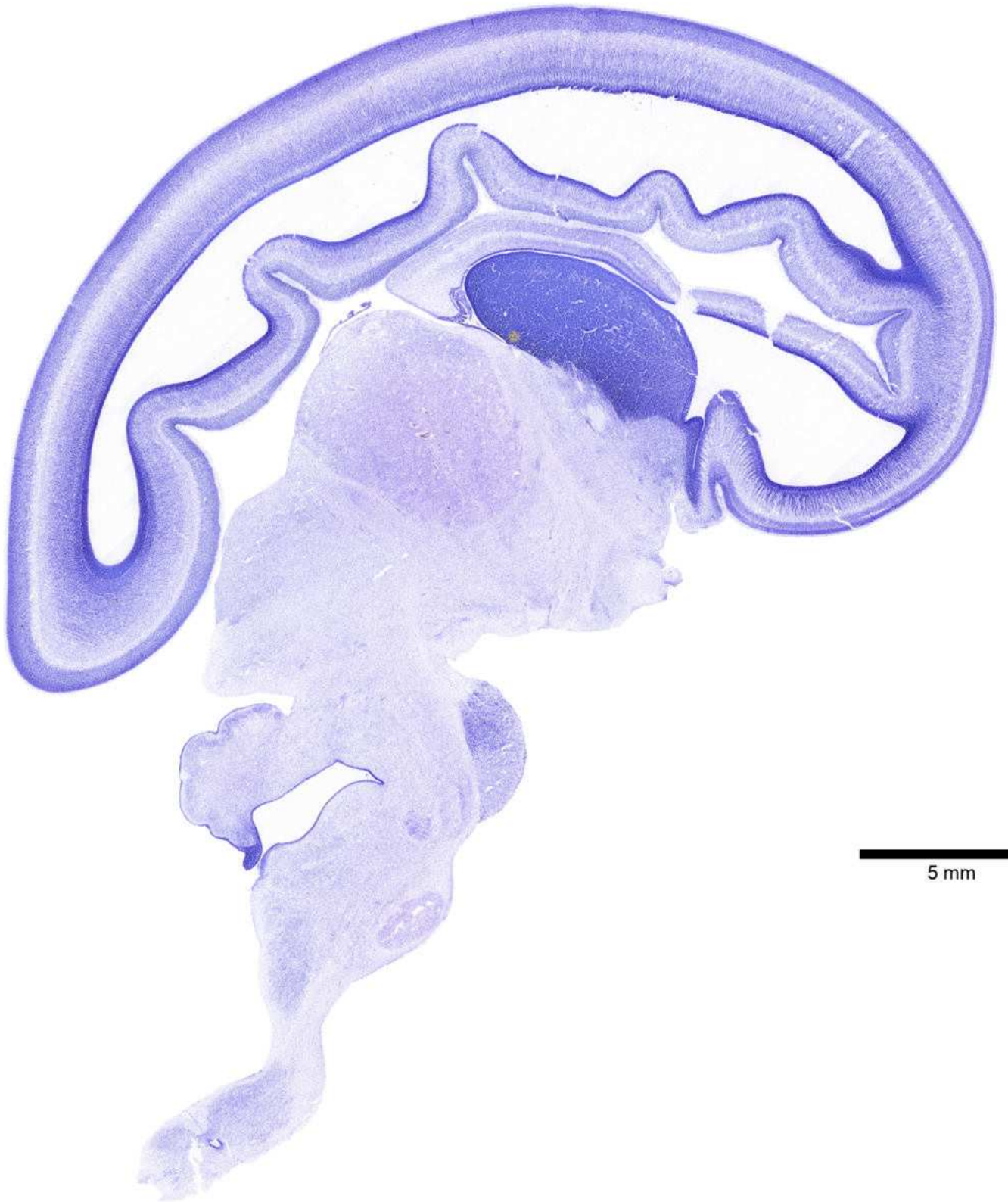


- 4V: Fourth ventricle
- APT: Anterior pretecal nucleus
- AV: Anteroventral nucleus [thalamus]
- BNM: Basal nucleus of Meynert
- BST: Bed nucleus of the stria terminalis
- CBN: Cerebellar nuclei
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NL: Nucleus limitans [thalamus]
- NLLd: Nucleus of the lateral lemniscus, dorsal
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SO: Superior olive
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal
- SUM: Supramammillary area
- Sth: Subthalamus
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- Vlln: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- Vn: Trigeminal motor nucleus
- X-sens: Dorsal sensory nucleus X
- ZI: Zona incerta

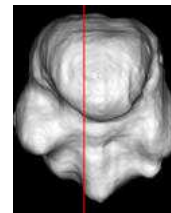
Age: 14 GW



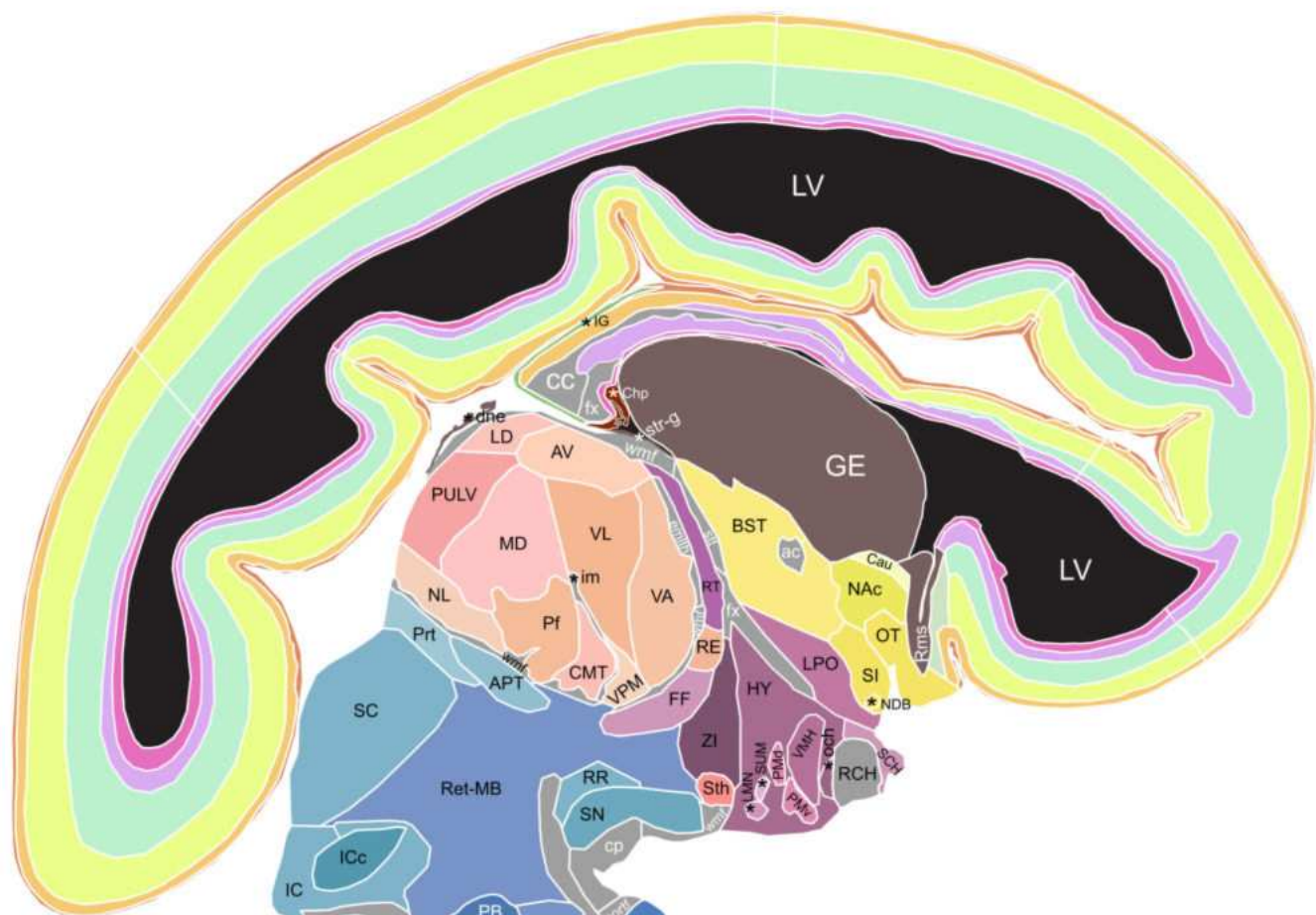
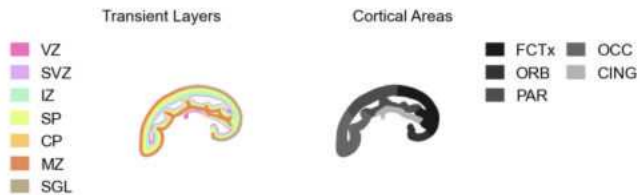
L-R Level: 2.04 mm



5 mm



L-R Level: 2.04 mm



- 4V: Fourth ventricle
- AMB: Nucleus ambiguus
- APT: Anterior pretecal nucleus
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CC: Central canal
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus

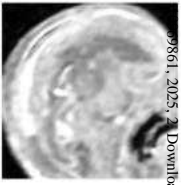
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]

- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMD: Dorsal premammillary nucleus
- PMV: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain

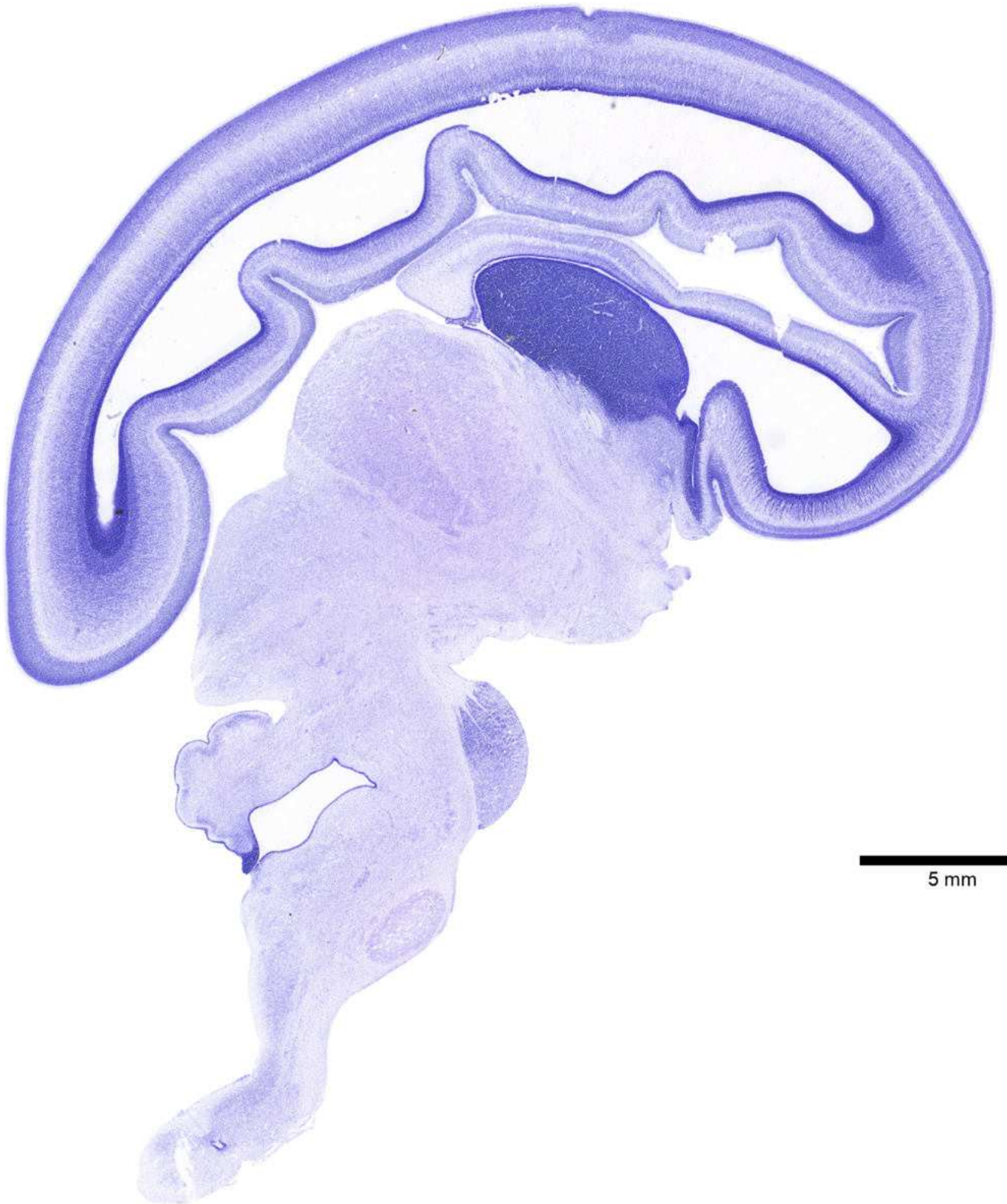
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SN: Substantia nigra
- SO: Superior olive
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal
- SUM: Supramammillary area
- Sth: Subthalamus
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- Vlin: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- XIn: Accessory nucleus
- ZI: Zona incerta

5 mm

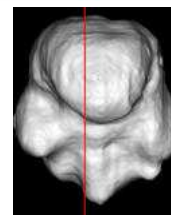
Age: 14 GW



L-R Level: 1.86 mm



5 mm

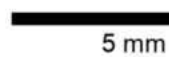
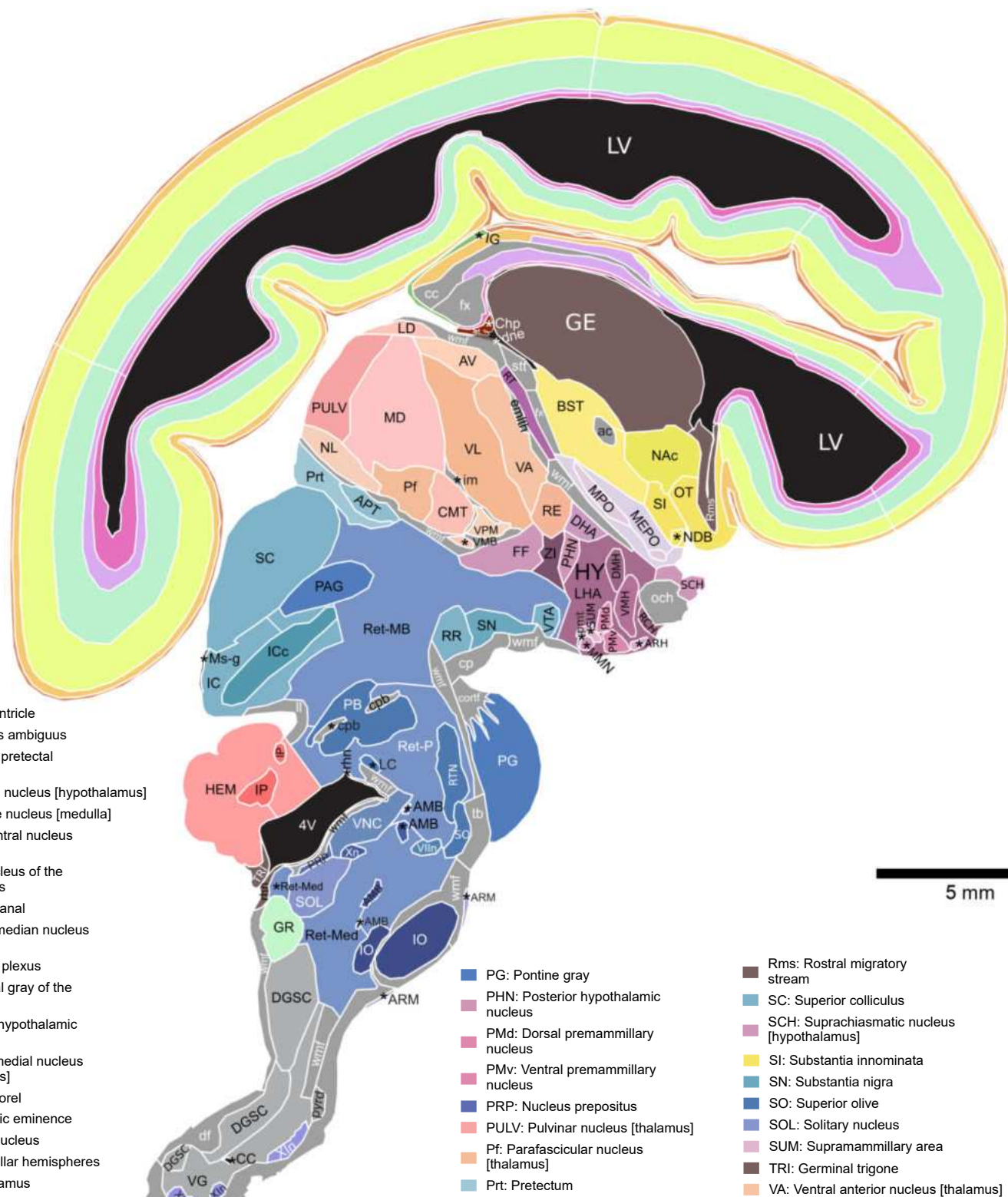


L-R Level: 1.86 mm

Transient Layers

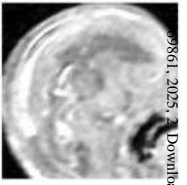
Cortical Areas

- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- FCTx
 - OCC
 - ORB
 - CING
 - PAR

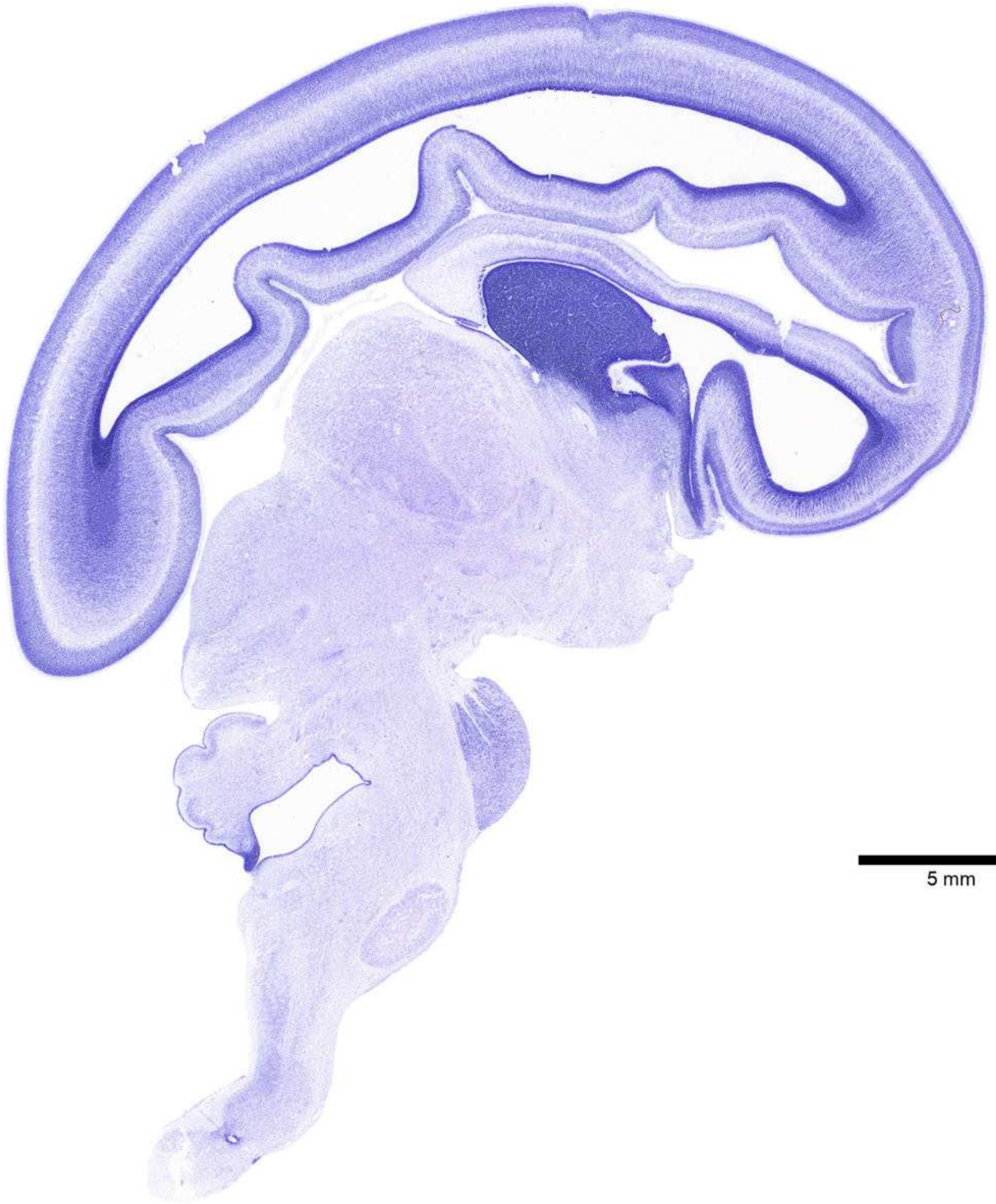


- 4V: Fourth ventricle
- AMB: Nucleus ambiguus
- APT: Anterior pretectal nucleus
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CC: Central canal
- CMT: Centromedian nucleus [thalamus]
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- Ms-g: Migratory stream, general
- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SN: Substantia nigra
- SO: Superior olive
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VII: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- Xn: Accessory nucleus
- Xn: Dorsal motor nucleus
- ZI: Zona incerta

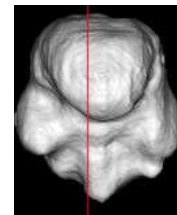
Age: 14 GW



L-R Level: 1.68 mm

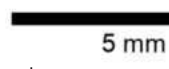
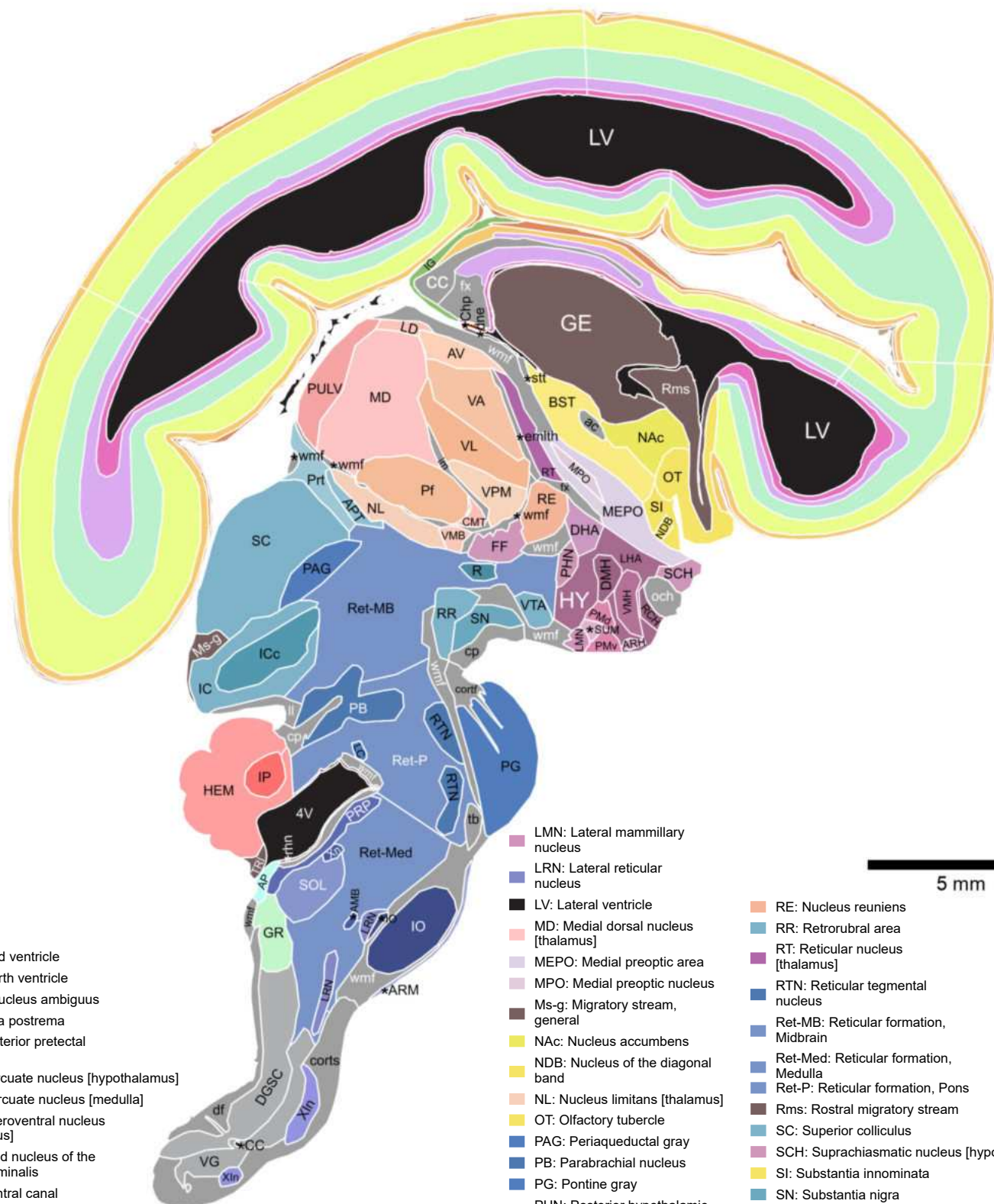


5 mm



L-R Level: 1.68 mm

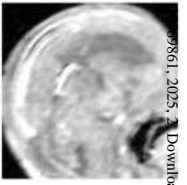
- Transient Layers**
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas**
- FCTx
 - ORB
 - PAR
 - OCC
 - CING



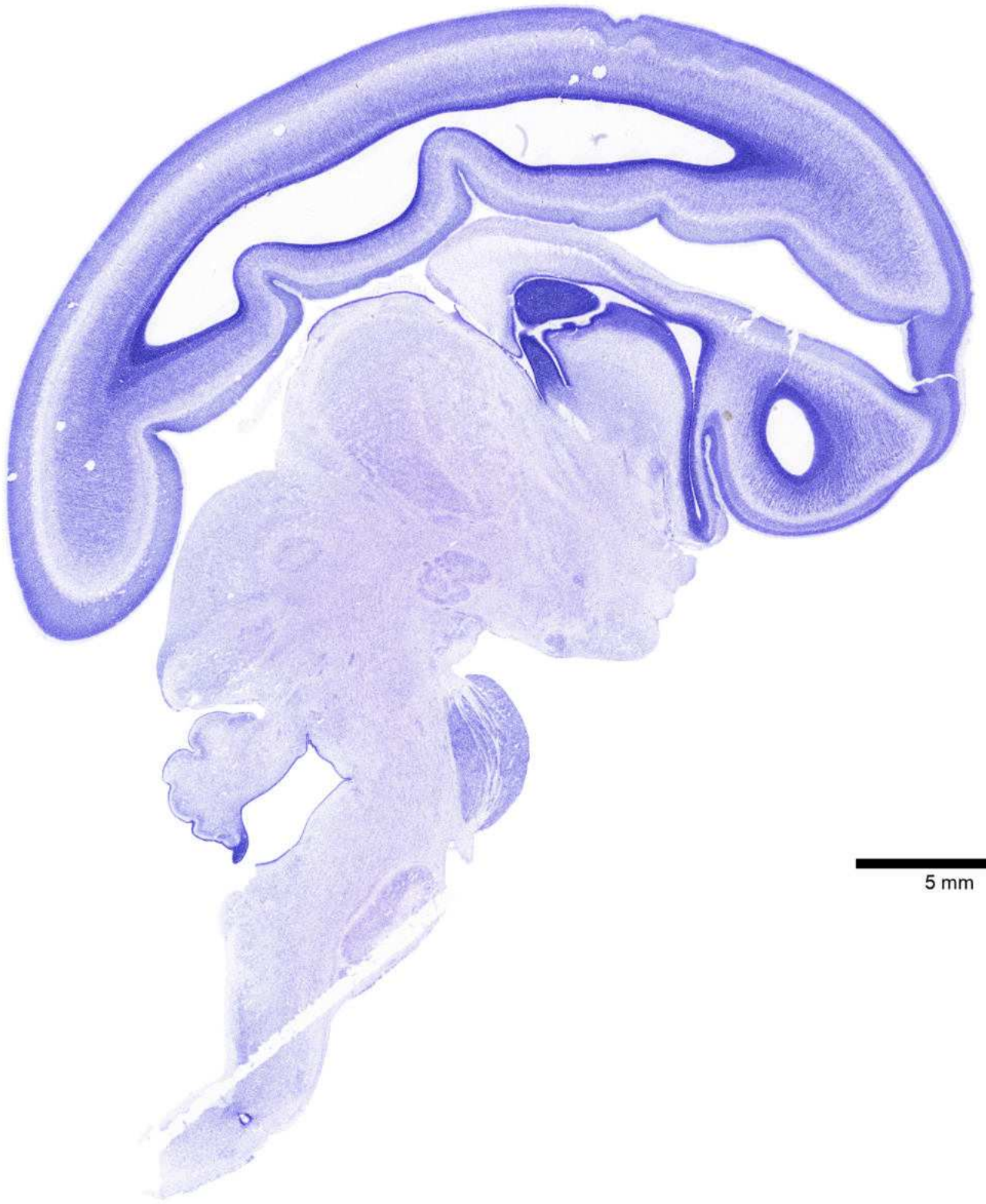
- 3V: Third ventricle
- 4V: Fourth ventricle
- AMB: Nucleus ambiguus
- AP: Area postrema
- APT: Anterior pretectal nucleus
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CC: Central canal
- CMT: Centromedian nucleus [thalamus]
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres

- LMN: Lateral mammillary nucleus
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MPO: Medial preoptic nucleus
- Ms-g: Migratory stream, general
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SN: Substantia nigra
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus

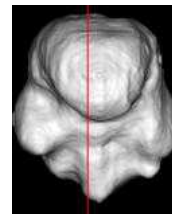
Age: 14 GW



L-R Level: 1.26 mm



5 mm



L-R Level: 1.26 mm

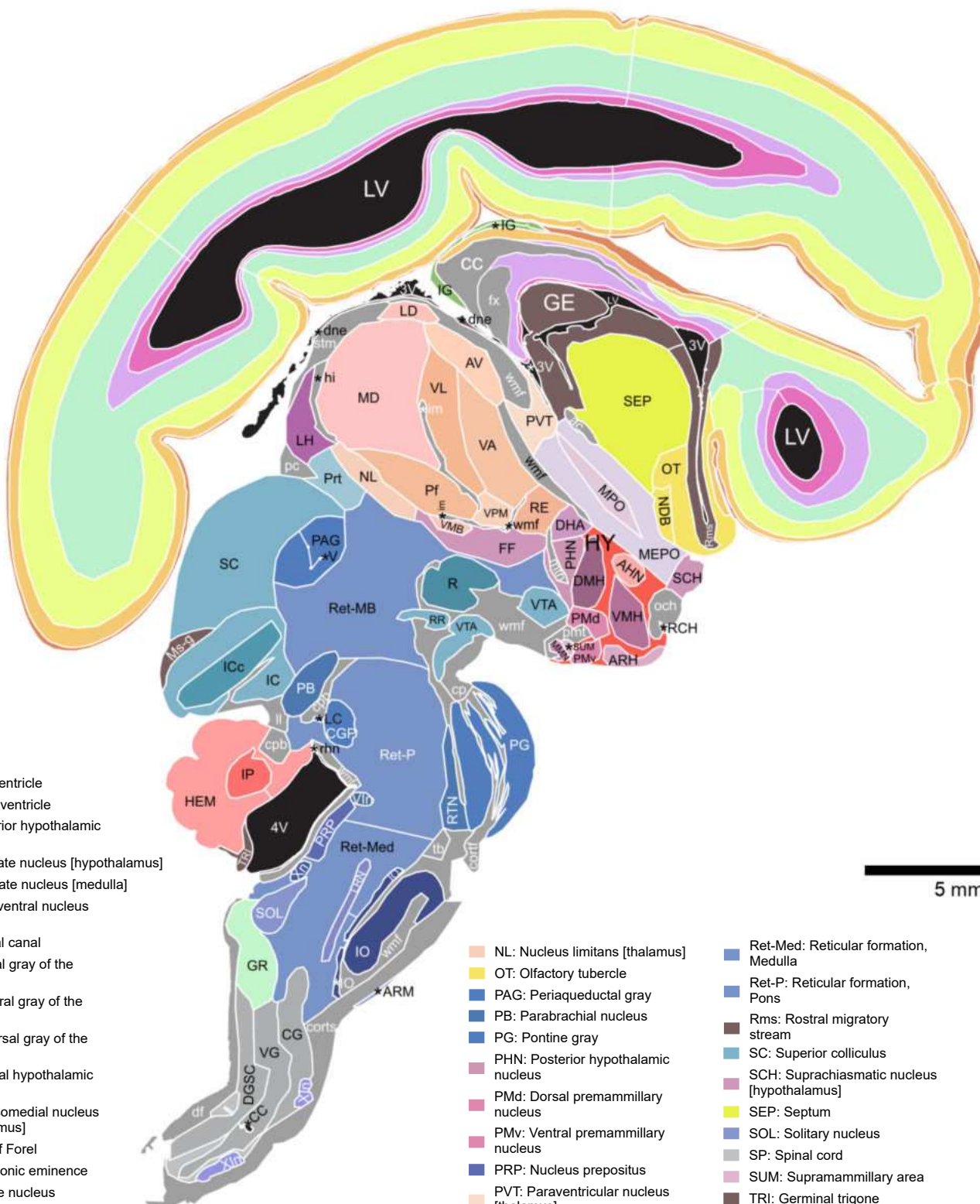
- Transient Layers**
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL



Cortical Areas



- FCTx
- ORB
- PAR
- OCC
- CING



- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- CC: Central canal
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula

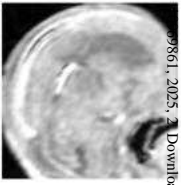
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- Ms-g: Migratory stream, general
- NDB: Nucleus of the diagonal band

- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain

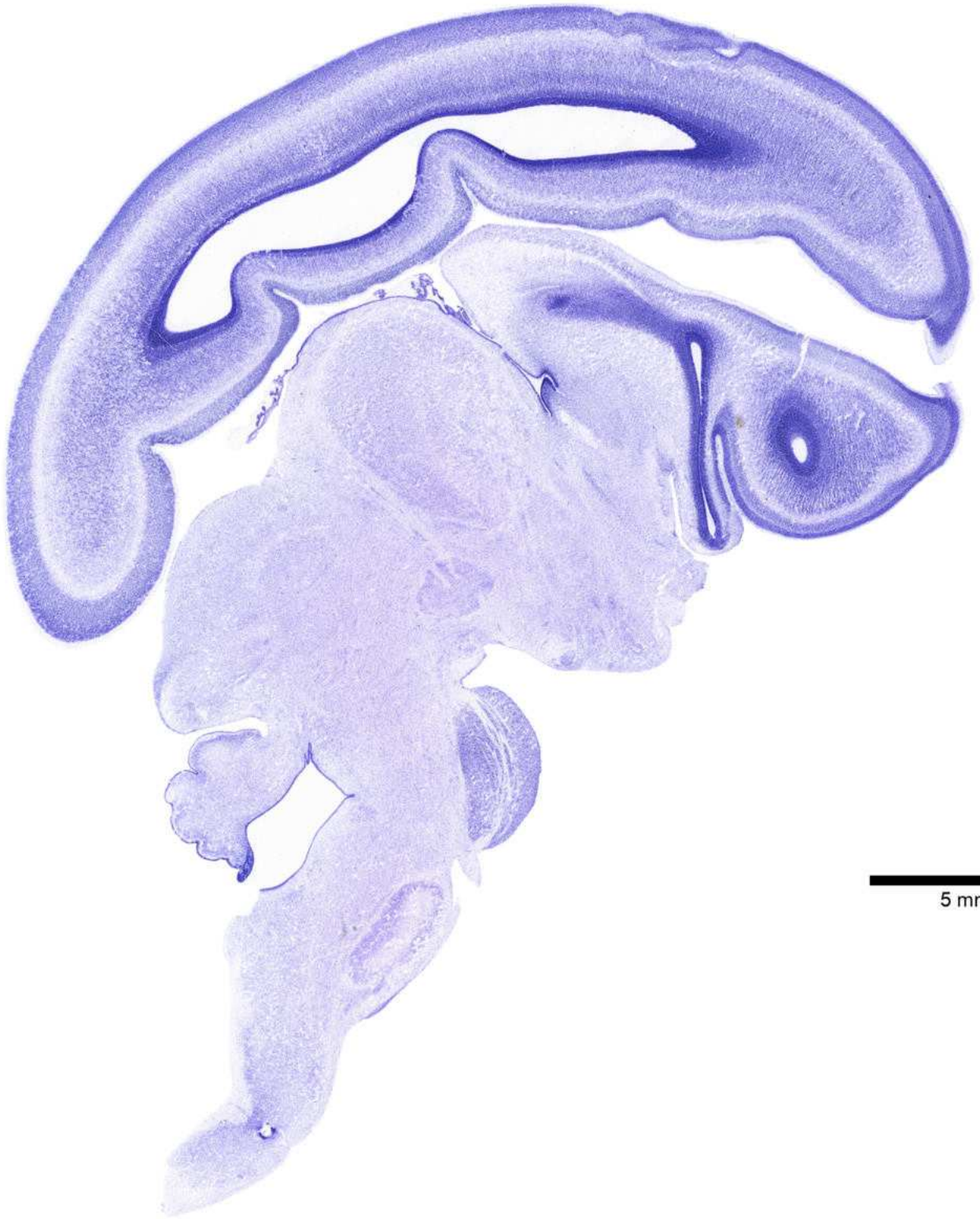
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus



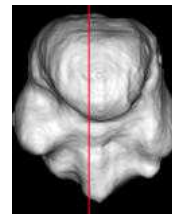
Age: 14 GW



L-R Level: 1.08 mm

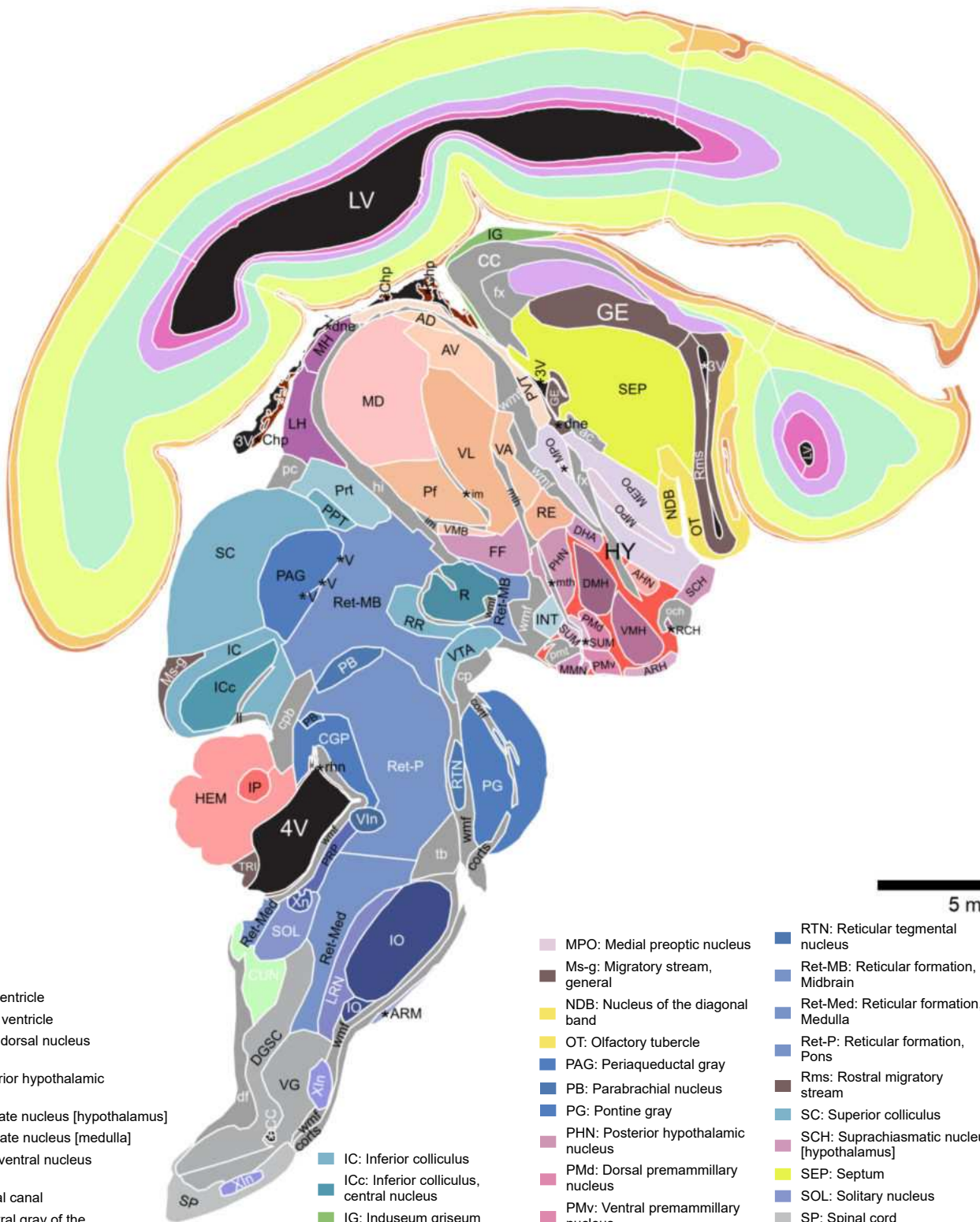


5 mm



L-R Level: 1.08 mm

- Transient Layers**
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas**
- FCTx
 - ORB
 - PAR
 - OCC
 - CING



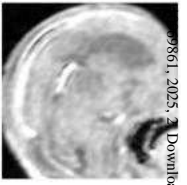
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHN: Anterior hypothalamic nucleus
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- CC: Central canal
- CGP: Central gray of the pons
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus

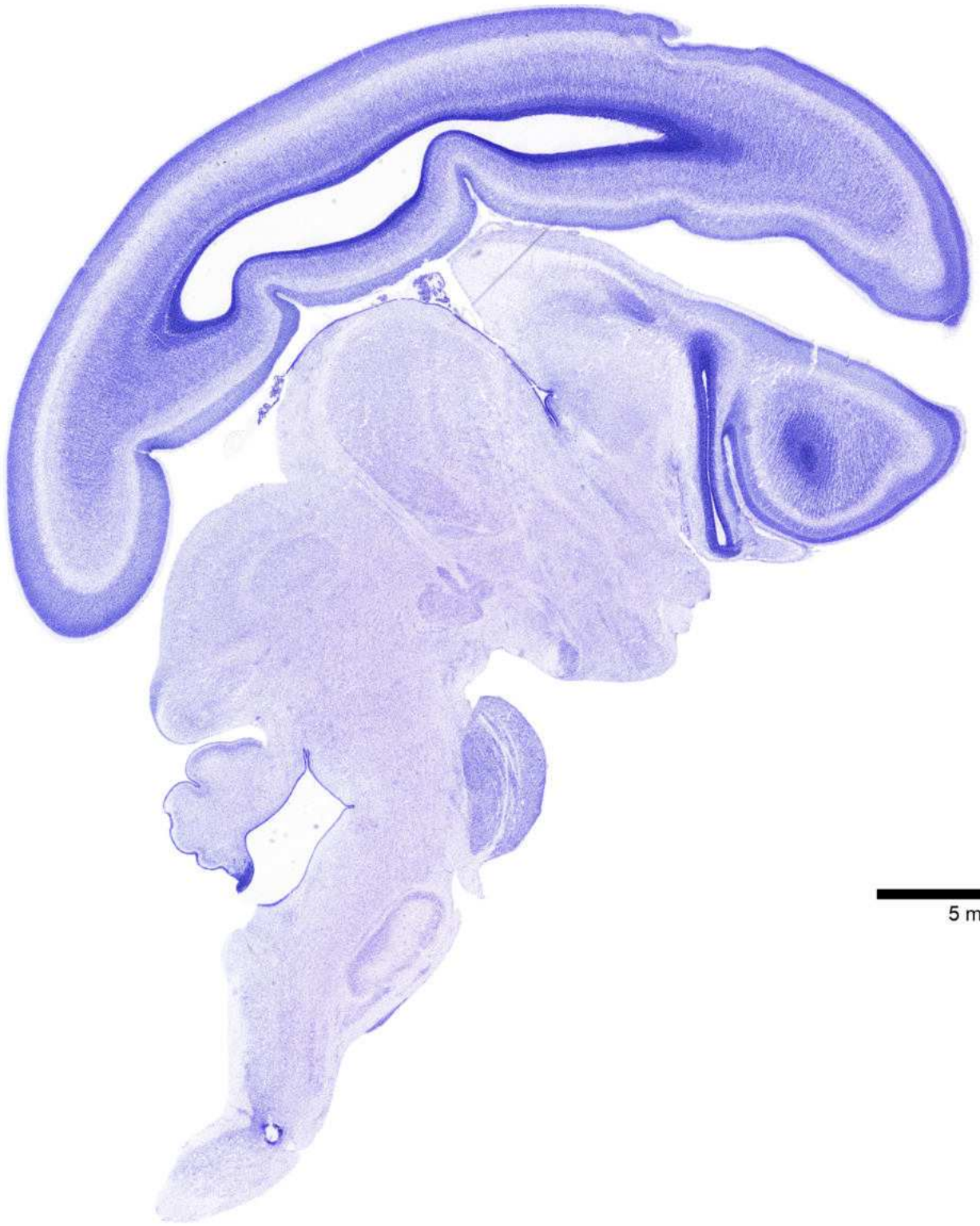
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MH: Medial habenula
- MMN: Medial mammillary nucleus

- MPO: Medial preoptic nucleus
- Ms-g: Migratory stream, general
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus
- PMV: Ventral premammillary nucleus
- PPT: Posterior pretecal nucleus
- PRP: Nucleus prepositus
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- PRE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus

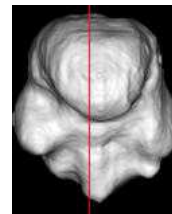
Age: 14 GW



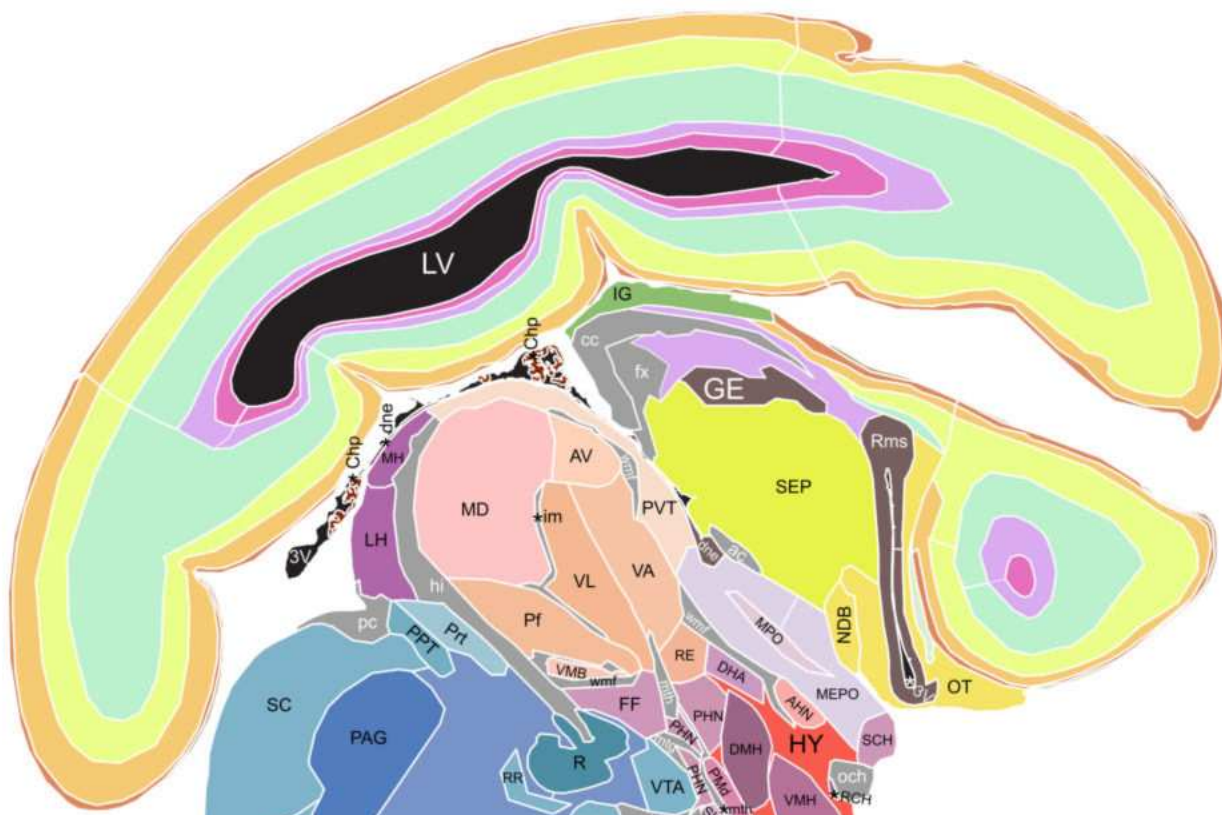
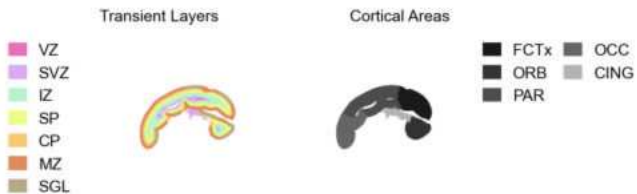
L-R Level: 0.96 mm



5 mm



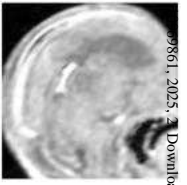
L-R Level: 0.96 mm



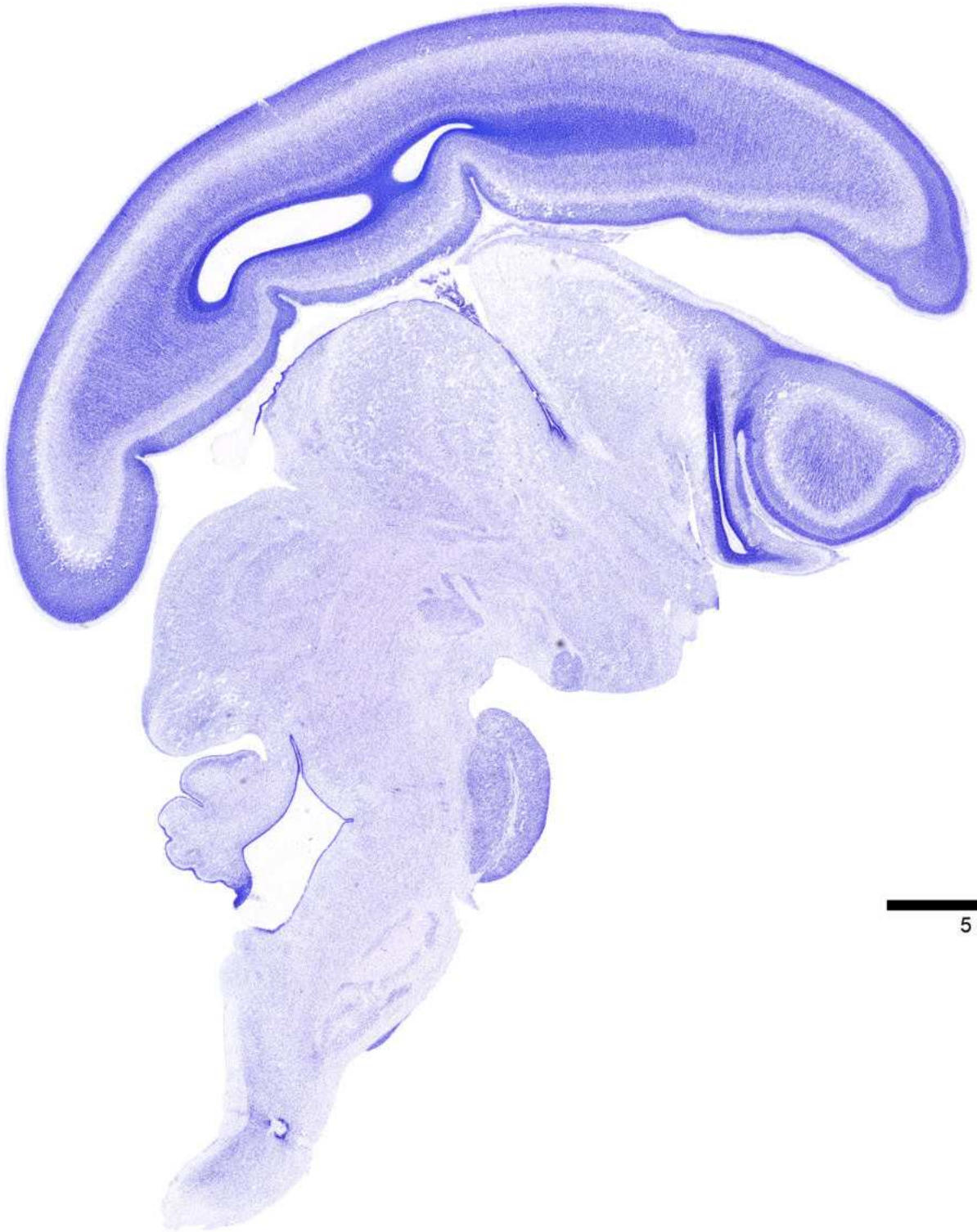
- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- CC: Central canal
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- LH: Lateral habenula
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MH: Medial habenula
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- Ms-g: Migratory stream, general
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus
- PMV: Ventral premammillary nucleus
- PPT: Posterior pretecal nucleus
- PRP: Nucleus prepositus
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- TT: Tenia tecta
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- Vin: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- Xin: Accessory nucleus
- Xn: Dorsal motor nucleus

5 mm

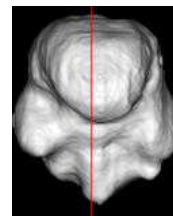
Age: 14 GW



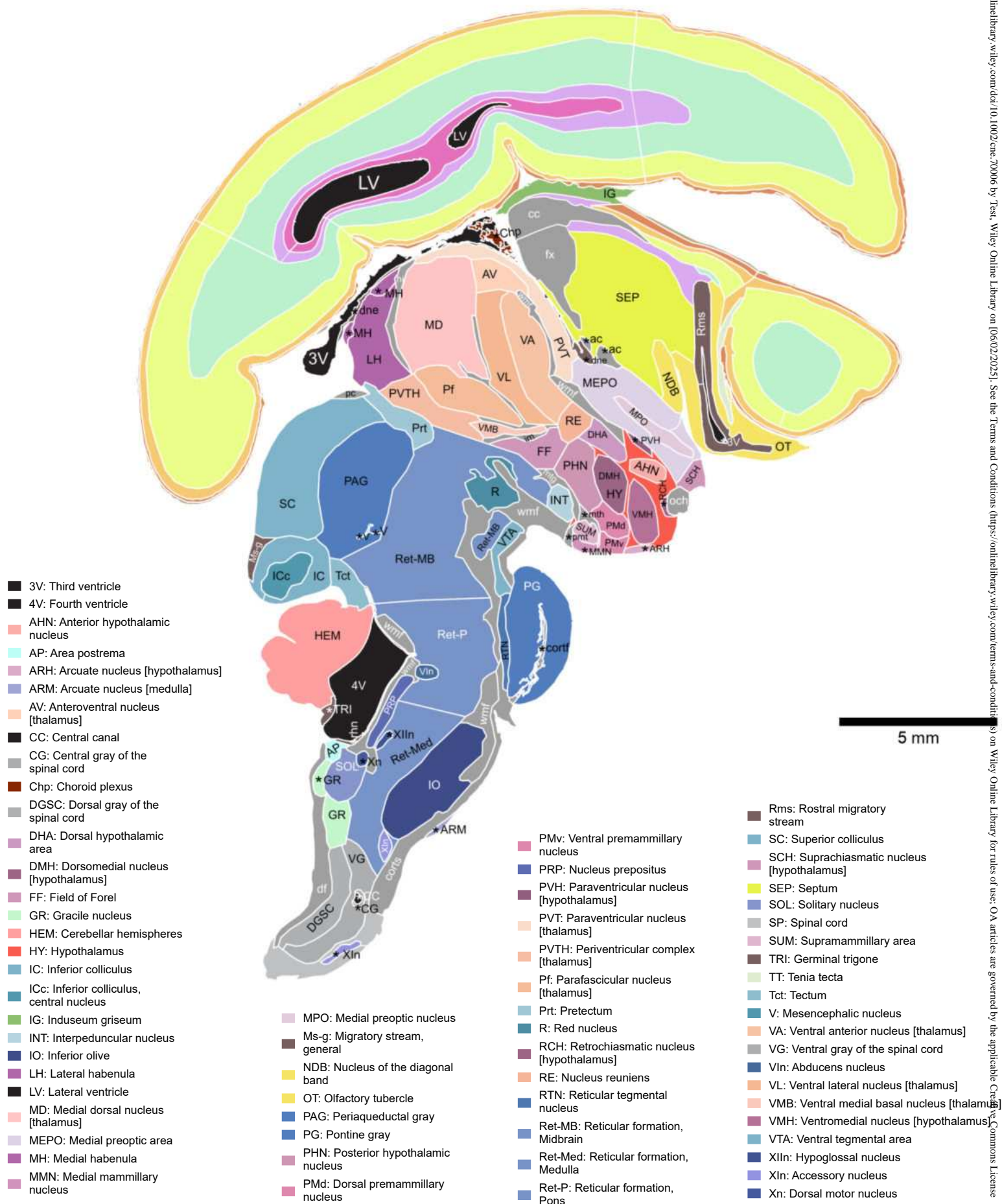
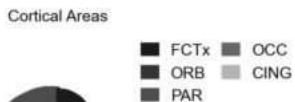
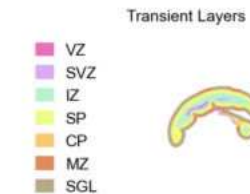
L-R Level: 0.72 mm



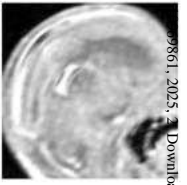
5 mm



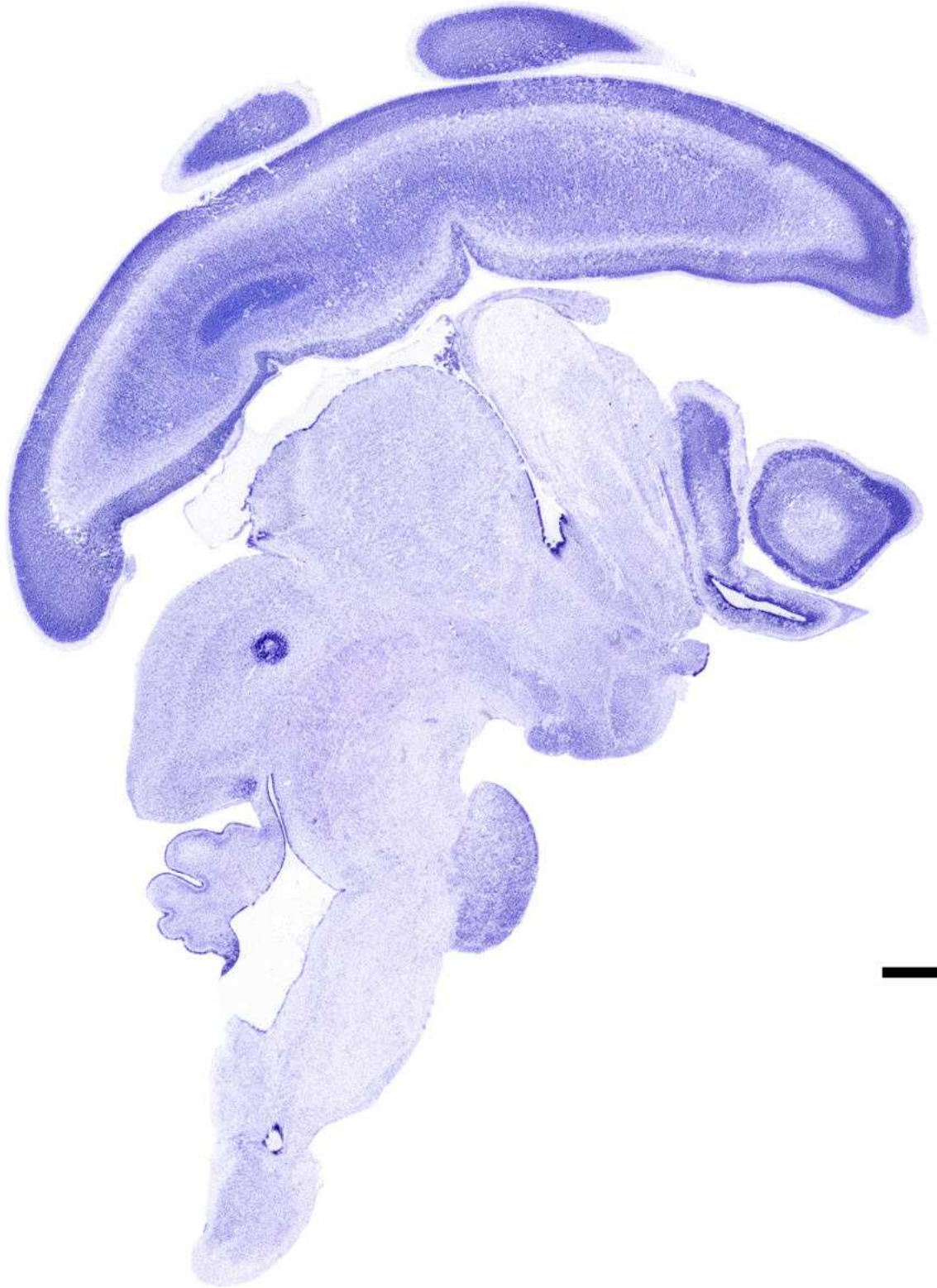
L-R Level: 0.72 mm



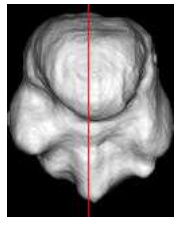
Age: 14 GW



L-R Level: 0.3 mm



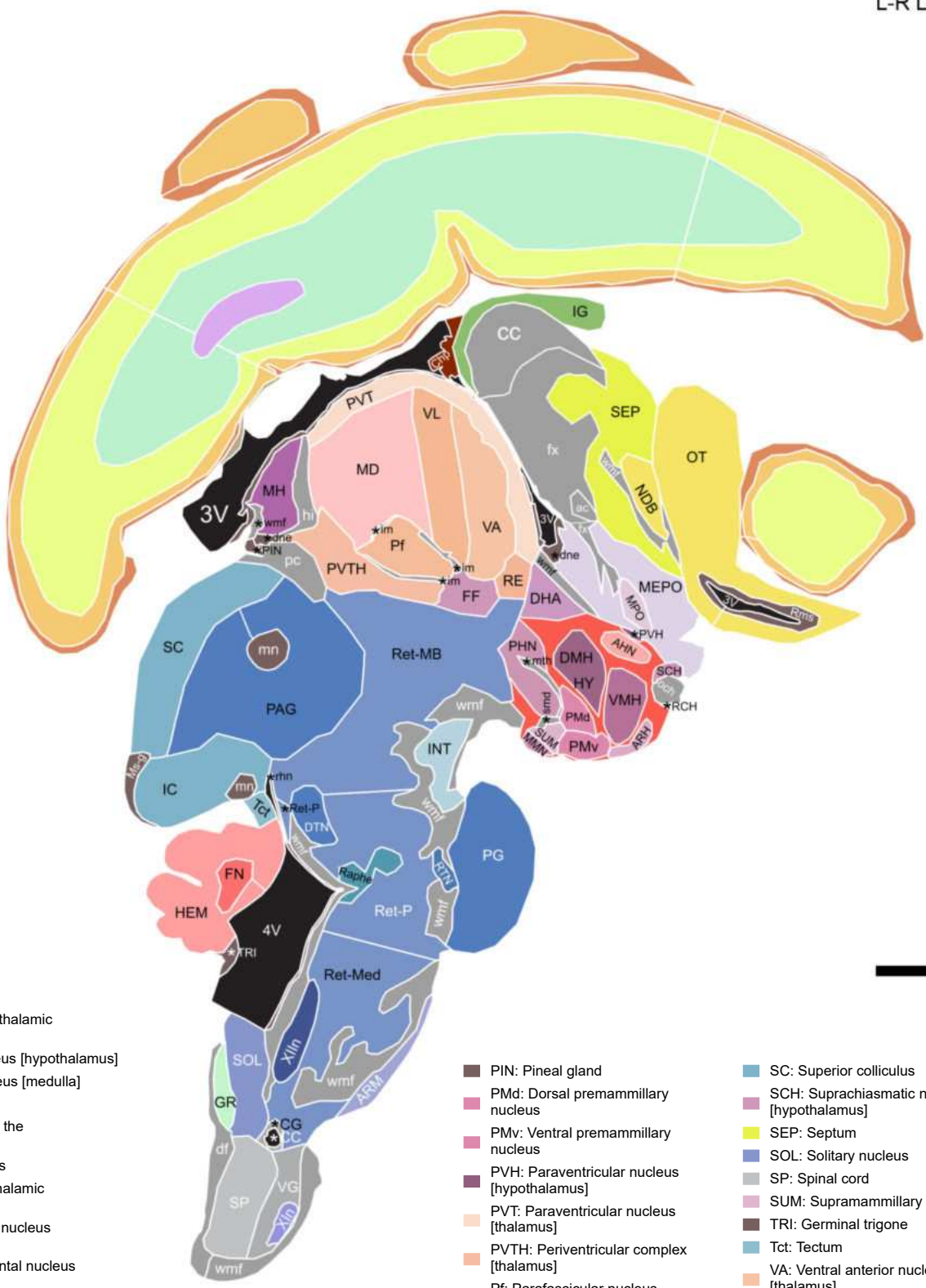
5 mm



L-R Level: 0.3 mm

Age: 14 GW

- Transient Layers**
- SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas**
- FCTx
 - PAR
 - ORB
 - OCC

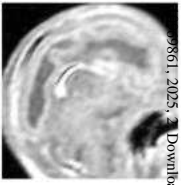


- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- CC: Central canal
- CG: Central gray of the spinal cord
- Chp: Choroid plexus
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- INT: Interpeduncular nucleus
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MH: Medial habenula
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- Ms-g: Migratory stream, general
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMd: Dorsal preammillary nucleus
- PMv: Ventral preammillary nucleus
- PVH: Paraventricular nucleus [hypothalamus]
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- XIn: Hypoglossal nucleus
- XIn: Accessory nucleus

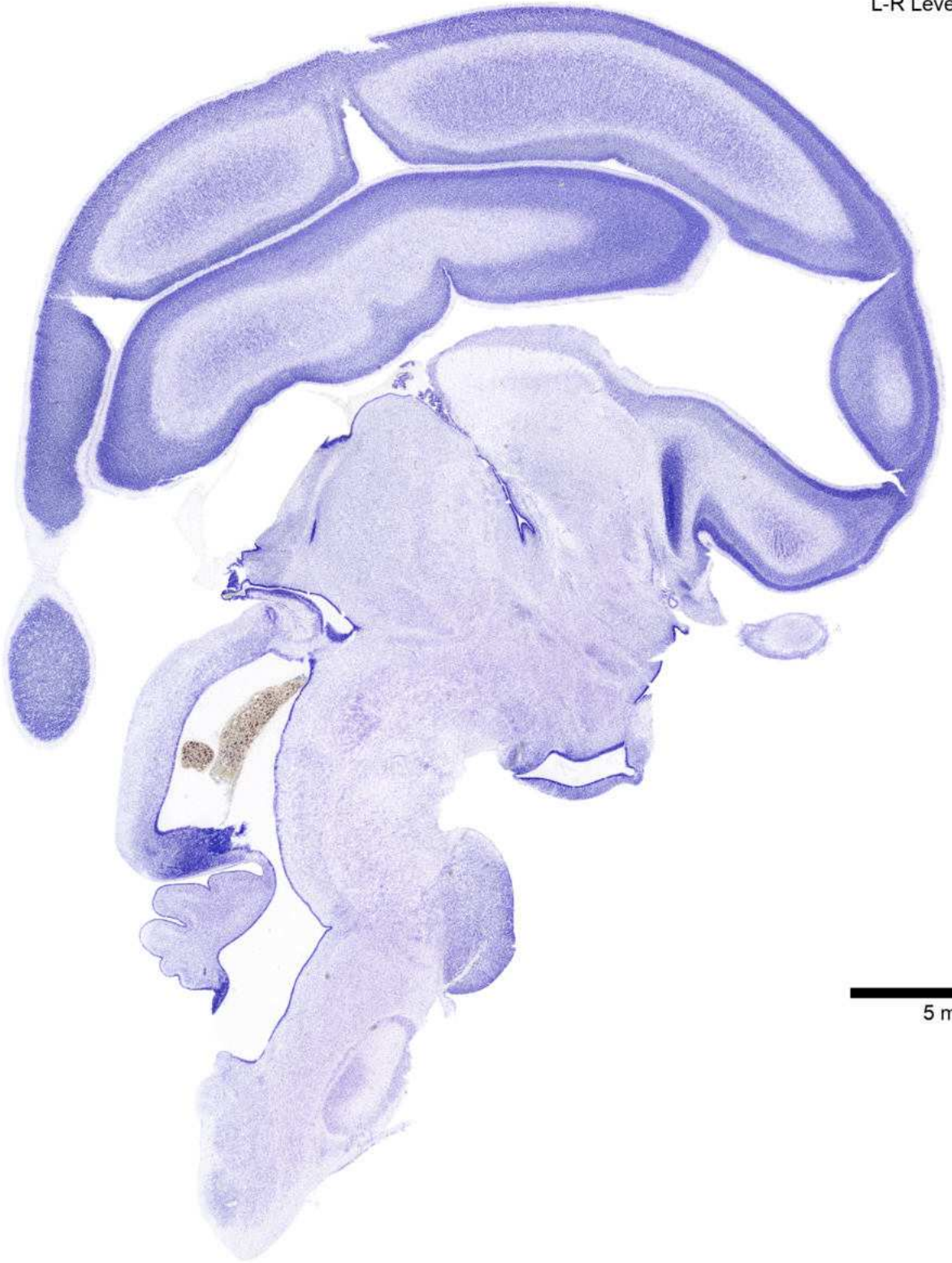


5 mm

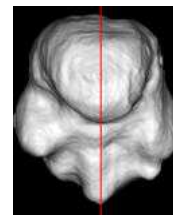
Age: 14 GW



L-R Level: -0.6 mm

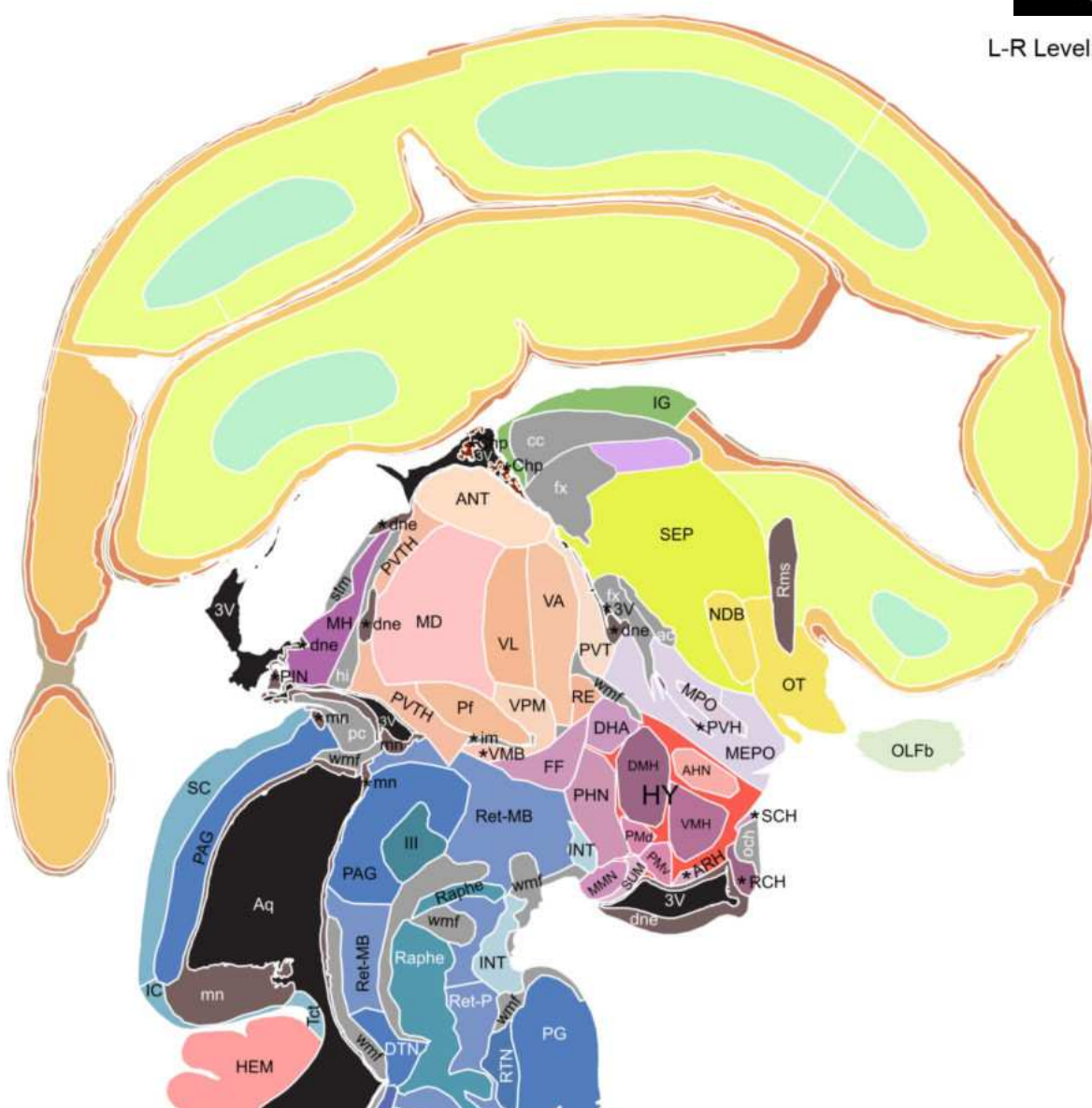


5 mm



L-R Level: -0.6 mm

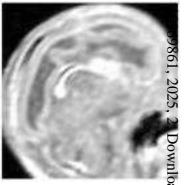
- Transient Layers**
- SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas**
- FCTx
 - ORB
 - PAR
 - OCC
 - CING



5 mm

- 3V: Third ventricle
- AHN: Anterior hypothalamic nucleus
- ANT: Anterior complex [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- Aq: Aqueduct
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- INM: Intercalated nucleus [medulla]
- IO: Inferior olive
- LRN: Lateral reticular nucleus
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MH: Medial habenula
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NDB: Nucleus of the diagonal band
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMd: Dorsal preammillary nucleus
- PMv: Ventral preammillary nucleus
- PRP: Nucleus prepositus
- PVH: Paraventricular nucleus [hypothalamus]
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- XII: Hypoglossal nucleus
- Xn: Dorsal motor nucleus

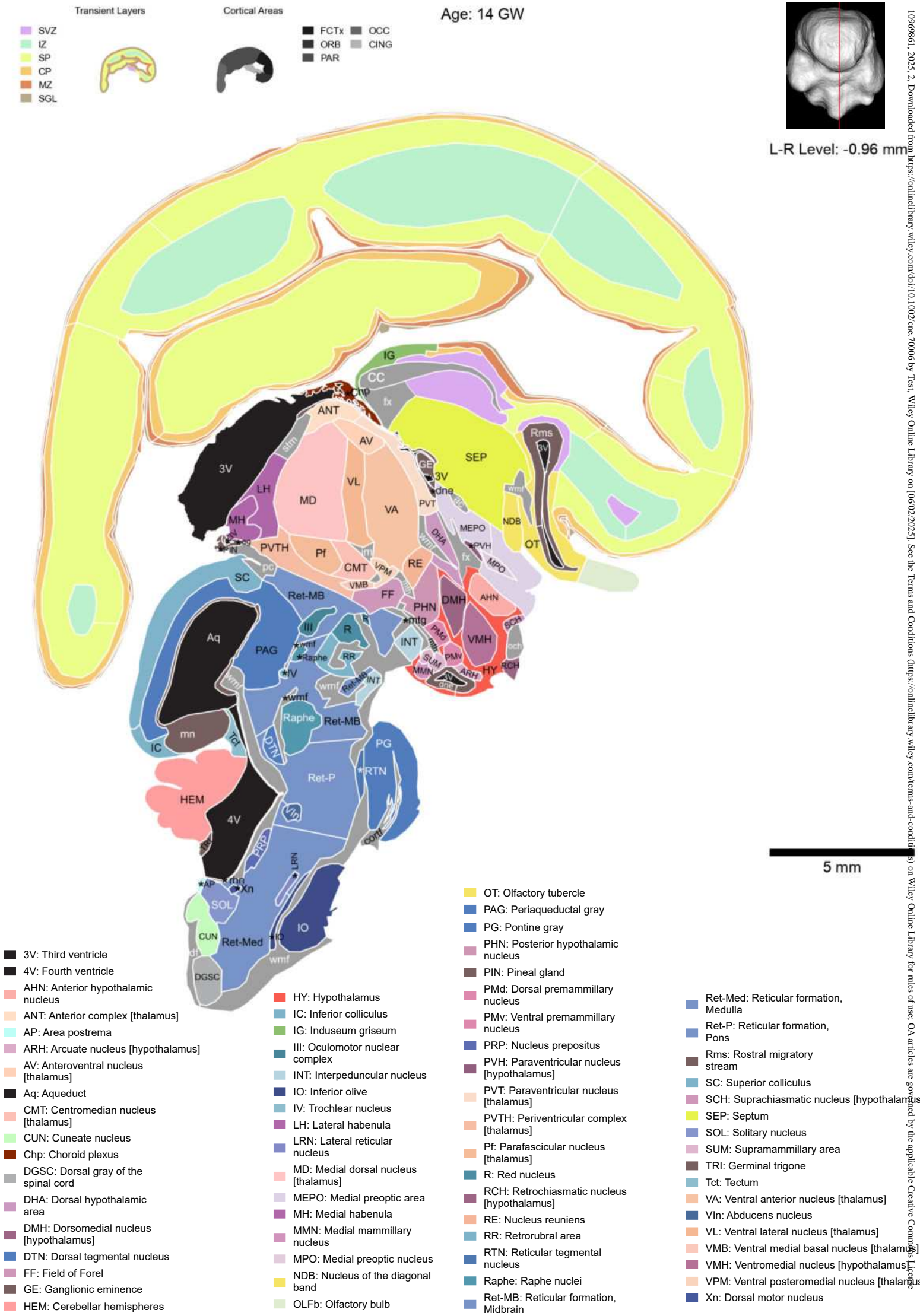
Age: 14 GW



L-R Level: -0.96 mm

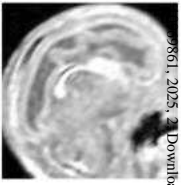


5 mm

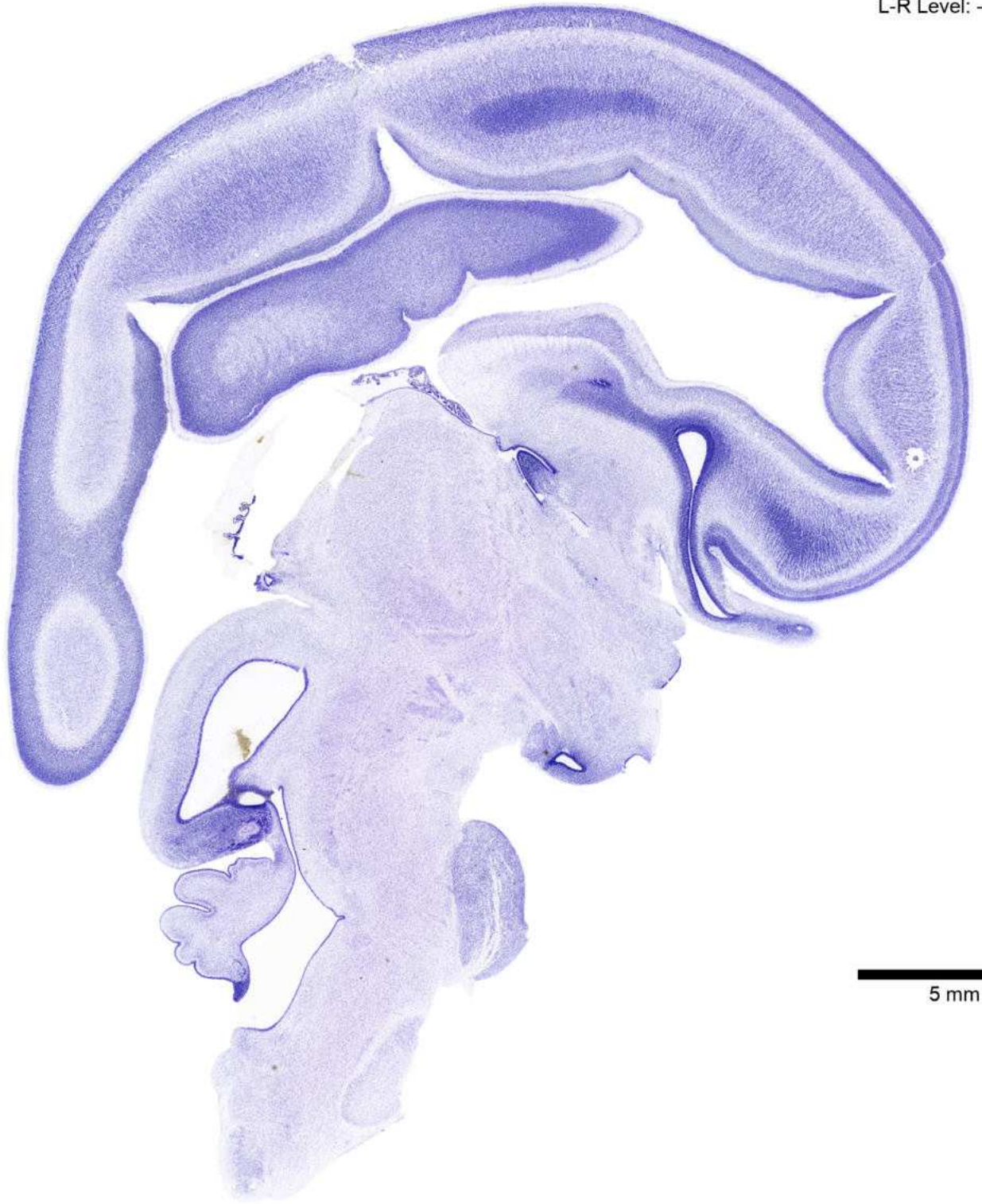


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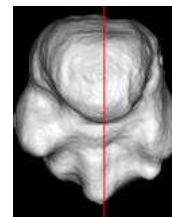
Age: 14 GW



L-R Level: -1.08 mm



5 mm



L-R Level: -1.08 mm

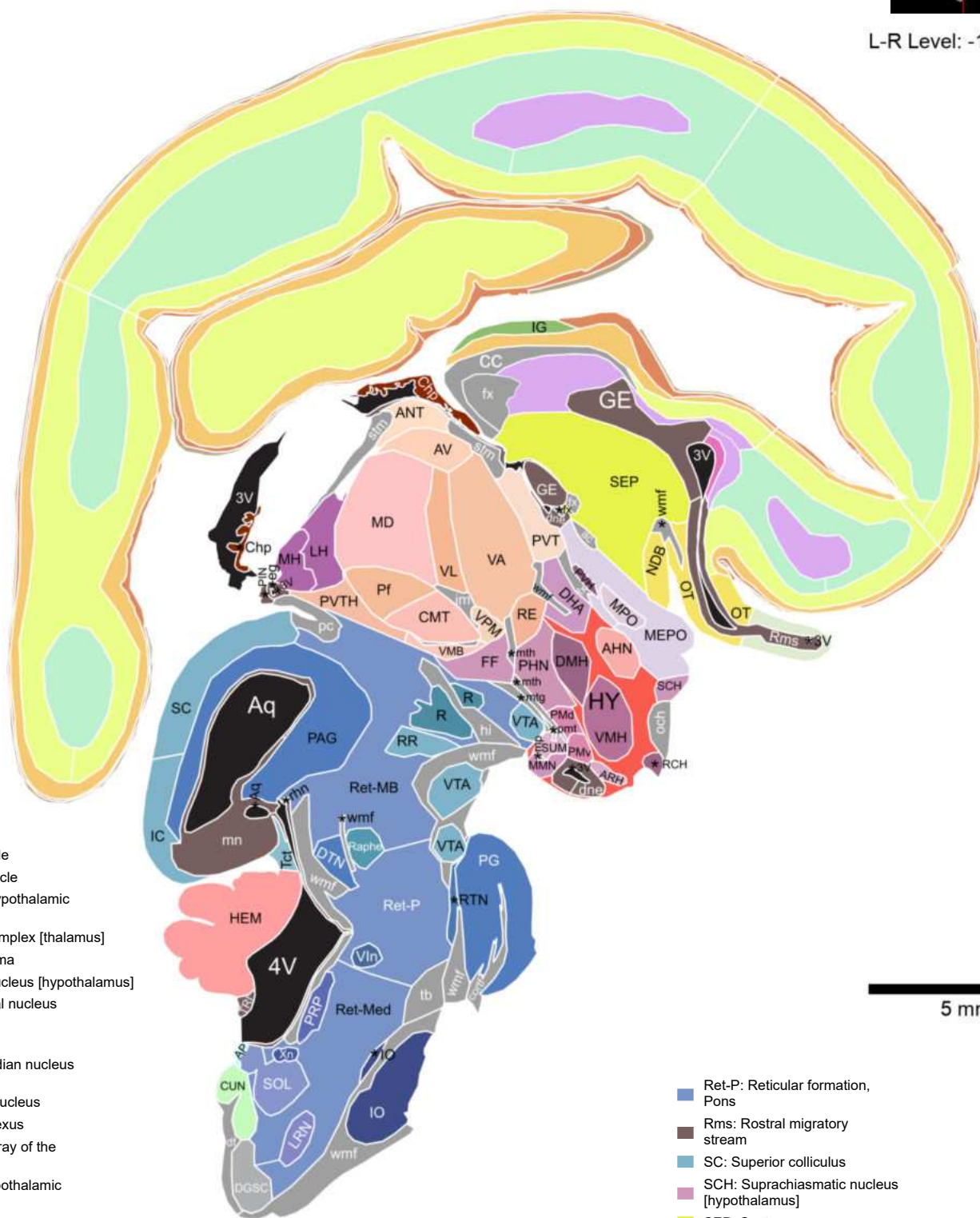
Transient Layers

Cortical Areas

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



- FCTx
- ORB
- PAR
- OCC
- CING



- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- ANT: Anterior complex [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- LRN: Lateral reticular nucleus
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MH: Medial habenula

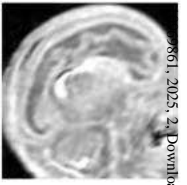
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NDB: Nucleus of the diagonal band
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PVH: Paraventricular nucleus [hypothalamus]

- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla

- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus

5 mm

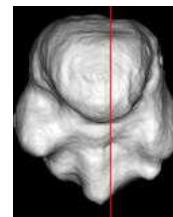
Age: 14 GW



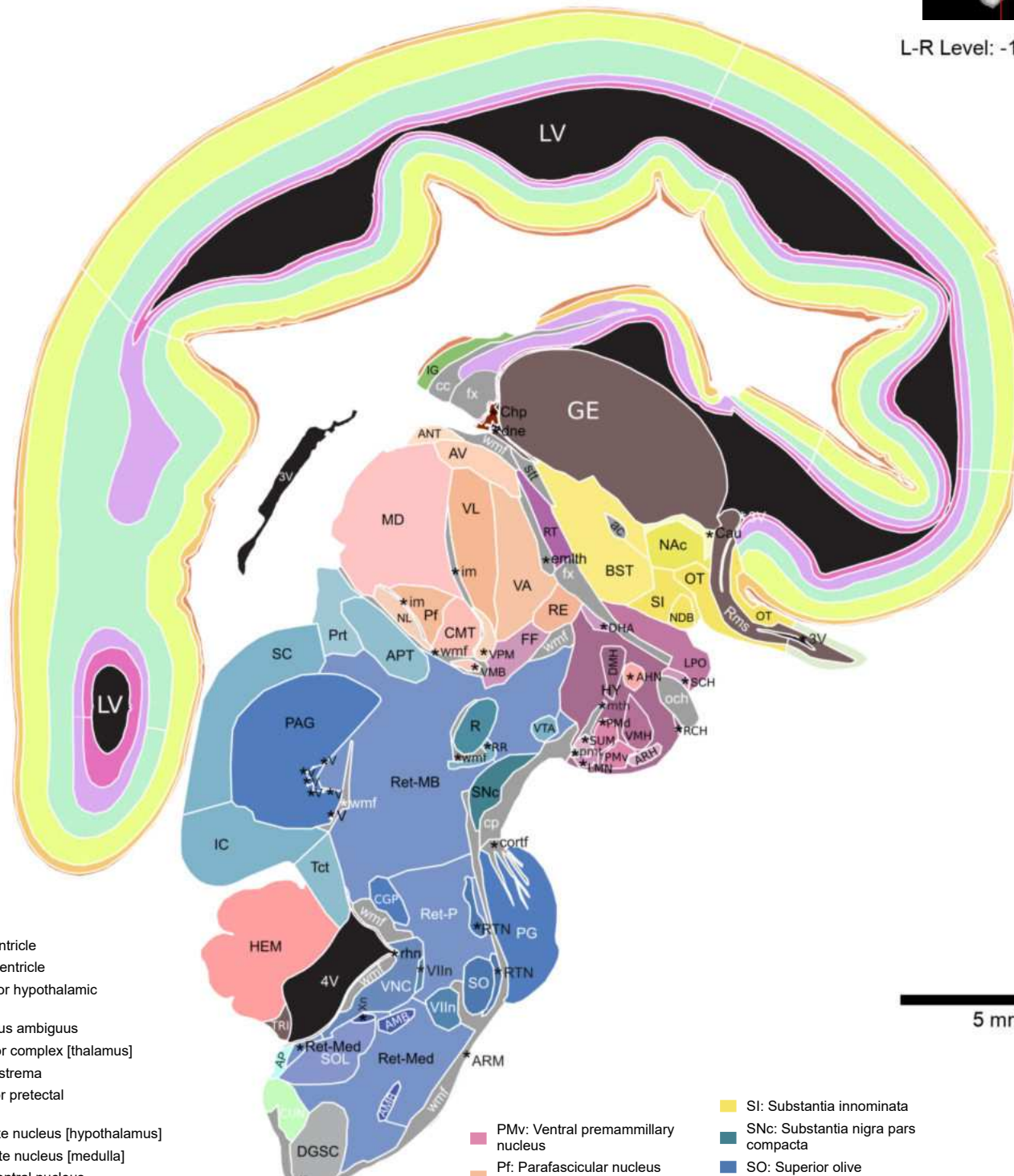
L-R Level: -1.98 mm



5 mm



L-R Level: -1.98 mm

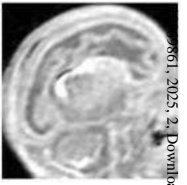


5 mm

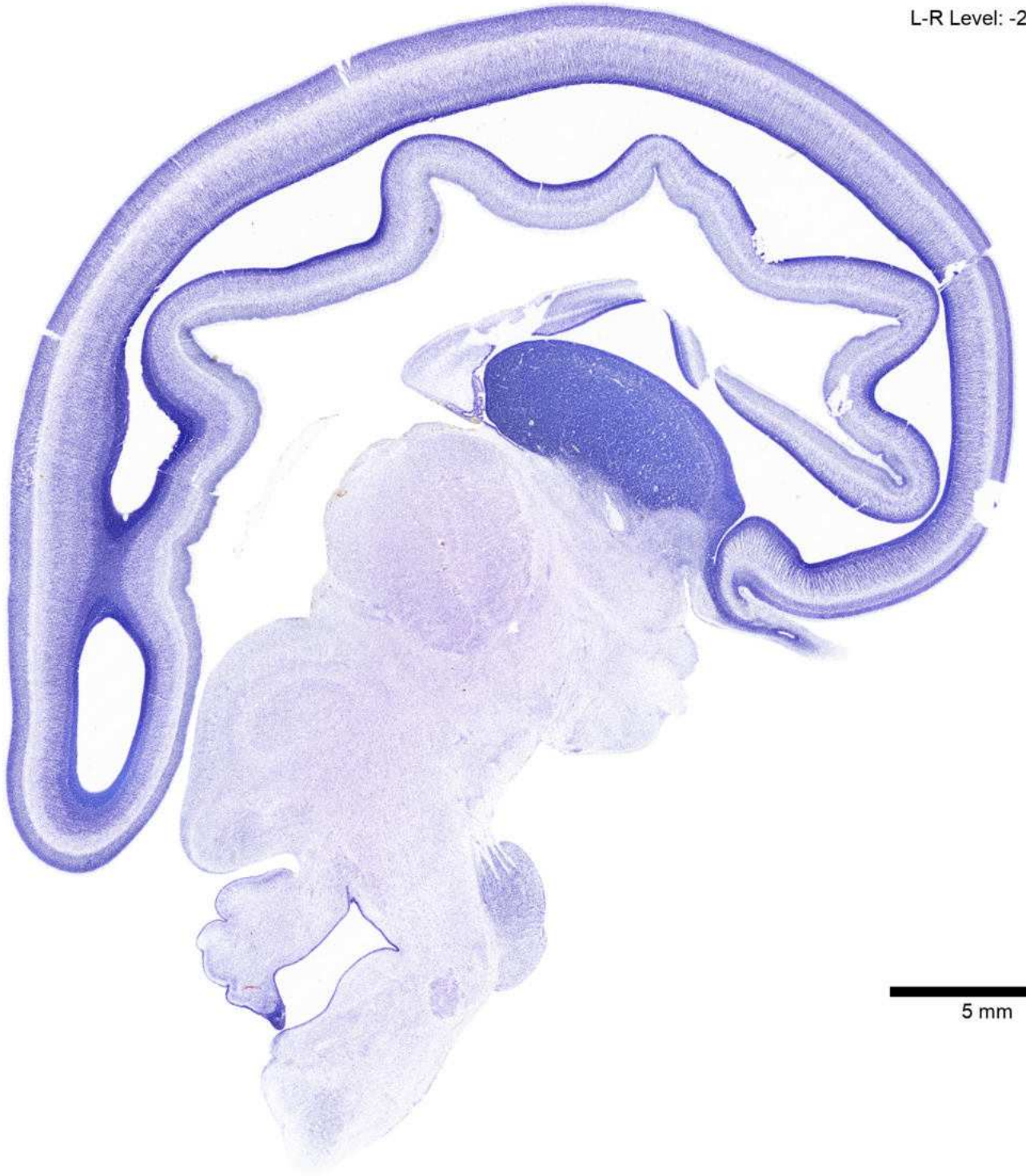
- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AMB: Nucleus ambiguus
- ANT: Anterior complex [thalamus]
- AP: Area postrema
- APT: Anterior pretecal nucleus
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PMd: Dorsal premammillary nucleus

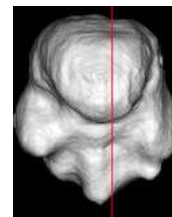
- PMv: Ventral premammillary nucleus
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SO: Superior olive
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VLN: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus

Age: 14 GW

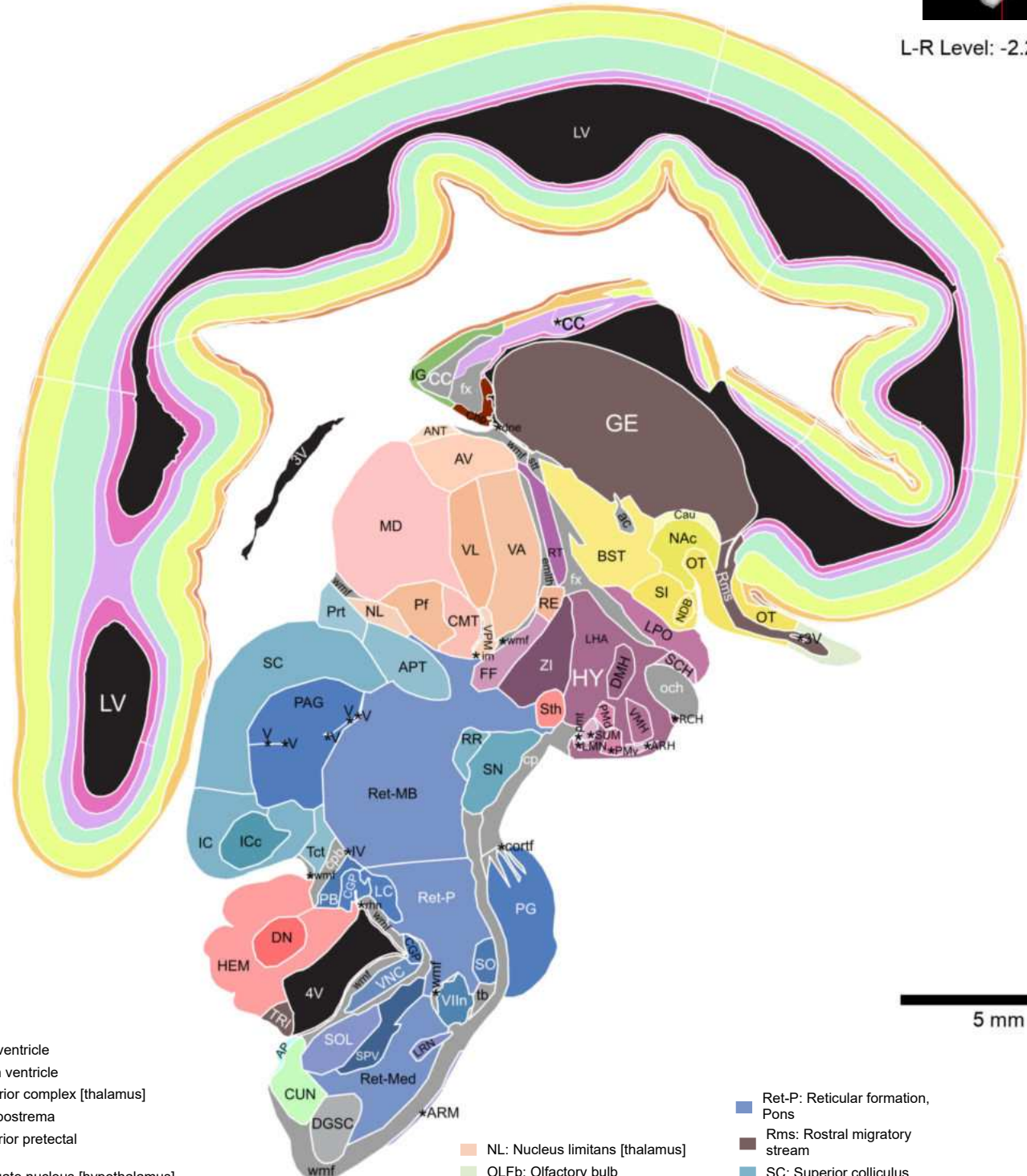


L-R Level: -2.22 mm





L-R Level: -2.22 mm



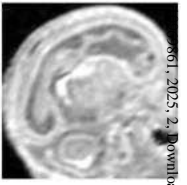
- Transient Layers**
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL



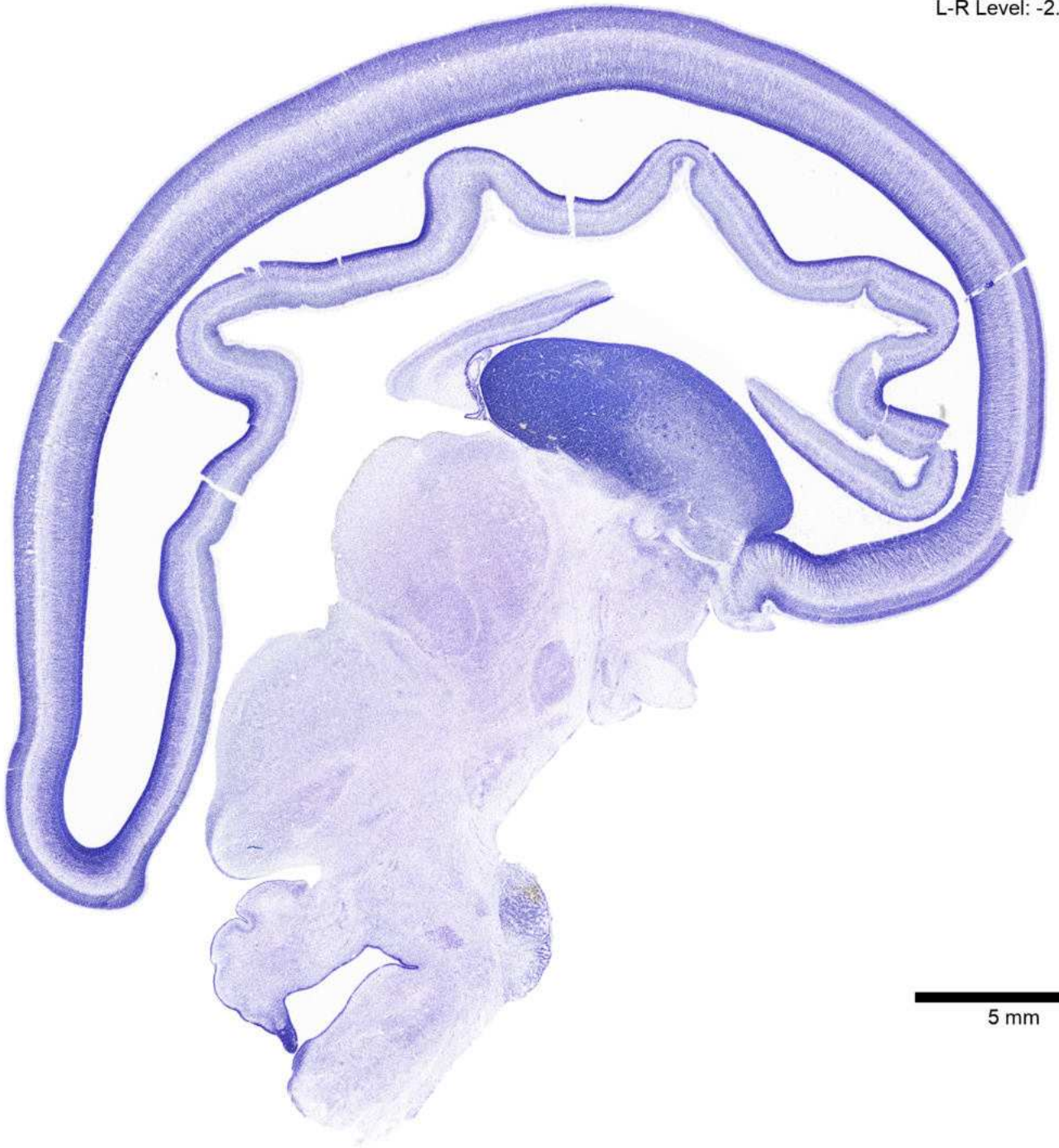
- Cortical Areas**
- FCTx
 - ORB
 - PAR
 - OCC
 - CING

- 3V: Third ventricle
- 4V: Fourth ventricle
- ANT: Anterior complex [thalamus]
- AP: Area postrema
- APT: Anterior pretectal nucleus
- ARRH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CGP: Central gray of the pons
- DGSC: Dorsal gray of the spinal cord
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DN: Dentate nucleus
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IV: Trochlear nucleus
- LC: Locus coeruleus
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SN: Substantia nigra
- SO: Superior olive
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal
- SUM: Supramammillary area
- Sth: Subthalamus
- TRI: Germinal trigone
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VIIIn: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta

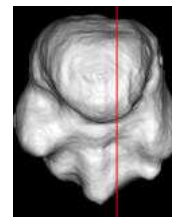
Age: 14 GW



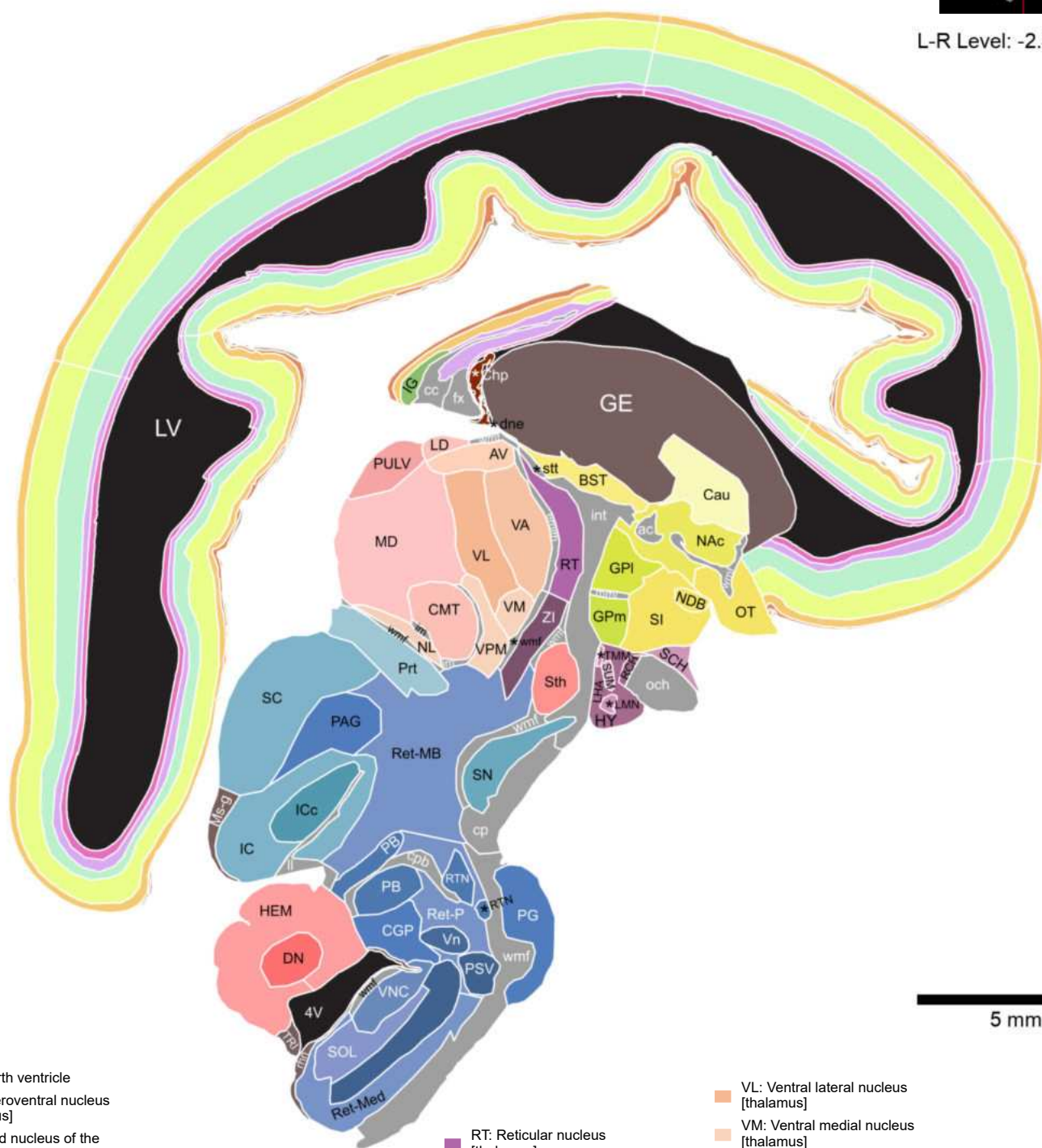
L-R Level: -2.88 mm



5 mm



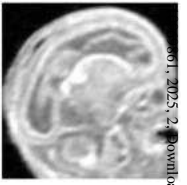
L-R Level: -2.88 mm



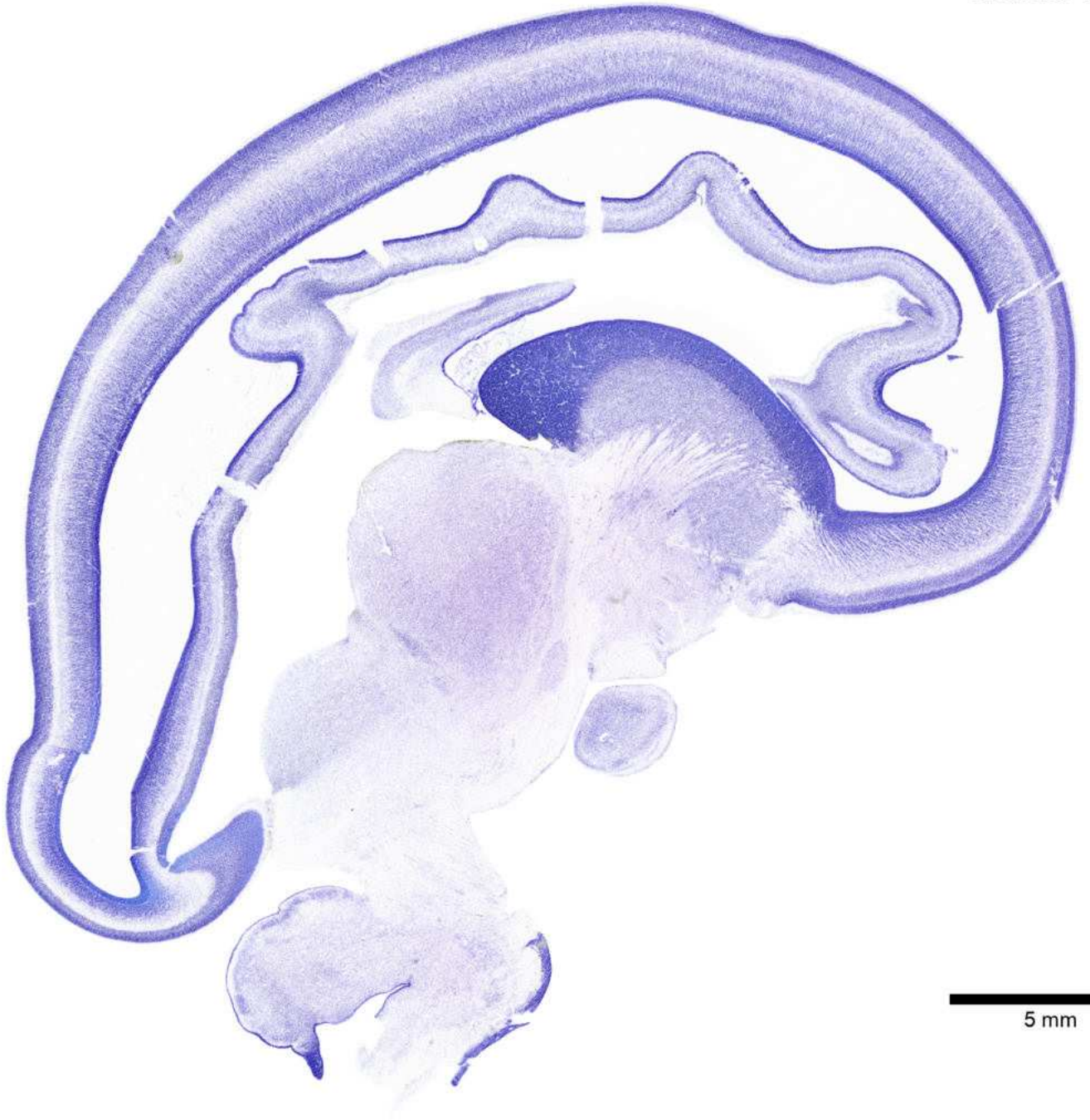
5 mm

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ 4V: Fourth ventricle ■ AV: Anteroventral nucleus [thalamus] ■ BST: Bed nucleus of the stria terminalis ■ CGP: Central gray of the pons ■ CMT: Centromedian nucleus [thalamus] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DN: Dentate nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IC: Inferior colliculus ■ ICc: Inferior colliculus, central nucleus ■ IG: Induseum griseum ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area | <ul style="list-style-type: none"> ■ LMN: Lateral mammillary nucleus ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ Ms-g: Migratory stream, general ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ OT: Olfactory tubercle ■ PAG: Periaqueductal gray ■ PB: Parabrachial nucleus ■ PG: Pontine gray ■ PSV: Principal sensory nucleus of the trigeminal ■ PULV: Pulvinar nucleus [thalamus] ■ Prt: Pretectum ■ RCH: Retrochiasmatic nucleus [hypothalamus] | <ul style="list-style-type: none"> ■ RT: Reticular nucleus [thalamus] ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SI: Substantia innominata ■ SN: Substantia nigra ■ SOL: Solitary nucleus ■ SPV: Spinal nucleus of the trigeminal ■ SUM: Supramammillary area ■ Sth: Subthalamus ■ TMM: Tuberomammillary nucleus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] | <ul style="list-style-type: none"> ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VNC: Vestibular nuclear complex ■ VPM: Ventral posteromedial nucleus [thalamus] ■ Vn: Trigeminal motor nucleus ■ ZI: Zona incerta ■ ac: Anterior commissure ■ cc: Corpus callosum ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emth: External medullary lamina [thalamus] ■ fx: Fornix ■ im: Internal medullary lamina [thalamus] ■ int: Internal capsule ■ ll: Lateral lemniscus ■ mml: Medial medullary lamina ■ och: Optic chiasm ■ rhn: Rhombencephalic neuroepithelium ■ stt: Stria terminalis ■ wmf: White matter fibers |
|---|---|---|--|

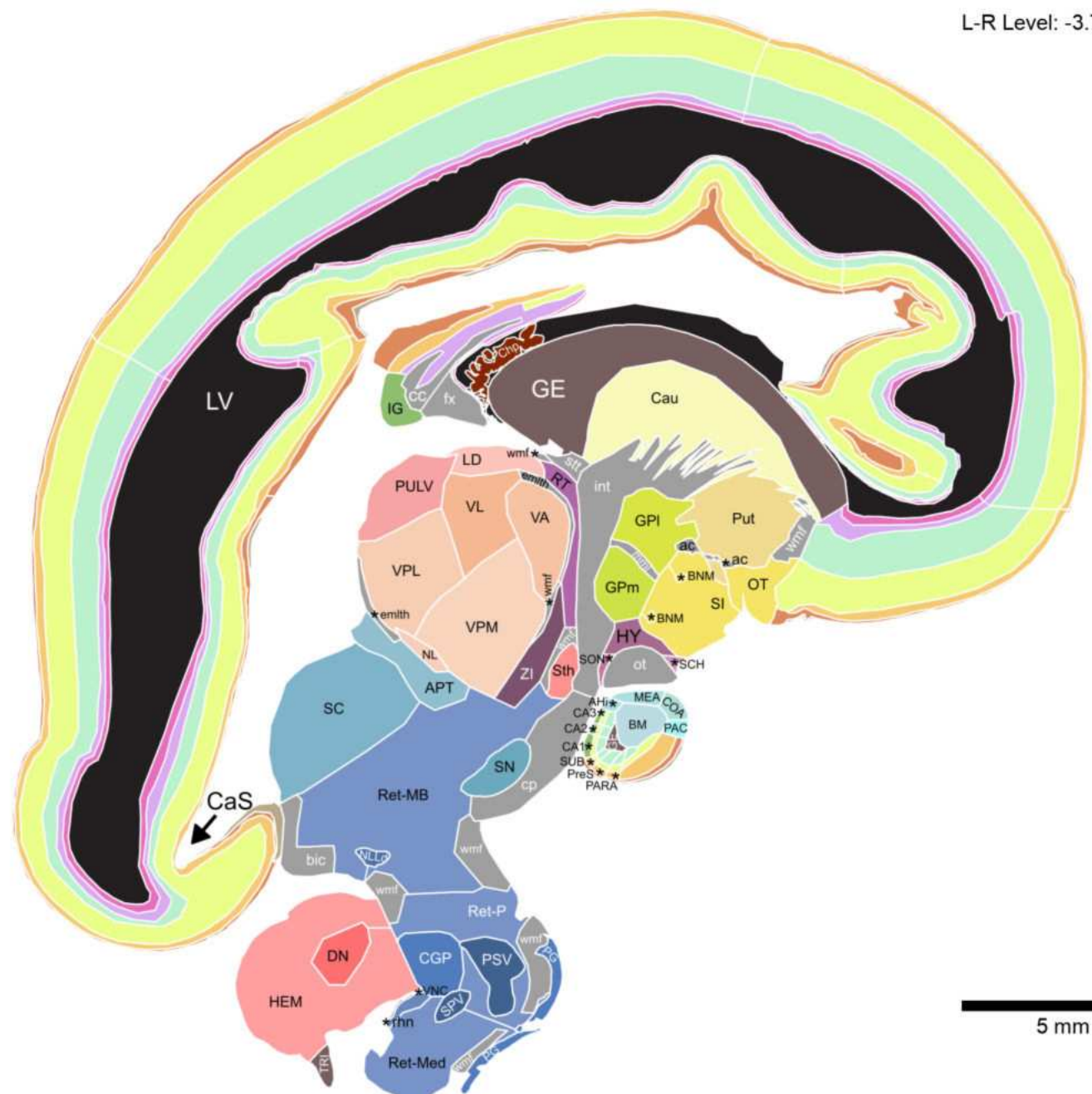
Age: 14 GW



L-R Level: -3.72 mm



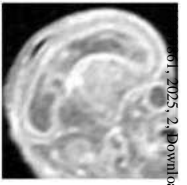
5 mm



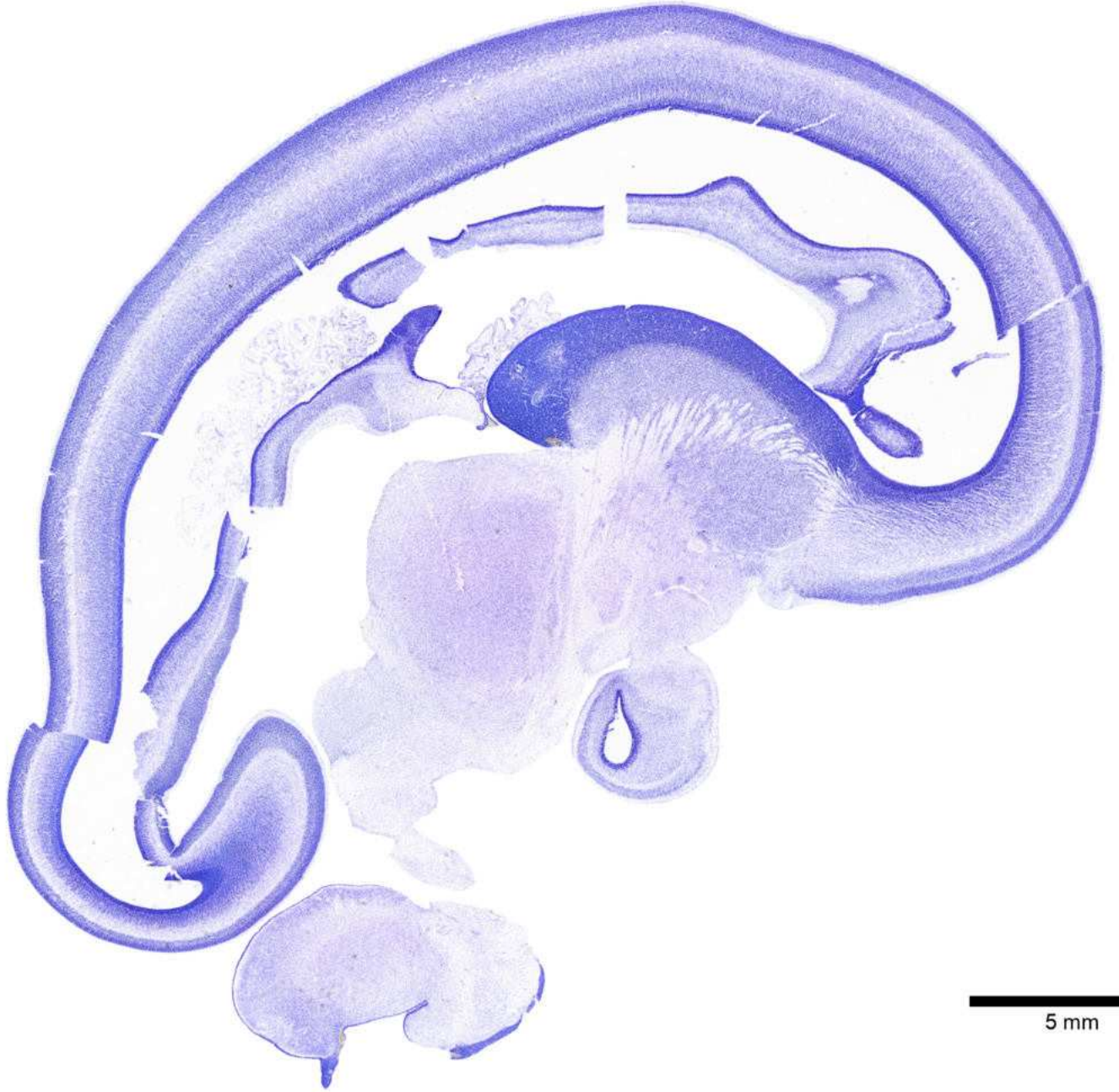
5 mm

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ APT: Anterior pretecal nucleus ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CGP: Central gray of the pons ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DN: Dentate nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPm: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> ■ HY: Hypothalamus ■ IG: Induseum griseum ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LV: Lateral ventricle ■ MEA: Medial nucleus [amygdala] ■ NL: Nucleus limitans [thalamus] ■ NLLd: Nucleus of the lateral lemniscus, dorsal ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PSV: Principal sensory nucleus of the trigeminal ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] | <ul style="list-style-type: none"> ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SI: Substantia innominata ■ SN: Substantia nigra ■ SON: Supraoptic nucleus [hypothalamus] ■ SPV: Spinal nucleus of the trigeminal ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VNC: Vestibular nuclear complex | <ul style="list-style-type: none"> ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ bic: Brachium of the inferior colliculus ■ cc: Corpus callosum ■ cp: Cerebral peduncle ■ emlth: External medullary lamina [thalamus] ■ fx: Fornix ■ int: Internal capsule ■ mml: Medial medullary lamina ■ ot: Optic tract ■ rhn: Rhombencephalic neuroepithelium ■ stt: Stria terminalis ■ wmf: White matter fibers |
|--|---|---|--|

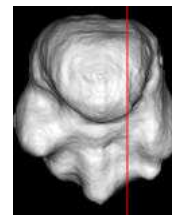
Age: 14 GW



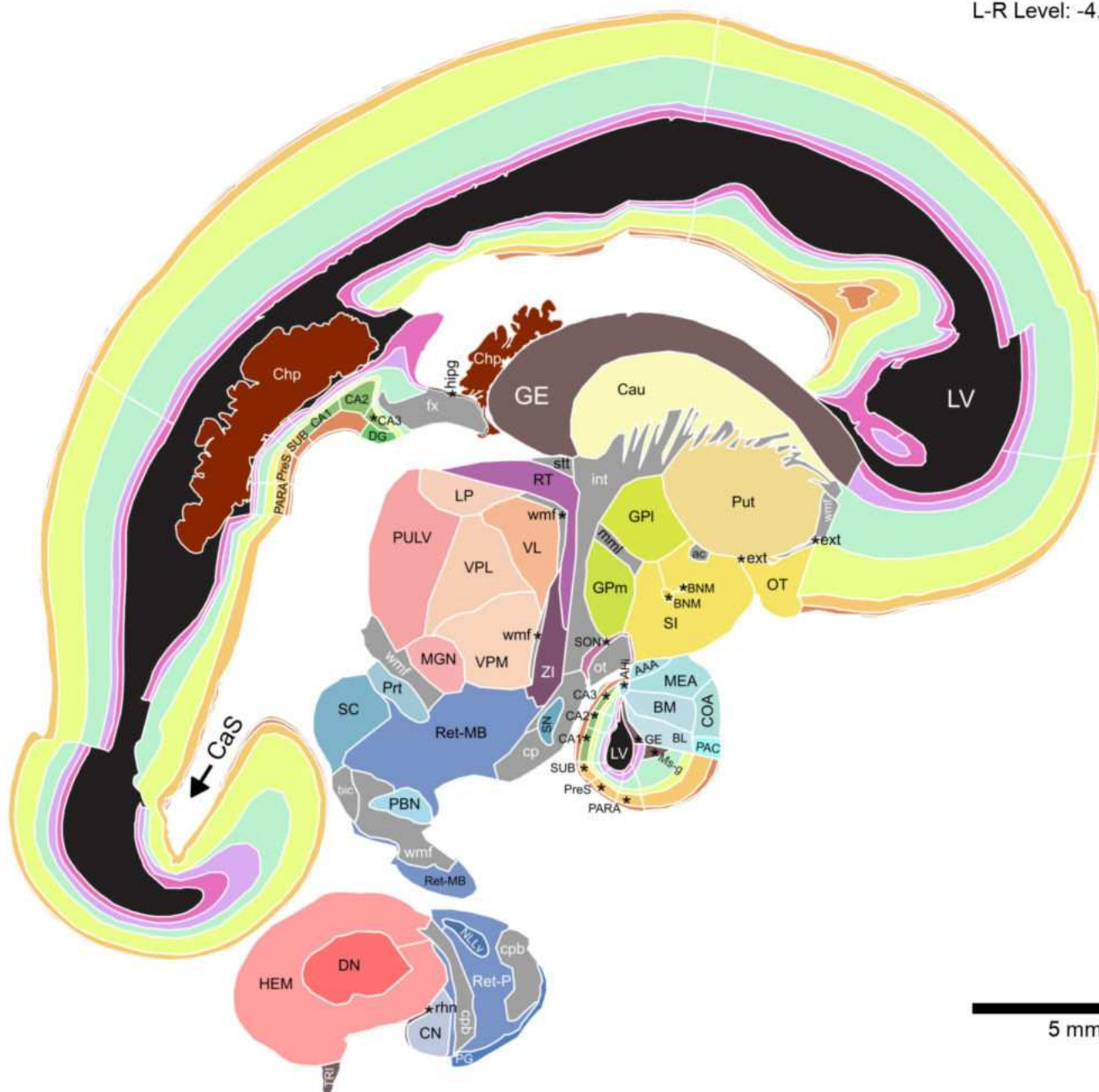
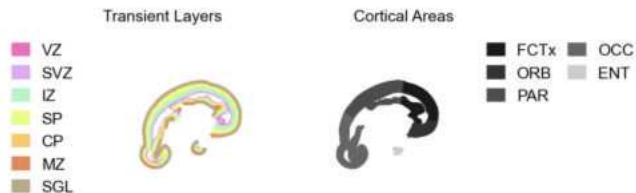
L-R Level: -4.32 mm



5 mm



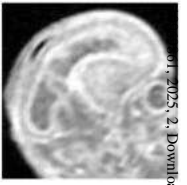
L-R Level: -4.32 mm



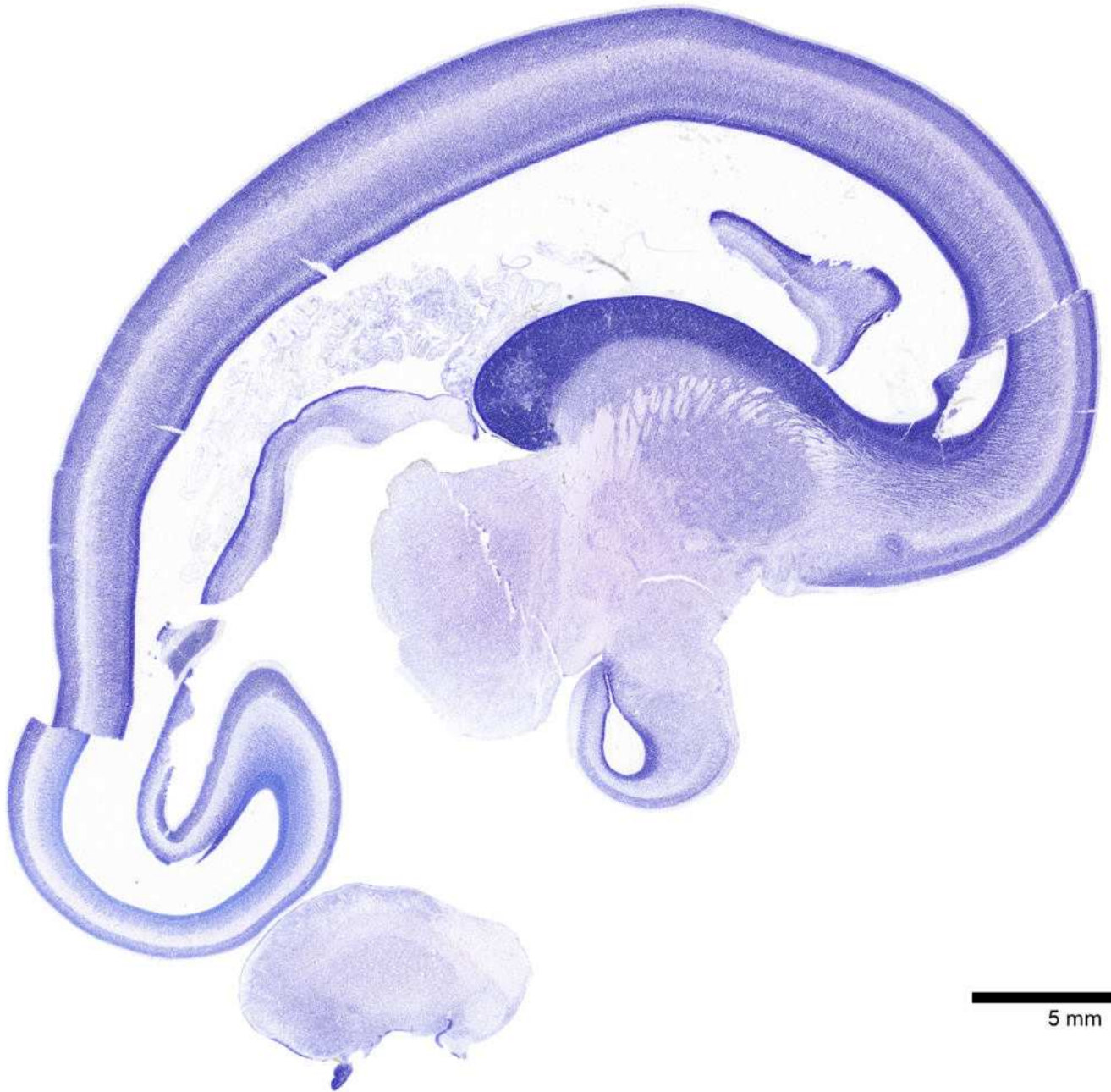
5 mm

- AAA: Anterior amygdaloid area
- AHi: Amygdalo-hippocampal area
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CN: Cochlear nuclei
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- MEA: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- Ms-g: Migratory stream, general
- NLLv: Nucleus of the lateral lemniscus, ventral
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SI: Substantia innominata
- SN: Substantia nigra
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- VL: Ventral lateral nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- bic: Brachium of the inferior colliculus
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- ext: External capsule
- fx: Fornix
- hipg: Hippocampal gloioepithelium/ependyma
- int: Internal capsule
- mm: Medial medullary lamina
- ot: Optic tract
- rhn: Rhombencephalic neuroepithelium
- stt: Stria terminalis
- wmf: White matter fibers
- CaS: Calcarine sulcus

Age: 14 GW

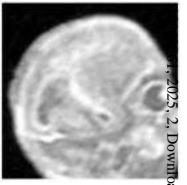


L-R Level: -4.8 mm

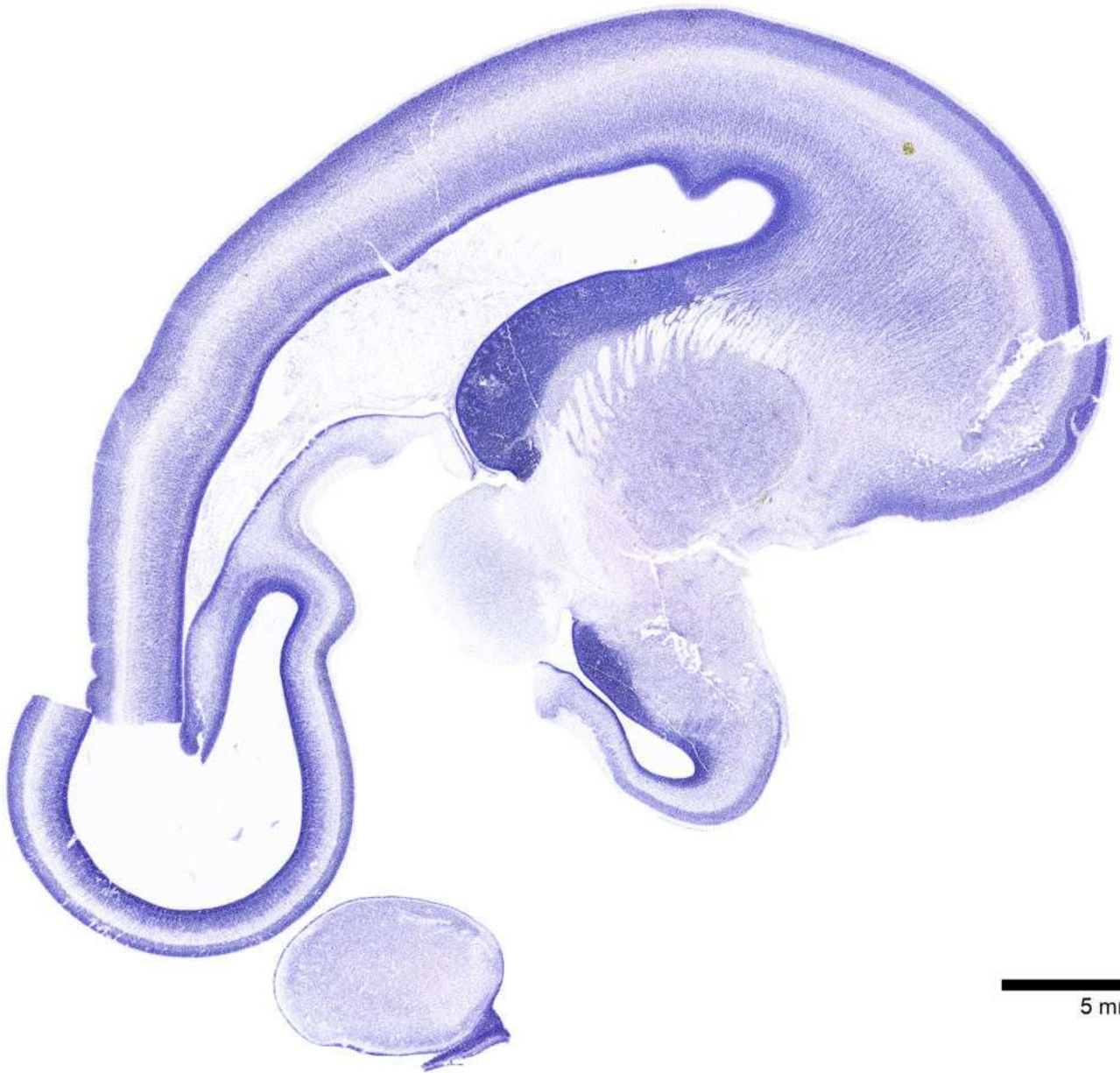


5 mm

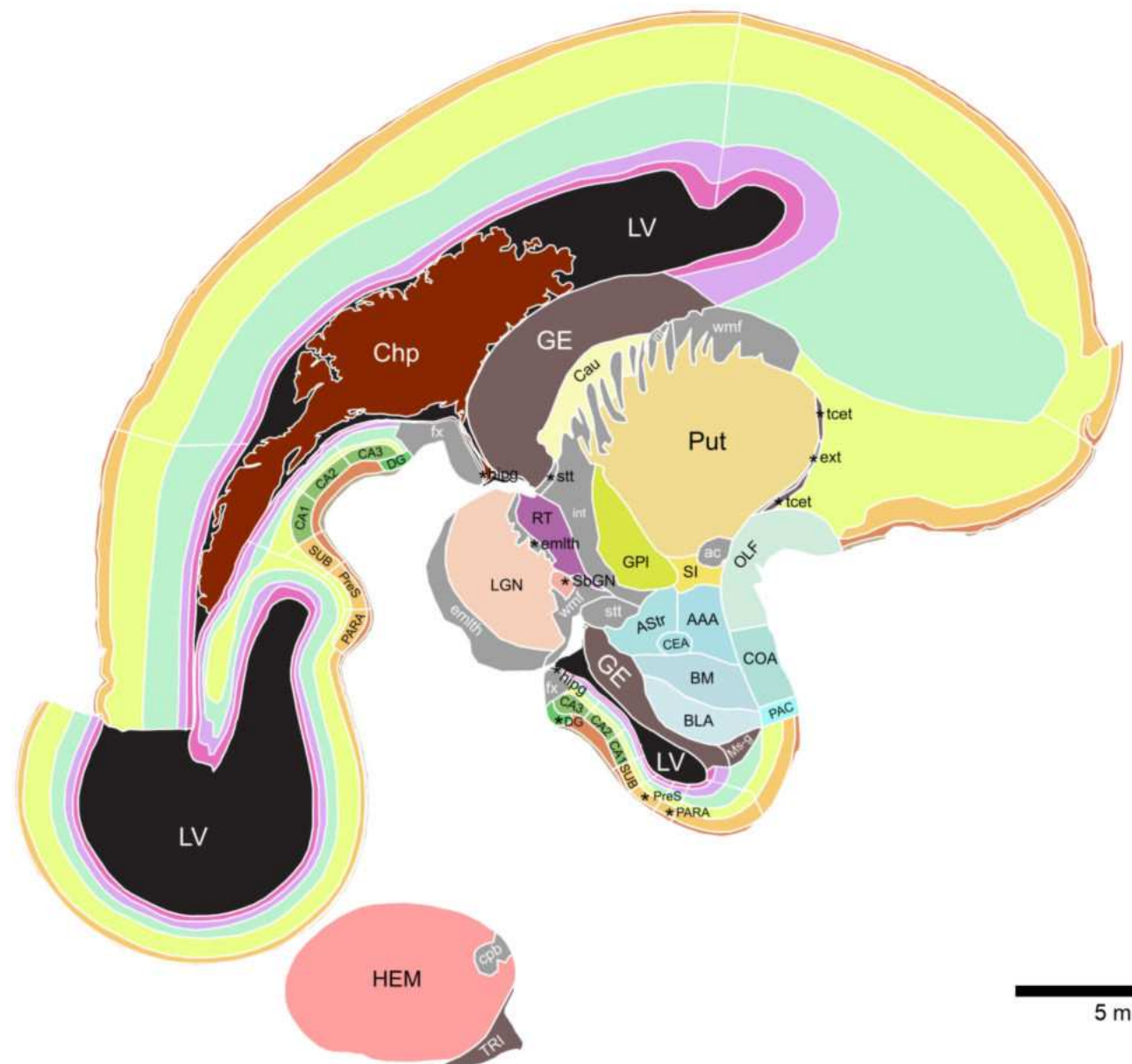
Age: 14 GW



L-R Level: -6.18 mm

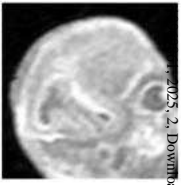


5 mm

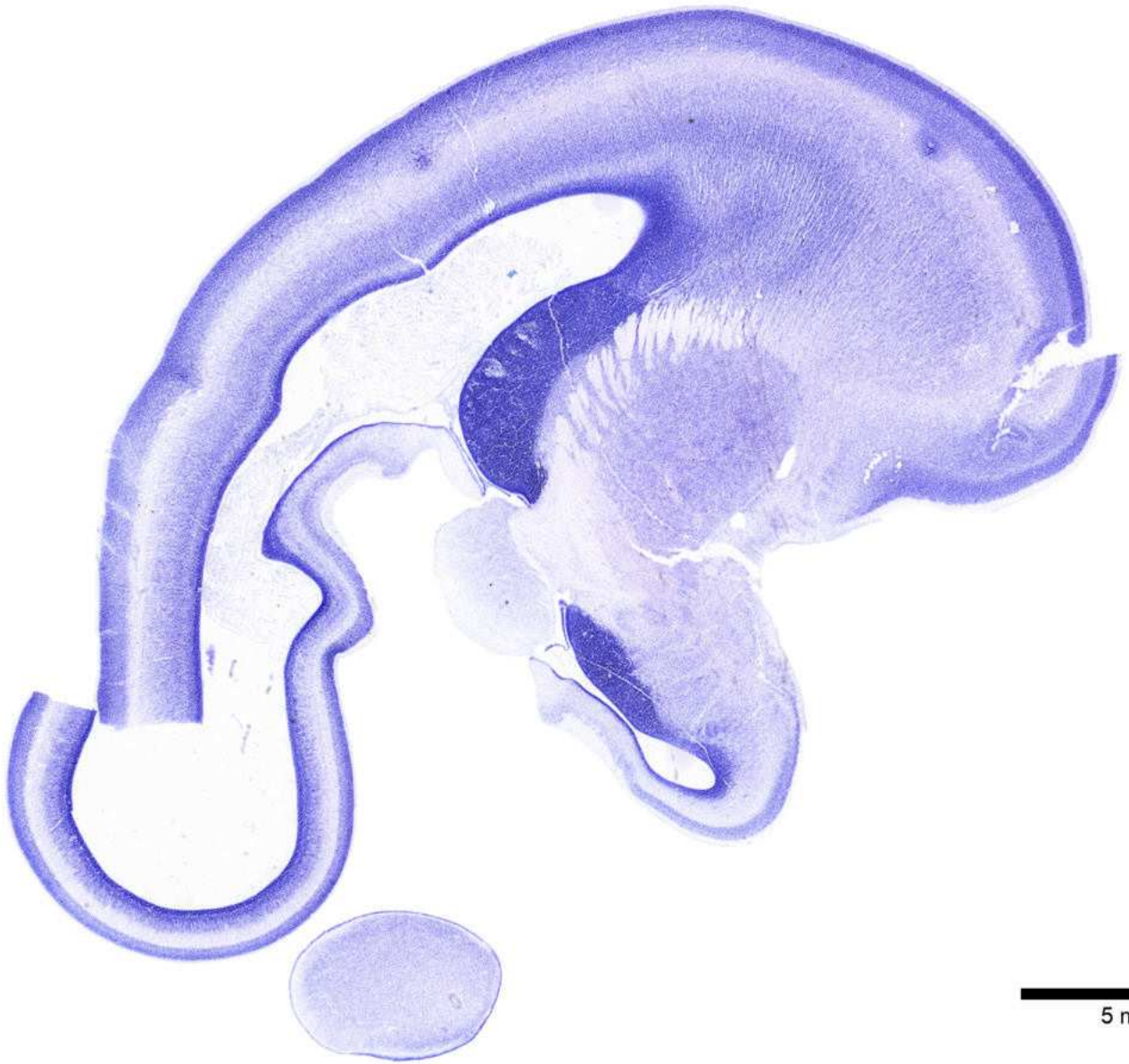


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|--|---|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area ASt: Amygdalo-striatal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LV: Lateral ventricle Ms-g: Migratory stream, general | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus TRI: Germinal trigone ac: Anterior commissure | <ul style="list-style-type: none"> cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis toct: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|---|

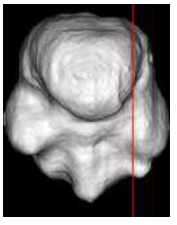
Age: 14 GW



L-R Level: -6.54 mm



5 mm



L-R Level: -6.54 mm

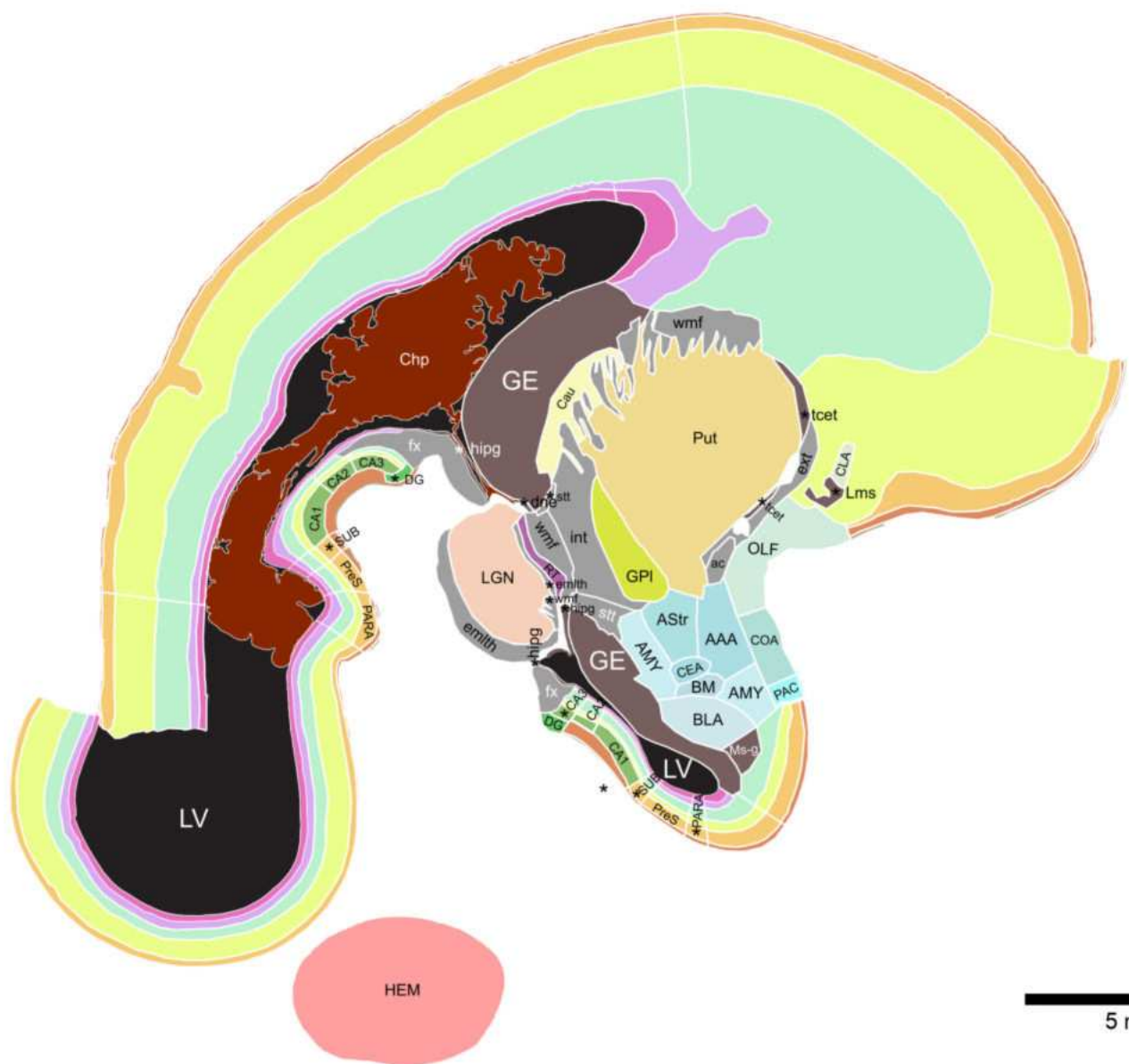
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

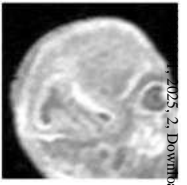
Cortical Areas

- FCTx
- ORB
- PAR
- OCC
- TEMP
- ENT

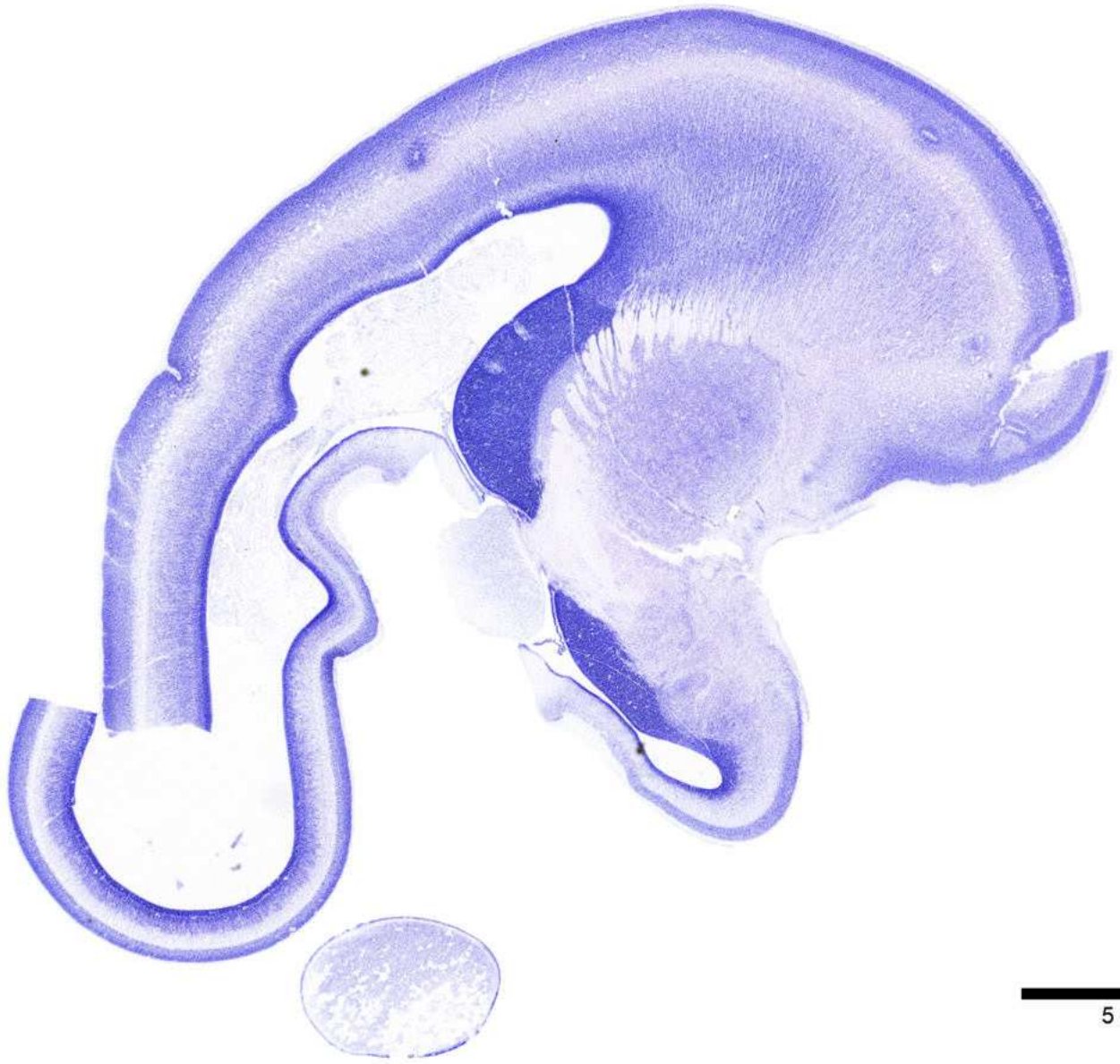


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|--|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] | <ul style="list-style-type: none"> CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloepithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|--|

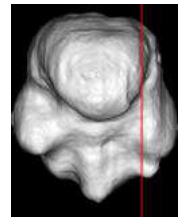
Age: 14 GW



L-R Level: -6.66 mm

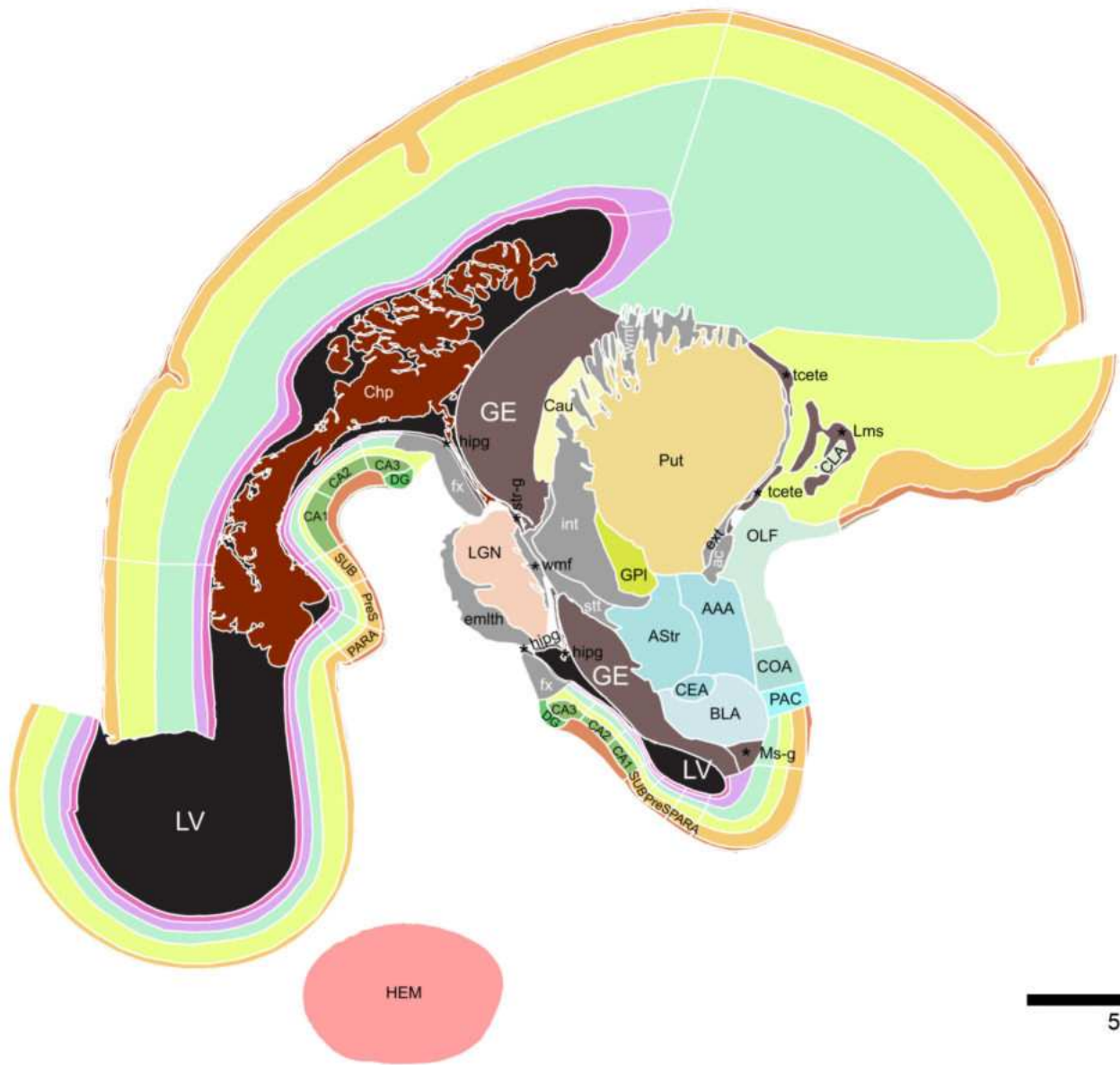
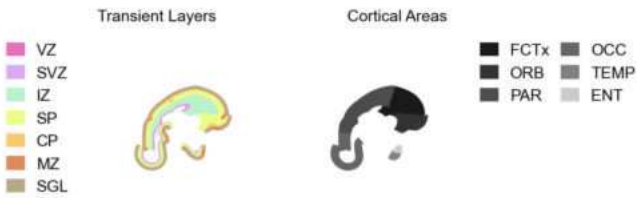


5 mm



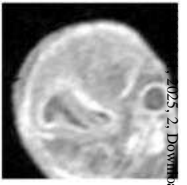
L-R Level: -6.66 mm

Age: 14 GW

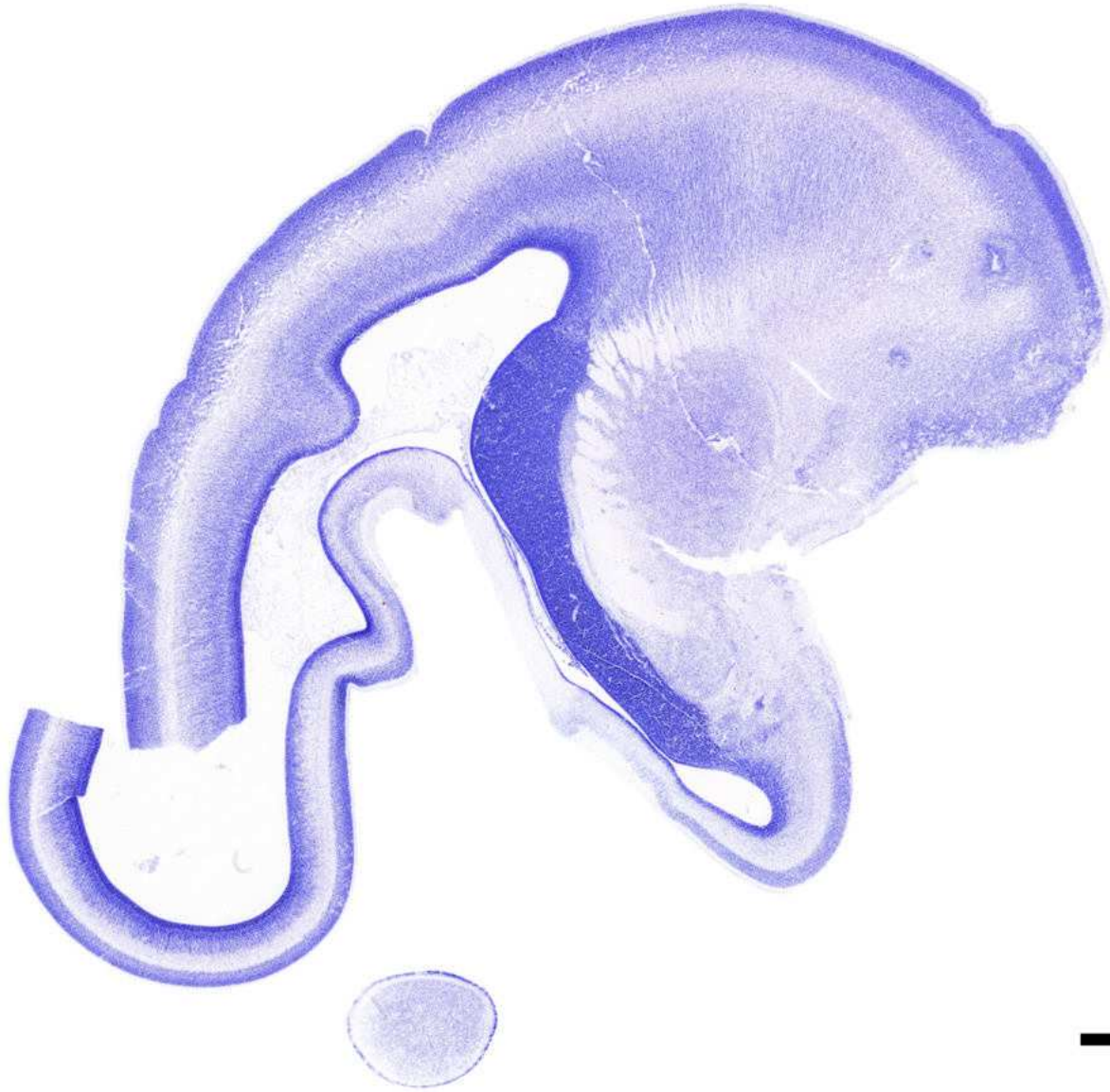


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|--|--|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum ac: Anterior commissure emlth: External medullary lamina [thalamus] | <ul style="list-style-type: none"> ext: External capsule fx: Fornix hipg: Hippocampal glioeepithelium/ependyma int: Internal capsule str-g: Strionuclear glioeepithelium stt: Stria terminalis tcete: Transient cell zone in the extreme capsule wmf: White matter fibers |
|--|--|---|---|

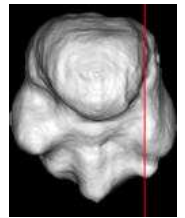
Age: 14 GW



L-R Level: -7.26 mm

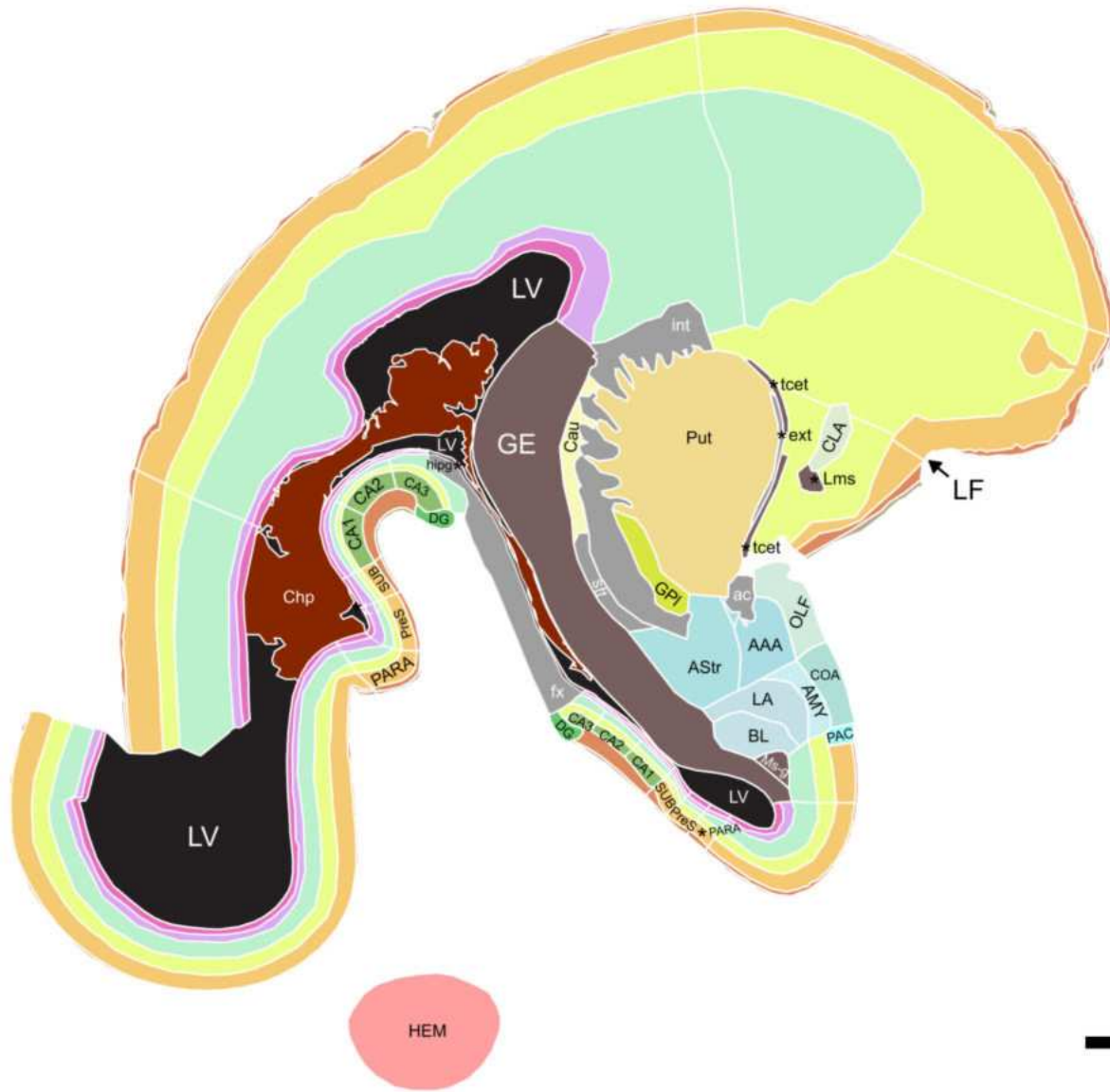
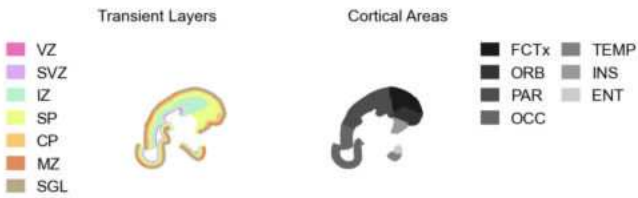


5 mm



L-R Level: -7.26 mm

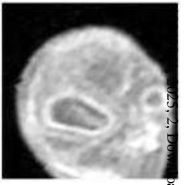
Age: 14 GW



5 mm

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|--|--|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LA: Lateral nucleus [amygdala] | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis tctet: Transient cell zone in the external capsule → LF: Lateral Fissure |
|--|--|--|---|

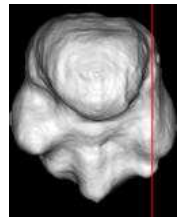
Age: 14 GW



L-R Level: -8.28 mm

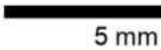
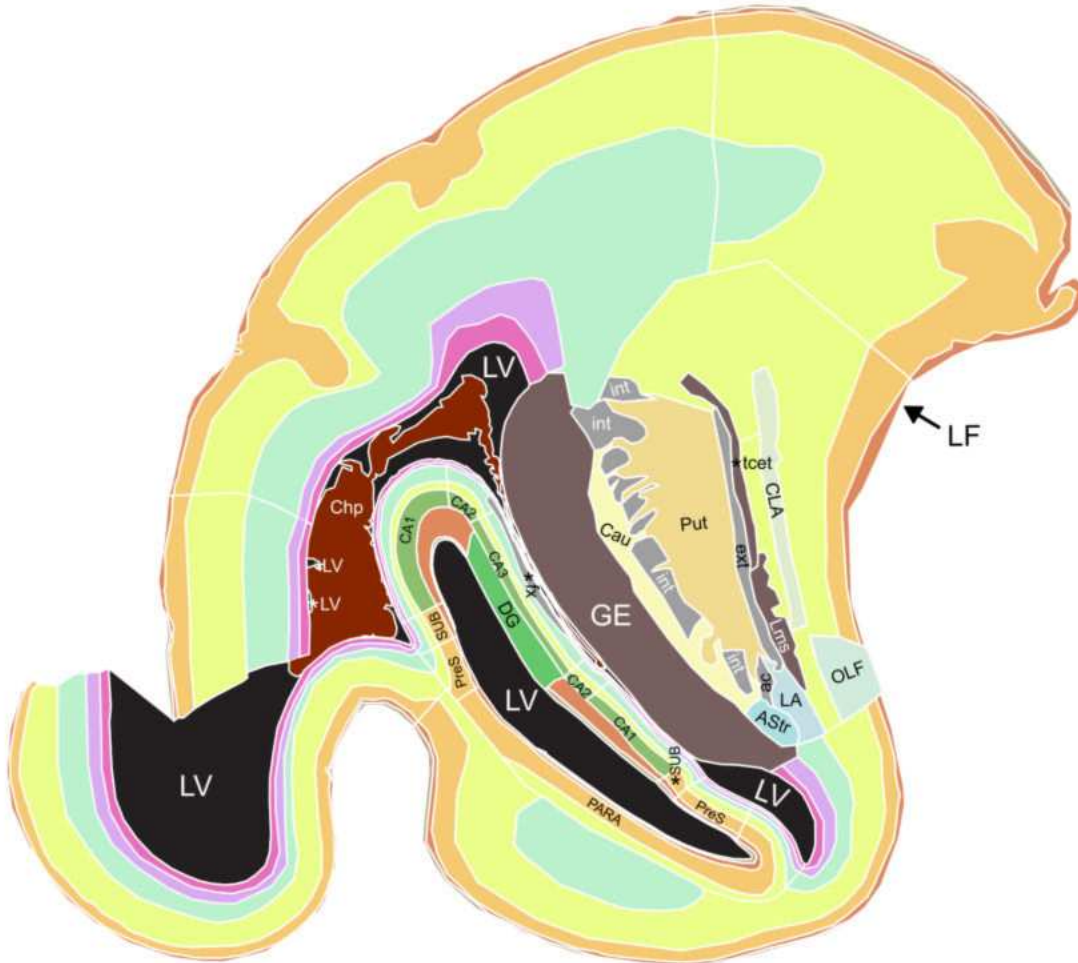
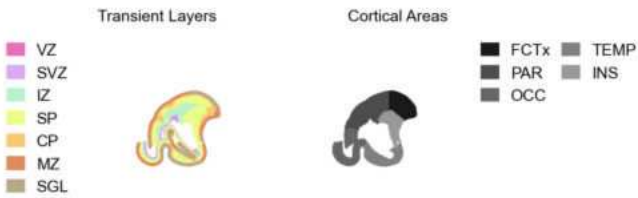


5 mm



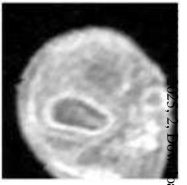
L-R Level: -8.28 mm

Age: 14 GW



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|--|---|---|---|
| <ul style="list-style-type: none"> ASTr: Amygdalo-striatal area CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence LA: Lateral nucleus [amygdala] LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum ac: Anterior commissure ext: External capsule fx: Fornix | <ul style="list-style-type: none"> int: Internal capsule tcet: Transient cell zone in the external capsule LF: Lateral fissure |
|--|---|---|---|

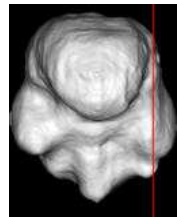
Age: 14 GW



L-R Level: -8.4 mm

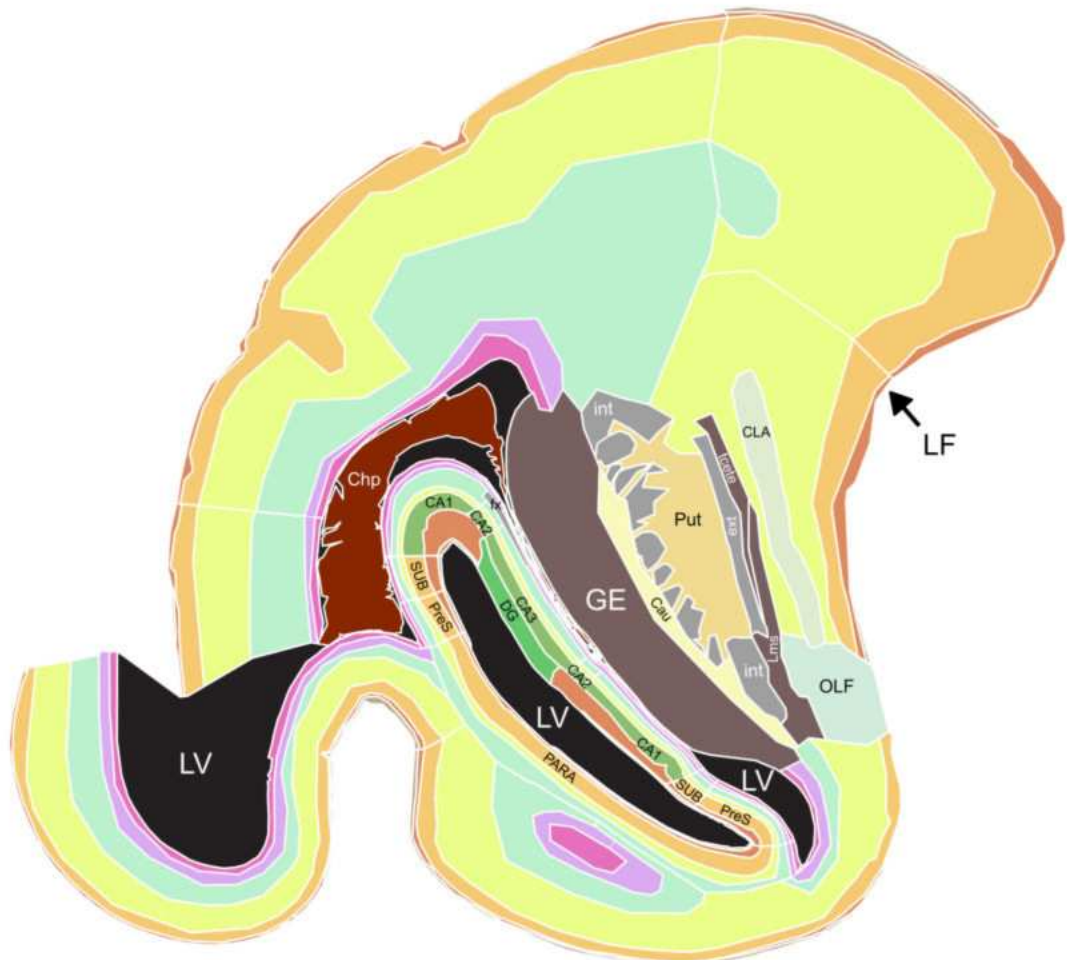
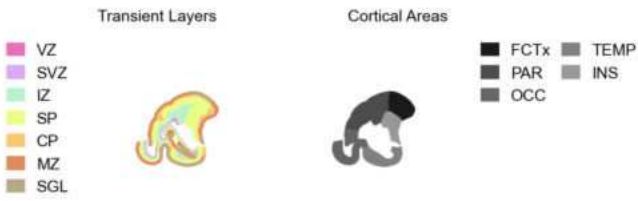


5 mm



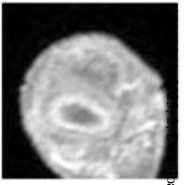
L-R Level: -8.4 mm

Age: 14 GW

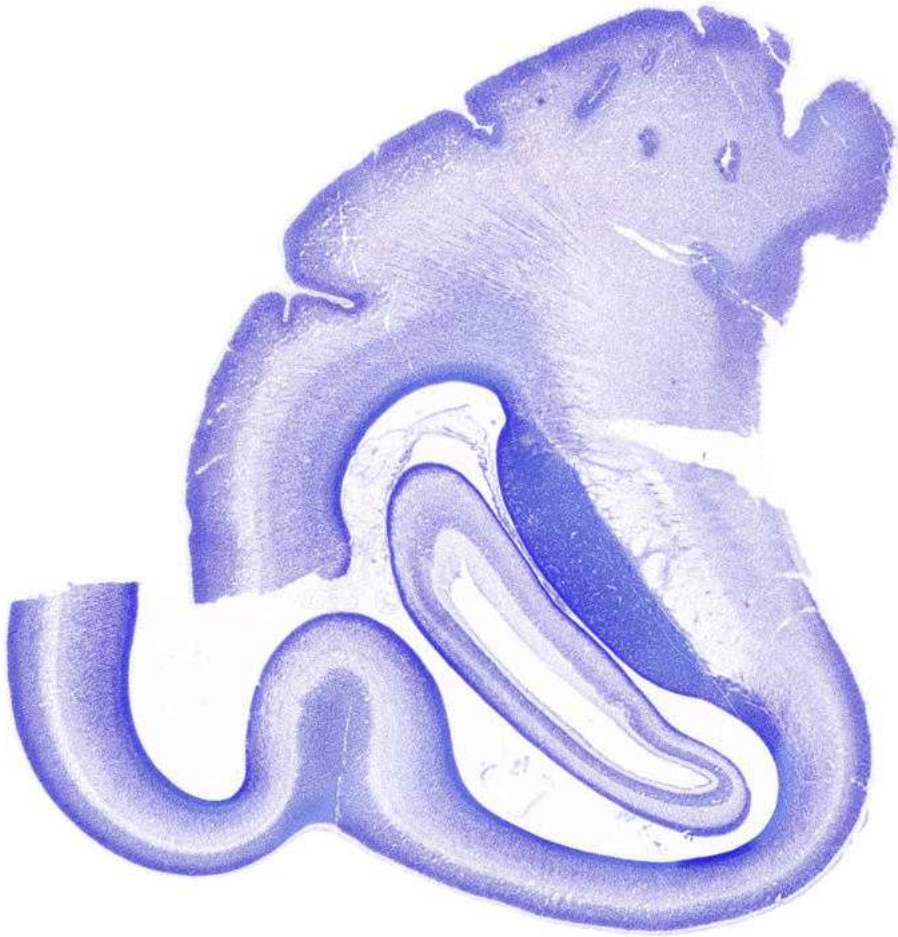


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|--|---|---|--|
| <ul style="list-style-type: none"> CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ext: External capsule fx: Fornix int: Internal capsule tcete: Transient cell zone in the extreme capsule LF: Lateral fissure |
|--|---|---|--|

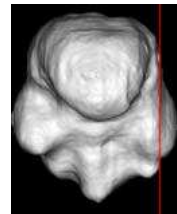
Age: 14 GW



L-R Level: -9.18 mm



5 mm



L-R Level: -9.18 mm

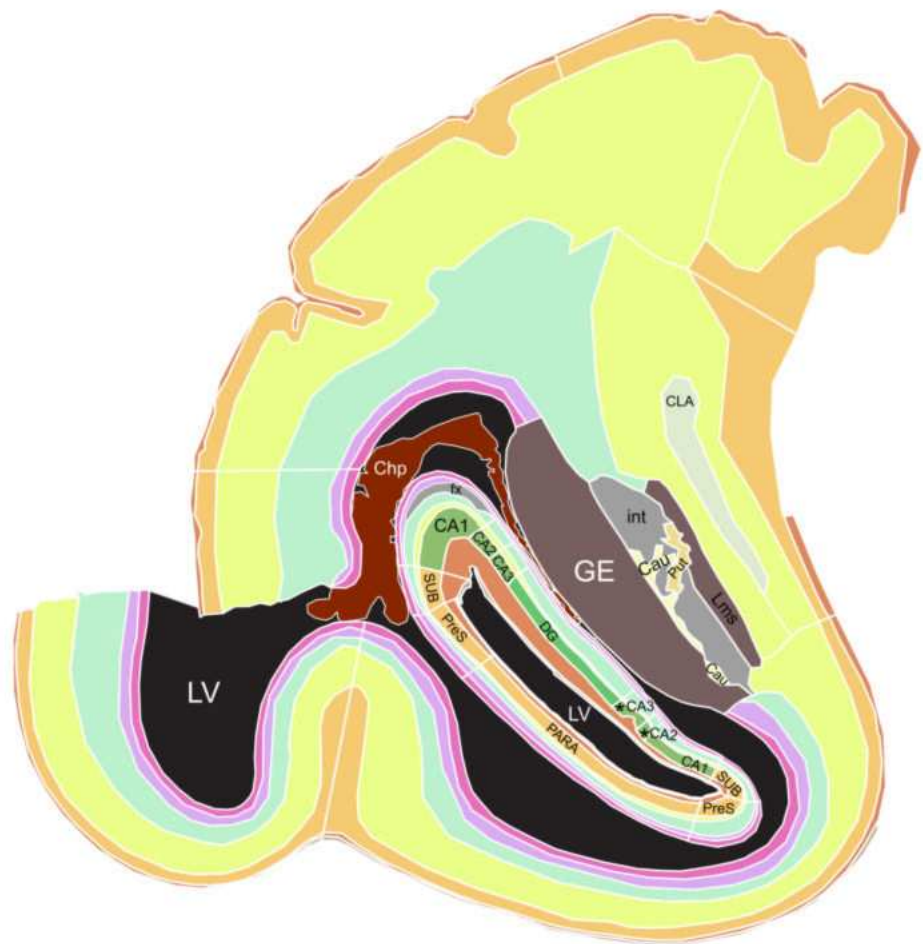
Age: 14 GW

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

Cortical Areas

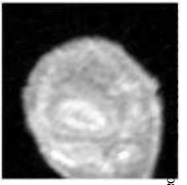
- FCTx
- PAR
- OCC
- TEMP
- INS



5 mm

- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CLA: Claustrum
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- GE: Ganglionic eminence
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- PARA: Cortical plate, parasubiculum
- PreS: Cortical plate, presubiculum
- Put: Putamen
- SUB: Cortical plate, subiculum
- fx: Fornix
- int: Internal capsule

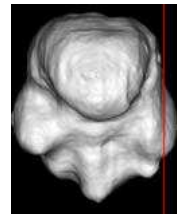
Age: 14 GW



L-R Level: -9.78 mm



5 mm



L-R Level: -9.78 mm

Age: 14 GW

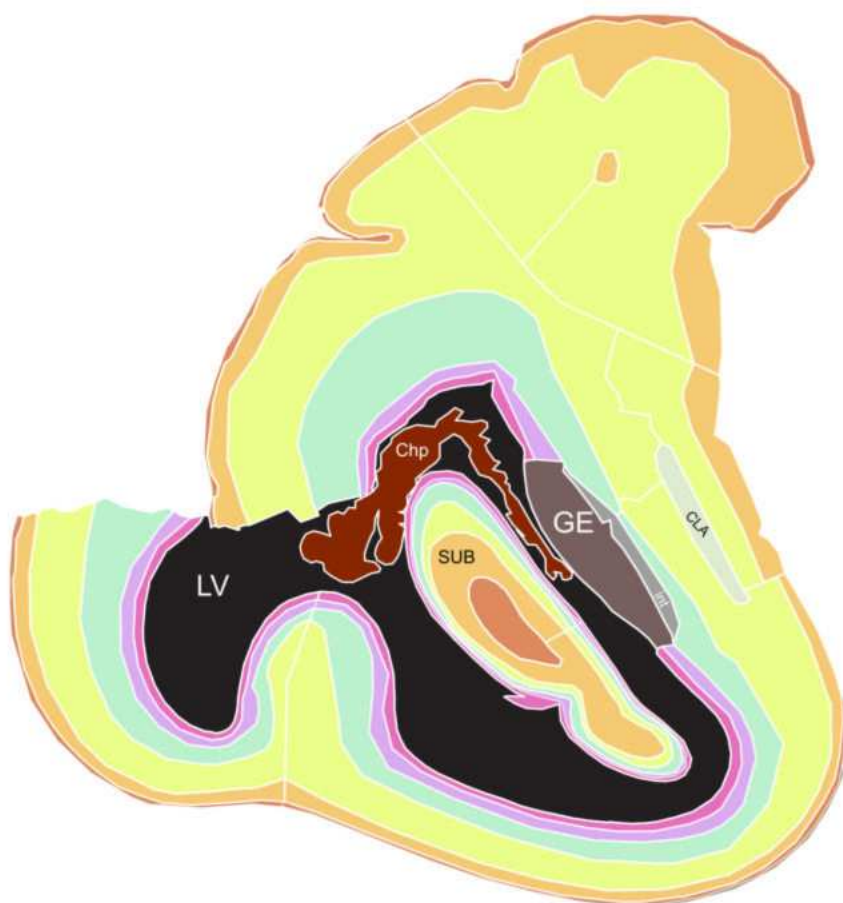
Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



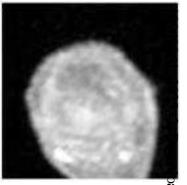
Cortical Areas

- FCTx
- PAR
- OCC
- TEMP
- INS



- CLA: Claustrum
- GE: Ganglionic eminence
- SUB: Cortical plate, subiculum
- int: Internal capsule
- Chp: Choroid plexus
- LV: Lateral ventricle

Age: 14 GW

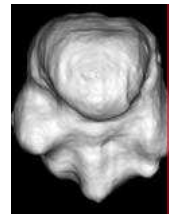


L-R Level: -10.38 mm

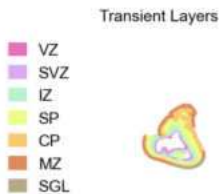


5 mm

Age: 14 GW

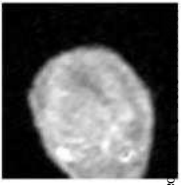


L-R Level: -10.38 mm

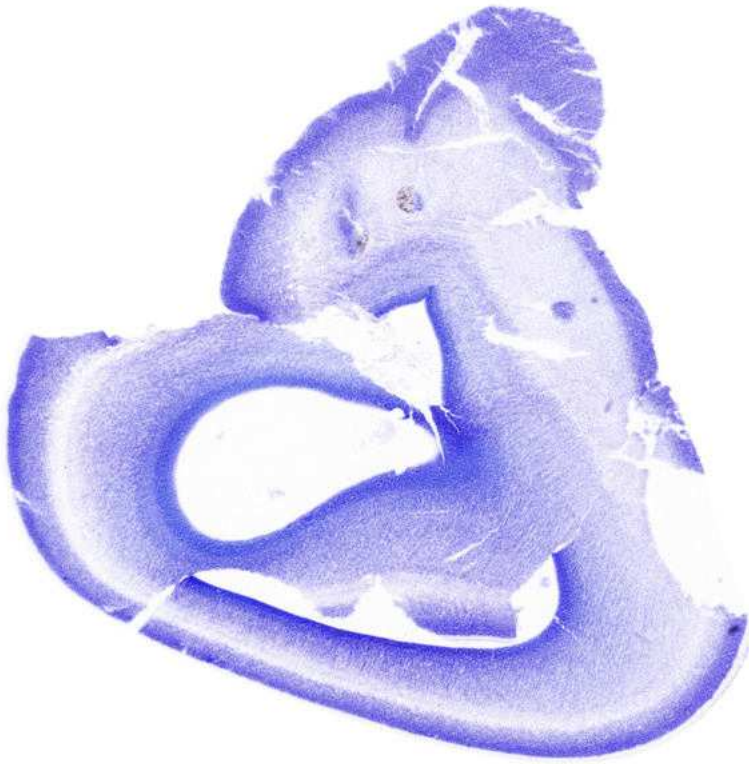


■ Chp: Choroid plexus ■ HPF: Hippocampal formation ■ LV: Lateral ventricle

Age: 14 GW

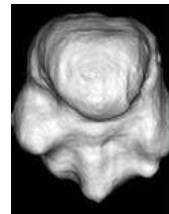


L-R Level: -10.86 mm

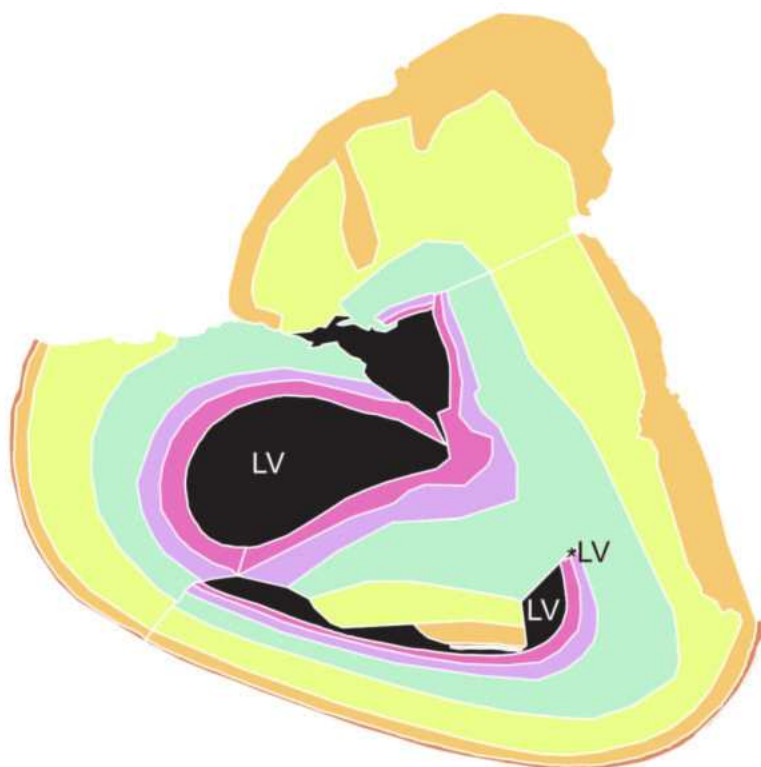
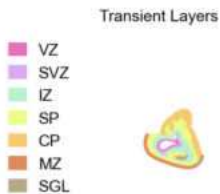


5 mm

Age: 14 GW

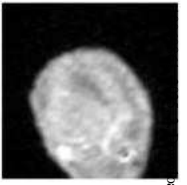


L-R Level: -10.86 mm



■ LV: Lateral ventricle

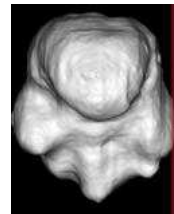
Age: 14 GW



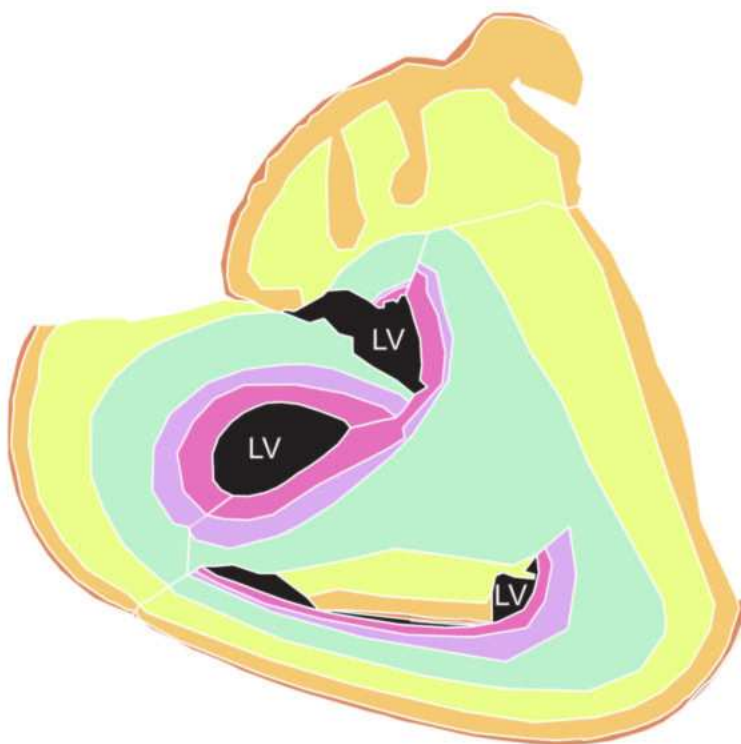
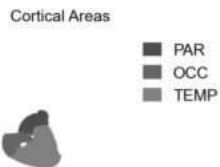
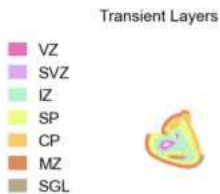
L-R Level: -11.04 mm



5 mm



L-R Level: -11.04 mm



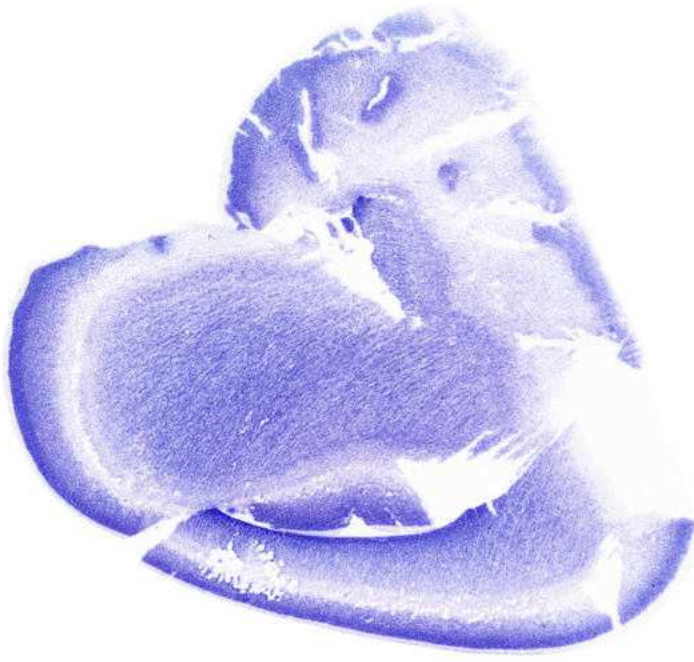
5 mm

■ LV: Lateral ventricle

Age: 14 GW

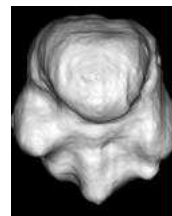


L-R Level: -11.46 mm



5 mm

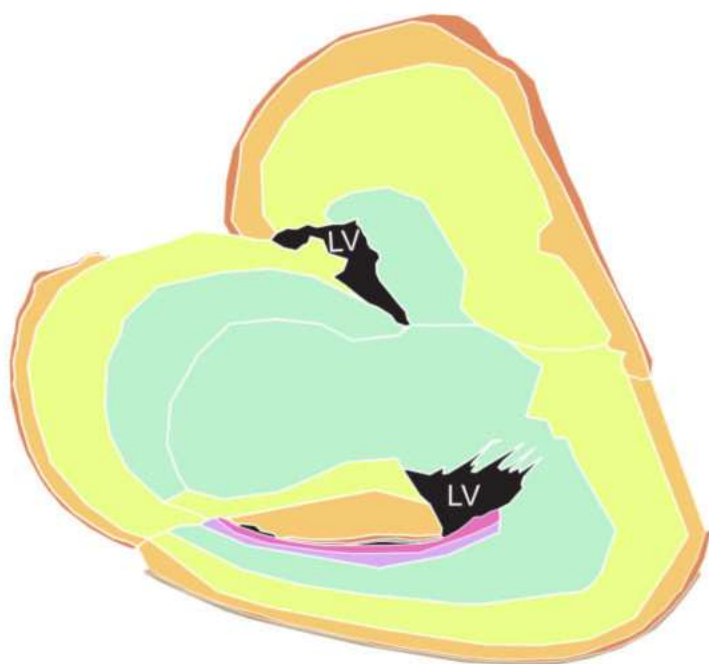
Age: 14 GW



L-R Level: -11.46 mm

- Transient Layers
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL

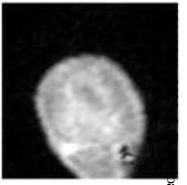
- Cortical Areas
- PAR
 - OCC
 - TEMP



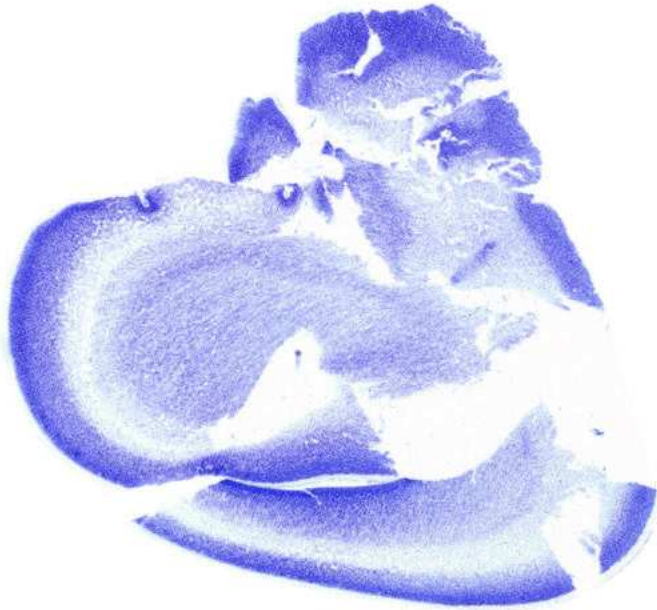
5 mm

■ LV: Lateral ventricle

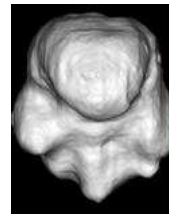
Age: 14 GW



L-R Level: -11.76 mm



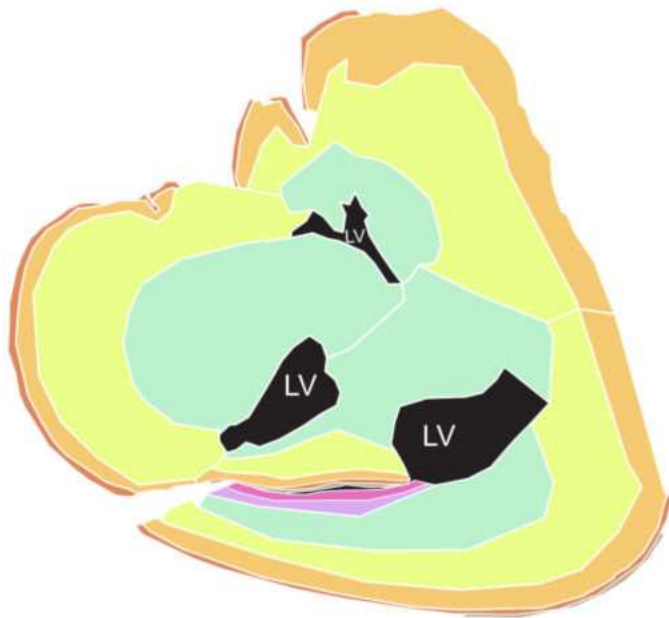
5 mm



L-R Level: -11.76 mm

Age: 14 GW

- Transient Layers**
- VZ
 - SVZ
 - IZ
 - SP
 - CP
 - MZ
 - SGL
- Cortical Areas**
- PAR
 - OCC
 - TEMP



5 mm

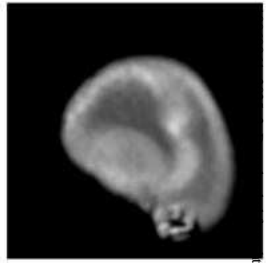
■ LV: Lateral ventricle

17 Gestational Week (GW)

Sagittal

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Age: 17 GW



L-R Level: 16.02 mm



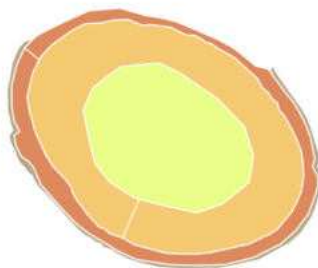
5 mm

Age: 17 GW

- SP
 - CP
 - MZ
 - SGL
- Transient Layers
- TEMP
- Cortical Areas

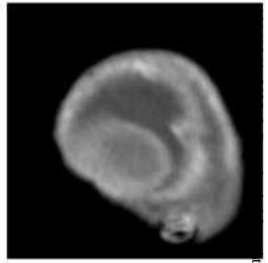


L-R Level: 16.02 mm

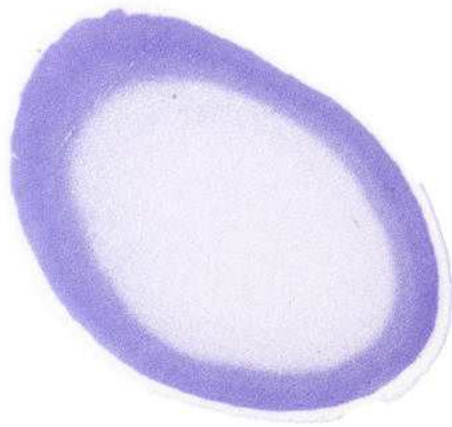


5 mm

Age: 17 GW

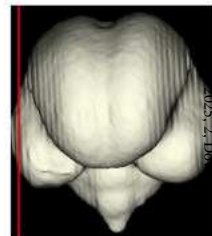


L-R Level: 15.12 mm



5 mm

Age: 17 GW



L-R Level: 15.12 mm

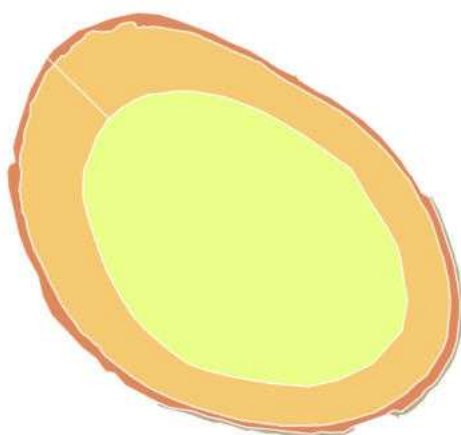
Transient Layers

- SP
- CP
- MZ
- SGL



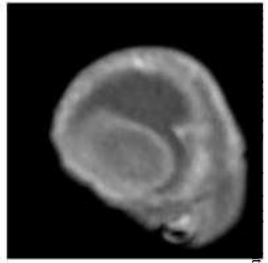
Cortical Areas

- TEMP

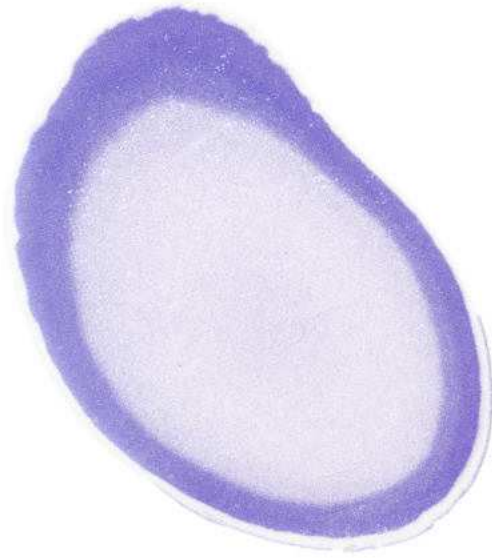


5 mm

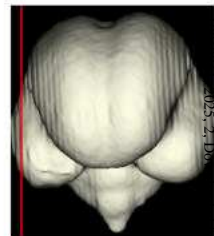
Age: 17 GW



L-R Level: 14.64 mm



5 mm



L-R Level: 14.64 mm

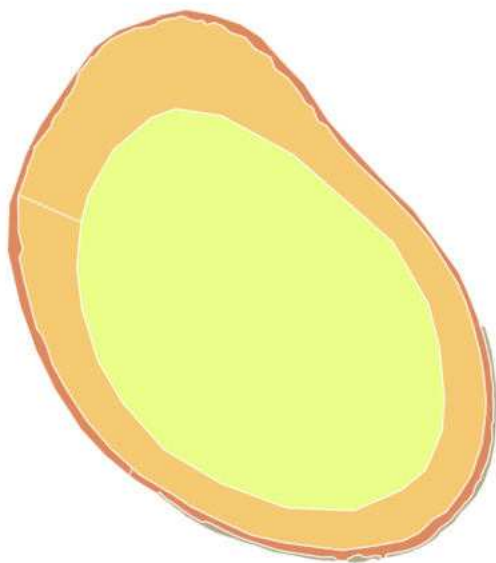
Transient Layers

- SP
- CP
- MZ
- SGL



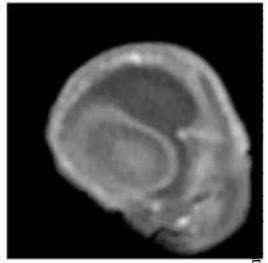
Cortical Areas

TEMP

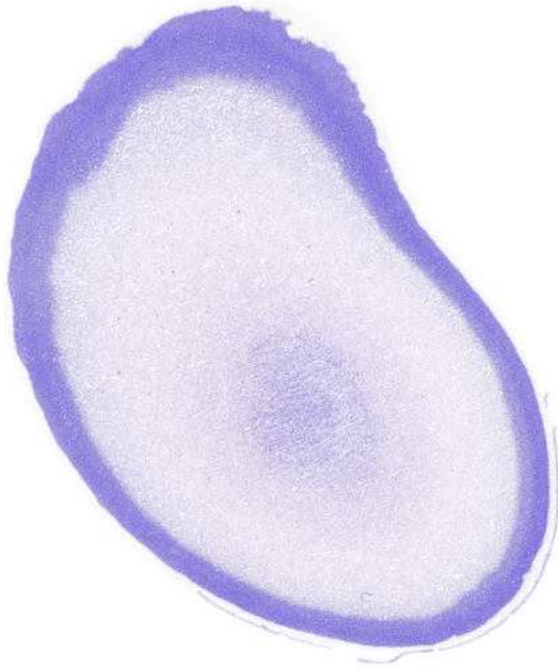


5 mm

Age: 17 GW

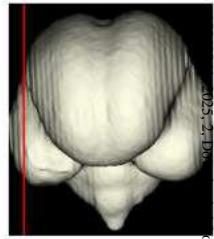
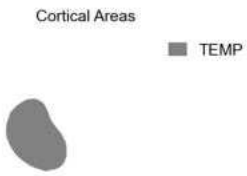
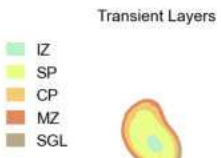


L-R Level: 13.92 mm

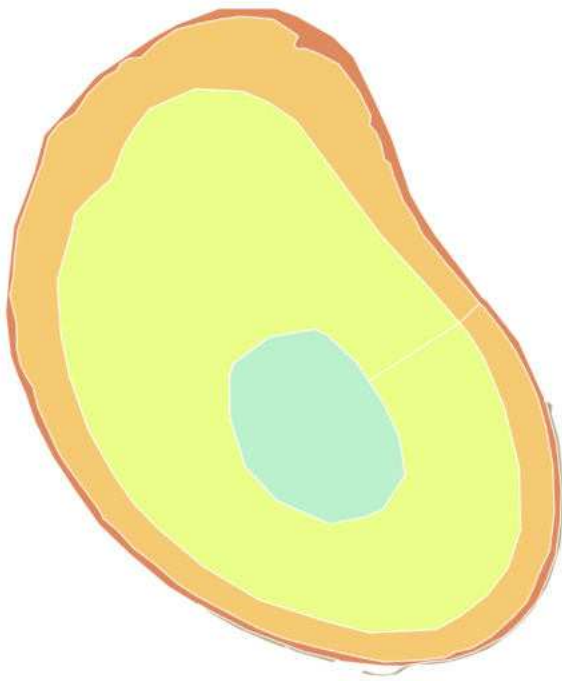


5 mm

Age: 17 GW

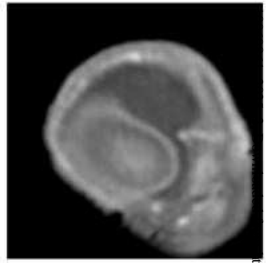


L-R Level: 13.92 mm

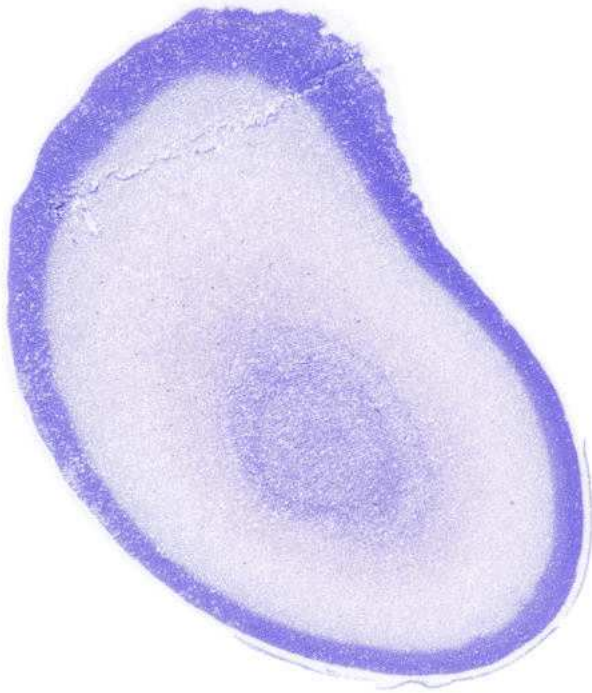


5 mm

Age: 17 GW

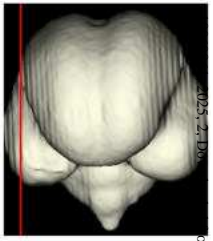
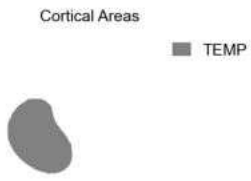
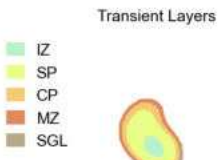


L-R Level: 13.62 mm

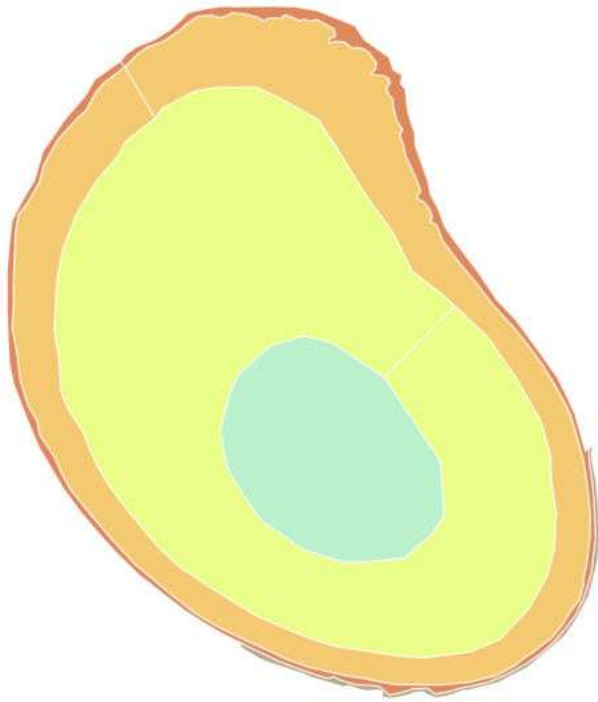


5 mm

Age: 17 GW

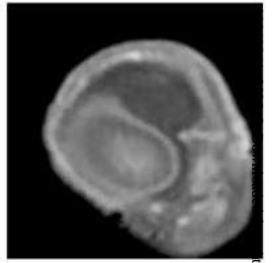


L-R Level: 13.62 mm

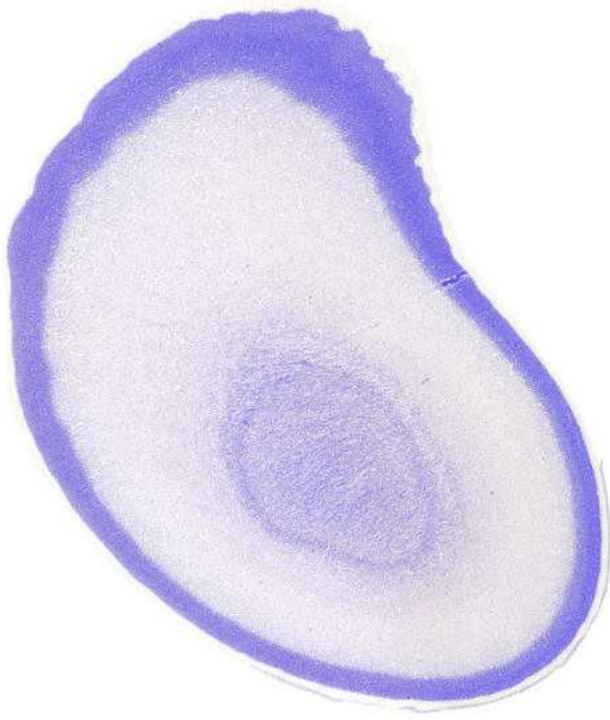


5 mm

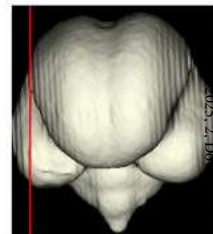
Age: 17 GW



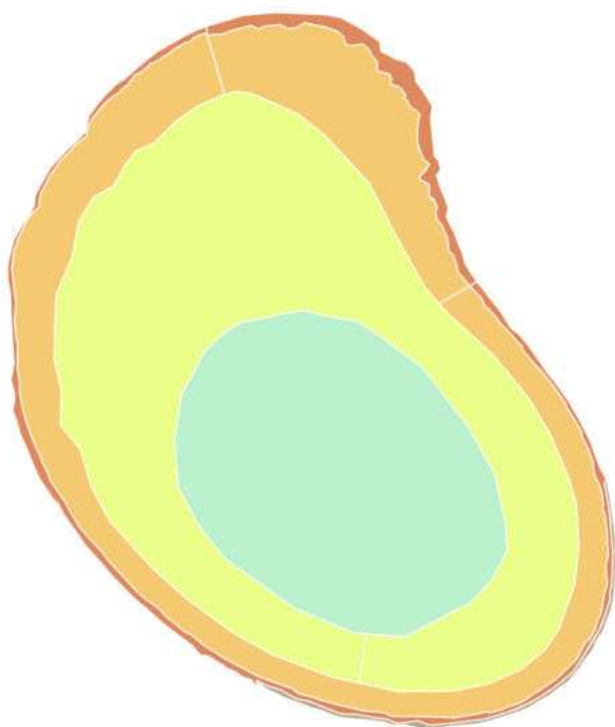
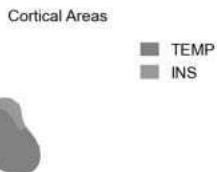
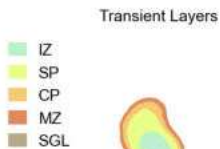
L-R Level: 13.44 mm



5 mm

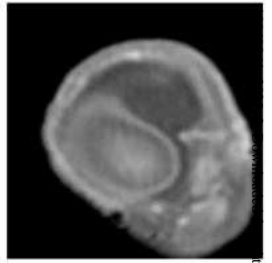


L-R Level: 13.44 mm

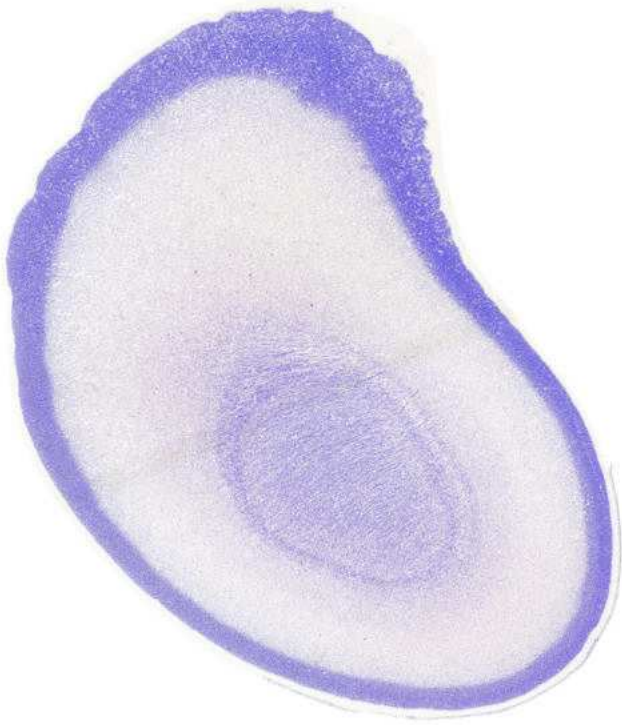


5 mm

Age: 17 GW

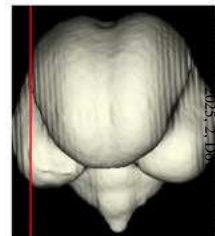


L-R Level: 13.32 mm



5 mm

Age: 17 GW



L-R Level: 13.32 mm

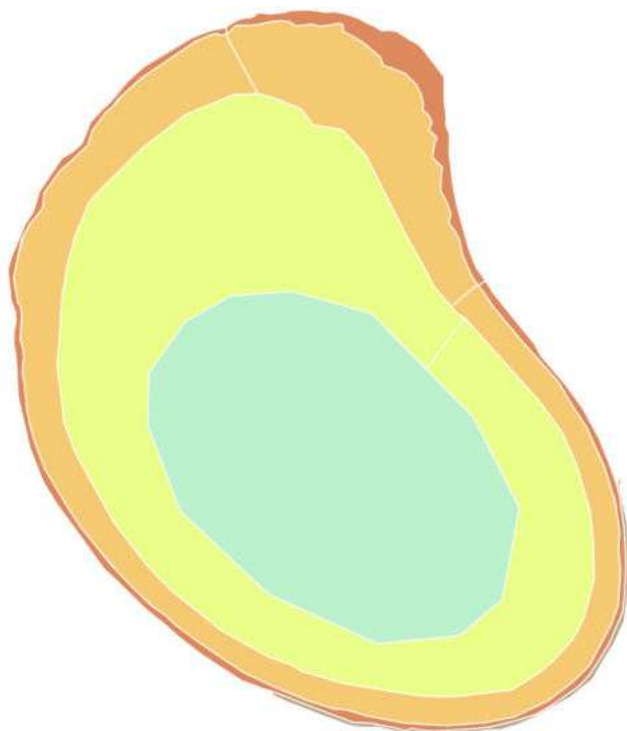
Transient Layers

- IZ
- SP
- CP
- MZ
- SGL



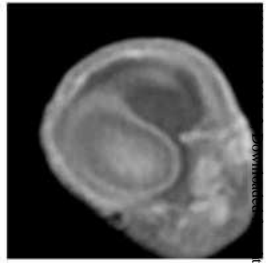
Cortical Areas

- TEMP
- INS

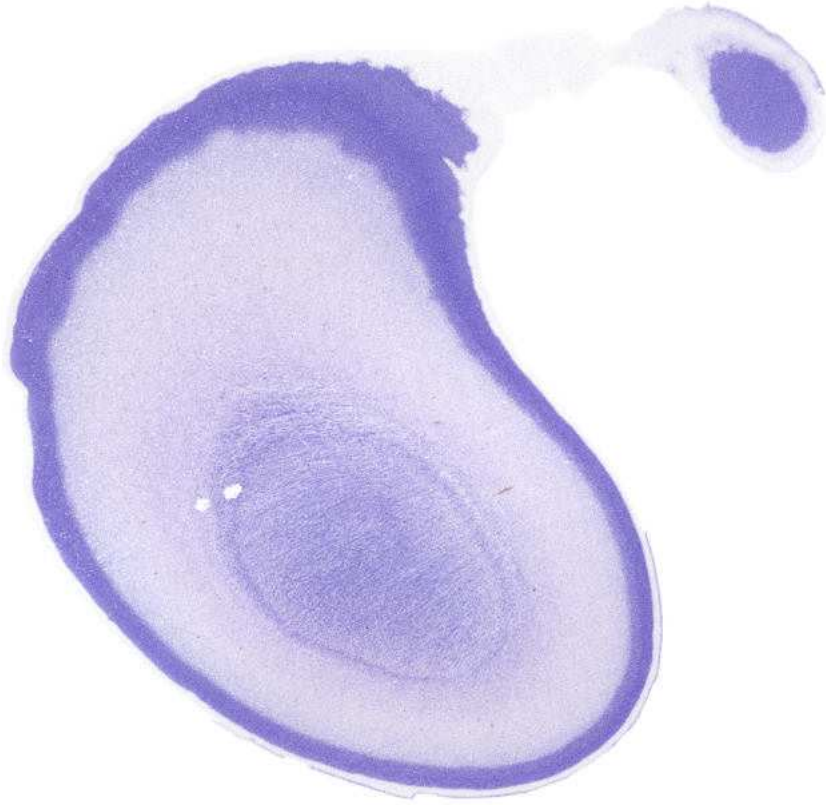


5 mm

Age: 17 GW

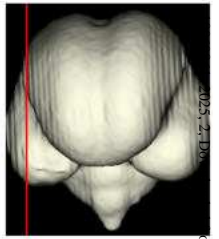


L-R Level: 13.02 mm

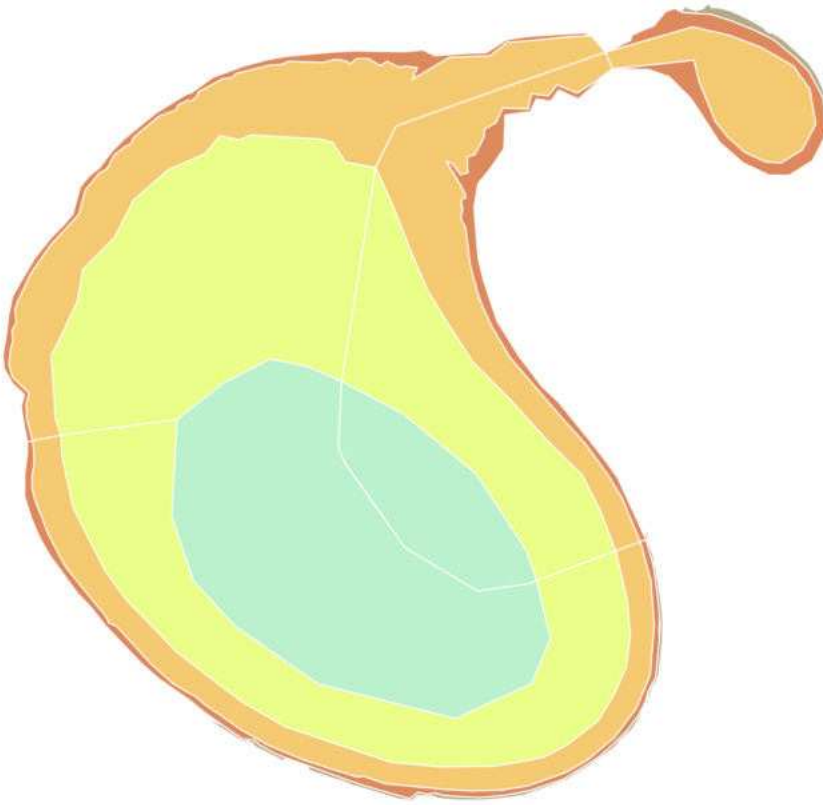
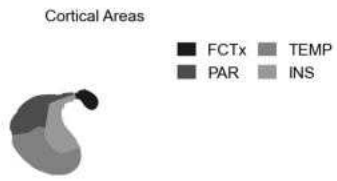
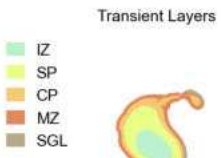


5 mm

Age: 17 GW

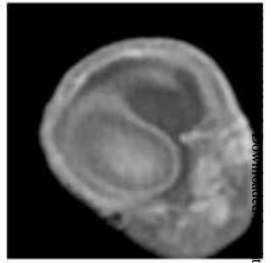


L-R Level: 13.02 mm

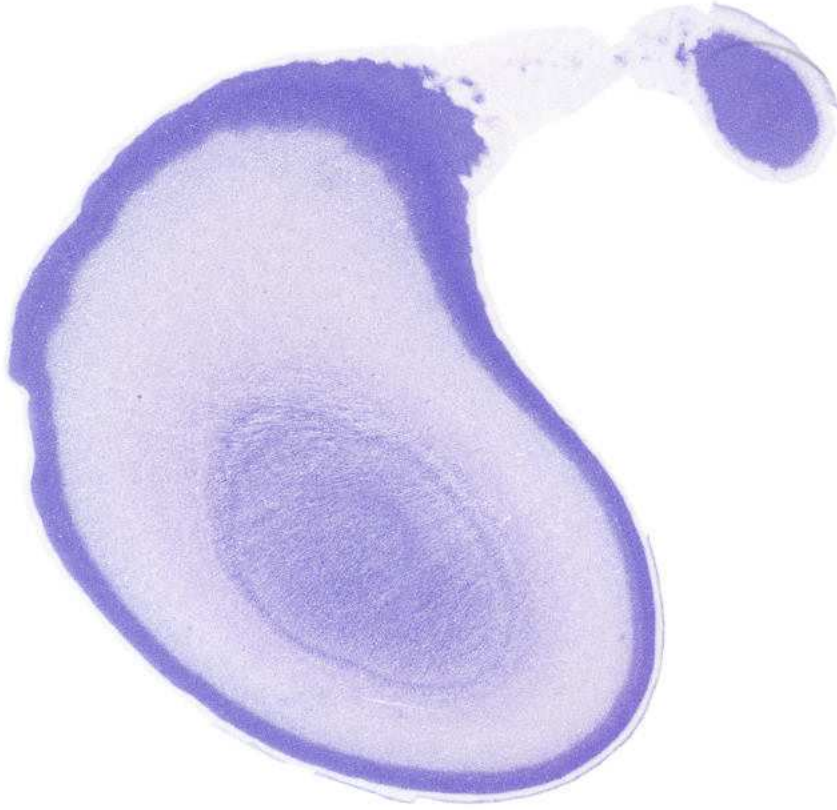


5 mm

Age: 17 GW

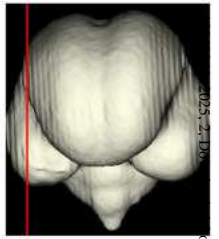


L-R Level: 12.96 mm

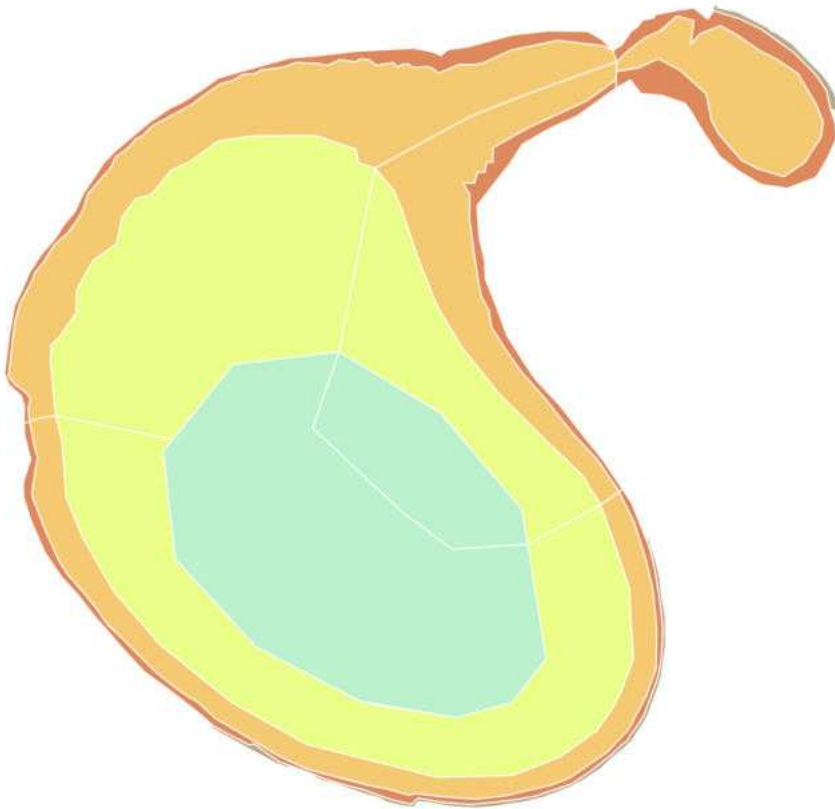
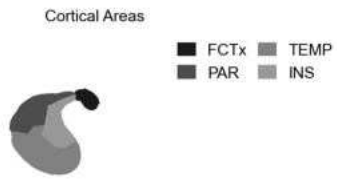
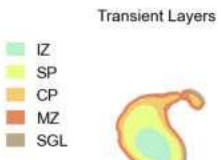


5 mm

Age: 17 GW

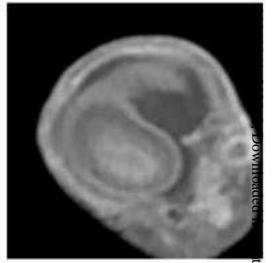


L-R Level: 12.96 mm



5 mm

Age: 17 GW

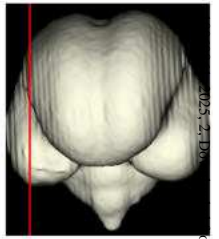


L-R Level: 12.48 mm

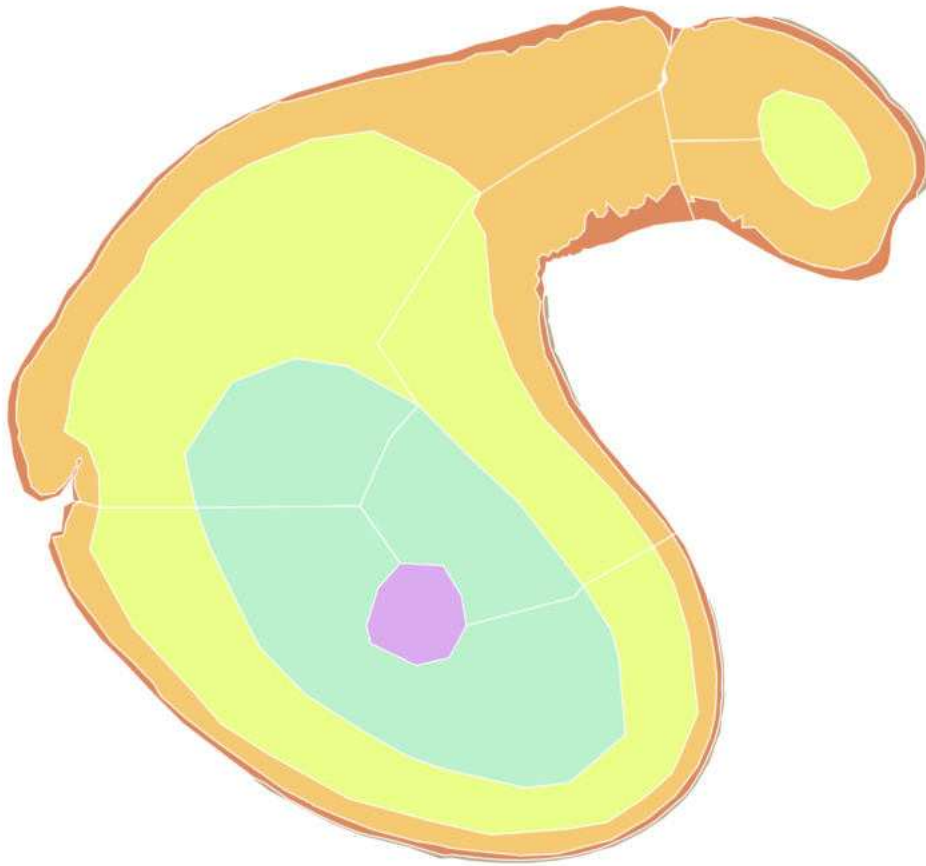
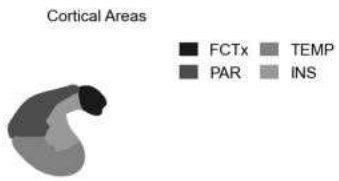
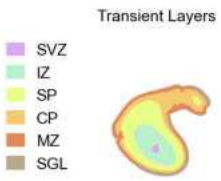


5 mm

Age: 17 GW



L-R Level: 12.48 mm



5 mm

Age: 17 GW

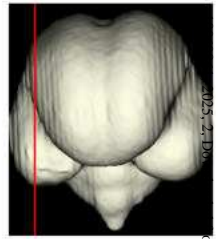


L-R Level: 12.24 mm

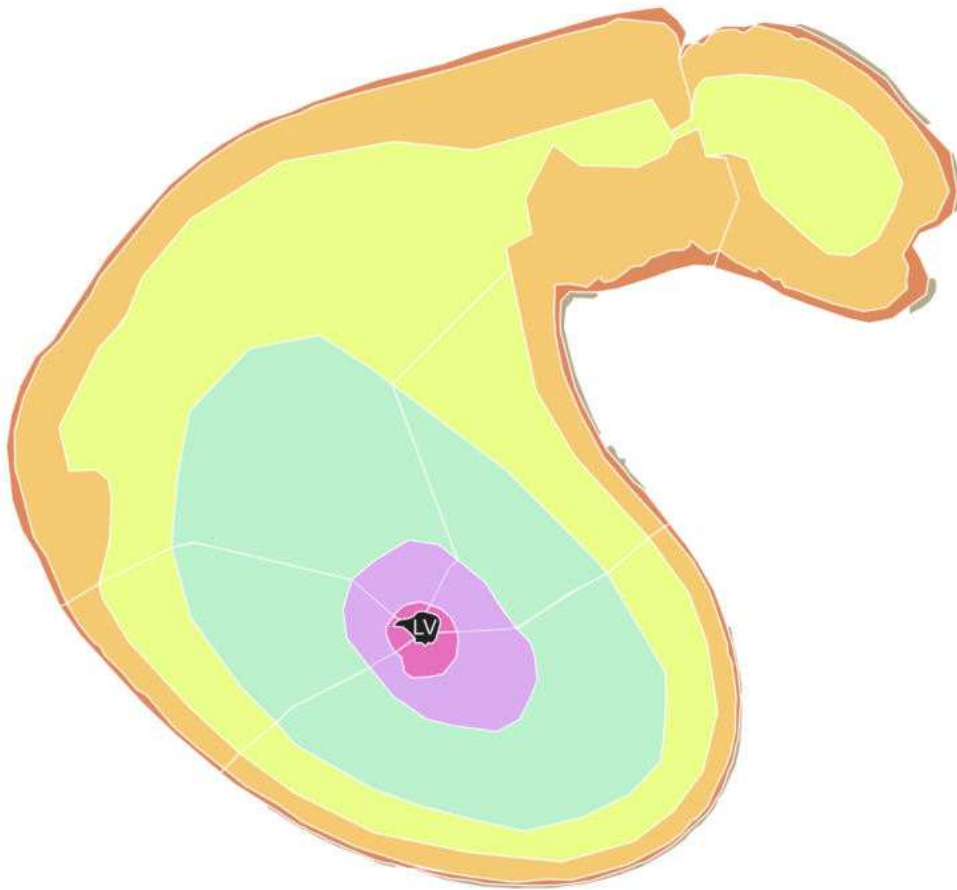
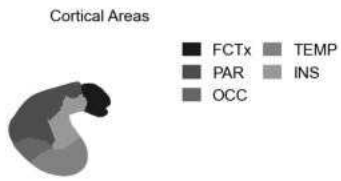
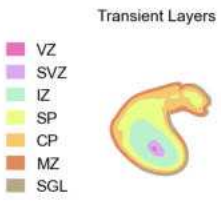


5 mm

Age: 17 GW



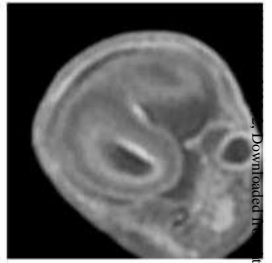
L-R Level: 12.24 mm



■ LV: Lateral ventricle

5 mm

Age: 17 GW

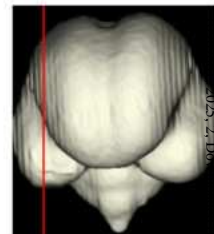


L-R Level: 11.4 mm



5 mm

Age: 17 GW



L-R Level: 11.4 mm

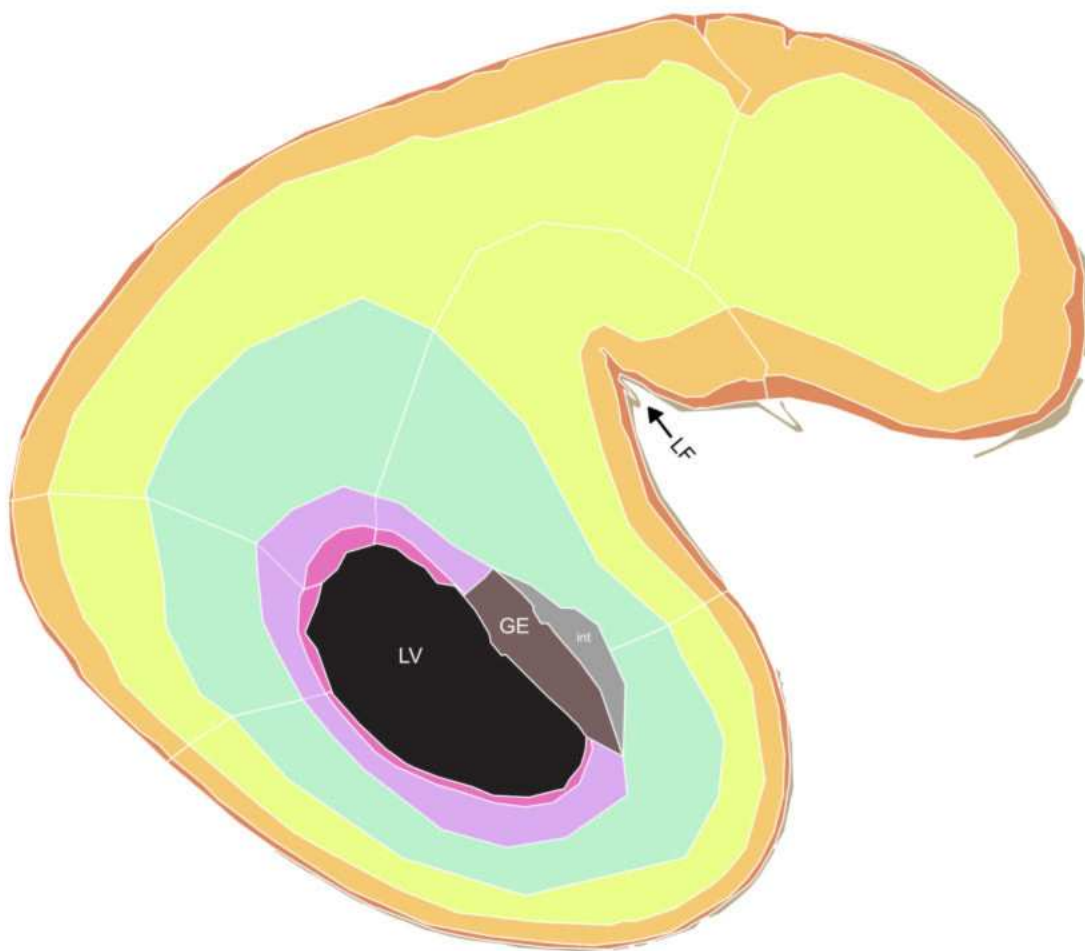
Transient Layers

Cortical Areas

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



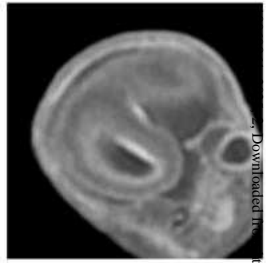
- FCTx
- PAR
- OCC
- TEMP
- INS



5 mm

GE: Ganglionic eminence
 LV: Lateral ventricle
 int: Internal capsule
 LF: Lateral fissure

Age: 17 GW



L-R Level: 11.28 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

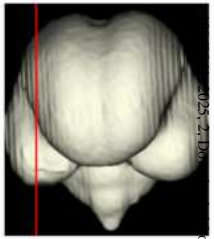


Cortical Areas

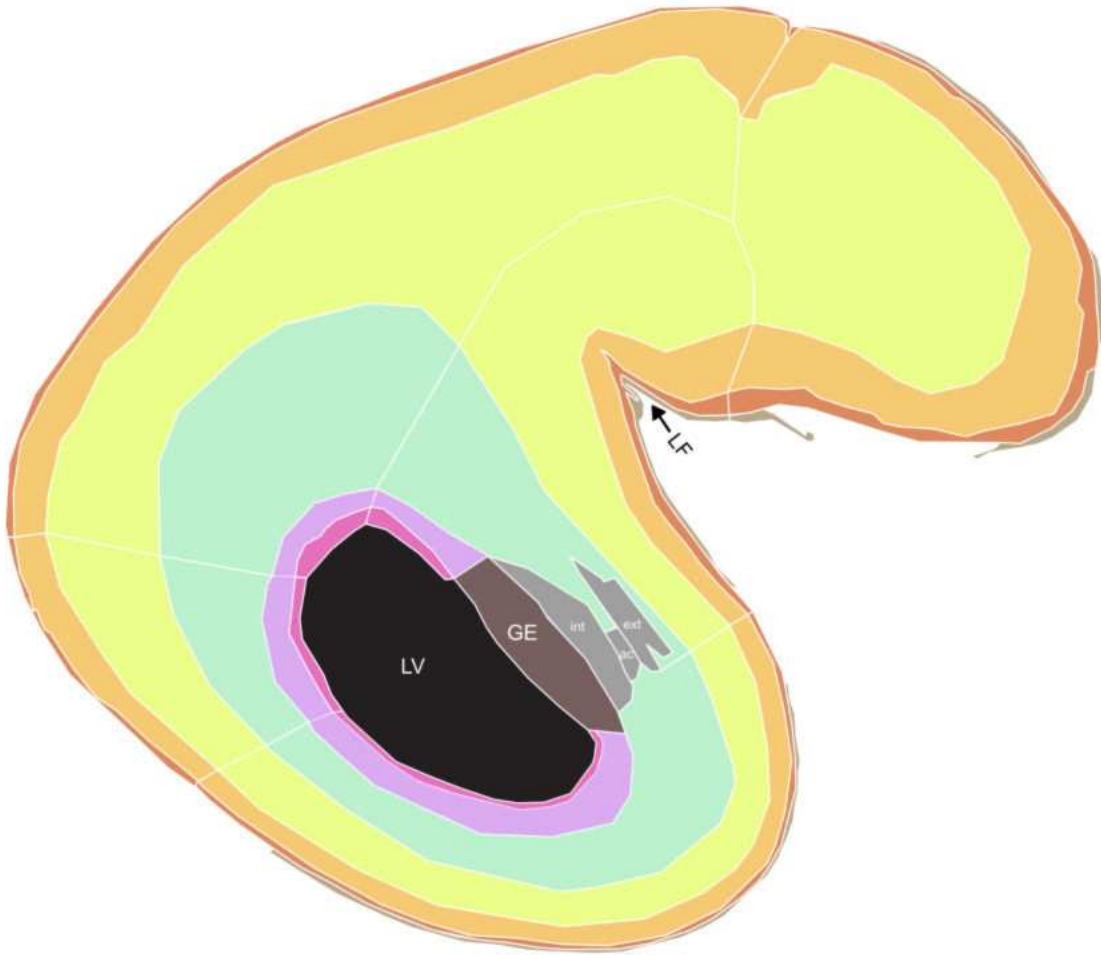
- FCTx
- PAR
- OCC
- TEMP
- INS



Age: 17 GW



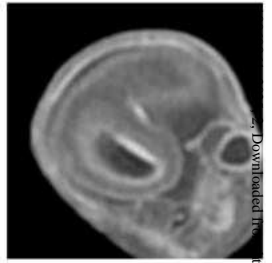
L-R Level: 11.28 mm



5 mm

- GE: Ganglionic eminence
- LV: Lateral ventricle
- ac: Anterior commissure
- LF: Lateral fissure
- ext: External capsule
- int: Internal capsule

Age: 17 GW



L-R Level: 11.04 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

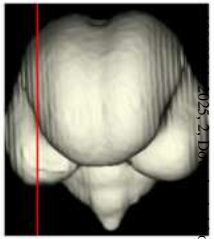


Cortical Areas

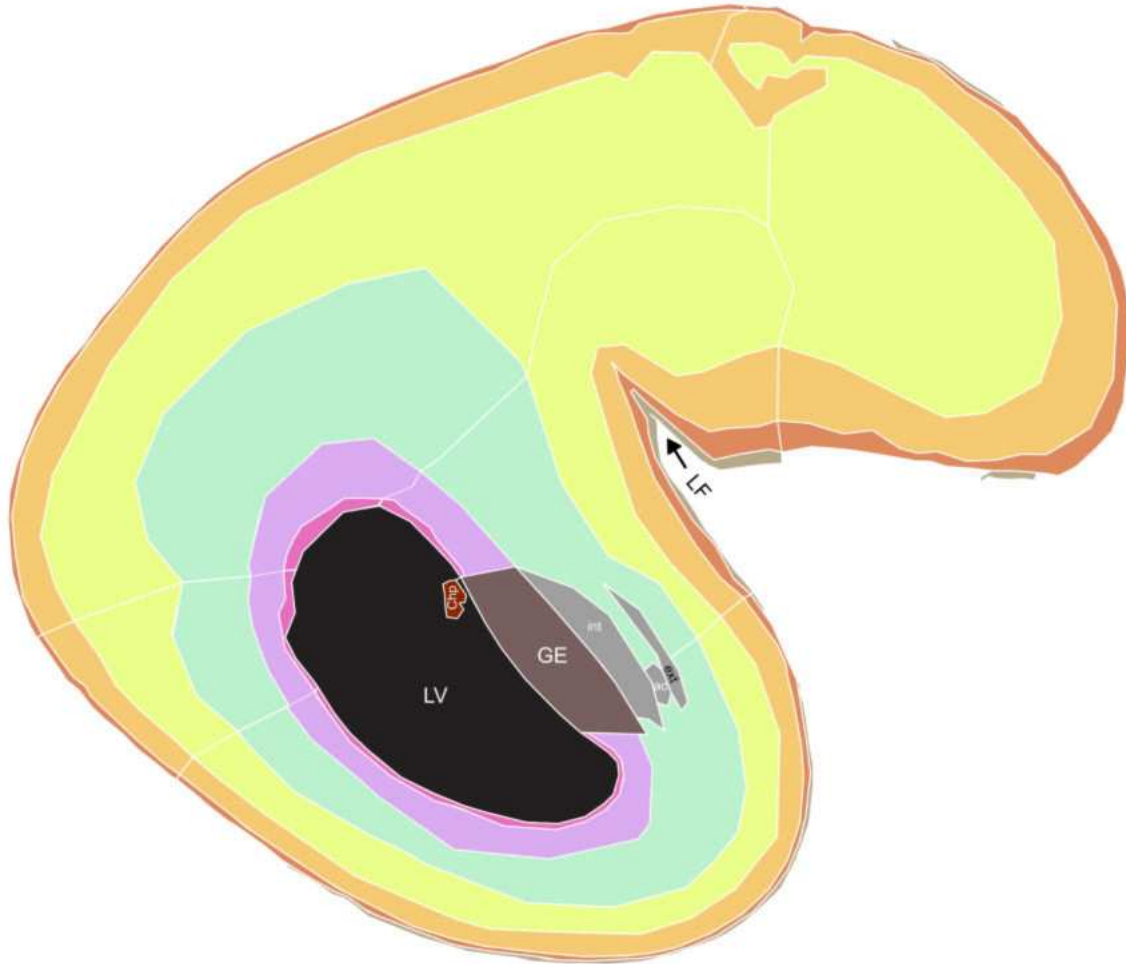
- FCTx
- PAR
- OCC
- TEMP
- INS



Age: 17 GW

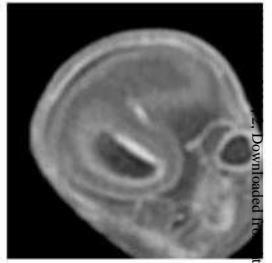


L-R Level: 11.04 mm



- Chp: Choroid plexus
- LV: Lateral ventricle
- ext: External capsule
- int: Internal capsule
- GE: Ganglionic eminence
- ac: Anterior commissure
- LF: Lateral fissure

Age: 17 GW

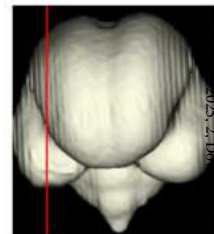


L-R Level: 10.86 mm

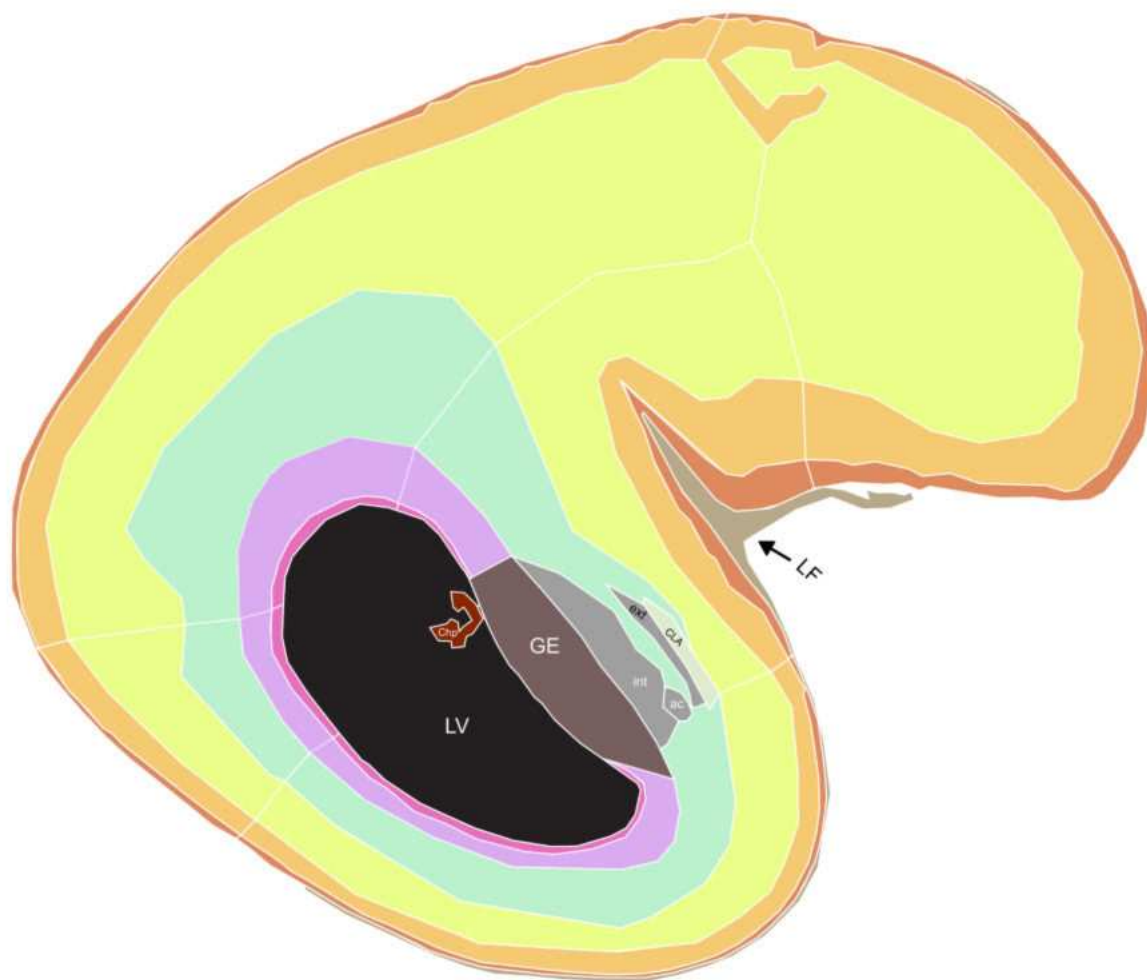
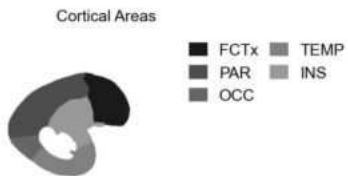
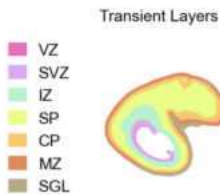


5 mm

Age: 17 GW

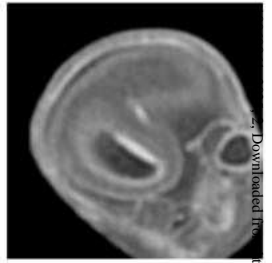


L-R Level: 10.86 mm



- CLA: Claustrum
- GE: Ganglionic eminence
- ac: Anterior commissure
- int: Internal capsule
- Chp: Choroid plexus
- LV: Lateral ventricle
- ext: External capsule
- LF: Lateral fissure

Age: 17 GW

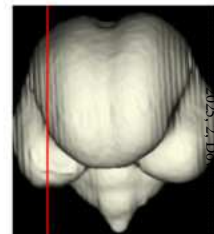


L-R Level: 10.8 mm

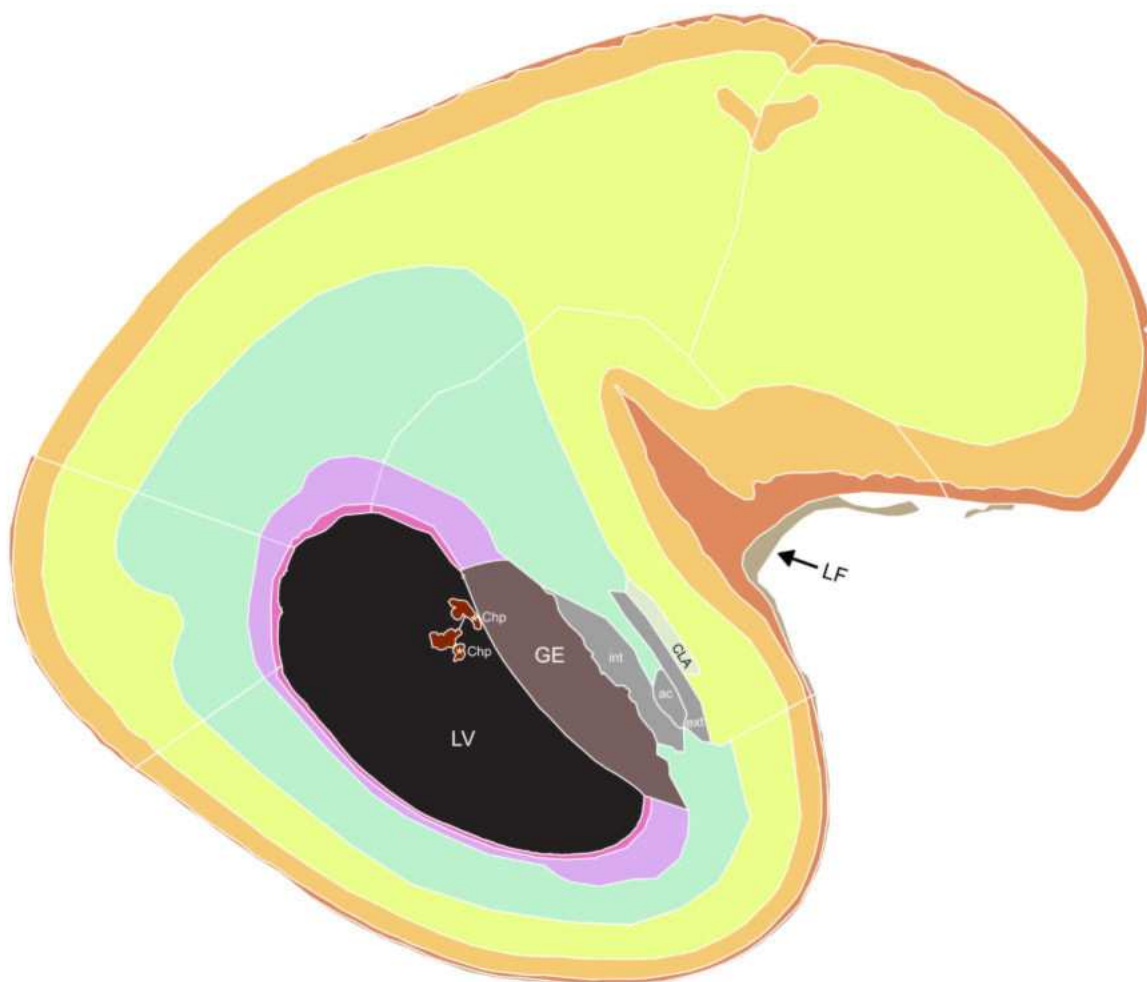
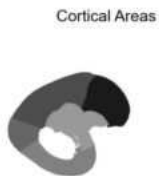
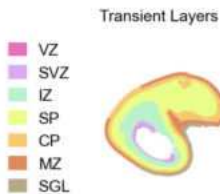


5 mm

Age: 17 GW



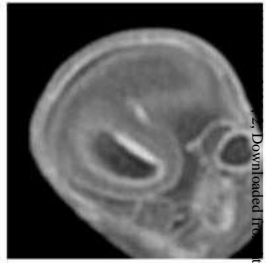
L-R Level: 10.8 mm



5 mm

CLA: Claustrum GE: Ganglionic eminence ac: Anterior commissure int: Internal capsule
 Chp: Choroid plexus LV: Lateral ventricle ext: External capsule LF: Lateral fissure

Age: 17 GW

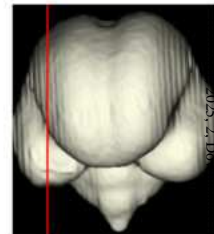


L-R Level: 10.74 mm

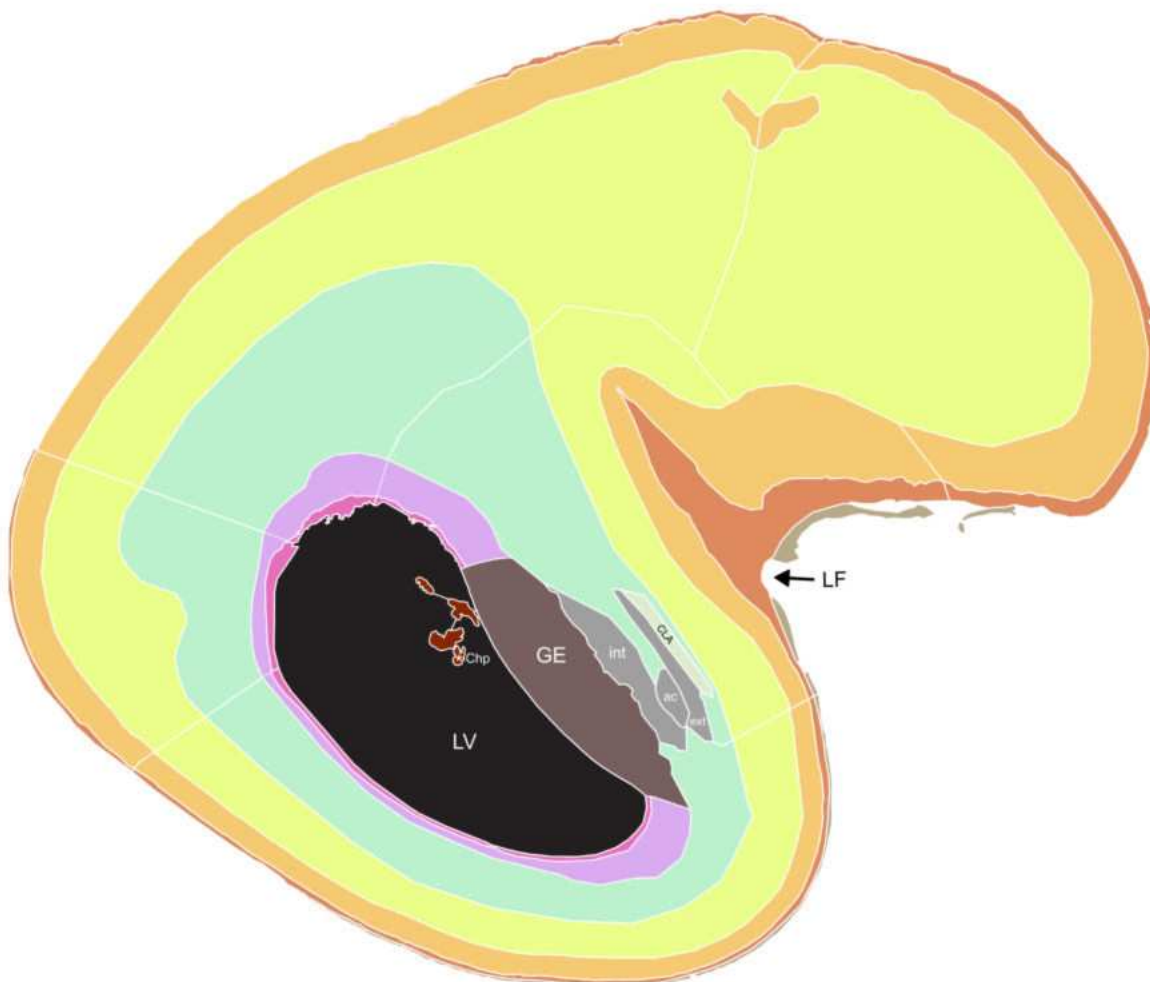
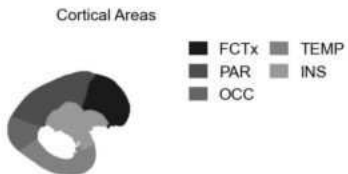
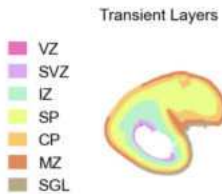


5 mm

Age: 17 GW

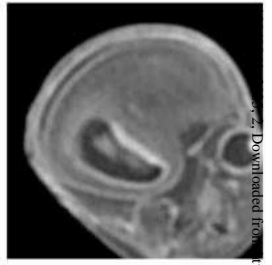


L-R Level: 10.74 mm



- CLA: Claustrum
- GE: Ganglionic eminence
- ac: Anterior commissure
- int: Internal capsule
- Chp: Choroid plexus
- LV: Lateral ventricle
- ext: External capsule
- LF: Lateral fissure

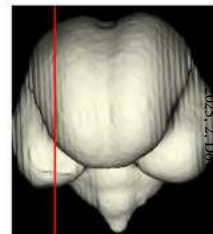
Age: 17 GW



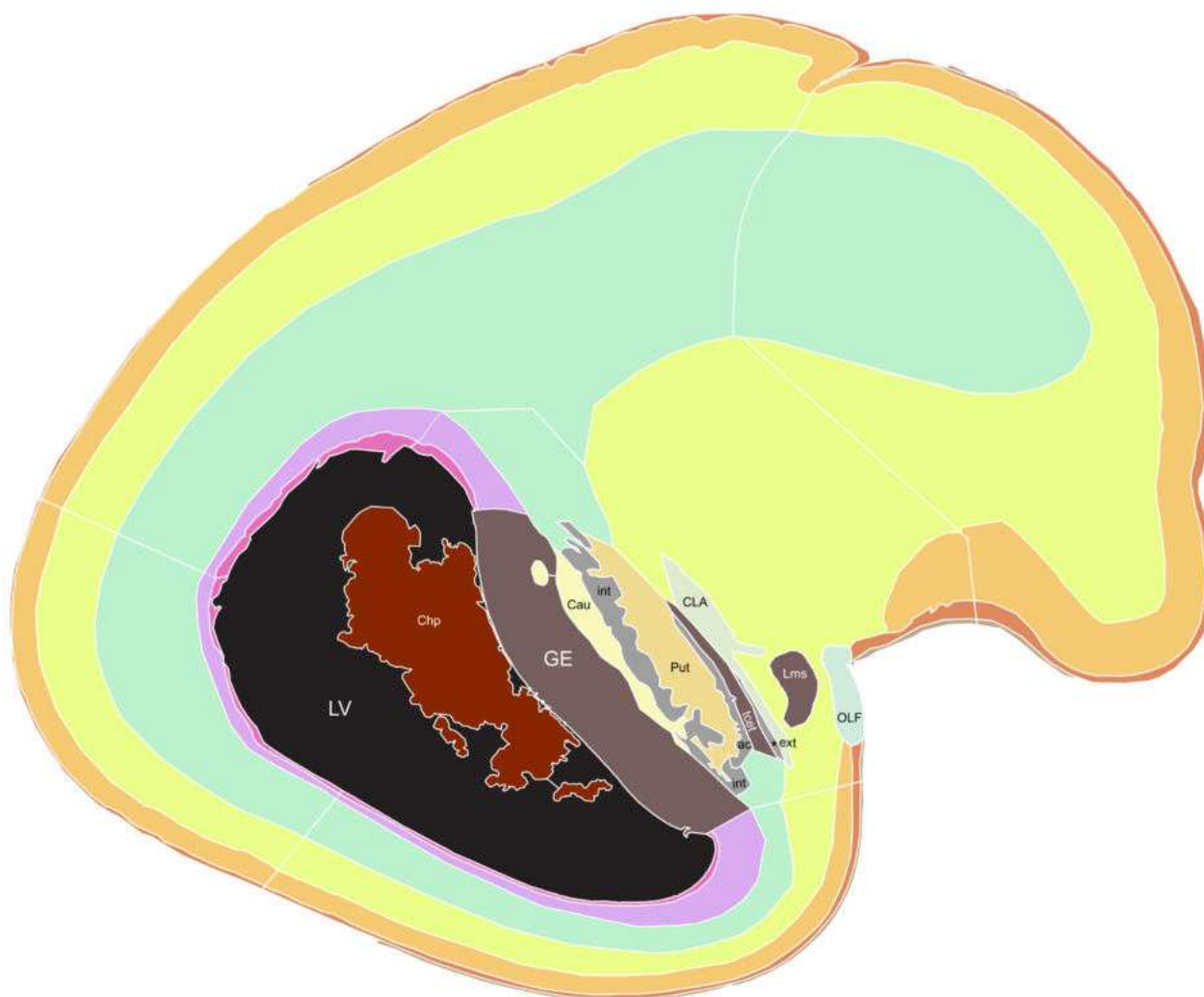
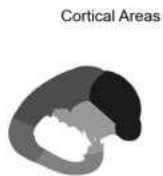
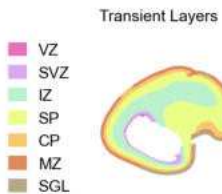
L-R Level: 9.42 mm



5 mm



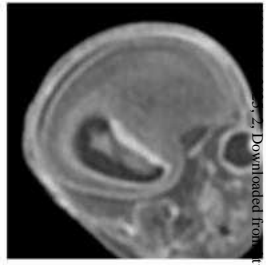
L-R Level: 9.42 mm



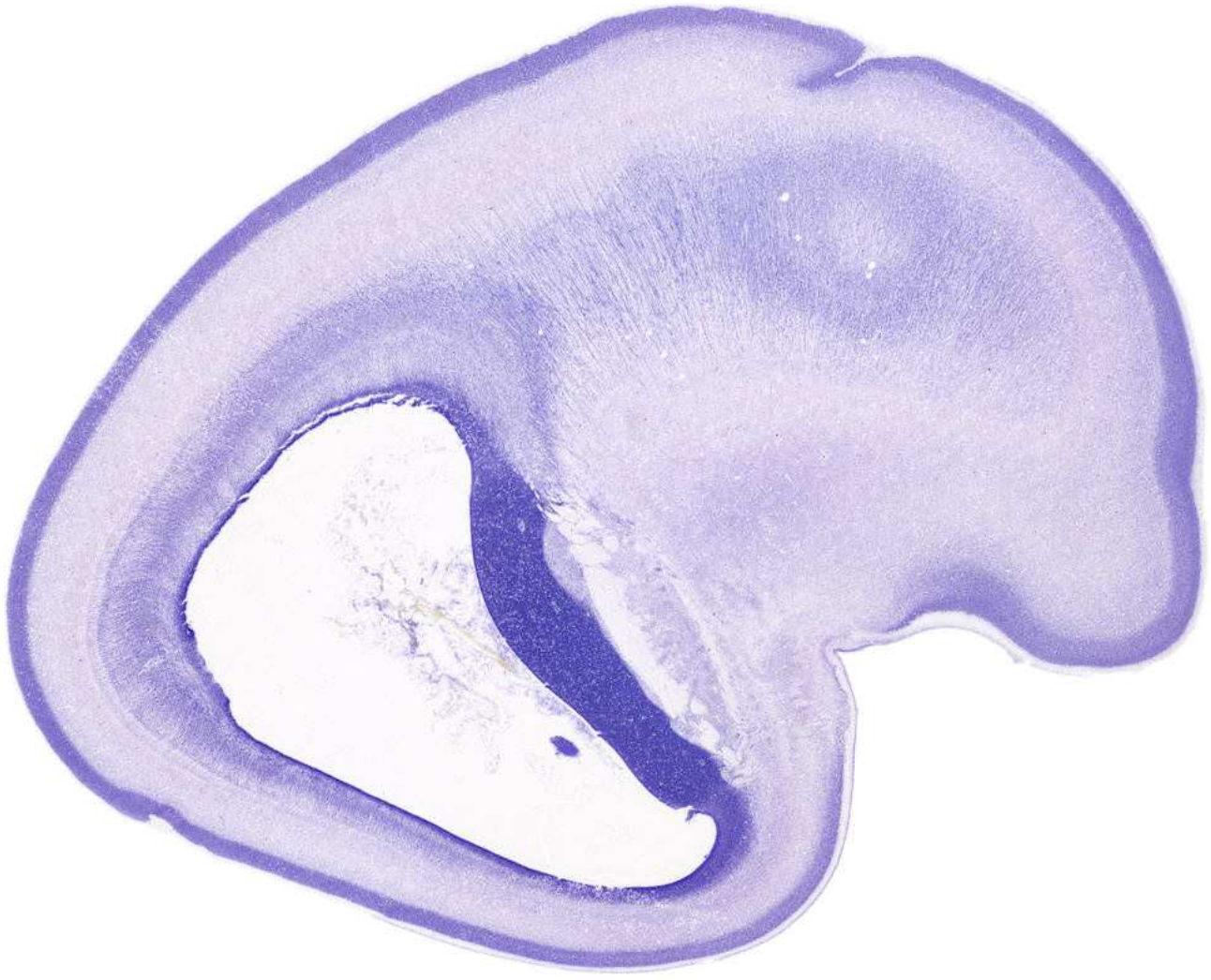
5 mm

- CLA: Claustrum
- GE: Ganglionic eminence
- Put: Putamen
- int: Internal capsule
- Cau: Caudate nucleus
- LV: Lateral ventricle
- ac: Anterior commissure
- tcet: Transient cell zone in the external capsule
- Chp: Choroid plexus
- Lms: Lateral migratory stream
- ext: External capsule

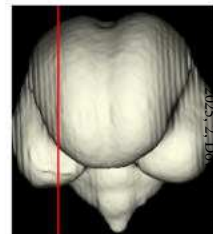
Age: 17 GW



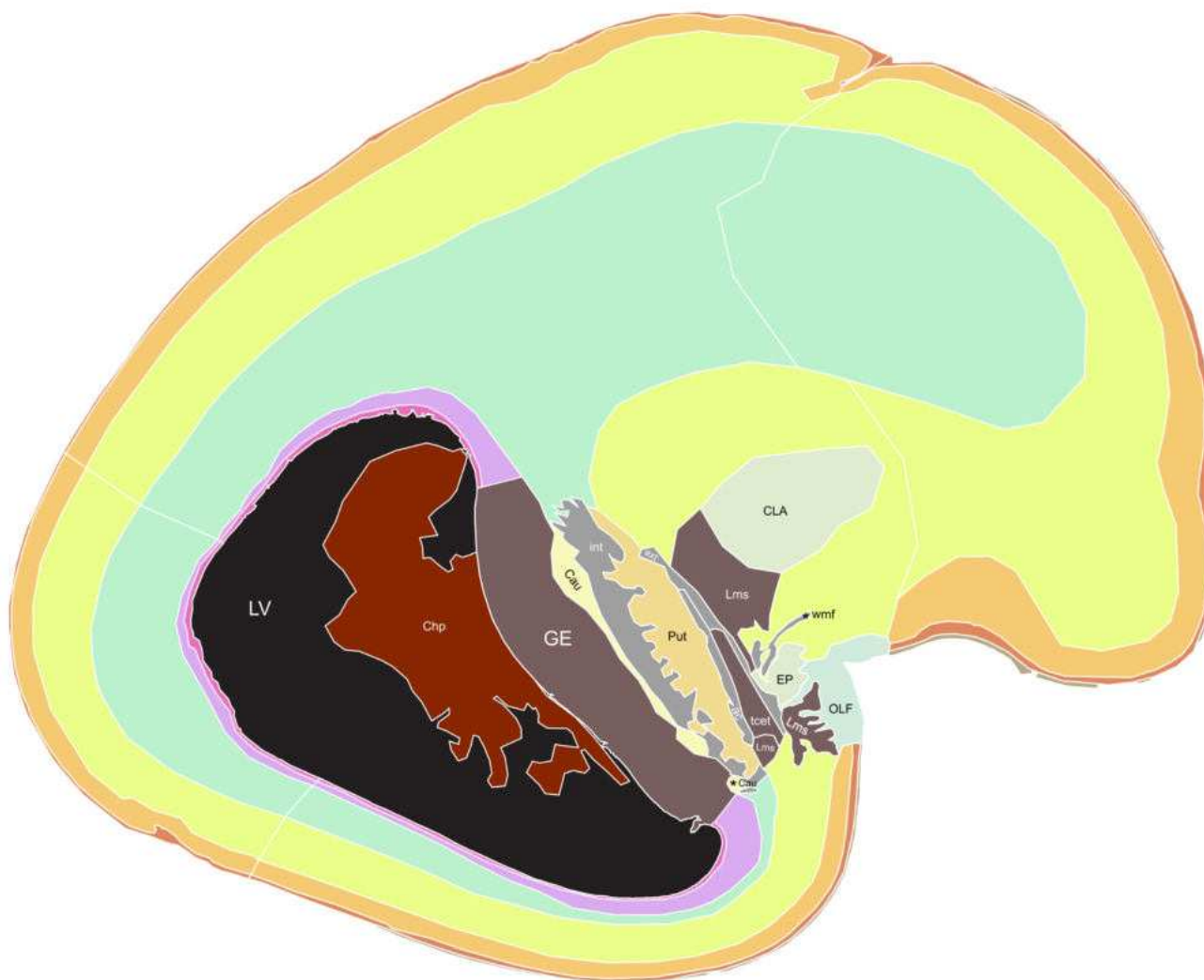
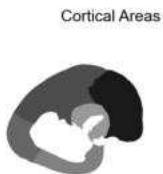
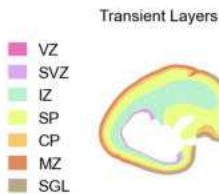
L-R Level: 8.94 mm



5 mm

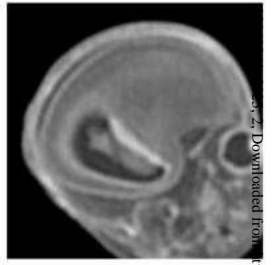


L-R Level: 8.94 mm

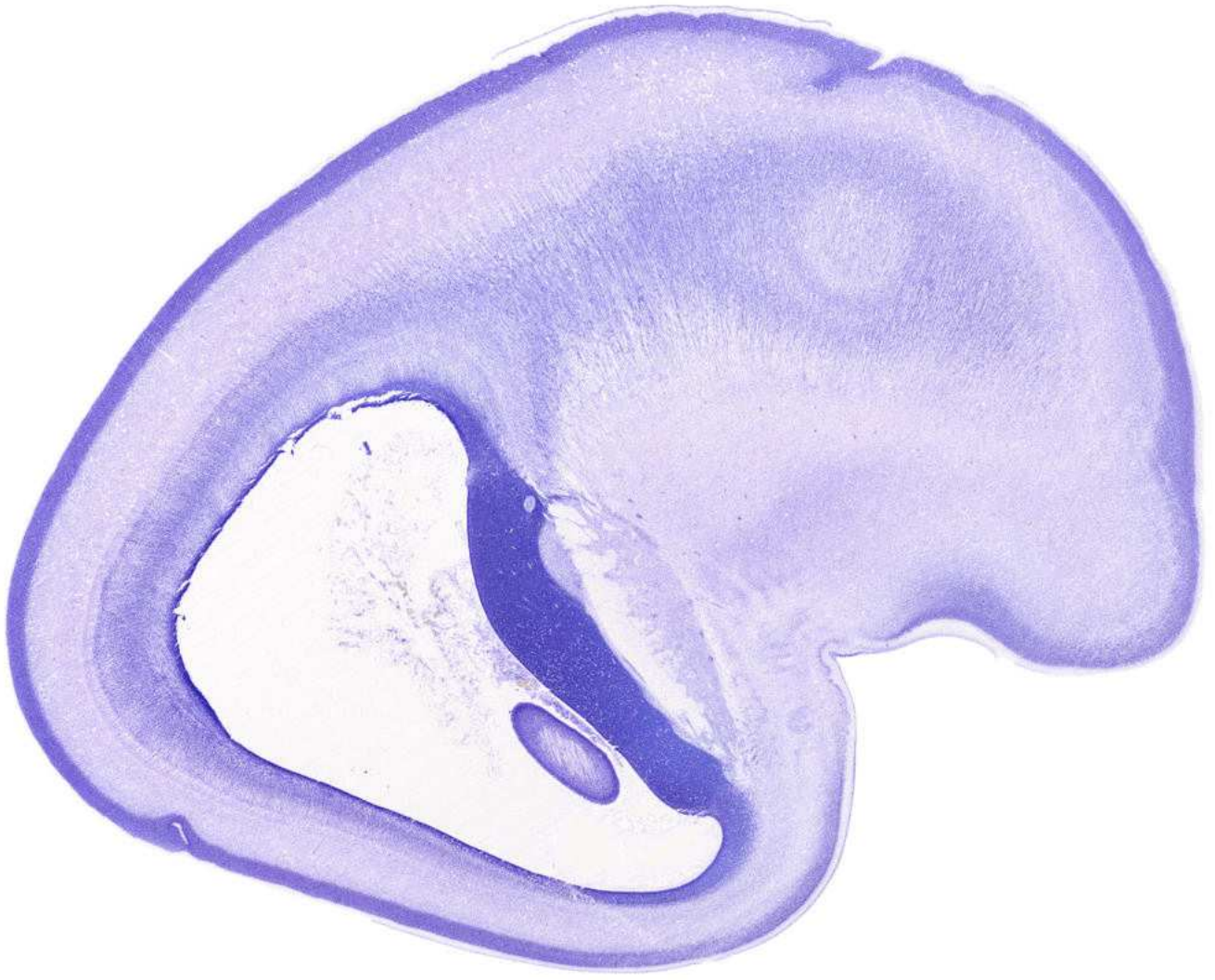


- | | | | |
|--------------------------|-------------------------------|-------------------------|--|
| CLA: Claustrum | GE: Ganglionic eminence | Put: Putamen | int: Internal capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | tcoet: Transient cell zone in the external capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule | wmf: White matter fibers |
| EP: Endopiriform nucleus | | | |

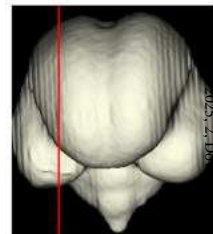
Age: 17 GW



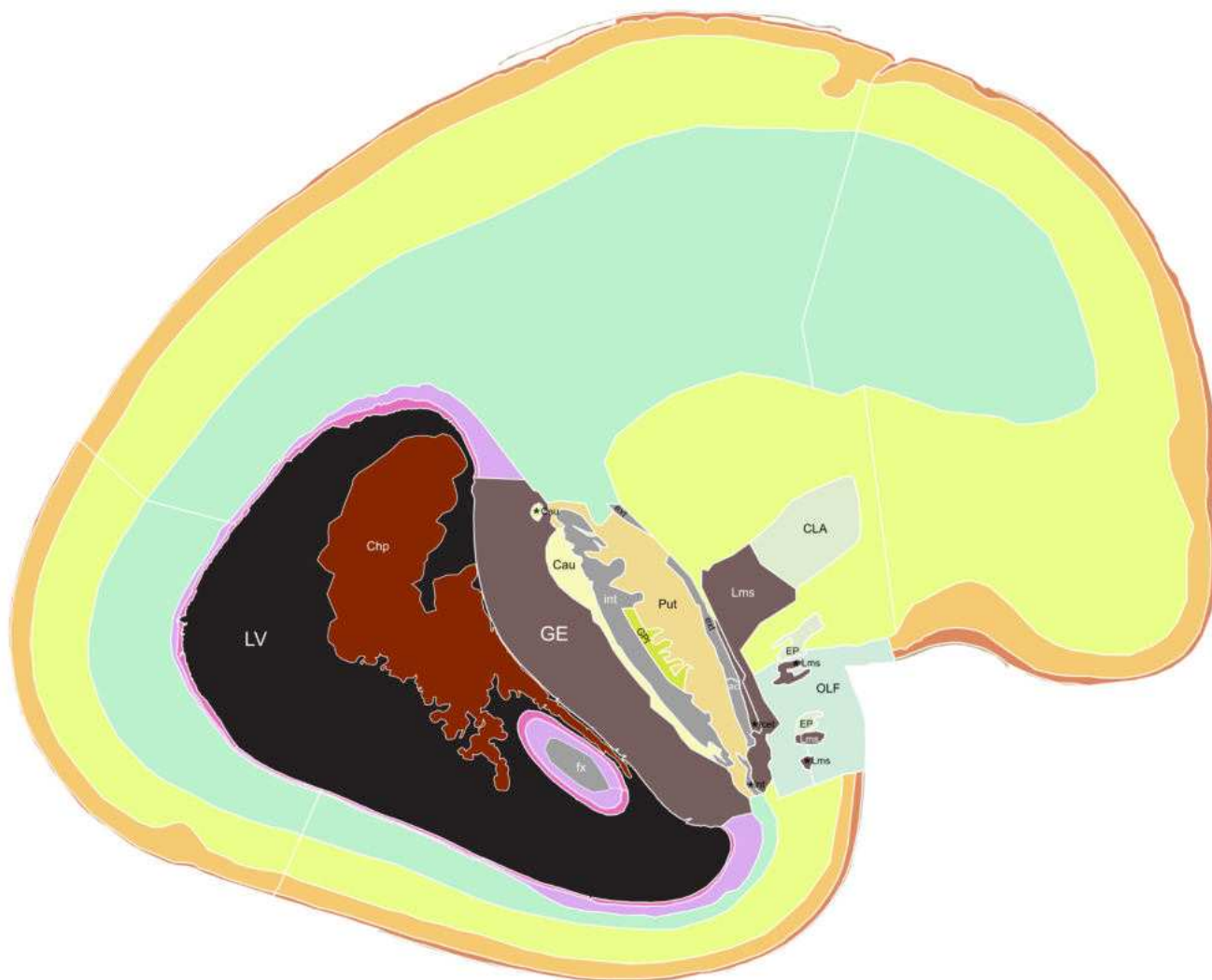
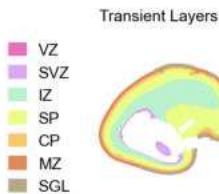
L-R Level: 8.76 mm



5 mm



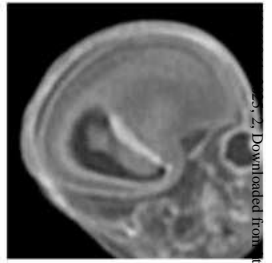
L-R Level: 8.76 mm



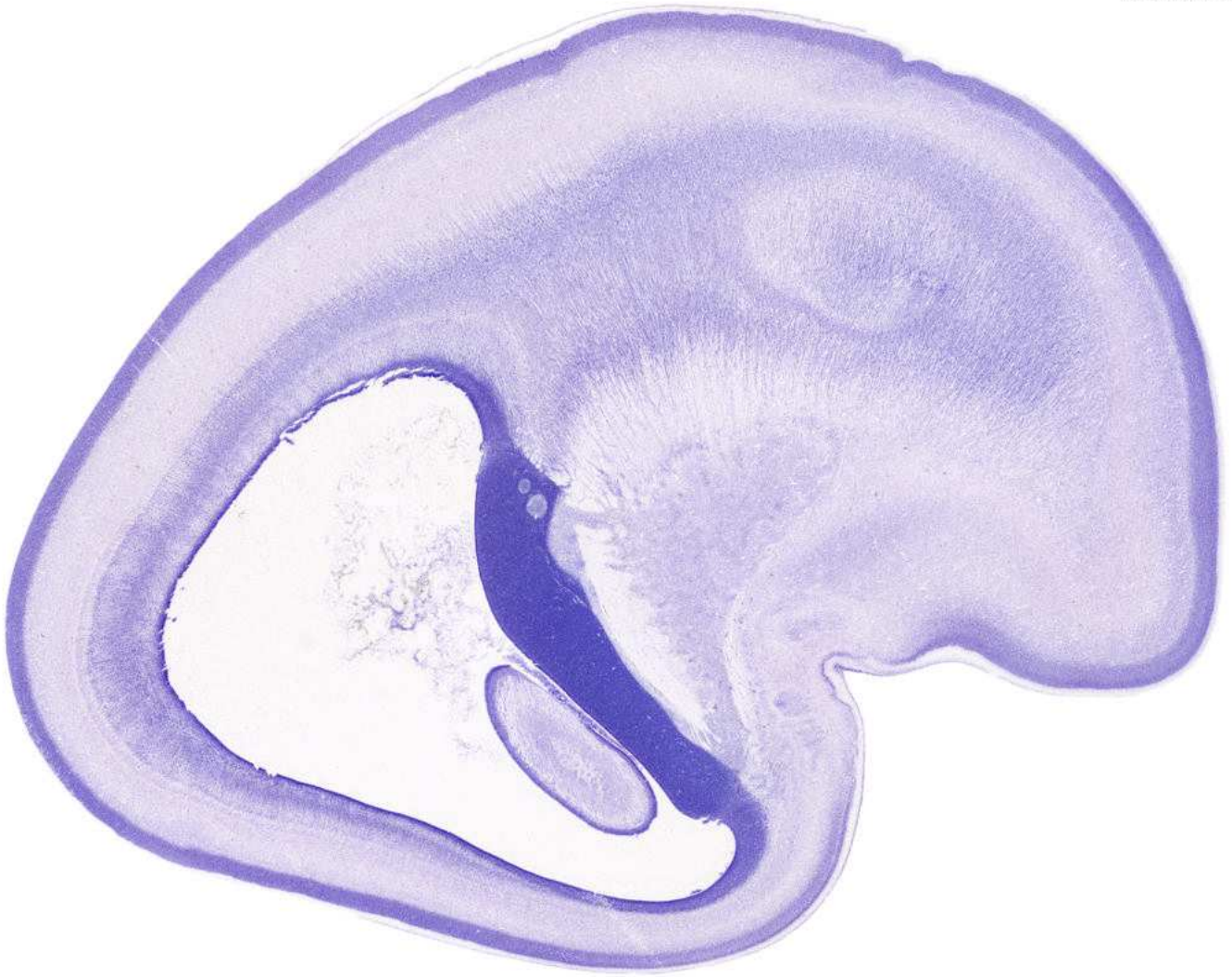
5 mm

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--|
| CLA: Claustrum | GE: Ganglionic eminence | Put: Putamen | fx: Fornix |
| Cau: Caudate nucleus | GPI: Globus pallidus lateral segment | ac: Anterior commissure | int: Internal capsule |
| Chp: Choroid plexus | LV: Lateral ventricle | ext: External capsule | tctet: Transient cell zone in the external capsule |
| EP: Endopiriform nucleus | Lms: Lateral migratory stream | | |

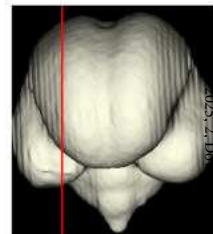
Age: 17 GW



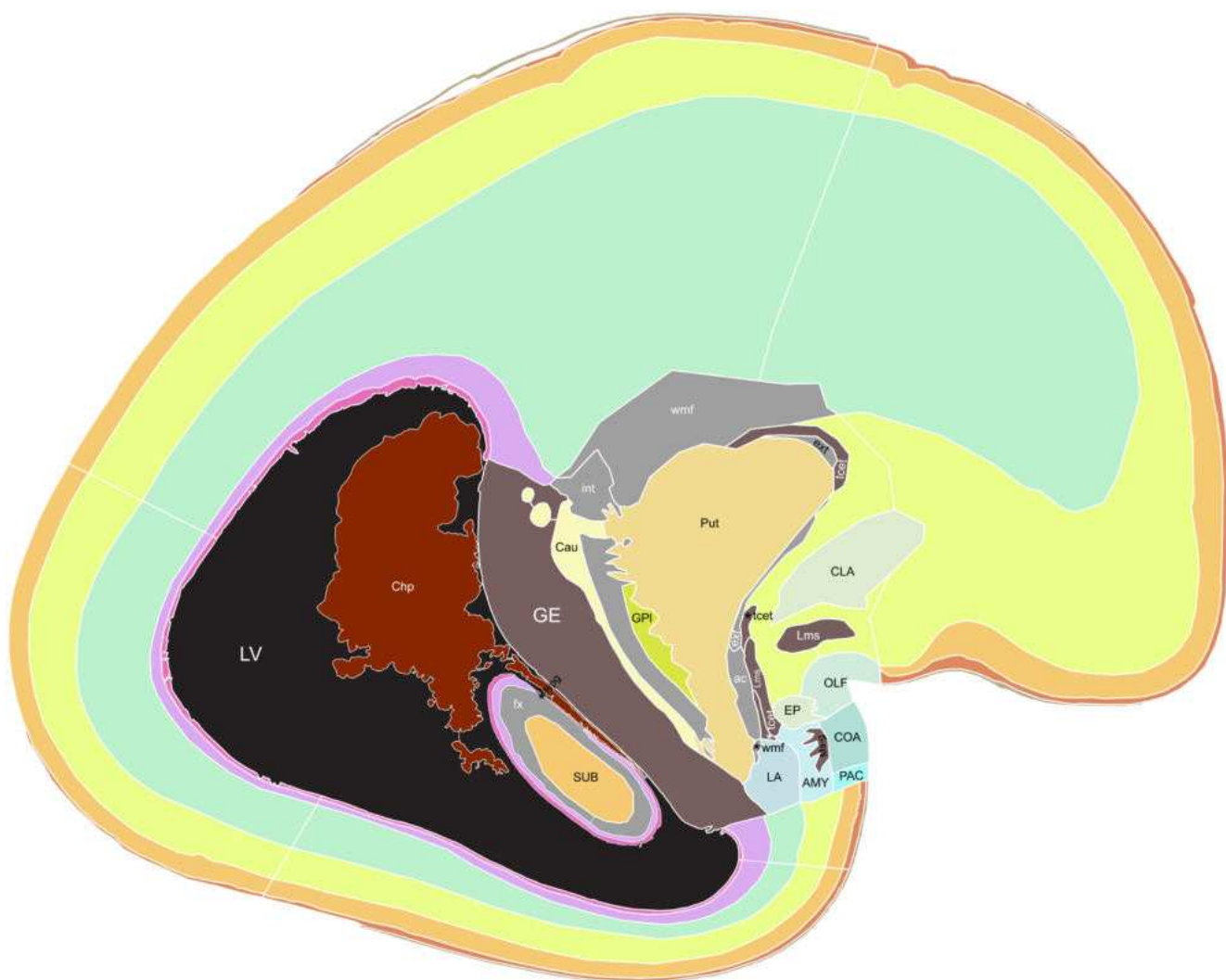
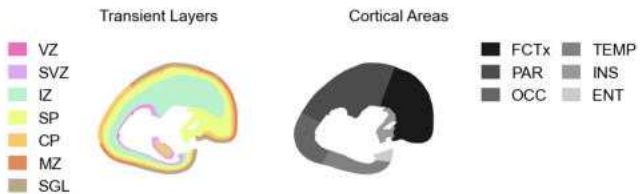
L-R Level: 8.34 mm



5 mm



L-R Level: 8.34 mm



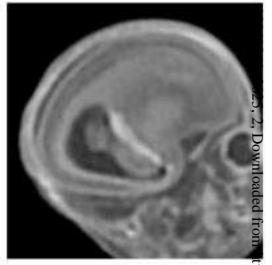
- AMY: Amygdala
- CLA: Clastrum
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- EP: Endopiriform nucleus

- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- LA: Lateral nucleus [amygdala]
- LV: Lateral ventricle
- Lms: Lateral migratory stream

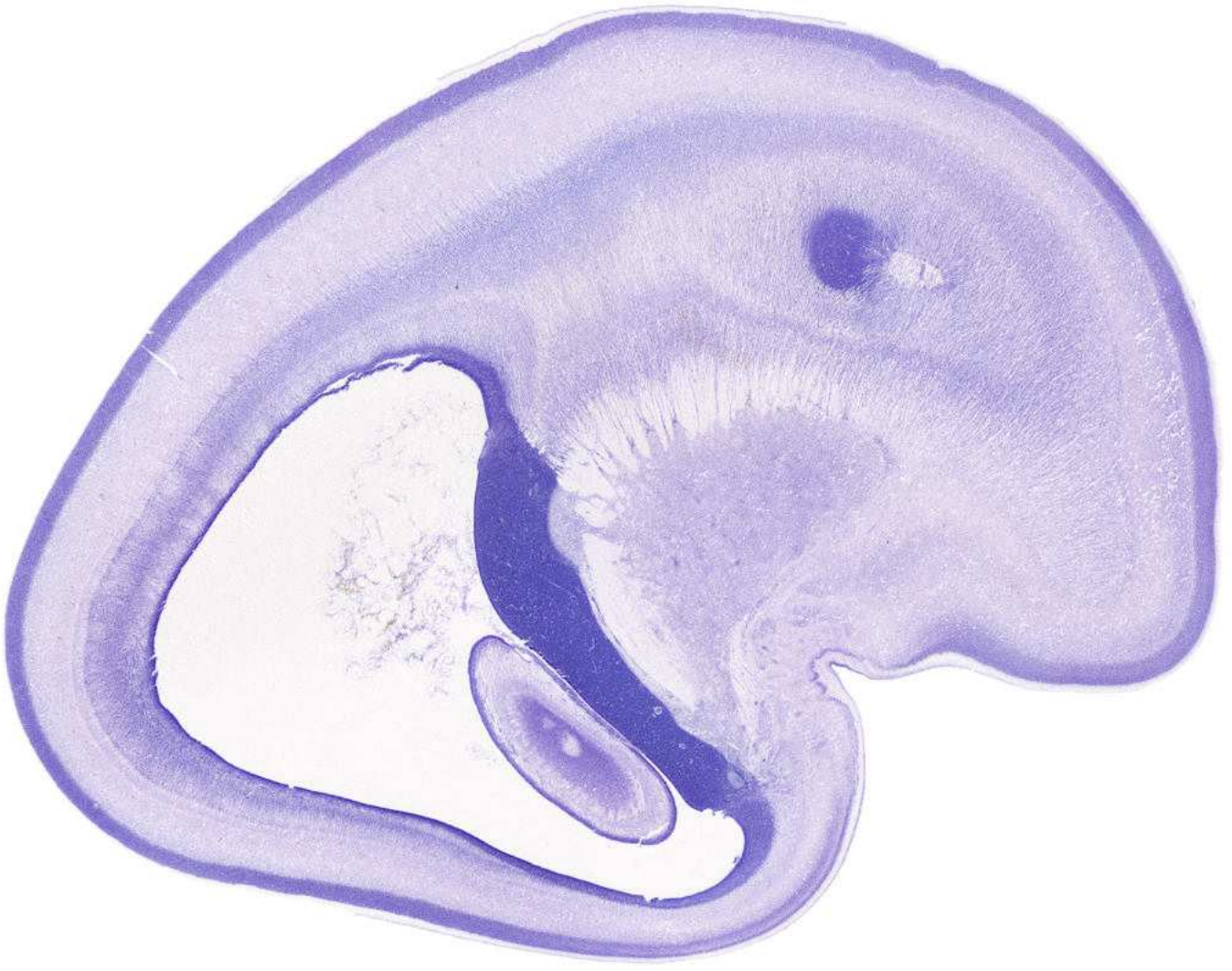
- Ms-g: Migratory stream, general
- Put: Putamen
- SUB: Cortical plate, subiculum
- ac: Anterior commissure
- ext: External capsule

- fx: Fornix
- hipg: Hippocampal glioepithelium/ependyma
- int: Internal capsule
- tctet: Transient cell zone in the external capsule
- wmf: White matter fibers

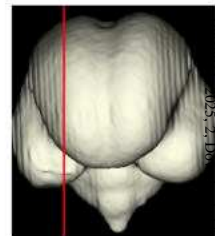
Age: 17 GW



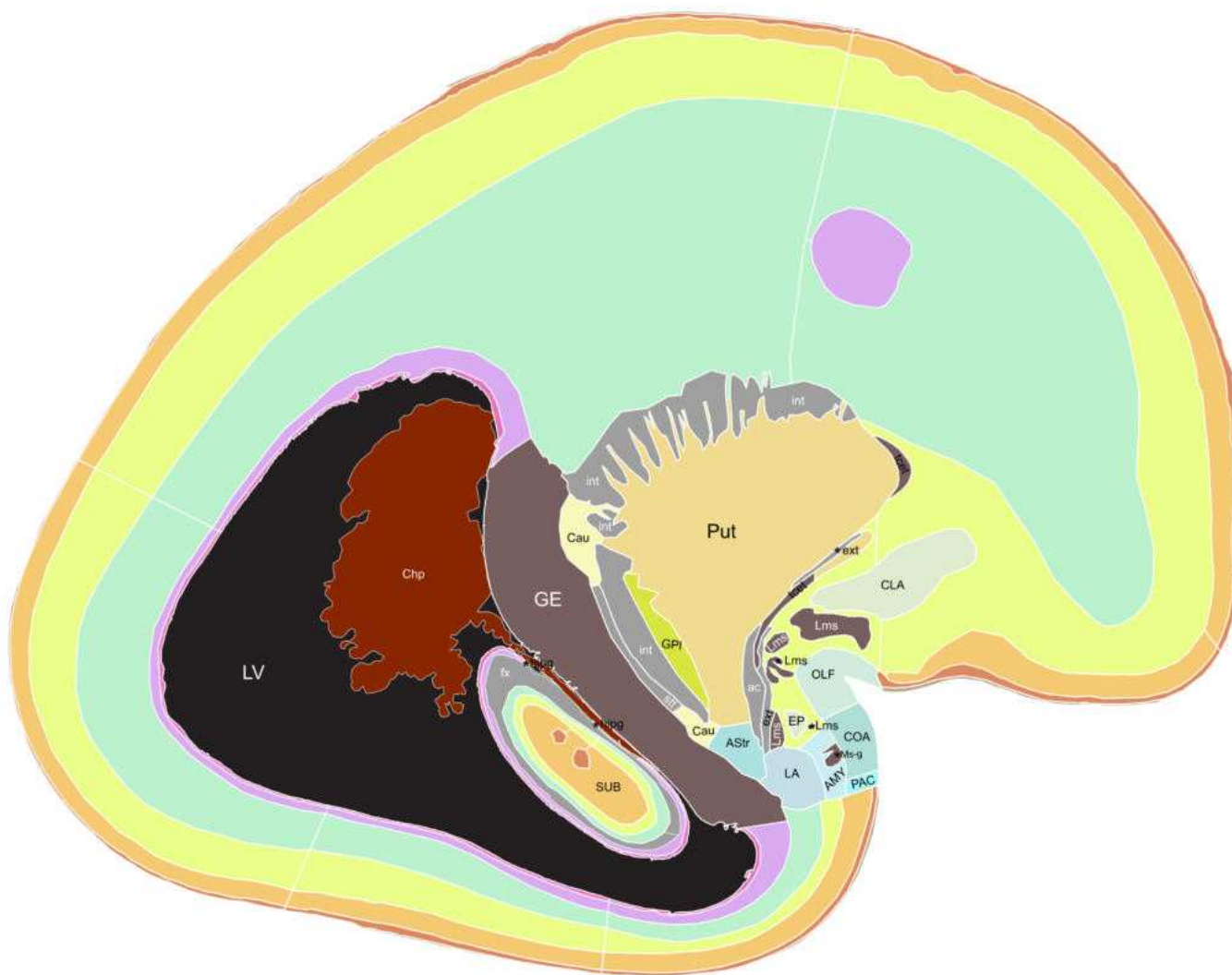
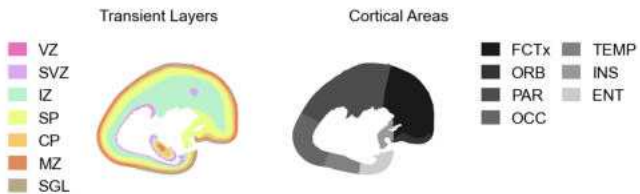
L-R Level: 7.98 mm



5 mm



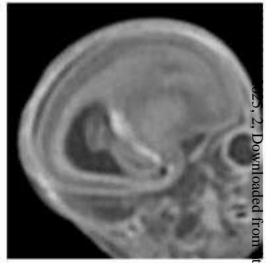
L-R Level: 7.98 mm



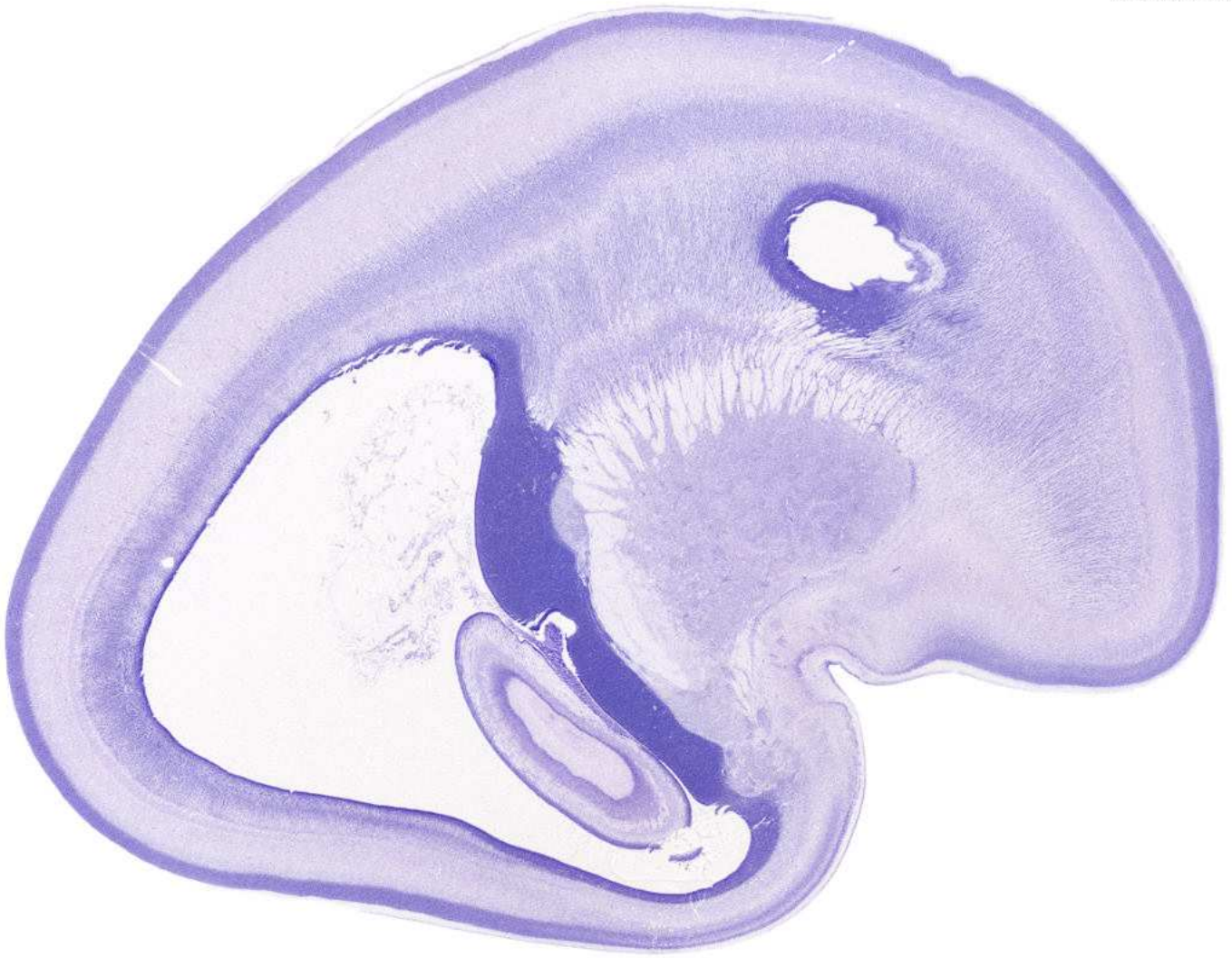
5 mm

- | | | | |
|----------------------------------|--------------------------------------|---------------------------------|---|
| AMY: Amygdala | EP: Endopiriform nucleus | Ms-g: Migratory stream, general | fx: Fornix |
| AStr: Amygdalo-striatal area | GE: Ganglionic eminence | Put: Putamen | hipg: Hippocampal glioeepithelium/ependyma |
| CLA: Claustrum | GPI: Globus pallidus lateral segment | SUB: Cortical plate, subiculum | int: Internal capsule |
| COA: Cortical nucleus [amygdala] | LA: Lateral nucleus [amygdala] | ac: Anterior commissure | stt: Stria terminalis |
| Cau: Caudate nucleus | LV: Lateral ventricle | ext: External capsule | tcet: Transient cell zone in the external capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | | |

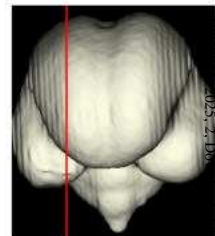
Age: 17 GW



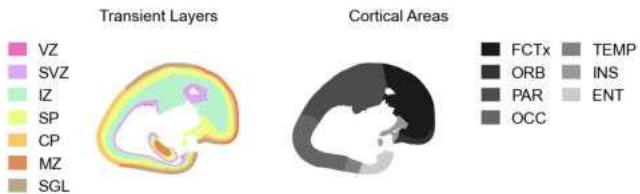
L-R Level: 7.62 mm



5 mm



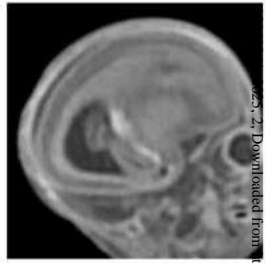
L-R Level: 7.62 mm



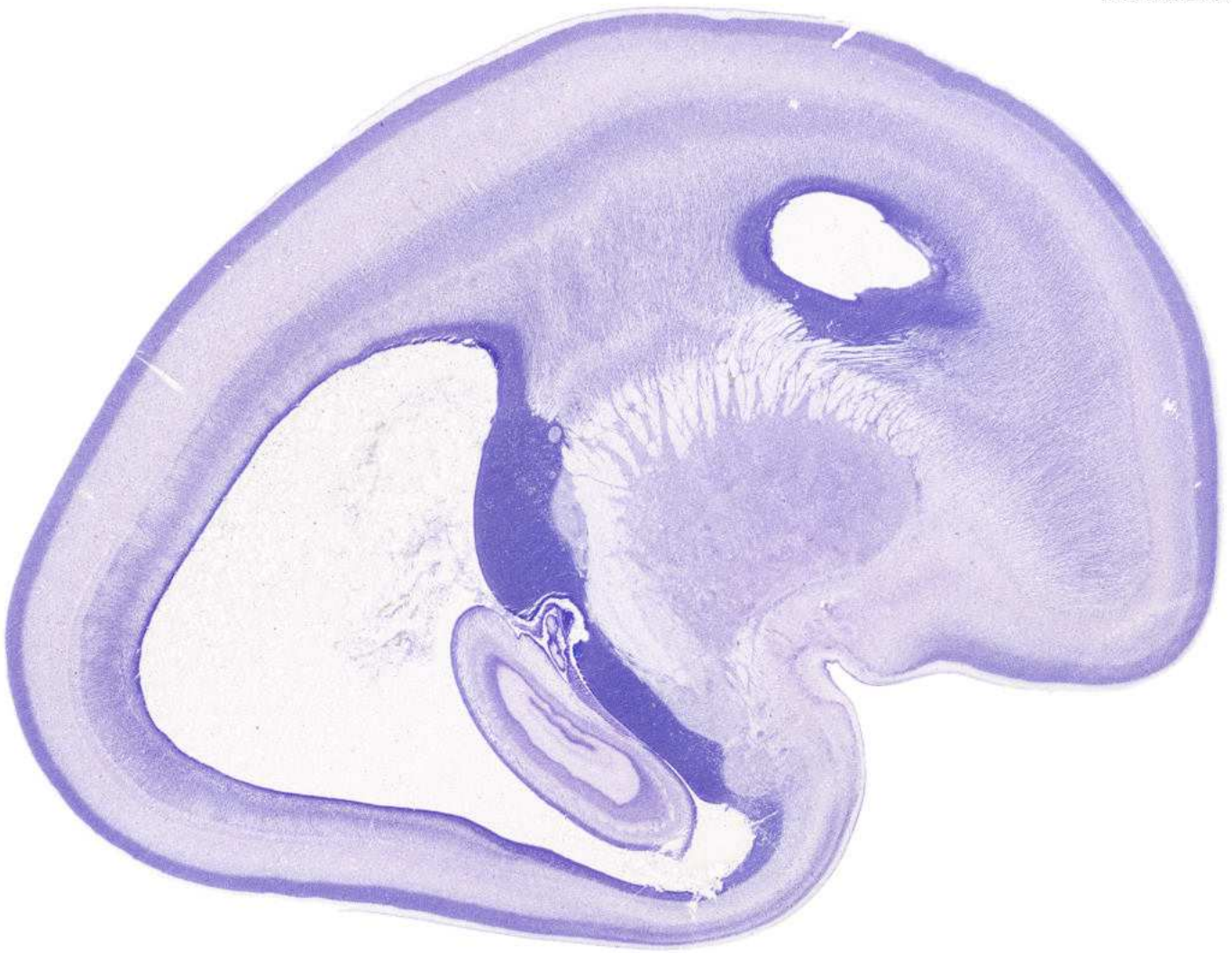
5 mm

- | | | | |
|-------------------------------|--------------------------------------|---------------------------------|---|
| AAA: Anterior amygdaloid area | COA: Cortical nucleus [amygdala] | Lms: Lateral migratory stream | fx: Fornix |
| AMY: Amygdala | Cau: Caudate nucleus | Ms-g: Migratory stream, general | hipg: Hippocampal gloiepithelium/ependyma |
| AStr: Amygdalo-striatal area | Chp: Choroid plexus | Put: Putamen | int: Internal capsule |
| BL: Basal nucleus [amygdala] | GE: Ganglionic eminence | SUB: Cortical plate, subiculum | stt: Stria terminalis |
| CA1: CA1 field [hippocampus] | GPI: Globus pallidus lateral segment | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| CA2: CA2 field [hippocampus] | LA: Lateral nucleus [amygdala] | ext: External capsule | wmf: White matter fibers |
| CLA: Claustrum | LV: Lateral ventricle | | |

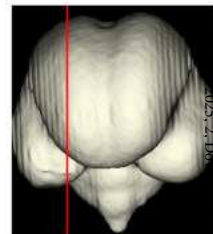
Age: 17 GW



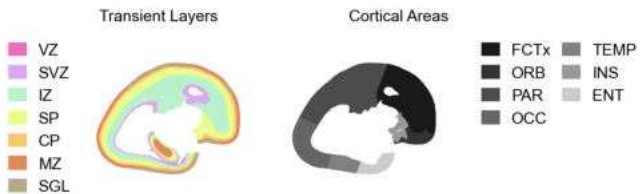
L-R Level: 7.5 mm



5 mm



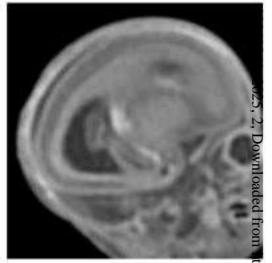
L-R Level: 7.5 mm



5 mm

- | | | | |
|-------------------------------|--------------------------------------|---------------------------------|---|
| AAA: Anterior amygdaloid area | COA: Cortical nucleus [amygdala] | LA: Lateral nucleus [amygdala] | ext: External capsule |
| AMY: Amygdala | Cau: Caudate nucleus | LV: Lateral ventricle | fx: Fornix |
| AStr: Amygdalo-striatal area | Chp: Choroid plexus | Lms: Lateral migratory stream | hipg: Hippocampal glioeepithelium/ependyma |
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | Ms-g: Migratory stream, general | int: Internal capsule |
| CA1: CA1 field [hippocampus] | EP: Endopiriform nucleus | Put: Putamen | stt: Stria terminalis |
| CA2: CA2 field [hippocampus] | GE: Ganglionic eminence | SUB: Cortical plate, subiculum | tcet: Transient cell zone in the external capsule |
| CLA: Claustrum | GPI: Globus pallidus lateral segment | ac: Anterior commissure | wmf: White matter fibers |

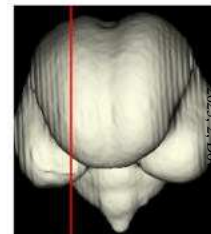
Age: 17 GW



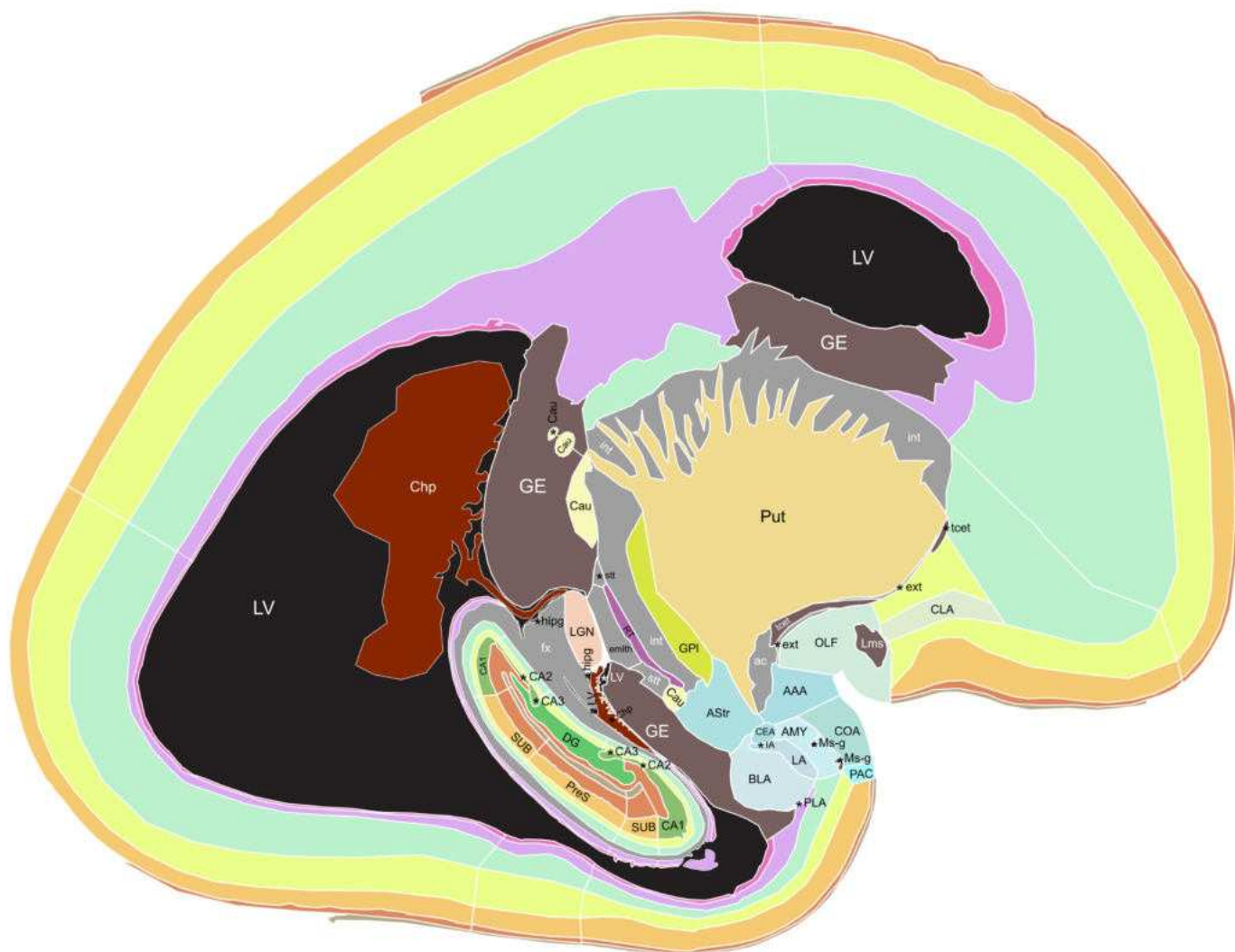
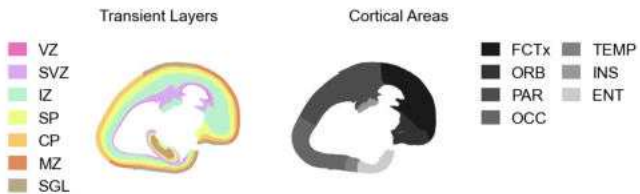
L-R Level: 7.2 mm



5 mm



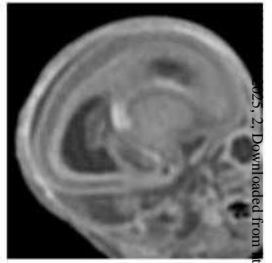
L-R Level: 7.2 mm



5 mm

- | | | | |
|---|---|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis toet: Transient cell zone in the external capsule |
|---|---|--|---|

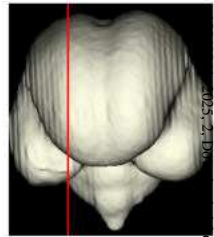
Age: 17 GW



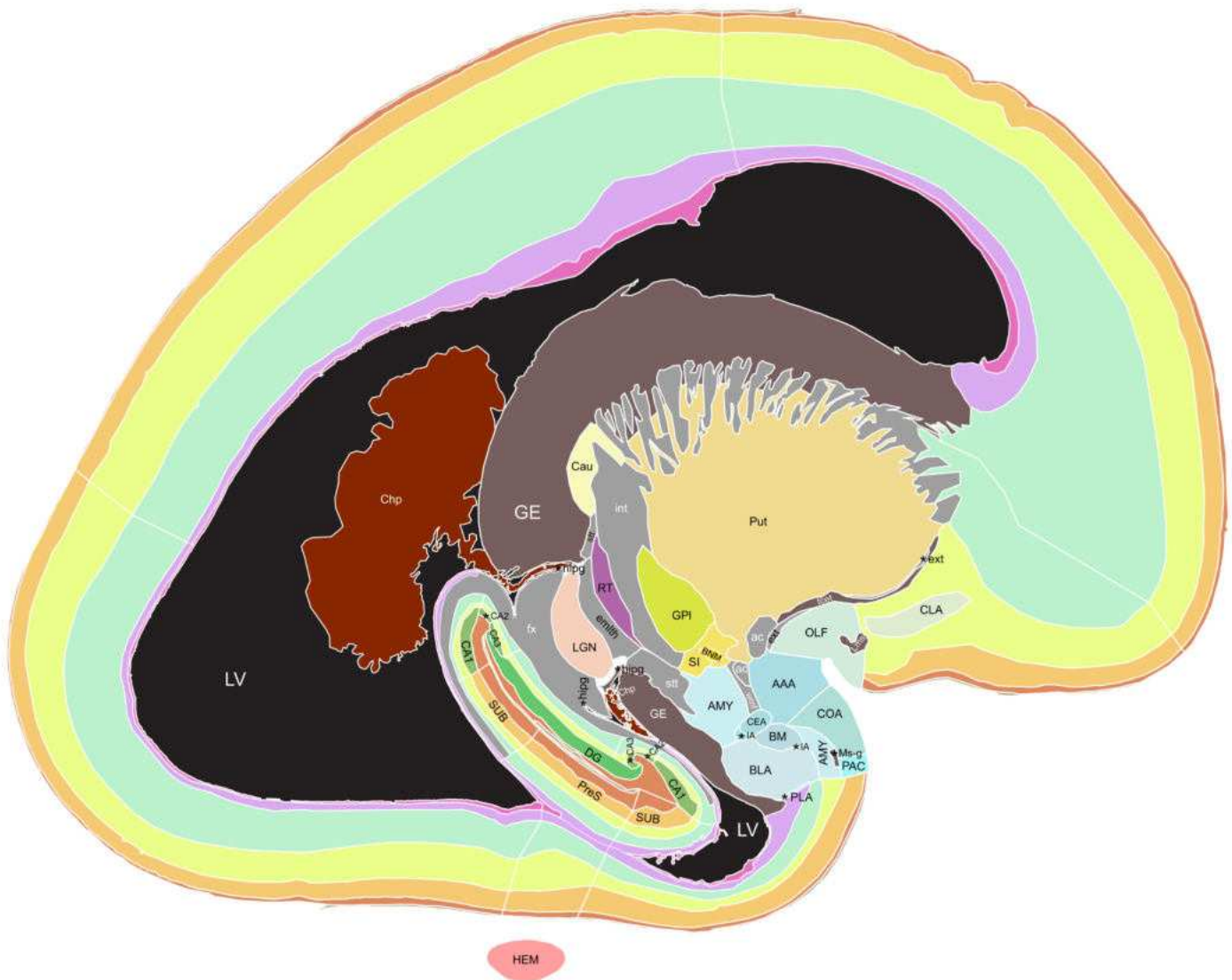
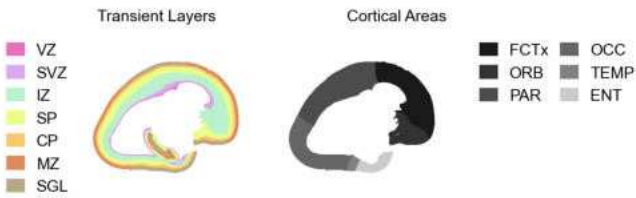
L-R Level: 6.84 mm



5 mm



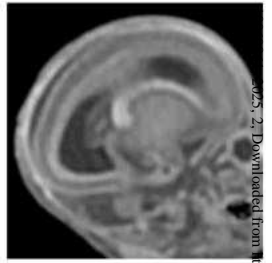
L-R Level: 6.84 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeptithelium/ependyma int: Internal capsule stt: Stria terminalis toet: Transient cell zone in the external capsule wmf: White matter fibers |
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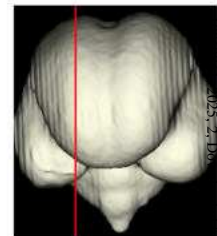
Age: 17 GW



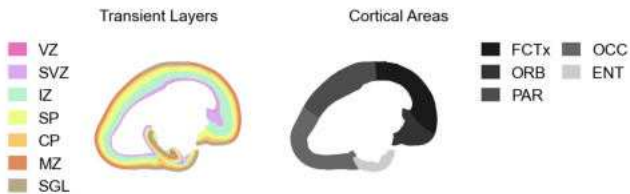
L-R Level: 6.42 mm



5 mm



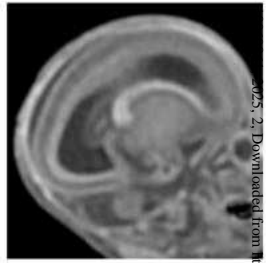
L-R Level: 6.42 mm



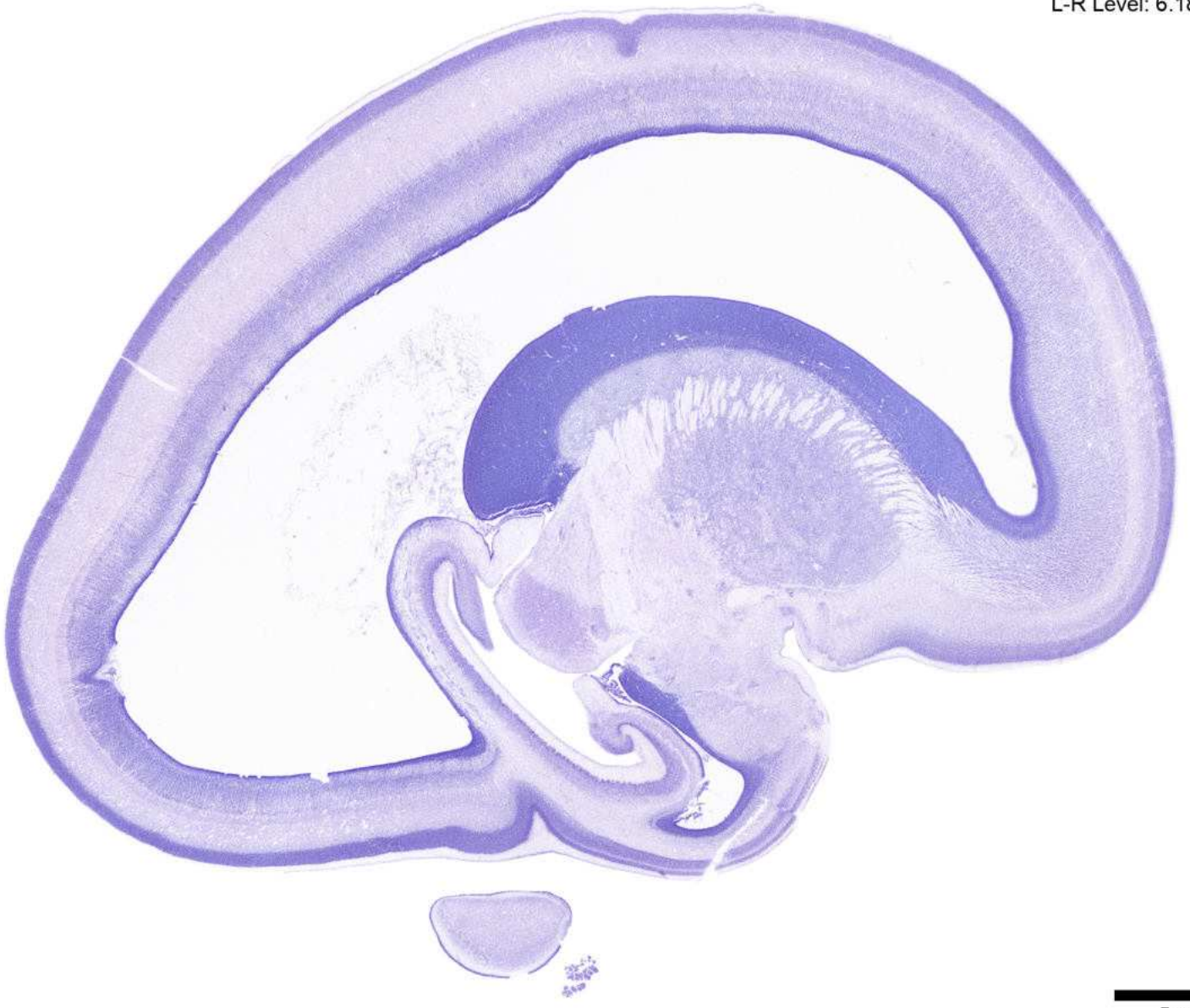
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus ac: Anterior commissure | <ul style="list-style-type: none"> al: Ansa lenticularis emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioneepithelium/ependyma int: Internal capsule ot: Optic tract stt: Stria terminalis toet: Transient cell zone in the external capsule wmf: White matter fibers |
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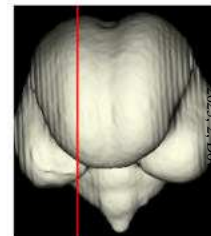
Age: 17 GW



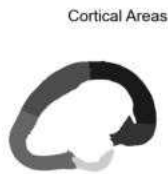
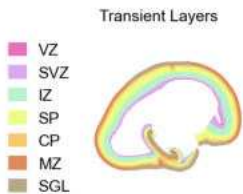
L-R Level: 6.18 mm



5 mm



L-R Level: 6.18 mm



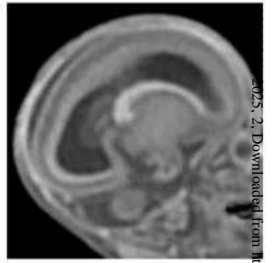
- FCTx ■ OCC
- ORB ■ ENT
- PAR



5 mm

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|---|---|---|--|
| <ul style="list-style-type: none"> ■ AAA: Anterior amygdaloid area ■ AMY: Amygdala ■ BLdI: Basal nucleus [amygdala], dorsolateral part ■ BLi: Basal nucleus [amygdala], intermediate part ■ BLvl: Basal nucleus [amygdala], ventrolateral part ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPm: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ IA: Intercalated cell groups [amygdala] ■ LGN: Lateral geniculate nucleus ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream | <ul style="list-style-type: none"> ■ MEA: Medial nucleus [amygdala] ■ PARA: Cortical plate, parasubiculum ■ PLA: Paralaminar nucleus [amygdala] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] ■ SI: Substantia innominata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ SUB: Cortical plate, subiculum ■ SbgN: Subgenulate nucleus ■ ac: Anterior commissure | <ul style="list-style-type: none"> ■ al: Ansa lenticularis ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fx: Fornix ■ hipg: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ mml: Medial medullary lamina ■ ot: Optic tract ■ stt: Stria terminalis ■ toet: Transient cell zone in the external capsule ■ wmf: White matter fibers |
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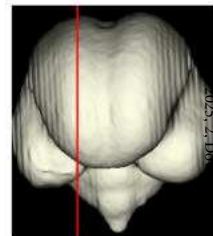
Age: 17 GW



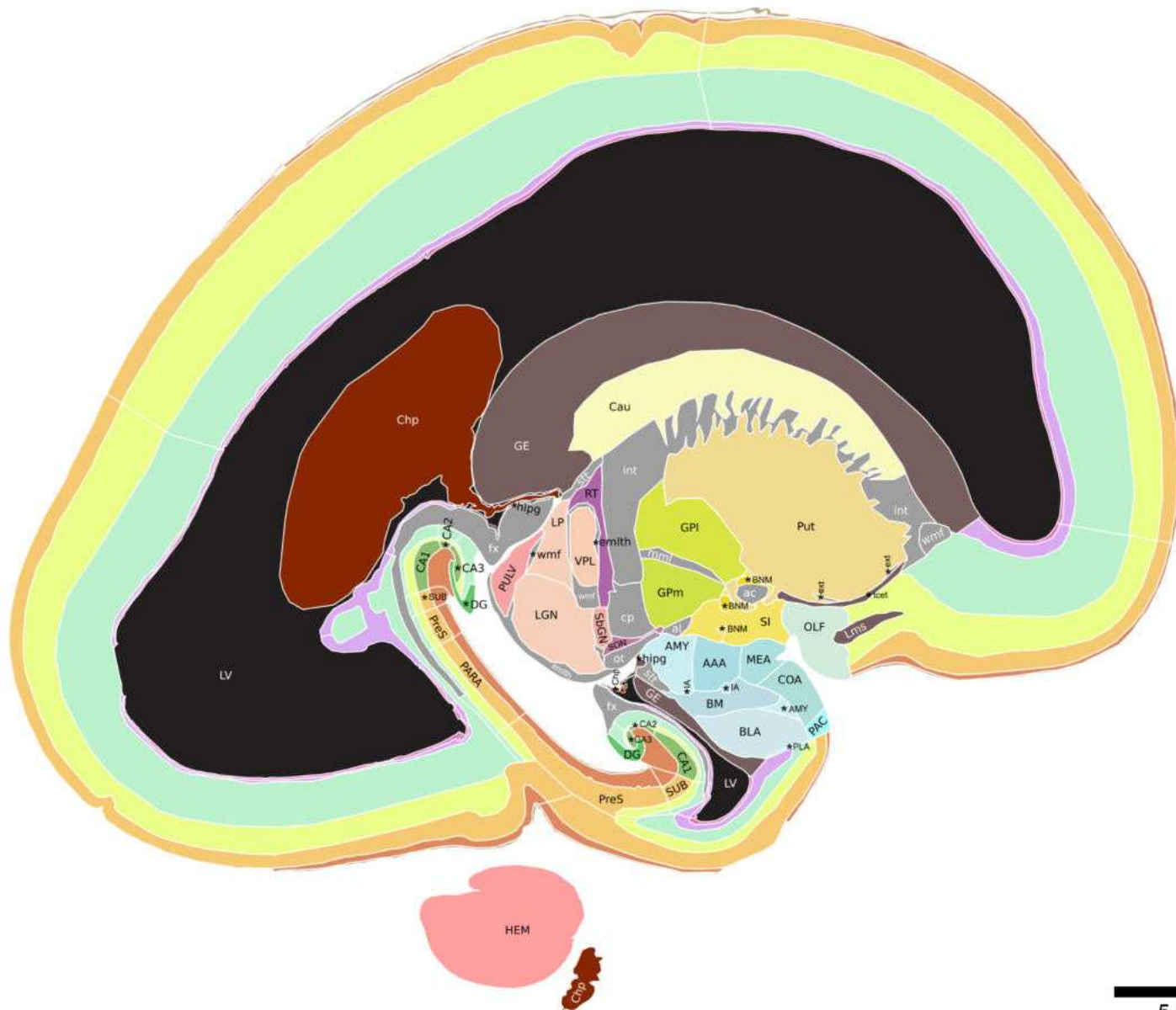
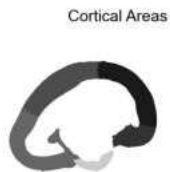
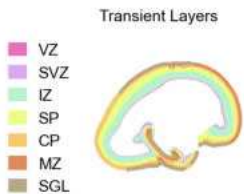
L-R Level: 5.82 mm



5 mm



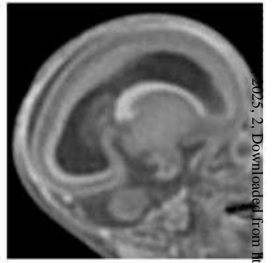
L-R Level: 5.82 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] PARA: Cortical plate, parasubiculum PLA: Paralaminal nucleus [amygdala] | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cp: Cerebral peduncle emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule mmI: Medial medullary lamina ot: Optic tract stt: Stria terminalis tct: Transient cell zone in the external capsule wmf: White matter fibers |
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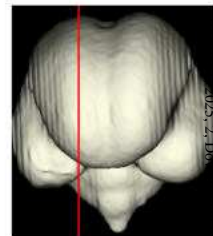
Age: 17 GW



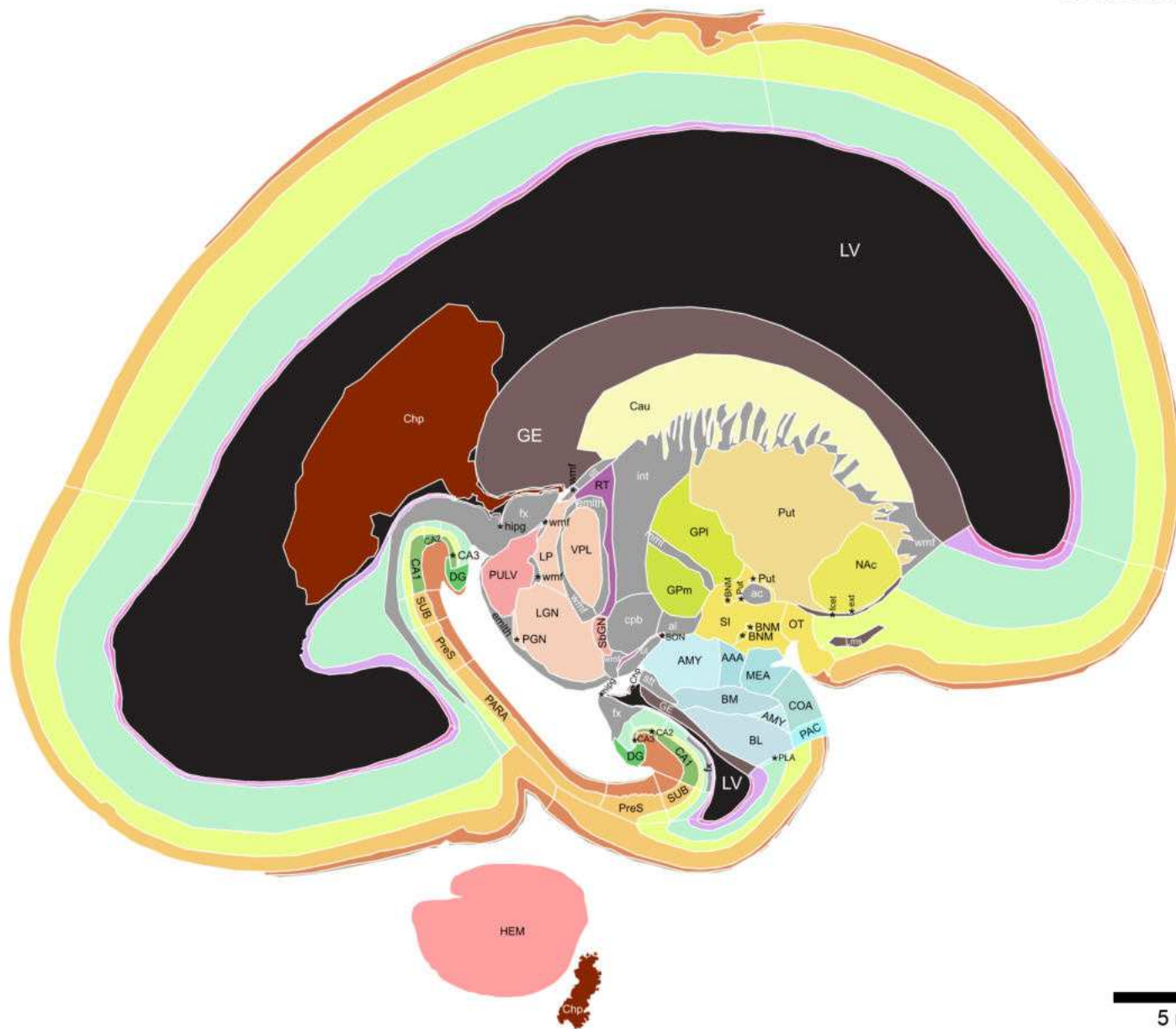
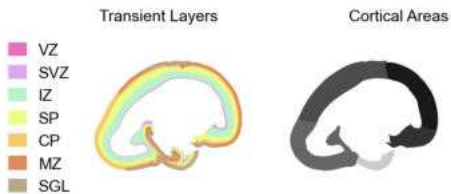
L-R Level: 5.58 mm



5 mm



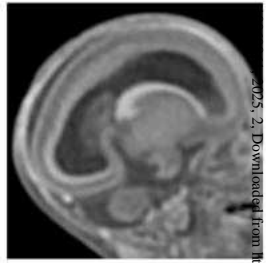
L-R Level: 5.58 mm



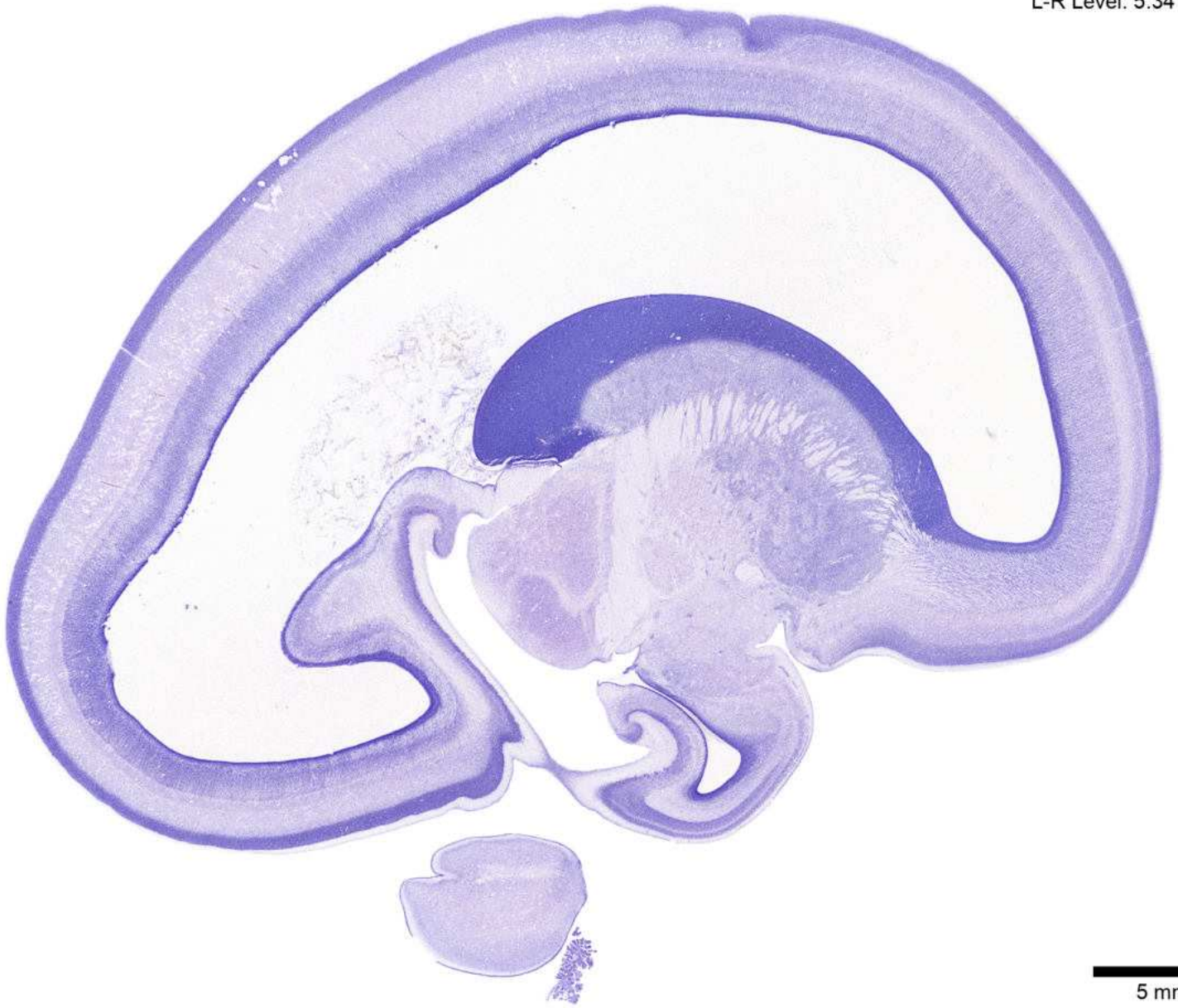
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata [hypothalamus] SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> al: Ansa lenticularis cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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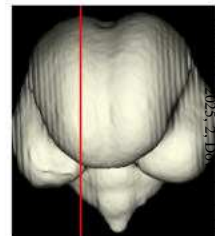
Age: 17 GW



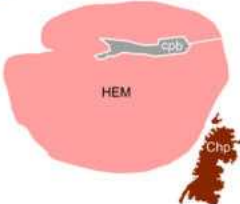
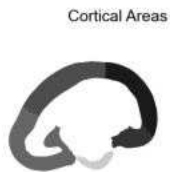
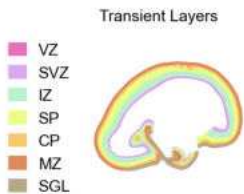
L-R Level: 5.34 mm



5 mm



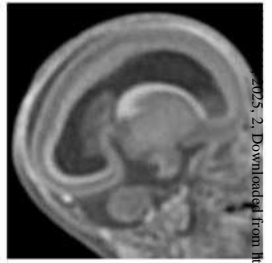
L-R Level: 5.34 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata [thalamus] SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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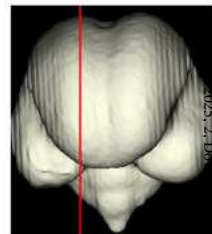
Age: 17 GW



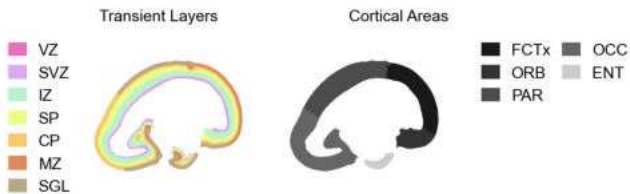
L-R Level: 5.16 mm



5 mm

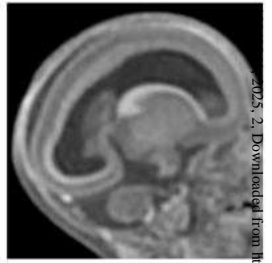


L-R Level: 5.16 mm



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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MGN: Medial geniculate nucleus NAC: Nucleus accumbens PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PLA: Paralamina nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emth: External medullary lamina [thalamus] ext: External capsule fx: Fomix hipg: Hippocampal gloeipithelium/ependyma int: Internal capsule mmi: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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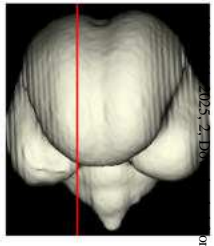
Age: 17 GW



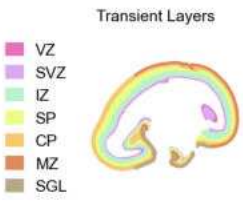
L-R Level: 4.92 mm



5 mm



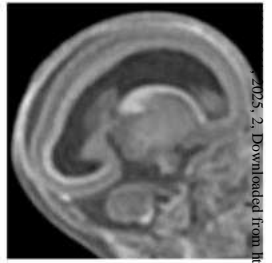
L-R Level: 4.92 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract sst: Stria terminalis tctet: Transient cell zone in the external capsule wmf: White matter fibers |
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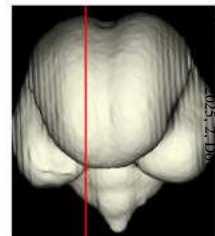
Age: 17 GW



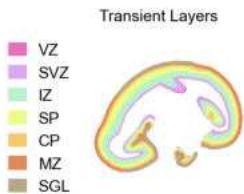
L-R Level: 4.44 mm



5 mm



L-R Level: 4.44 mm



5 mm

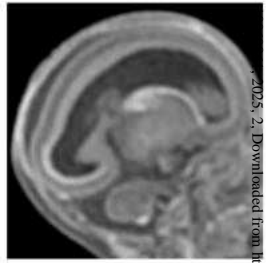
- AAA: Anterior amygdaloid area
- AHi: Amygdalo-hippocampal area
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus

- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- MEA: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- NAC: Nucleus accumbens
- OT: Olfactory tubercle

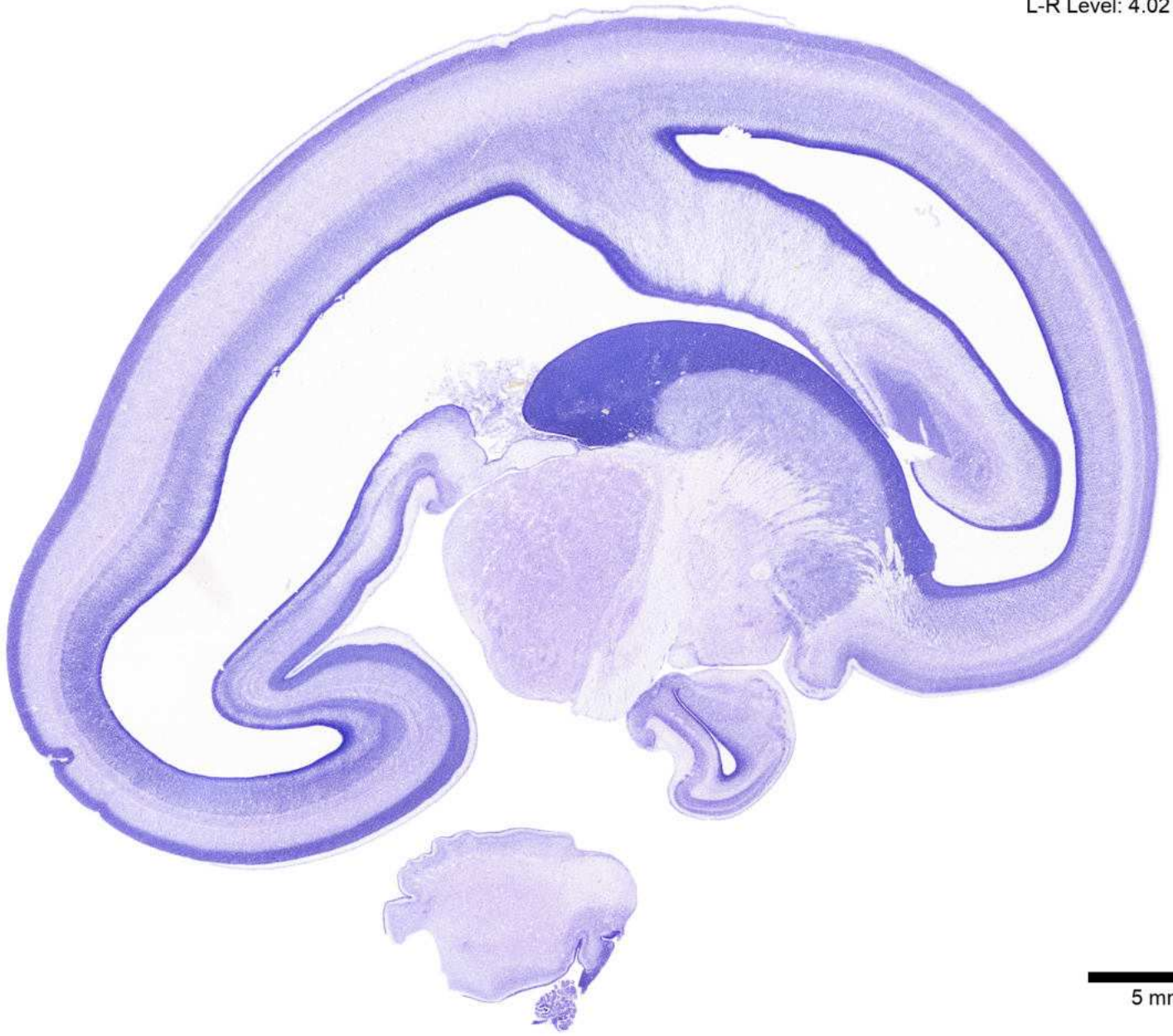
- PARA: Cortical plate, parasubiculum
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- SGN: Suprageniculate nucleus
- HY: Hypothalamus
- LHA: Lateral hypothalamic area
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- VPL: Ventral posterolateral nucleus [thalamus]
- ac: Anterior commissure

- cc: Corpus callosum
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- emlth: External medullary lamina [thalamus]
- fx: Fornix
- hipg: Hippocampal glioepithelium/ependyma
- int: Internal capsule
- mml: Medial medullary lamina
- ot: Optic tract
- stt: Stria terminalis
- tcet: Transient cell zone in the external capsule
- wmf: White matter fibers

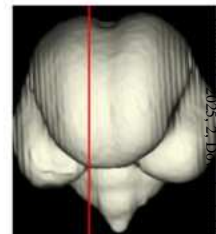
Age: 17 GW



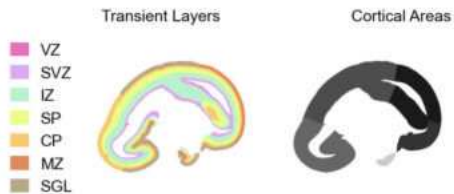
L-R Level: 4.02 mm



5 mm



L-R Level: 4.02 mm



- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

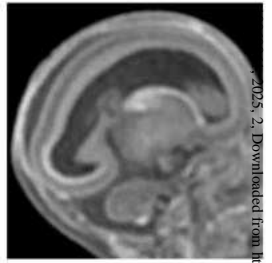
- FCTx
- OCC
- ORB
- ENT
- PAR



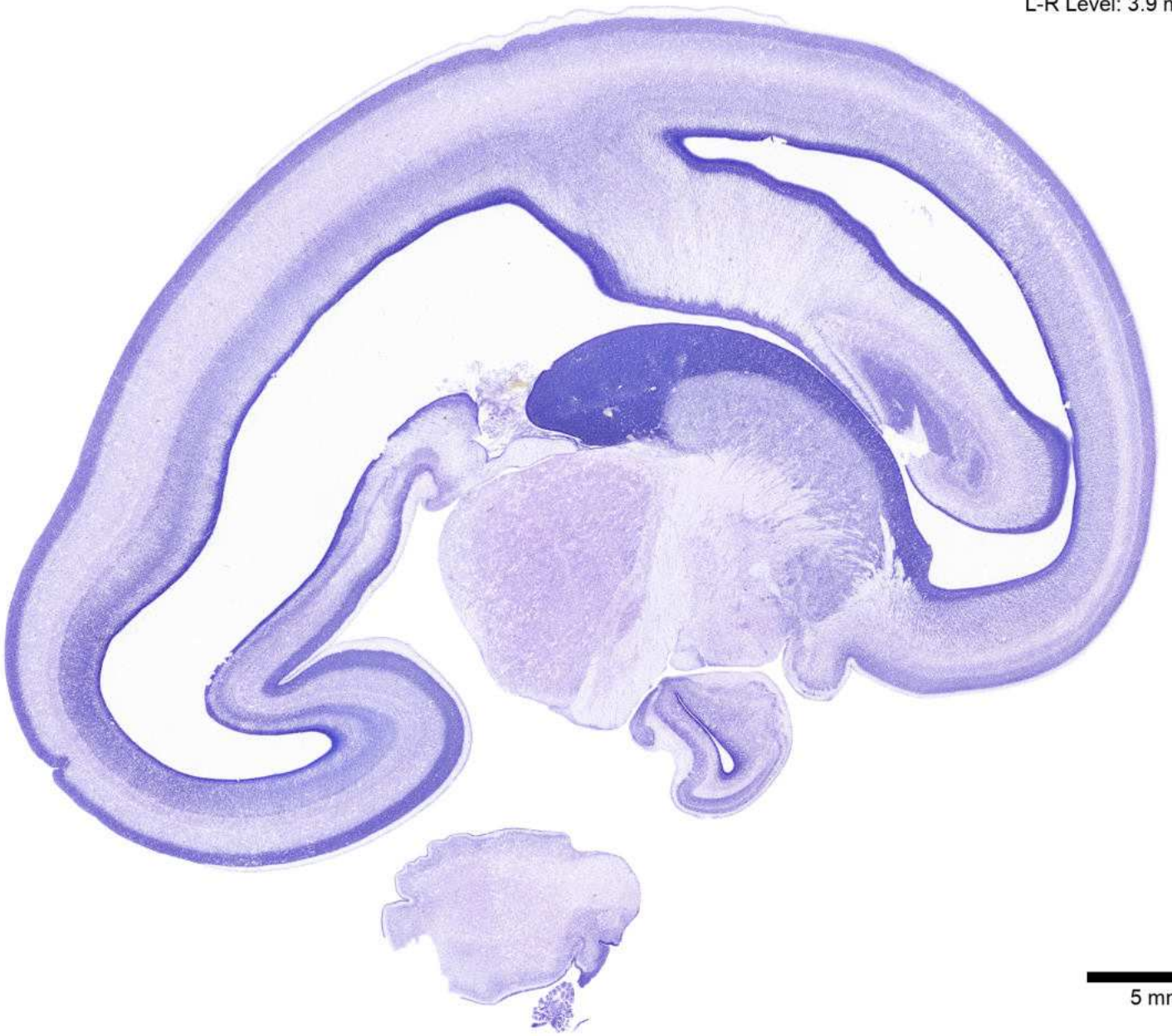
5 mm

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| <ul style="list-style-type: none"> AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPm: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta | <ul style="list-style-type: none"> ac: Anterior commissure cc: Corpus callosum cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mm: Medial medullary lamina ot: Optic tract rhn: Rhombencephalic neuroepithelium stt: Stria terminalis wmf: White matter fibers |
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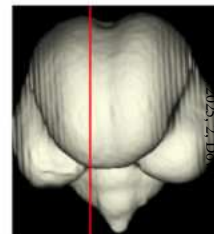
Age: 17 GW



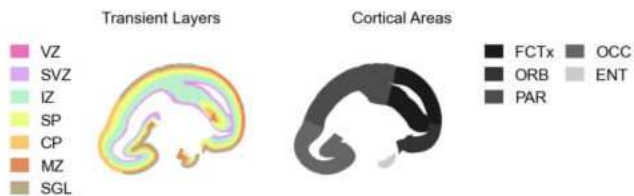
L-R Level: 3.9 mm



5 mm

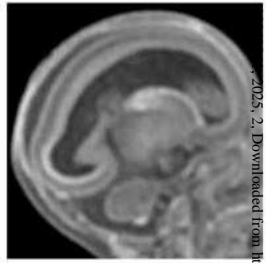


L-R Level: 3.9 mm



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| <ul style="list-style-type: none"> AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] SI: Substantia innominata SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ZI: Zona incerta ac: Anterior commissure cc: Corpus callosum cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioeptelium/ependyma int: Internal capsule mm: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
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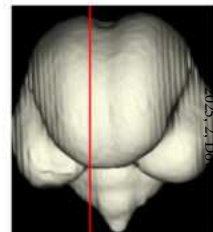
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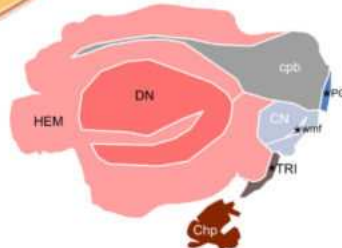
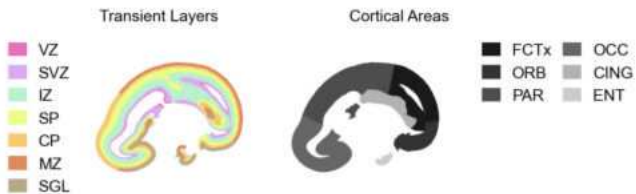
L-R Level: 3.72 mm



5 mm



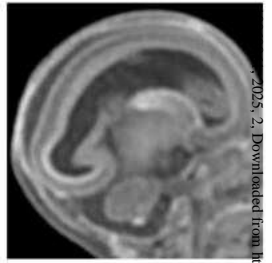
L-R Level: 3.72 mm



5 mm

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| <ul style="list-style-type: none"> AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PG: Pontine gray | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] Rms: Rostral migratory stream SI: Substantia innominata SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ZI: Zona incerta ac: Anterior commissure cc: Corpus callosum cc-gli: Callosal gliopithelium cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipp: Hippocampal gliopithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
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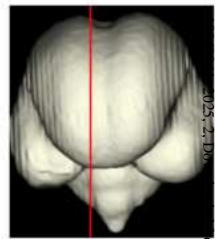
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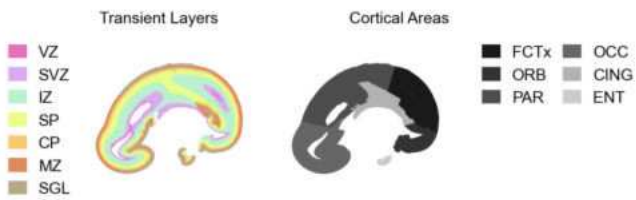
L-R Level: 3.36 mm



5 mm

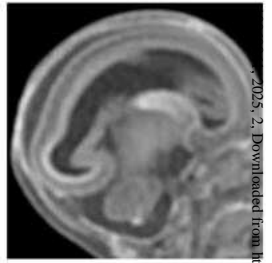


L-R Level: 3.36 mm

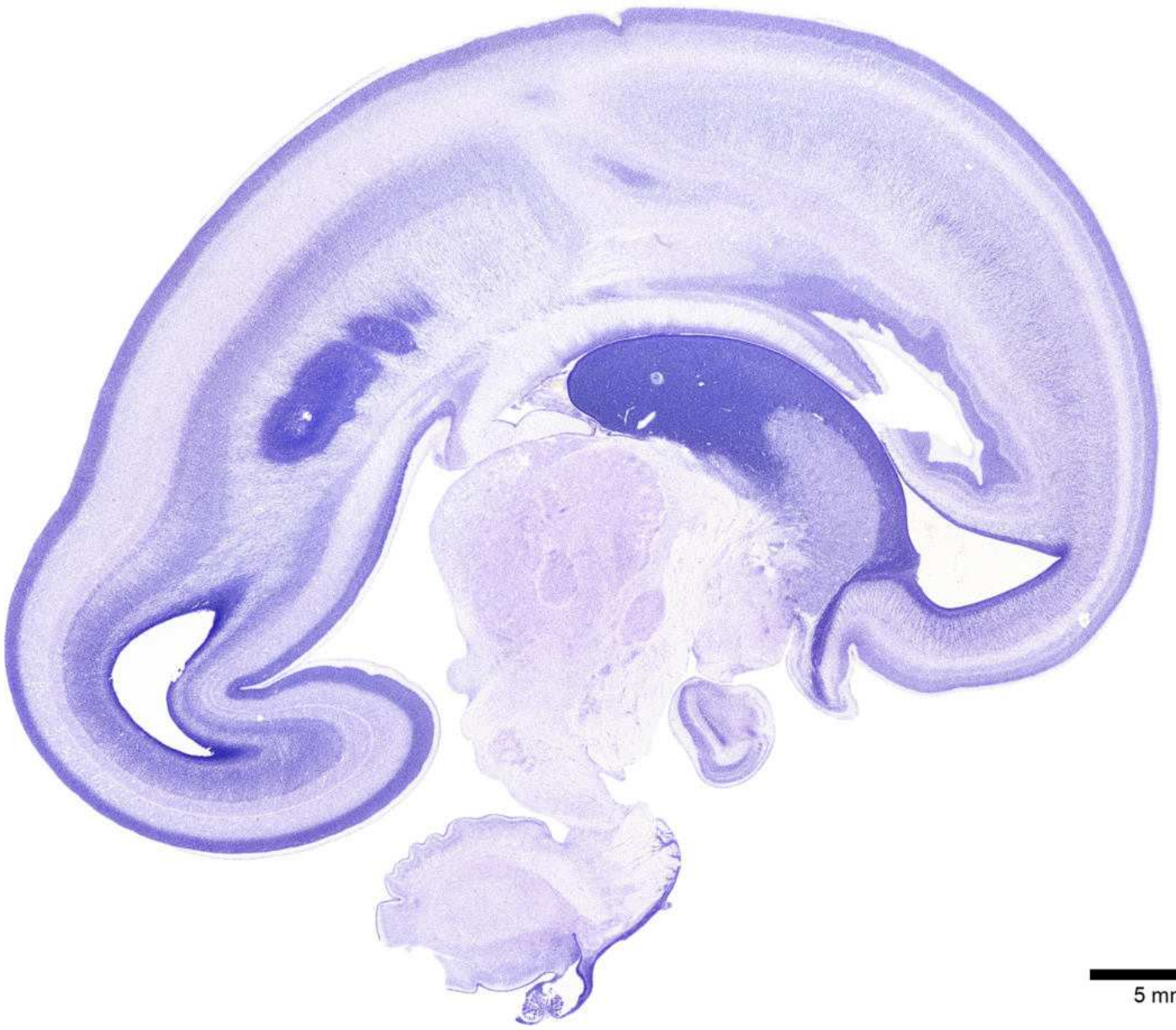


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| <ul style="list-style-type: none"> AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IG: Induseum griseum LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NDB: Nucleus of the diagonal band OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PBN: Parabigeminal nucleus PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Rms: Rostral migratory stream SI: Substantia innominata SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure bic: Brachium of the inferior colliculus cc: Corpus callosum cc-gli: Callosal glioepithelium cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus → CINGs: Cingulate sulcus |
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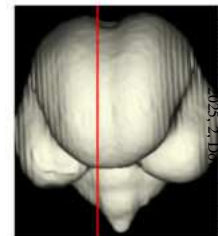
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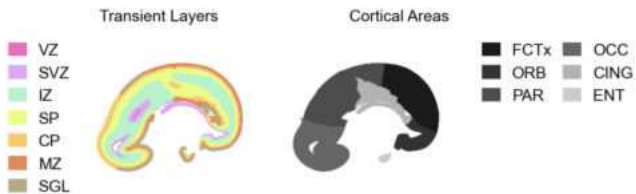
L-R Level: 3.06 mm



5 mm



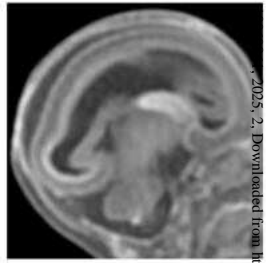
L-R Level: 3.06 mm



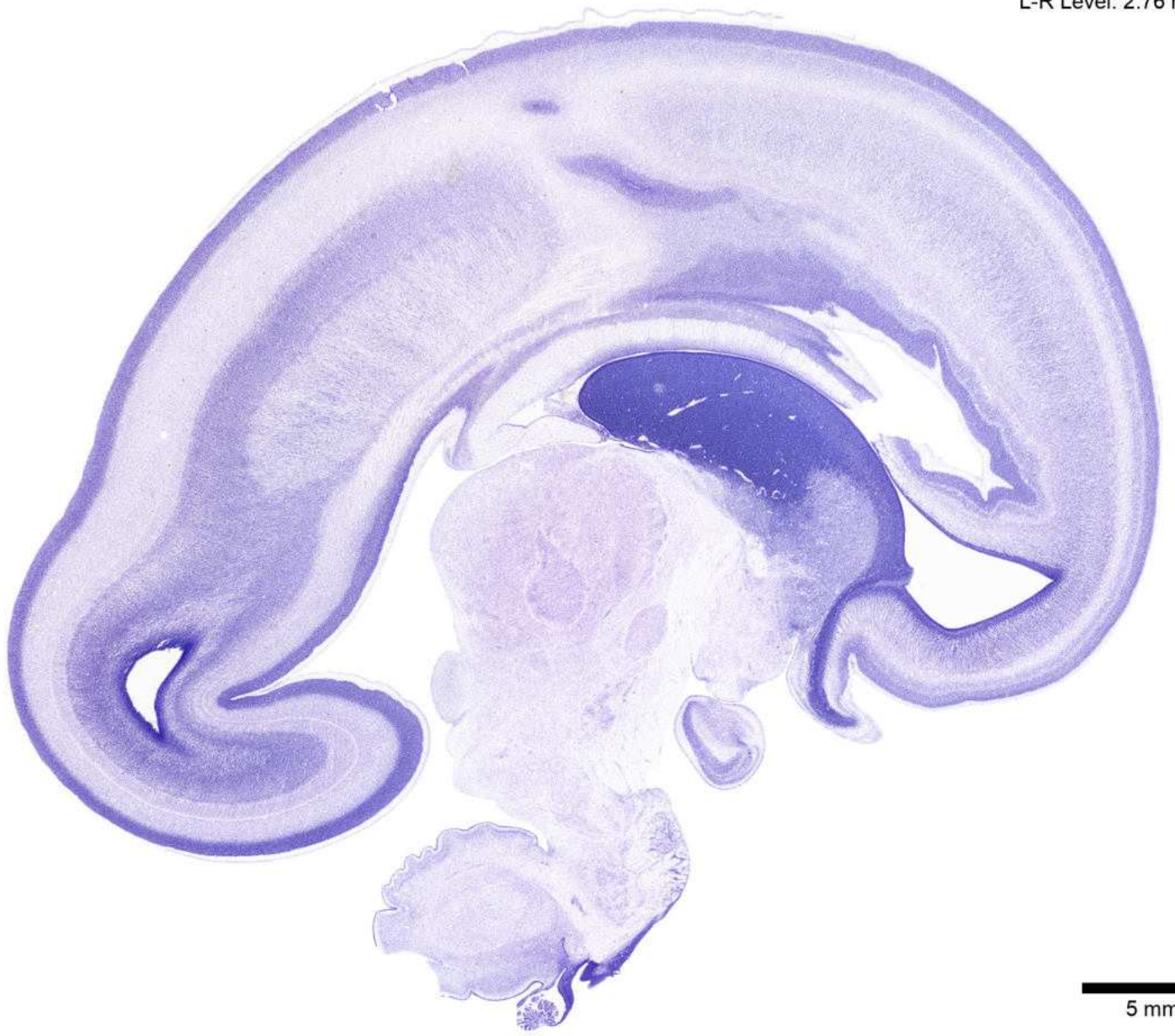
5 mm

- 4V: Fourth ventricle
- AHi: Amygdalo-hippocampal area
- BM: Basomedial nucleus [amygdala]
- BST: Bed nucleus of the stria terminalis
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CMT: Centromedian nucleus [thalamus]
- CN: Cochlear nuclei
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IG: Induseum griseum
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- MEA: Medial nucleus [amygdala]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NLLv: Nucleus of the lateral lemniscus, ventral
- OT: Olfactory tubercle
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- Prt: Pretectum
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRJ: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus

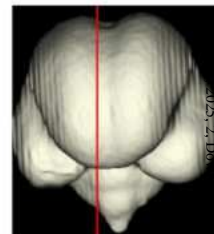
Age: 17 GW



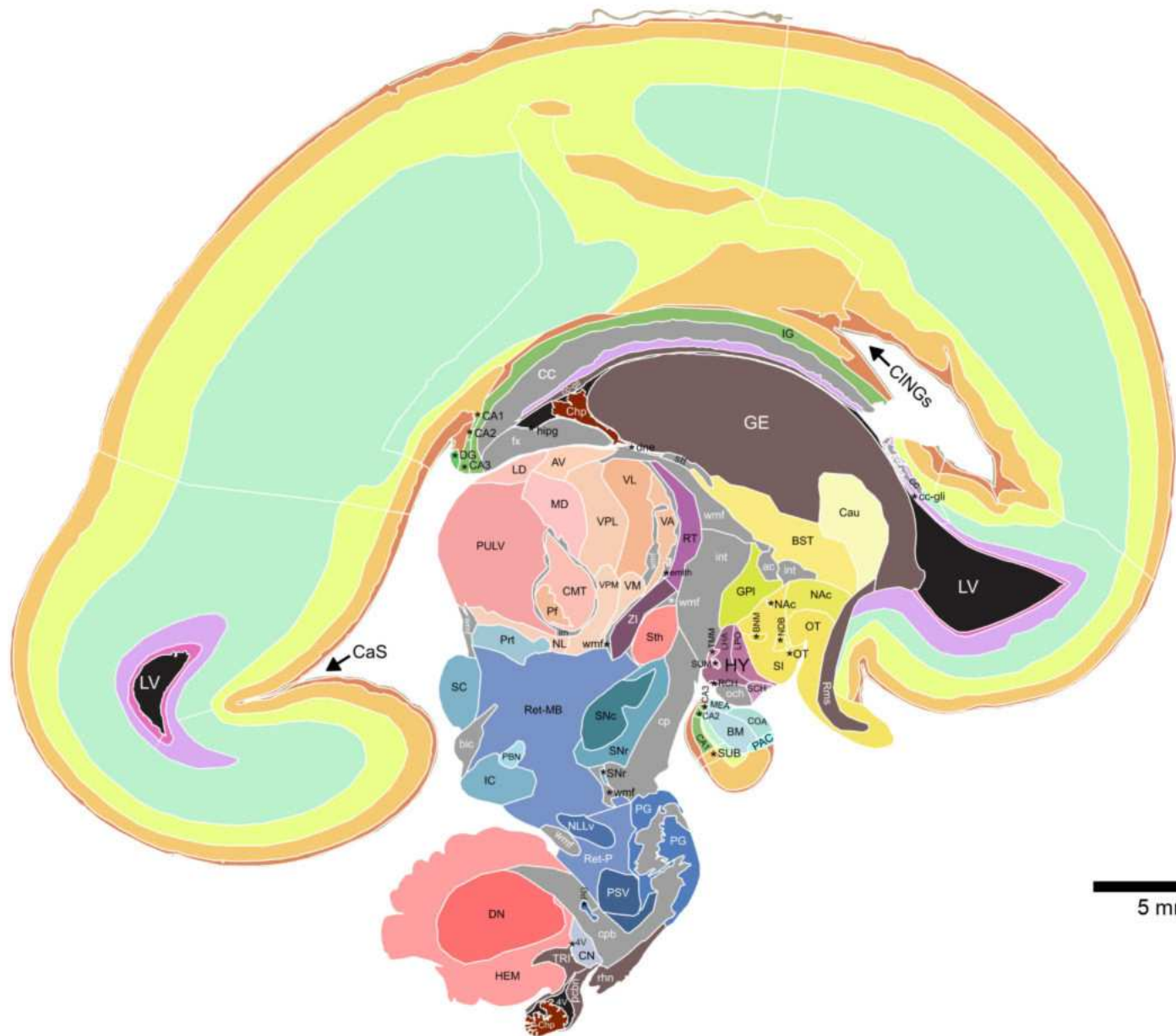
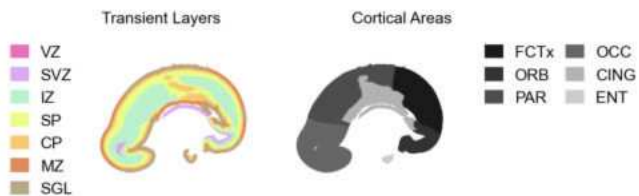
L-R Level: 2.76 mm



5 mm



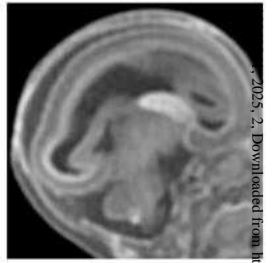
L-R Level: 2.76 mm



5 mm

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| <ul style="list-style-type: none"> 4V: Fourth ventricle AV: Anteroventral nucleus [thalamus] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CMT: Centromedian nucleus [thalamus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus IG: Induseum griseum LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LPO: Lateral preoptic area LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] | <ul style="list-style-type: none"> NLLv: Nucleus of the lateral lemniscus, ventral OT: Olfactory tubercle PBN: Parabigeminal nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum RCH: Retrochiasmatic nucleus [hypothalamus] RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] | <ul style="list-style-type: none"> SI: Substantia innominata SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum SUM: Supramammillary area Sth: Subthalamus TMM: Tubermammillary nucleus TR: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta |
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- CaS - Calcarine sulcus
 → CINGs- Cingulate sulcus

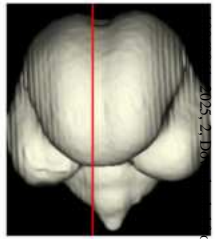
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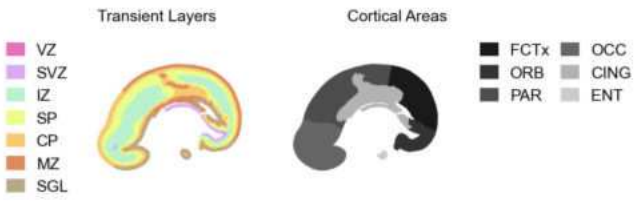
L-R Level: 2.52 mm



5 mm



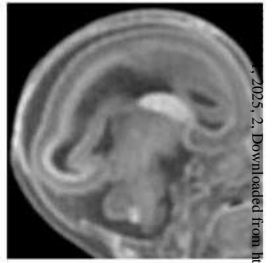
L-R Level: 2.52 mm



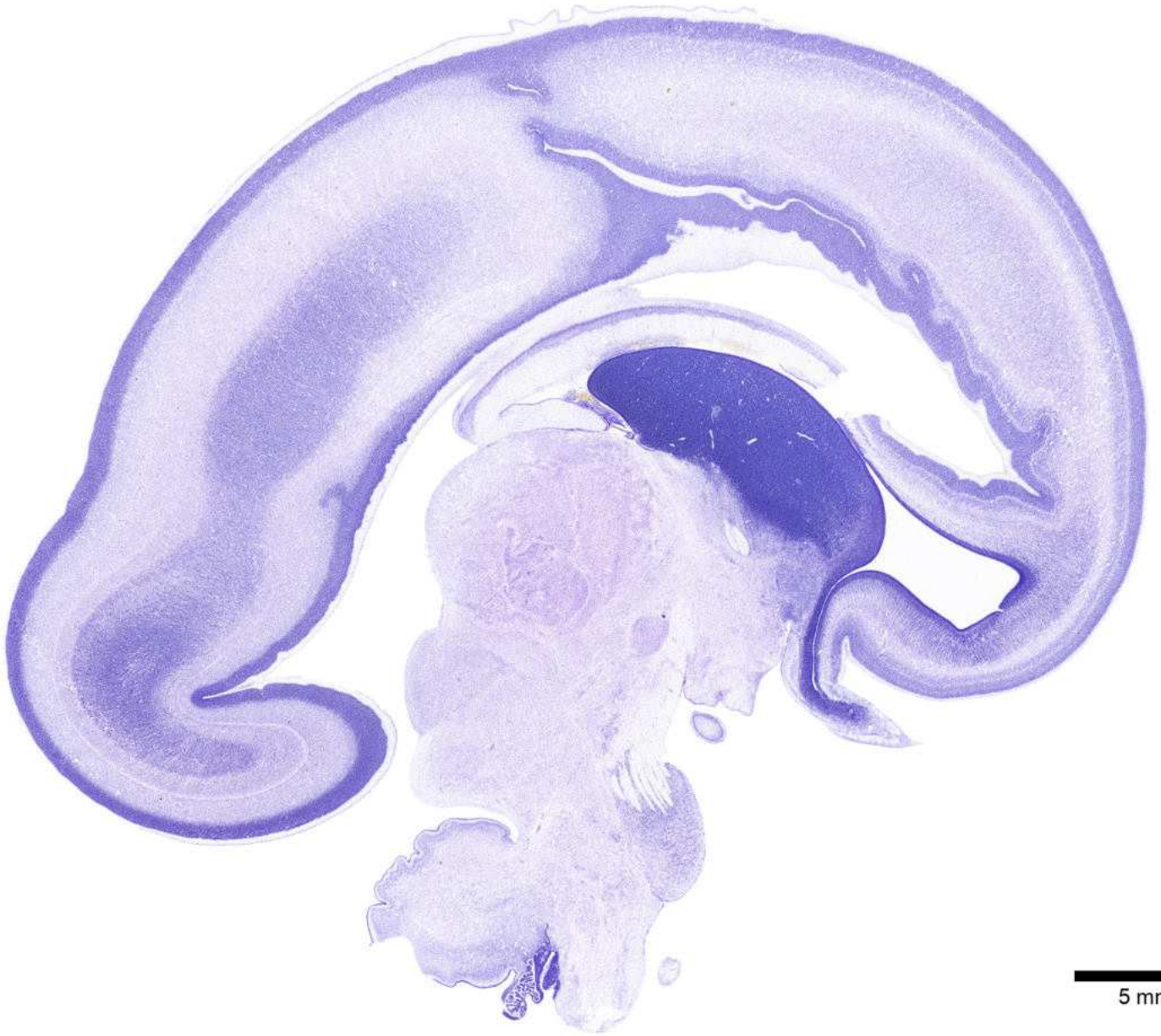
5 mm

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|---|--|---|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ 4V: Fourth ventricle ■ APT: Anterior pretecal nucleus ■ AV: Anteroventral nucleus [thalamus] ■ BNM: Basal nucleus of Meynert ■ BST: Bed nucleus of the stria terminalis ■ CA: Ammon's horn ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CMT: Centromedian nucleus [thalamus] ■ CN: Cochlear nuclei ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DN: Dentate nucleus ■ GE: Ganglionic eminence | <ul style="list-style-type: none"> ■ GPM: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IC: Inferior colliculus ■ IG: Induseum griseum ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LPO: Lateral preoptic area ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ NAc: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ NLLd: Nucleus of the lateral lemniscus, dorsal ■ NLLv: Nucleus of the lateral lemniscus, ventral ■ OLFb: Olfactory bulb | <ul style="list-style-type: none"> ■ OT: Olfactory tubercle ■ PBN: Parabigeminal nucleus ■ PG: Pontine gray ■ PMd: Dorsal premammillary nucleus ■ PMv: Ventral premammillary nucleus ■ PSV: Principal sensory nucleus of the trigeminal ■ PULV: Pulvinar nucleus [thalamus] ■ Pf: Parafascicular nucleus [thalamus] ■ Prt: Pretectum ■ RCH: Retrochiasmatic nucleus [hypothalamus] ■ RT: Reticular nucleus [thalamus] ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ Rms: Rostral migratory stream | <ul style="list-style-type: none"> ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SI: Substantia innominata ■ SNc: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SPV: Spinal nucleus of the trigeminal ■ SUM: Supramammillary area ■ Sth: Subthalamus ■ TMM: Tubermammillary nucleus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta |
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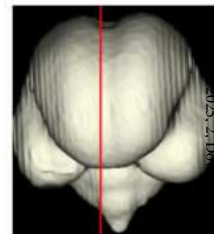
Age: 17 GW



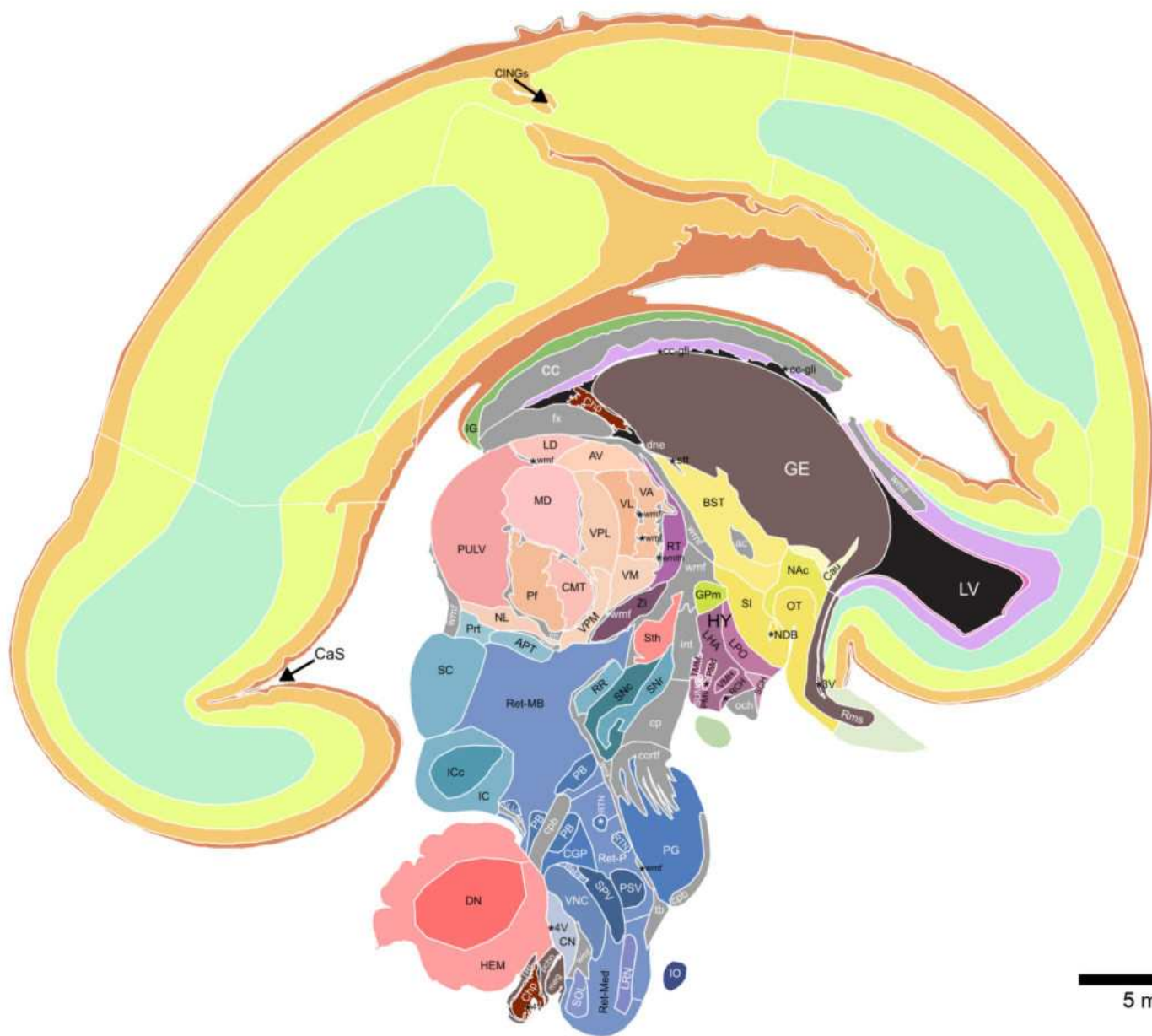
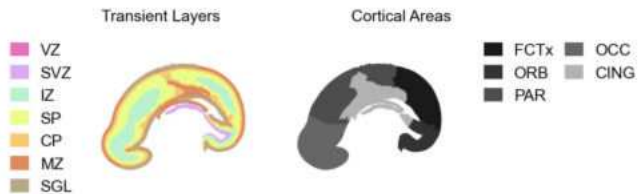
L-R Level: 2.22 mm



5 mm



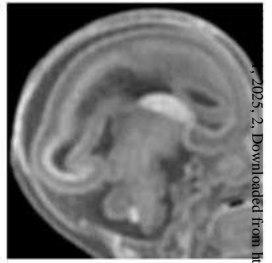
L-R Level: 2.22 mm



5 mm

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|--|--|--|--|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle APT: Anterior pretecal nucleus AV: Anteroventral nucleus [thalamus] BST: Bed nucleus of the stria terminalis CGP: Central gray of the pons CMT: Centromedian nucleus [thalamus] CN: Cochlear nuclei Cau: Caudate nucleus Chp: Choroid plexus DN: Dentate nucleus GE: Ganglionic eminence GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus | <ul style="list-style-type: none"> IG: Induseum griseum IO: Inferior olive LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LPO: Lateral preoptic area LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] NLLd: Nucleus of the lateral lemniscus, dorsal OLFb: Olfactory bulb OT: Olfactory tubercle PARG: Parahippocampal gyrus OLFB: Olfactory bulb OLFT: Olfactory tubercle PARG: Parahippocampal gyrus PAR: Parabrachial nucleus PG: Pontine gray SC: Superior colliculus | <ul style="list-style-type: none"> PMd: Dorsal preammillary nucleus PMv: Ventral preammillary nucleus PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum RCH: Retrochiasmatic nucleus [hypothalamus] RR: Retrorubral area RT: Reticular nucleus [thalamus] RTn: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus | <ul style="list-style-type: none"> SCH: Suprachiasmatic nucleus [hypothalamus] SI: Substantia innominata SNC: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SOL: Solitary nucleus SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area Sth: Subthalamus TMM: Tubermammillary nucleus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta CaS: Calcarine sulcus CINGs: Cingulate sulcus |
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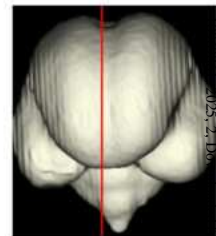
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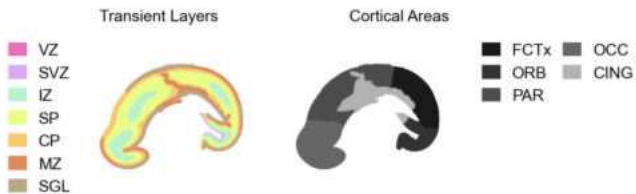
L-R Level: 2.04 mm



5 mm



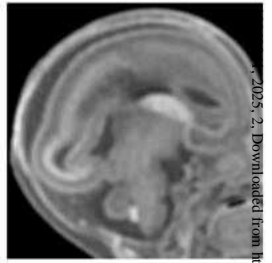
L-R Level: 2.04 mm



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| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle APT: Anterior pretecal nucleus AV: Anteroventral nucleus [thalamus] BST: Bed nucleus of the stria terminalis CGP: Central gray of the pons CMT: Centromedian nucleus [thalamus] Cau: Caudate nucleus Chp: Choroid plexus DN: Dentate nucleus GE: Ganglionic eminence HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus IG: Induseum griseum IO: Inferior olive LD: Lateral dorsal nucleus [thalamus] | <ul style="list-style-type: none"> LHA: Lateral hypothalamic area LMN: Lateral mammillary nucleus LPO: Lateral preoptic area LRN: Lateral reticular nucleus LTN: Lateral tuberal nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] NLLd: Nucleus of the lateral lemniscus, dorsal OLFb: Olfactory bulb OPT: Olivary pretecal nucleus OT: Olfactory tubercle PB: Parabrachial nucleus PG: Pontine gray PMD: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus | <ul style="list-style-type: none"> PPT: Posterior pretecal nucleus PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] RCH: Retrochiasmatic nucleus [hypothalamus] RR: Retrorubral area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SI: Substantia innominata | <ul style="list-style-type: none"> SNC: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SO: Superior olive SOL: Solitary nucleus SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area Sth: Subthalamus TMM: Tuberosammillary nucleus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] Vn: Trigeminal motor nucleus ZI: Zona incerta |
|---|--|---|---|



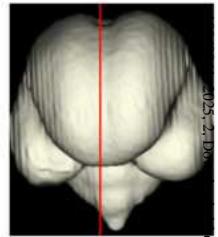
Age: 17 GW



L-R Level: 1.8 mm



5 mm



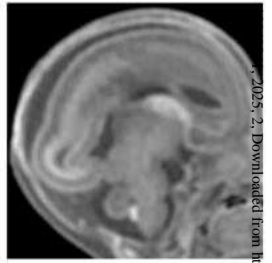
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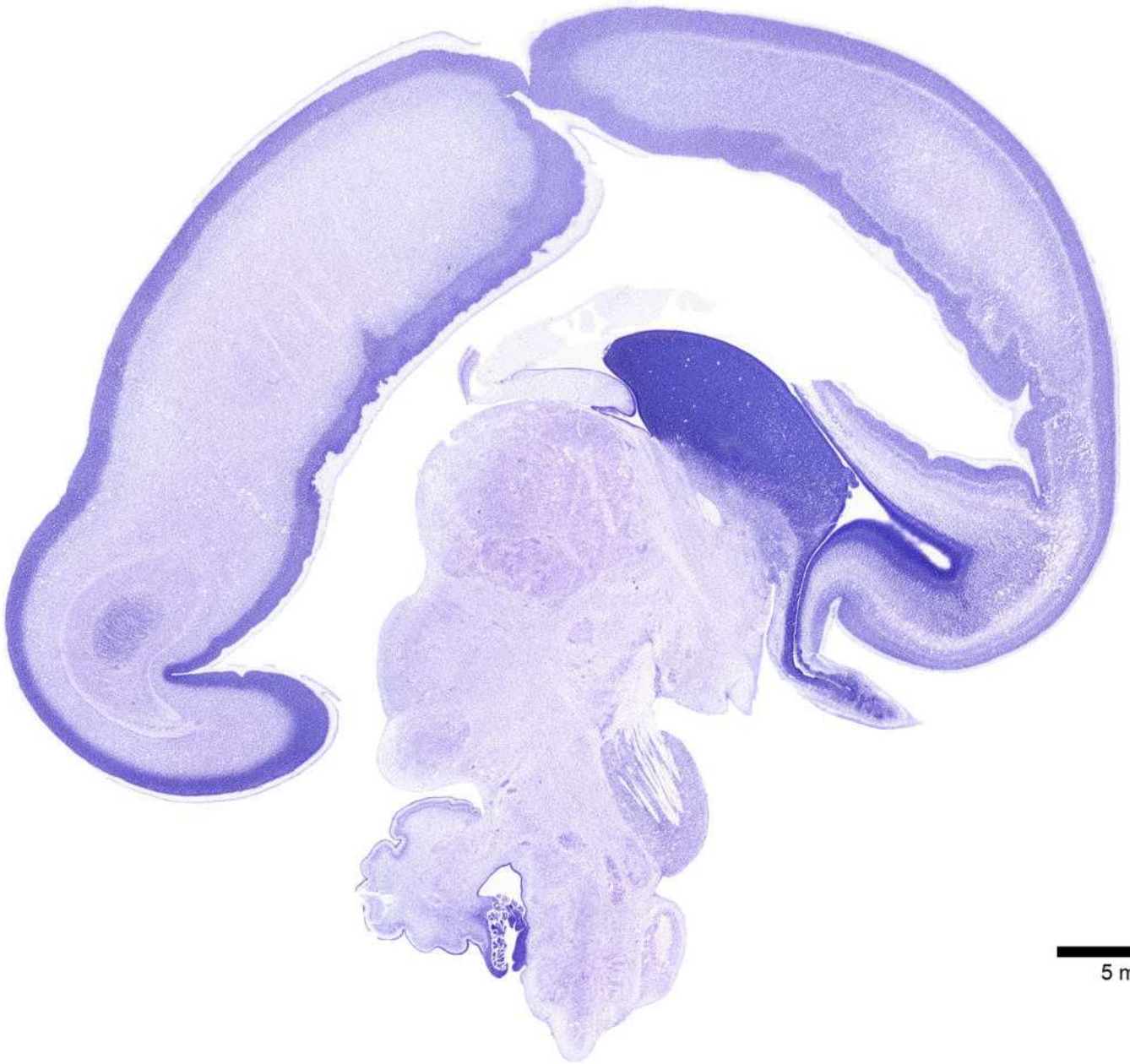
5 mm

- | | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AV: Anteroventral nucleus [thalamus] BNM: Basal nucleus of Meynert BST: Bed nucleus of the stria terminalis CGP: Central gray of the pons CMT: Centromedian nucleus [thalamus] CUN: Cuneate nucleus MD: Medial dorsal nucleus [thalamus] NAC: Nucleus accumbens OLFb: Olfactory bulb OT: Olfactory tubercle PB: Parabrachial nucleus PG: Pontine gray PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> IO: Inferior olive LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LMN: Lateral mammillary nucleus LPO: Lateral preoptic area LRN: Lateral reticular nucleus LTN: Lateral tuberal nucleus LV: Lateral ventricle NL: Nucleus limitans [thalamus] OLFb: Olfactory bulb OT: Olfactory tubercle PB: Parabrachial nucleus PG: Pontine gray PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> Pf: Parafascicular nucleus [thalamus] Prt: Pretectum RCH: Retrochiasmatic nucleus [hypothalamus] RR: Retrorubral area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SI: Substantia innominata SNC: Substantia nigra pars compacta | <ul style="list-style-type: none"> SNr: Substantia nigra pars reticulata SO: Superior olive SOL: Solitary nucleus SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area TMM: Tuberomammillary nucleus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VIn: Facial motor nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] Vn: Trigeminal motor nucleus ZI: Zona incerta |
|---|--|--|---|
- CaS: Calcarine sulcus
→ CINGs: Cingulate sulcus

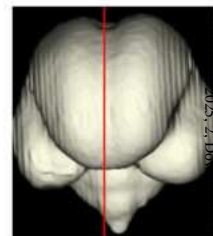
Age: 17 GW



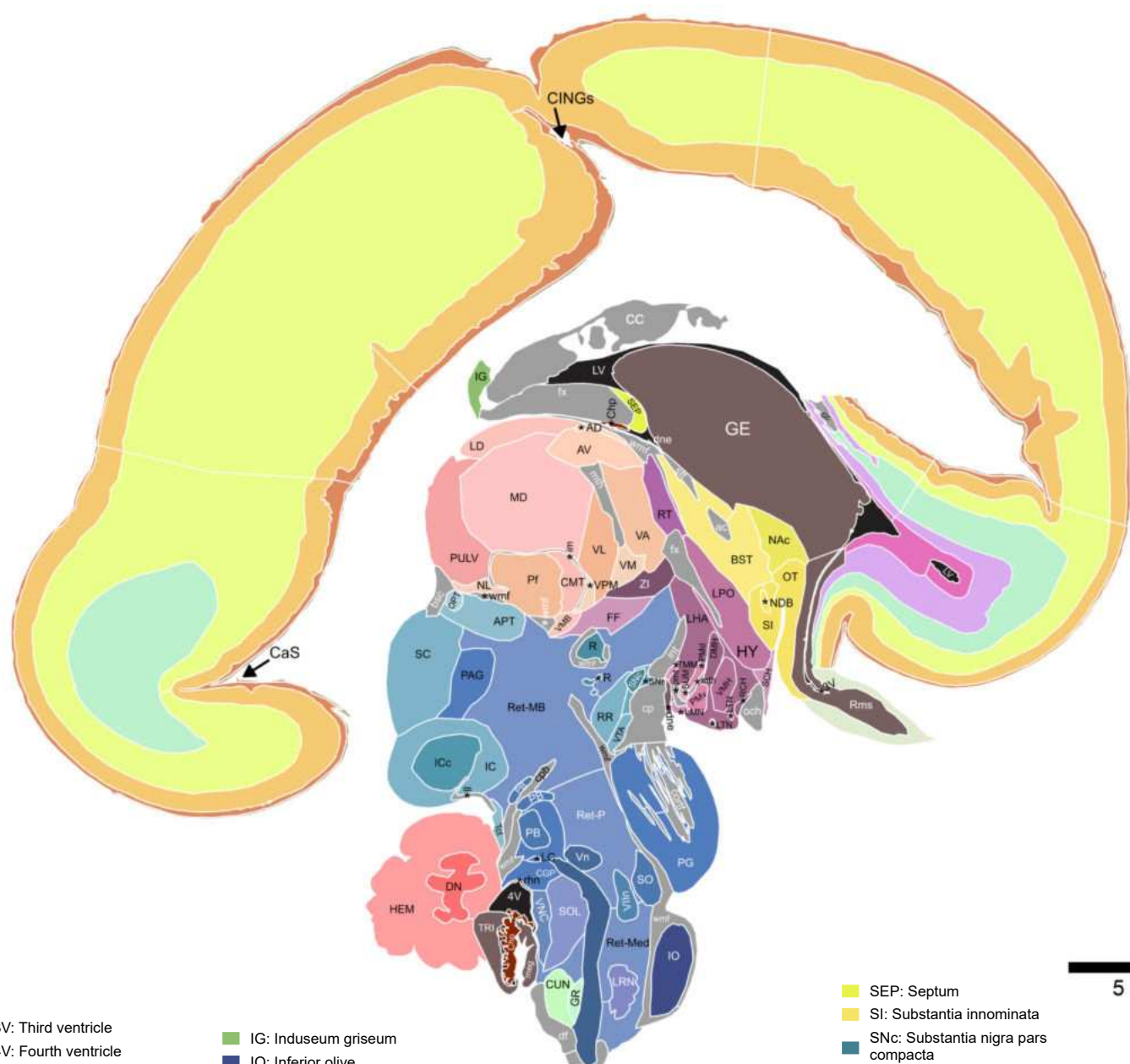
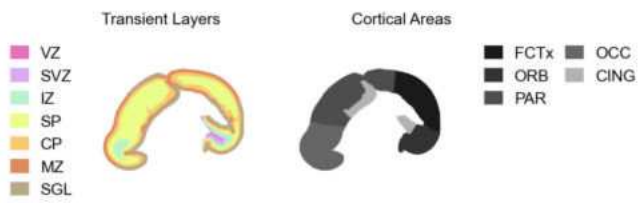
L-R Level: 1.56 mm



5 mm



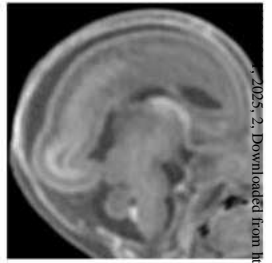
L-R Level: 1.56 mm



5 mm

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ 4V: Fourth ventricle ■ AD: Anterodorsal nucleus [thalamus] ■ APT: Anterior pretecal nucleus ■ AV: Anteroventral nucleus [thalamus] ■ BST: Bed nucleus of the stria terminalis ■ CGP: Central gray of the pons ■ CMT: Centromedian nucleus [thalamus] ■ CUN: Cuneate nucleus ■ Chp: Choroid plexus ■ DMH: Dorsomedial nucleus [hypothalamus] ■ DN: Dentate nucleus ■ FF: Field of Forel ■ GE: Ganglionic eminence ■ GR: Gracile nucleus ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IC: Inferior colliculus ■ ICc: Inferior colliculus, central nucleus | <ul style="list-style-type: none"> ■ IG: Induseum griseum ■ IO: Inferior olive ■ LC: Locus coeruleus ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LMN: Lateral mammillary nucleus ■ LPO: Lateral preoptic area ■ LRN: Lateral reticular nucleus ■ LTN: Lateral tuberal nucleus ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ OLFb: Olfactory bulb ■ OPT: Olivary pretecal nucleus ■ OT: Olfactory tubercle ■ PAG: Periaqueductal gray ■ PB: Parabrachial nucleus | <ul style="list-style-type: none"> ■ PG: Pontine gray ■ PMd: Dorsal premammillary nucleus ■ PMv: Ventral premammillary nucleus ■ PULV: Pulvinar nucleus [thalamus] ■ Pf: Parafascicular nucleus [thalamus] ■ R: Red nucleus ■ RCH: Retrochiasmatic nucleus [hypothalamus] ■ RR: Retrorubral area ■ RT: Reticular nucleus [thalamus] ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ Rms: Rostral migratory stream ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] | <ul style="list-style-type: none"> ■ SEP: Septum ■ SI: Substantia innominata ■ SNC: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SO: Superior olive ■ SOL: Solitary nucleus ■ SPV: Spinal nucleus of the trigeminal ■ SUM: Supramammillary area ■ TMM: Tuberosomammillary nucleus ■ TRI: Germinal trigone ■ Tct: Tectum ■ VA: Ventral anterior nucleus [thalamus] ■ VIn: Facial motor nucleus ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VMH: Ventromedial nucleus [hypothalamus] ■ VNC: Vestibular nuclear complex ■ VPM: Ventral posteromedial nucleus [thalamus] ■ VTA: Ventral tegmental area ■ Vn: Trigeminal motor nucleus ■ ZI: Zona incerta |
|---|---|---|--|
- CaS: Calcarine sulcus
→ CINGs: Cingulate sulcus

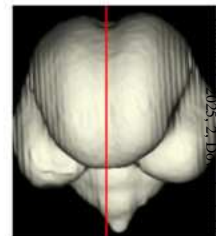
Age: 17 GW



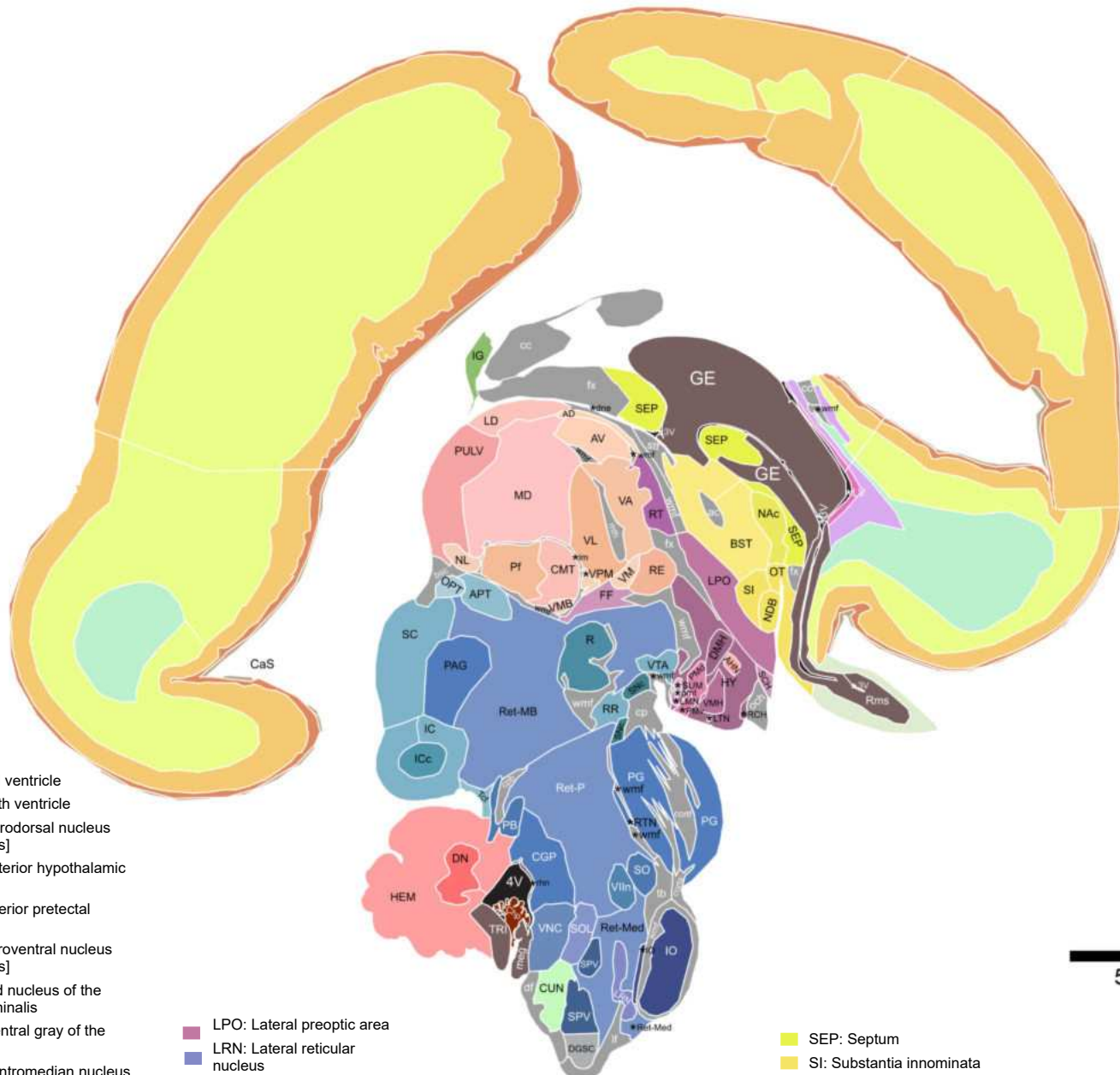
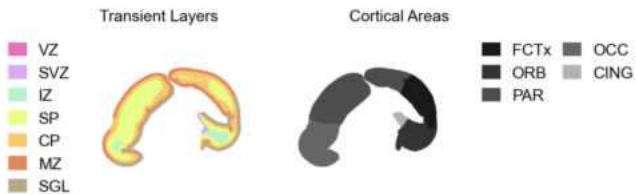
L-R Level: 1.26 mm



5 mm



L-R Level: 1.26 mm



- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHN: Anterior hypothalamic nucleus
- APT: Anterior pretecal nucleus
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DMH: Dorsomedial nucleus [hypothalamus]
- DN: Dentate nucleus
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus

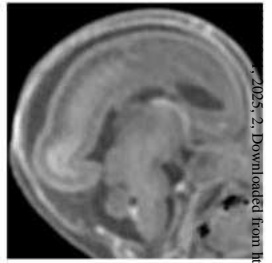
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OLFb: Olfactory bulb
- OPT: Olivary pretecal nucleus
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMD: Dorsal preamammillary nucleus
- PMv: Ventral preamammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]

- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]

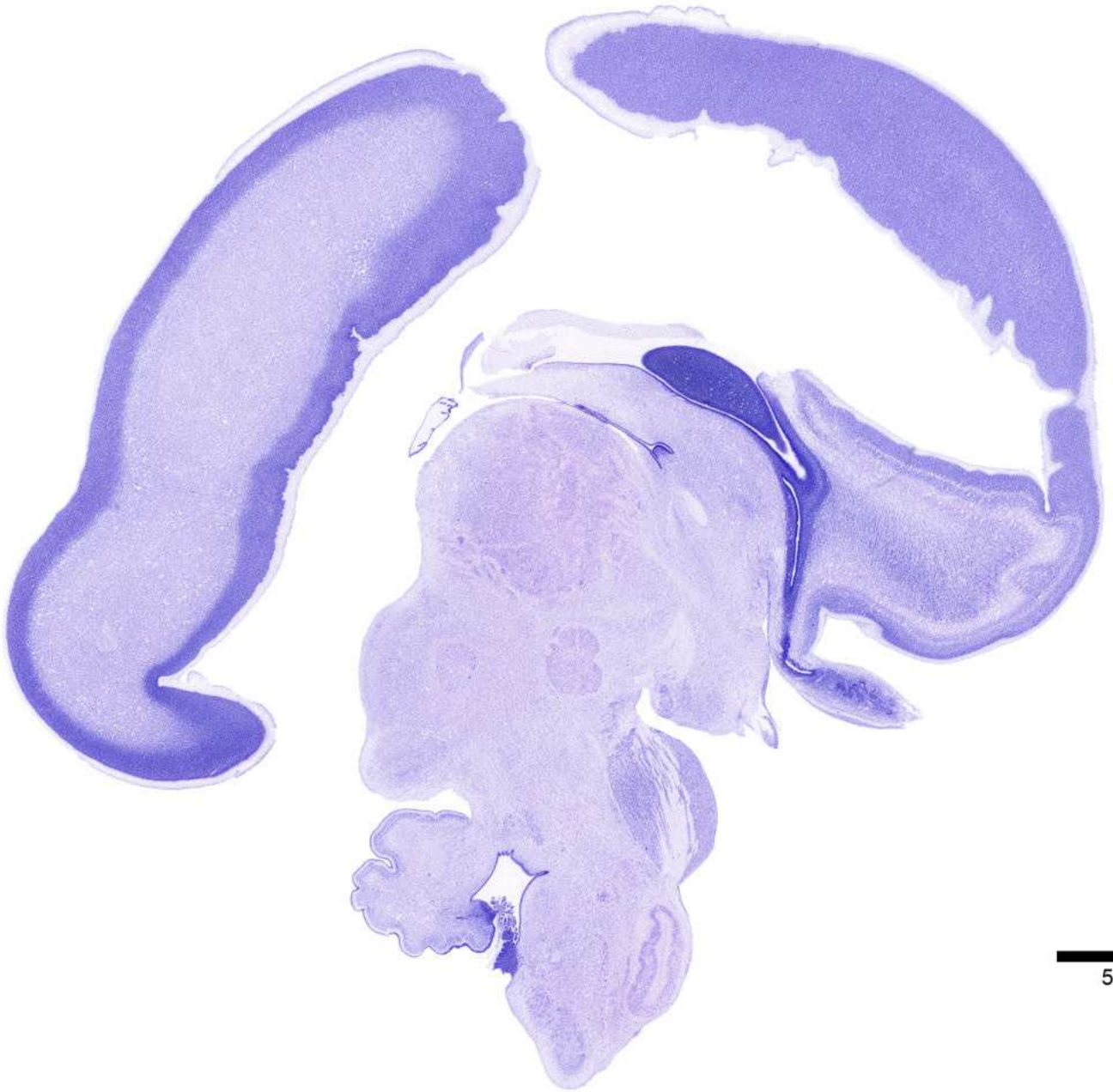
- SEP: Septum
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SO: Superior olive
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VIn: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventromedial basal nucleus [thalamus]
- VMH: Ventromedial nucleus complex [hypothalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- CaS: Calcarine sulcus

5 mm

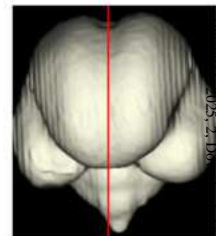
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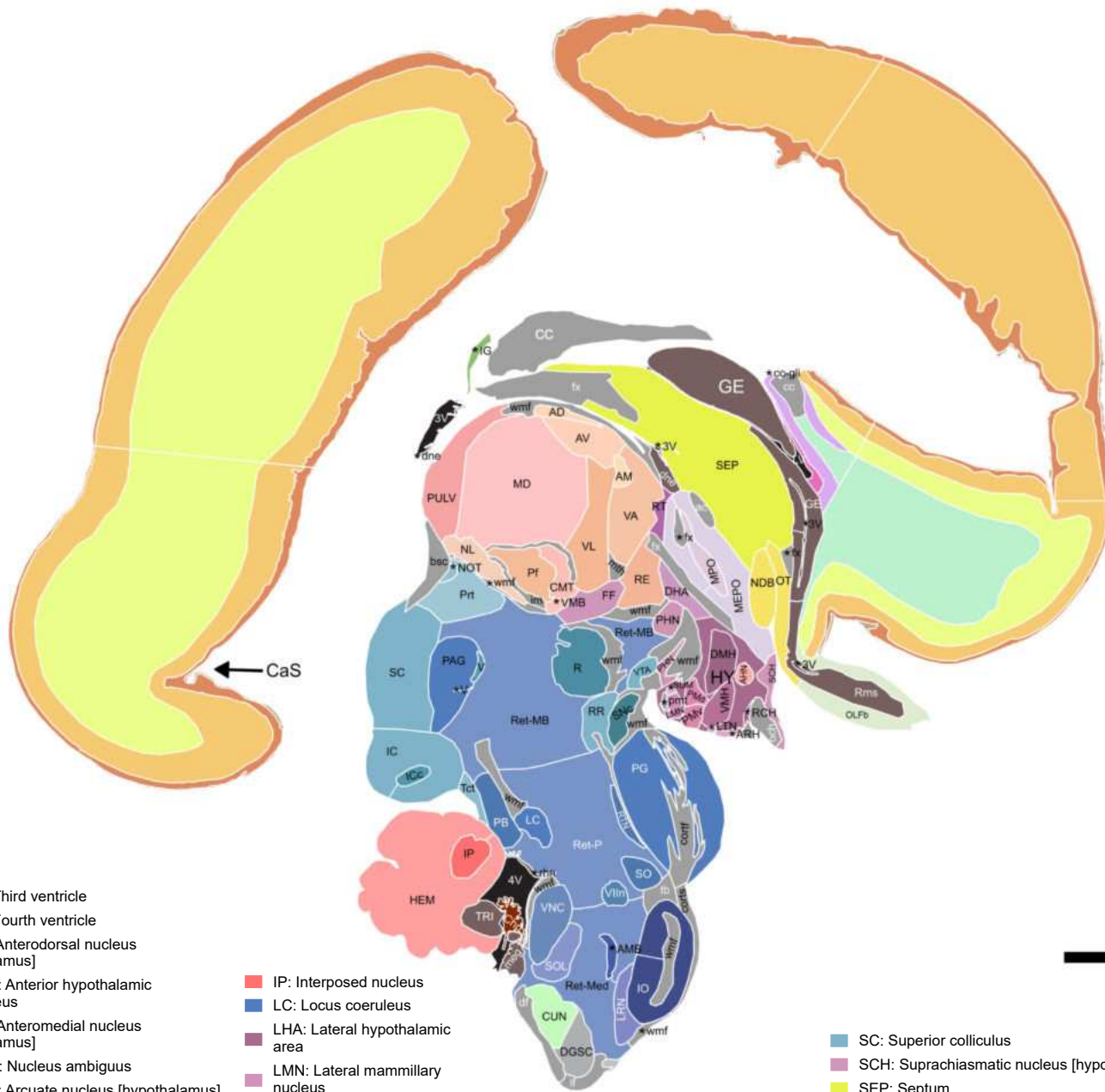
L-R Level: 0.96 mm



5 mm



L-R Level: 0.96 mm

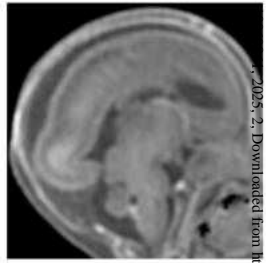


CaS

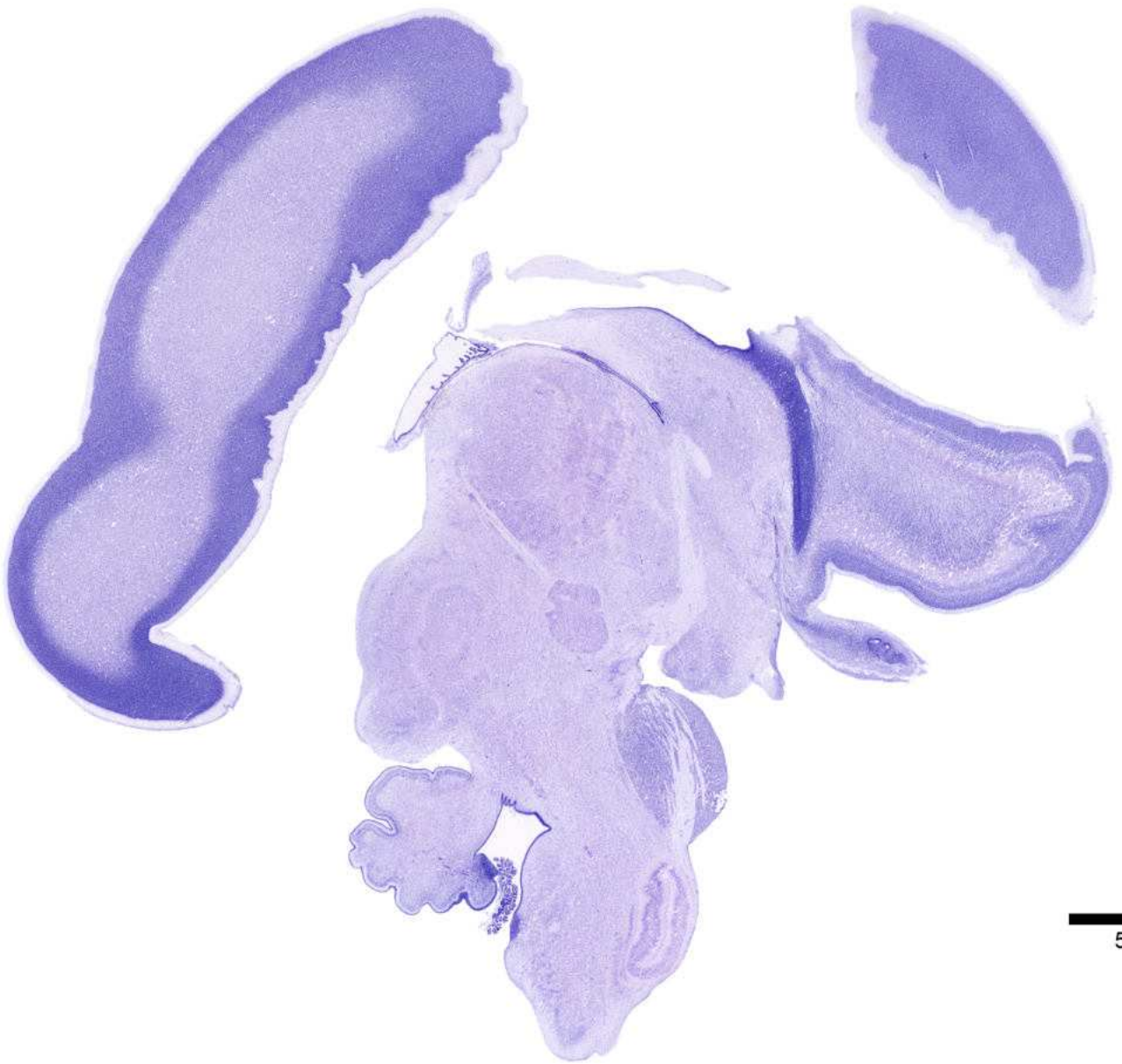
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHN: Anterior hypothalamic nucleus
- AM: Anteromedial nucleus [thalamus]
- AMB: Nucleus ambiguus
- ARH: Arcuate nucleus [hypothalamus]
- AV: Anteroventral nucleus [thalamus]
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- LC: Locus coeruleus
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LRN: Lateral reticular nucleus
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MPO: Medial preoptic nucleus
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NOT: Nucleus of the optic tract
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal preammillary nucleus
- PMv: Ventral preammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SNC: Substantia nigra pars compacta
- SO: Superior olive
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VTA: Ventral tegmental area
- CaS: Calcarine sulcus

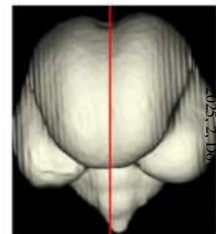
Age: 17 GW



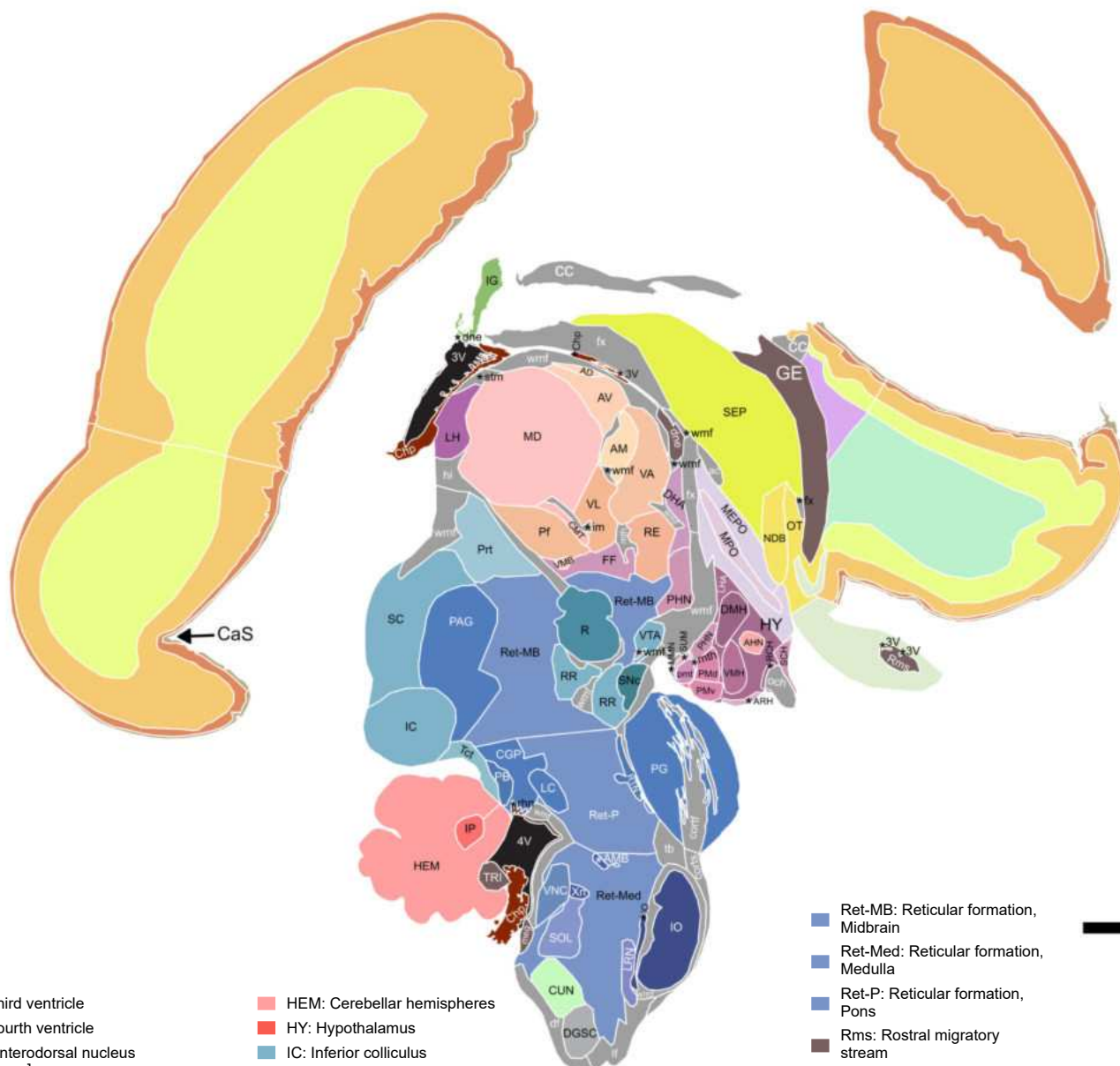
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5 mm



L-R Level: 0.72 mm

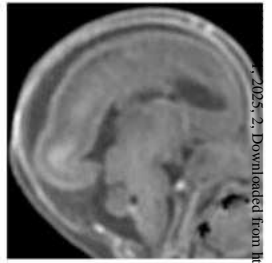


← CaS

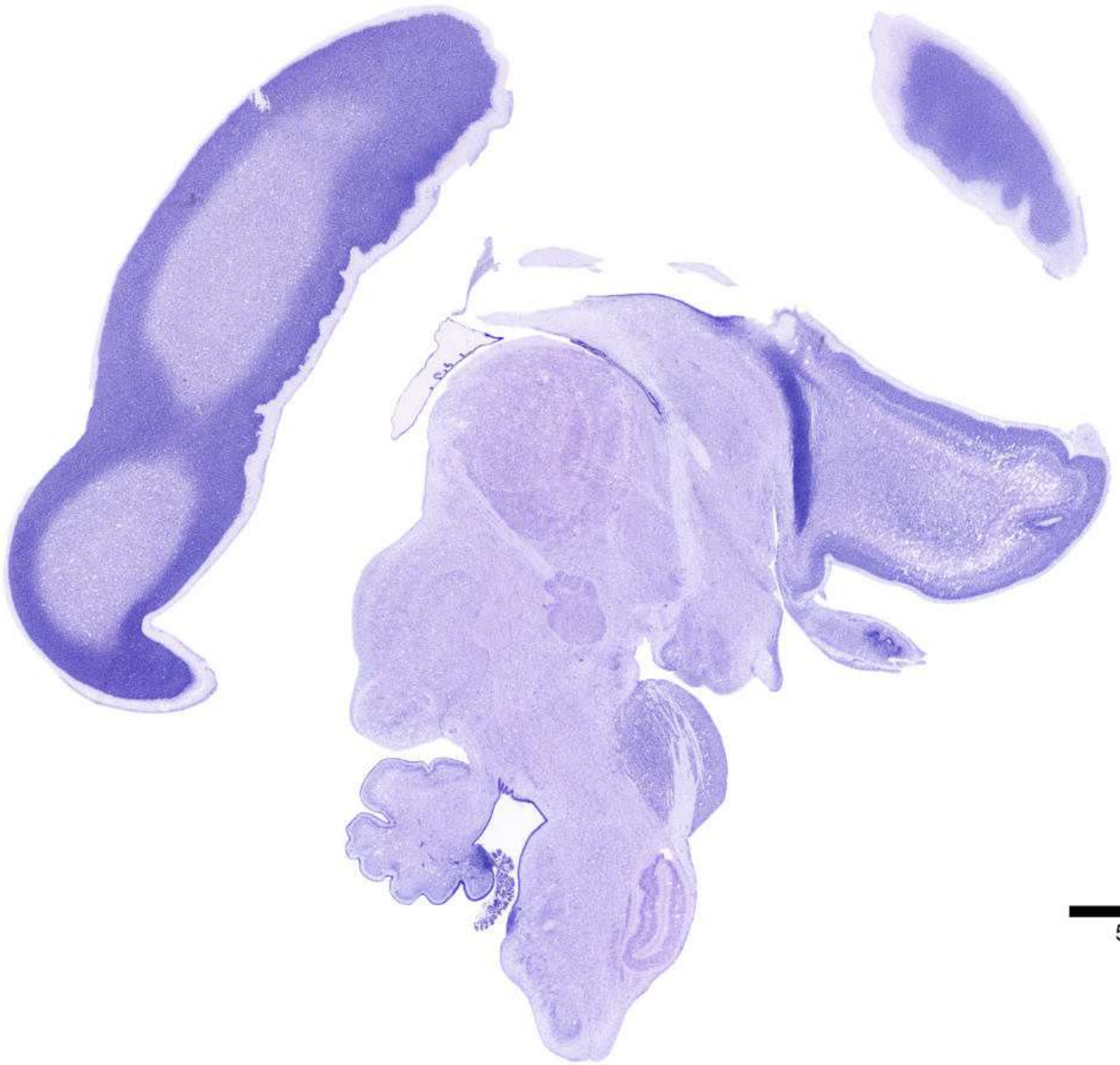
5 mm

- 3V: Third ventricle
 - 4V: Fourth ventricle
 - AD: Anterodorsal nucleus [thalamus]
 - AHN: Anterior hypothalamic nucleus
 - AM: Anteromedial nucleus [thalamus]
 - AMB: Nucleus ambiguus
 - ARH: Arcuate nucleus [hypothalamus]
 - AV: Anteroventral nucleus [thalamus]
 - CGP: Central gray of the pons
 - CMT: Centromedian nucleus [thalamus]
 - CUN: Cuneate nucleus
 - Chp: Choroid plexus
 - DGSC: Dorsal gray of the spinal cord
 - DHA: Dorsal hypothalamic area
 - DMH: Dorsomedial nucleus [hypothalamus]
 - FF: Field of Forel
 - GE: Ganglionic eminence
 - HEM: Cerebellar hemispheres
 - HY: Hypothalamus
 - IC: Inferior colliculus
 - IO: Inferior olive
 - IP: Interposed nucleus
 - LC: Locus coeruleus
 - LH: Lateral habenula
 - LHA: Lateral hypothalamic area
 - LRN: Lateral reticular nucleus
 - MD: Medial dorsal nucleus [thalamus]
 - MEPO: Medial preoptic area
 - MMN: Medial mammillary nucleus
 - MPO: Medial preoptic nucleus
 - NDB: Nucleus of the diagonal band
 - OLFb: Olfactory bulb
 - OT: Olfactory tubercle
 - PAG: Periaqueductal gray
 - PB: Parabrachial nucleus
 - PG: Pontine gray
 - PHN: Posterior hypothalamic nucleus
 - PMd: Dorsal premammillary nucleus
 - PMv: Ventral premammillary nucleus
 - Pf: Parafascicular nucleus [thalamus]
 - Prt: Pretectum
 - R: Red nucleus
 - RCH: Retrochiasmatic nucleus [hypothalamus]
 - RE: Nucleus reuniens
 - RR: Retrorubral area
 - RTN: Reticular tegmental nucleus
 - Ret-MB: Reticular formation, Midbrain
 - Ret-Med: Reticular formation, Medulla
 - Ret-P: Reticular formation, Pons
 - Rms: Rostral migratory stream
 - SC: Superior colliculus
 - SCH: Suprachiasmatic nucleus [hypothalamus]
 - SEP: Septum
 - SNc: Substantia nigra pars compacta
 - SOL: Solitary nucleus
 - SUM: Supramammillary area
 - TRI: Germinal trigone
 - TT: Tenia tecta
 - Tct: Tectum
 - VA: Ventral anterior nucleus [thalamus]
 - VL: Ventral lateral nucleus [thalamus]
 - VMB: Ventral medial basal nucleus [thalamus]
 - VMH: Ventromedial nucleus [hypothalamus]
 - VNC: Vestibular nuclear complex
 - VTA: Ventral tegmental area
 - Xn: Dorsal motor nucleus
- CaS: Calcarine sulcus

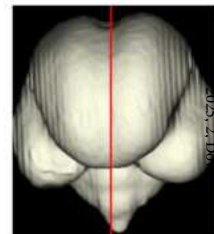
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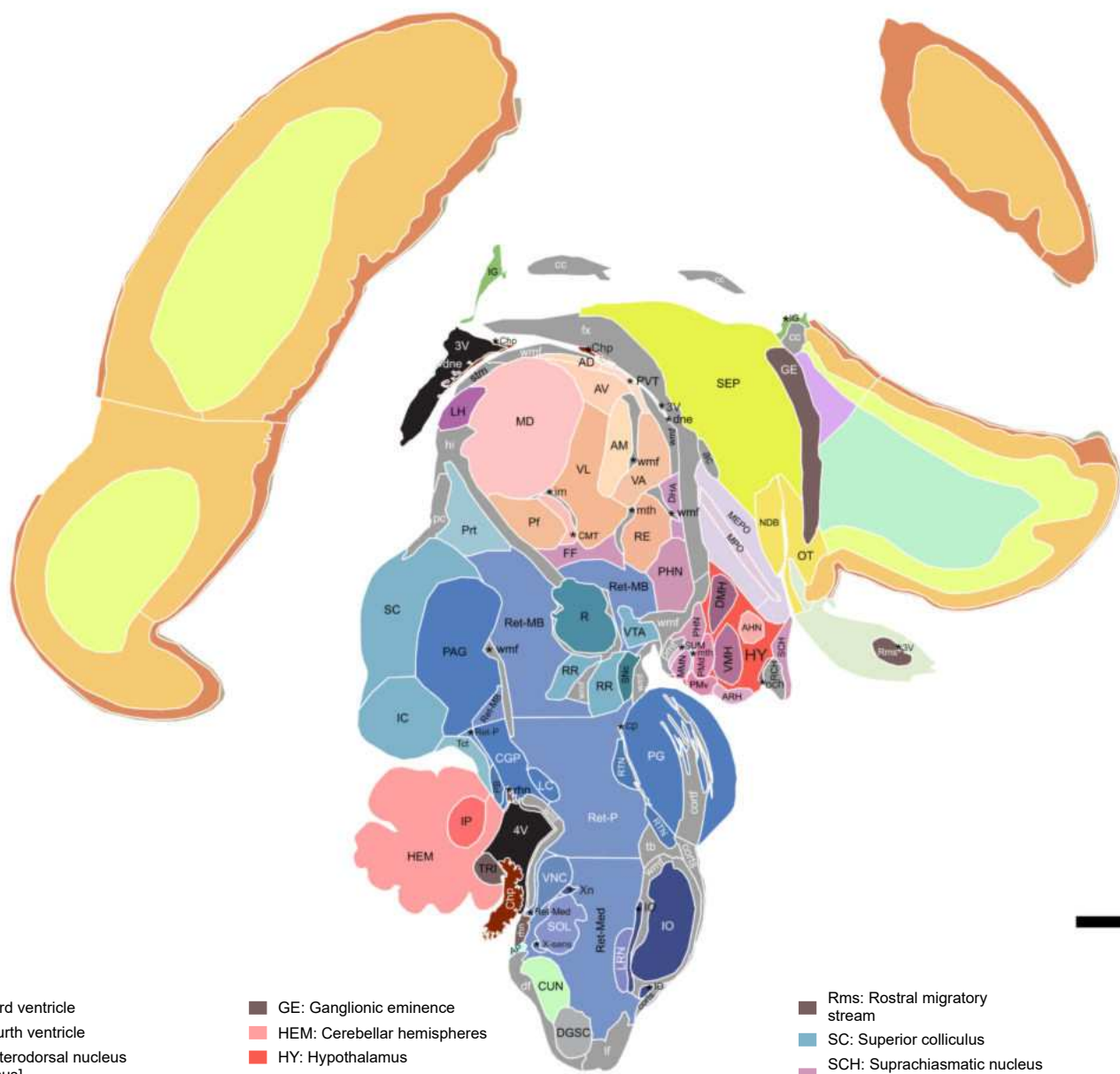
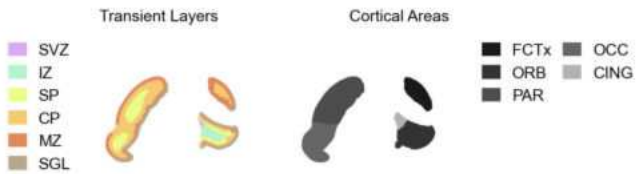
L-R Level: 0.6 mm



5 mm



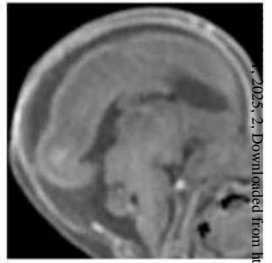
L-R Level: 0.6 mm



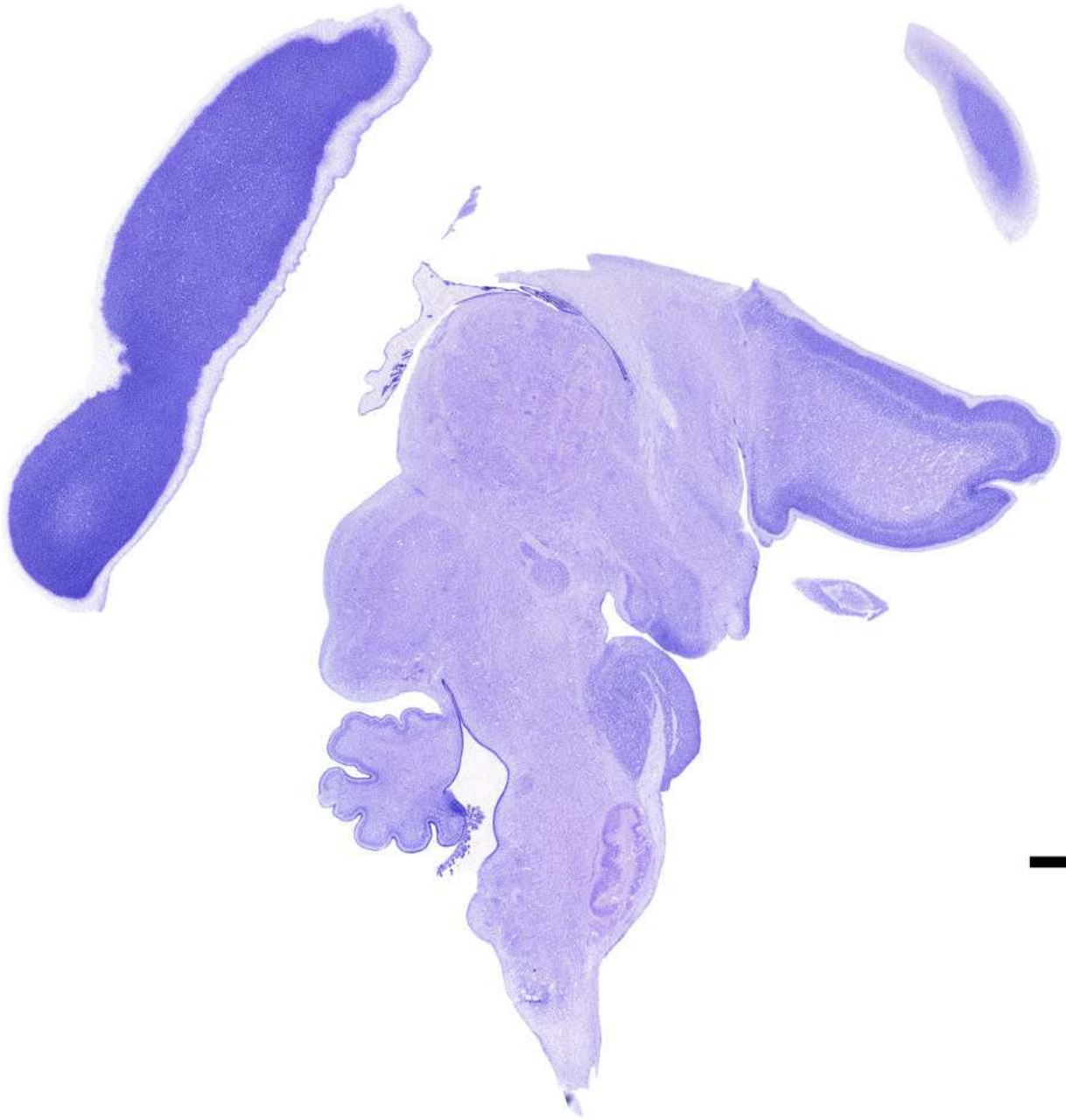
5 mm

- | | | | |
|---|---|---|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AD: Anterodorsal nucleus [thalamus] AHN: Anterior hypothalamic nucleus AM: Anteromedial nucleus [thalamus] AP: Area postrema ARH: Arcuate nucleus [hypothalamus] ARM: Arcuate nucleus [medulla] AV: Anteroventral nucleus [thalamus] CGP: Central gray of the pons CMT: Centromedian nucleus [thalamus] CUN: Cuneate nucleus Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] FF: Field of Forel | <ul style="list-style-type: none"> GE: Ganglionic eminence HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus IO: Inferior olive IP: Interposed nucleus LC: Locus coeruleus LH: Lateral habenula LRN: Lateral reticular nucleus MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band OLFb: Olfactory bulb OT: Olfactory tubercle | <ul style="list-style-type: none"> PHN: Posterior hypothalamic nucleus PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PVT: Paraventricular nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RR: Retrorubral area RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons | <ul style="list-style-type: none"> Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SNC: Substantia nigra pars compacta SOL: Solitary nucleus SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex VTA: Ventral tegmental area X-sens: Dorsal sensory nucleus X Xn: Dorsal motor nucleus |
|---|---|---|---|

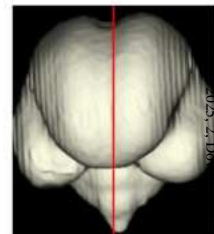
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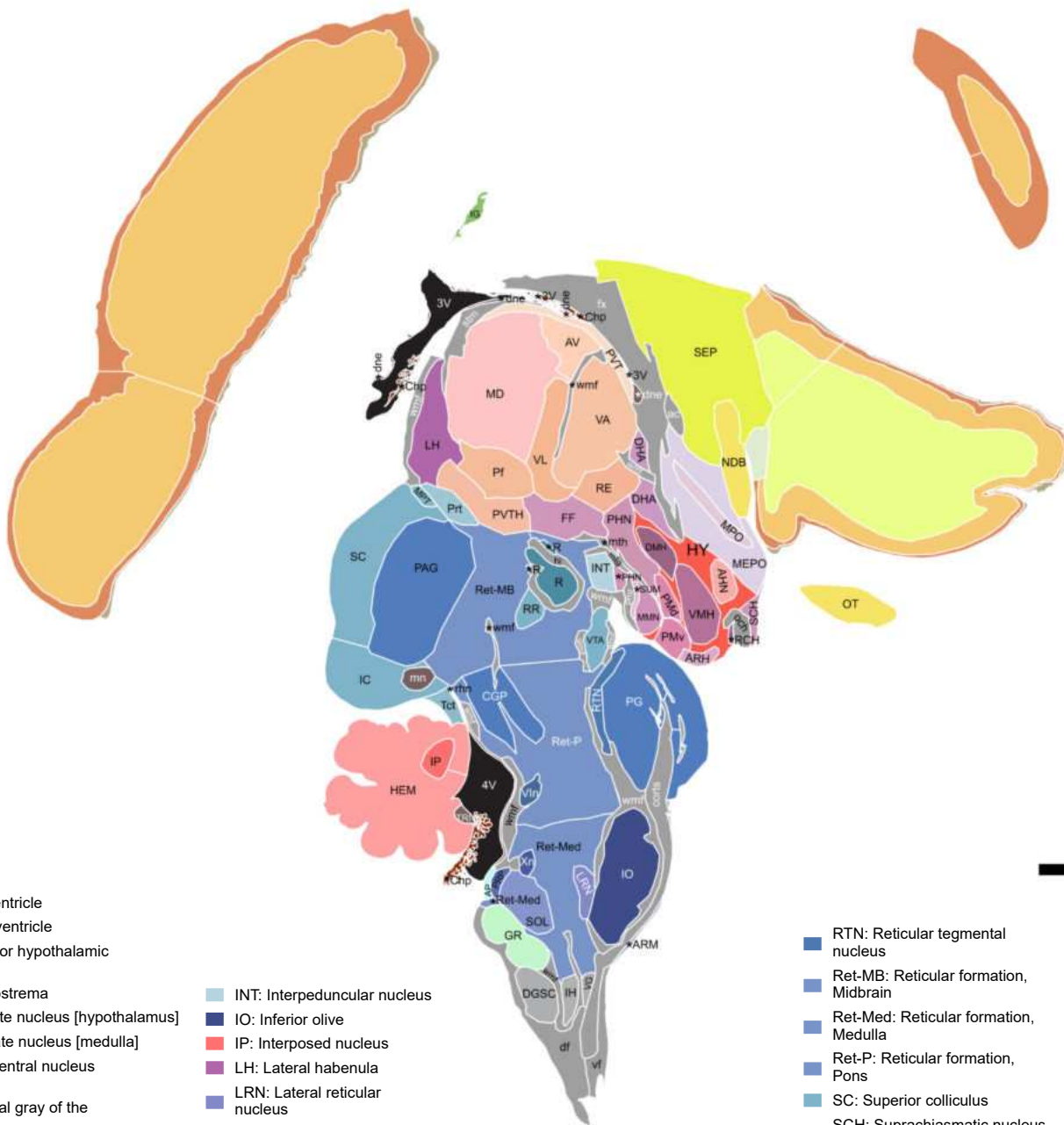
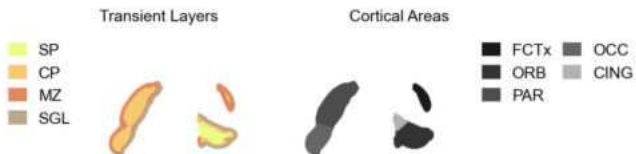
L-R Level: 0.18 mm



5 mm



L-R Level: 0.18 mm



- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- CGP: Central gray of the pons
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IH: Intermediate gray of the spinal cord
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- MPT: Medial pretectal nucleus
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus

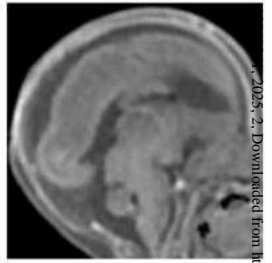
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- MPT: Medial pretectal nucleus
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus

- PMV: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area

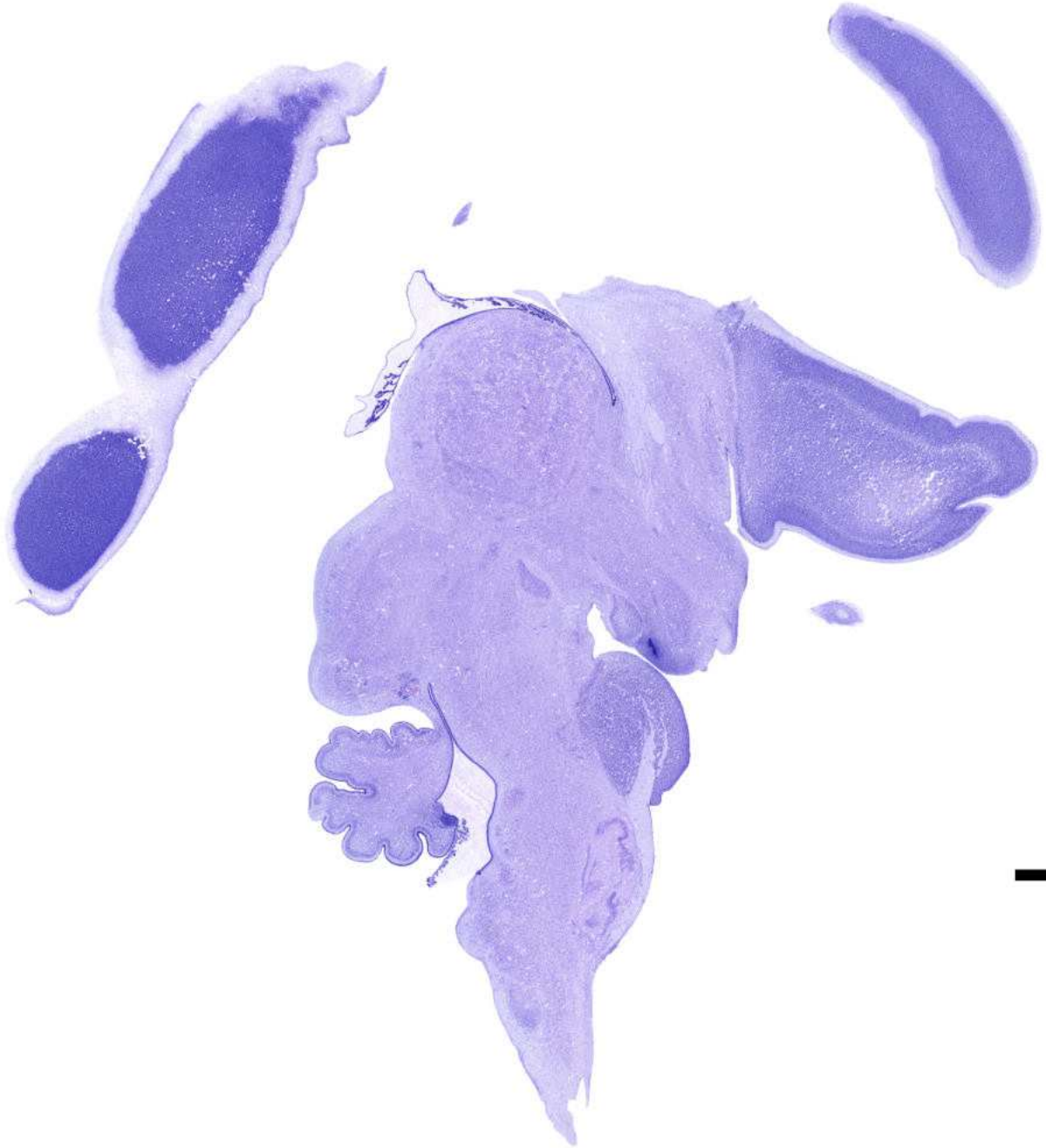
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- TT: Tenia tecta
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus

5 mm

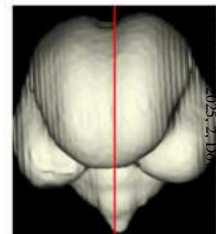
Age: 17 GW



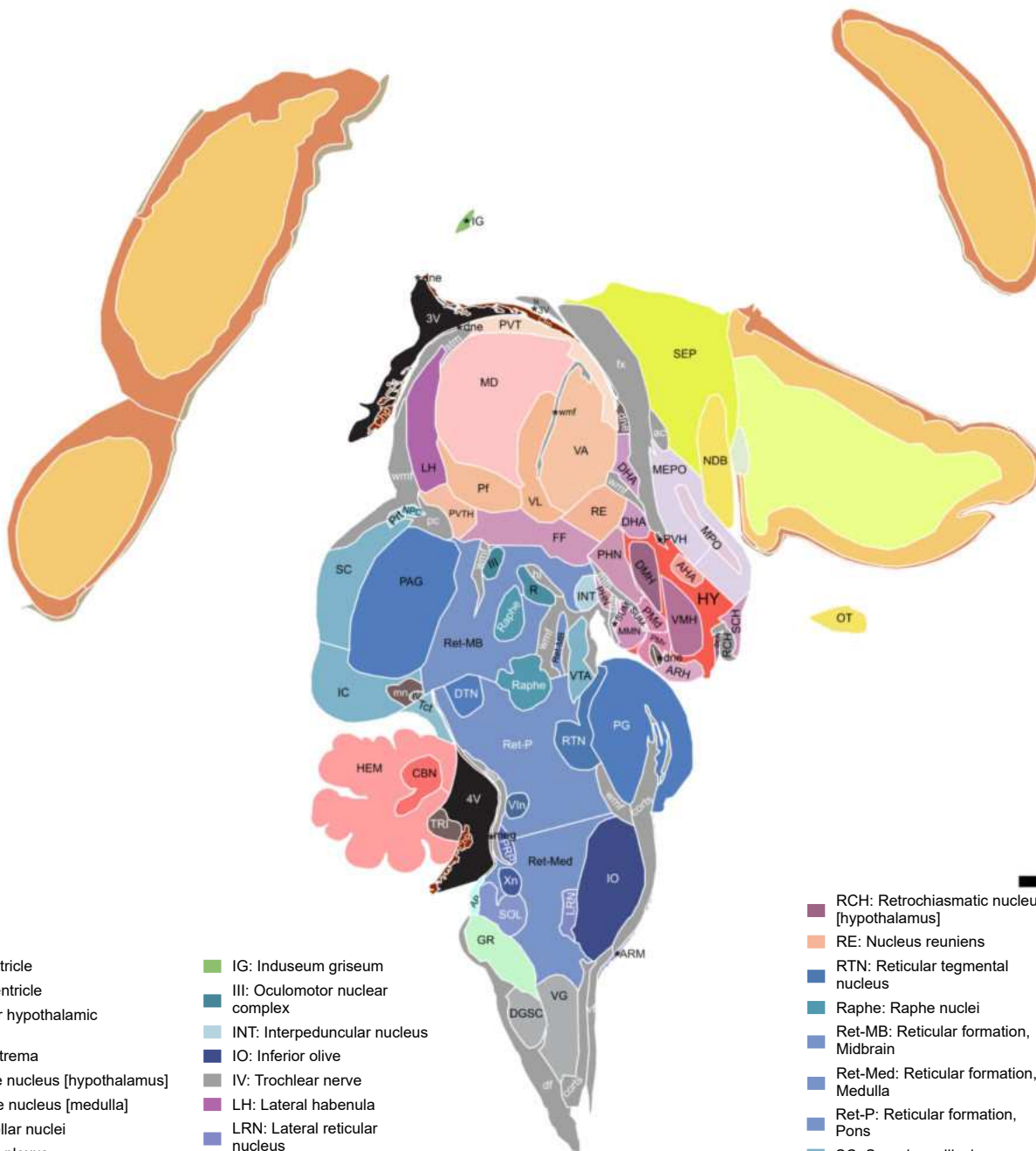
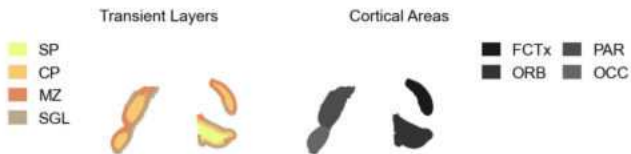
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5 mm



L-R Level: 0.0 mm



- 3V: Third ventricle
- 4V: Fourth ventricle
- AHA: Anterior hypothalamic area
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- CBN: Cerebellar nuclei
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus

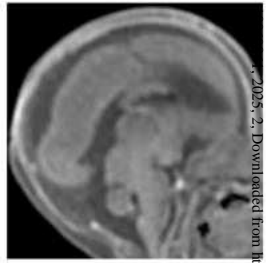
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IV: Trochlear nerve
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NDB: Nucleus of the diagonal band
- NPC: Nucleus of the posterior commissure
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray

- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus
- PMV: Ventral premammillary nucleus
- PRP: Nucleus prepositus
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- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus

- RCH: Retrochiasmatic nucleus [hypothalamus]
- RET: Nucleus reuniens
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- TT: Tenia tecta
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- Vln: Abducens nucleus
- VLN: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus

5 mm

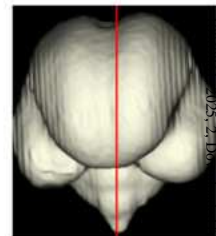
Age: 17 GW



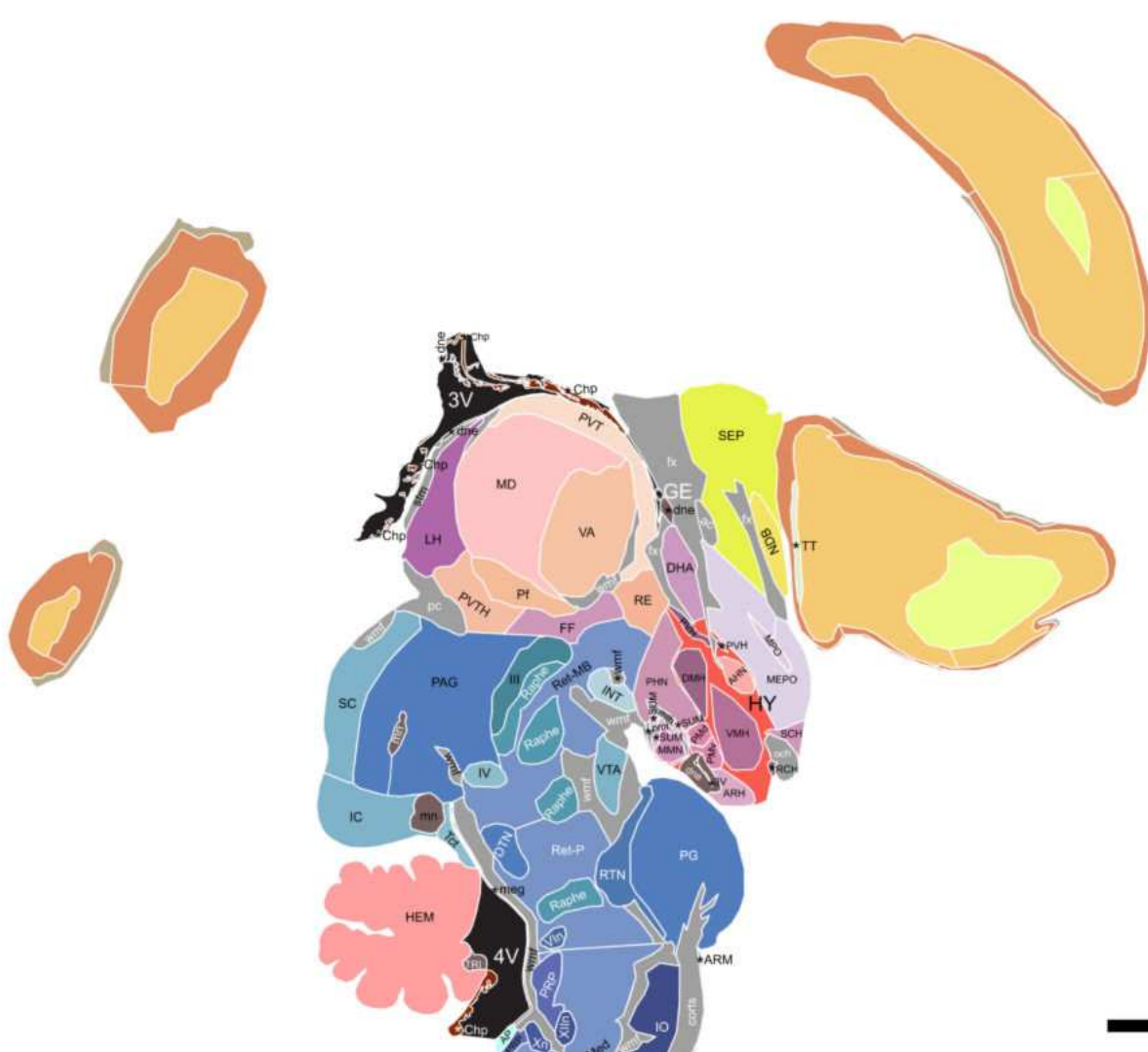
L-R Level: -0.24 mm



5 mm



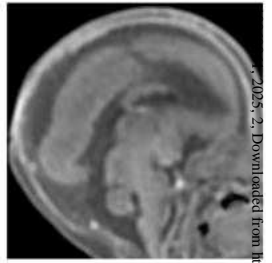
L-R Level: -0.24 mm



5 mm

- | |
|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus AP: Area postrema ARH: Arcuate nucleus [hypothalamus] ARM: Arcuate nucleus [medulla] Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DTN: Dorsal tegmental nucleus FF: Field of Forel GE: Ganglionic eminence GR: Gracile nucleus HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus III: Oculomotor nuclear complex INT: Interpeduncular nucleus IO: Inferior olive IV: Trochlear nucleus LH: Lateral habenula MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band PAG: Periaqueductal gray PG: Pontine gray PHN: Posterior hypothalamic nucleus PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PRP: Nucleus prepositus PVH: Paraventricular nucleus [hypothalamus] PVT: Paraventricular nucleus [thalamus] PVTH: Periventricular complex [thalamus] Pf: Parafascicular nucleus [thalamus] RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RTN: Reticular tegmental nucleus Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SOL: Solitary nucleus SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VG: Ventral gray of the spinal cord Vin: Abducens nucleus VMH: Ventromedial nucleus [hypothalamus] VTA: Ventral tegmental area XII: Hypoglossal nucleus XI: Accessory nucleus Xn: Dorsal motor nucleus |
|---|

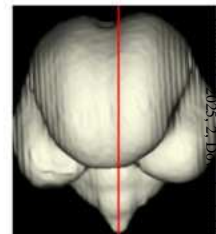
Age: 17 GW



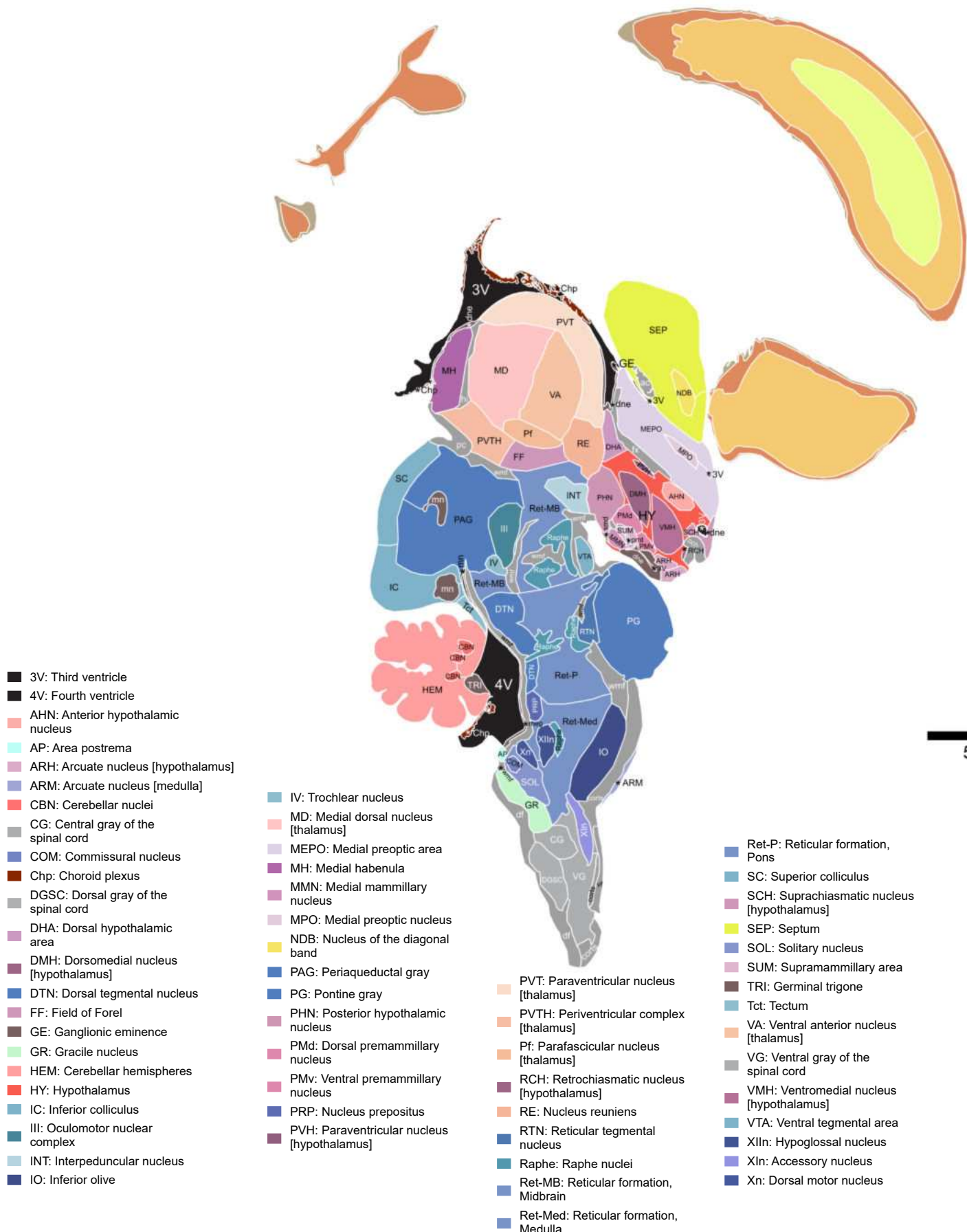
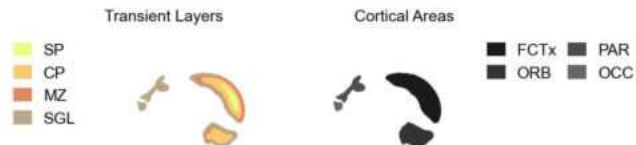
L-R Level: -0.48 mm



5 mm

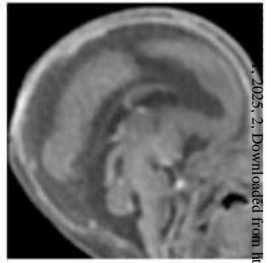


L-R Level: -0.48 mm



5 mm

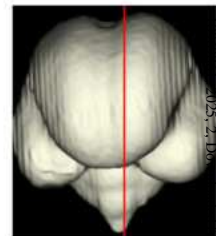
Age: 17 GW



L-R Level: -1.14 mm



5 mm



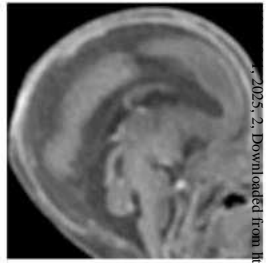
L-R Level: -1.14 mm



5 mm

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| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus AP: Area postrema ARH: Arcuate nucleus [hypothalamus] ARM: Arcuate nucleus [medulla] Aq: Aqueduct CBN: Cerebellar nuclei CC: Central canal Chp: Choroid plexus DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DTN: Dorsal tegmental nucleus FF: Field of Forel FN: Fastigial nucleus HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus III: Oculomotor nuclear complex INT: Interpeduncular nucleus IO: Inferior olive MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MH: Medial habenula MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus Ms-g: Migratory stream, general NDB: Nucleus of the diagonal band PAG: Periaqueductal gray PG: Pontine gray PHN: Posterior hypothalamic nucleus PIN: Pineal gland PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PRP: Nucleus prepositus PVH: Paraventricular nucleus [hypothalamus] PVT: Paraventricular nucleus [thalamus] PVTH: Periventricular complex [thalamus] RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RTN: Reticular tegmental nucleus Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SOL: Solitary nucleus SP: Spinal cord SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VH: Ventral horn VMH: Ventromedial nucleus [hypothalamus] VTA: Ventral tegmental area XII: Hypoglossal nucleus XIn: Accessory nucleus |
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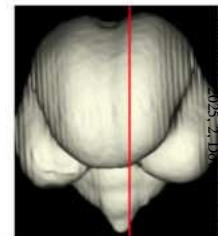
Age: 17 GW



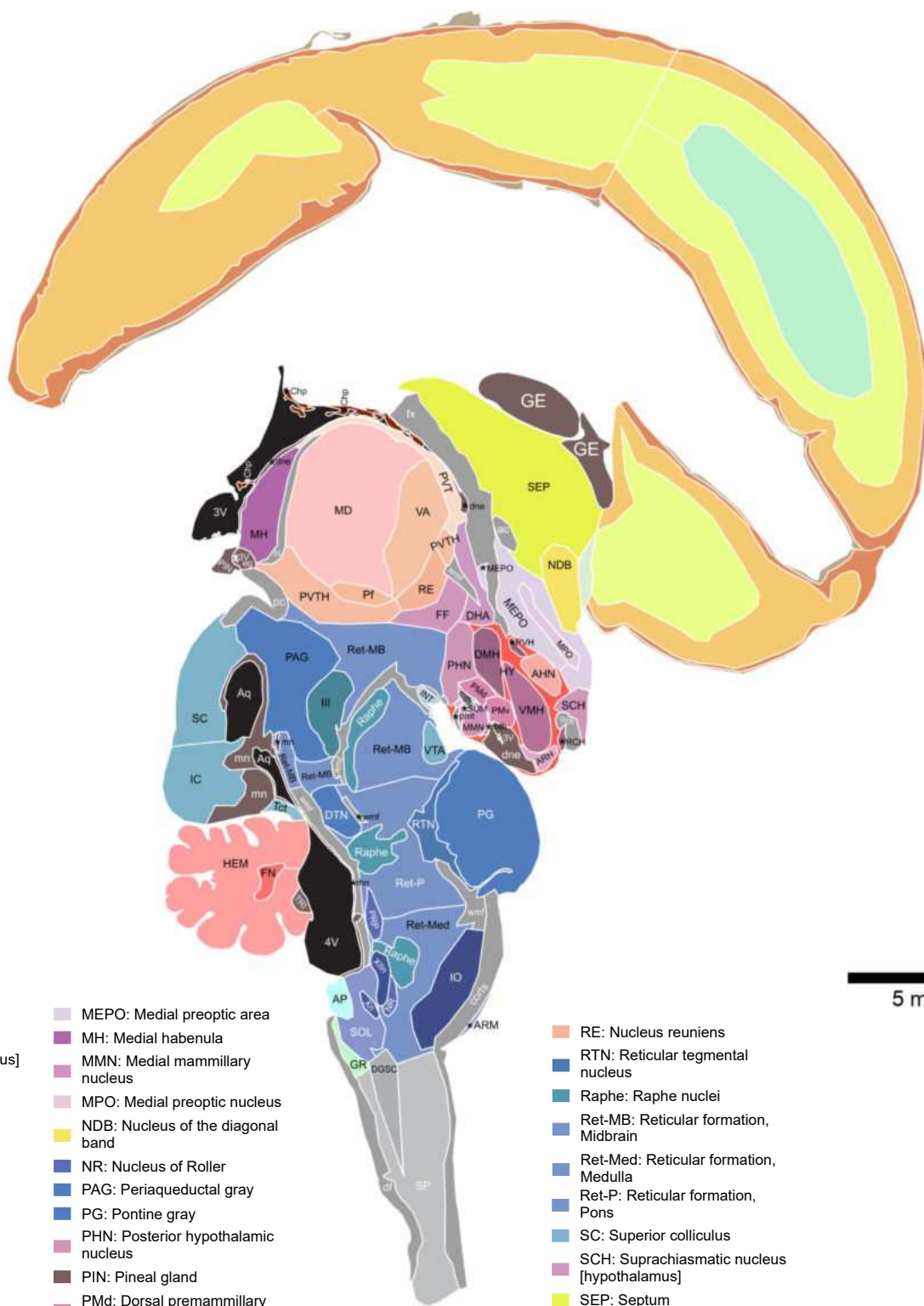
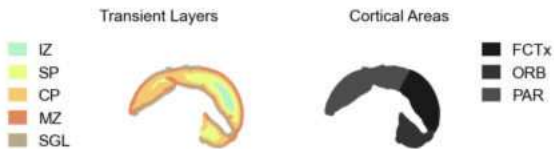
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5 mm



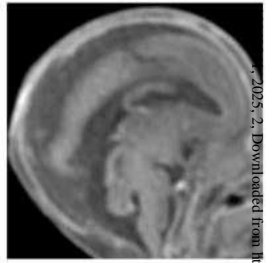
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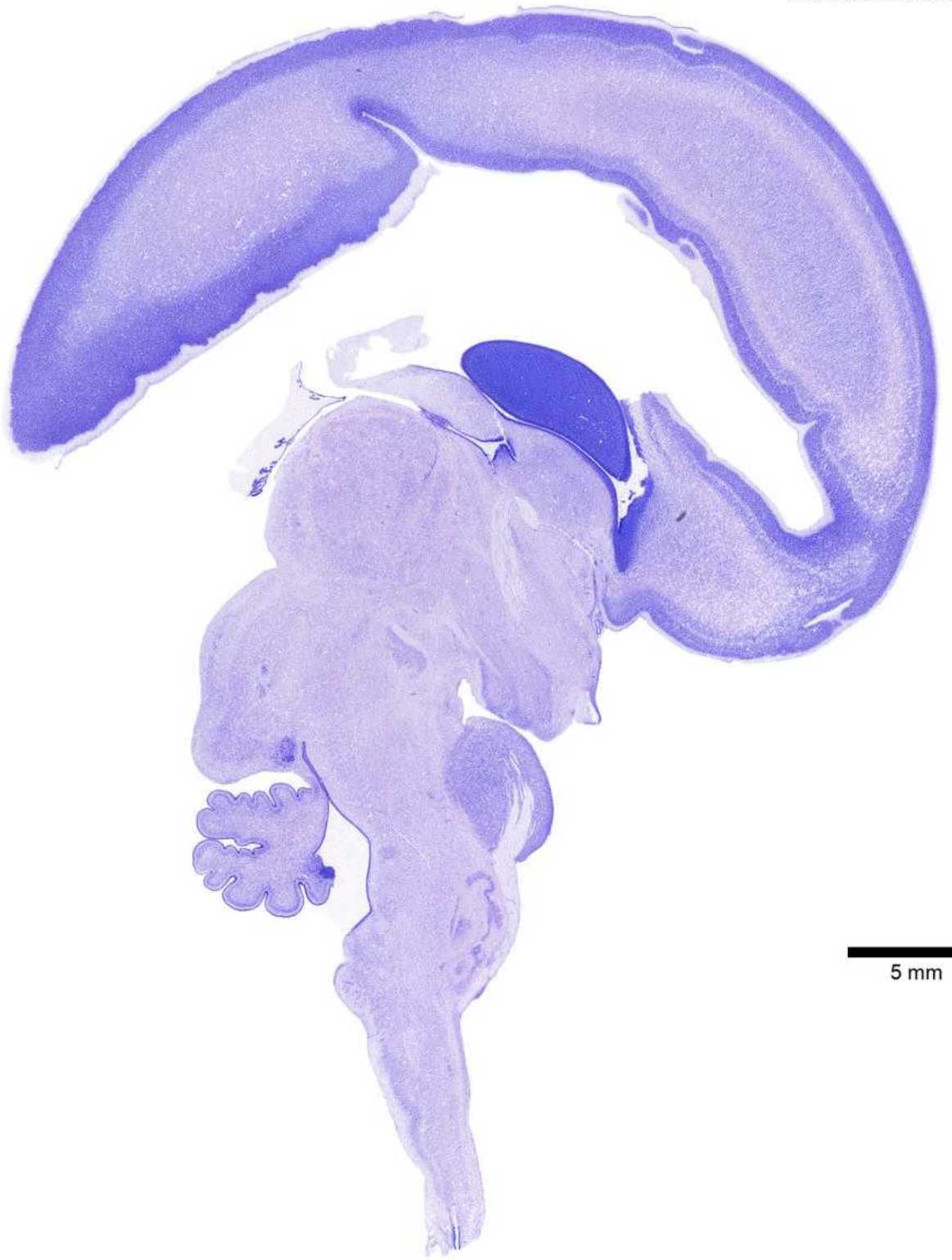
- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- Aq: Aqueduct
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- III: Oculomotor nuclear complex
- INT: Interpeduncular nucleus
- IO: Inferior olive
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MH: Medial habenula
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NDB: Nucleus of the diagonal band
- NR: Nucleus of Roller
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PVH: Paraventricular nucleus [hypothalamus]
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- TT: Tenia tecta
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- XII: Hypoglossal nucleus
- Xn: Dorsal motor nucleus

5 mm

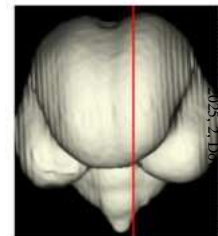
Age: 17 GW



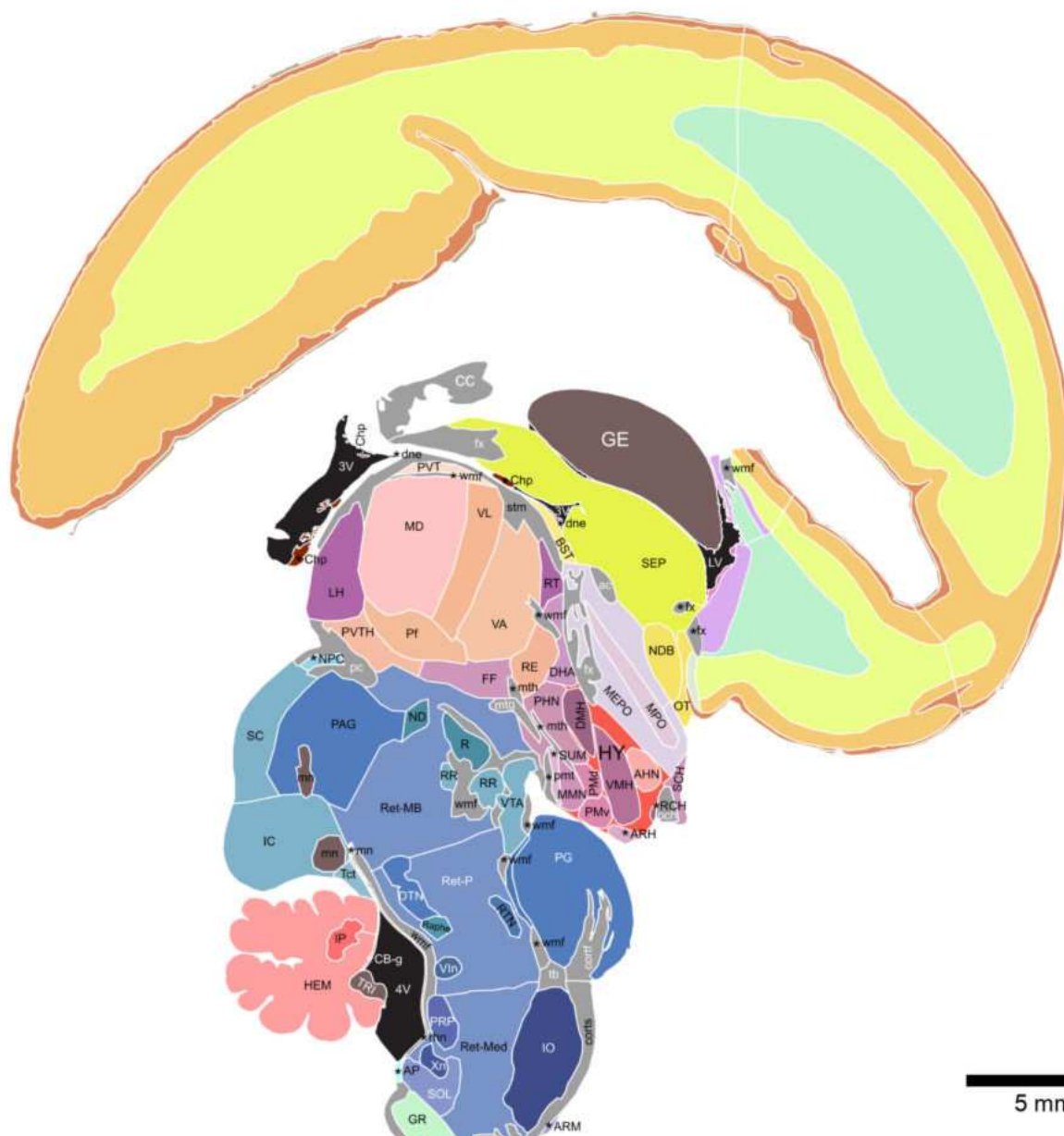
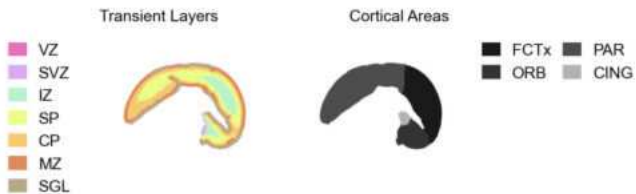
L-R Level: -1.92 mm



5 mm



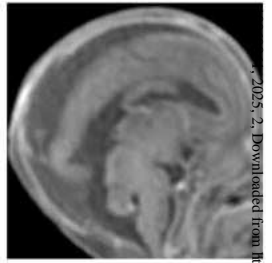
L-R Level: -1.92 mm



5 mm

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus AP: Area postrema ARH: Arcuate nucleus [hypothalamus] ARM: Arcuate nucleus [medulla] BST: Bed nucleus of the stria terminalis CB-g: Cerebellar gliopithelium/ependym CC: Central canal Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DTN: Dorsal tegmental nucleus FF: Field of Forel GE: Ganglionic eminence GR: Gracile nucleus HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus | <ul style="list-style-type: none"> IO: Inferior olive IP: Interposed nucleus LH: Lateral habenula LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band NPC: Nucleus of the posterior commissure OT: Olfactory tubercle PAG: Periaqueductal gray PG: Pontine gray PHN: Posterior hypothalamic nucleus PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PRP: Nucleus prepositus PVT: Paraventricular nucleus [thalamus] PVTH: Periventricular complex [thalamus] Pf: Parafascicular nucleus [thalamus] R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RR: Retrorubral area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus | <ul style="list-style-type: none"> Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SOL: Solitary nucleus SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VG: Ventral gray of the spinal cord VIn: Abducens nucleus VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VTA: Ventral tegmental area XIn: Accessory nucleus Xn: Dorsal motor nucleus |
|--|--|---|

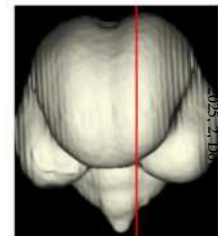
Age: 17 GW



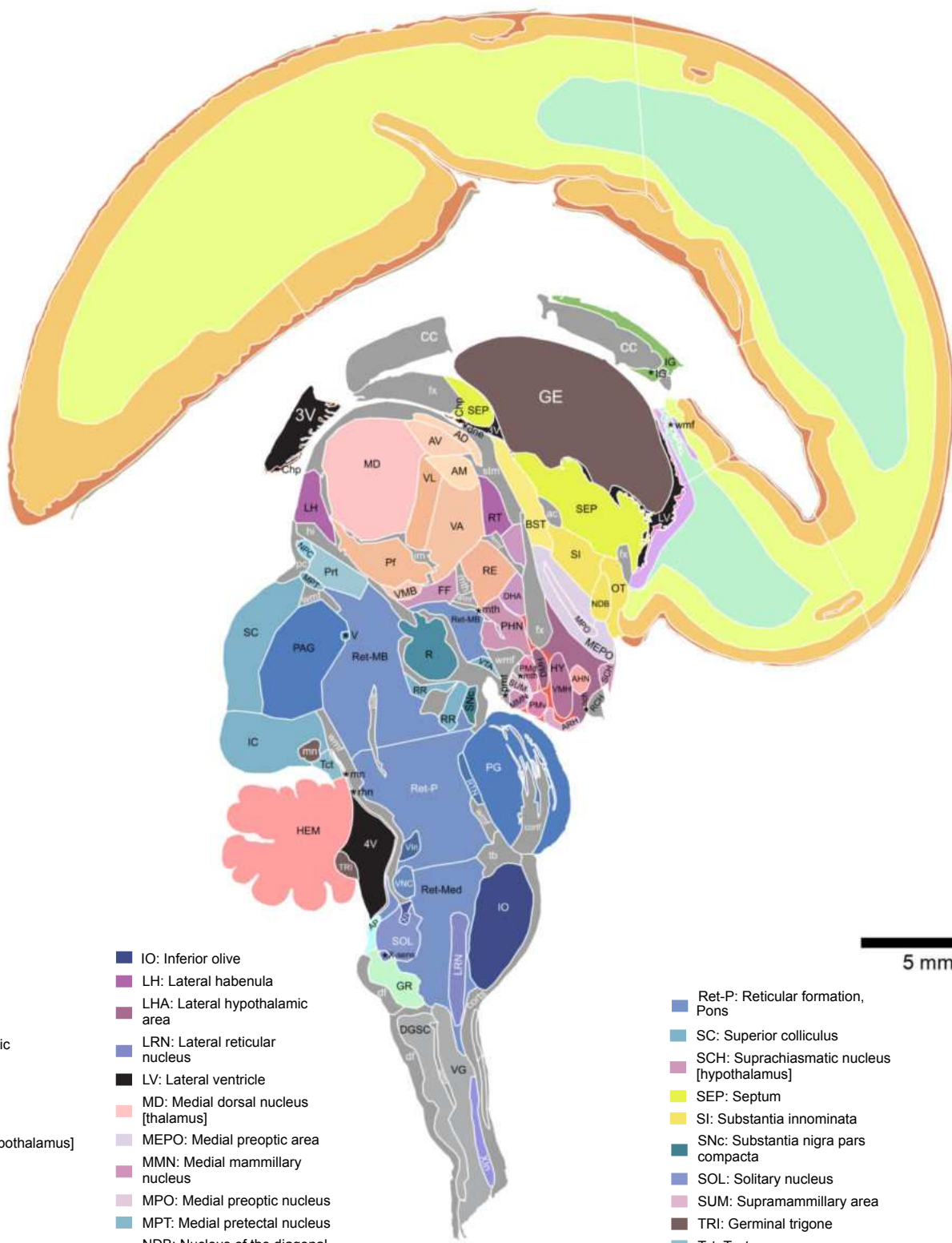
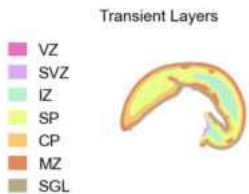
L-R Level: -2.28 mm



5 mm



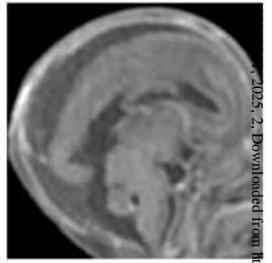
L-R Level: -2.28 mm



- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHN: Anterior hypothalamic nucleus
- AM: Anteromedial nucleus [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- MPT: Medial pretectal nucleus
- NDB: Nucleus of the diagonal band
- NPC: Nucleus of the posterior commissure
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrosubular area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SNC: Substantia nigra pars compacta
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VTA: Ventral tegmental area
- X-sens: Dorsal sensory nucleus X
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus

5 mm

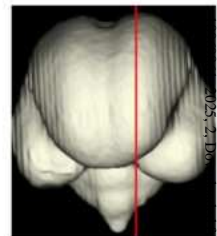
Age: 17 GW



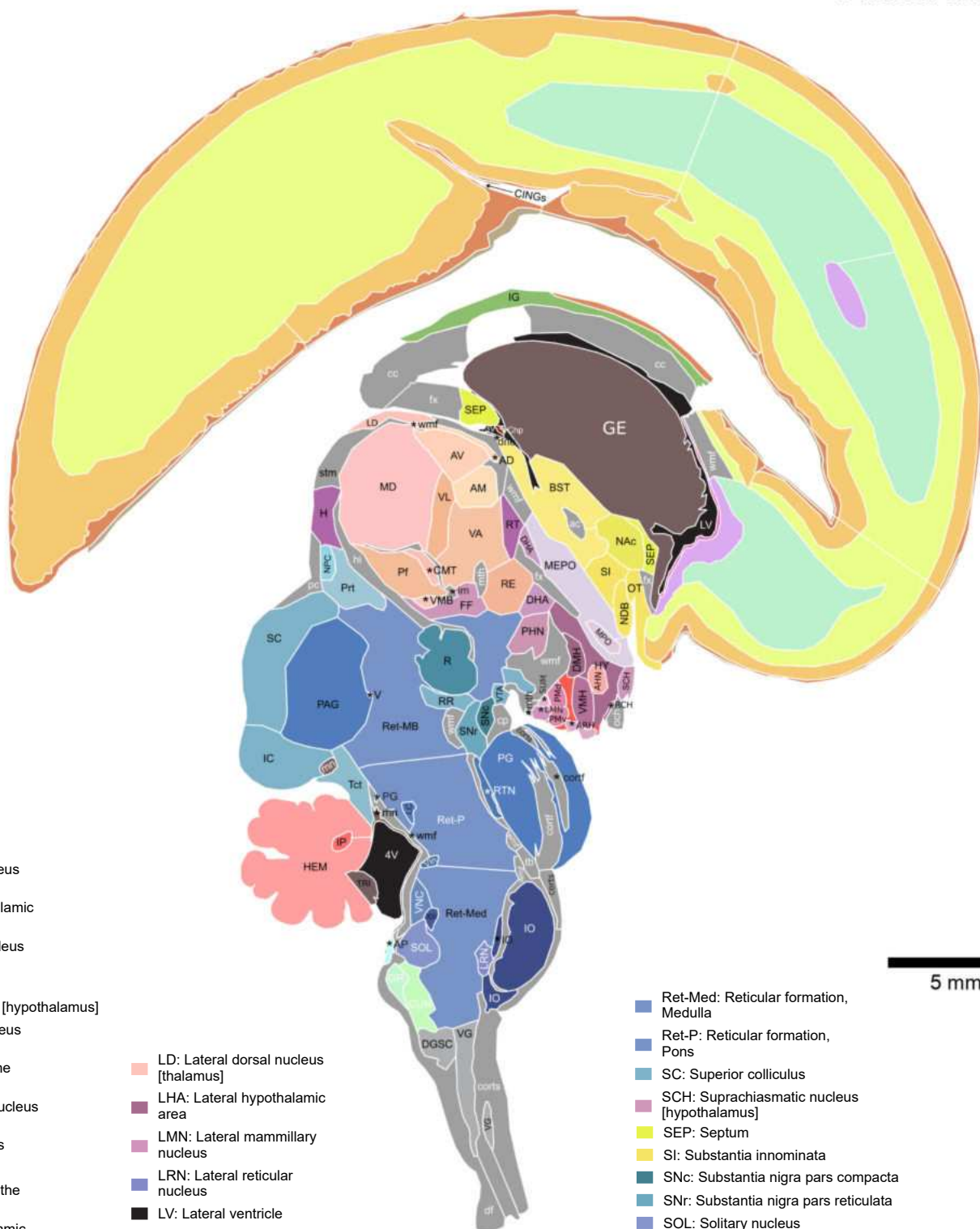
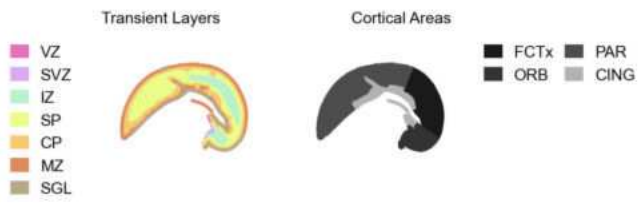
L-R Level: -2.52 mm



5 mm



L-R Level: -2.52 mm



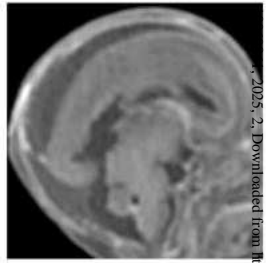
- 3V: Third ventricle
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- AP: Area postrema
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- BST: Bed nucleus of the stria terminalis
- CMT: Centromedian nucleus [thalamus]
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- H: Habenula
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
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- MPO: Medial preoptic nucleus
- NAC: Nucleus accumbens
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- PAG: Periaqueductal gray
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- SEP: Septum
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- Vin: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus

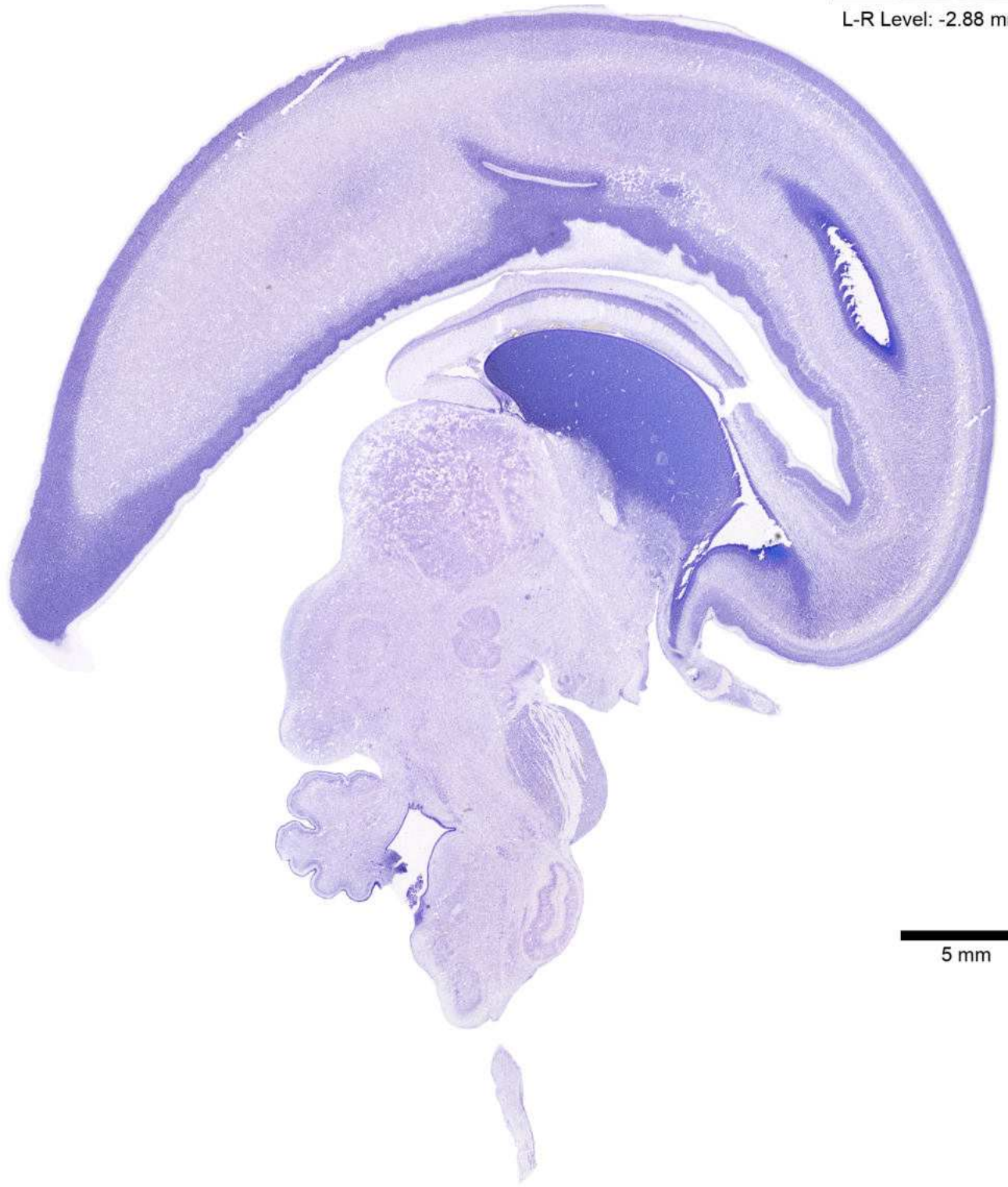
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
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- SI: Substantia innominata
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- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus
- CINGs: Cingulate sulcus

5 mm

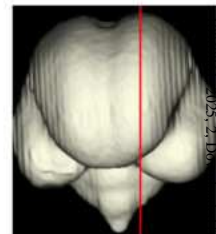
Age: 17 GW



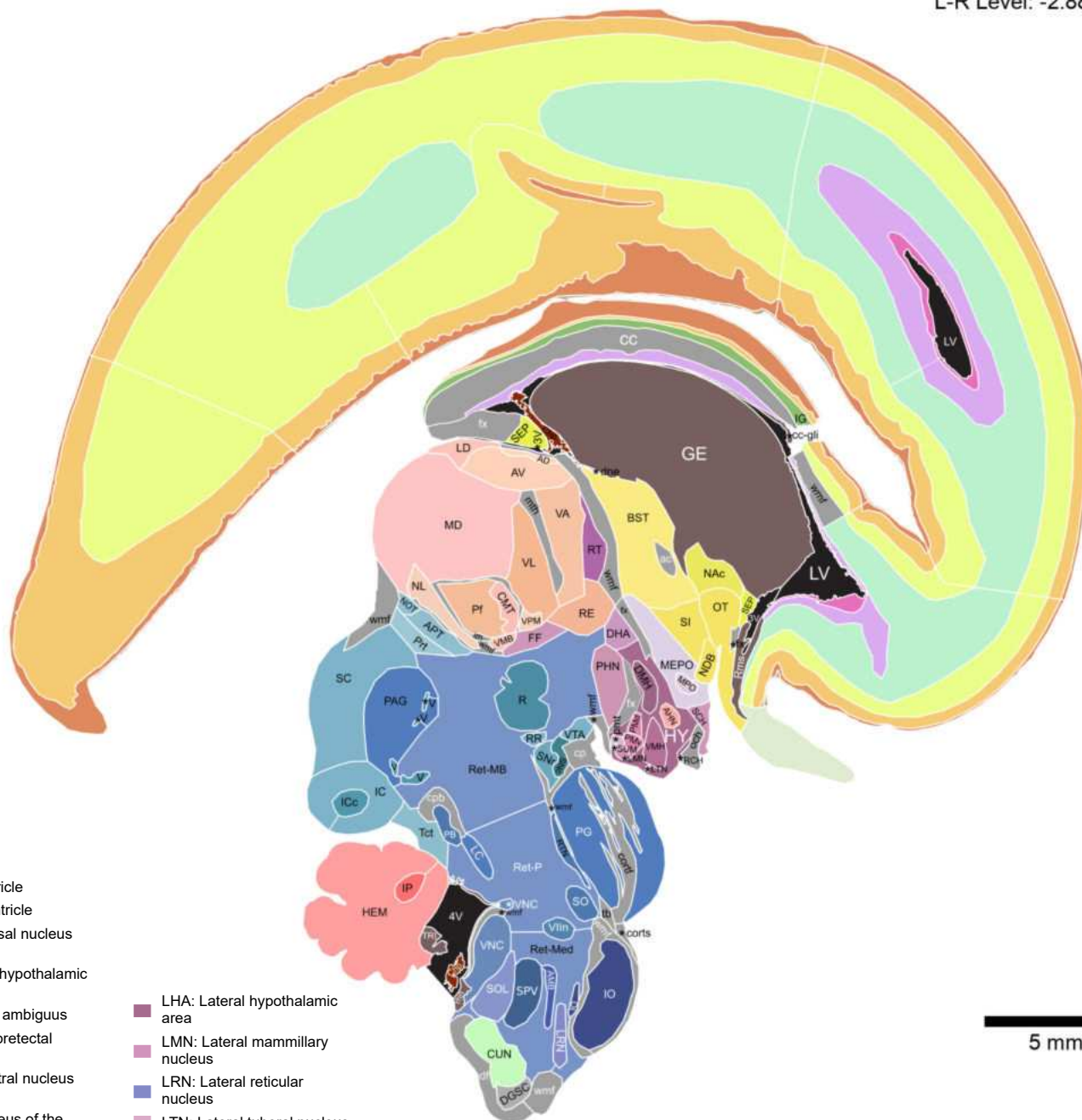
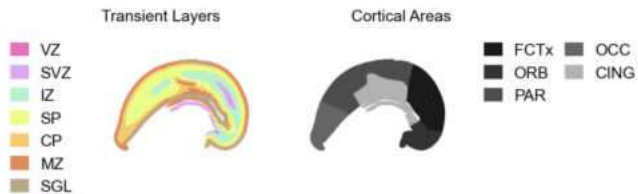
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5 mm



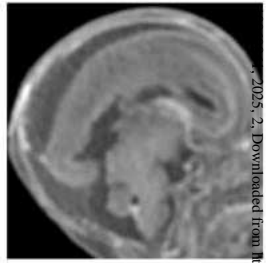
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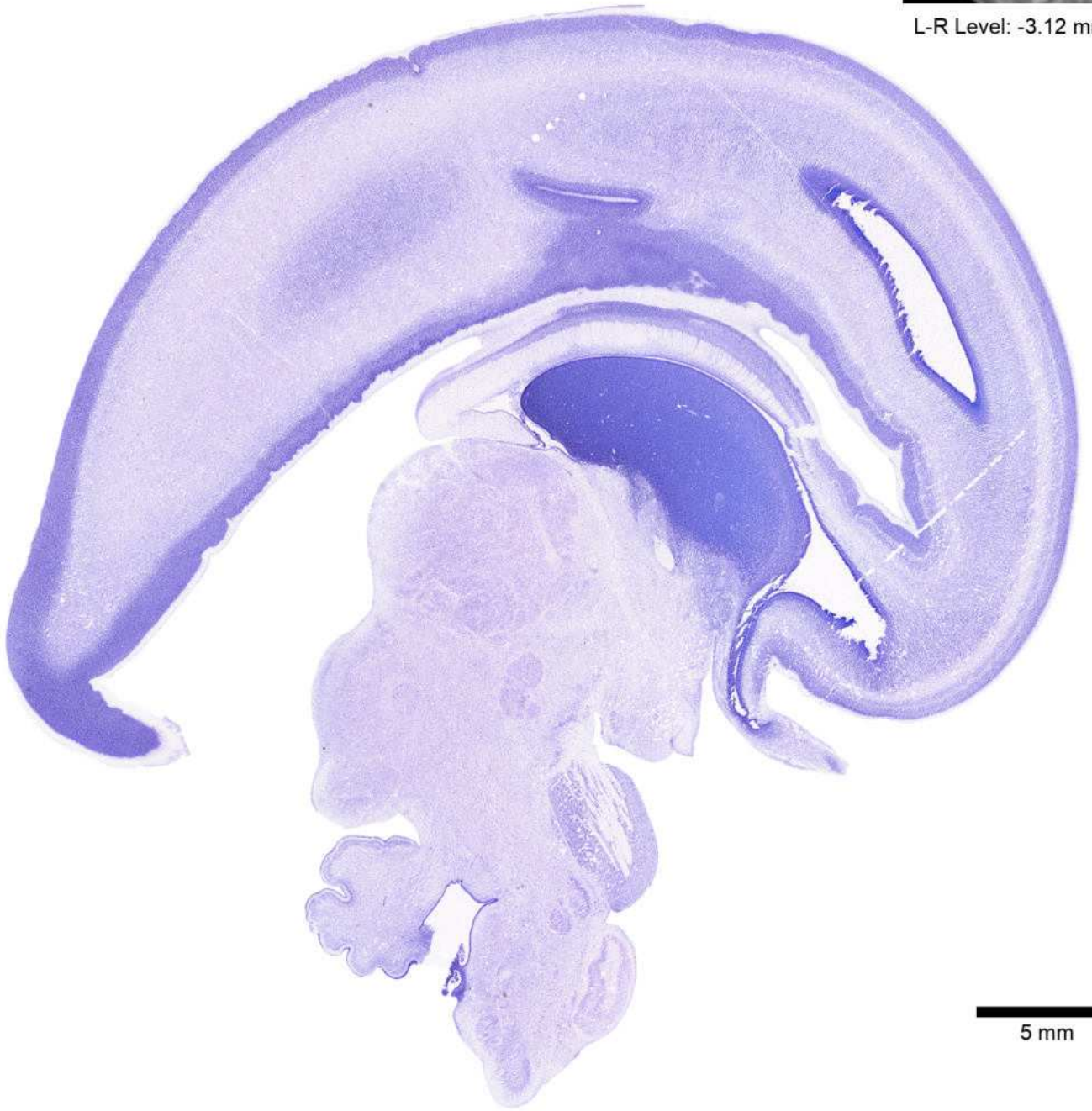
5 mm

- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ 4V: Fourth ventricle ■ AD: Anterodorsal nucleus [thalamus] ■ AHN: Anterior hypothalamic nucleus ■ AMB: Nucleus ambiguus ■ APT: Anterior pretecal nucleus ■ AV: Anteroventral nucleus [thalamus] ■ BST: Bed nucleus of the stria terminalis ■ CMT: Centromedian nucleus [thalamus] ■ CUN: Cuneate nucleus ■ Chp: Choroid plexus ■ DGSC: Dorsal gray of the spinal cord ■ DHA: Dorsal hypothalamic area ■ DMH: Dorsomedial nucleus [hypothalamus] ■ FF: Field of Forel ■ GE: Ganglionic eminence ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IC: Inferior colliculus ■ ICc: Inferior colliculus, central nucleus ■ IG: Induseum griseum ■ IO: Inferior olive ■ IP: Interposed nucleus ■ LC: Locus coeruleus ■ LD: Lateral dorsal nucleus [thalamus] | <ul style="list-style-type: none"> ■ LHA: Lateral hypothalamic area ■ LMN: Lateral mammillary nucleus ■ LRN: Lateral reticular nucleus ■ LTN: Lateral tuberal nucleus ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEPO: Medial preoptic area ■ MPO: Medial preoptic nucleus ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ NOT: Nucleus of the optic tract ■ OLFb: Olfactory bulb ■ OT: Olfactory tubercle ■ PAG: Periaqueductal gray ■ PB: Parabrachial nucleus ■ PG: Pontine gray ■ PHN: Posterior hypothalamic nucleus ■ PMd: Dorsal premammillary nucleus ■ PMv: Ventral premammillary nucleus ■ Pf: Parafascicular nucleus [thalamus] | <ul style="list-style-type: none"> ■ Prt: Pretectum ■ R: Red nucleus ■ RCH: Retrochiasmatic nucleus [hypothalamus] ■ RE: Nucleus reuniens ■ RR: Retrorubral area ■ RT: Reticular nucleus [thalamus] ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ Rms: Rostral migratory stream | <ul style="list-style-type: none"> ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SEP: Septum ■ SI: Substantia innomina ■ SNc: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SO: Superior olive ■ SOL: Solitary nucleus ■ SP: Spinal cord ■ SPV: Spinal nucleus of the trigeminal ■ SUM: Supramammillary area ■ TRI: Germinal trigone ■ Tct: Tectum ■ V: Mesencephalic nucleus ■ VA: Ventral anterior nucleus [thalamus] ■ VILIN: Facial motor nucleus ■ VL: Ventral lateral nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VMH: Ventromedial nucleus [hypothalamus] ■ VNC: Vestibular nuclear complex ■ VPM: Ventral posteromedial nucleus [thalamus] ■ VTA: Ventral tegmental area |
|--|--|--|---|

Age: 17 GW



L-R Level: -3.12 mm



5 mm

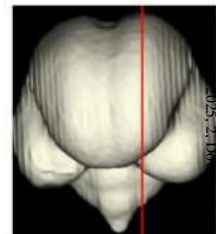
Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

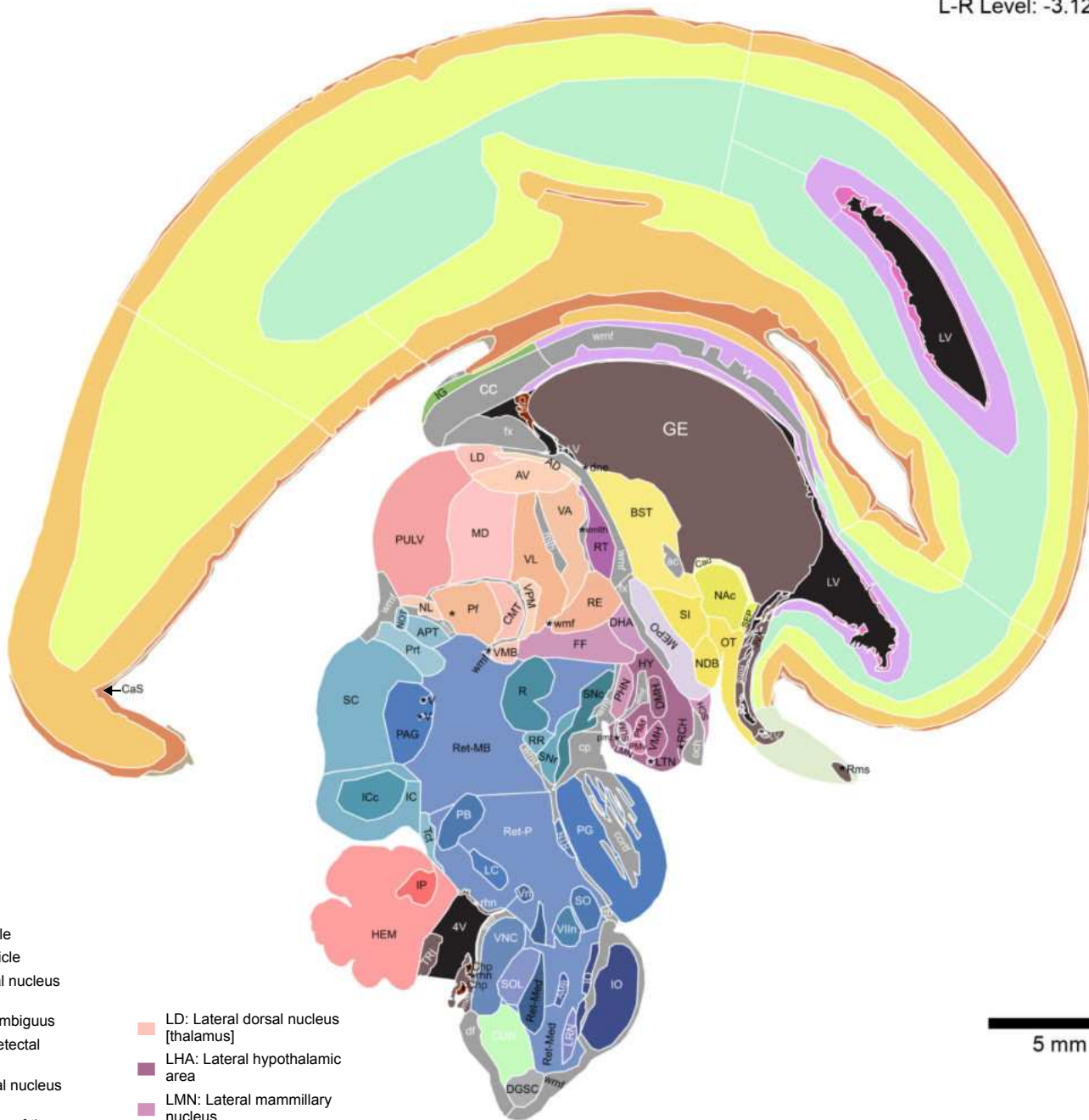


Cortical Areas

- FCTx
- ORB
- PAR
- OCC
- CING



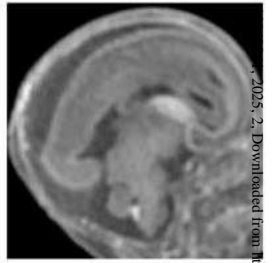
L-R Level: -3.12 mm



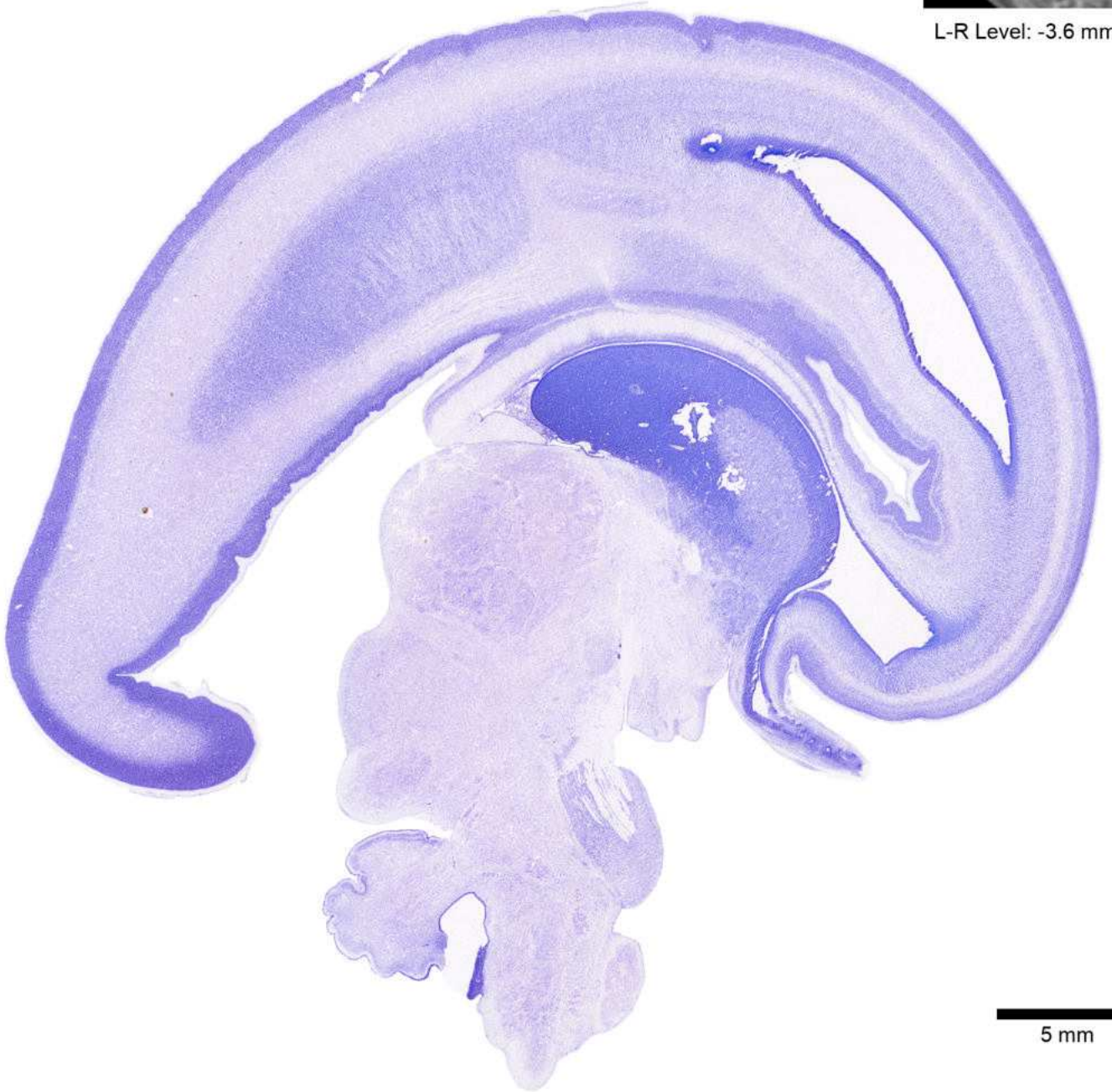
- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AMB: Nucleus ambiguus
- APT: Anterior pretecal nucleus
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
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- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LRN: Lateral reticular nucleus
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NOT: Nucleus of the optic tract
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
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- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- Vn: Trigeminal motor nucleus
- CaS: Calcarine sulcus

5 mm

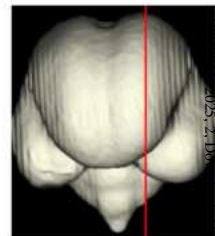
Age: 17 GW



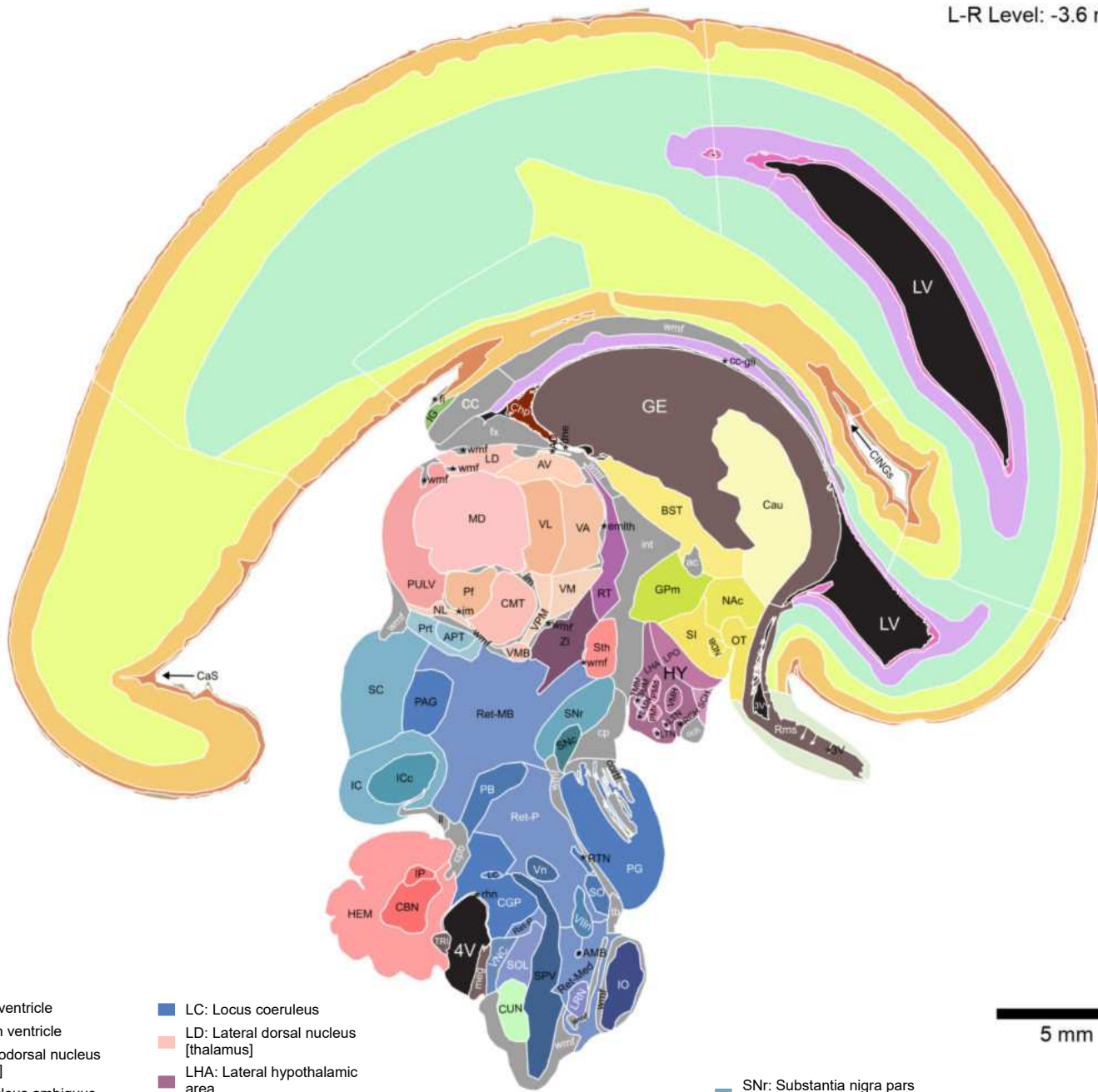
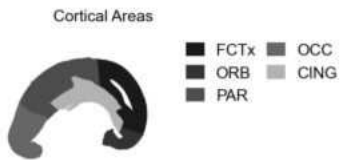
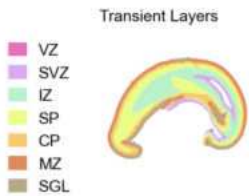
L-R Level: -3.6 mm



5 mm



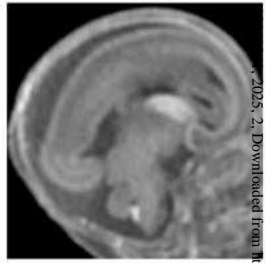
L-R Level: -3.6 mm



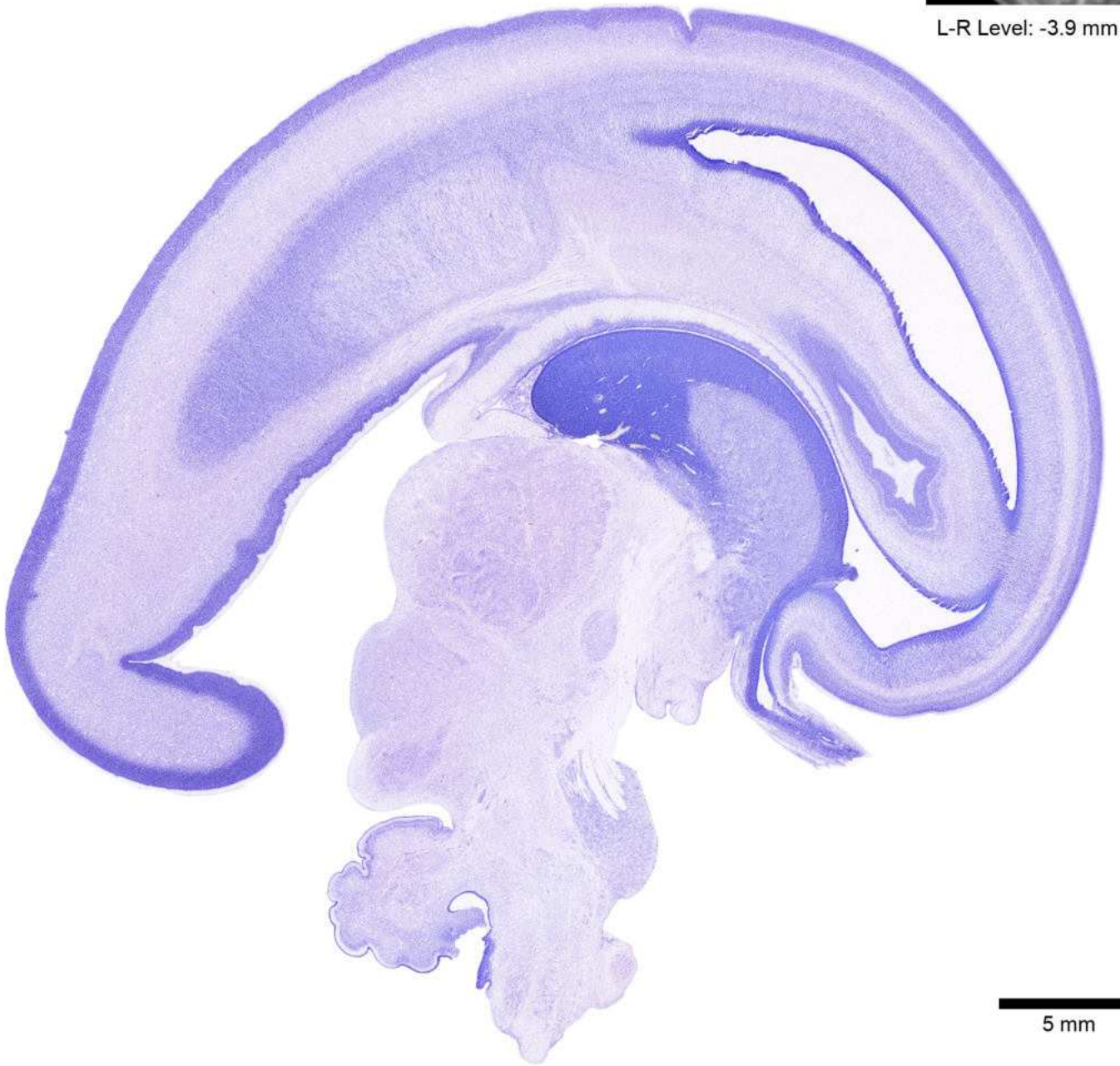
5 mm

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- CBN: Cerebellar nuclei
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- GE: Ganglionic eminence
- GPm: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
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- LD: Lateral dorsal nucleus [thalamus]
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- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LTN: Lateral tuberal nucleus
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- NAC: Nucleus accumbens
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- OLFb: Olfactory bulb
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- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
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- RCH: Retrochiasmatic nucleus [hypothalamus]
- RT: Reticular nucleus [thalamus]
- RTn: Reticular tegmental nucleus
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- SOL: Solitary nucleus
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- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
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- VA: Ventral anterior nucleus [thalamus]
- VIn: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- Vn: Trigeminal motor nucleus
- VZ: Zona incerta
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus

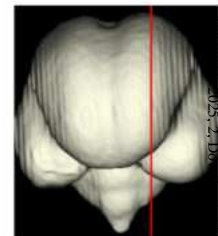
Age: 17 GW



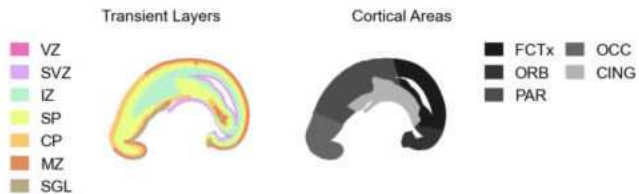
L-R Level: -3.9 mm



5 mm



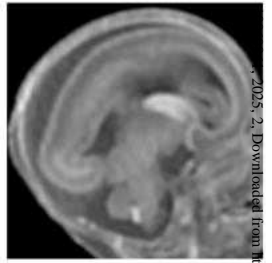
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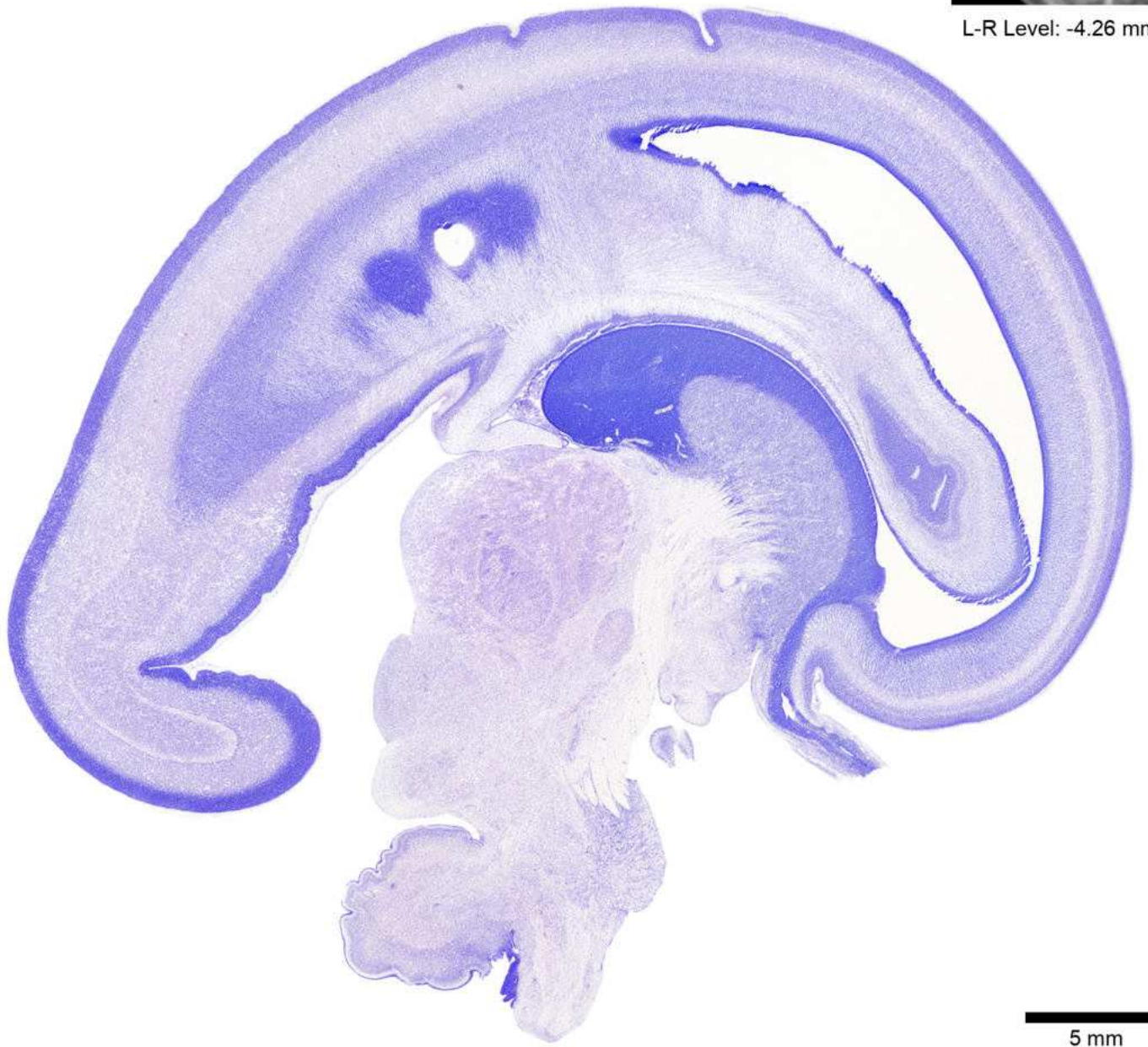
5 mm

- | | | | |
|---|--|---|--|
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|---|--|---|--|

Age: 17 GW



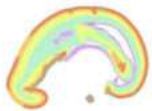
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5 mm

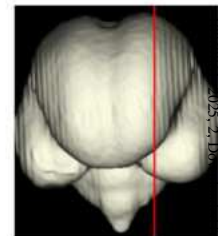
Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

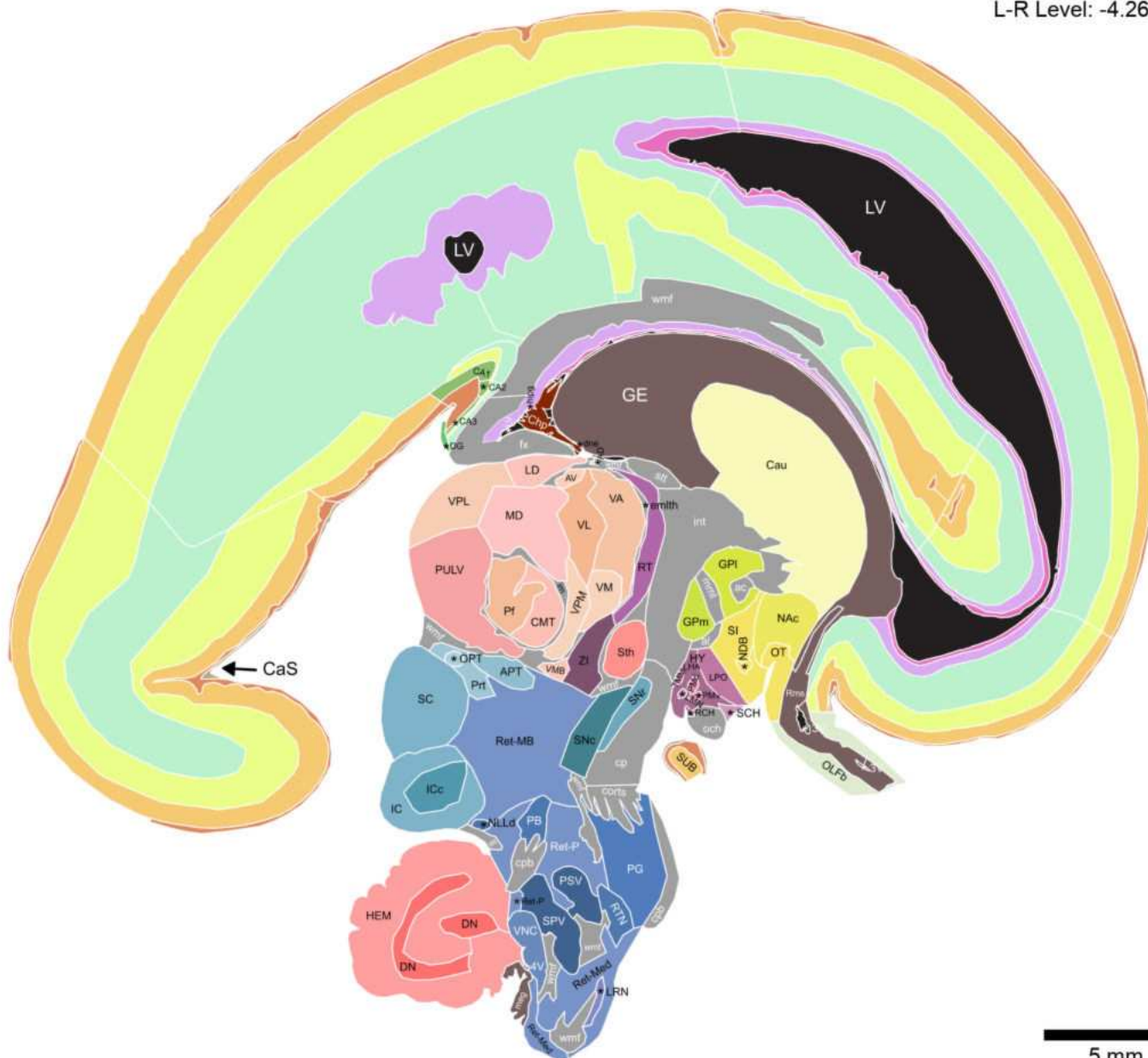


Cortical Areas

- FCTx
- ORB
- PAR
- OCC
- CING



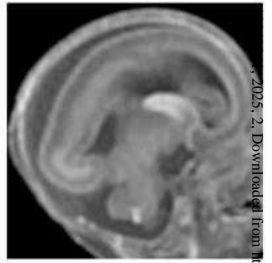
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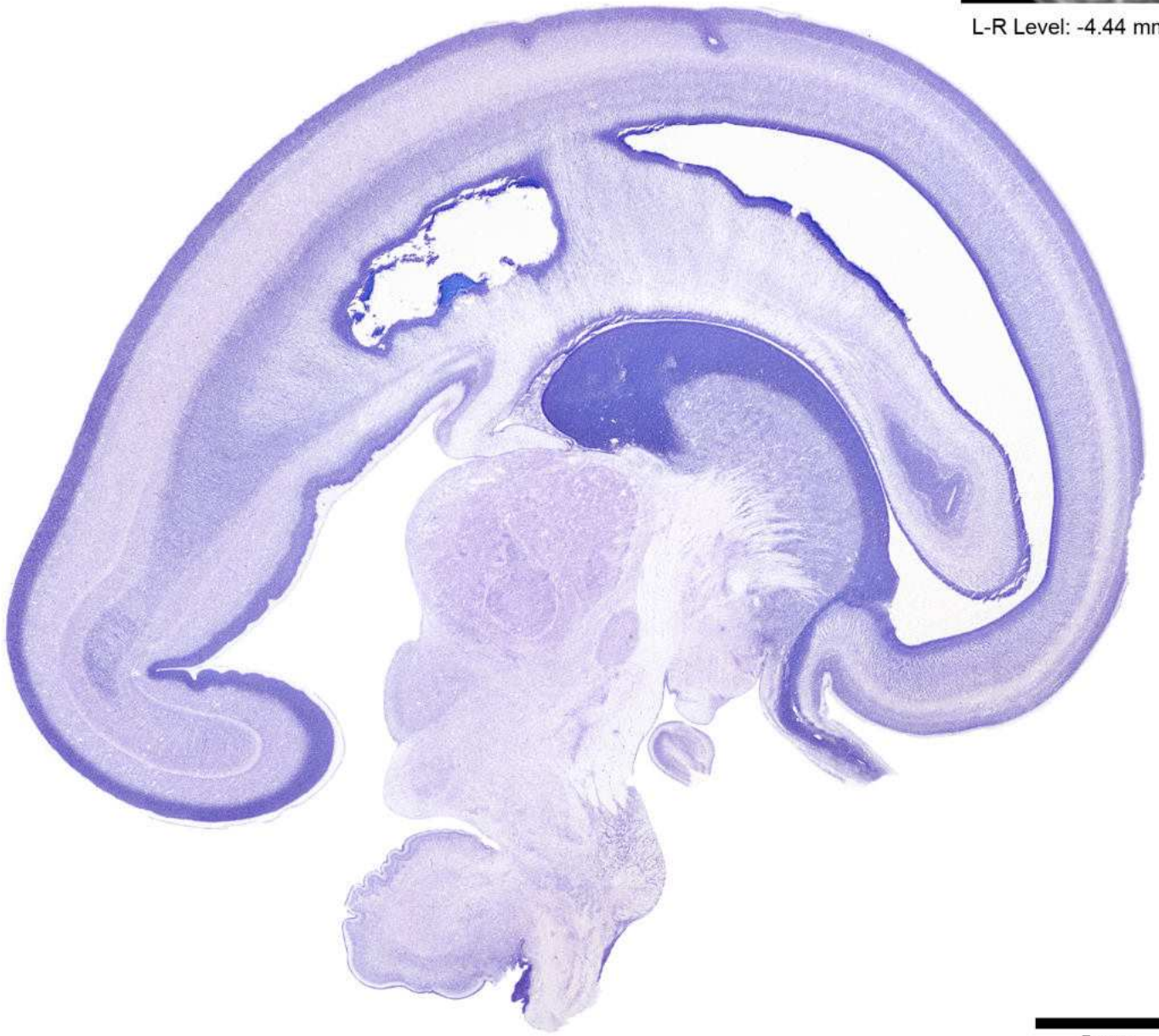
5 mm

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AD: Anterodorsal nucleus [thalamus] APT: Anterior pretecal nucleus AV: Anteroventral nucleus [thalamus] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CMT: Centromedian nucleus [thalamus] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LMN: Lateral mammillary nucleus LPO: Lateral preoptic area LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] NAc: Nucleus accumbens NDB: Nucleus of the diagonal band NLLd: Nucleus of the lateral lemniscus, dorsal OLFb: Olfactory bulb OPT: Olivary pretecal nucleus OT: Olfactory tubercle | <ul style="list-style-type: none"> PB: Parabrachial nucleus PG: Pontine gray PMD: Dorsal premammillary nucleus PmV: Ventral premammillary nucleus PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum RCH: Retrochiasmatic nucleus [hypothalamus] RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus | <ul style="list-style-type: none"> SCH: Suprachiasmatic nucleus [hypothalamus] SI: Substantia innominata SNC: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tubermammillary nucleus VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VNC: Vestibular nuclear complex VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta |
|--|---|--|---|

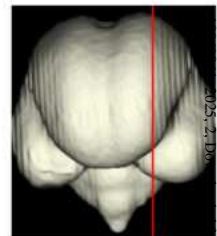
Age: 17 GW



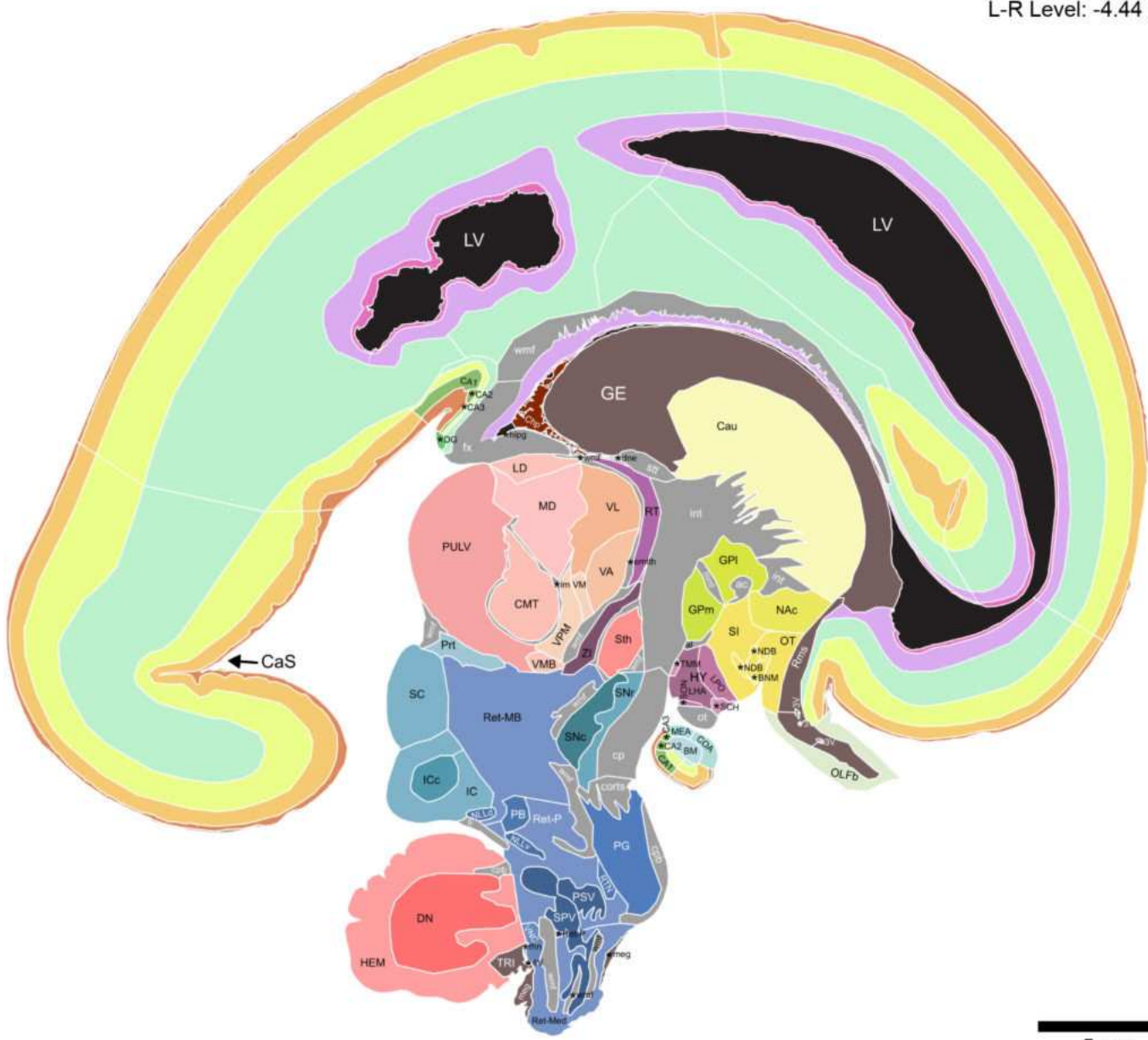
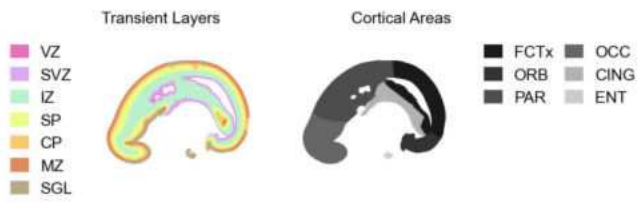
L-R Level: -4.44 mm



5 mm



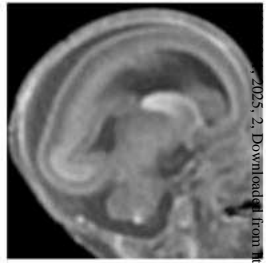
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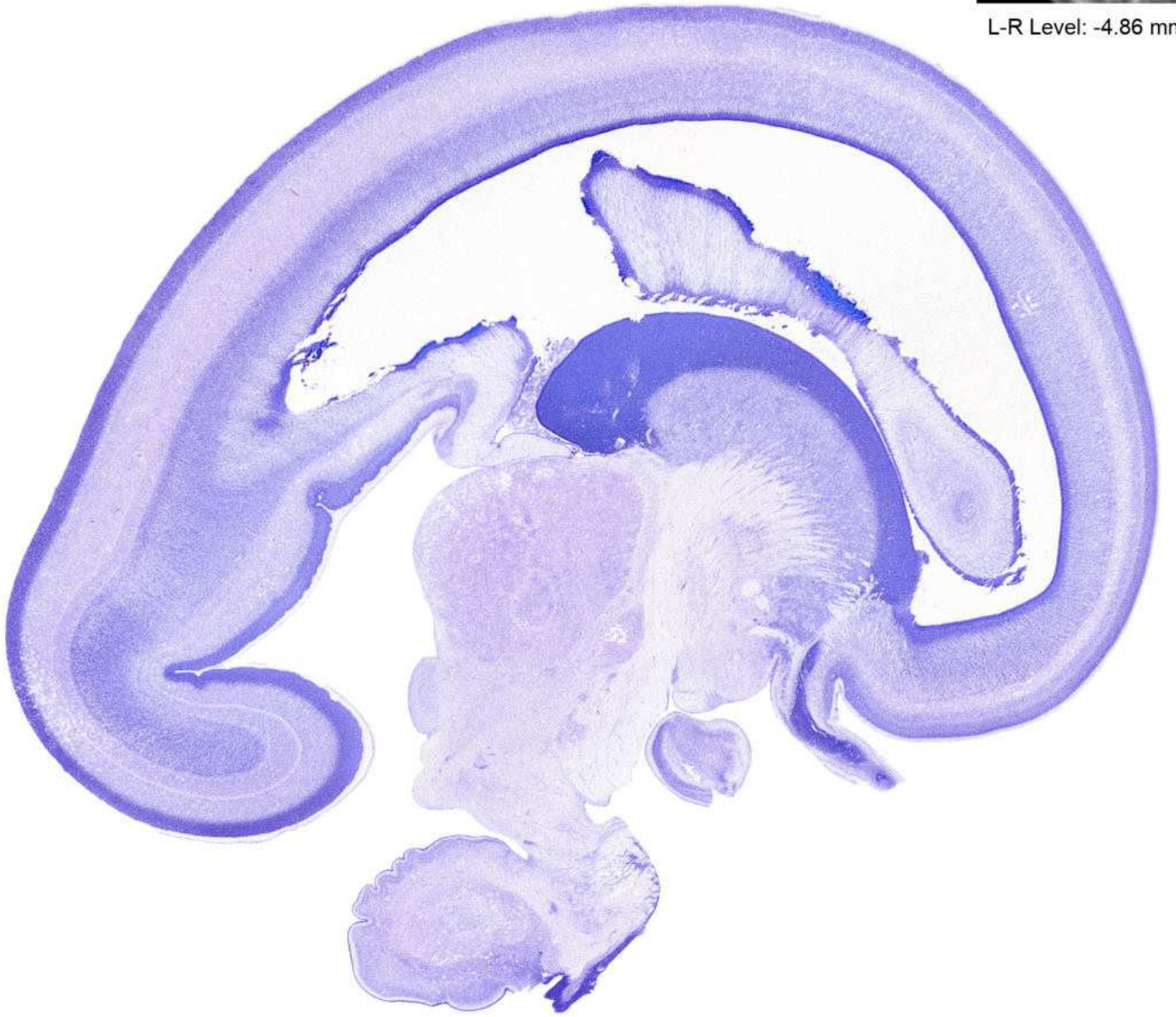
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CMT: Centromedian nucleus [thalamus]
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
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- ICc: Inferior colliculus, central nucleus
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- LHA: Lateral hypothalamic area
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEA: Medial nucleus [amygdala]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NLLd: Nucleus of the lateral lemniscus, dorsal
- NLLv: Nucleus of the lateral lemniscus, ventral
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PSV: Principal sensory nucleus of the trigeminal
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- CaS: Calcarine sulcus

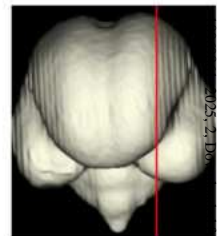
Age: 17 GW



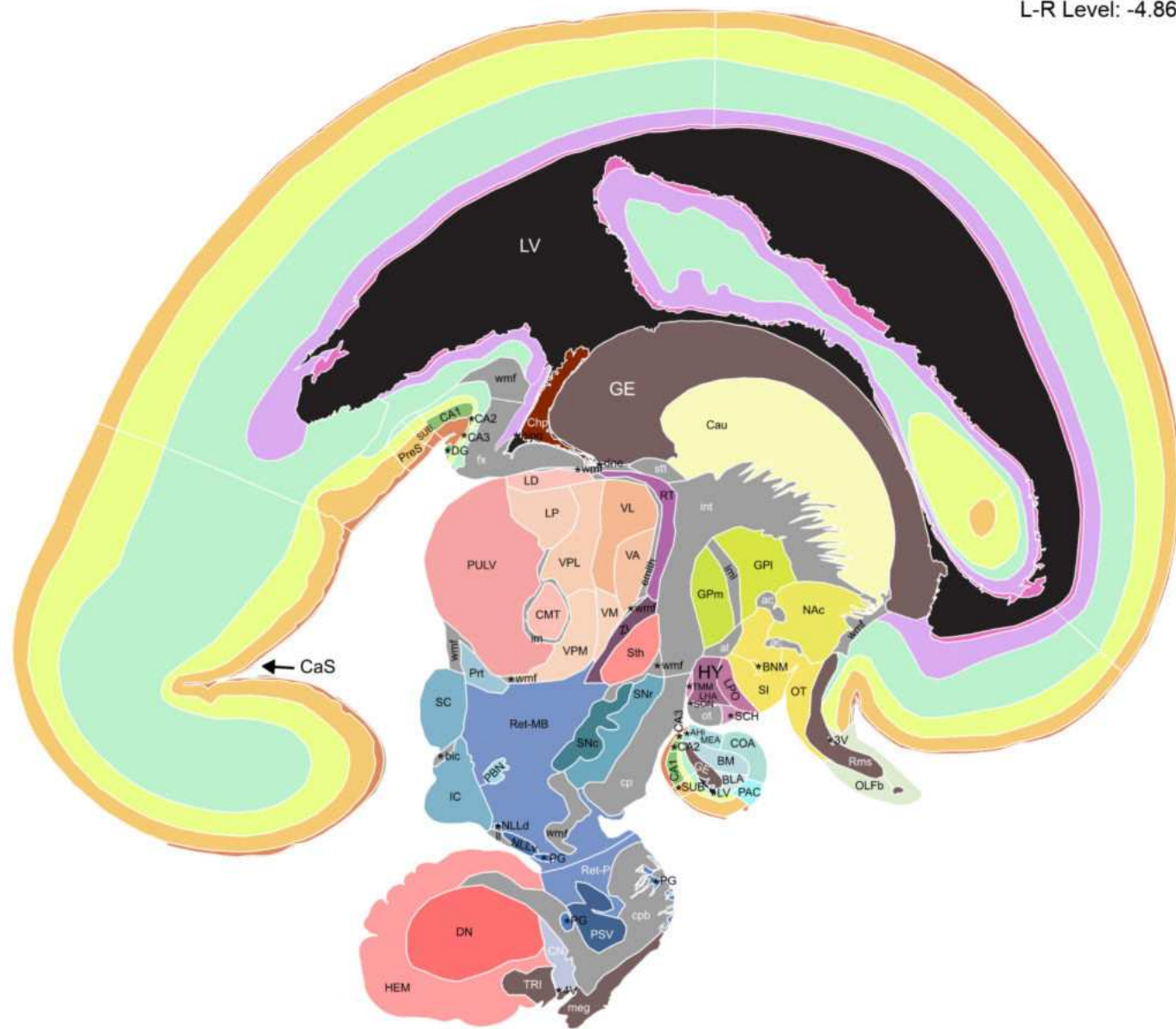
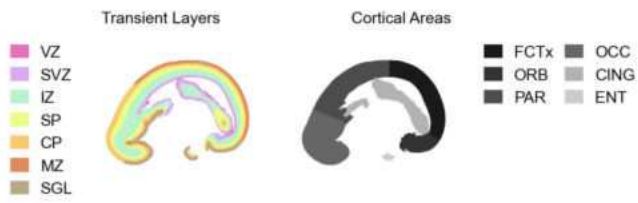
L-R Level: -4.86 mm



5 mm



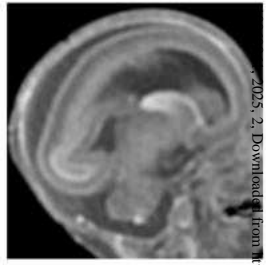
L-R Level: -4.86 mm



5 mm

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| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHi: Amygdalo-hippocampal area BLA: Basolateral complex [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CMT: Centromedian nucleus [thalamus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LPO: Lateral preoptic area LV: Lateral ventricle MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens NLLd: Nucleus of the lateral lemniscus, dorsal NLLv: Nucleus of the lateral lemniscus, ventral OLFb: Olfactory bulb OT: Olfactory tubercle PBN: Parabigeminal nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Prt: Pretectum RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SI: Substantia innominata SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta → CaS: Calcarine sulcus |
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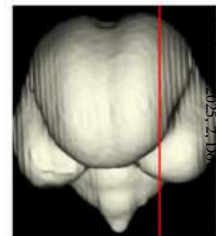
Age: 17 GW



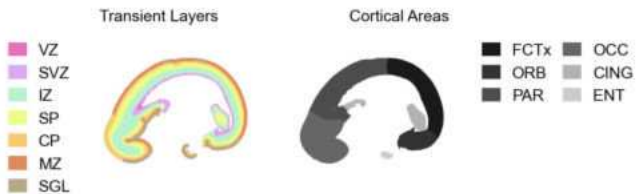
L-R Level: -5.04 mm



5 mm



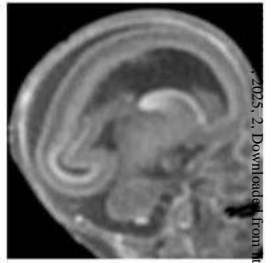
L-R Level: -5.04 mm



5 mm

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|---|---|---|---|
| <ul style="list-style-type: none"> 4V: Fourth ventricle AHi: Amygdalo-hippocampal area BLA: Basolateral complex [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment | <ul style="list-style-type: none"> HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens NLLv: Nucleus of the lateral lemniscus, ventral OLFb: Olfactory bulb OT: Olfactory tubercle PBN: Parabigeminal nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum | <ul style="list-style-type: none"> RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SI: Substantia innominata SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ZI: Zona incerta ac: Anterior commissure al: Ansa lenticularis bic: Brachium of the inferior colliculus cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioeptithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract rh: Rhombencephalic neuroepithelium stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
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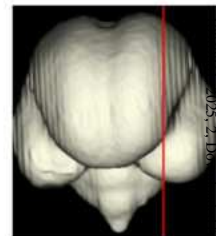
Age: 17 GW



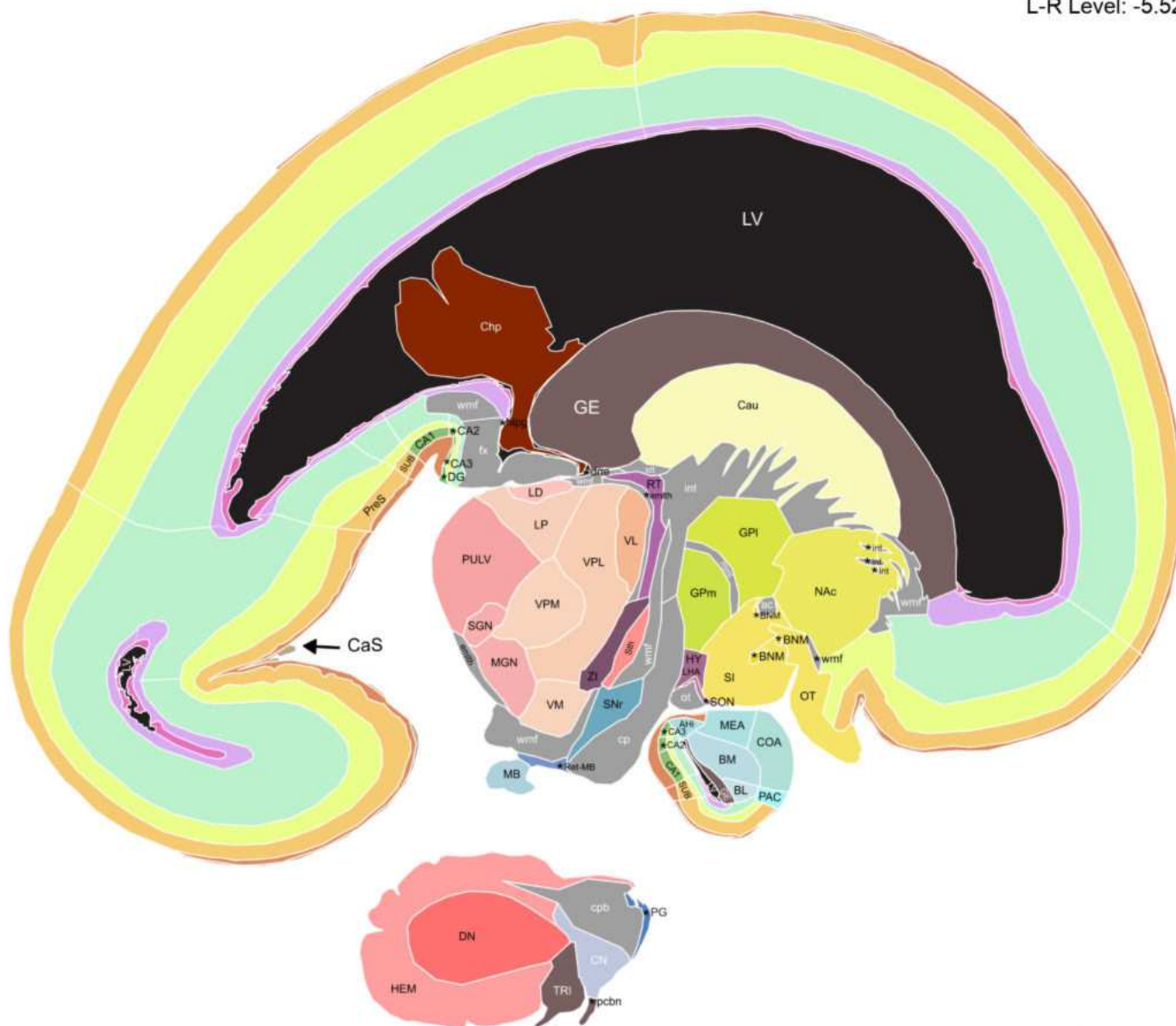
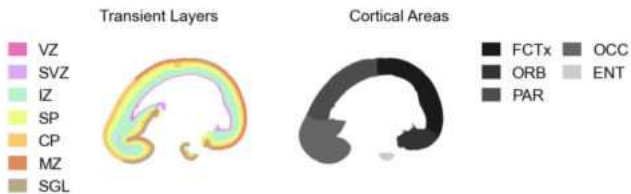
L-R Level: -5.52 mm



5 mm



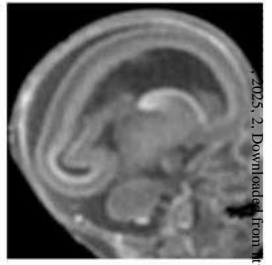
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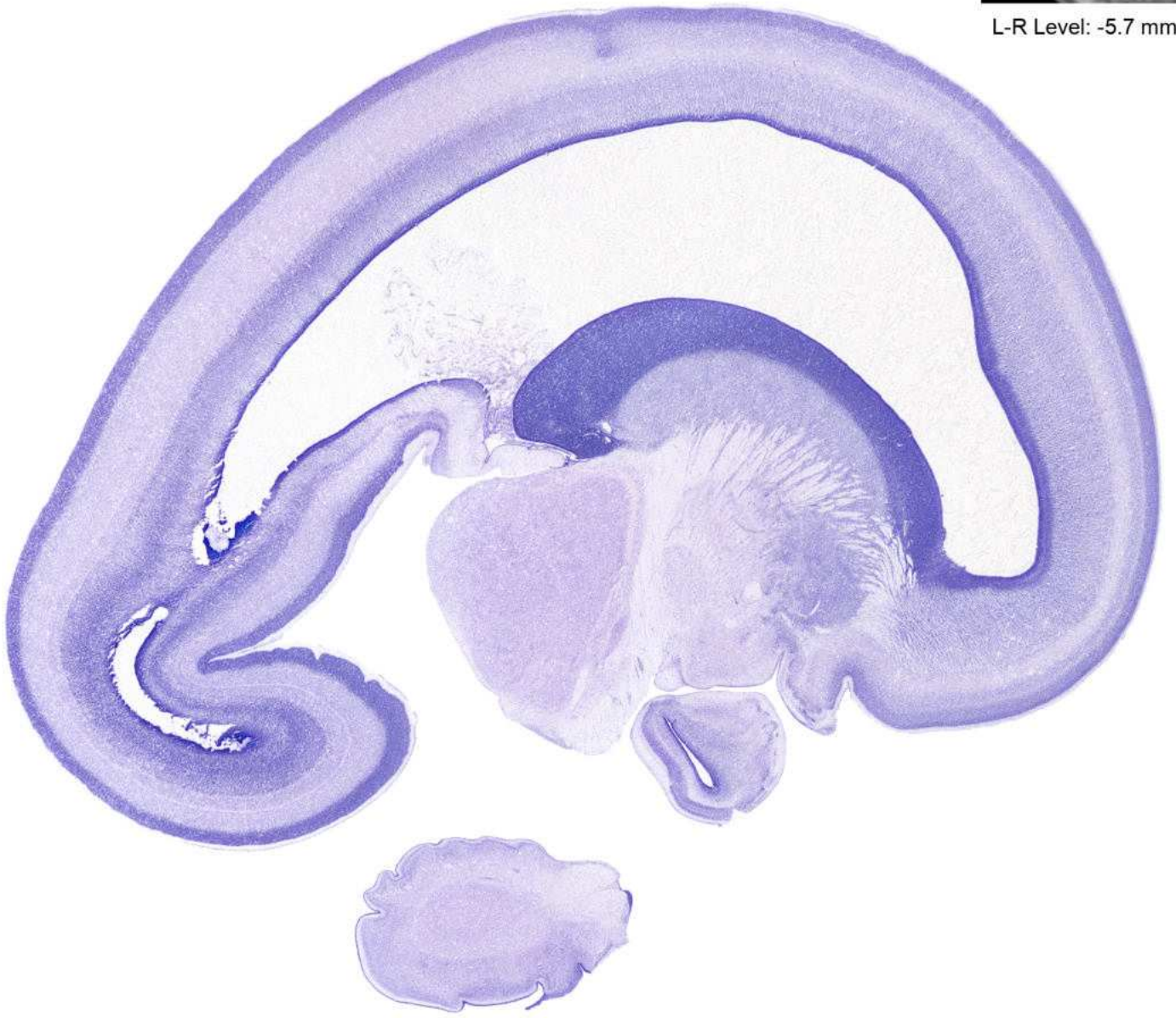
5 mm

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| <ul style="list-style-type: none"> AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment | <ul style="list-style-type: none"> GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MB: Midbrain MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PG: Pontine gray PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain SGN: Suprageniculate nucleus SI: Substantia innominata SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ZI: Zona incerta ac: Anterior commissure cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal gloioepithelium/ependyma int: Internal capsule mm: Medial medullary lamina ot: Optic tract pcbn: Precerebellar neuroepithelium stt: Stria terminalis wmf: White matter fibers CaS: Calcarine sulcus |
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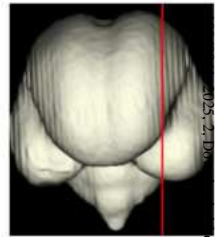
Age: 17 GW



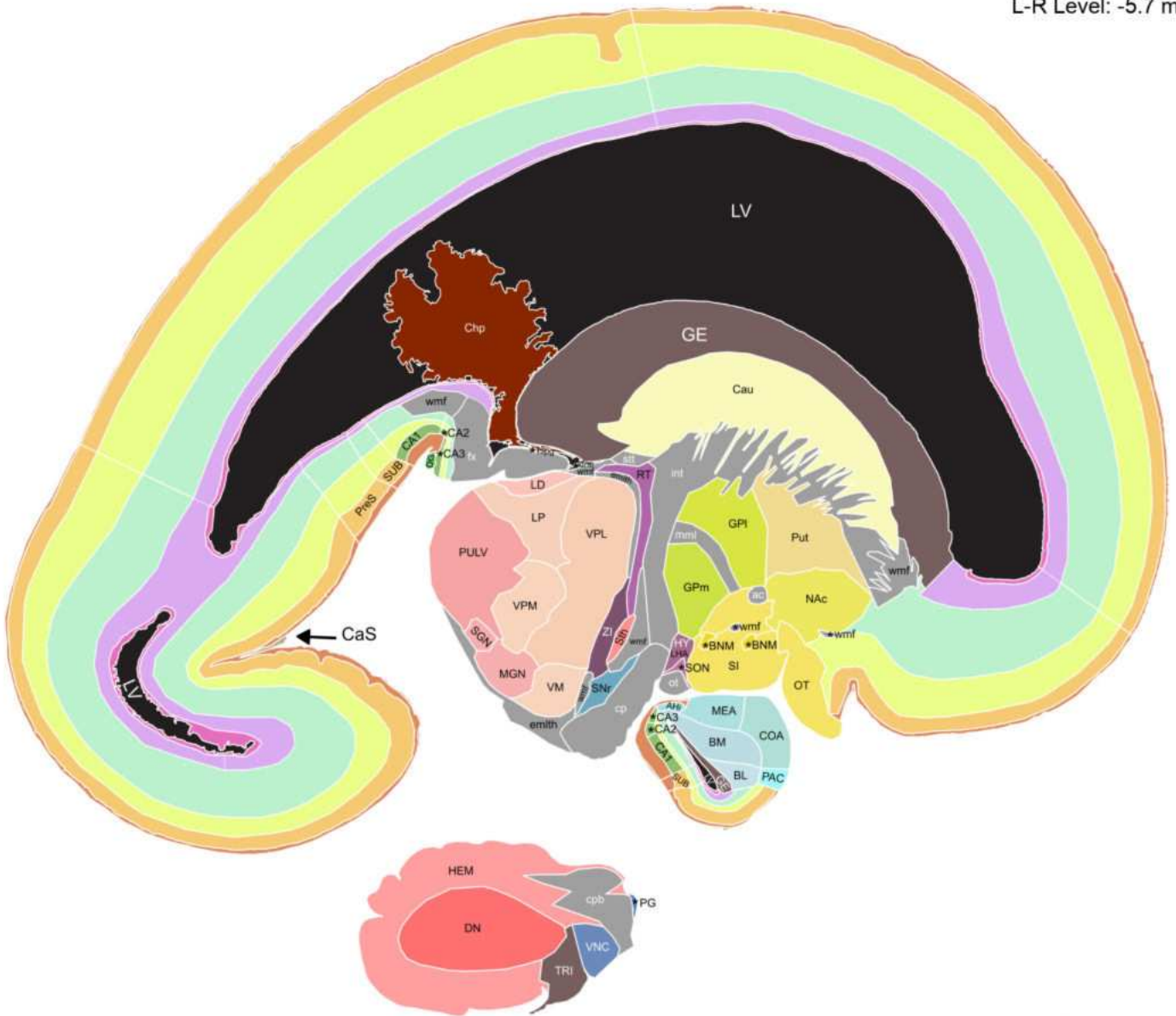
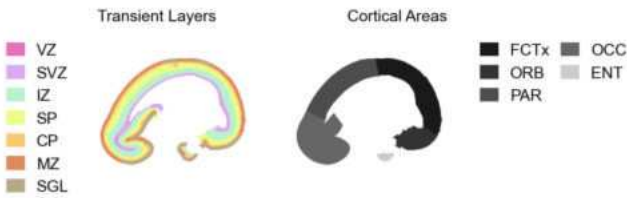
L-R Level: -5.7 mm



5 mm



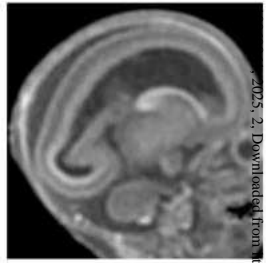
L-R Level: -5.7 mm



5 mm

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| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DN: Dentate nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ MEA: Medial nucleus [amygdala] ■ MGN: Medial geniculate nucleus ■ NAC: Nucleus accumbens ■ OT: Olfactory tubercle ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum | <ul style="list-style-type: none"> ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] ■ SGN: Supragenulate nucleus ■ SI: Substantia innominata ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TRI: Germinal trigone ■ VM: Ventral medial nucleus [thalamus] ■ VNC: Vestibular nuclear complex ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ fx: Fornix ■ hipg: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ mml: Medial medullary lamina ■ ot: Optic tract ■ stt: Stria terminalis ■ wmf: White matter fibers → CaS: Calcarine sulcus |
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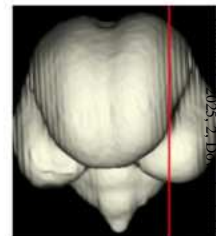
Age: 17 GW



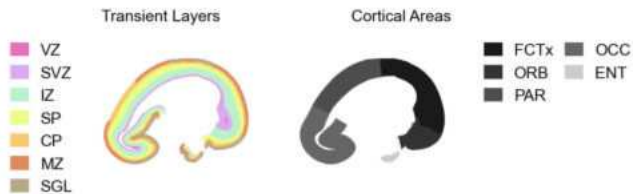
L-R Level: -6.12 mm



5 mm



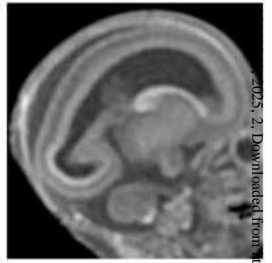
L-R Level: -6.12 mm



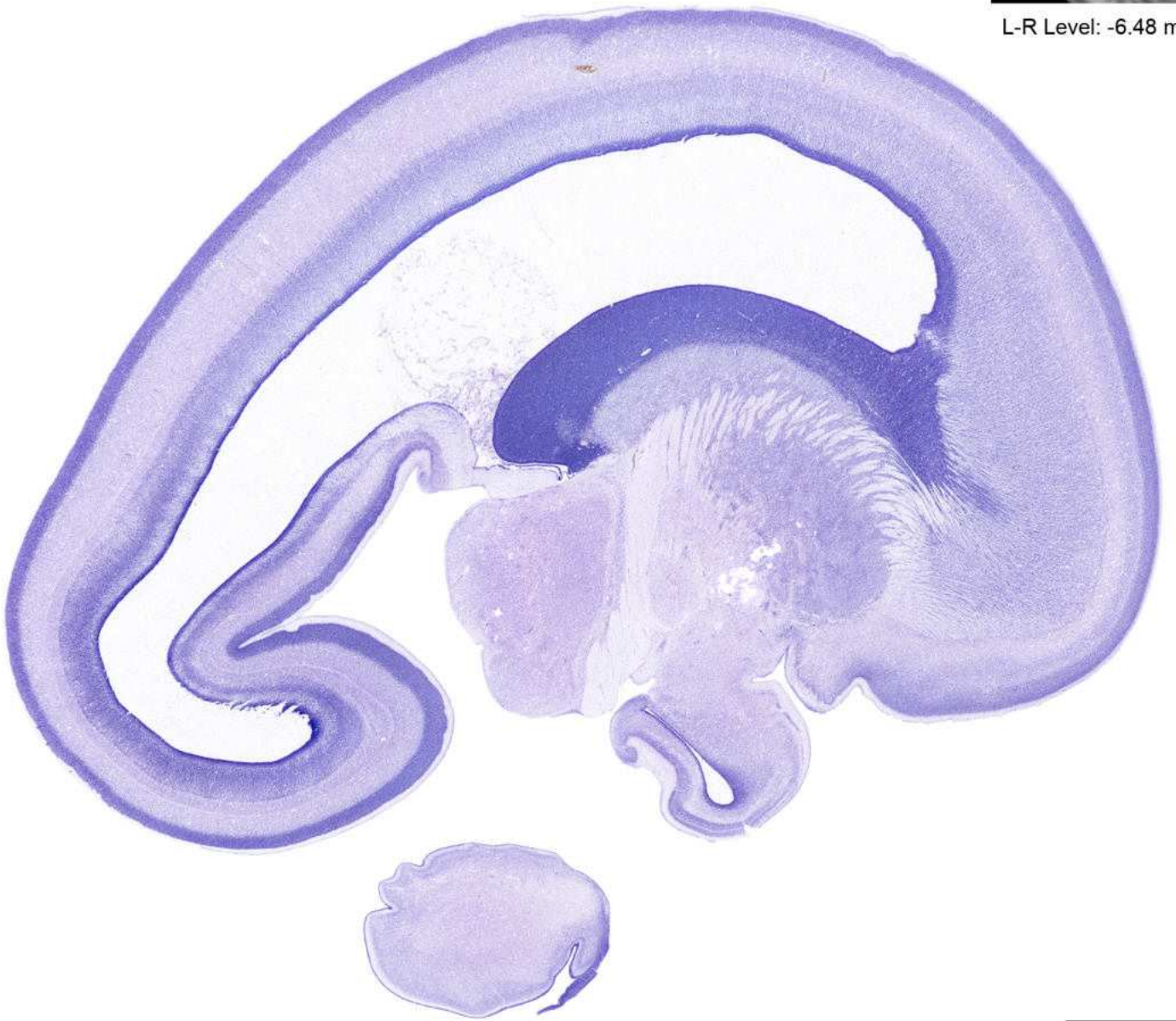
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Supragenulate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure cp: Cerebral peduncle emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tct: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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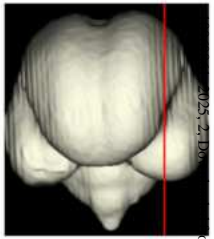
Age: 17 GW



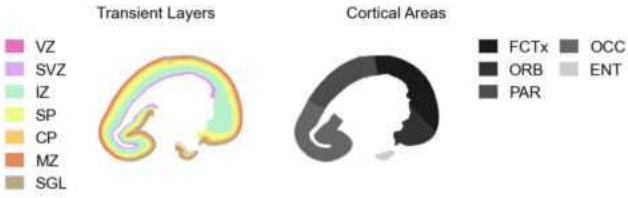
L-R Level: -6.48 mm



5 mm



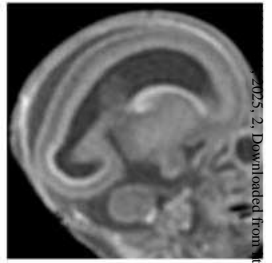
L-R Level: -6.48 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Supragenigulate nucleus [hypothalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina ot: Optic tract sst: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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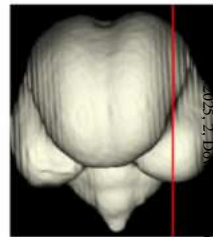
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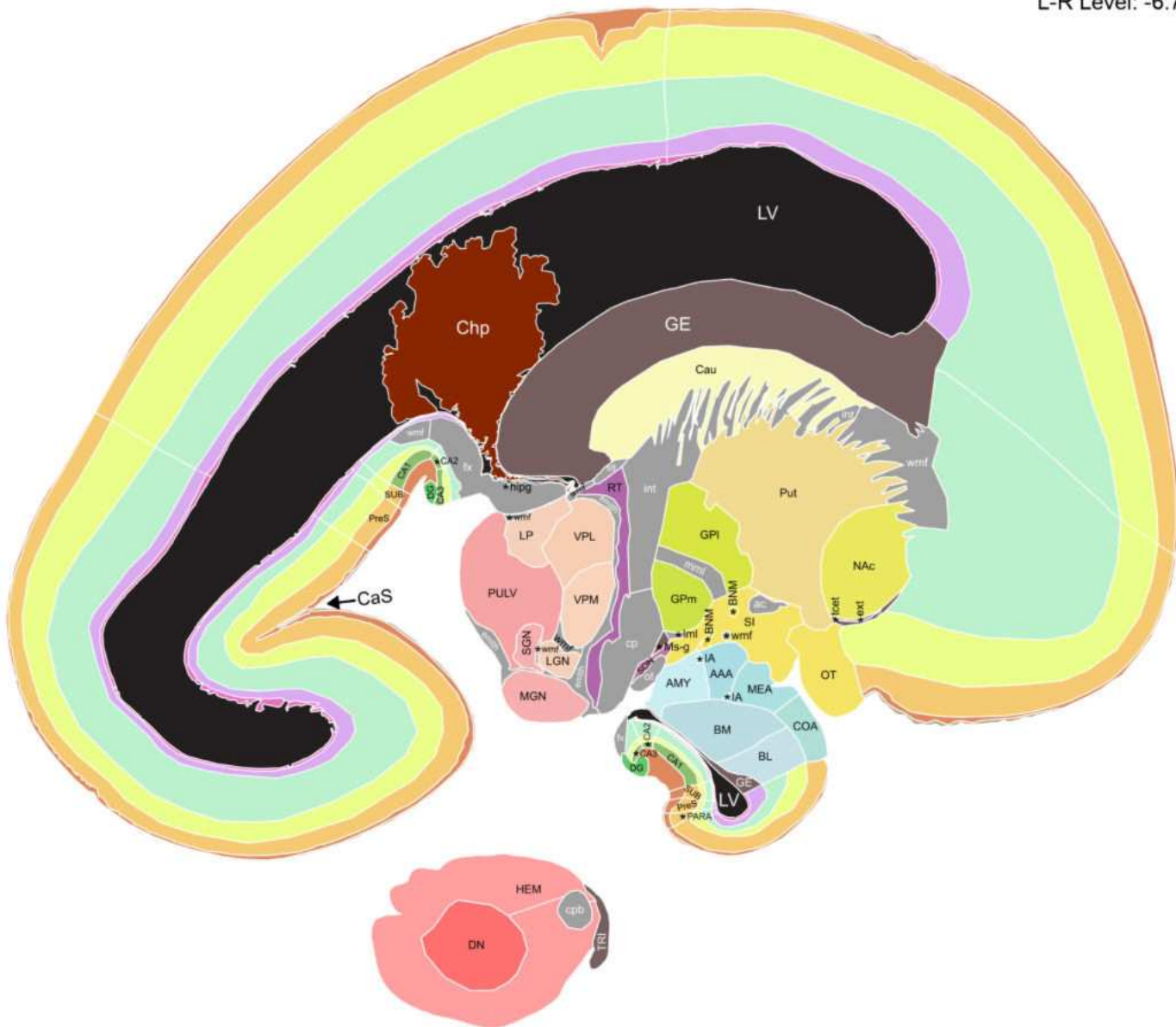
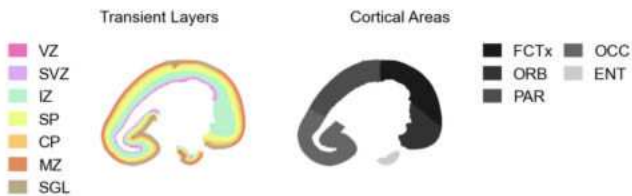
L-R Level: -6.78 mm



5 mm



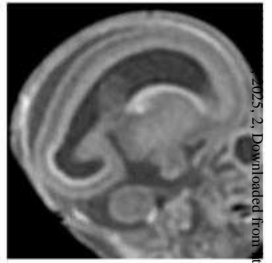
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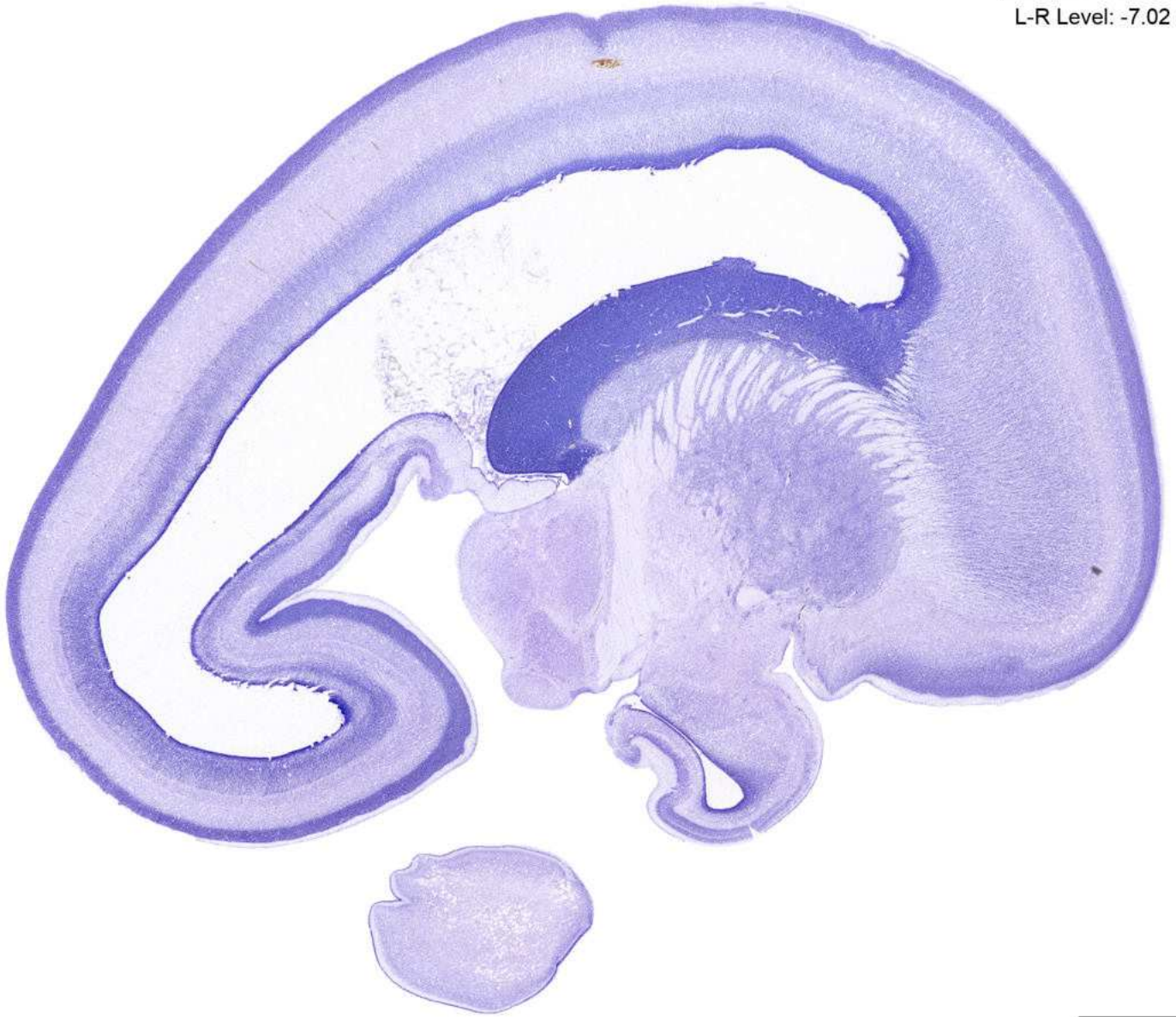
5 mm

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|---|---|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus Ms-g: Migratory stream, general NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRG: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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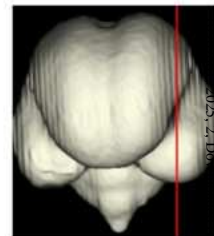
Age: 17 GW



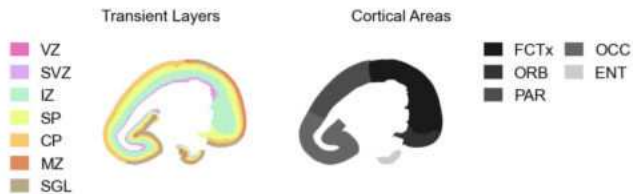
L-R Level: -7.02 mm



5 mm



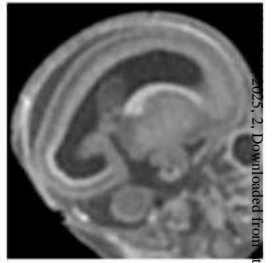
L-R Level: -7.02 mm



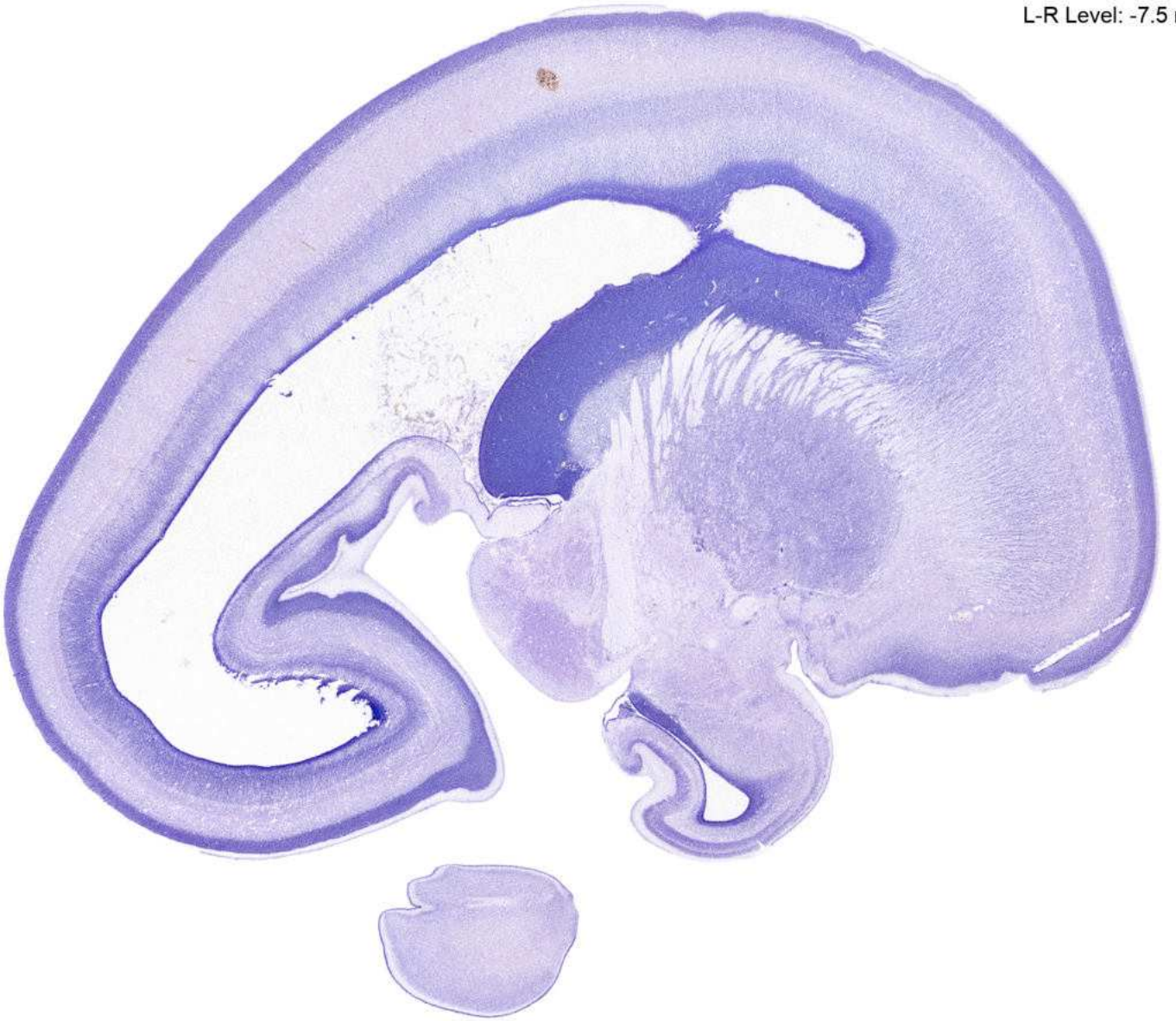
5 mm

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|--|--|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MGN: Medial geniculate nucleus Ms-g: Migratory stream, general | <ul style="list-style-type: none"> NAc: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract sst: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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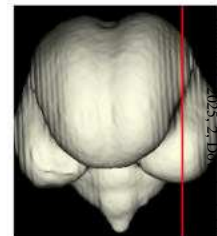
Age: 17 GW



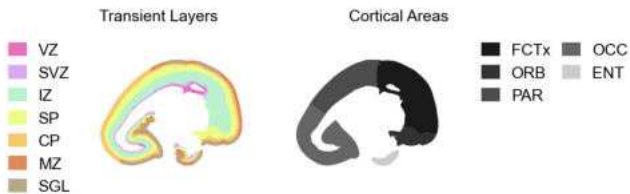
L-R Level: -7.5 mm



5 mm



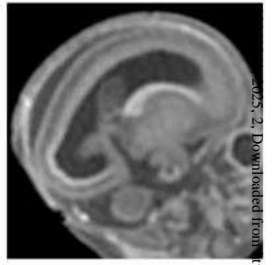
L-R Level: -7.5 mm



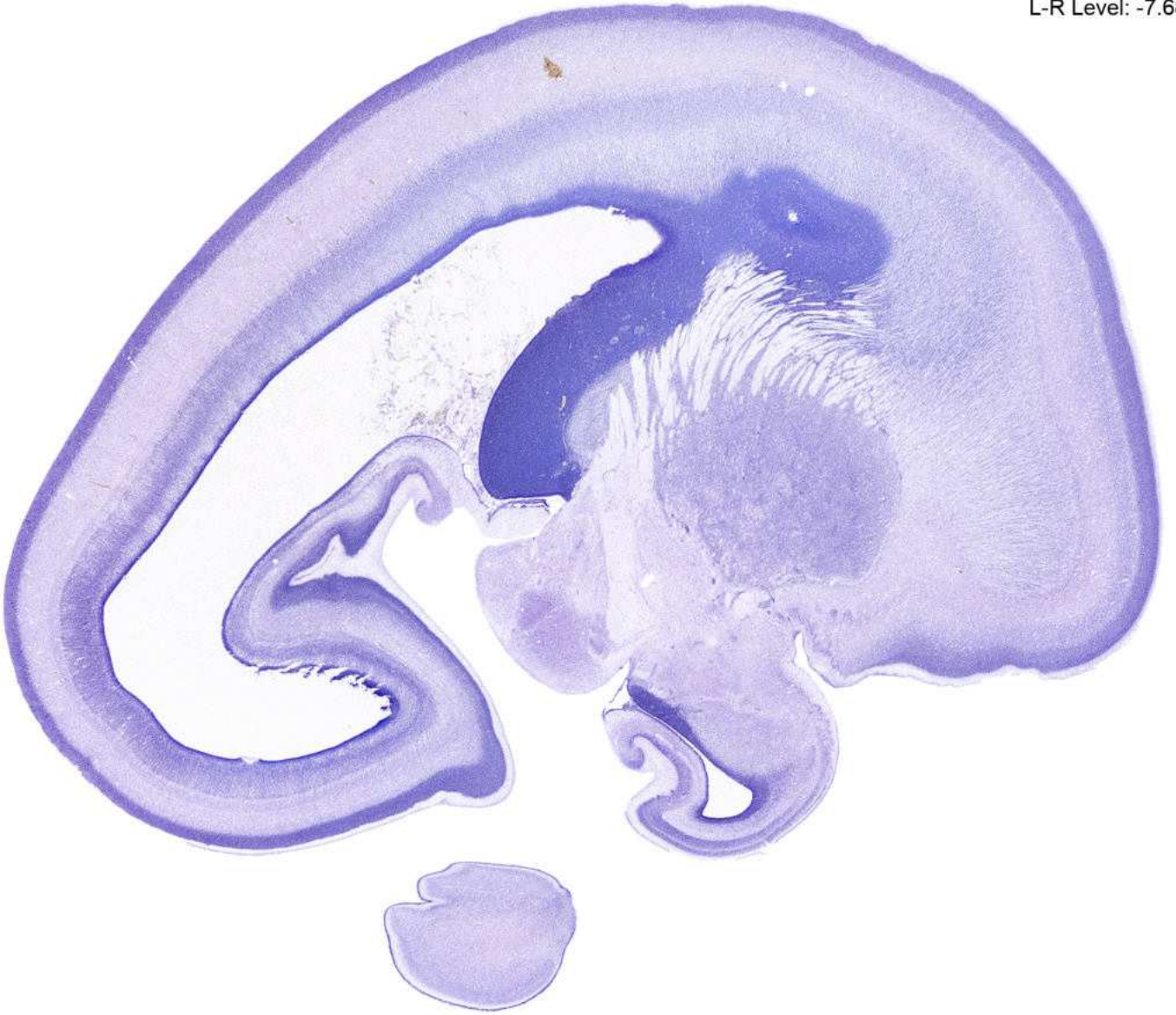
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLA: Basolateral complex [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general NAC: Nucleus accumbens | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|---|--|---|---|

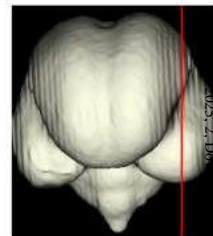
Age: 17 GW



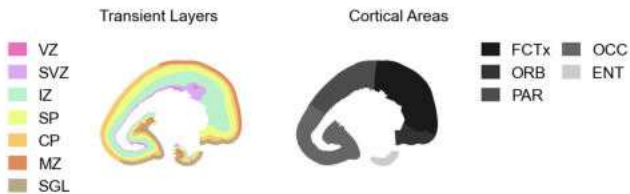
L-R Level: -7.68 mm



5 mm



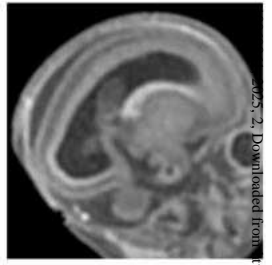
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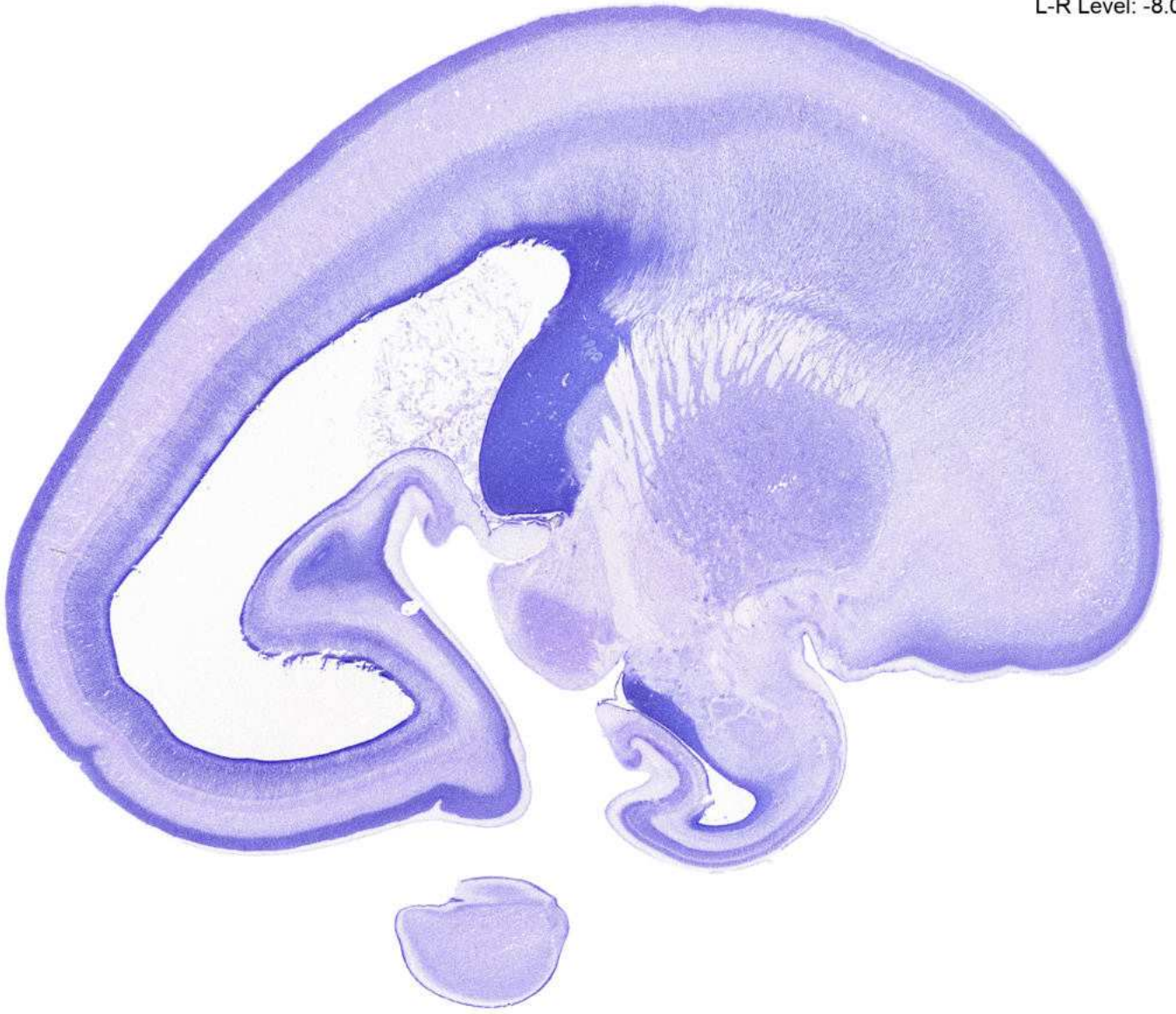
5 mm

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|--|--|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLA: Basolateral complex [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus PLA: Paralamina nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeplithelium/ependyma int: Internal capsule ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|--|--|---|

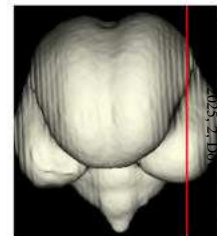
Age: 17 GW



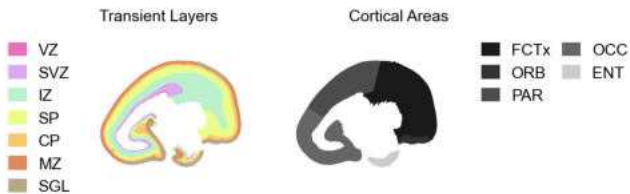
L-R Level: -8.04 mm



5 mm



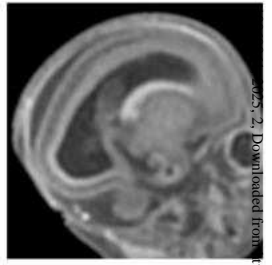
L-R Level: -8.04 mm



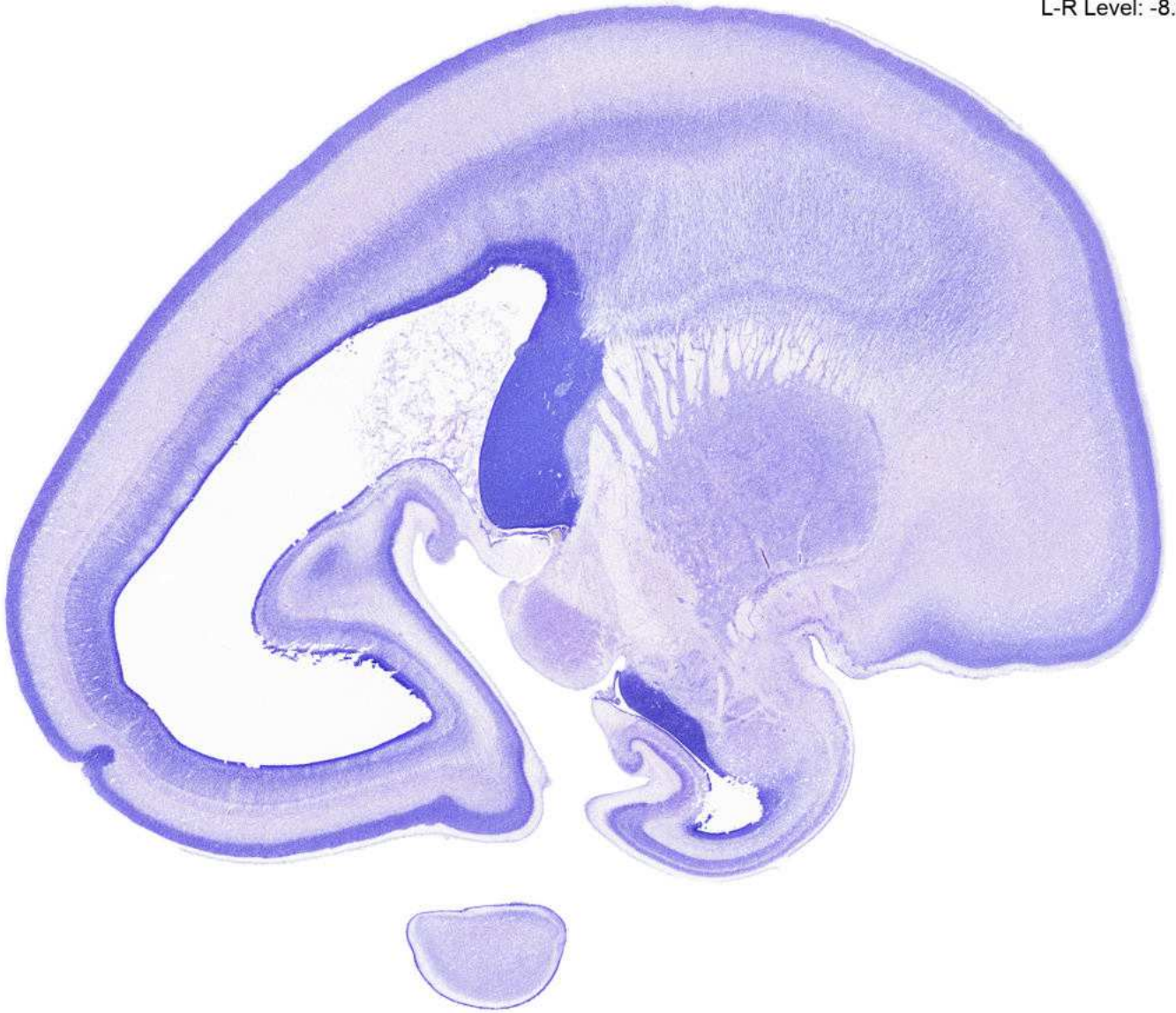
5 mm

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|--|--|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PNG: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus | <ul style="list-style-type: none"> ac: Anterior commissure emilh: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule ot: Optic tract stt: Stria terminalis tctet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|--|---|---|

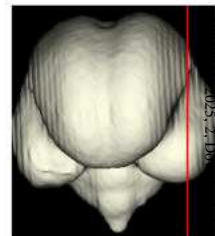
Age: 17 GW



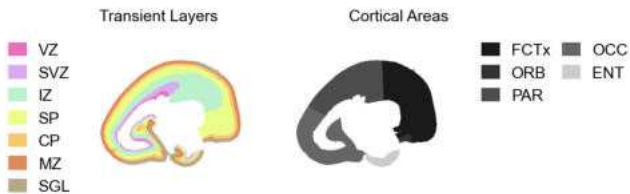
L-R Level: -8.28 mm



5 mm



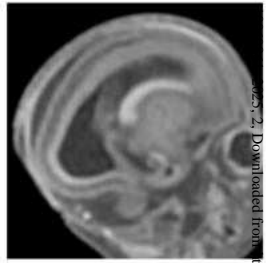
L-R Level: -8.28 mm



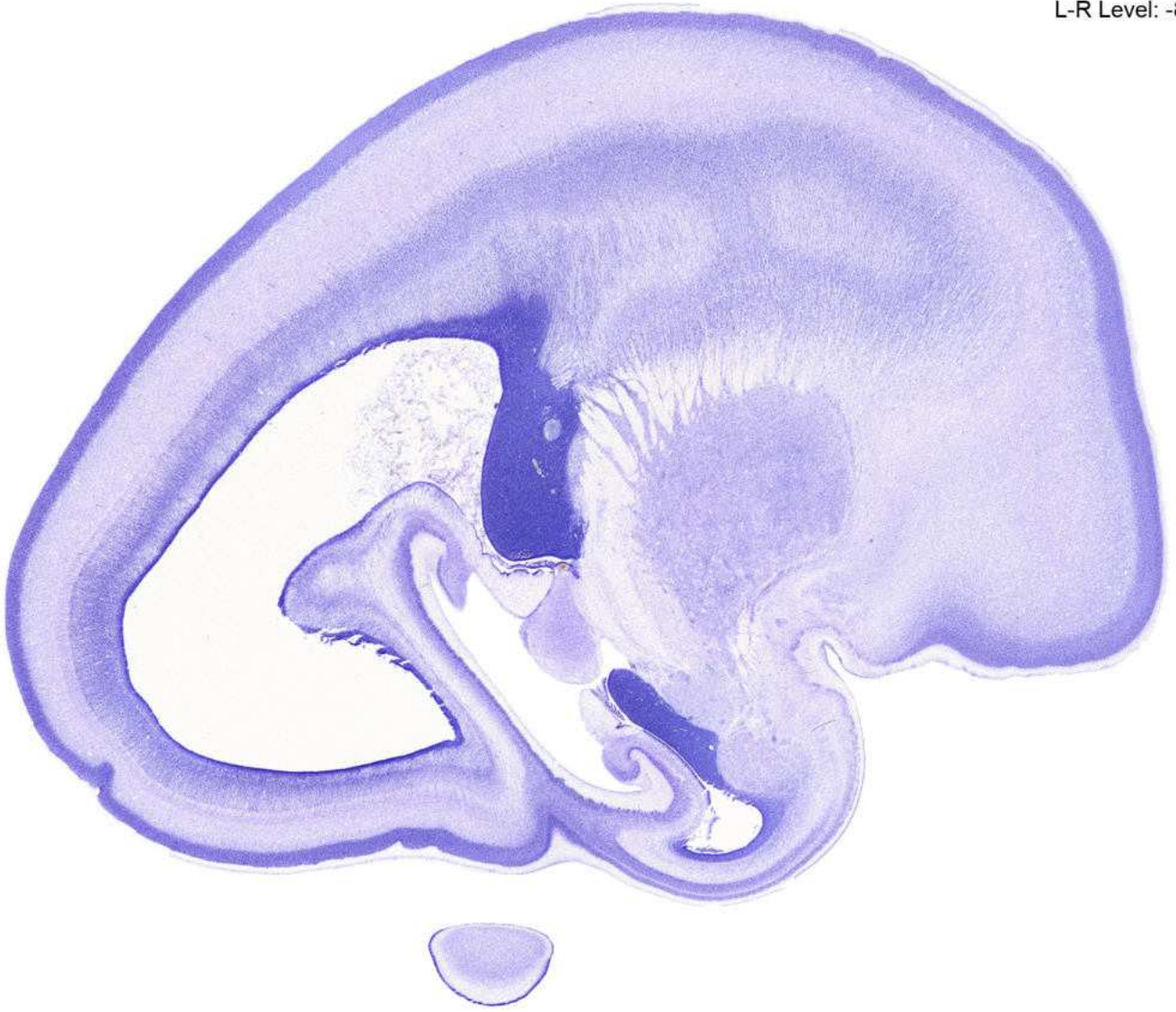
5 mm

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|---|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle MEA: Medial nucleus [amygdala] | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgenulate nucleus | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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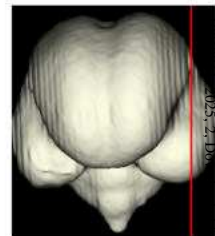
Age: 17 GW



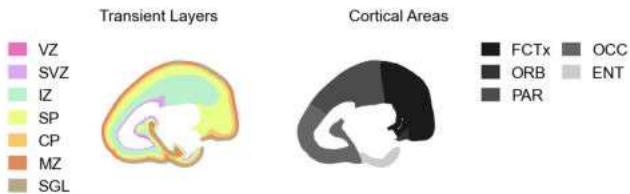
L-R Level: -8.76 mm



5 mm



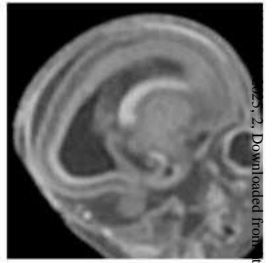
L-R Level: -8.76 mm



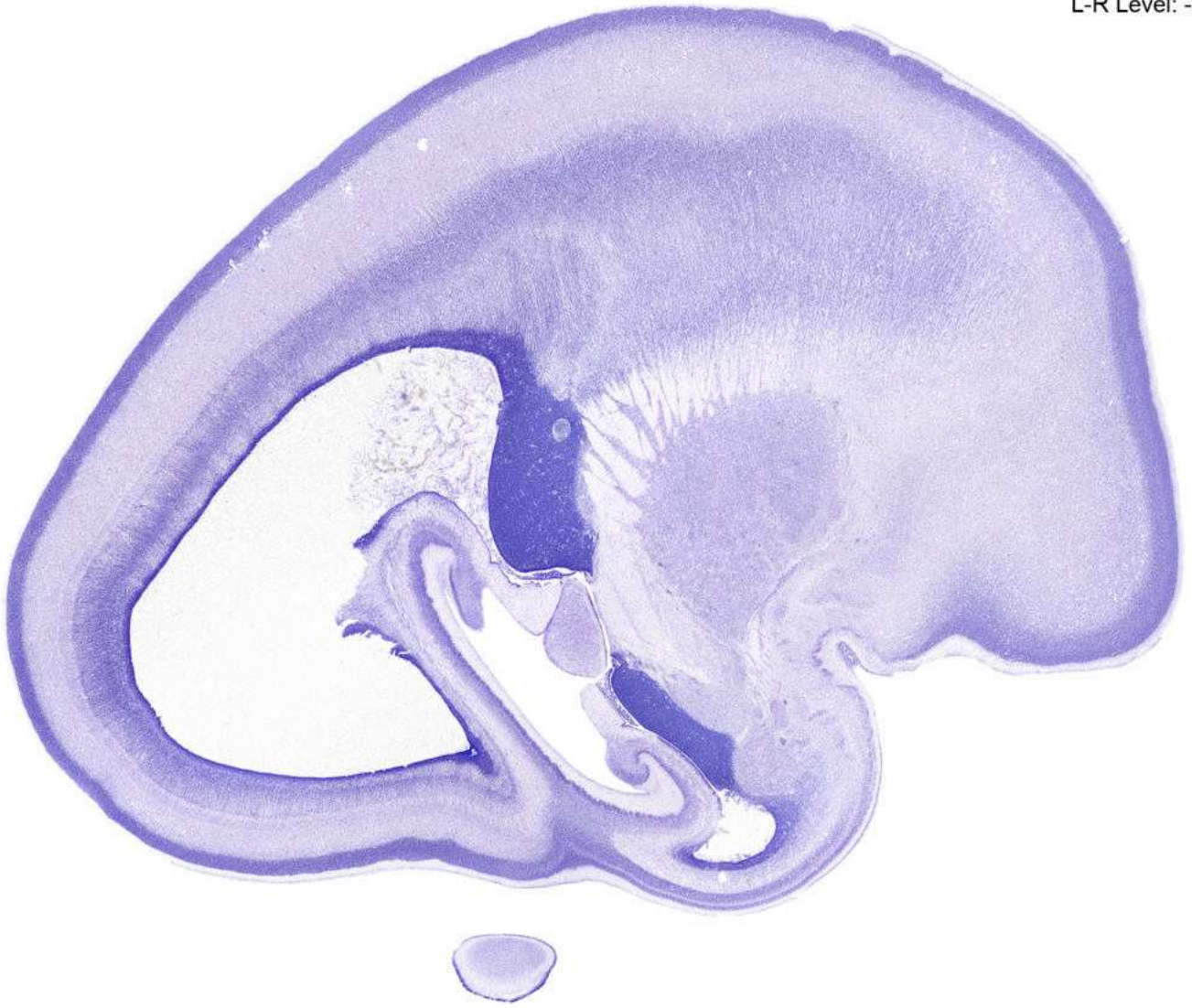
5 mm

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|--|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium | <ul style="list-style-type: none"> emth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeipithelium/ependyma int: Internal capsule stt: Stria terminalis toet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|--|

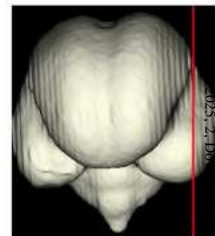
Age: 17 GW



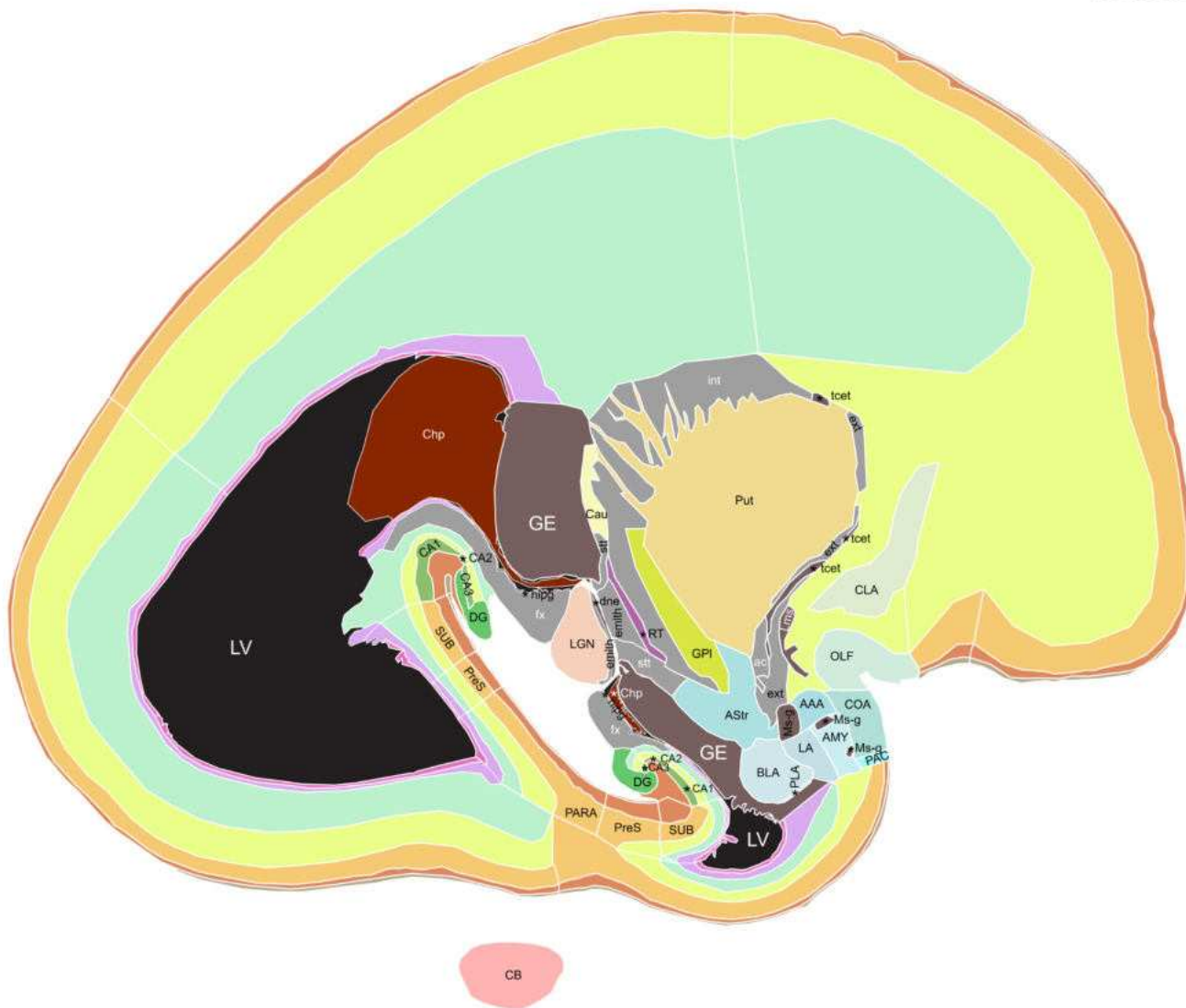
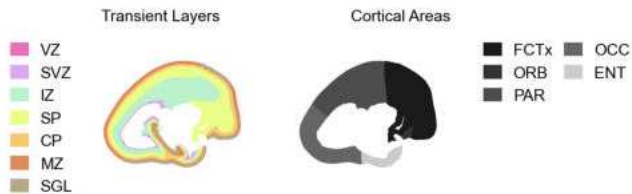
L-R Level: -8.94 mm



5 mm



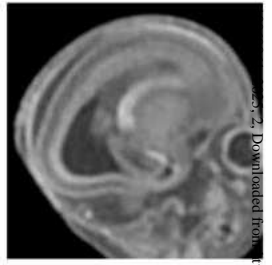
L-R Level: -8.94 mm



5 mm

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|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CB: Cerebellum CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeptelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule |
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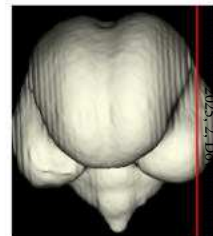
Age: 17 GW



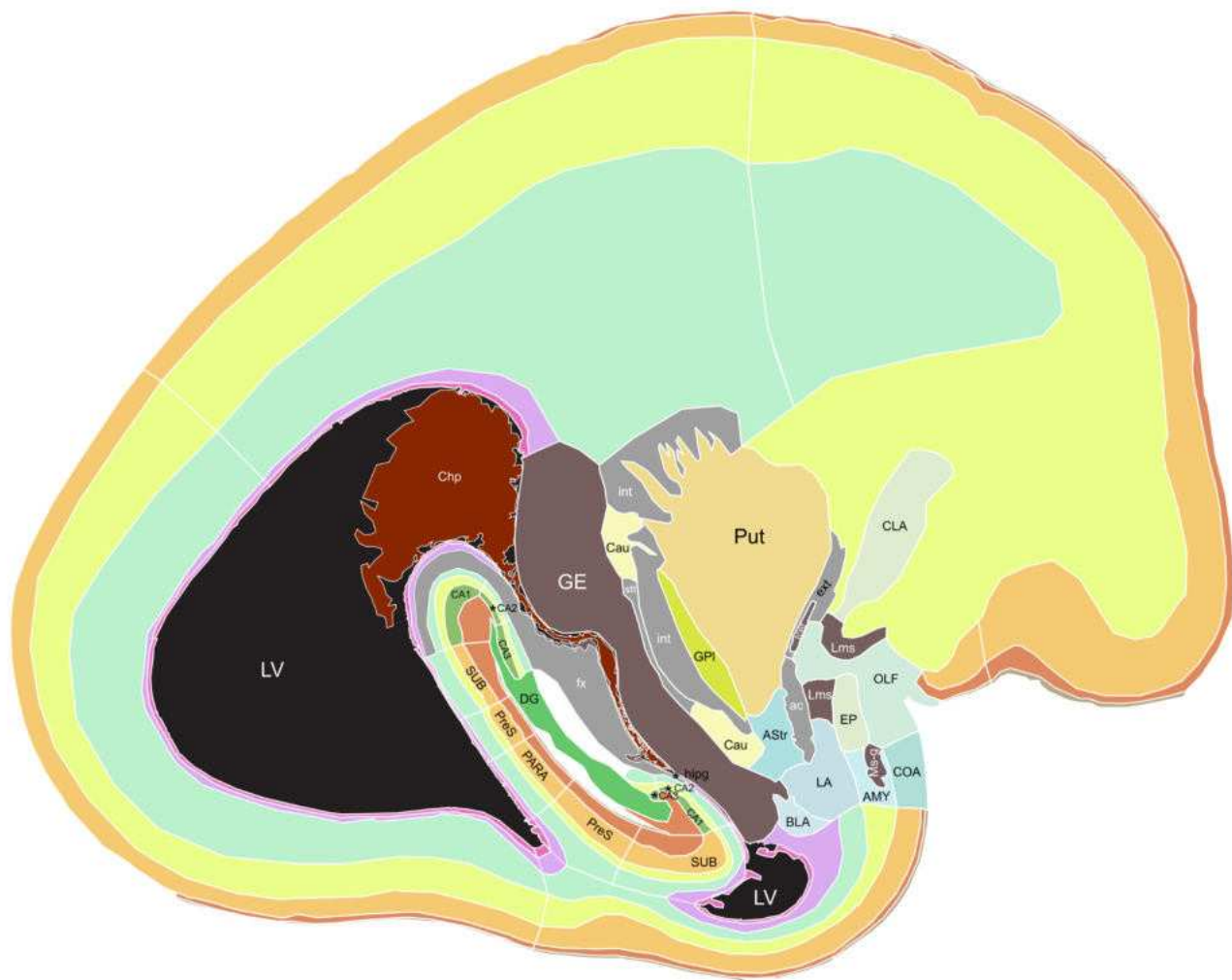
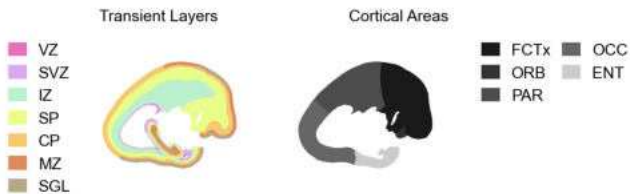
L-R Level: -9.42 mm



5 mm



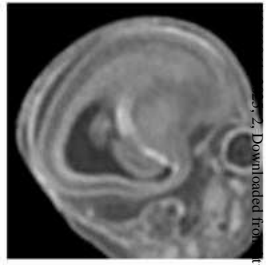
L-R Level: -9.42 mm



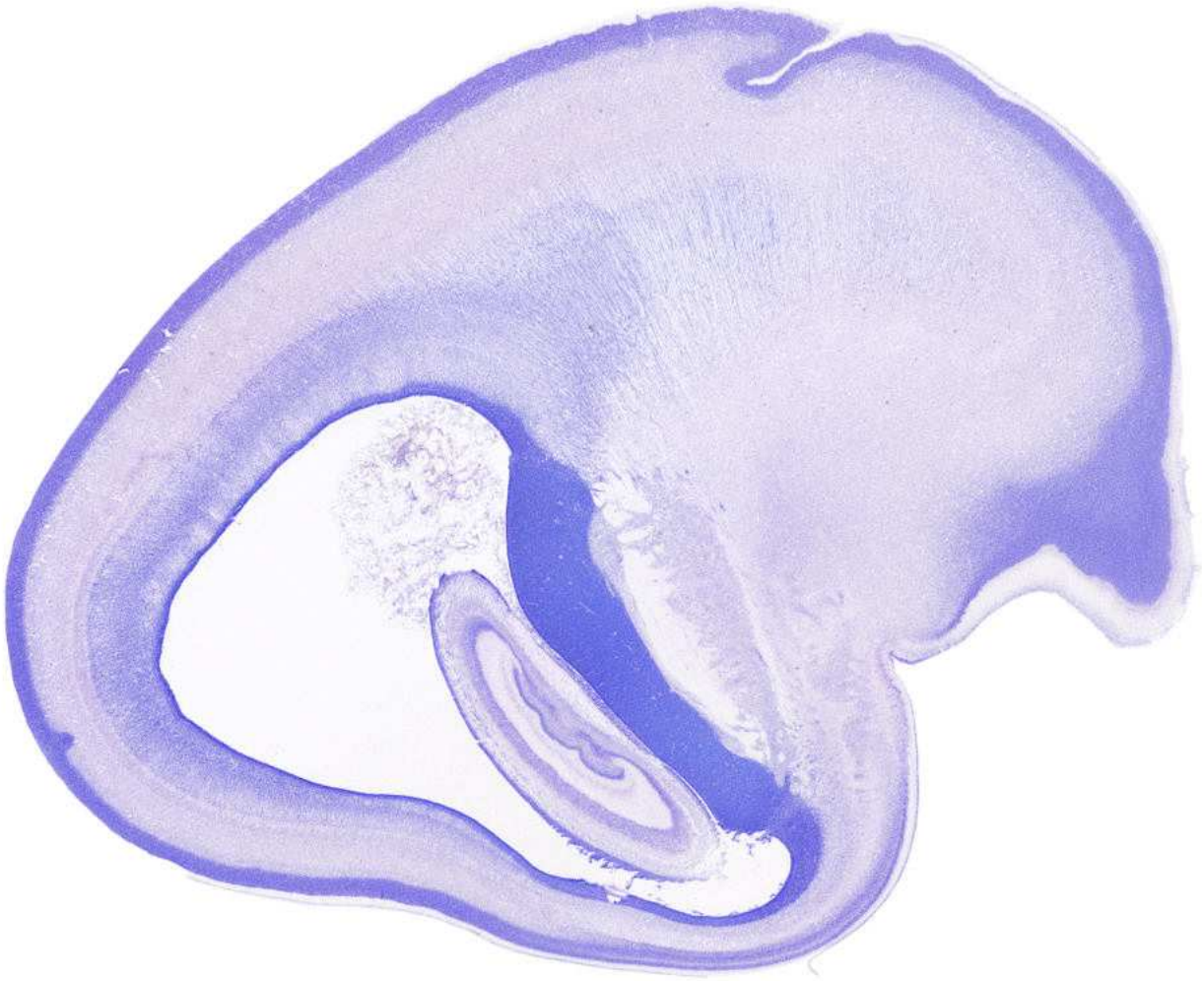
5 mm

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|----------------------------------|--------------------------------------|-------------------------------------|---|
| AMY: Amygdala | Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure |
| AStr: Amygdalo-striatal area | Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule |
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | Ms-g: Migratory stream, general | fx: Fornix |
| CA1: CA1 field [hippocampus] | EP: Endopiriform nucleus | PARA: Cortical plate, parasubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | int: Internal capsule |
| CA3: CA3 field [hippocampus] | GPI: Globus pallidus lateral segment | Put: Putamen | stt: Stria terminalis |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | SUB: Cortical plate, subiculum | tcet: Transient cell zone in the external capsule |
| COA: Cortical nucleus [amygdala] | | | |

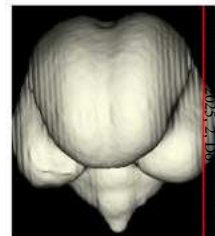
Age: 17 GW



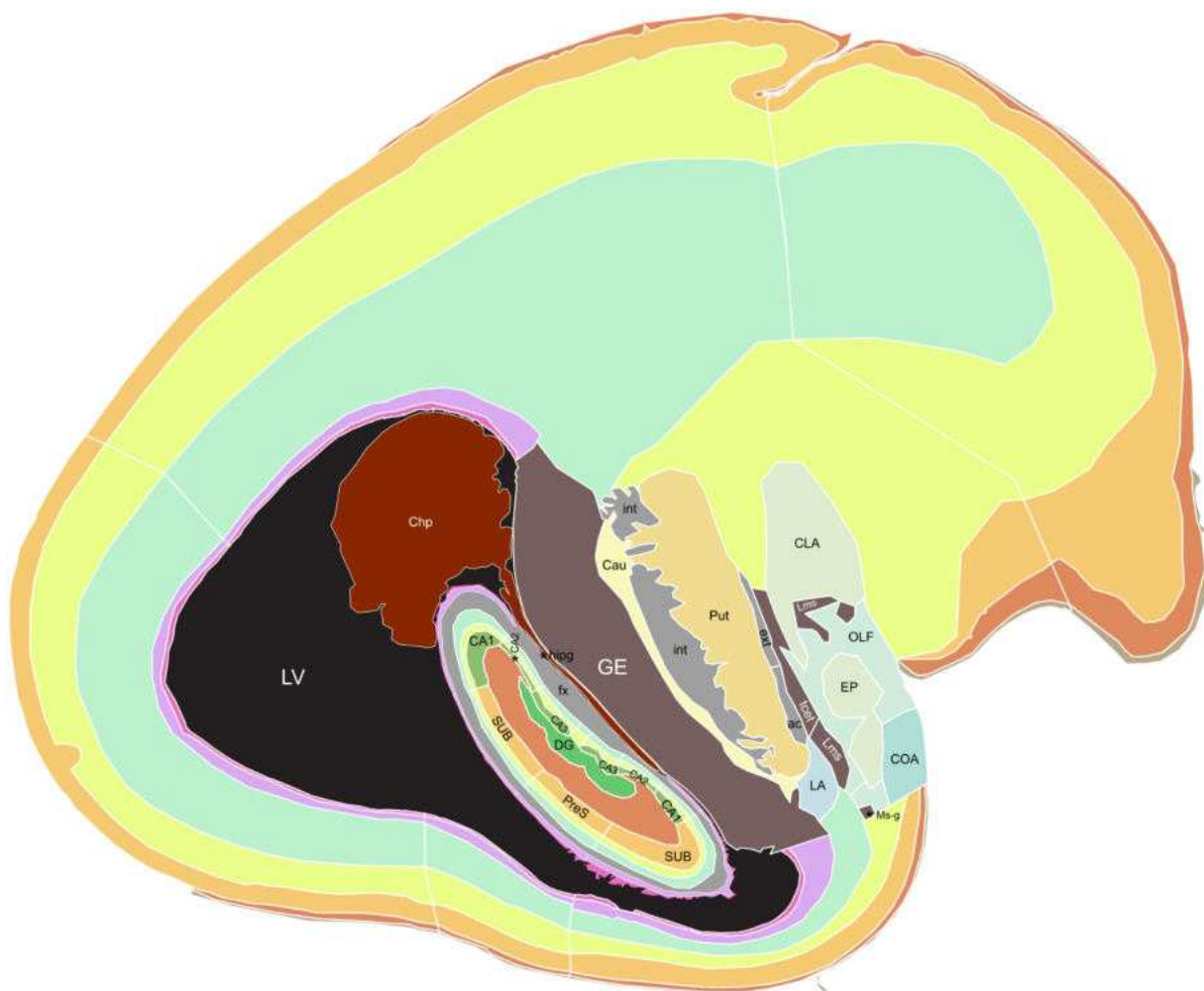
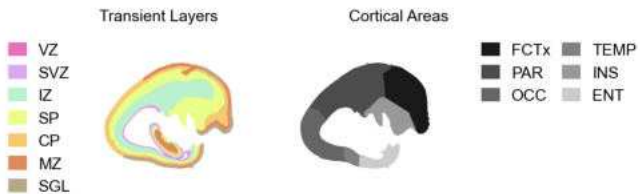
L-R Level: -10.14 mm



5 mm



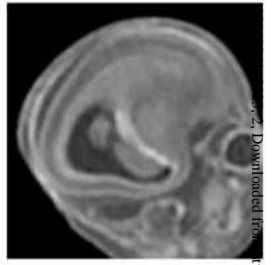
L-R Level: -10.14 mm



5 mm

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|----------------------------------|--------------------------------|------------------------------------|---|
| CA1: CA1 field [hippocampus] | Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule |
| CA2: CA2 field [hippocampus] | DG: Dentate gyrus | Ms-g: Migratory stream, general | fx: Fornix |
| CA3: CA3 field [hippocampus] | EP: Endopiriform nucleus | PreS: Cortical plate, presubiculum | hipg: Hippocampal gliepithelium/ependyma |
| CLA: Claustrum | GE: Ganglionic eminence | Put: Putamen | int: Internal capsule |
| COA: Cortical nucleus [amygdala] | LA: Lateral nucleus [amygdala] | SUB: Cortical plate, subiculum | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | |

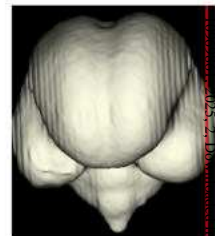
Age: 17 GW



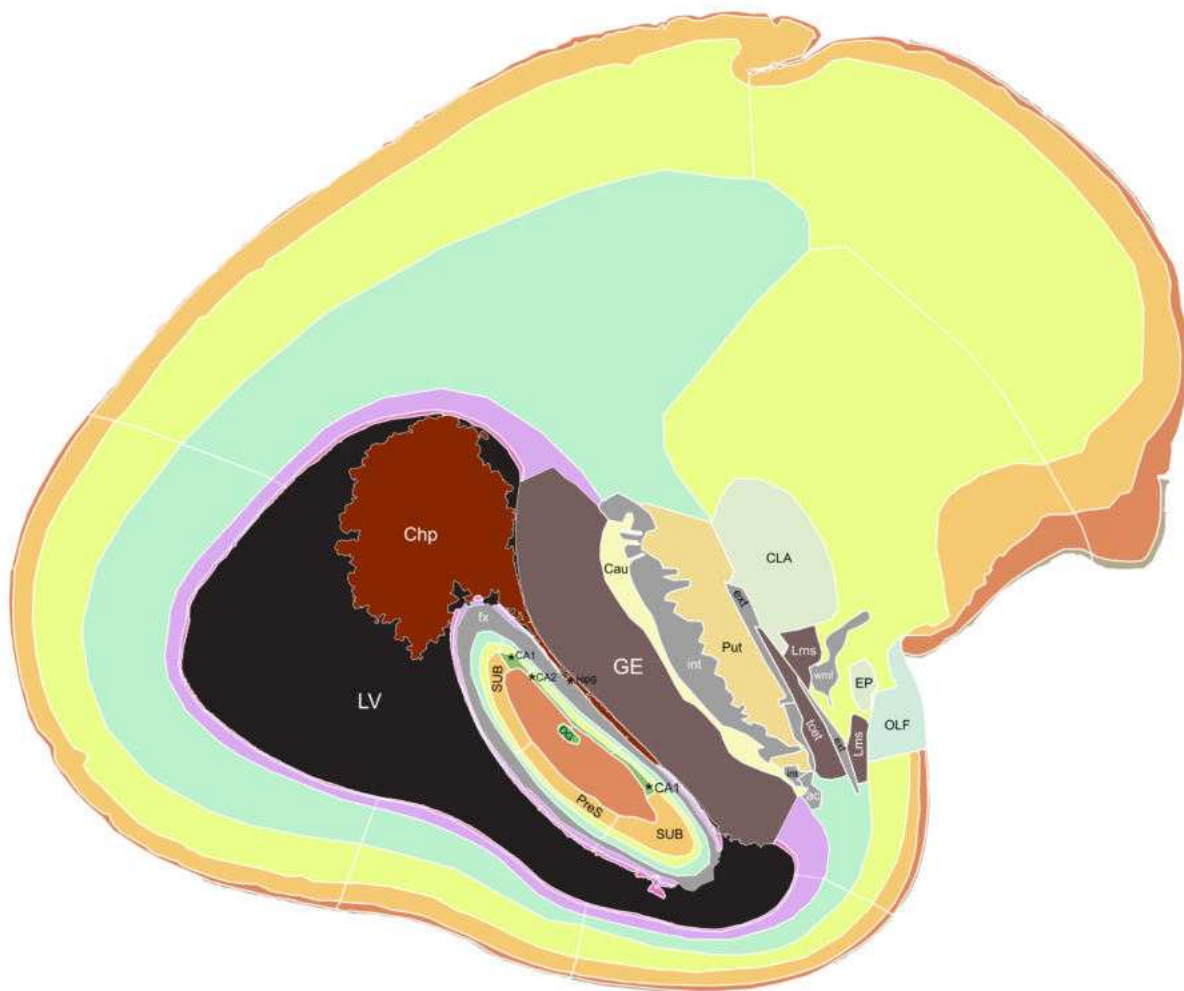
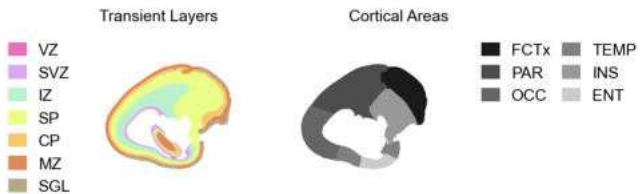
L-R Level: -10.5 mm



5 mm



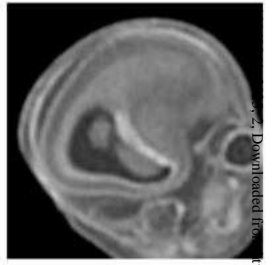
L-R Level: -10.5 mm



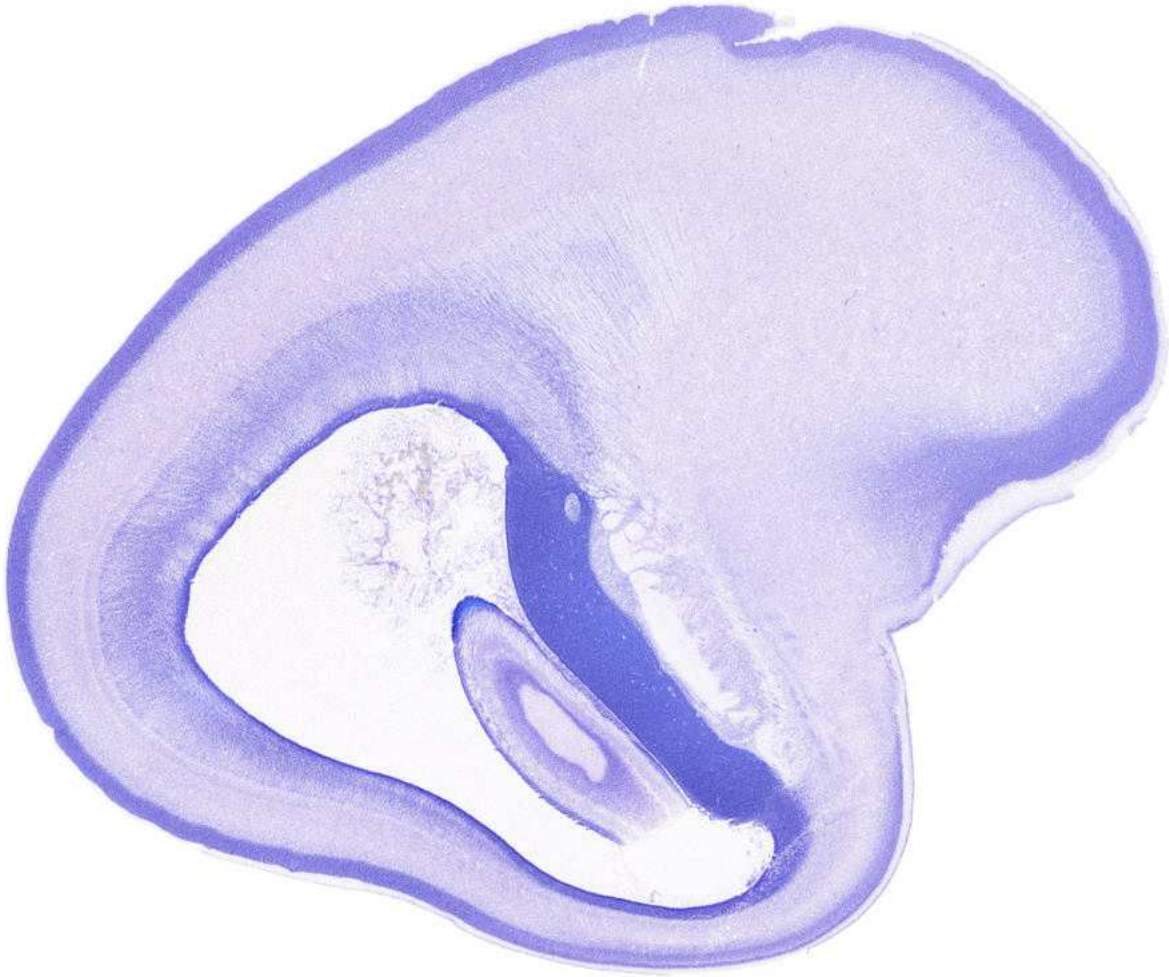
5 mm

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|------------------------------|-------------------------------|------------------------------------|---|
| CA1: CA1 field [hippocampus] | DG: Dentate gyrus | PreS: Cortical plate, presubiculum | fx: Fornix |
| CA2: CA2 field [hippocampus] | EP: Endopiriform nucleus | Put: Putamen | hipg: Hippocampal gliopithelium/ependyma |
| CLA: Claustrum | GE: Ganglionic eminence | SUB: Cortical plate, subiculum | int: Internal capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule | wmf: White matter fibers |

Age: 17 GW



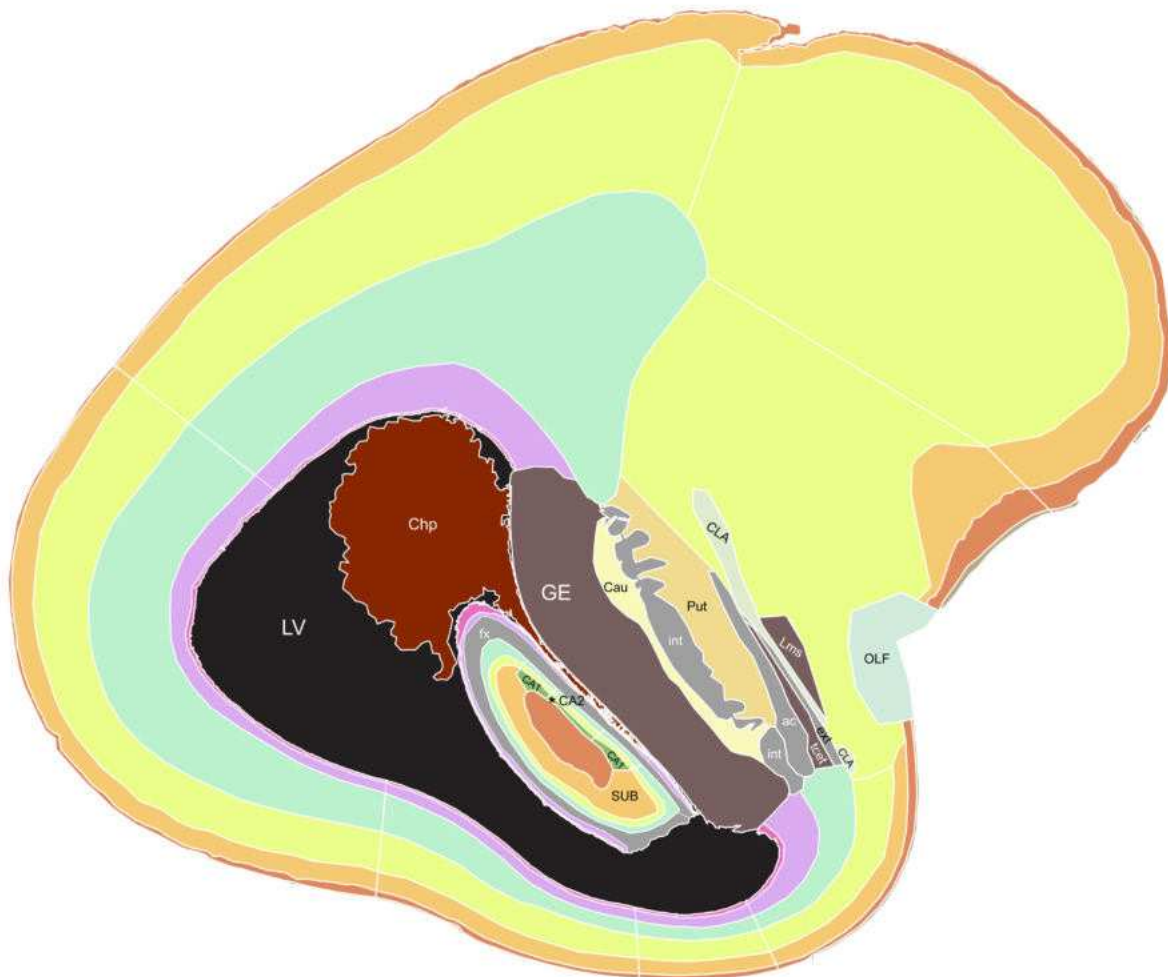
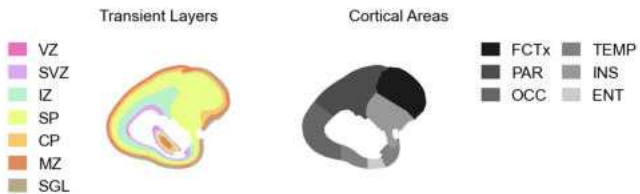
L-R Level: -10.8 mm



5 mm



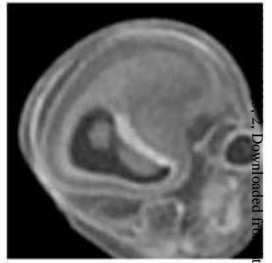
L-R Level: -10.8 mm



5 mm

- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CLA: Claustrum
- Cau: Caudate nucleus
- Chp: Choroid plexus
- GE: Ganglionic eminence
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- Put: Putamen
- SUB: Cortical plate, subiculum
- ac: Anterior commissure
- ext: External capsule
- fx: Fornix
- int: Internal capsule
- toet: Transient cell zone in the external capsule

Age: 17 GW



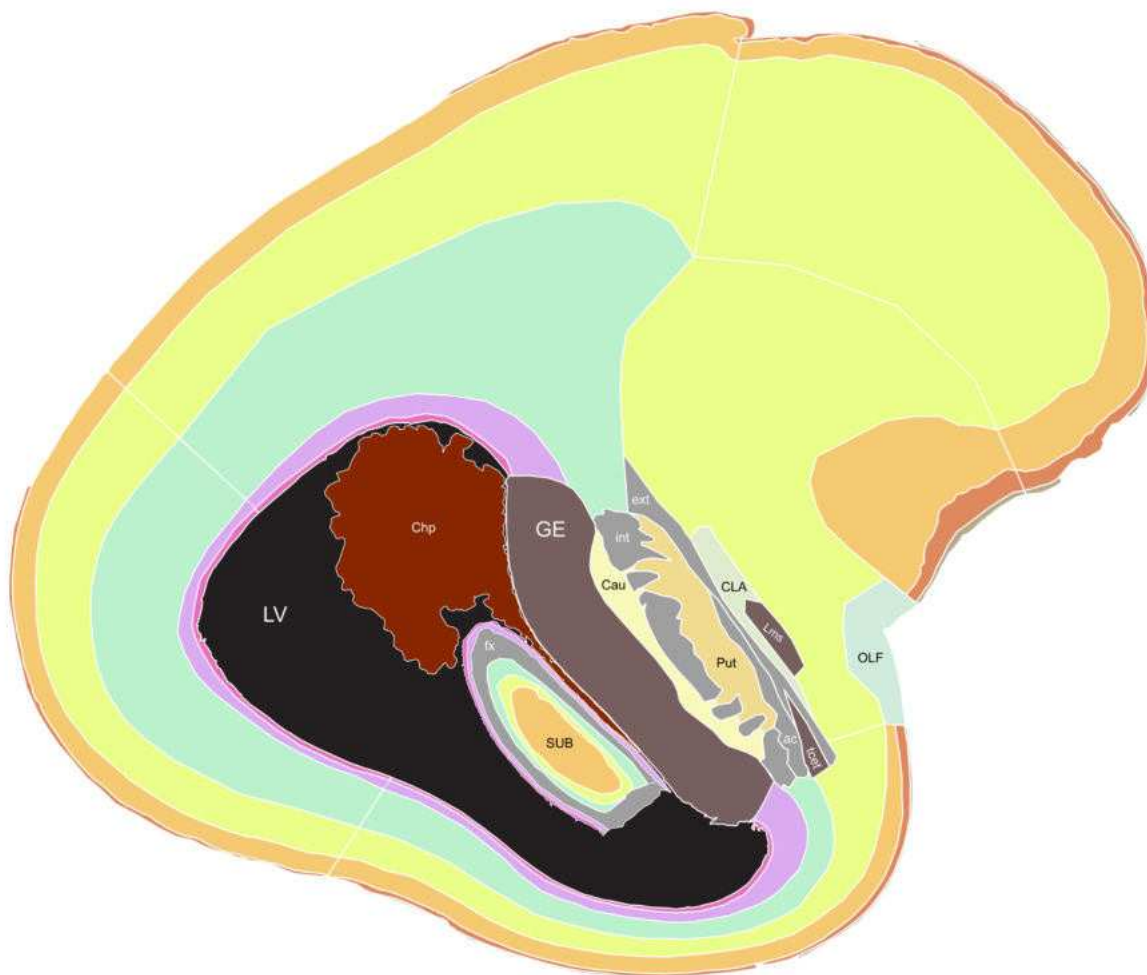
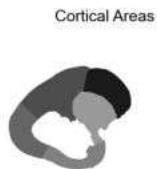
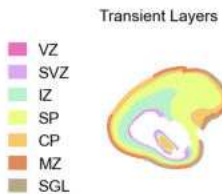
L-R Level: -11.04 mm



5 mm



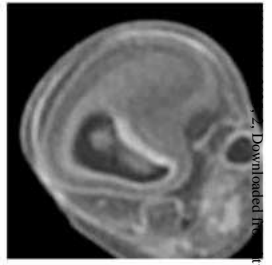
L-R Level: -11.04 mm



5 mm

- CLA: Claustrum
- Cau: Caudate nucleus
- Chp: Choroid plexus
- GE: Ganglionic eminence
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- Put: Putamen
- SUB: Cortical plate, subiculum
- ac: Anterior commissure
- ext: External capsule
- fx: Fornix
- int: Internal capsule
- tctet: Transient cell zone in the external capsule

Age: 17 GW

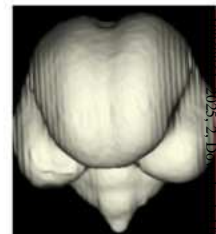


L-R Level: -11.52 mm

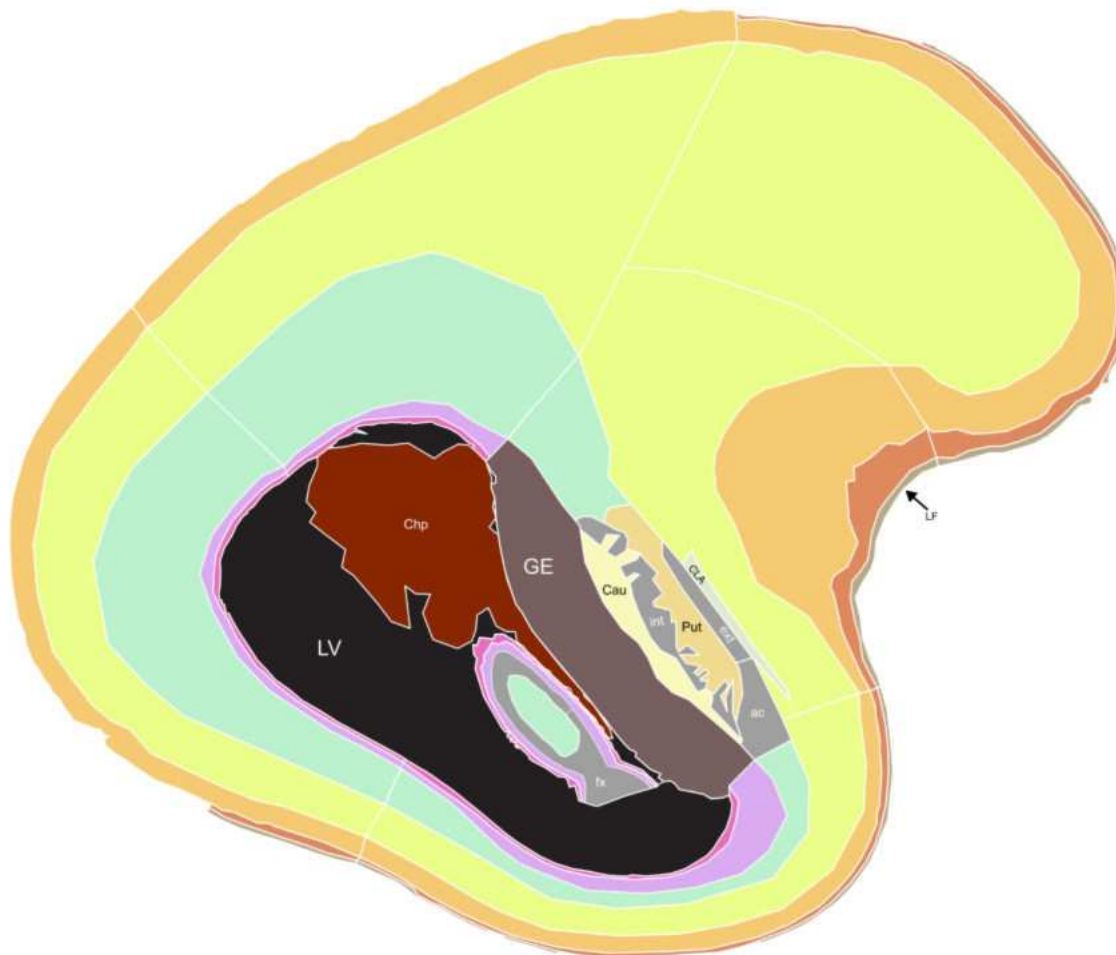
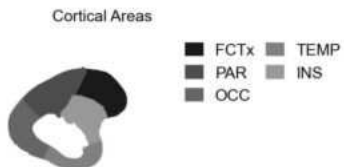
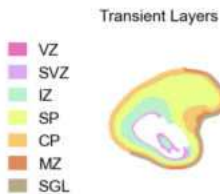


5 mm

Age: 17 GW



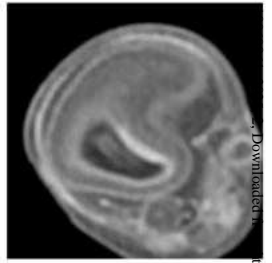
L-R Level: -11.52 mm



5 mm

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|----------------------|-------------------------|-------------------------|-----------------------|
| CLA: Claustrum | GE: Ganglionic eminence | ac: Anterior commissure | fx: Fornix |
| Cau: Caudate nucleus | LV: Lateral ventricle | ext: External capsule | int: Internal capsule |
| Chp: Choroid plexus | Put: Putamen | → LF: Lateral fissure | |

Age: 17 GW

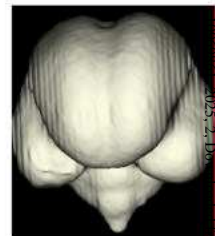


L-R Level: -12.6 mm

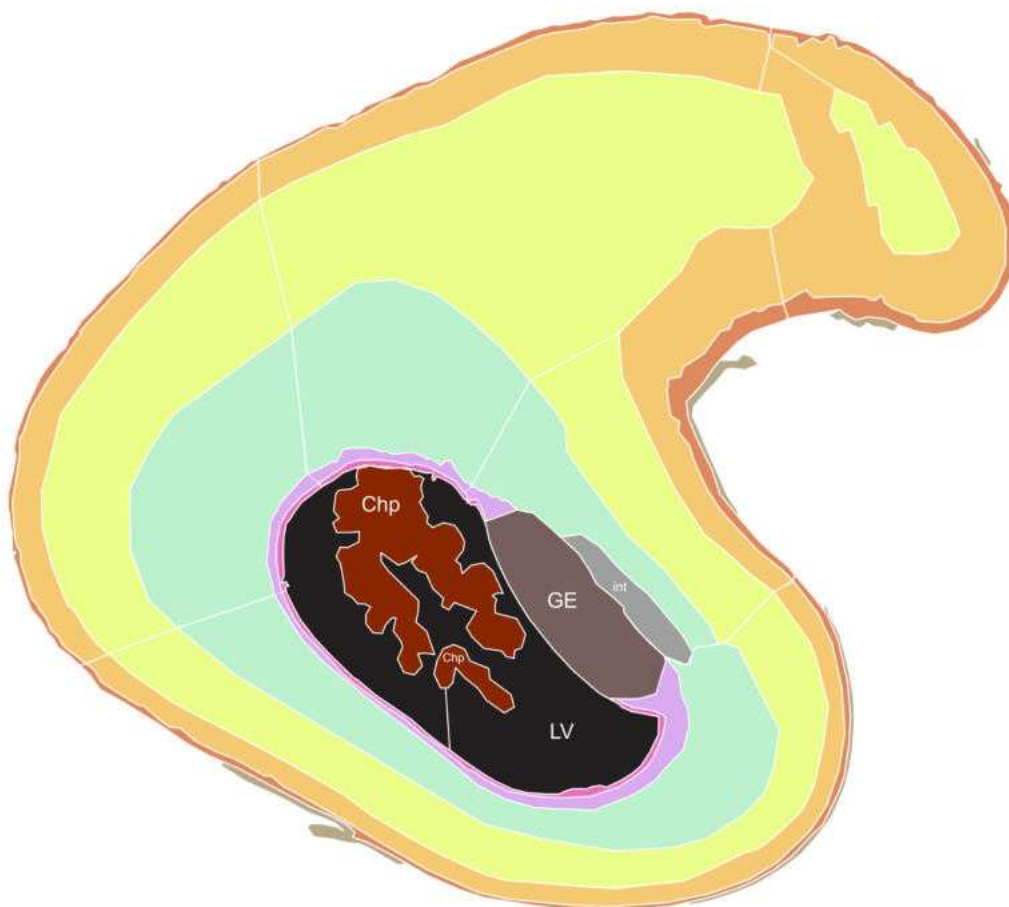
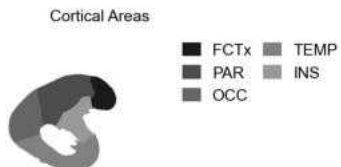
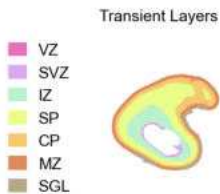


5 mm

Age: 17 GW



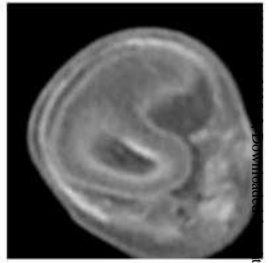
L-R Level: -12.6 mm



5 mm

■ Chp: Choroid plexus
 ■ GE: Ganglionic eminence
 ■ LV: Lateral ventricle
 ■ int: Internal capsule

Age: 17 GW

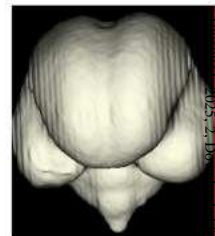


L-R Level: -13.74 mm

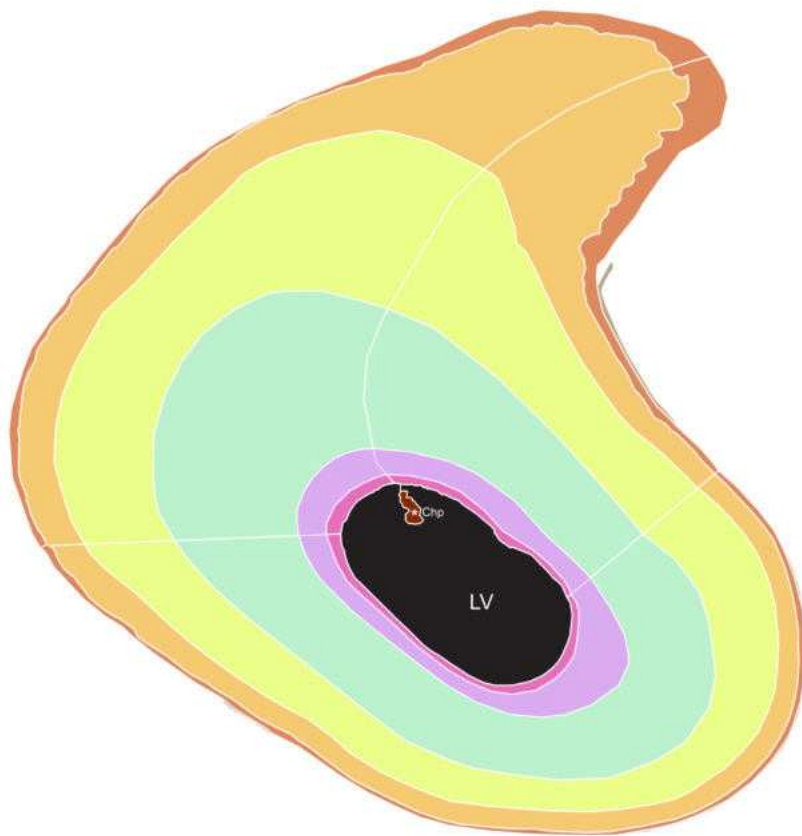
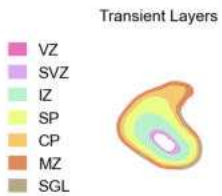


5 mm

Age: 17 GW



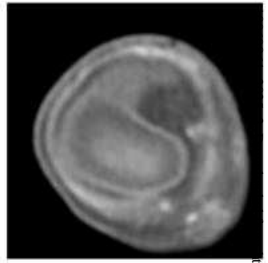
L-R Level: -13.74 mm



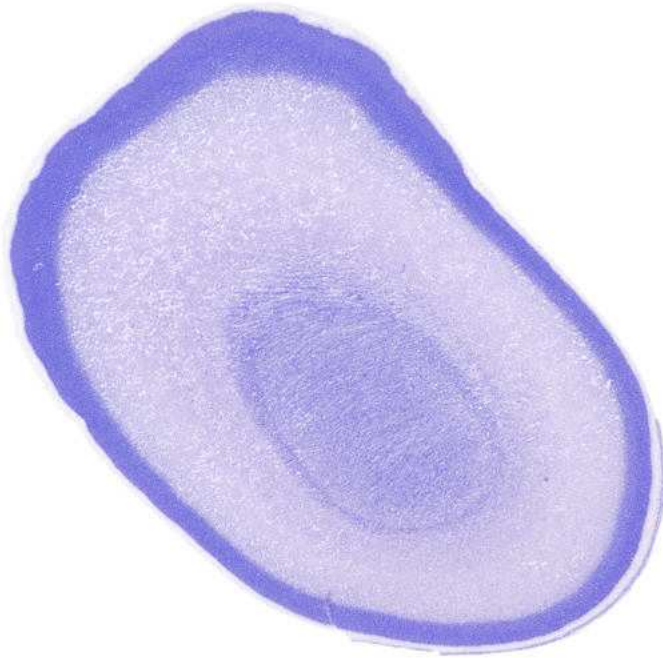
Chp: Choroid plexus LV: Lateral ventricle

5 mm

Age: 17 GW

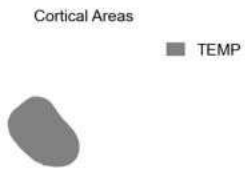
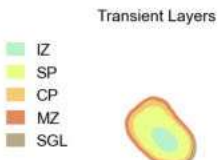


L-R Level: -15.3 mm

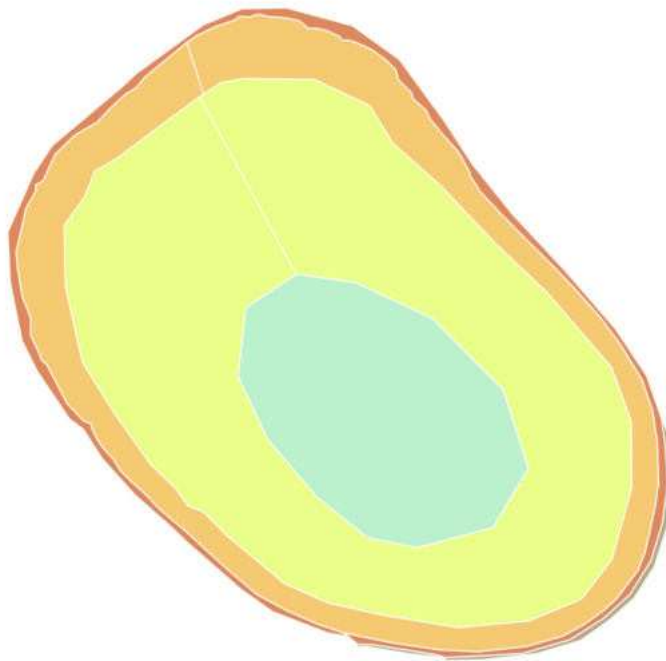


5 mm

Age: 17 GW

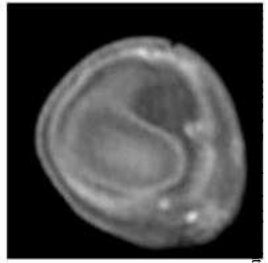


L-R Level: -15.3 mm

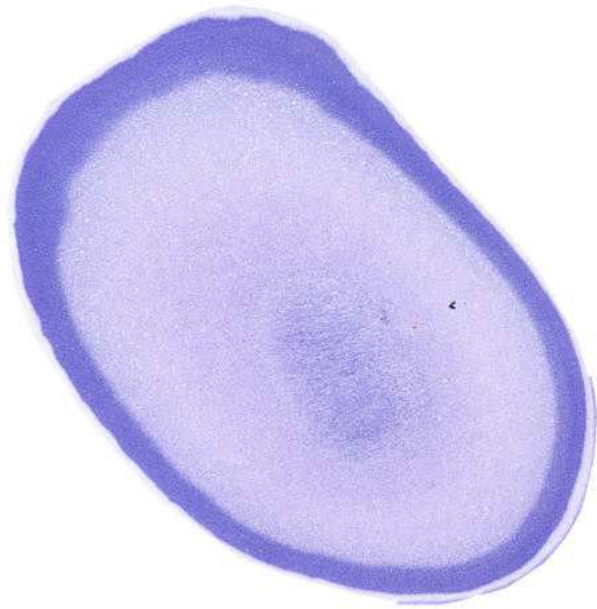


5 mm

Age: 17 GW

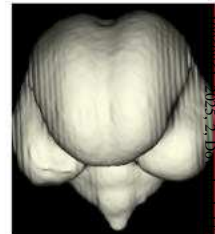


L-R Level: -15.78 mm

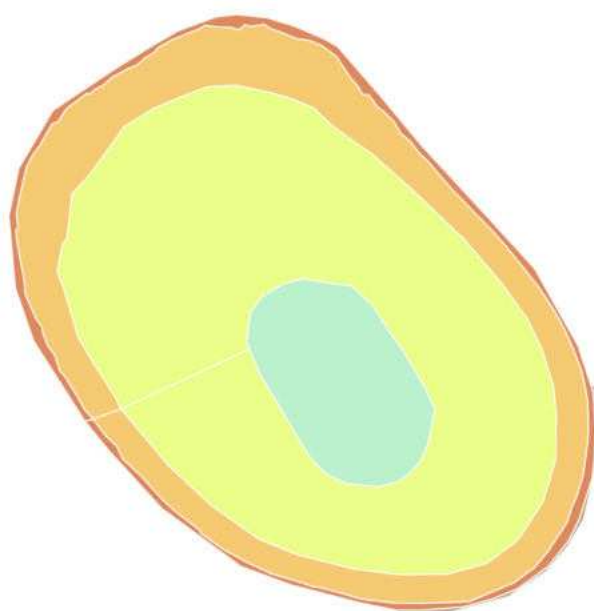


5 mm

Age: 17 GW

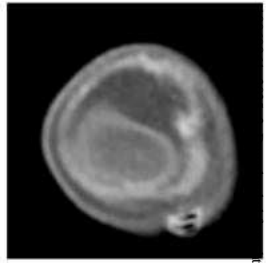


L-R Level: -15.78 mm



5 mm

Age: 17 GW

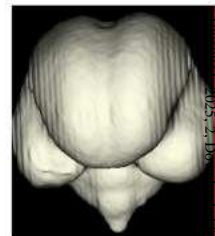


L-R Level: -17.1 mm

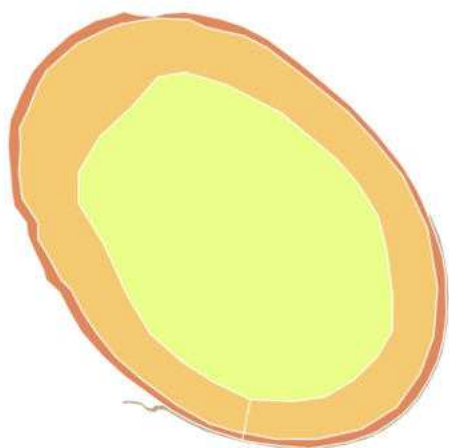


5 mm

Age: 17 GW

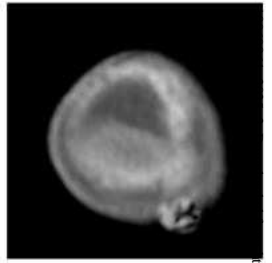


L-R Level: -17.1 mm



5 mm

Age: 17 GW



L-R Level: -18.24 mm



5 mm

Age: 17 GW

Transient Layers Cortical Areas TEMP

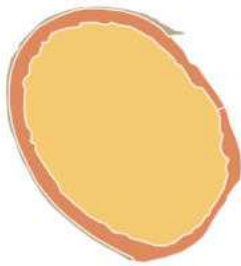
- CP
- MZ
- SGL



TEMP



L-R Level: -18.24 mm



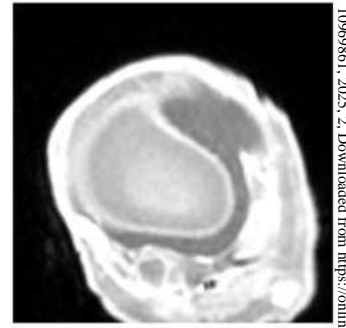
5 mm

21 Gestational Week (GW)

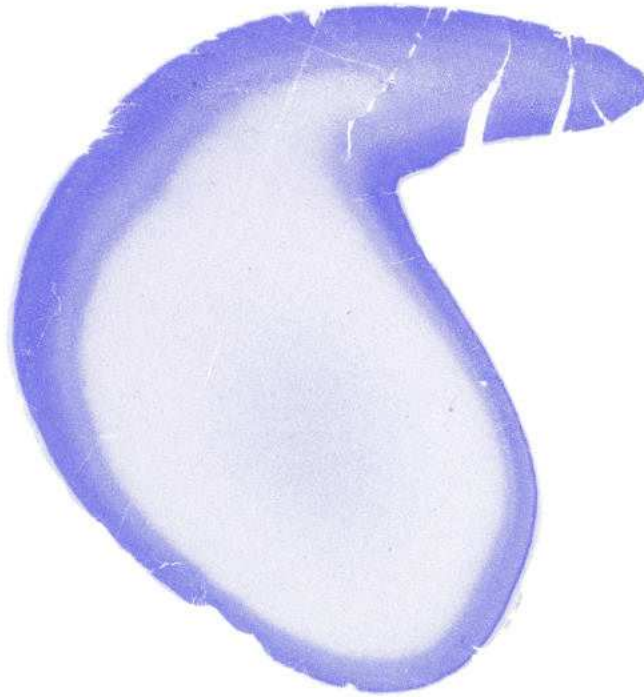
Sagittal

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Age: 21 GW

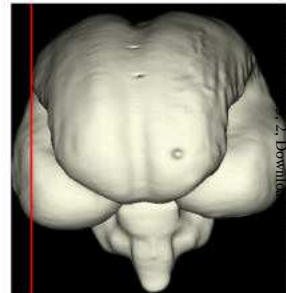


L-R Level: 19.8 mm



5 mm

Age: 21 GW

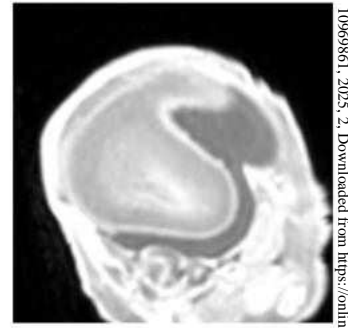


L-R Level: 19.8 mm

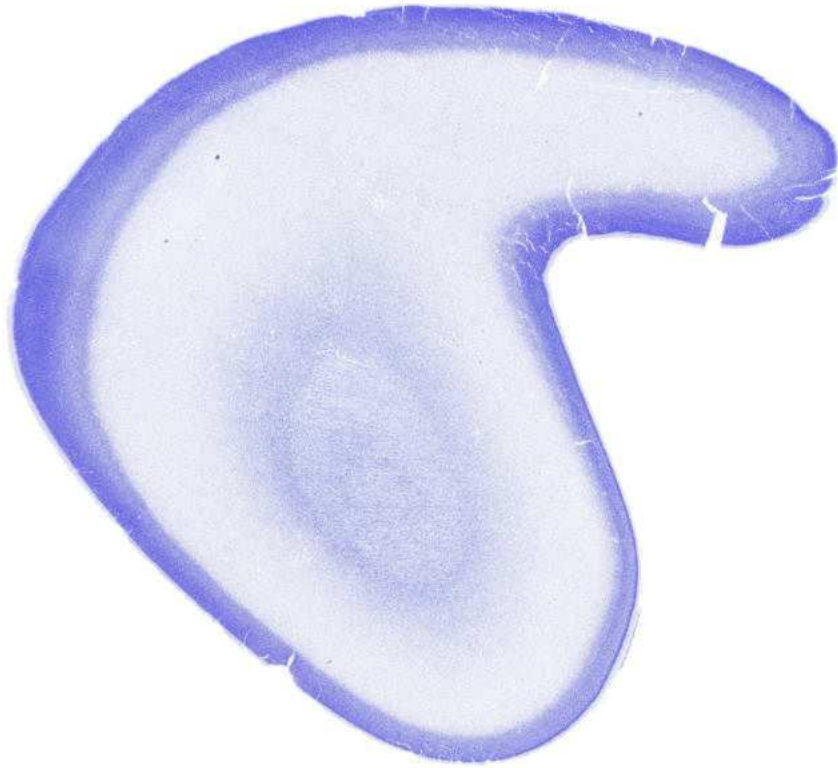


5 mm

Age: 21 GW

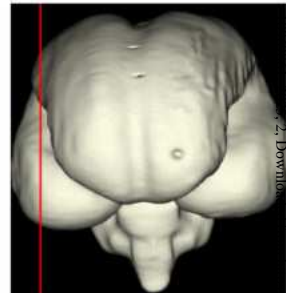


L-R Level: 18.18 mm

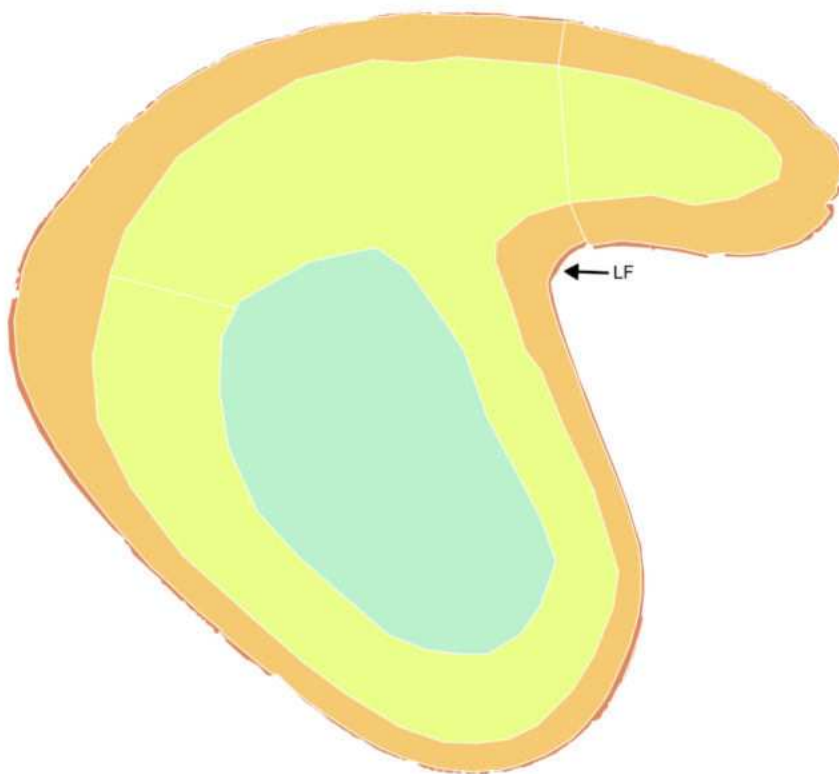


5 mm

Age: 21 GW



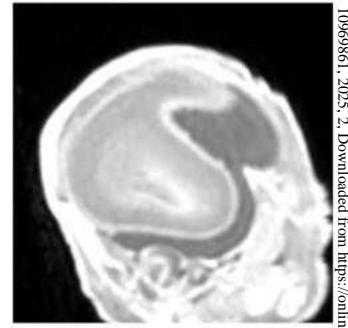
L-R Level: 18.18 mm



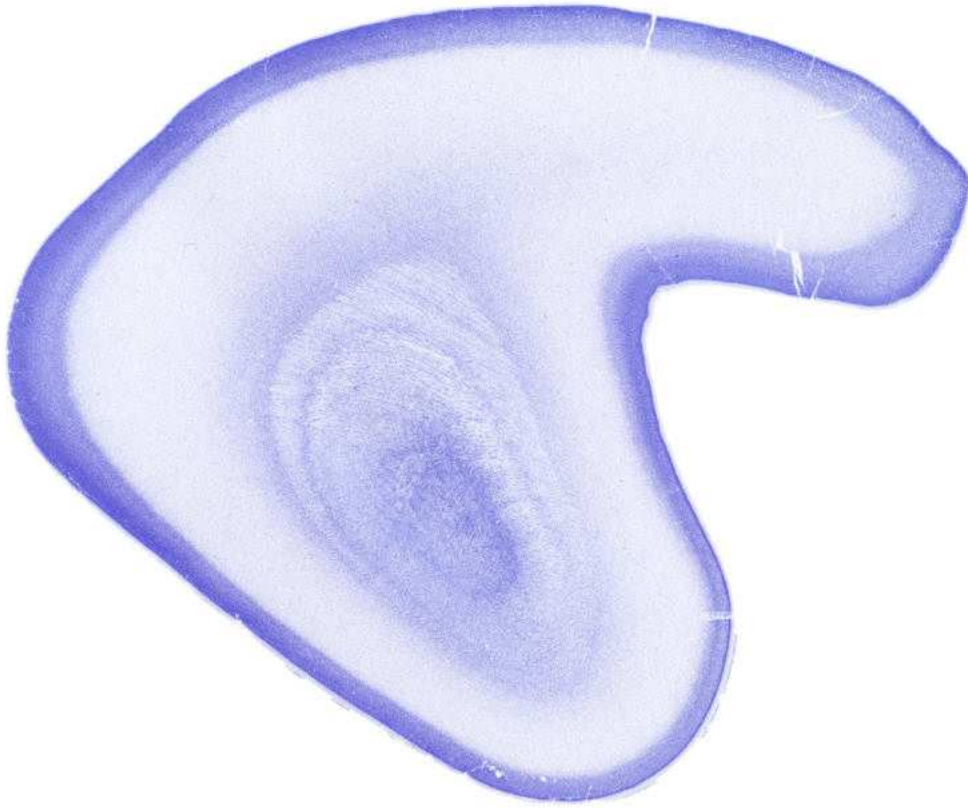
5 mm

→ LF: Lateral fissure

Age: 21 GW

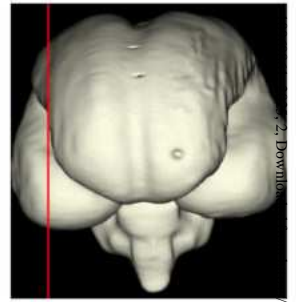
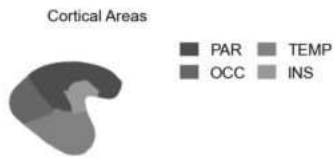
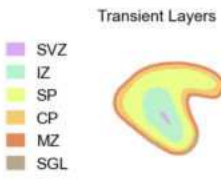


L-R Level: 16.74 mm

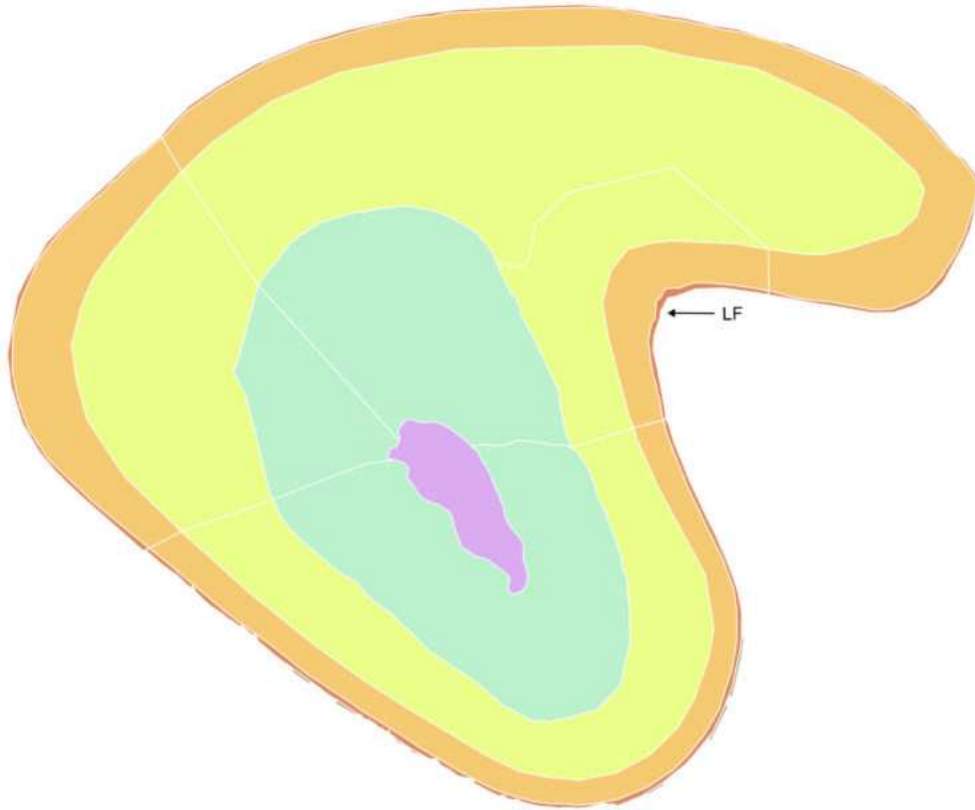


5 mm

Age: 21 GW



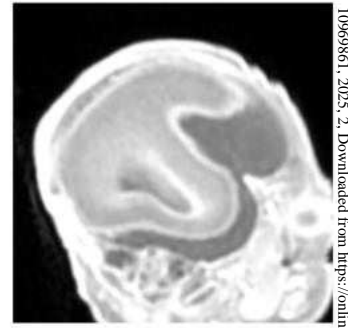
L-R Level: 16.74 mm



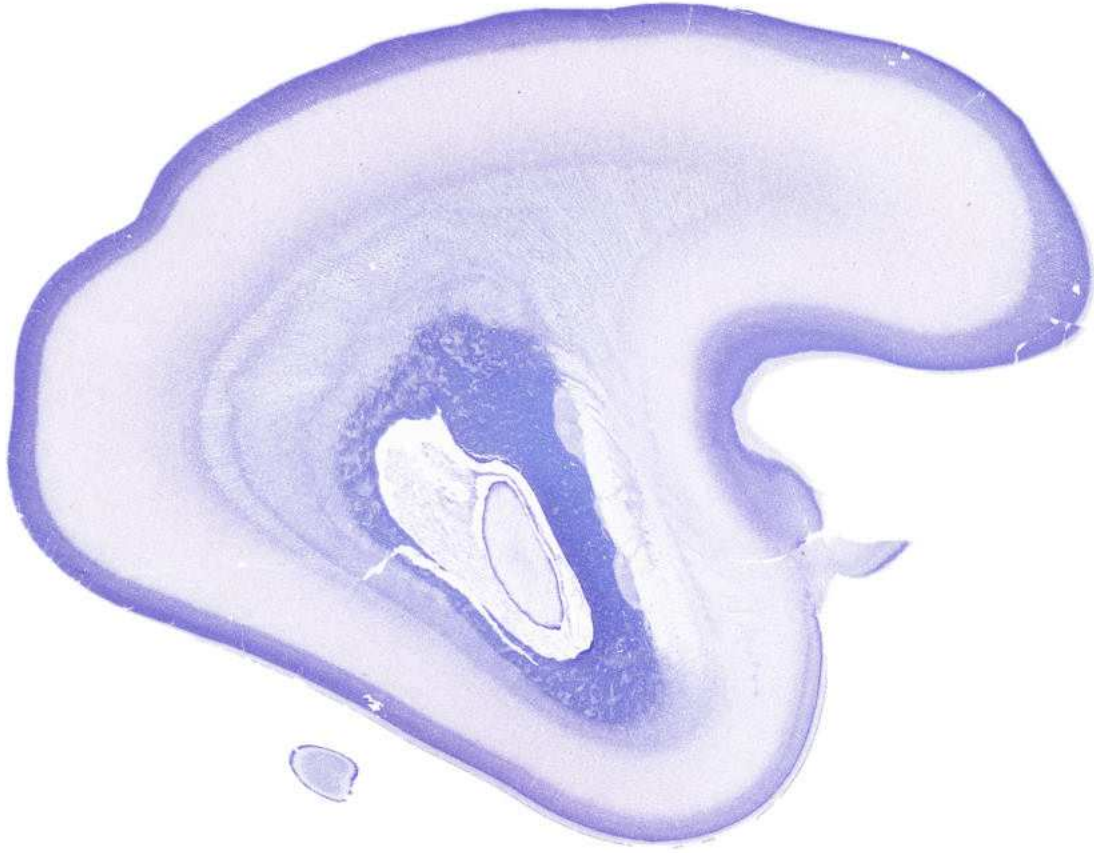
5 mm

→ LF: Lateral fissure

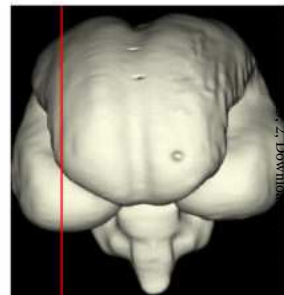
Age: 21 GW



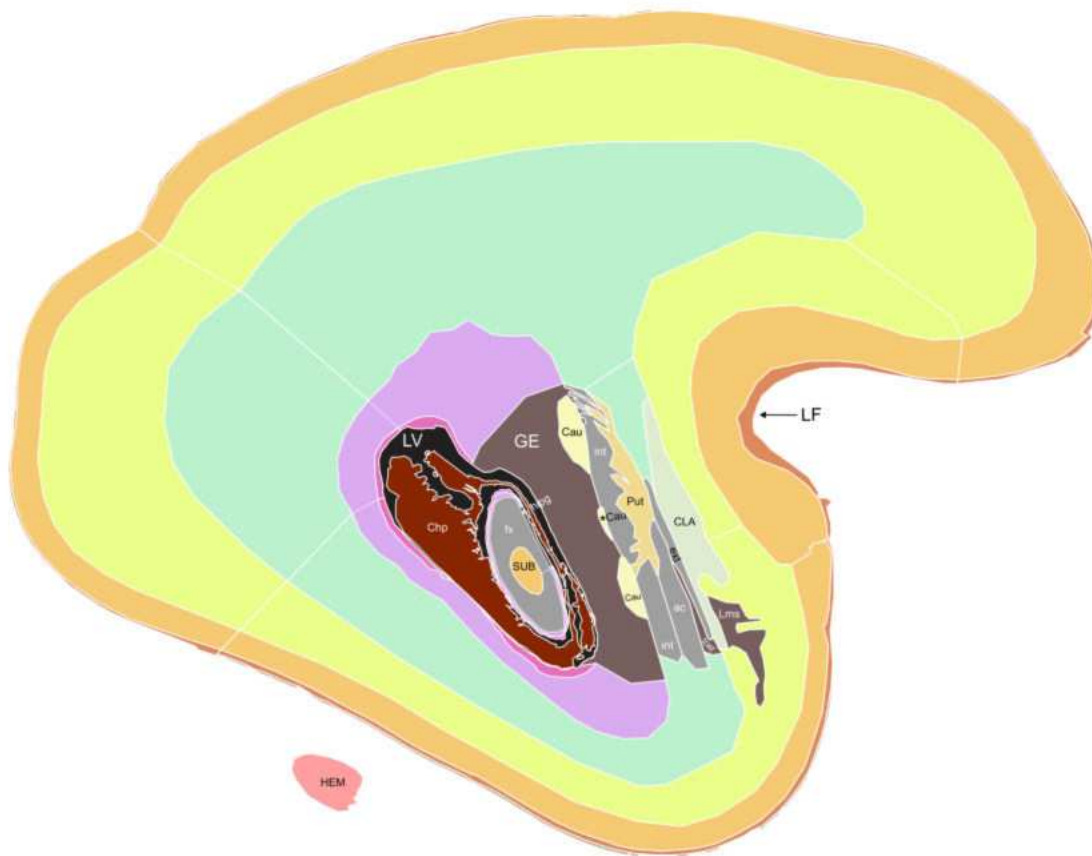
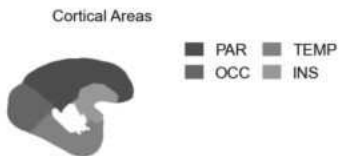
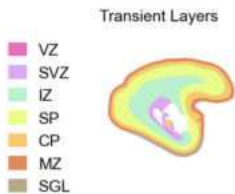
L-R Level: 14.46 mm



5 mm



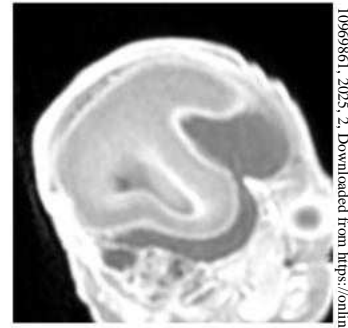
L-R Level: 14.46 mm



5 mm

- | | | | |
|-------------------------|-------------------------------|--------------------------------|---|
| CLA: Claustrum | HEM: Cerebellar hemispheres | SUB: Cortical plate, subiculum | hipg: Hippocampal gliopithelium/ependyma |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | int: Internal capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule | tcet: Transient cell zone in the external capsule |
| GE: Ganglionic eminence | Put: Putamen | fx: Fornix | → LF: Lateral fissure |

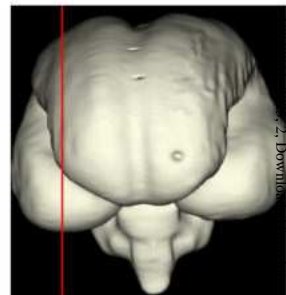
Age: 21 GW



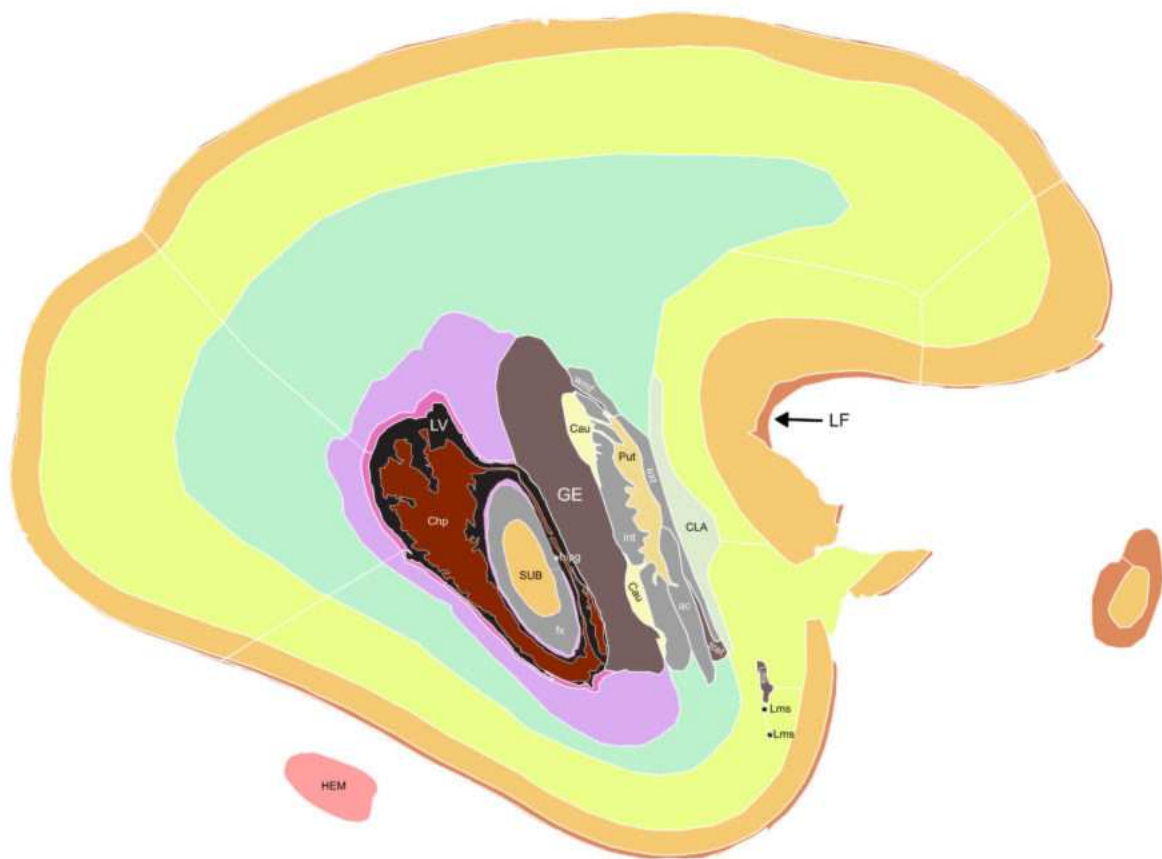
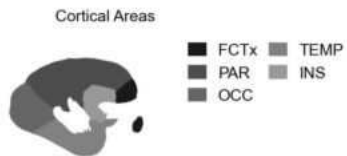
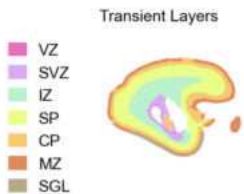
L-R Level: 14.28 mm



5 mm



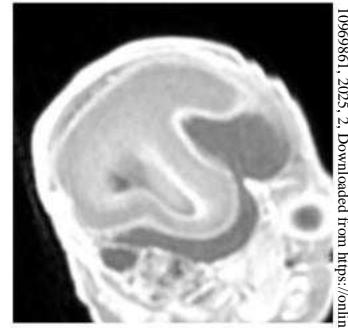
L-R Level: 14.28 mm



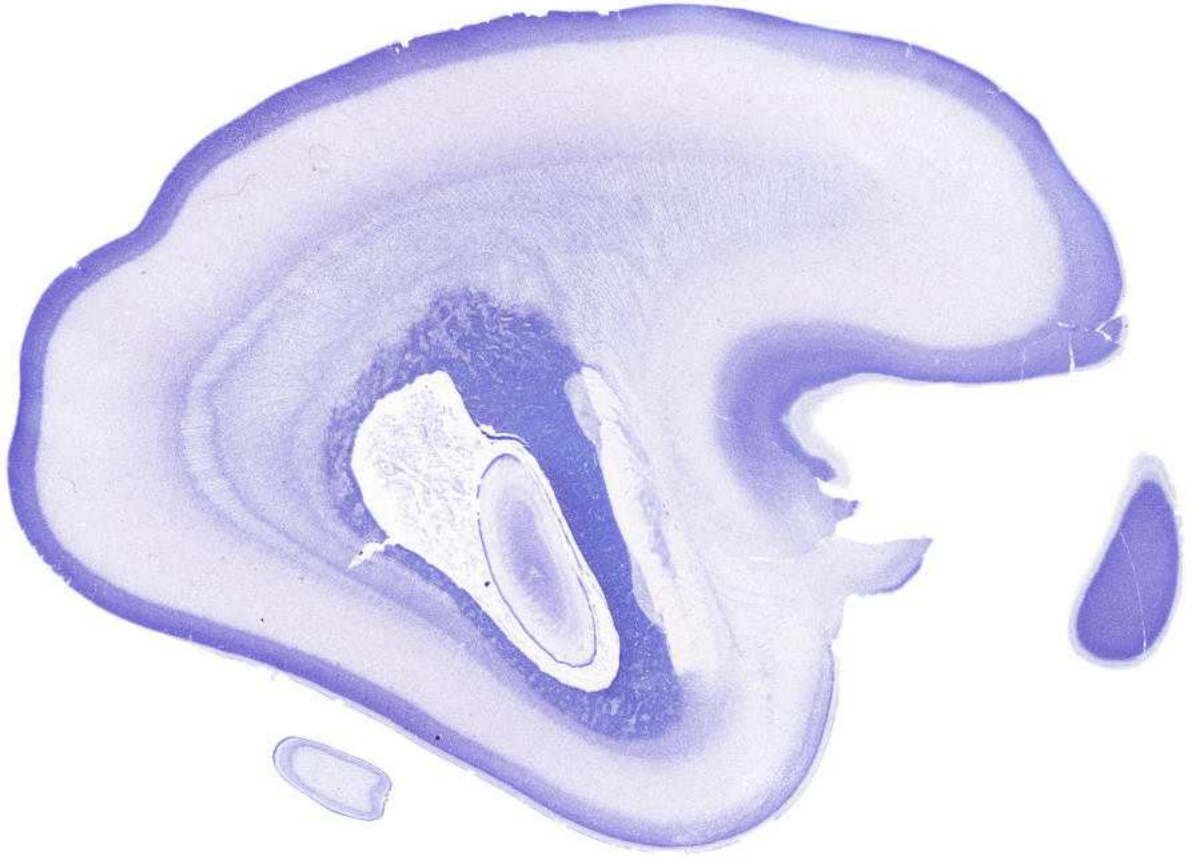
5 mm

- | | | | |
|-------------------------|-------------------------------|--------------------------------|---|
| CLA: Claustrum | HEM: Cerebellar hemispheres | SUB: Cortical plate, subiculum | hipg: Hippocampal gliopithelium/ependyma |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | int: Internal capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule | tcet: Transient cell zone in the external capsule |
| GE: Ganglionic eminence | Put: Putamen | fx: Fornix | wmf: White matter fibers |
| | | | → LF: Lateral fissure |

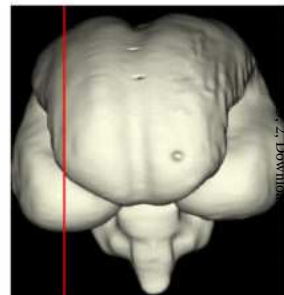
Age: 21 GW



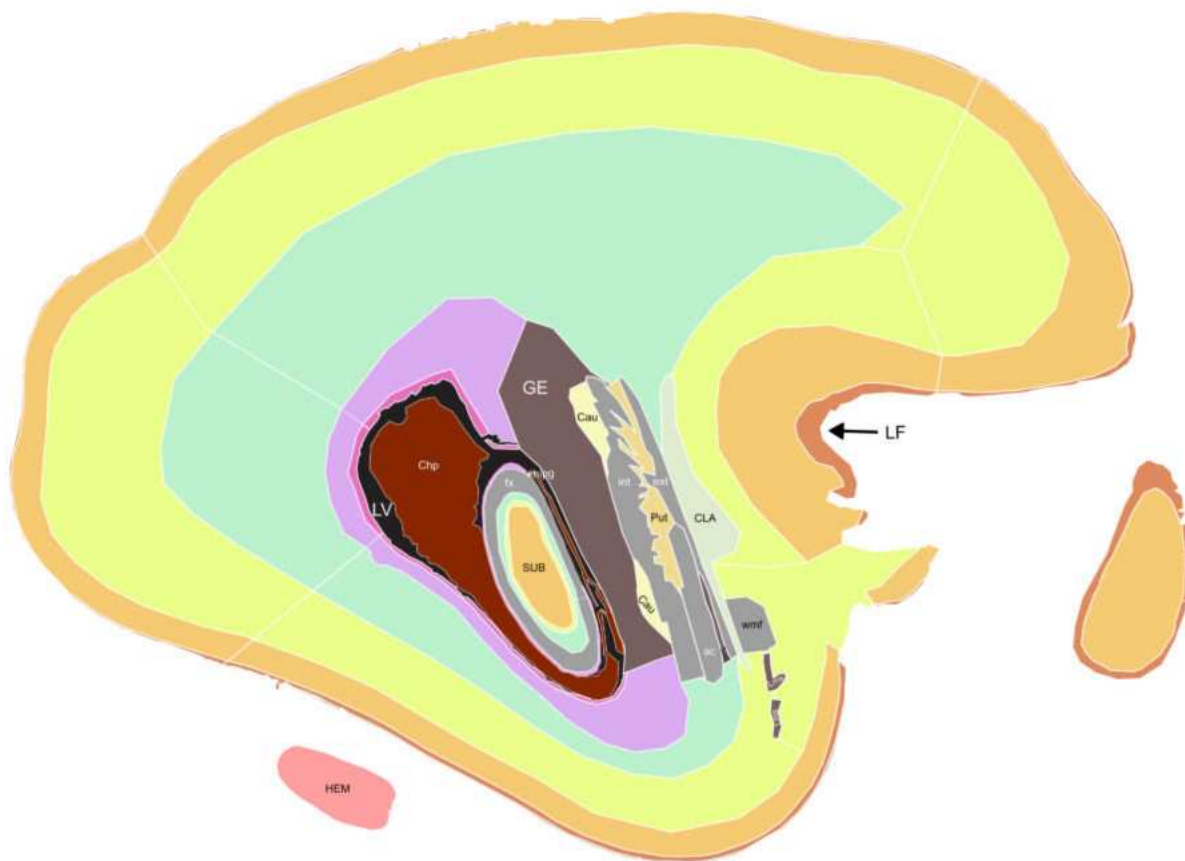
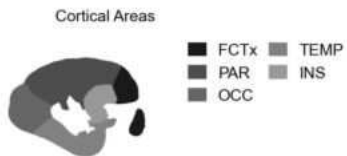
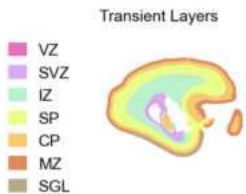
L-R Level: 13.98 mm



5 mm



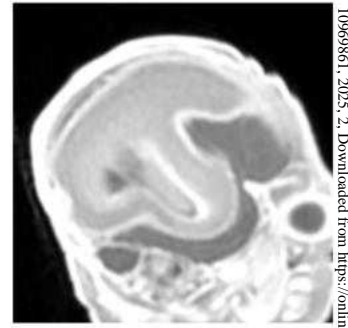
L-R Level: 13.98 mm



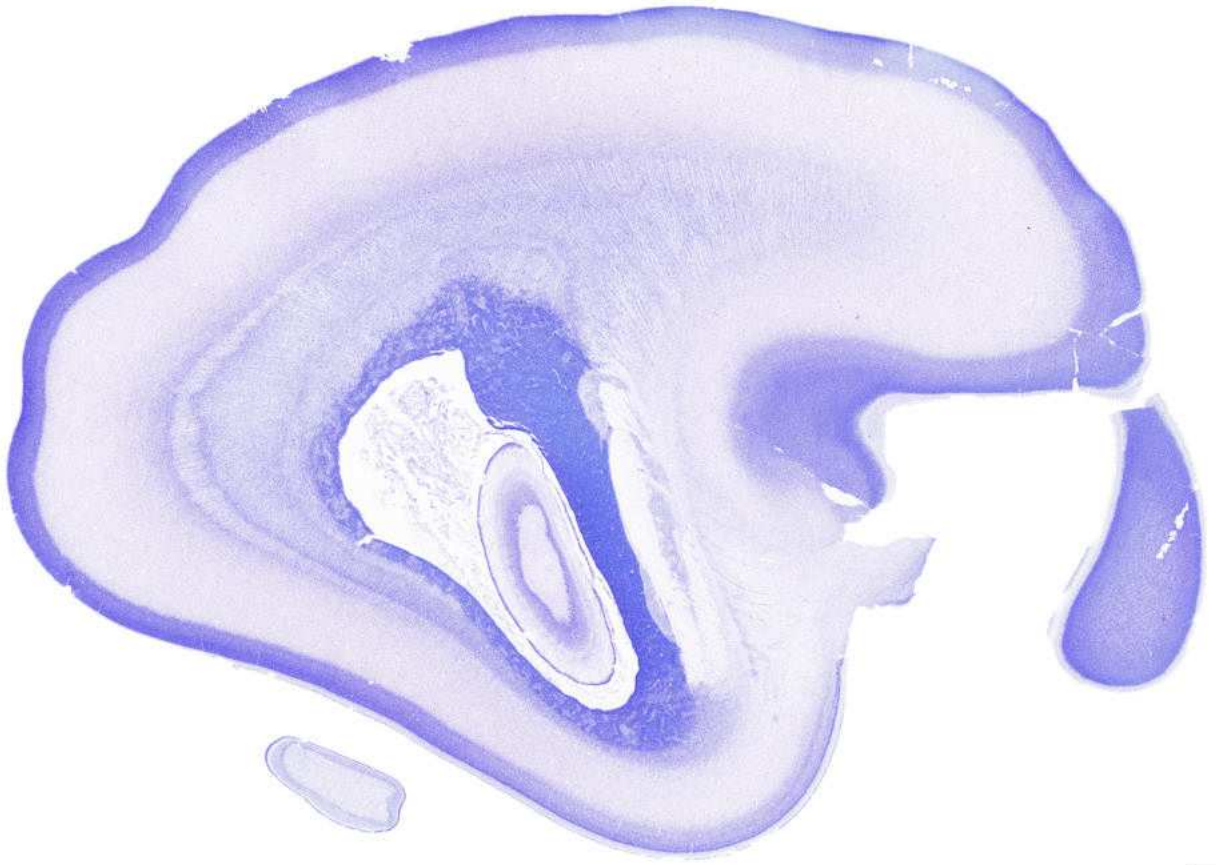
5 mm

- | | | | |
|-------------------------|-------------------------------|--------------------------------|---|
| CLA: Claustrum | HEM: Cerebellar hemispheres | SUB: Cortical plate, subiculum | hipg: Hippocampal gliopithelium/ependyma |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | int: Internal capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule | tcet: Transient cell zone in the external capsule |
| GE: Ganglionic eminence | Put: Putamen | fx: Fornix | wmf: White matter fibers |
| | | | → LF: Lateral fissure |

Age: 21 GW

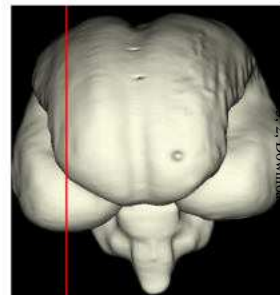


L-R Level: 13.68 mm

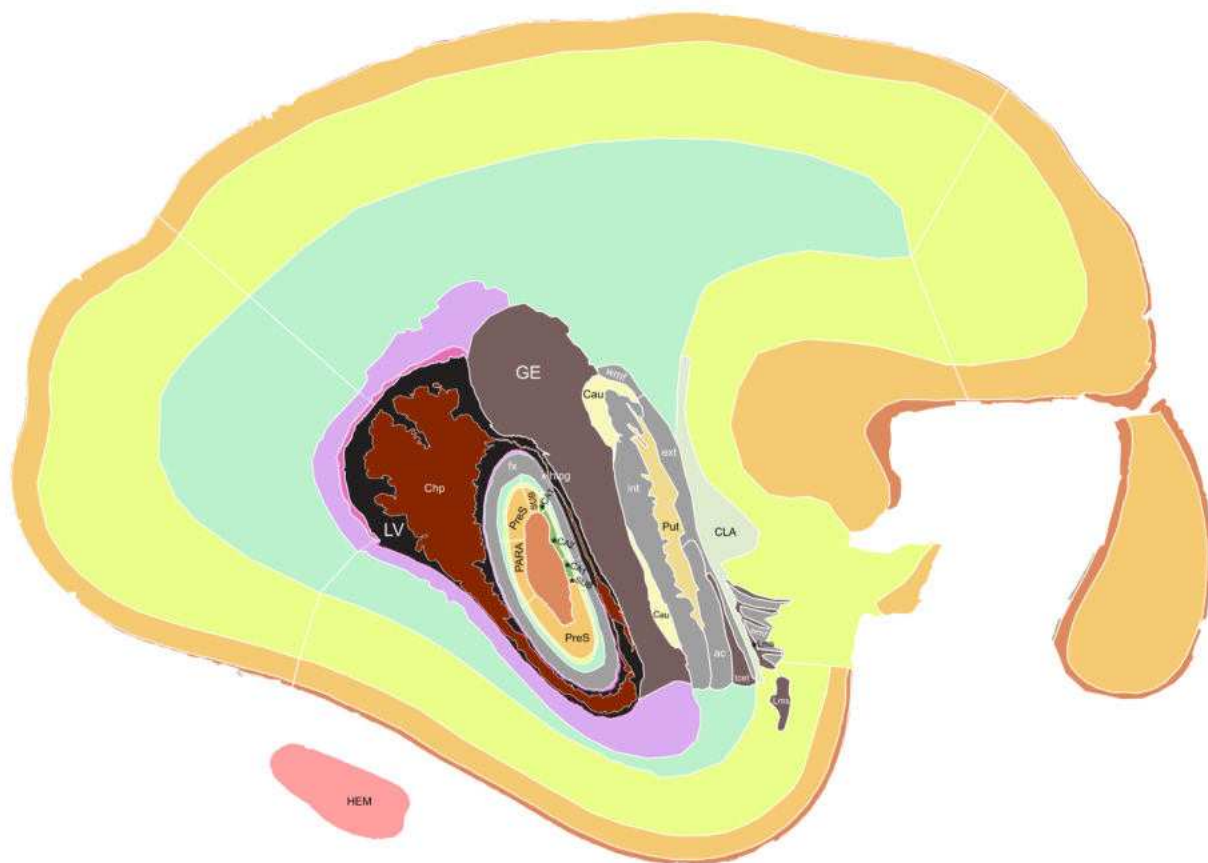
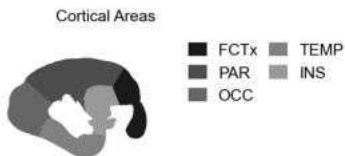
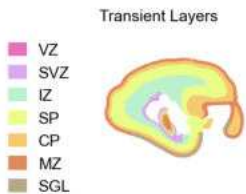


5 mm

Age: 21 GW



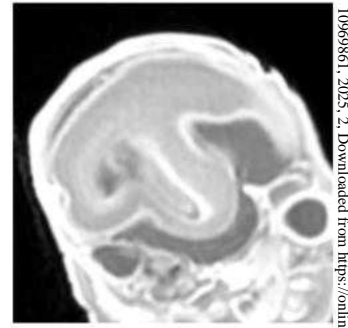
L-R Level: 13.68 mm



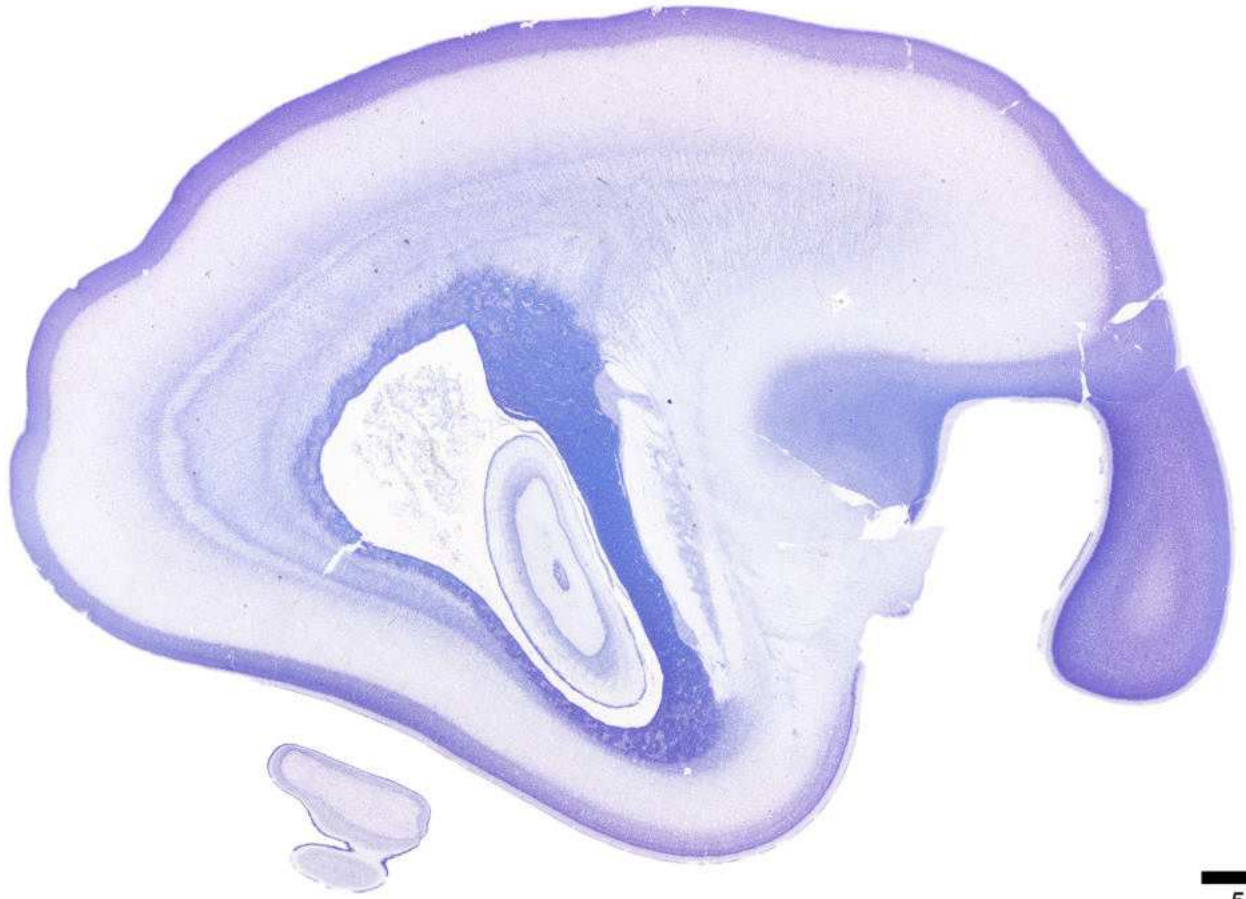
5 mm

- | | | | |
|------------------------------|-------------------------------------|------------------------------------|---|
| CA1: CA1 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | fx: Fornix |
| CA2: CA2 field [hippocampus] | HEM: Cerebellar hemispheres | Put: Putamen | hipg: Hippocampal gloeipithelium/ependyma |
| CLA: Claustrum | LV: Lateral ventricle | SUB: Cortical plate, subiculum | int: Internal capsule |
| Cau: Caudate nucleus | Lms: Lateral migratory stream | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Chp: Choroid plexus | PARA: Cortical plate, parasubiculum | ext: External capsule | wmf: White matter fibers |

Age: 21 GW

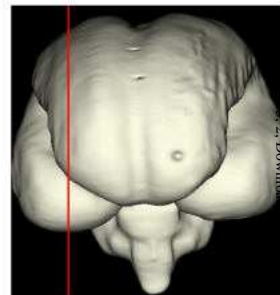


L-R Level: 13.32 mm

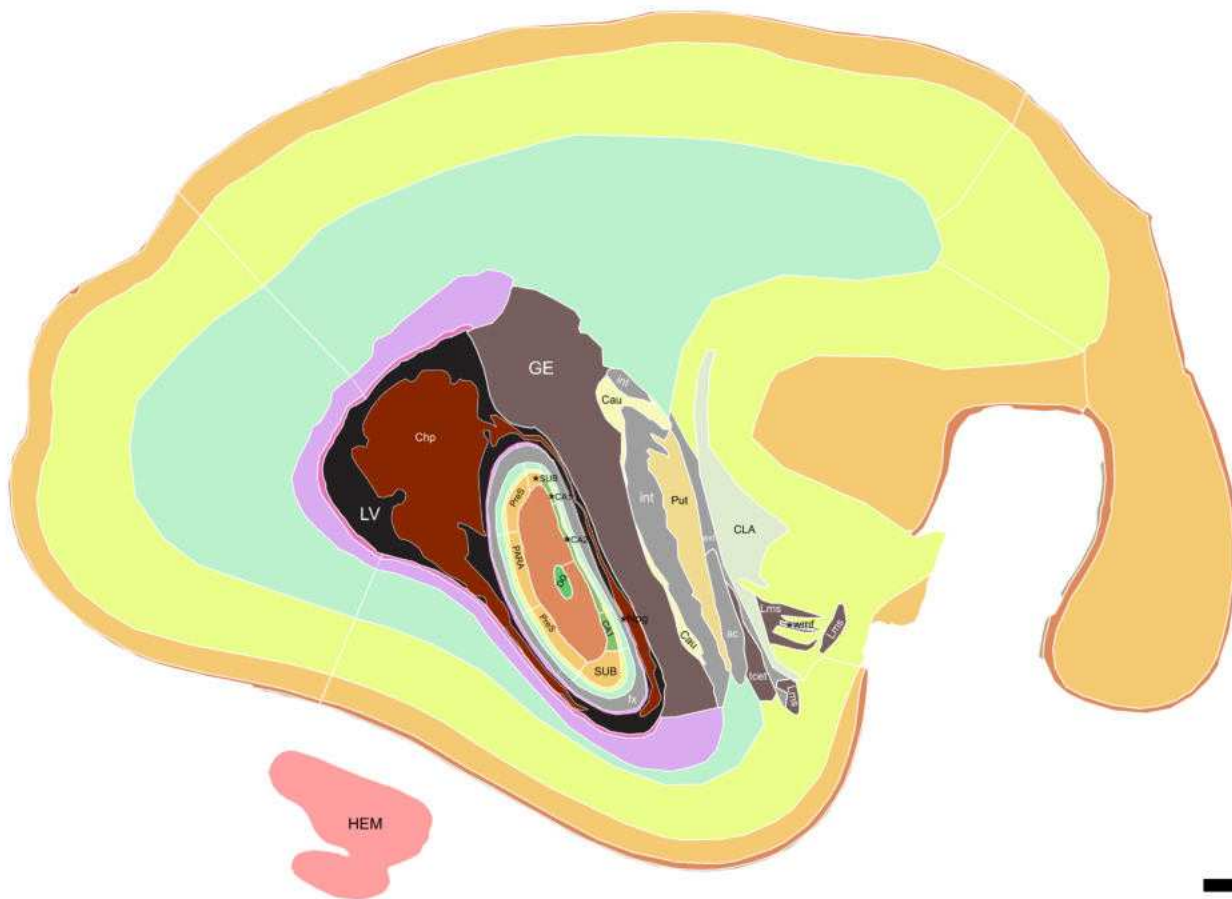
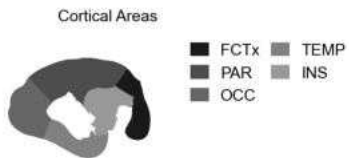
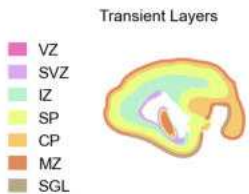


5 mm

Age: 21 GW



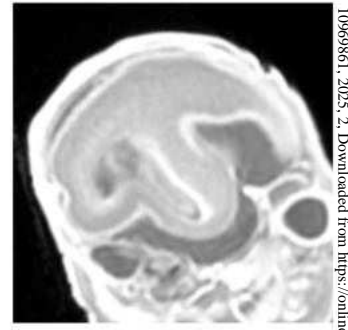
L-R Level: 13.32 mm



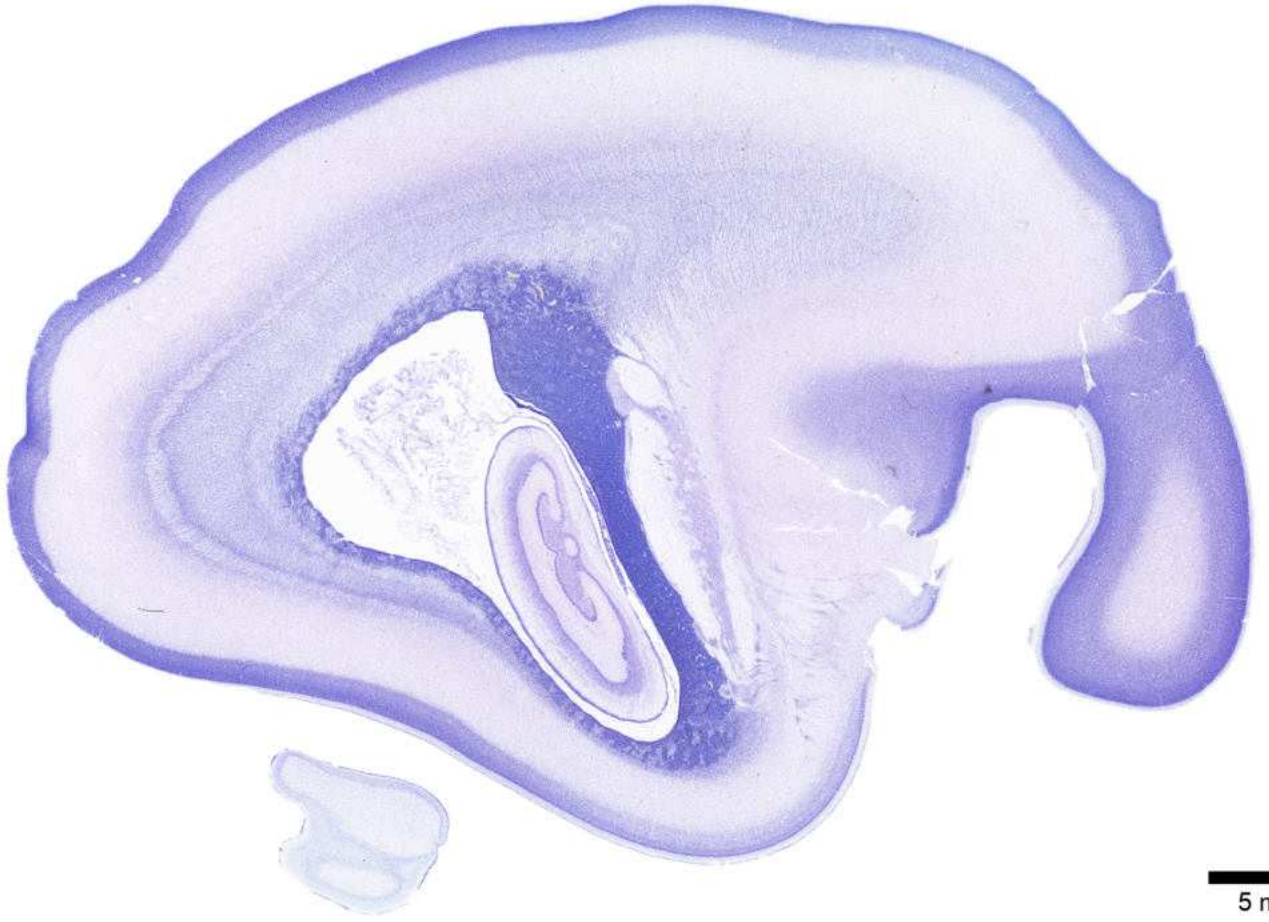
5 mm

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CLA: Claustrum ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus | <ul style="list-style-type: none"> ■ GE: Ganglionic eminence ■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream ■ PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ SUB: Cortical plate, subiculum ■ ac: Anterior commissure ■ ext: External capsule | <ul style="list-style-type: none"> ■ fx: Fornix ■ hipg: Hippocampal gloeopithelium/ependyma ■ int: Internal capsule ■ tcet: Transient cell zone in the external capsule ■ wmf: White matter fibers |
|--|---|--|---|

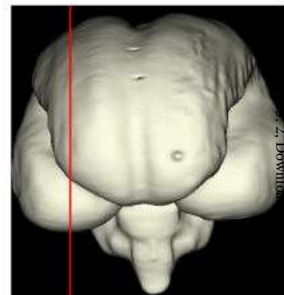
Age: 21 GW



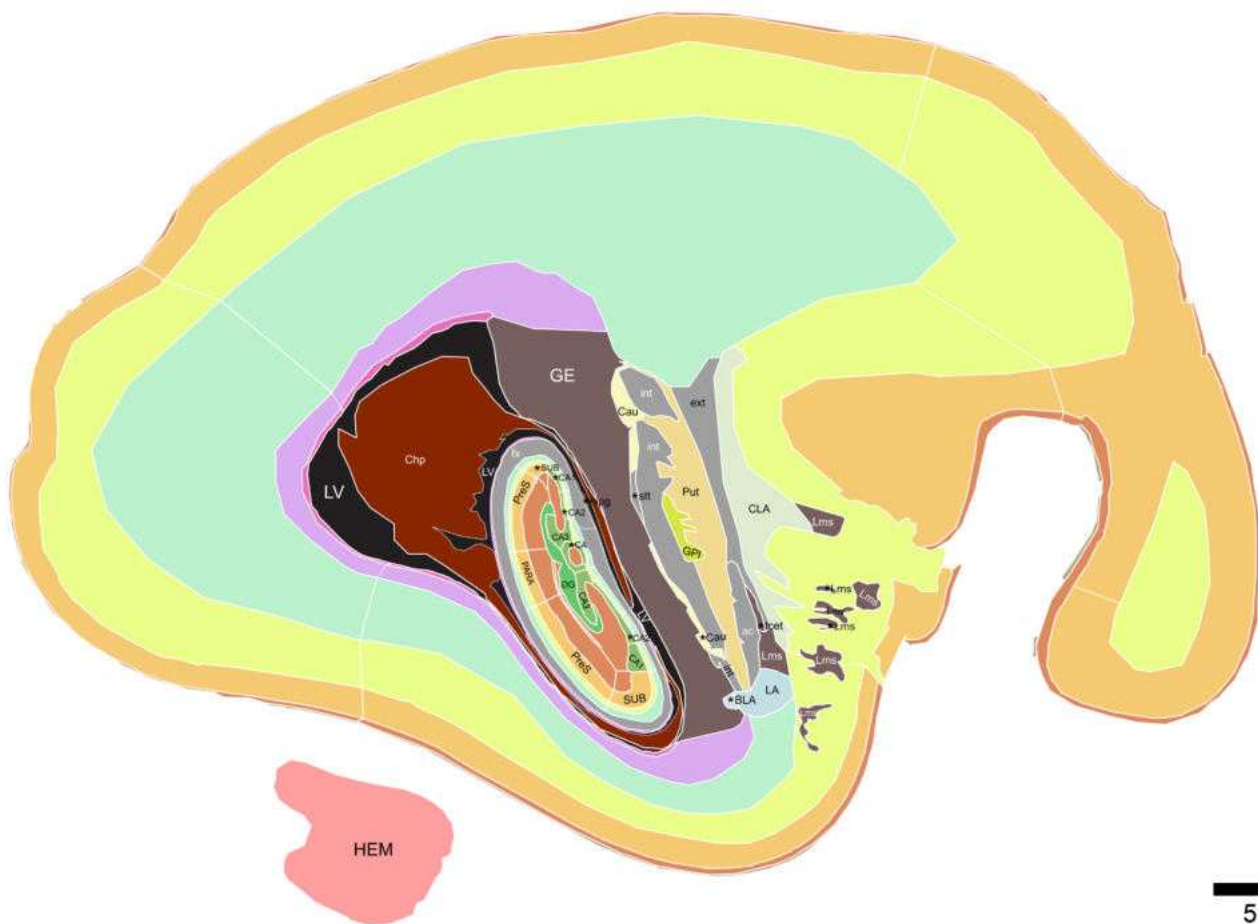
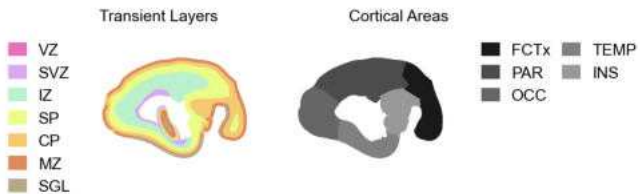
L-R Level: 12.96 mm



5 mm



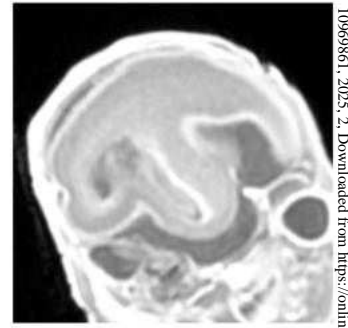
L-R Level: 12.96 mm



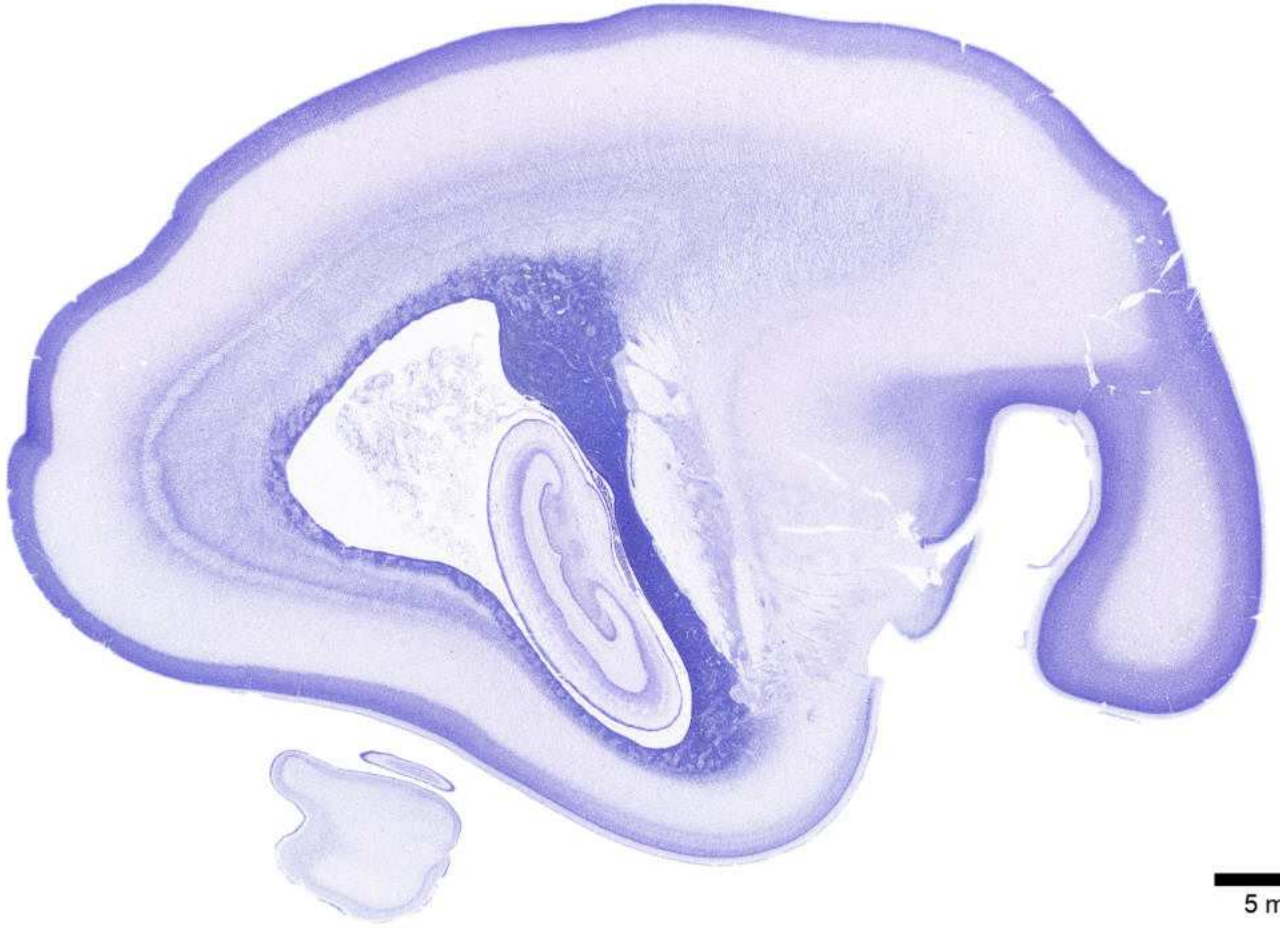
5 mm

- | | | | |
|------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule |
| CA: Ammon's horn | DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | fx: Fornix |
| CA1: CA1 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GPI: Globus pallidus lateral segment | Put: Putamen | int: Internal capsule |
| CA3: CA3 field [hippocampus] | HEM: Cerebellar hemispheres | SUB: Cortical plate, subiculum | st: Stria terminalis |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | | |

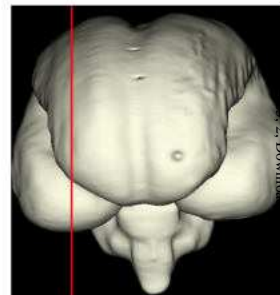
Age: 21 GW



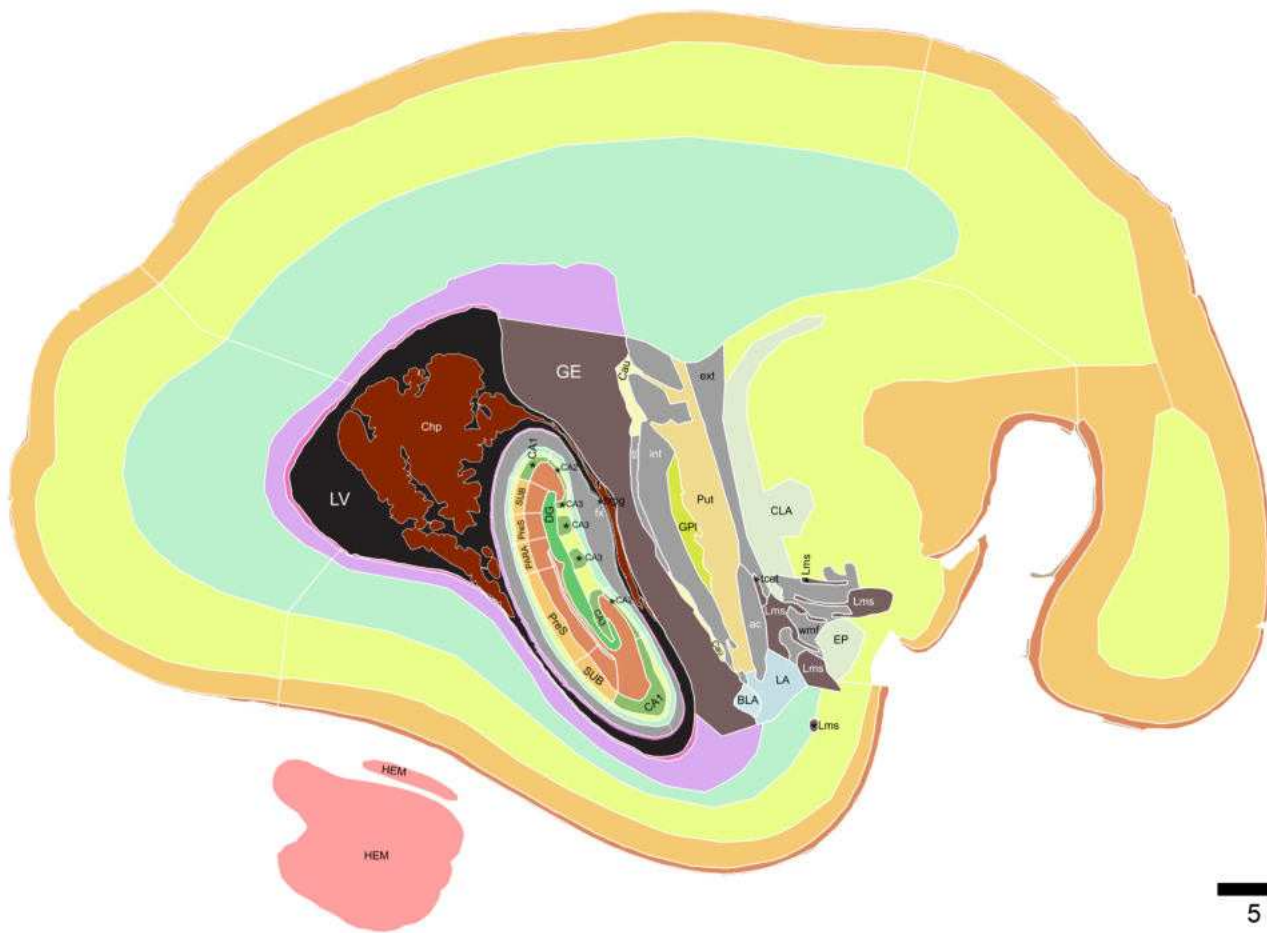
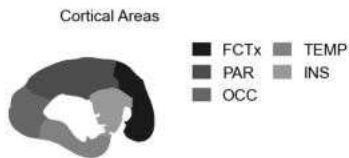
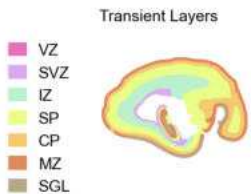
L-R Level: 12.72 mm



5 mm



L-R Level: 12.72 mm



5 mm

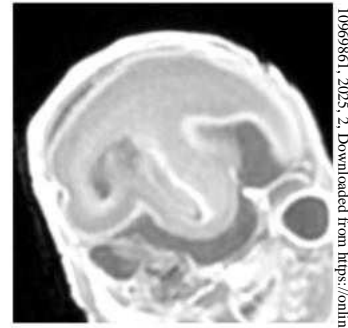
- BL: Basal nucleus [amygdala]
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CLA: Claustrum
- Cau: Caudate nucleus
- Chp: Choroid plexus

- DG: Dentate gyrus
- EP: Endopiriform nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- HEM: Cerebellar hemispheres
- LA: Lateral nucleus [amygdala]
- LV: Lateral ventricle

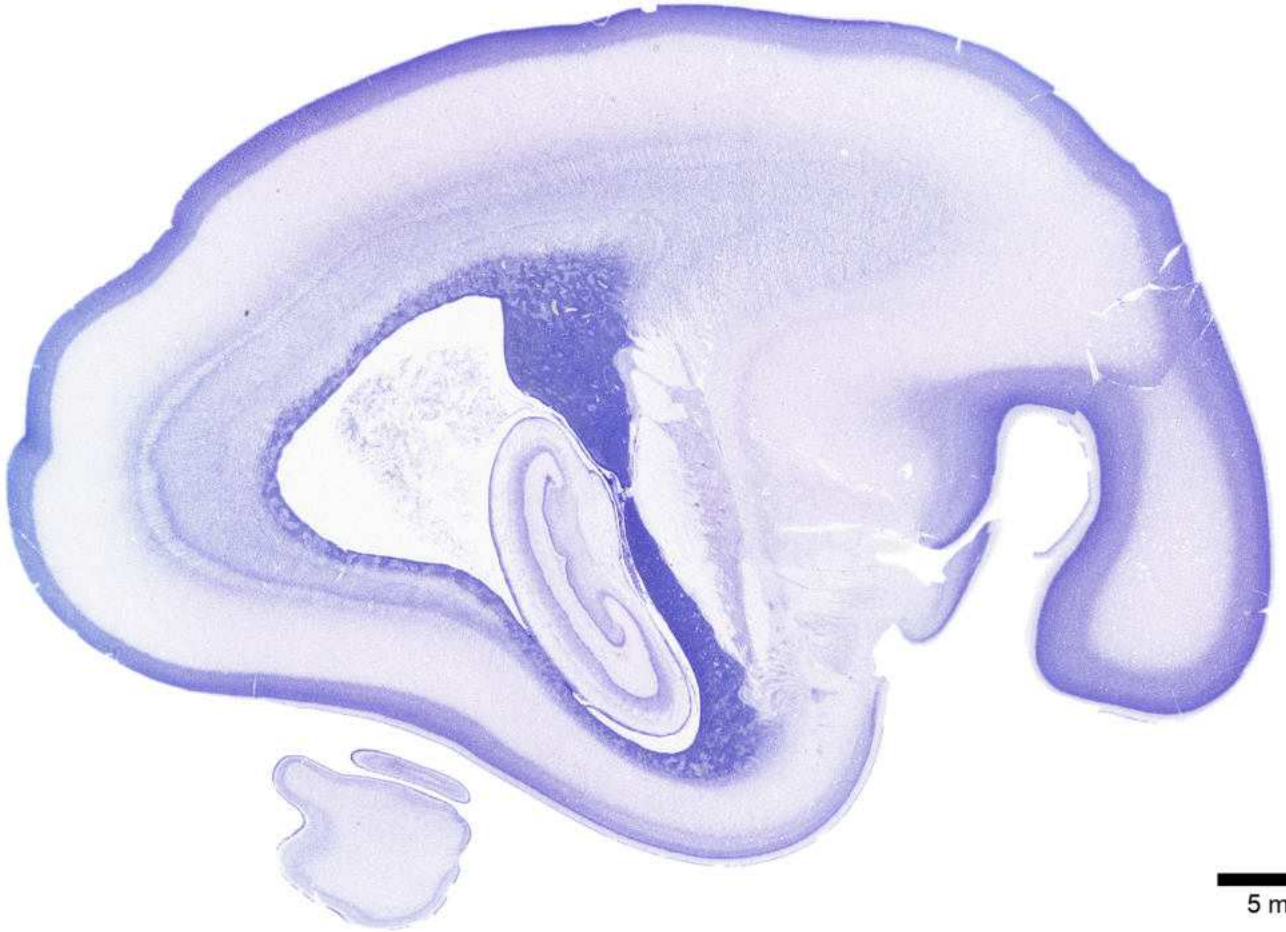
- Lms: Lateral migratory stream
- PARA: Cortical plate, parasubiculum
- PreS: Cortical plate, presubiculum
- Put: Putamen
- SUB: Cortical plate, subiculum
- ac: Anterior commissure
- ext: External capsule

- fx: Fornix
- hipg: Hippocampal glioepithelium/ependyma
- int: Internal capsule
- stt: Stria terminalis
- tcet: Transient cell zone in the external capsule
- wmf: White matter fibers

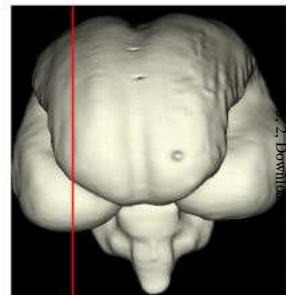
Age: 21 GW



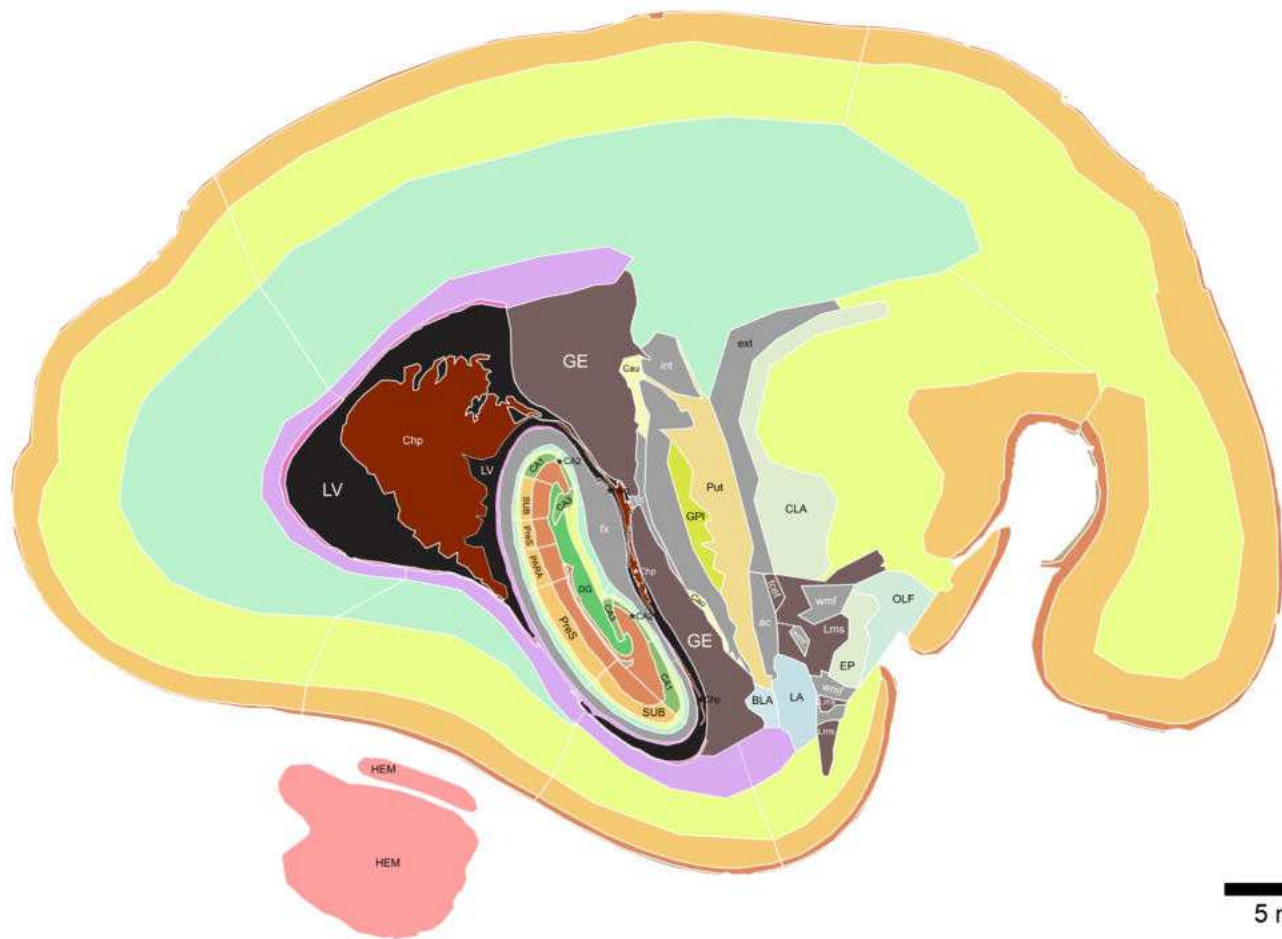
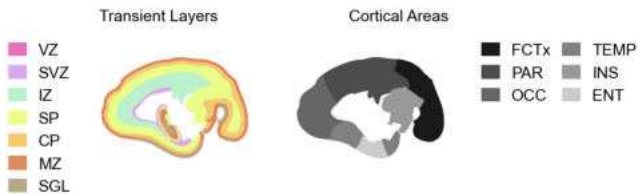
L-R Level: 12.54 mm



5 mm



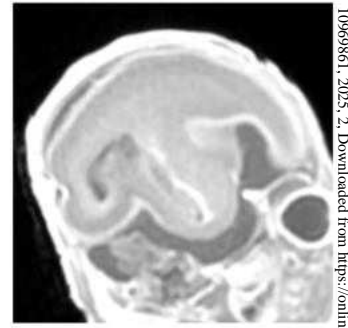
L-R Level: 12.54 mm



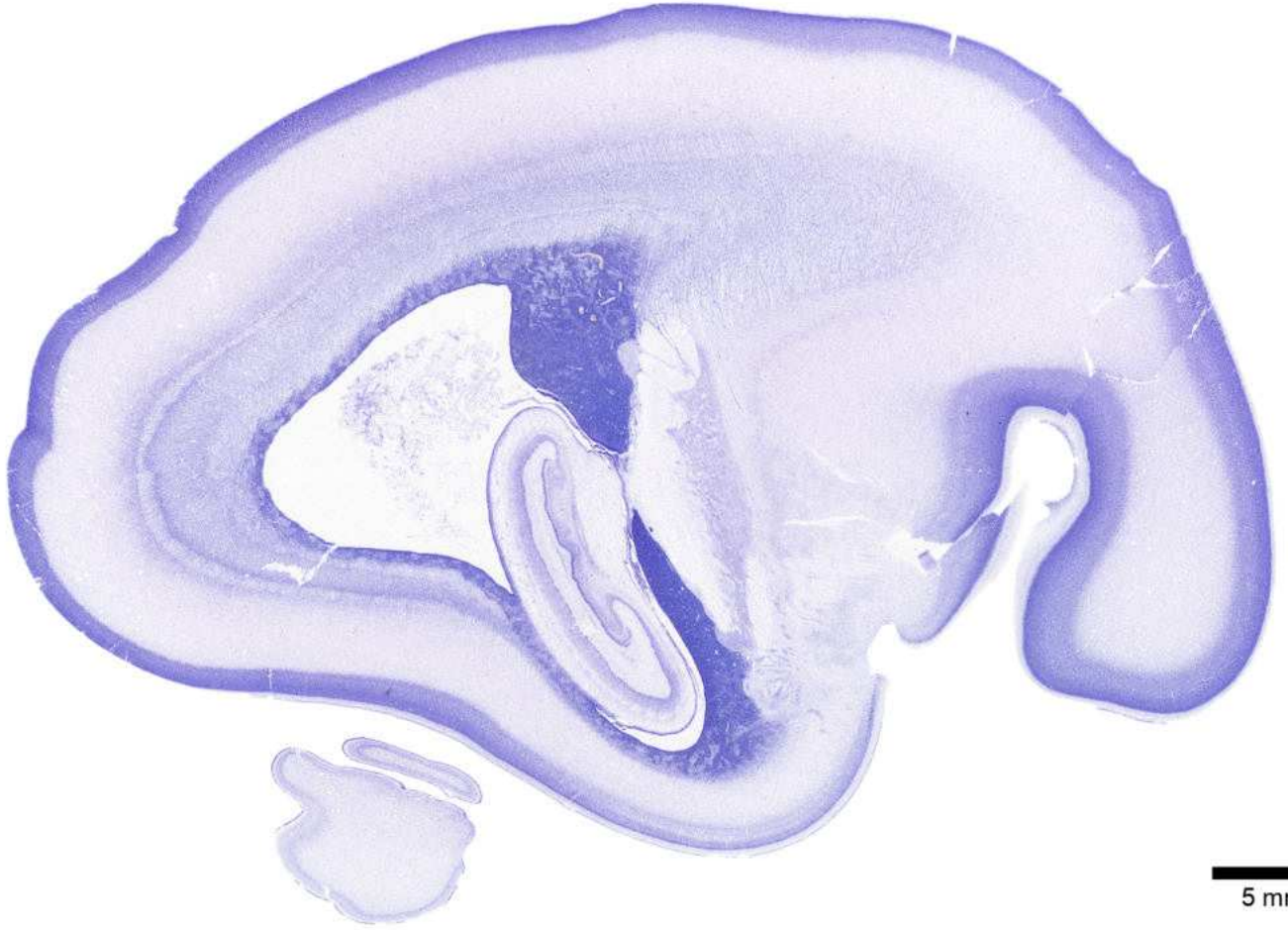
5 mm

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|------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | Lms: Lateral migratory stream | fx: Fornix |
| CA1: CA1 field [hippocampus] | EP: Endopiriform nucleus | PARA: Cortical plate, parasubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | int: Internal capsule |
| CA3: CA3 field [hippocampus] | GPI: Globus pallidus lateral segment | Put: Putamen | stt: Stria terminalis |
| CLA: Claustrum | HEM: Cerebellar hemispheres | SUB: Cortical plate, subiculum | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LA: Lateral nucleus [amygdala] | ac: Anterior commissure | wmf: White matter fibers |
| Chp: Choroid plexus | LV: Lateral ventricle | ext: External capsule | |

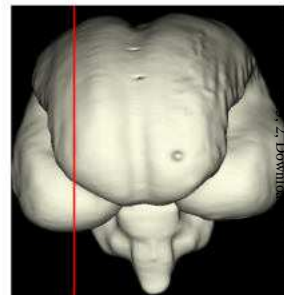
Age: 21 GW



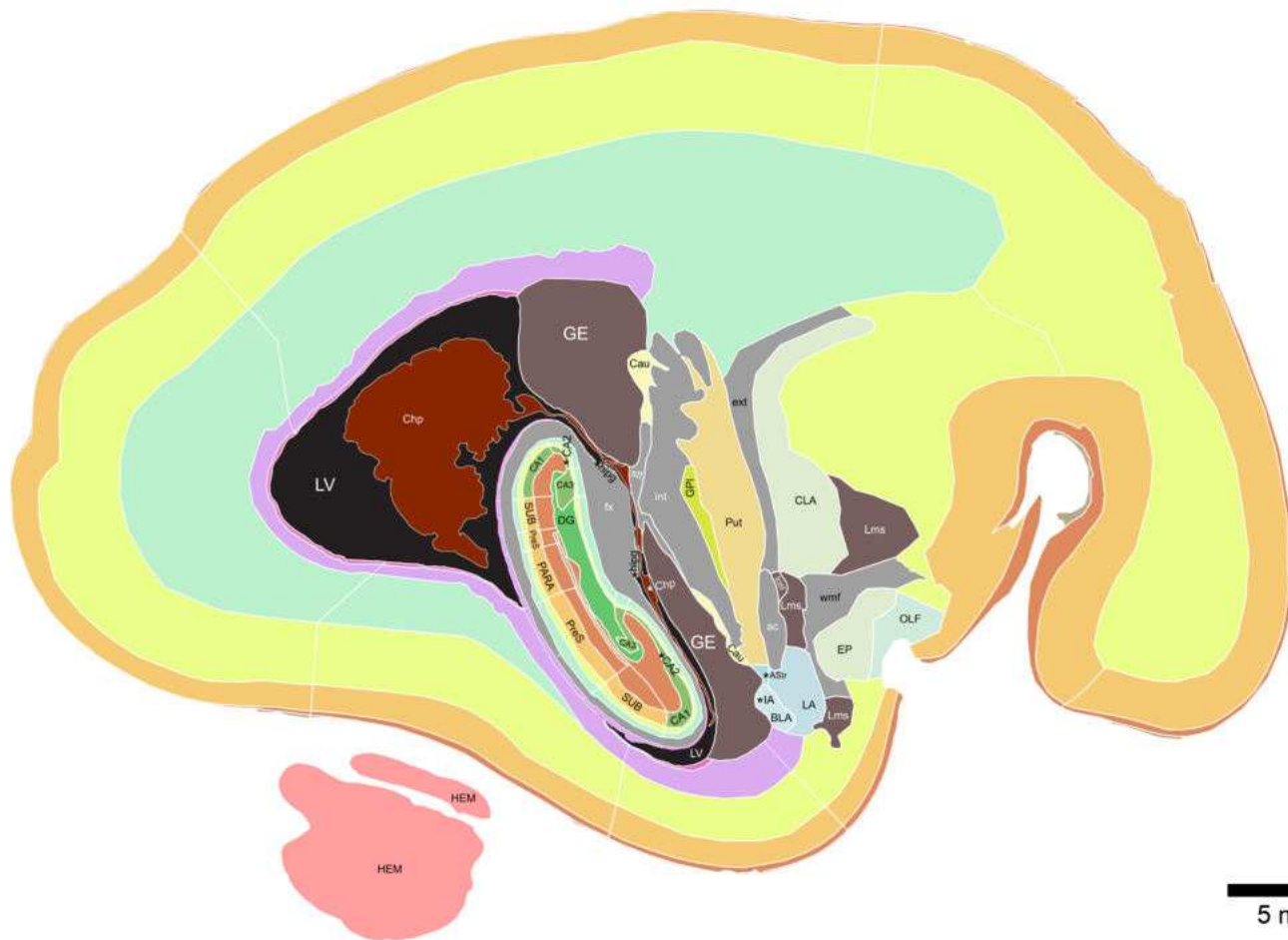
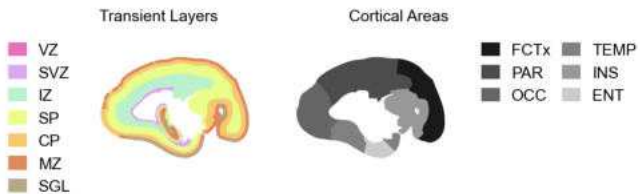
L-R Level: 12.36 mm



5 mm



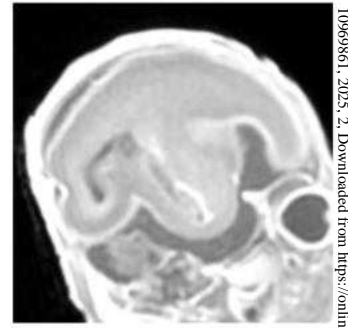
L-R Level: 12.36 mm



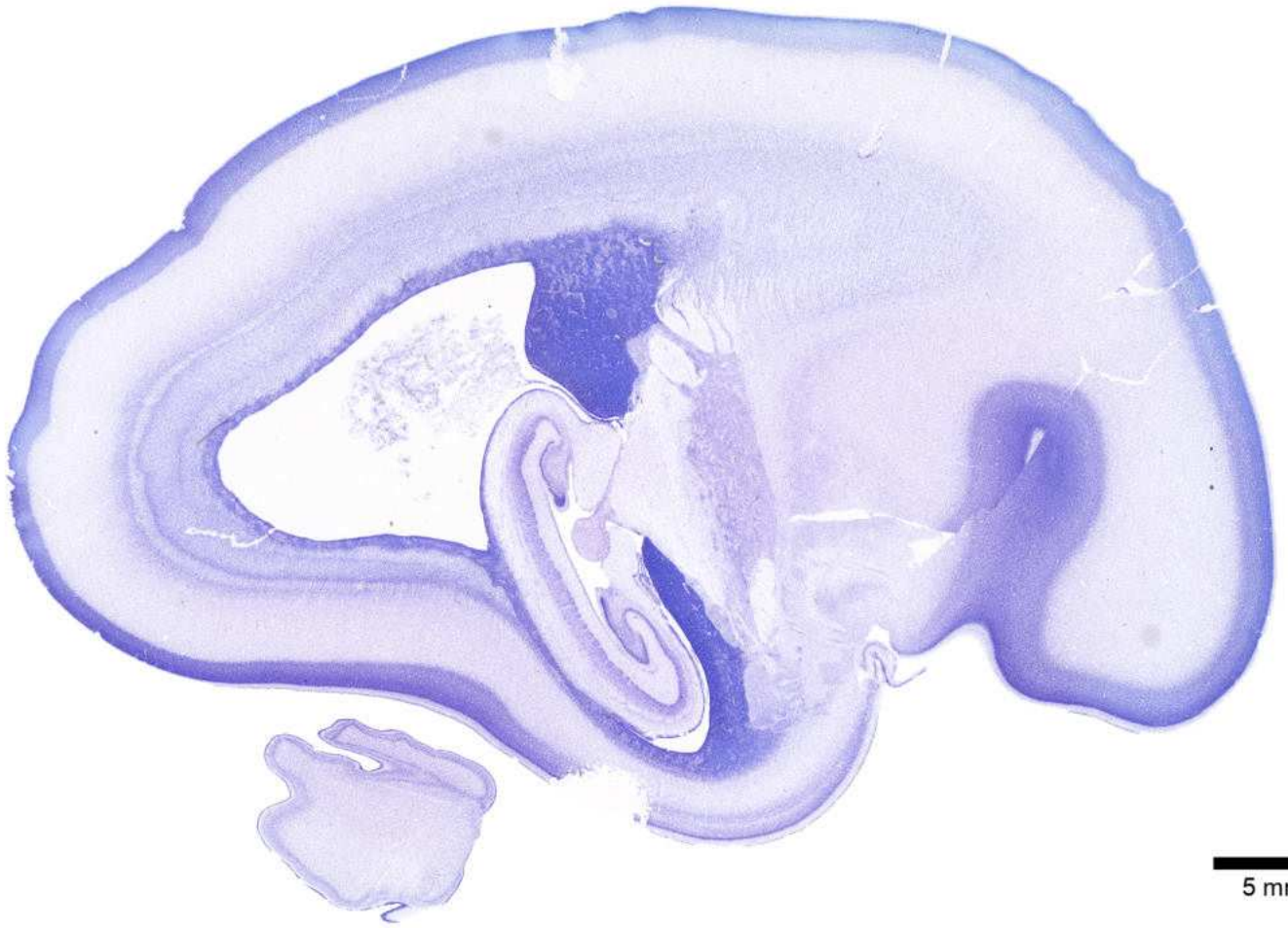
5 mm

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|---|--|--|--|
| <ul style="list-style-type: none"> ■ AStr: Amygdalo-striatal area ■ BL: Basal nucleus [amygdala] ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CLA: Claustrum ■ Cau: Caudate nucleus ■ Chp: Choroid plexus | <ul style="list-style-type: none"> ■ DG: Dentate gyrus ■ EP: Endopiriform nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ HEM: Cerebellar hemispheres ■ IA: Intercalated cell groups [amygdala] ■ LA: Lateral nucleus [amygdala] | <ul style="list-style-type: none"> ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream ■ PARA: Cortical plate, parasubiculum ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ SUB: Cortical plate, subiculum ■ ac: Anterior commissure | <ul style="list-style-type: none"> ■ ext: External capsule ■ fx: Fornix ■ hippg: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ stt: Stria terminalis ■ tcet: Transient cell zone in the external capsule ■ wmf: White matter fibers |
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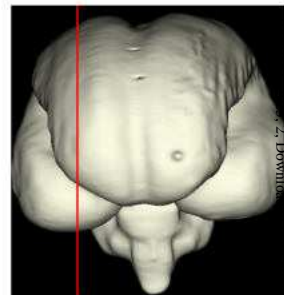
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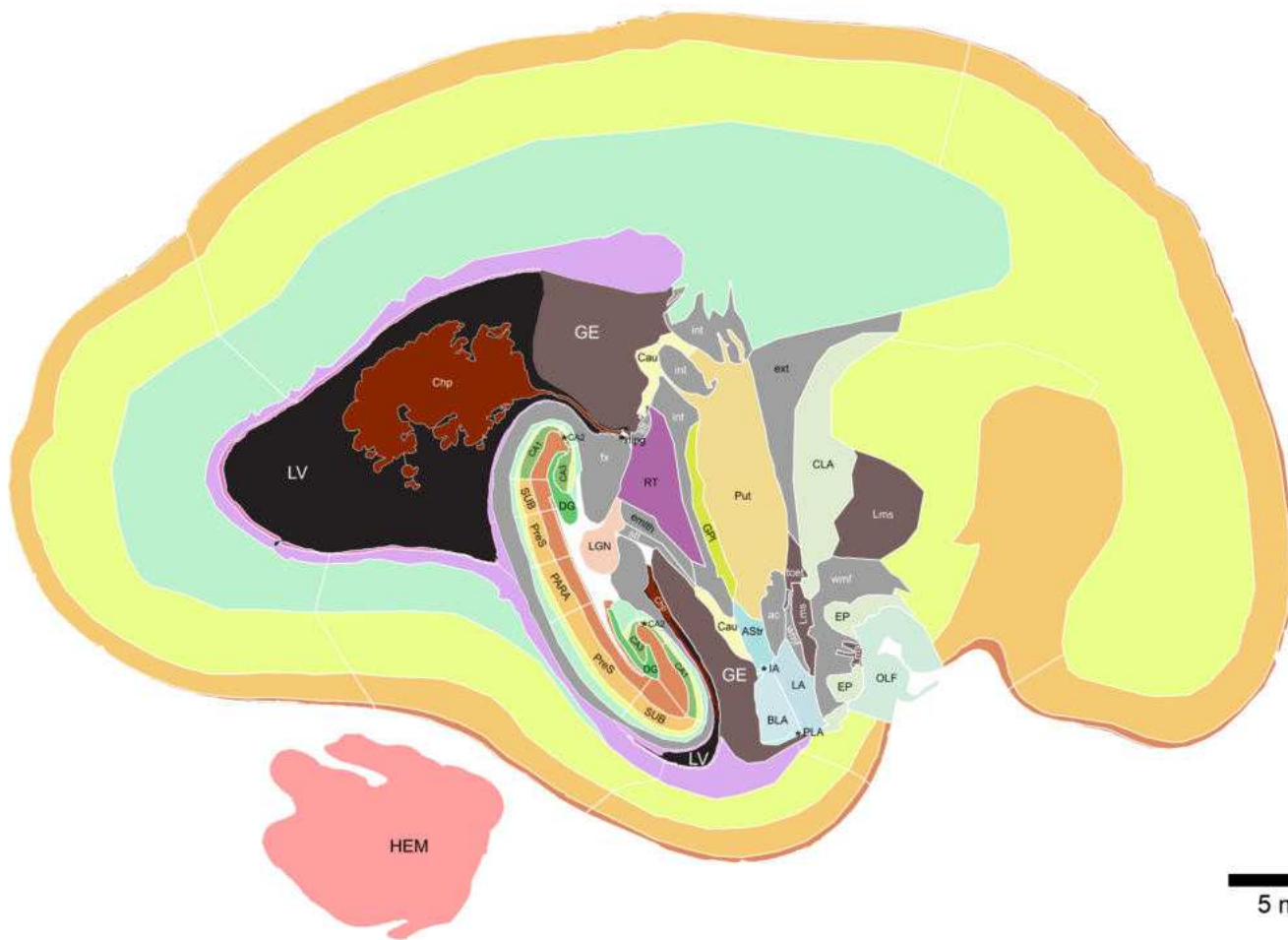
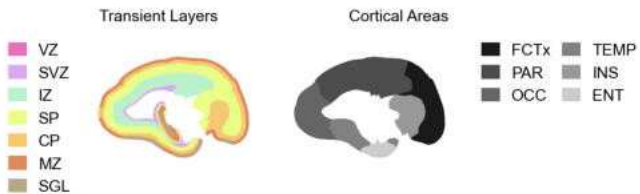
L-R Level: 11.76 mm



5 mm

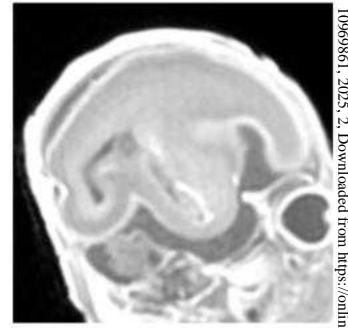


L-R Level: 11.76 mm

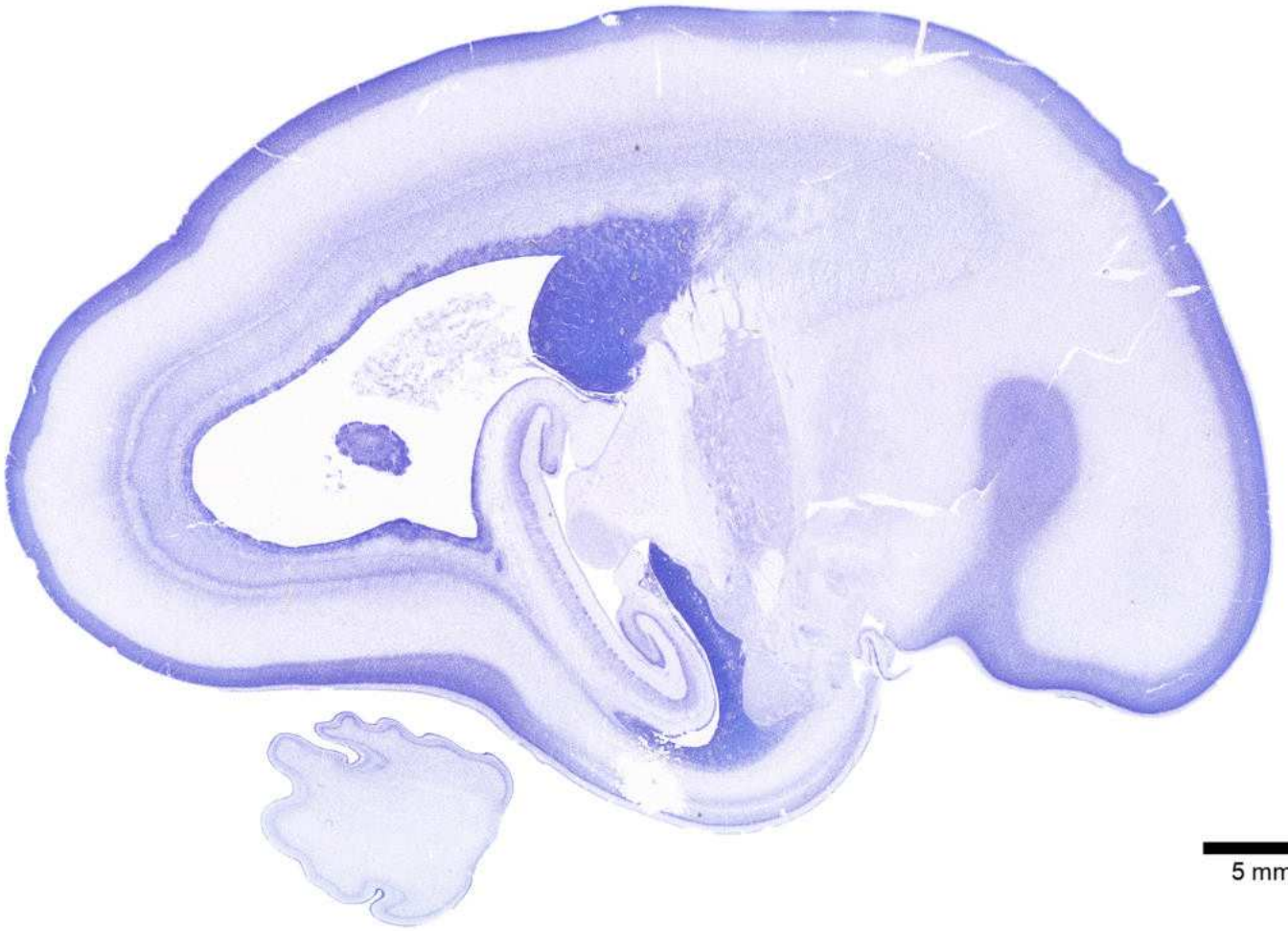


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|---|---|
| <ul style="list-style-type: none"> ■ AStr: Amygdalo-striatal area ■ BL: Basal nucleus [amygdala] ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CLA: Claustrum ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ EP: Endopiriform nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ HEM: Cerebellar hemispheres ■ IA: Intercalated cell groups [amygdala] ■ LA: Lateral nucleus [amygdala] ■ LGN: Lateral geniculate nucleus ■ LV: Lateral ventricle | <ul style="list-style-type: none"> ■ Lms: Lateral migratory stream ■ PARA: Cortical plate, parasubiculum ■ PLA: Paralaminar nucleus [amygdala] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] ■ SUB: Cortical plate, subiculum ■ ac: Anterior commissure ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fx: Fornix ■ hippg: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ stt: Stria terminalis ■ tcet: Transient cell zone in the external capsule ■ wmf: White matter fibers |
|---|---|

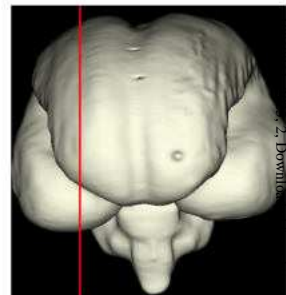
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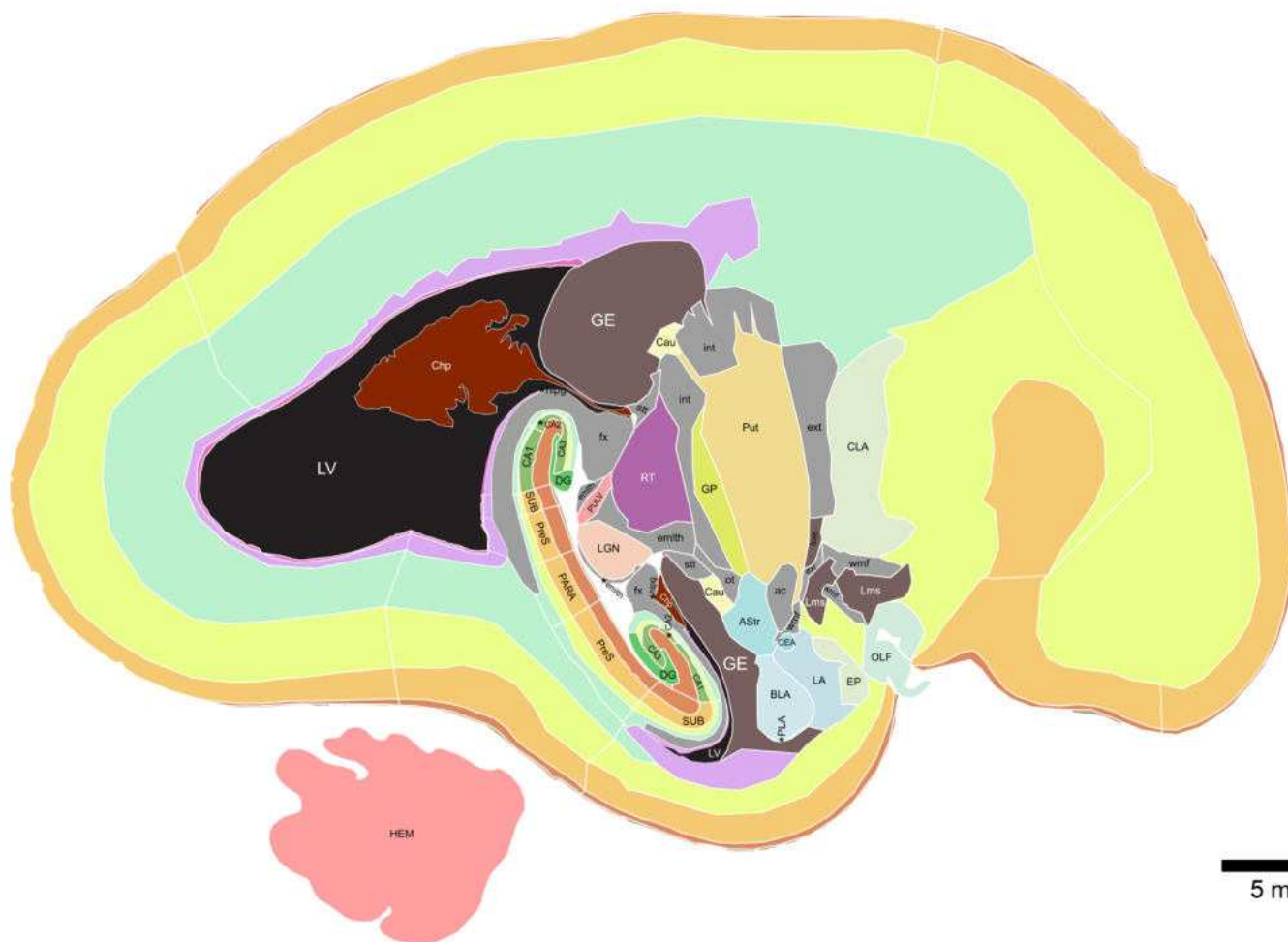
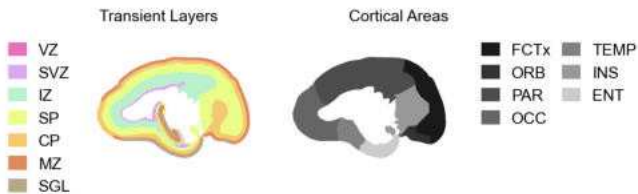
L-R Level: 11.28 mm



5 mm

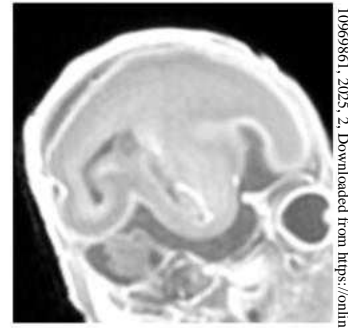


L-R Level: 11.28 mm

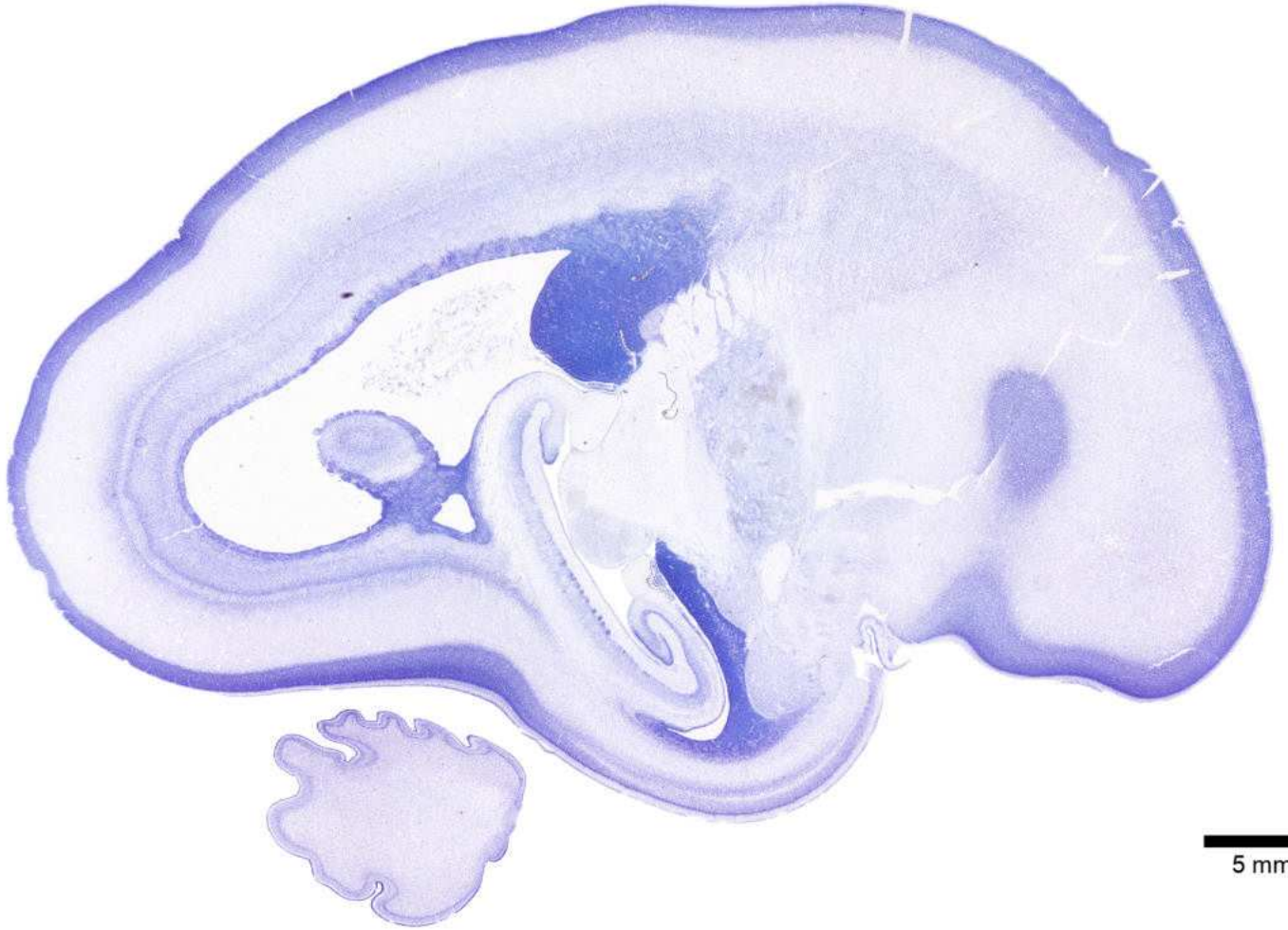


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|--|---|---|--|
| <ul style="list-style-type: none"> Astr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum Cau: Caudate nucleus Chp: Choroid plexus | <ul style="list-style-type: none"> DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GP: Globus pallidus HEM: Cerebellar hemispheres LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure emlth: External medullary lamina [thalamus] | <ul style="list-style-type: none"> ext: External capsule fx: Fornix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule ot: Optic tract sit: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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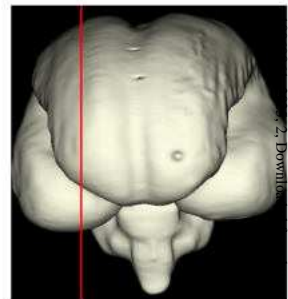
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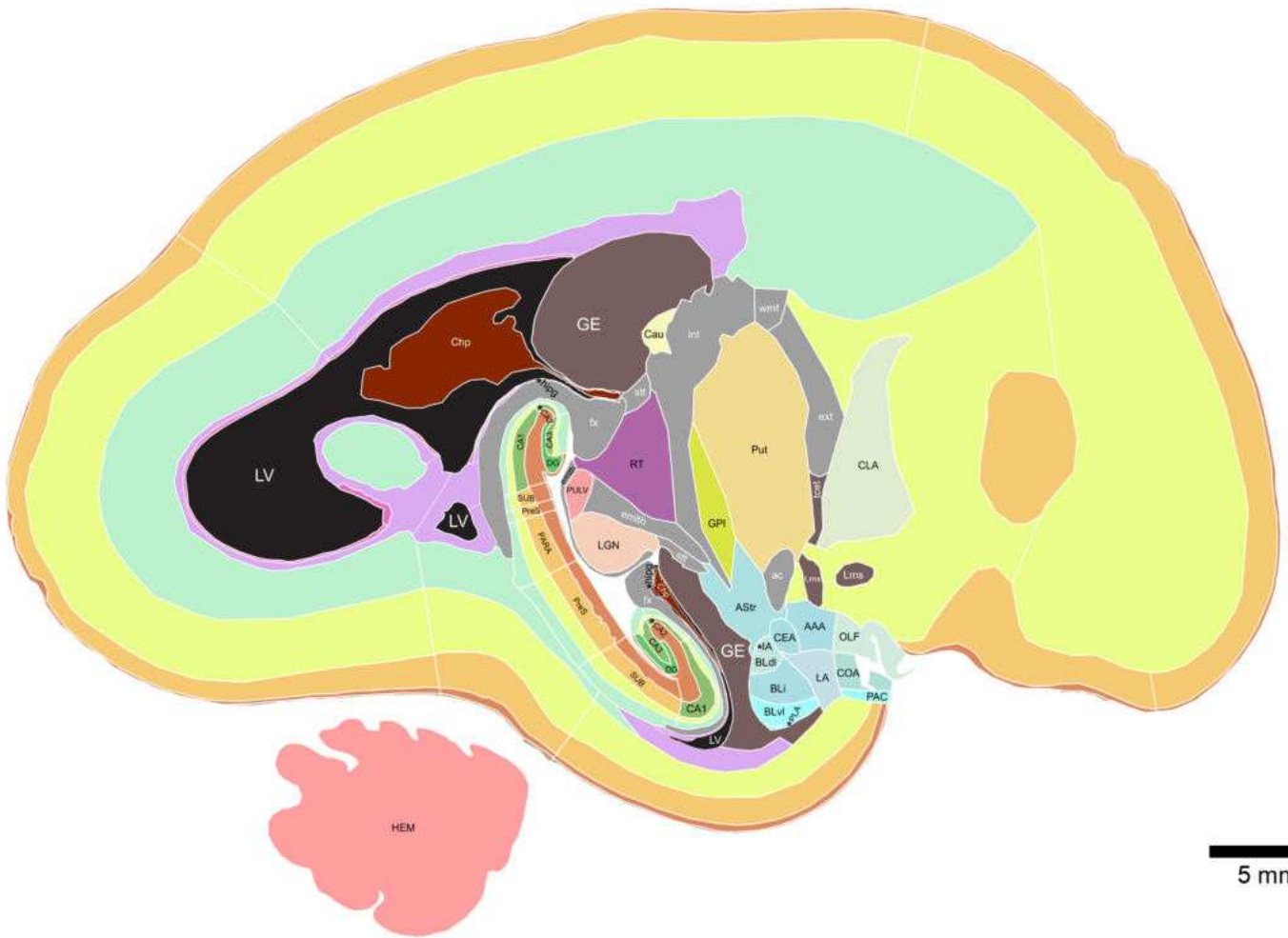
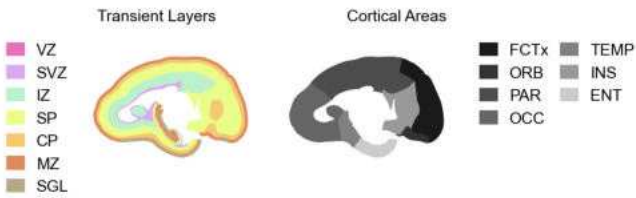
L-R Level: 11.1 mm



5 mm



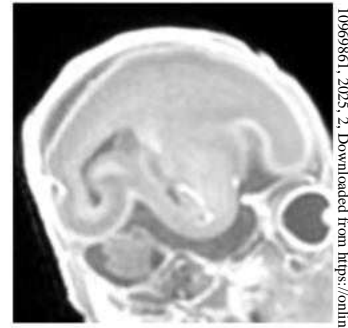
L-R Level: 11.1 mm



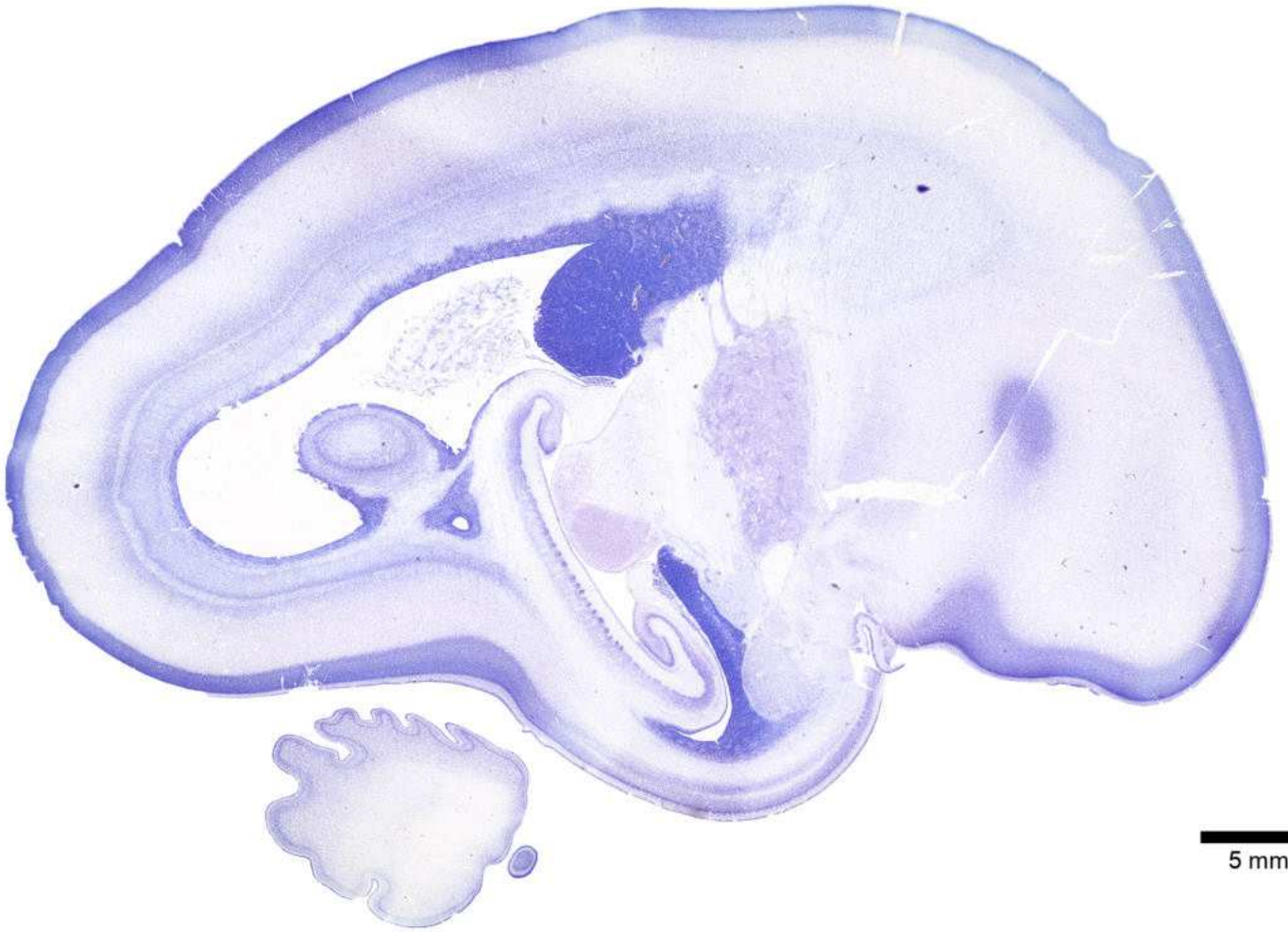
5 mm

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|---|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BLdL: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLvL: Basal nucleus [amygdala], ventrolateral part CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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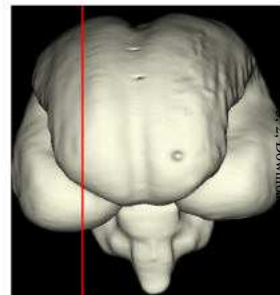
Age: 21 GW



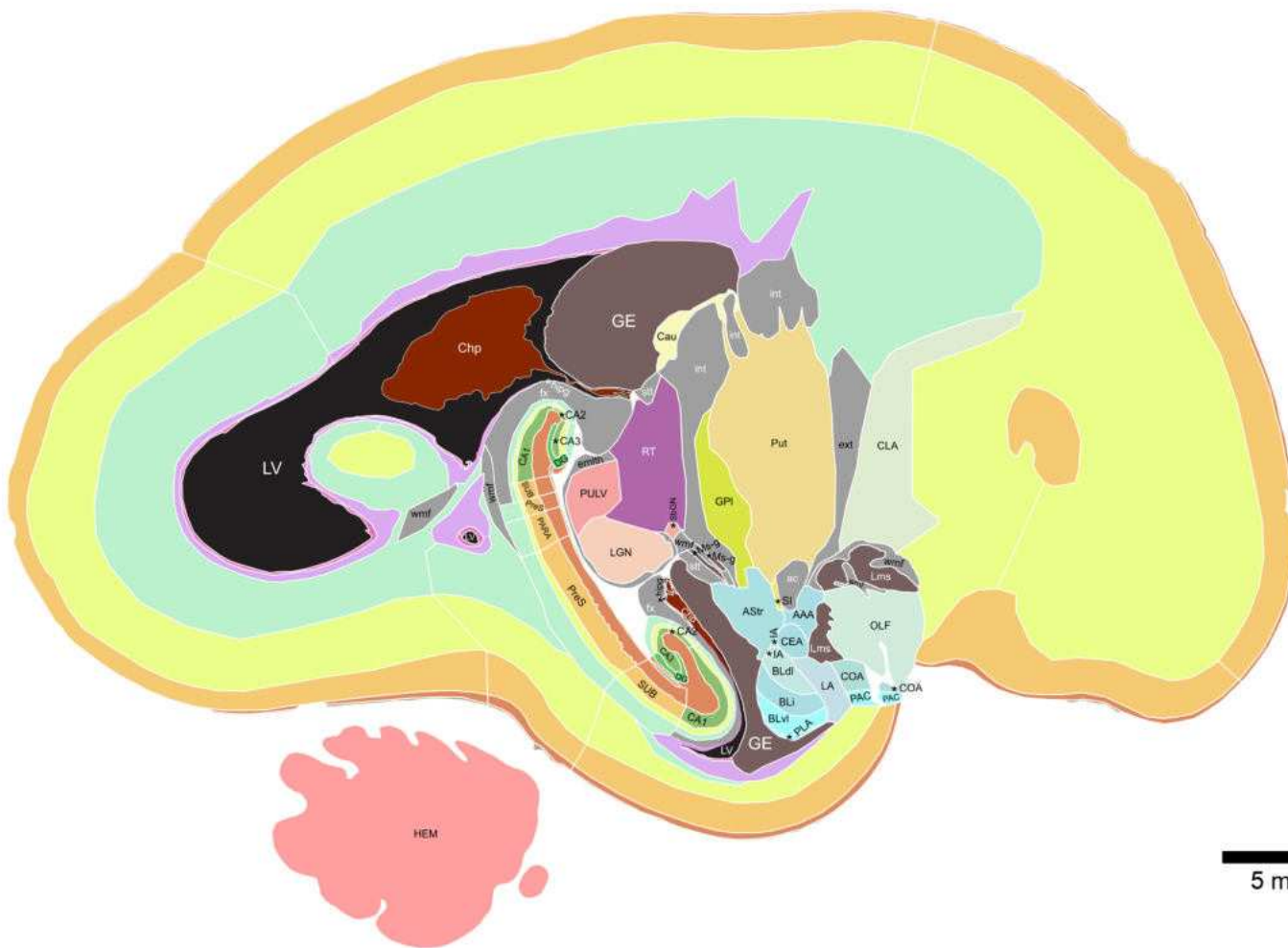
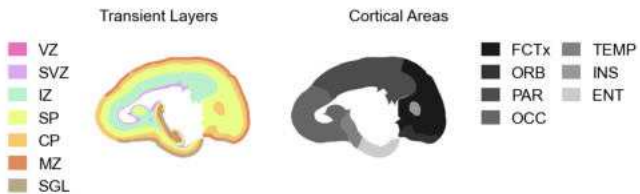
L-R Level: 10.86 mm



5 mm



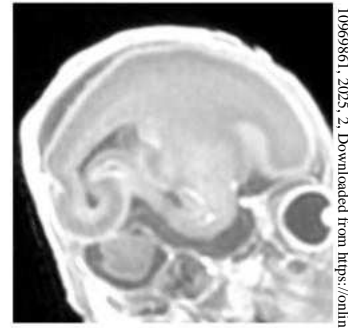
L-R Level: 10.86 mm



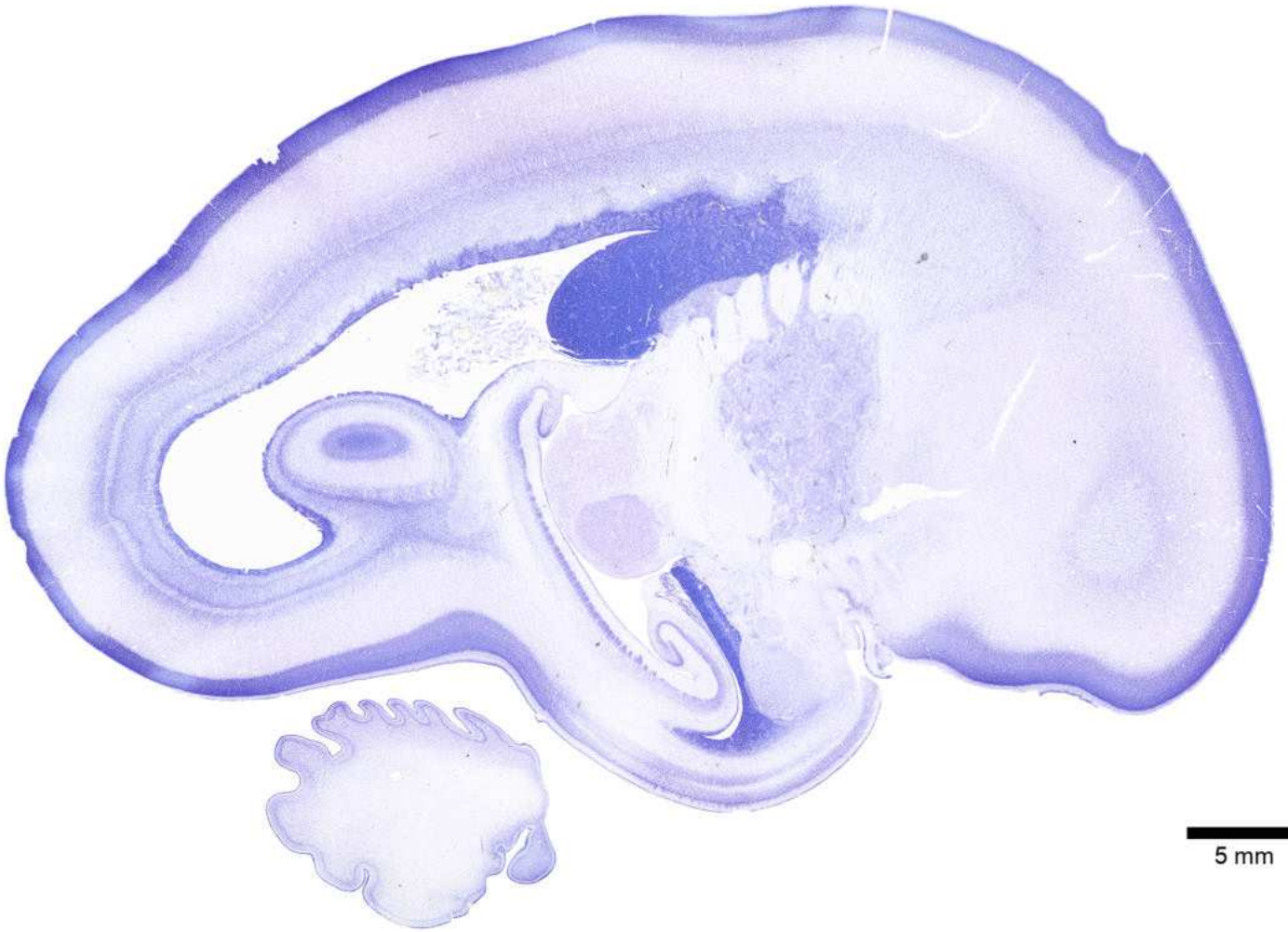
5 mm

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|---|--|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BLdI: Basal nucleus [amygdala], dorsolateral part BLI: Basal nucleus [amygdala], intermediate part BLvI: Basal nucleus [amygdala], ventrolateral part CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata | <ul style="list-style-type: none"> SUB: Cortical plate, subiculum SbGN: Subgenicutate nucleus ac: Anterior commissure emIth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipp: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis wmf: White matter fibers |
|---|--|---|---|

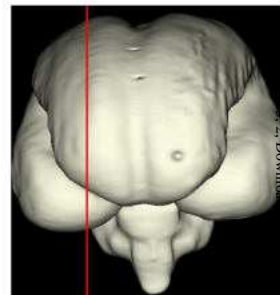
Age: 21 GW



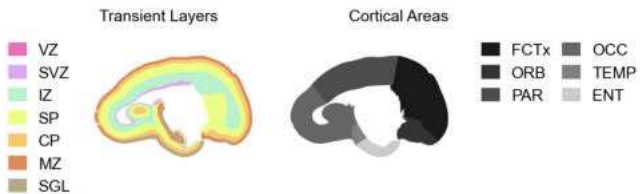
L-R Level: 10.08 mm



5 mm



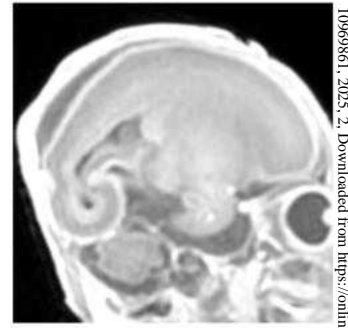
L-R Level: 10.08 mm



5 mm

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|---|---|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BLdL: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLvl: Basal nucleus [amygdala], ventrolateral part BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] | <ul style="list-style-type: none"> Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus | <ul style="list-style-type: none"> VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure cp: Cerebral peduncle emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers |
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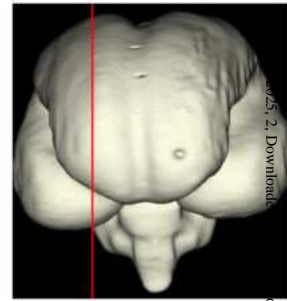
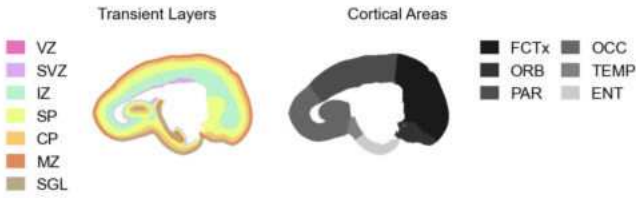
Age: 21 GW



L-R Level: 9.42 mm



5 mm

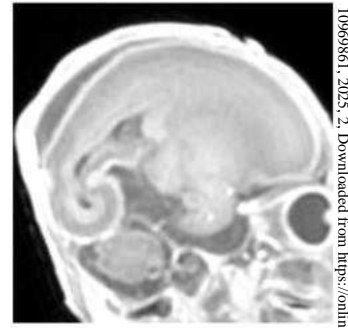


L-R Level: 9.42 mm

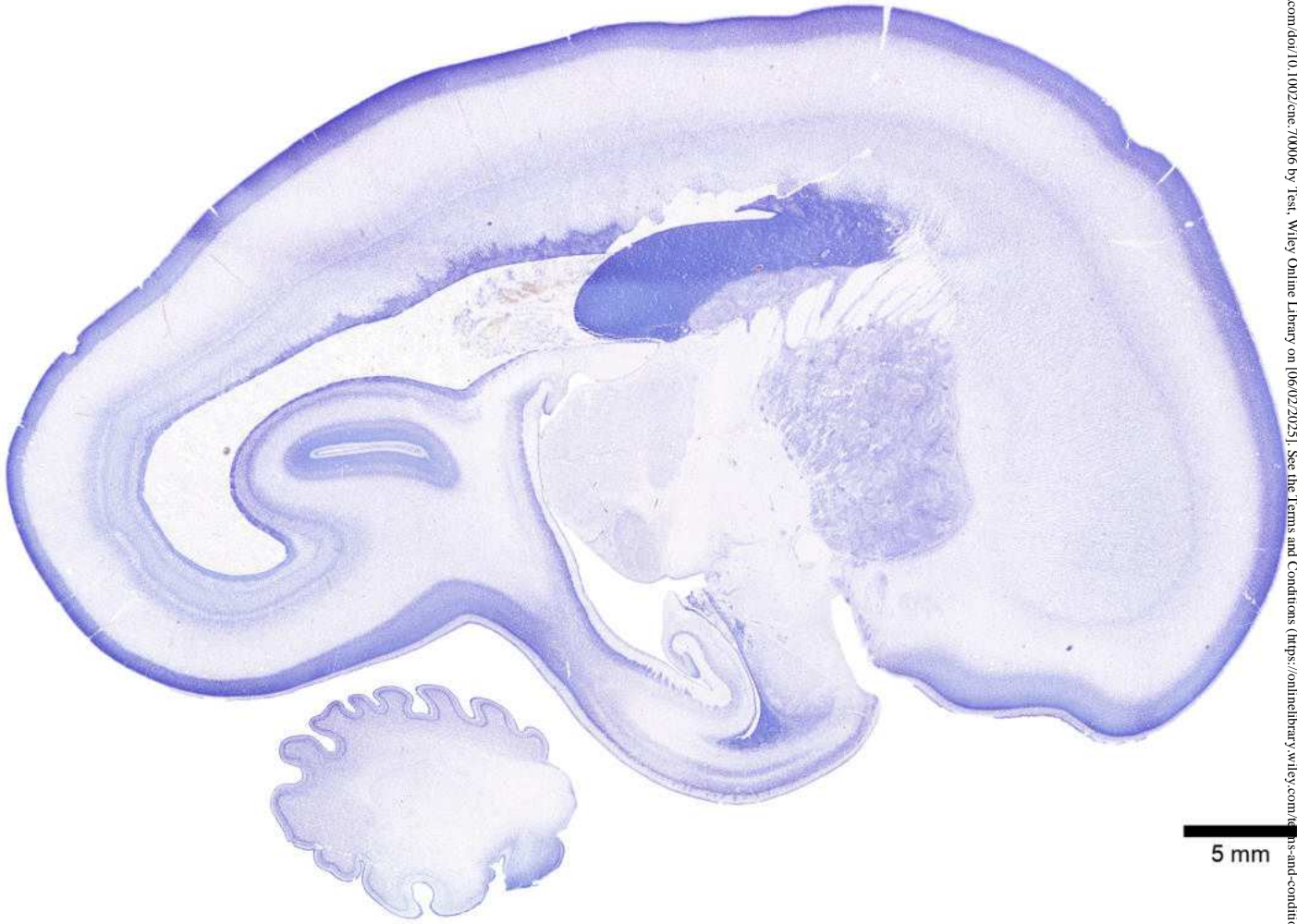


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|--|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BLdI: Basal nucleus [amygdala], dorsolateral part BLI: Basal nucleus [amygdala], intermediate part BLvI: Basal nucleus [amygdala], ventrolateral part BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata [hypothalamus] SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS - Calcarine sulcus |
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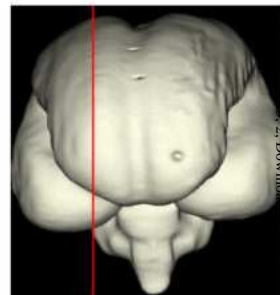
Age: 21 GW



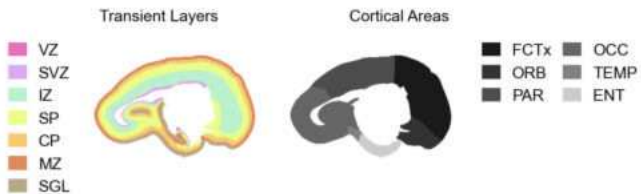
L-R Level: 8.94 mm



5 mm



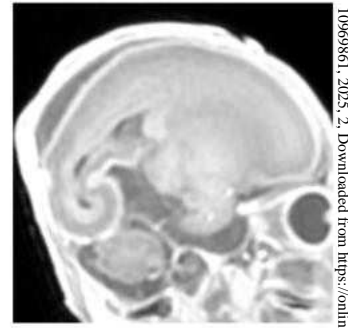
L-R Level: 8.94 mm



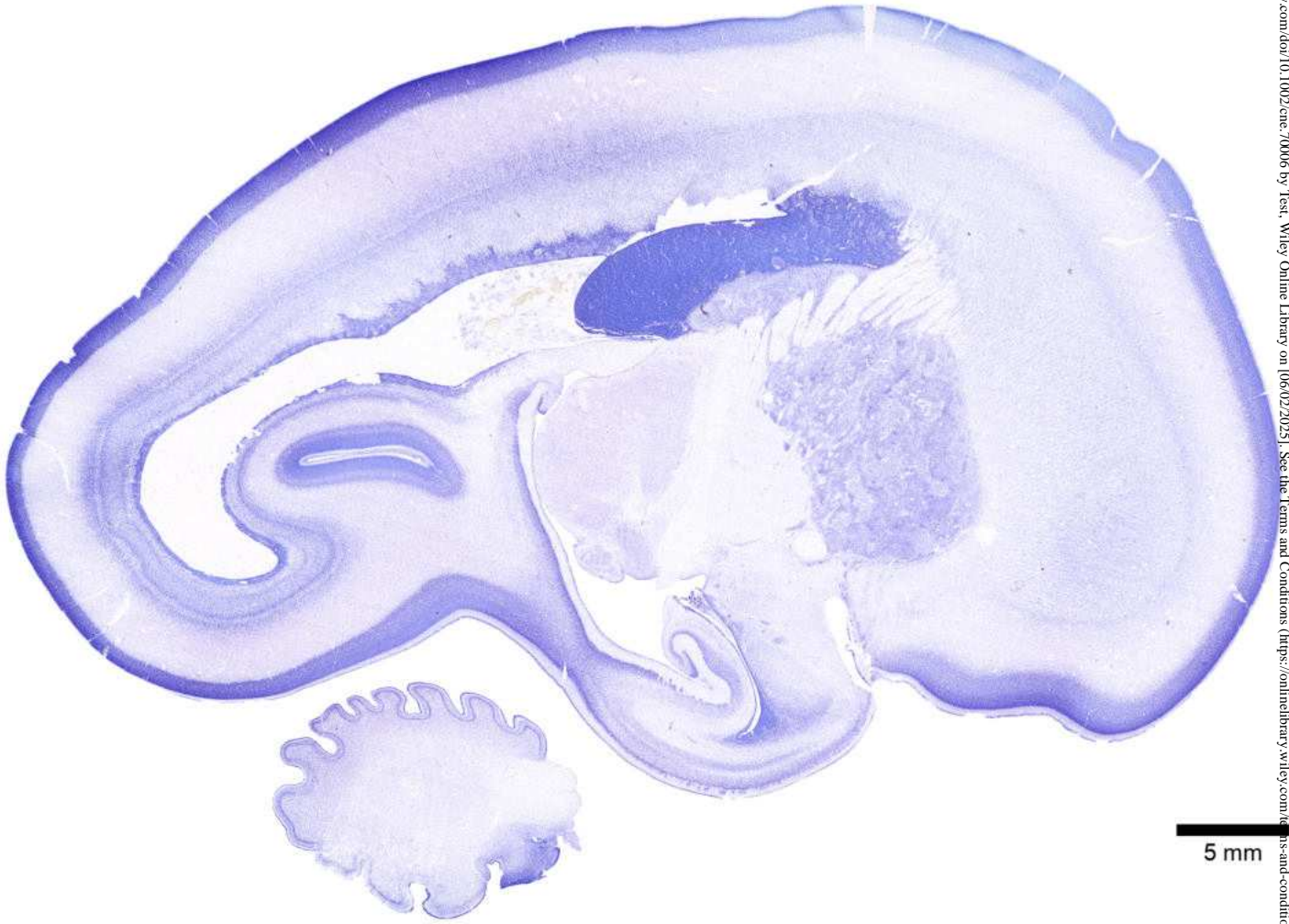
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BLdL: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLvL: Basal nucleus [amygdala], ventrolateral part BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream MEa: Medial nucleus [amygdala] NAc: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgenulate nucleus TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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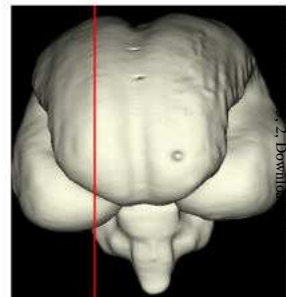
Age: 21 GW



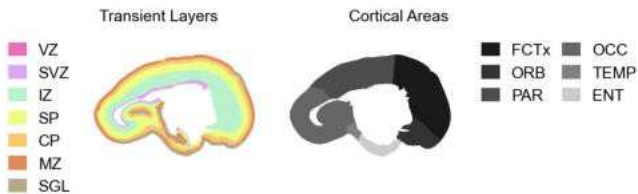
L-R Level: 8.7 mm



5 mm



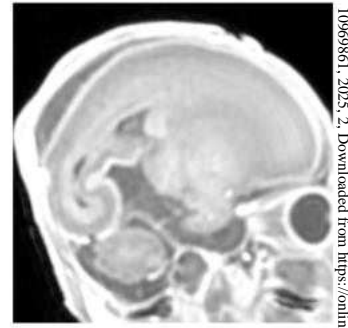
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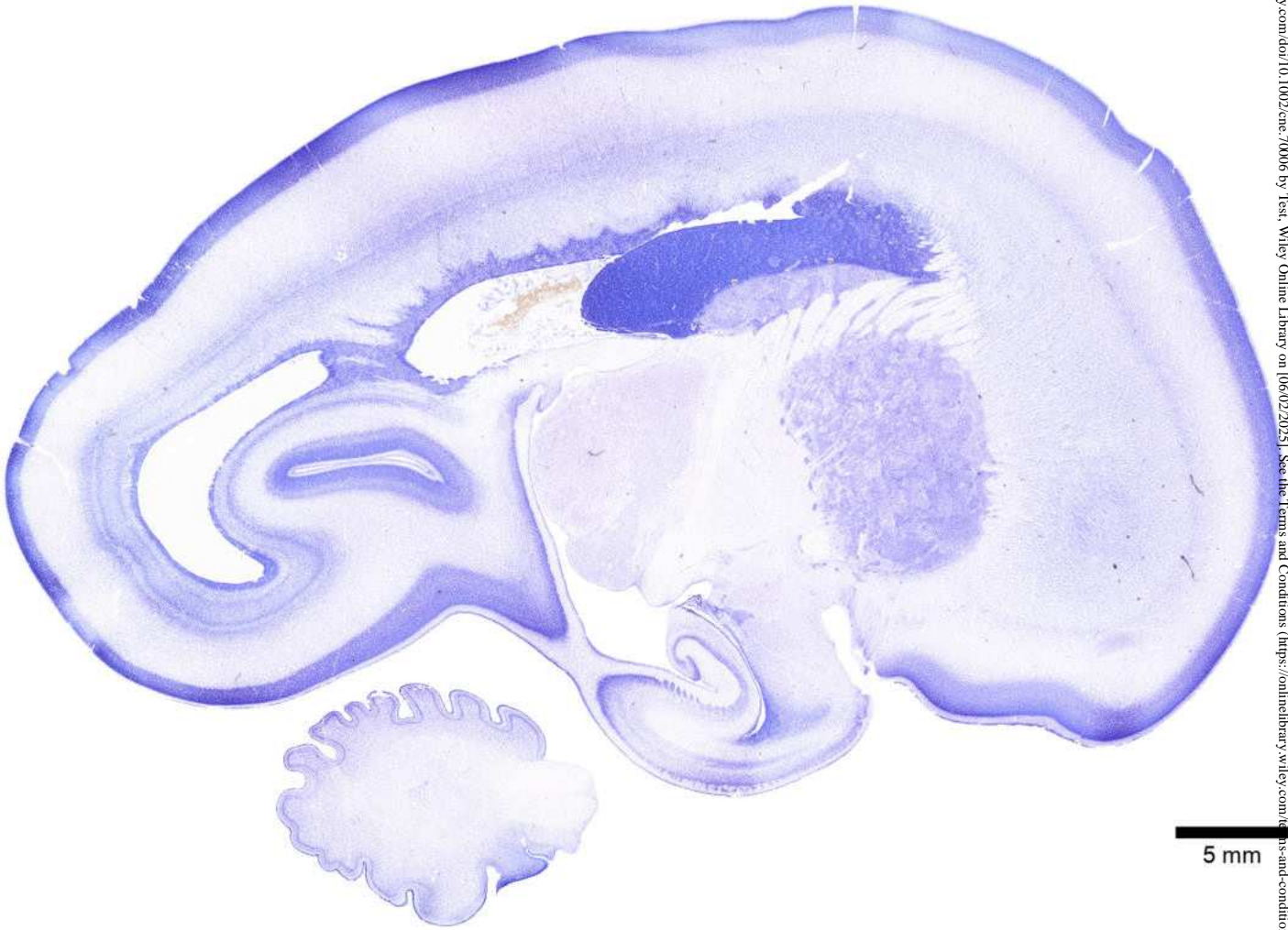
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> al: Ansa lenticularis cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipp: Hippocampal gloioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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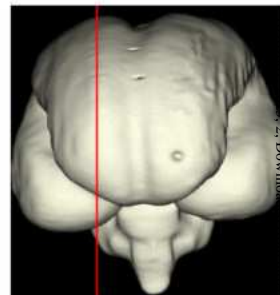
Age: 21 GW



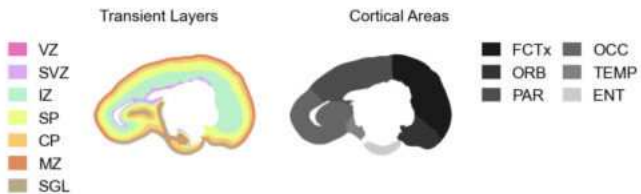
L-R Level: 8.34 mm



5 mm



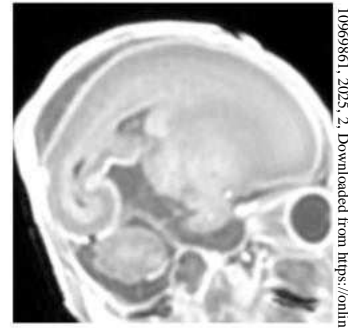
L-R Level: 8.34 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PG: Pontine gray PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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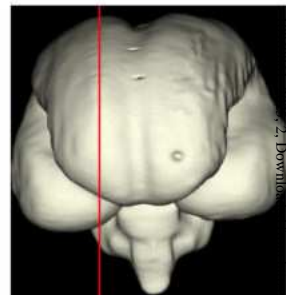
Age: 21 GW



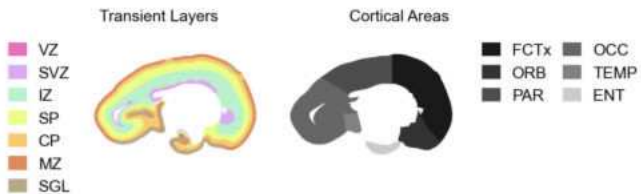
L-R Level: 7.8 mm



5 mm

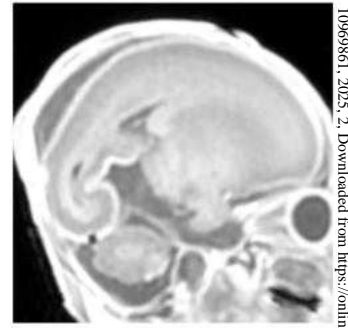


L-R Level: 7.8 mm

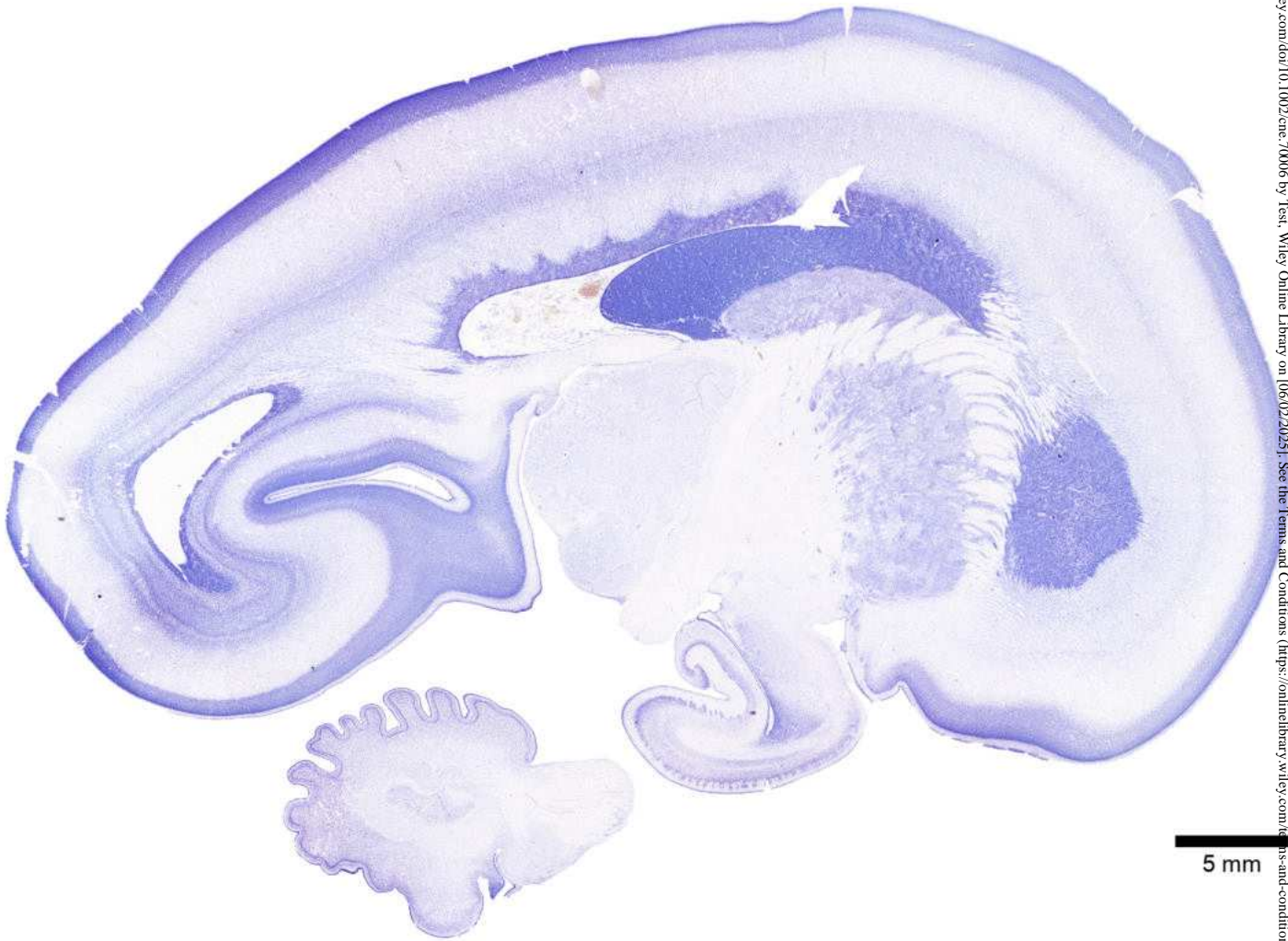


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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> cor: Corona radiata cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CaS: Calcarine sulcus |
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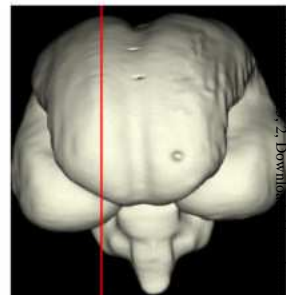
Age: 21 GW



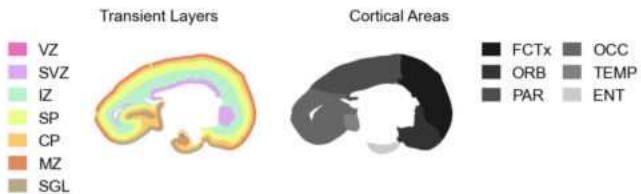
L-R Level: 7.56 mm



5 mm



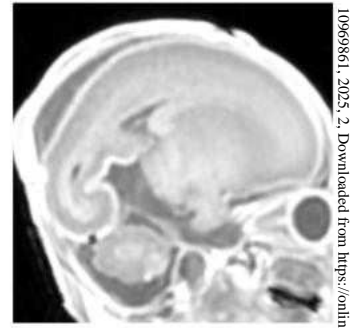
L-R Level: 7.56 mm



5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] Ret-P: Reticular formation, Pons SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure cor: Corona radiata cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioeptelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
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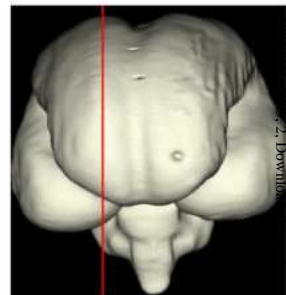
Age: 21 GW



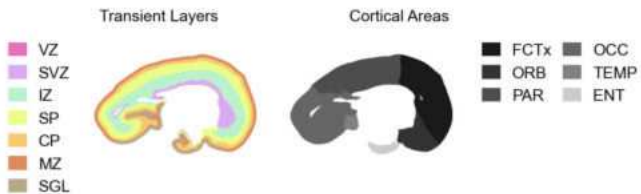
L-R Level: 7.32 mm



5 mm



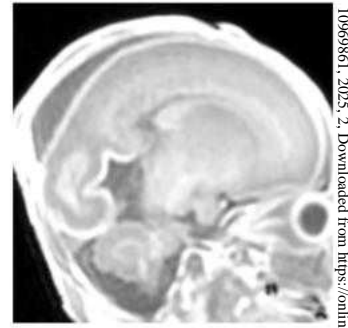
L-R Level: 7.32 mm



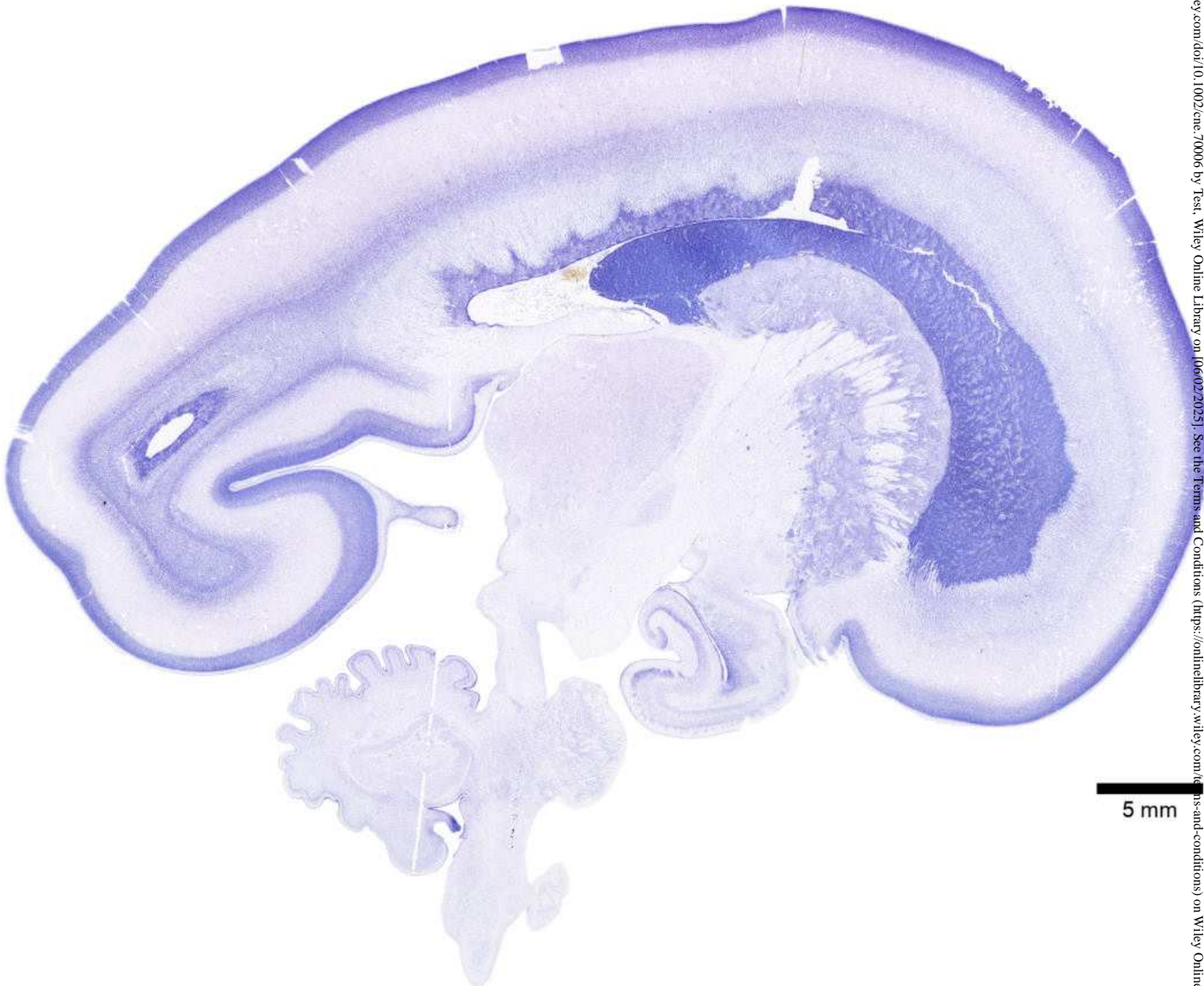
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PG: Pontine gray PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum Sth: Subthalamus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ZI: Zona incerta ac: Anterior commissure cor: Corona radiata cp: Cerebral peduncle cpb: Cerebellar peduncles emth: External medullary lamina [thalamus] fx: Fornix hipp: Hippocampal glioeptelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
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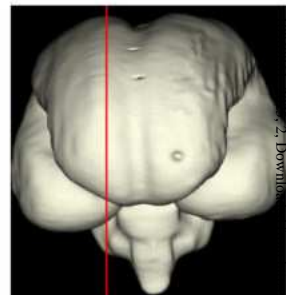
Age: 21 GW



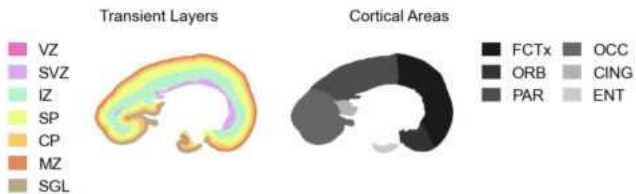
L-R Level: 6.66 mm



5 mm



L-R Level: 6.66 mm

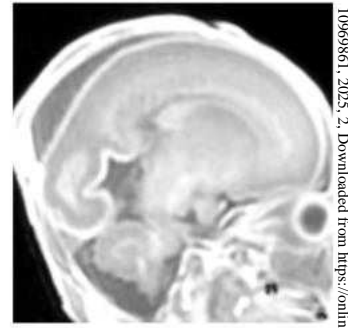


5 mm

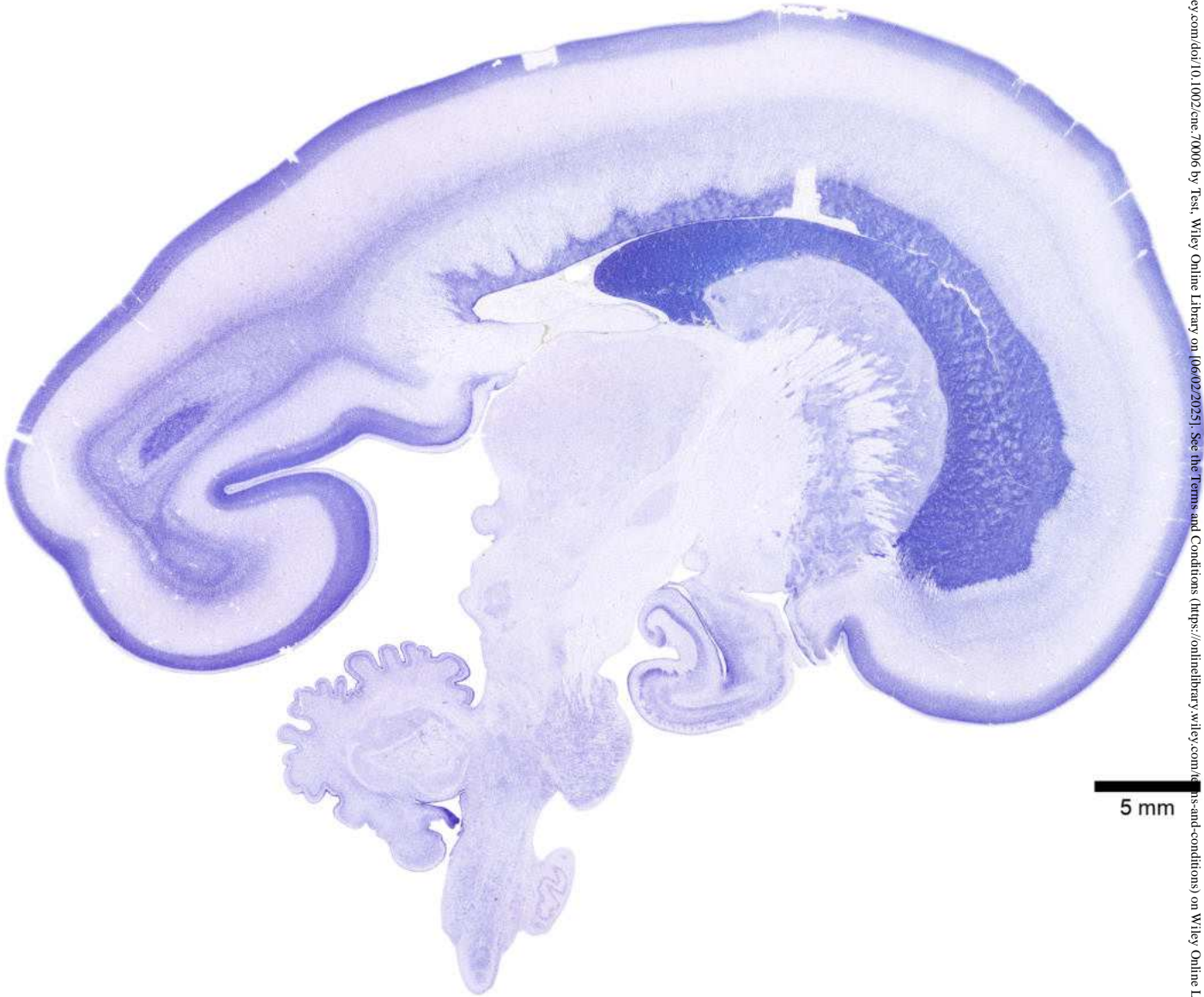
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|--|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] CUN: Cuneate nucleus Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IO: Inferior olive LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LRN: Lateral reticular nucleus LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NLLv: Nucleus of the lateral lemniscus, ventral | <ul style="list-style-type: none"> OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PBN: Parabigeminal nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus | <ul style="list-style-type: none"> SI: Substantia innominata SNC: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta |
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→ CaS: Calcarine sulcus

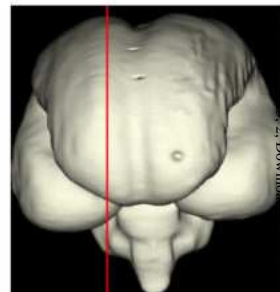
Age: 21 GW



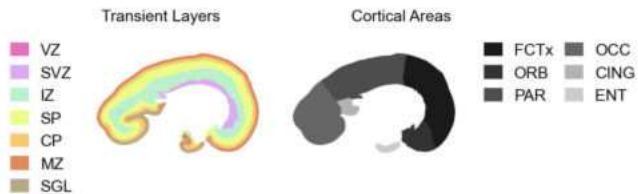
L-R Level: 6.48 mm



5 mm



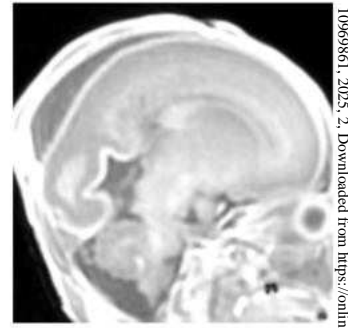
L-R Level: 6.48 mm



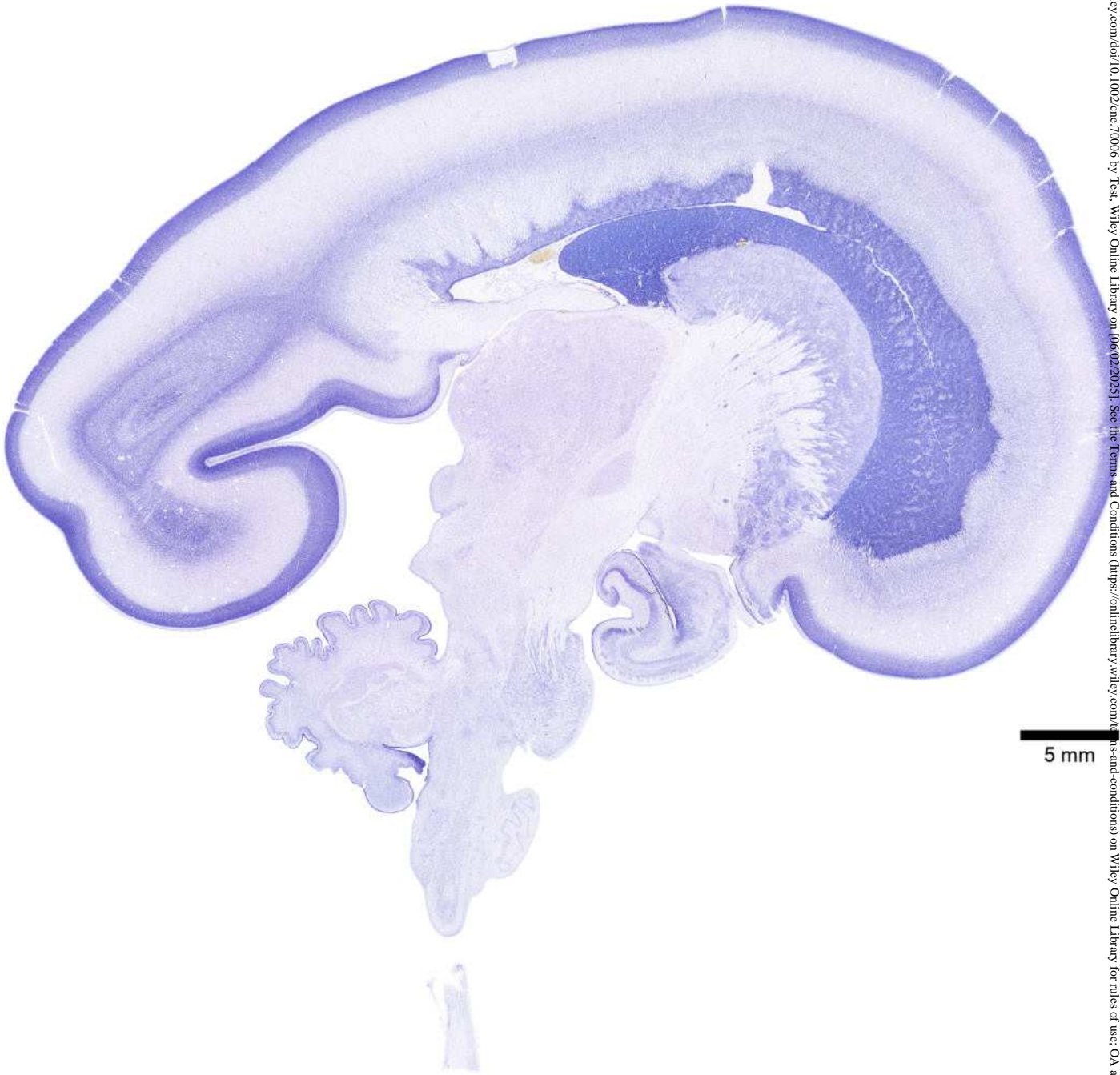
5 mm

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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BLA: Basolateral complex [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] CUN: Cuneate nucleus Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] IO: Inferior olive LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LRN: Lateral reticular nucleus LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NLLv: Nucleus of the lateral lemniscus, ventral OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PB: Parabrachial nucleus PBN: Parabigeminal nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SI: Substantia innominata | <ul style="list-style-type: none"> SNC: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SOL: Solitary nucleus SON: Supraoptic nucleus [hypothalamus] SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberoammillary nucleus TRI: Germinal trigone Tct: Tectum VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta |
|--|---|--|--|
- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

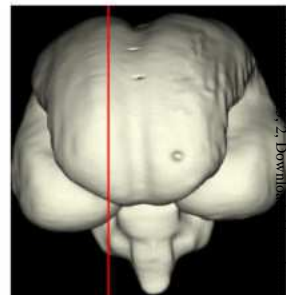
Age: 21 GW



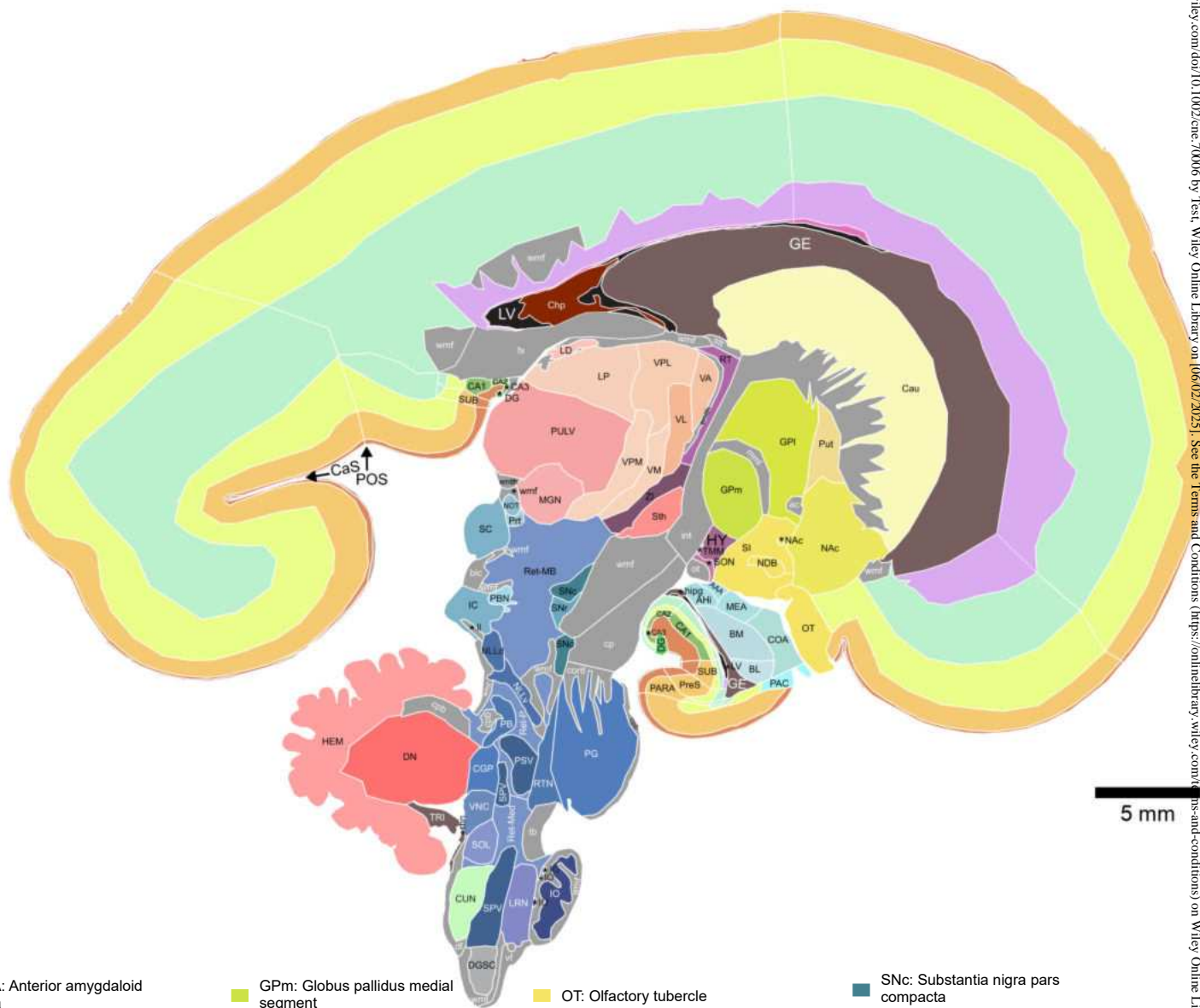
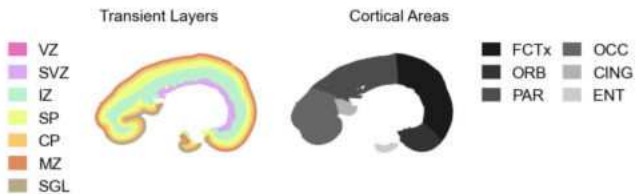
L-R Level: 6.3 mm



5 mm



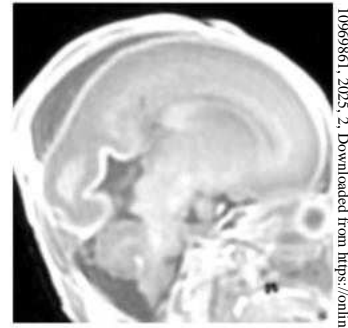
L-R Level: 6.3 mm



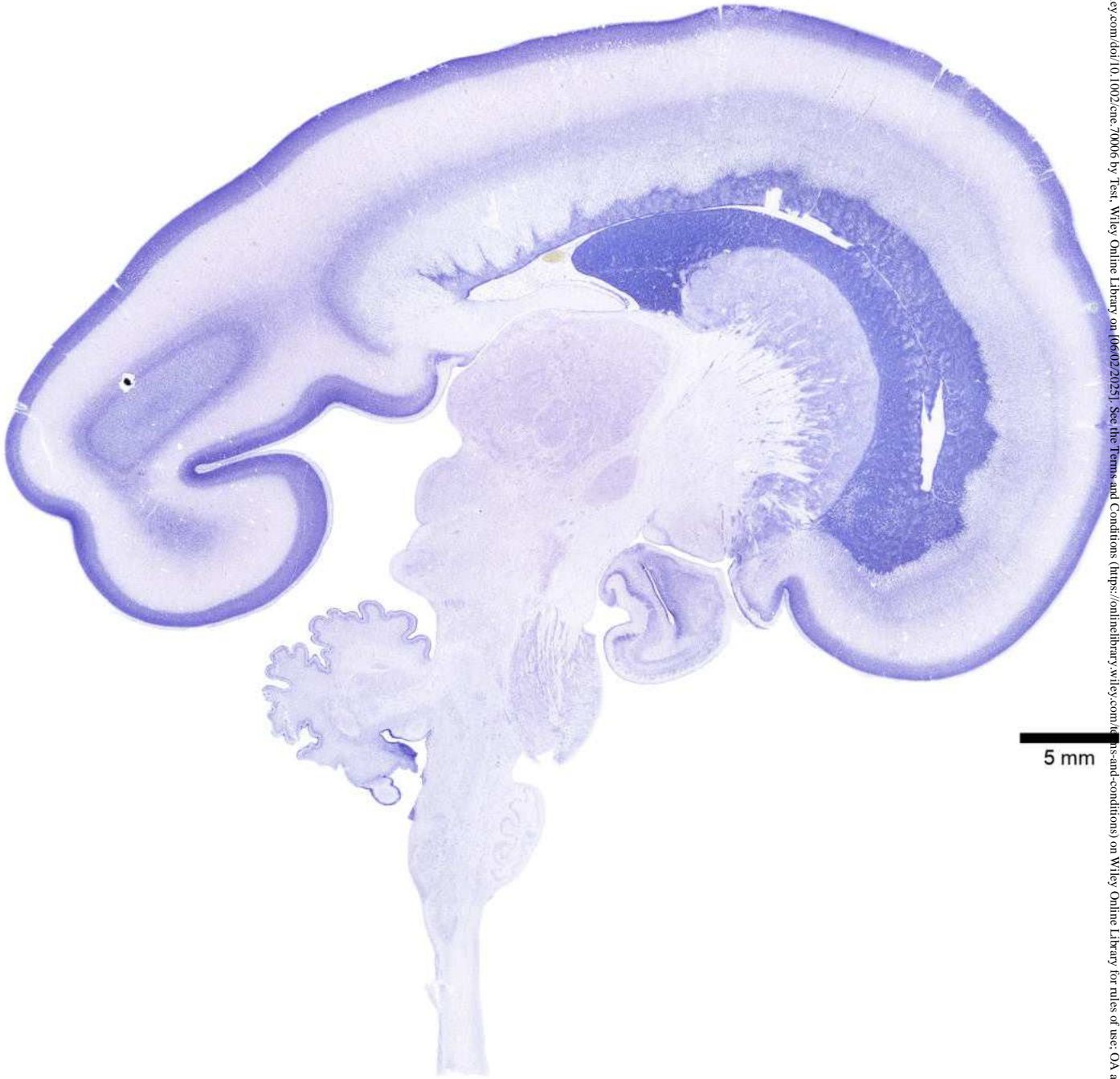
5 mm

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|---|--|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CGP: Central gray of the pons COA: Cortical nucleus [amygdala] CUN: Cuneate nucleus Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DGSC: Dorsal gray of the spinal cord DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment | <ul style="list-style-type: none"> GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus IO: Inferior olive LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LRN: Lateral reticular nucleus LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NLLd: Nucleus of the lateral lemniscus, dorsal NLLv: Nucleus of the lateral lemniscus, ventral NOT: Nucleus of the optic tract | <ul style="list-style-type: none"> OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PB: Parabrachial nucleus PBN: Parabigeminal nucleus PG: Pontine gray PSV: Principal sensory nucleus of the trigeminal PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Prt: Pretectum Put: Putamen RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SI: Substantia innominata | <ul style="list-style-type: none"> SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SOL: Solitary nucleus SON: Supraoptic nucleus [hypothalamus] SP: Spinal cord SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VNC: Vestibular nuclear complex VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta |
|---|--|--|---|
- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

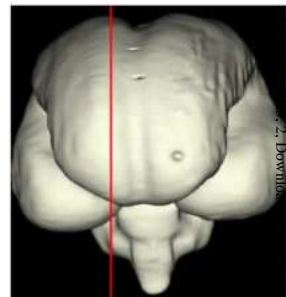
Age: 21 GW



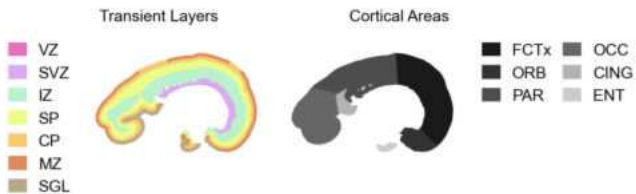
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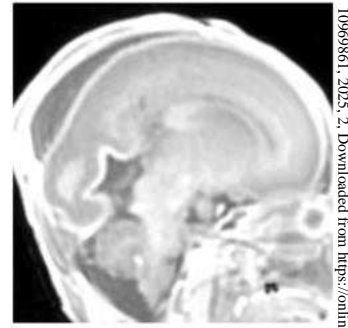


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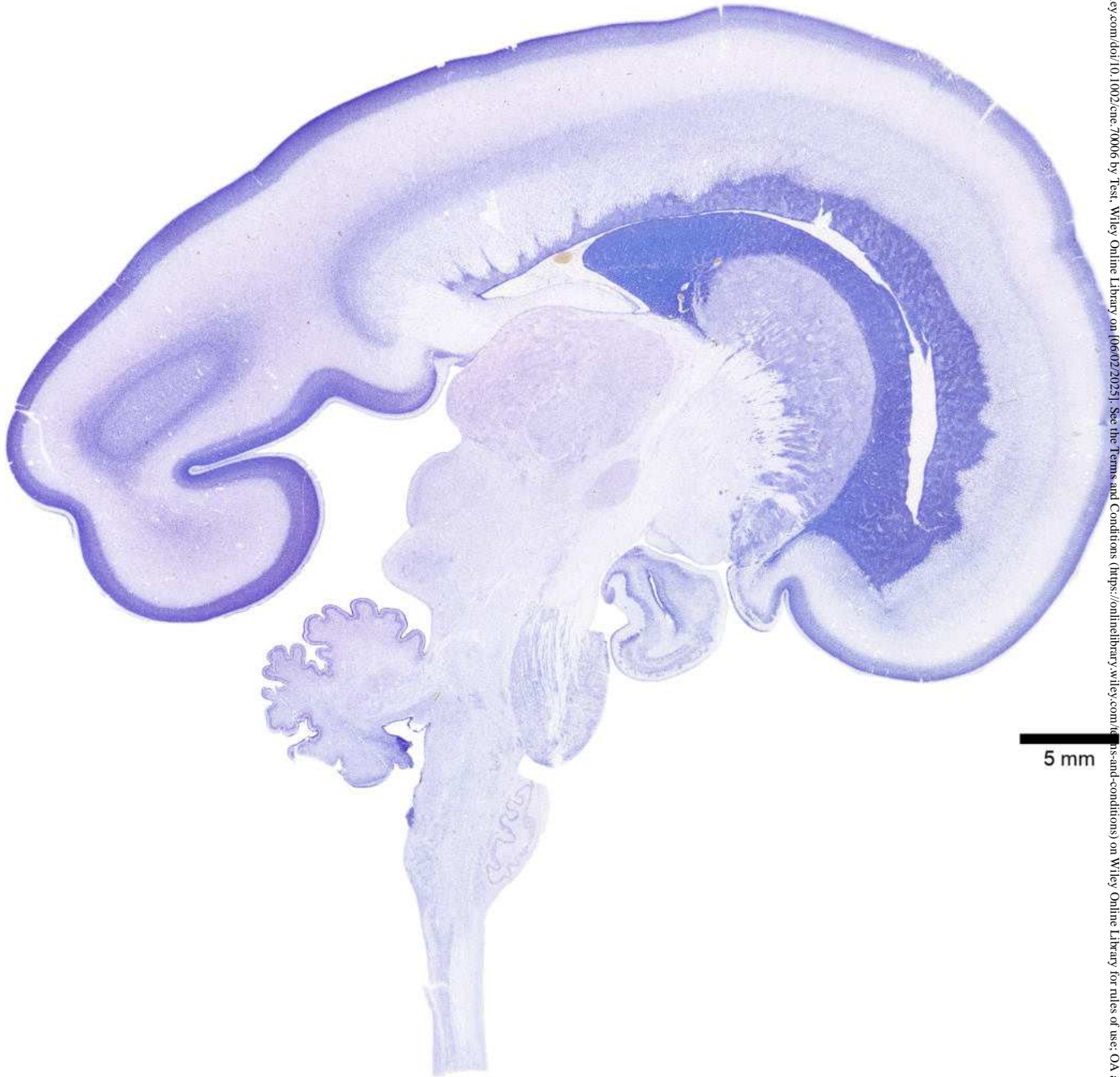


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|---|---|--|--|
| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ APT: Anterior pretecal nucleus ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ BST: Bed nucleus of the stria terminalis ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CGP: Central gray of the pons ■ CMT: Centromedian nucleus [thalamus] ■ COA: Cortical nucleus [amygdala] ■ CUN: Cuneate nucleus ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DGSC: Dorsal gray of the spinal cord ■ DN: Dentate nucleus ■ GE: Ganglionic eminence | <ul style="list-style-type: none"> ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ GR: Gracile nucleus ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IC: Inferior colliculus ■ ICc: Inferior colliculus, central nucleus ■ IO: Inferior olive ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LPO: Lateral preoptic area ■ LRN: Lateral reticular nucleus ■ LV: Lateral ventricle ■ MEA: Medial nucleus [amygdala] ■ NAc: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ NLLd: Nucleus of the lateral lemniscus, dorsal | <ul style="list-style-type: none"> ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PB: Parabrachial nucleus ■ PBN: Parabrachial nucleus ■ PG: Pontine gray ■ PSV: Principal sensory nucleus of the trigeminal ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Prt: Pretectum ■ RT: Reticular nucleus [thalamus] ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ SC: Superior colliculus ■ SI: Substantia innominata ■ SNc: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SOL: Solitary nucleus | <ul style="list-style-type: none"> ■ SON: Supraoptic nucleus [hypothalamus] ■ SP: Spinal cord ■ SPV: Spinal nucleus of the trigeminal ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TMM: Tuberomammillary nucleus ■ TRI: Germinal trigone ■ Tct: Tectum ■ VA: Ventral anterior nucleus [thalamus] ■ VIIIn: Facial motor nucleus ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VNC: Vestibular nuclear complex ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ Vn: Trigeminal motor nucleus ■ ZI: Zona incerta |
|---|---|--|--|
- CaS: Calcarine sulcus
 → POS: Parieto-occipital sulcus

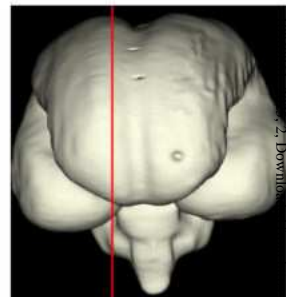
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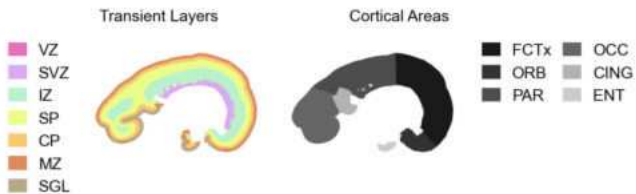
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5 mm



L-R Level: 5.58 mm

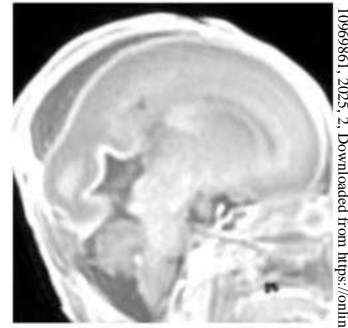


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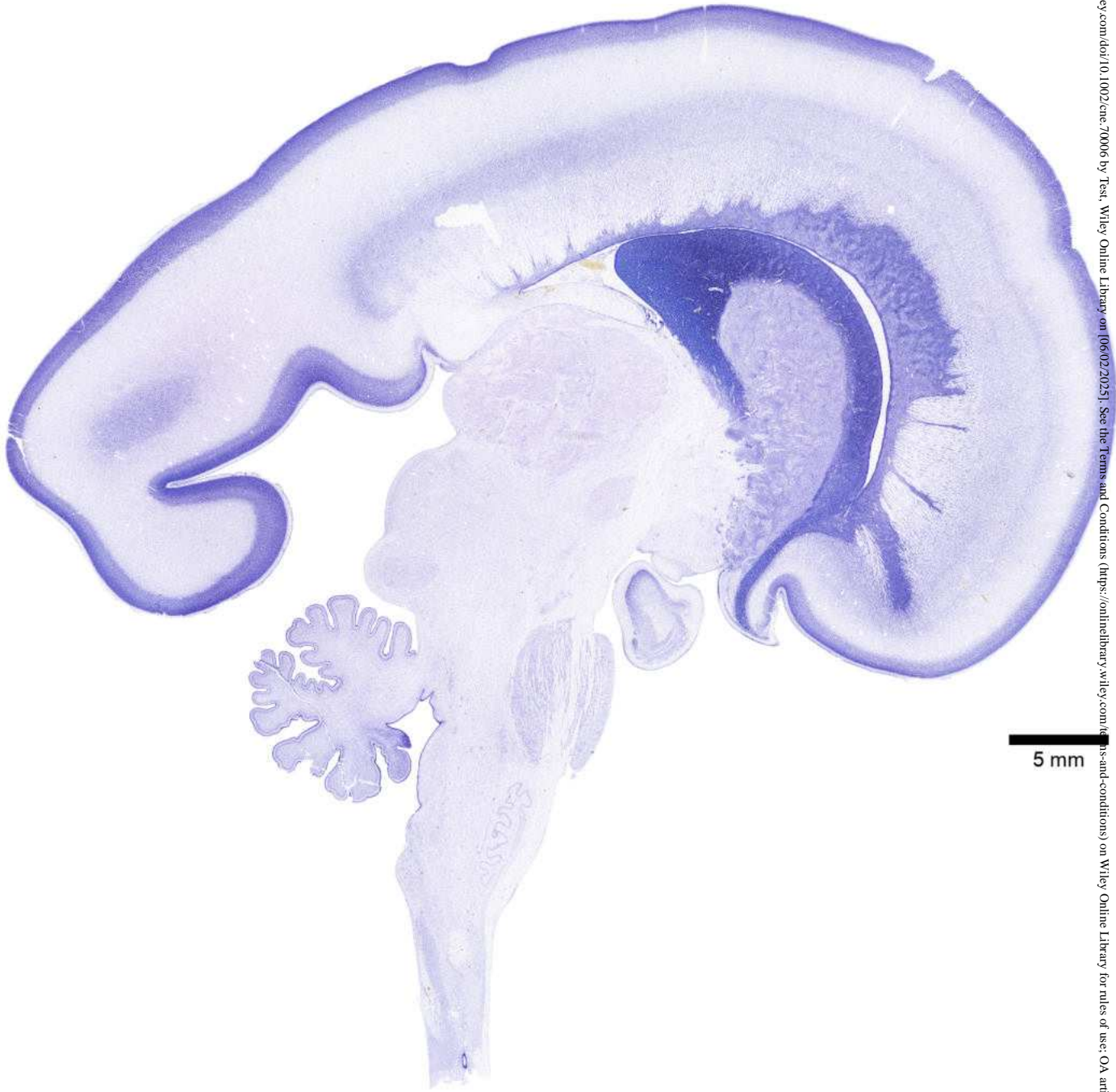
- | | | | |
|--|--|---|--|
| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ AMB: Nucleus ambiguus ■ AP: Area postrema ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BST: Bed nucleus of the stria terminalis ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CB: Cerebellum ■ CG: Central gray of the spinal cord ■ CGP: Central gray of the pons ■ CMT: Centromedian nucleus [thalamus] ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DGSC: Dorsal gray of the spinal cord ■ DN: Dentate nucleus | <ul style="list-style-type: none"> ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ GR: Gracile nucleus ■ IC: Inferior colliculus ■ ICc: Inferior colliculus, central nucleus ■ IO: Inferior olive ■ LC: Locus coeruleus ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LPO: Lateral preoptic area ■ LRN: Lateral reticular nucleus ■ LV: Lateral ventricle ■ MEA: Medial nucleus [amygdala] ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] | <ul style="list-style-type: none"> ■ NLLd: Nucleus of the lateral lemniscus, dorsal ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PB: Parabrachial nucleus ■ PG: Pontine gray ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Prt: Pretectum ■ RT: Reticular nucleus [thalamus] ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ Rms: Rostral migratory stream ■ SC: Superior colliculus ■ SI: Substantia innominata ■ SNC: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SO: Superior olive | <ul style="list-style-type: none"> ■ SOL: Solitary nucleus ■ SON: Supraoptic nucleus [hypothalamus] ■ SPV: Spinal nucleus of the trigeminal ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TMM: Tuberoammillary nucleus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VIIIn: Facial motor nucleus ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VNC: Vestibular nuclear complex ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ Vn: Trigeminal motor nucleus ■ Xln: Accessory nucleus ■ Zl: Zona incerta |
|--|--|---|--|

→ CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

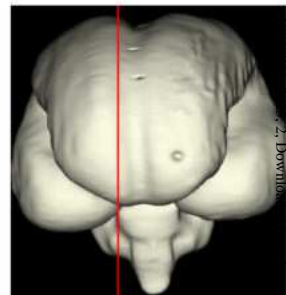
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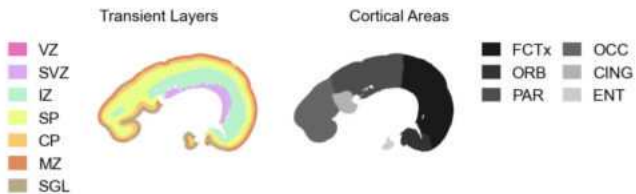
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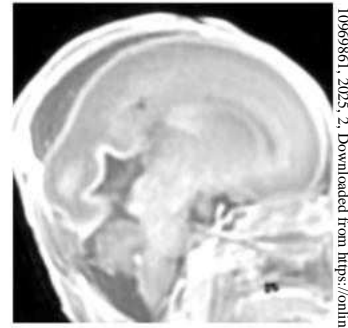
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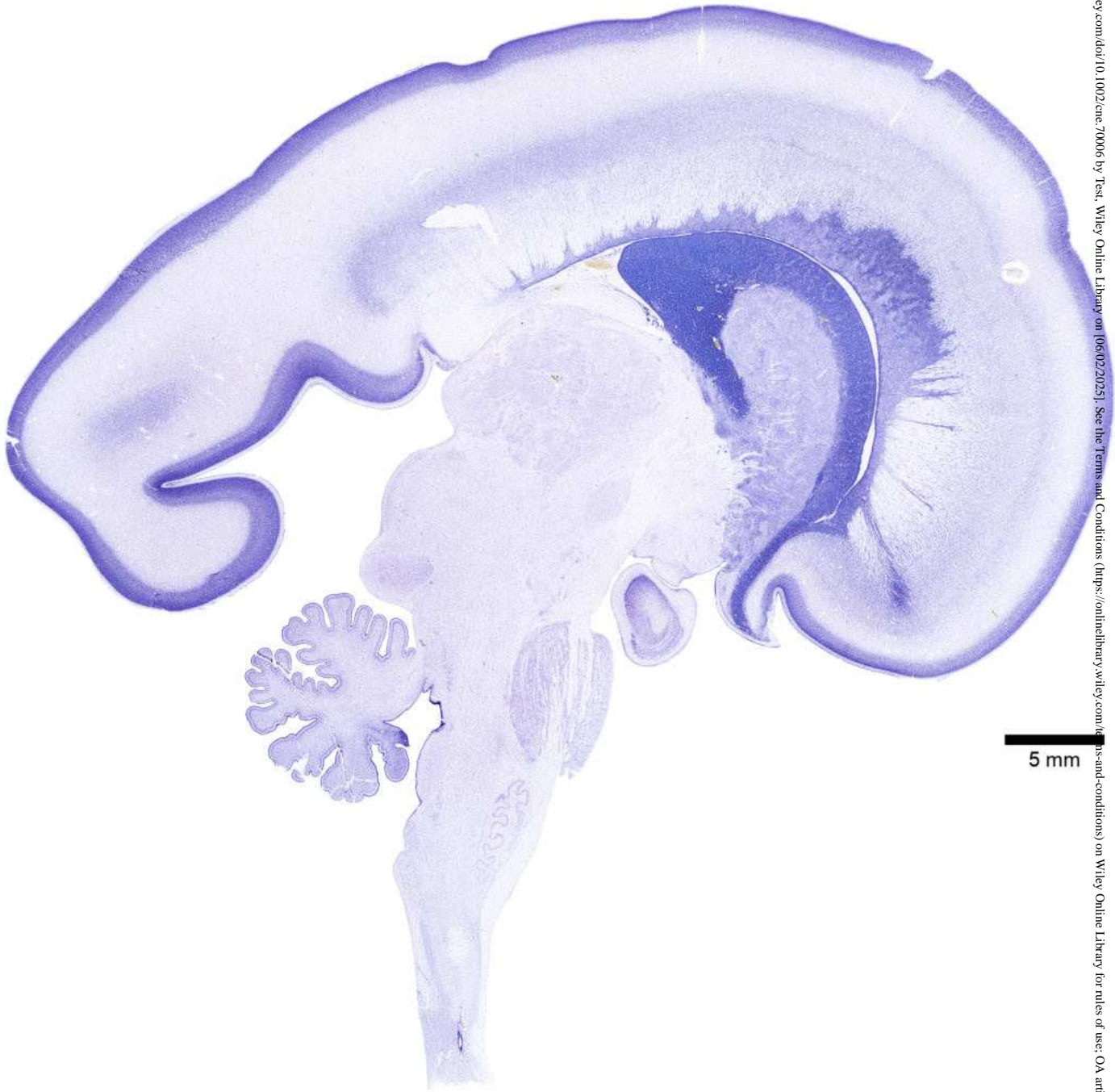
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- AP: Area postrema
- APT: Anterior pretectal nucleus
- ARM: Arcuate nucleus [medulla]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- BST: Bed nucleus of the stria terminalis
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CC: Central canal
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IH: Intermediate gray of the spinal cord
- IO: Inferior olive
- IP: Interposed nucleus
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NLLd: Nucleus of the lateral lemniscus, dorsal
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNC: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SO: Superior olive
- SOL: Solitary nucleus
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- Sth: Subthalamus
- TMM: Tubermammillary nucleus
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VIn: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- X-sens: Dorsal sensory nucleus X
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus
- ZI: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

Age: 21 GW

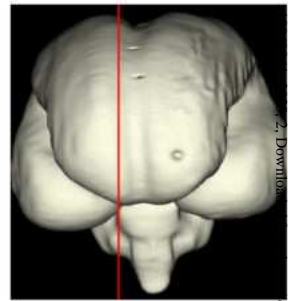


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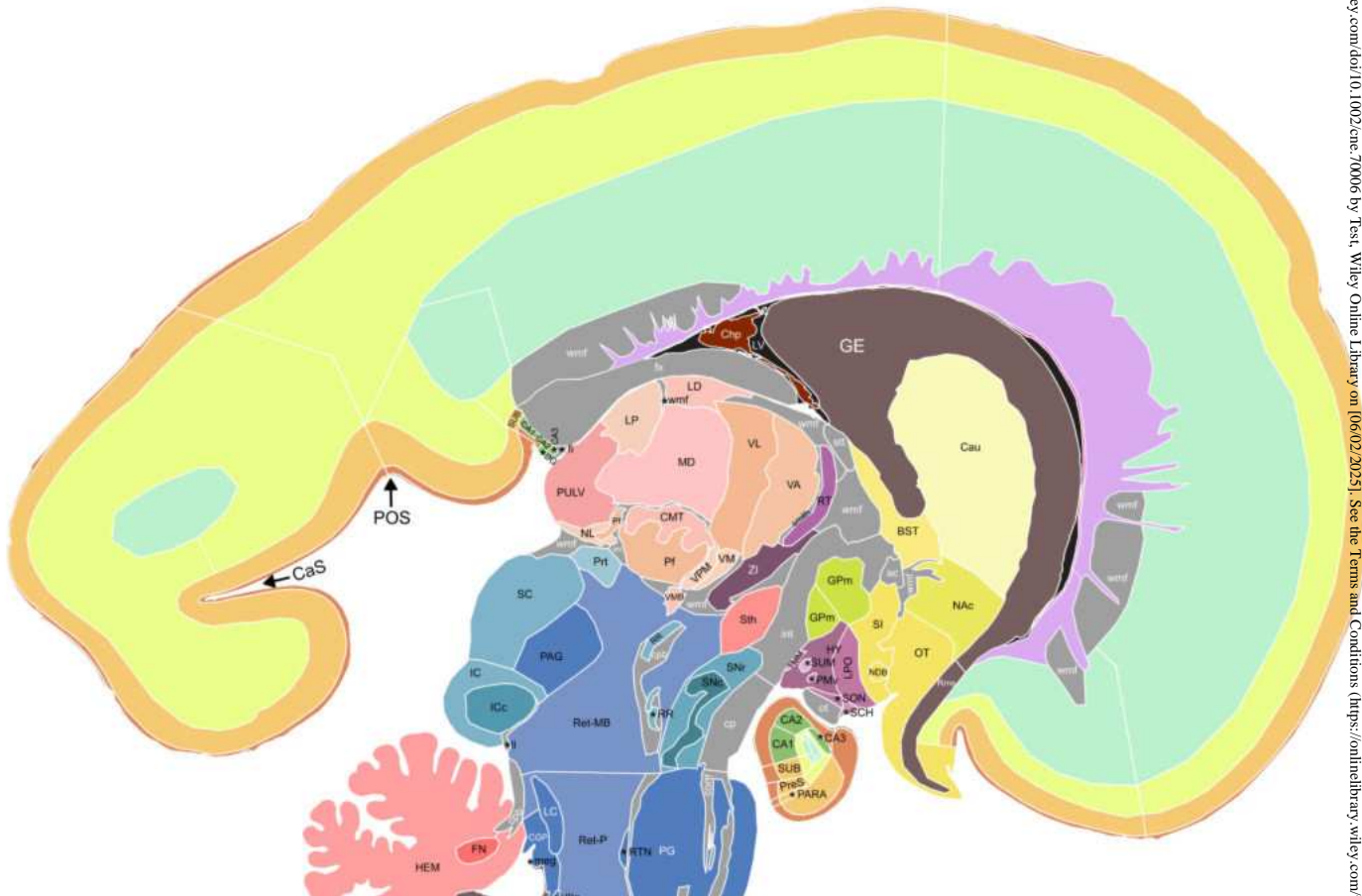
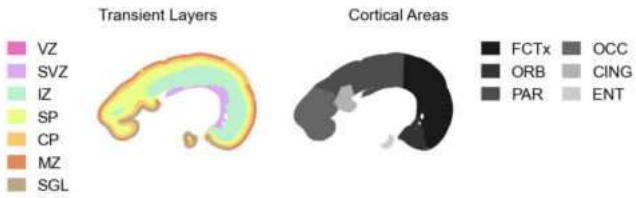


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Age: 21 GW



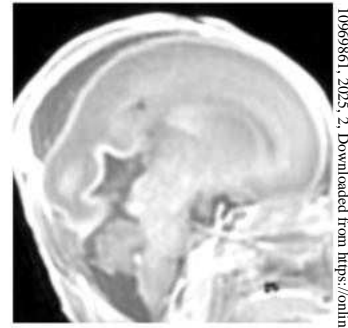
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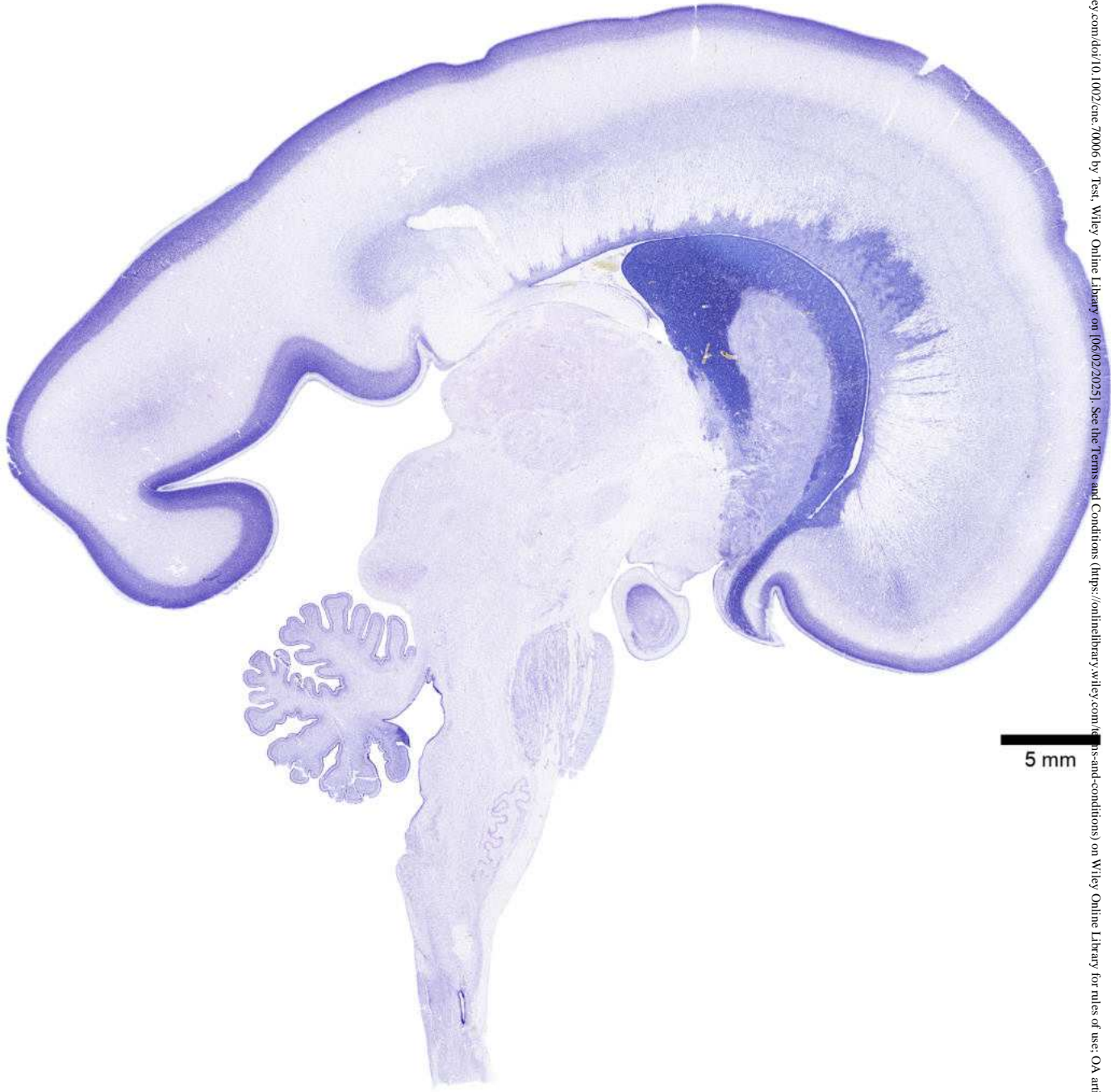
5 mm

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| <ul style="list-style-type: none"> AP: Area postrema BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CC: Central canal CGP: Central gray of the pons CMT: Centromedian nucleus [thalamus] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus FN: Fastigial nucleus GE: Ganglionic eminence GPm: Globus pallidus medial segment GR: Gracile nucleus HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus IO: Inferior olive LC: Locus coeruleus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area | <ul style="list-style-type: none"> LP: Lateral posterior nucleus [thalamus] LPO: Lateral preoptic area LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] OT: Olfactory tubercle PAG: Periaqueductal gray PARA: Cortical plate, parasubiculum PG: Pontine gray PMV: Ventral premammillary nucleus PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] PreS: Cortical plate, presubiculum Prt: Pretectum RR: Retrorubral area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla | <ul style="list-style-type: none"> SON: Supraoptic nucleus [hypothalamus] SP: Spinal cord SUB: Cortical plate, subiculum SUM: Supramammillary area Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VA: Ventral anterior nucleus [thalamus] Vlin: Facial motor nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VNC: Vestibular nuclear complex VPM: Ventral posteromedial nucleus [thalamus] Xln: Accessory nucleus Xn: Dorsal motor nucleus ZI: Zona incerta |
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- CaS: Calcarine sulcus
 → POS: Parieto-occipital sulcus

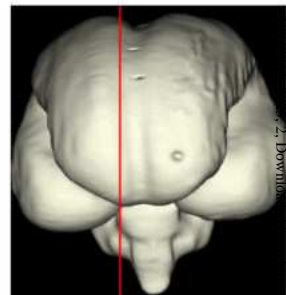
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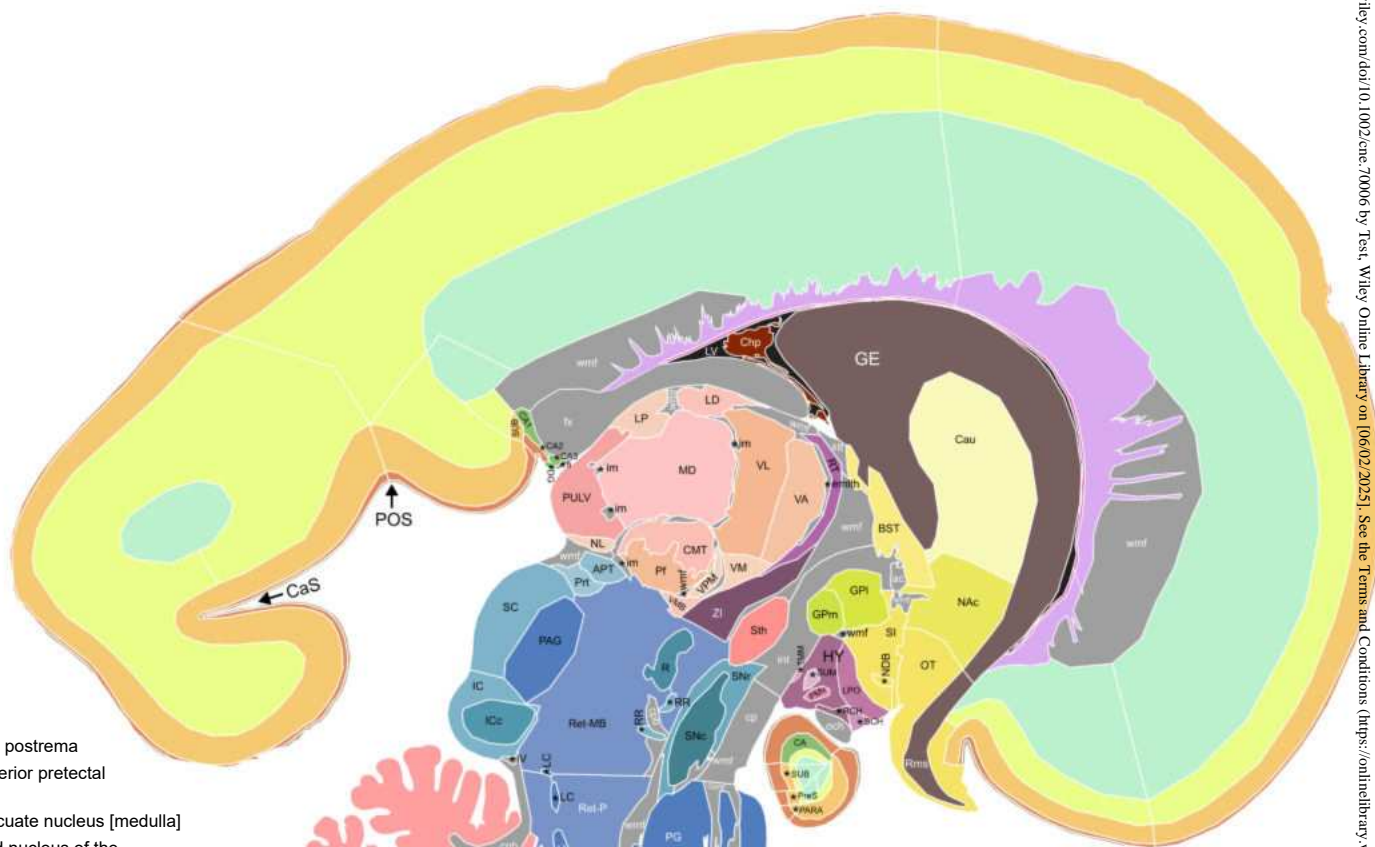
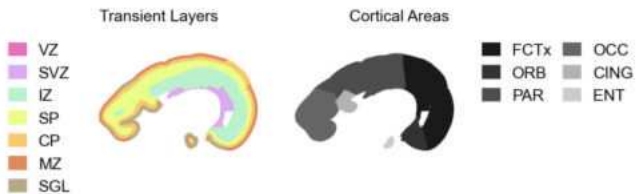
L-R Level: 4.26 mm



5 mm



L-R Level: 4.26 mm



- AP: Area postrema
- APT: Anterior pretecal nucleus
- ARM: Arcuate nucleus [medulla]
- BST: Bed nucleus of the stria terminalis
- CA: Ammon's horn
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CC: Central canal
- CG: Central gray of the spinal cord
- CMT: Centromedian nucleus [thalamus]
- COM: Commissural nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IO: Inferior olive
- IV: Trochlear nerve
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PMv: Ventral premammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]

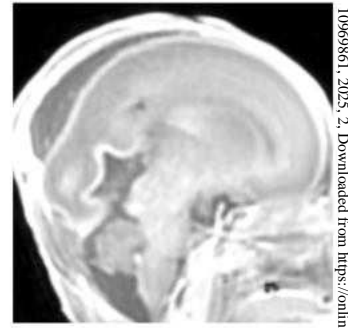
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream

- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SOL: Solitary nucleus
- SP: Spinal cord
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- Vlln: Facial motor nucleus
- Vln: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- Xln: Accessory nucleus
- Xn: Dorsal motor nucleus
- ZI: Zona incerta

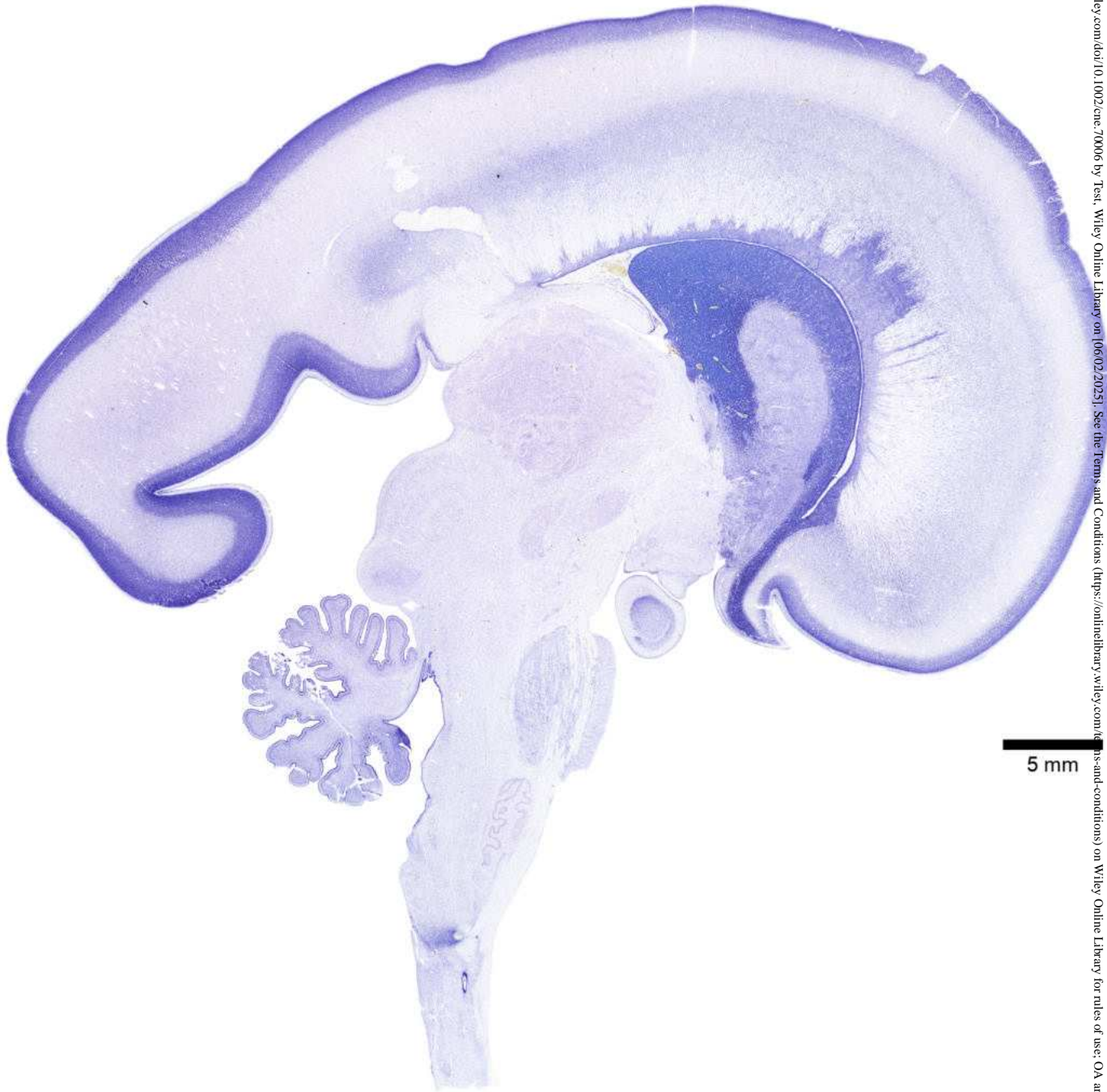
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

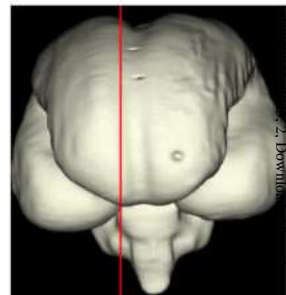
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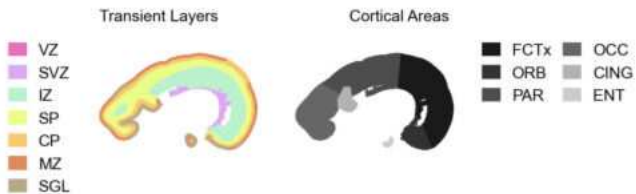
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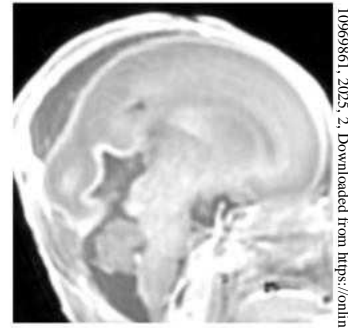
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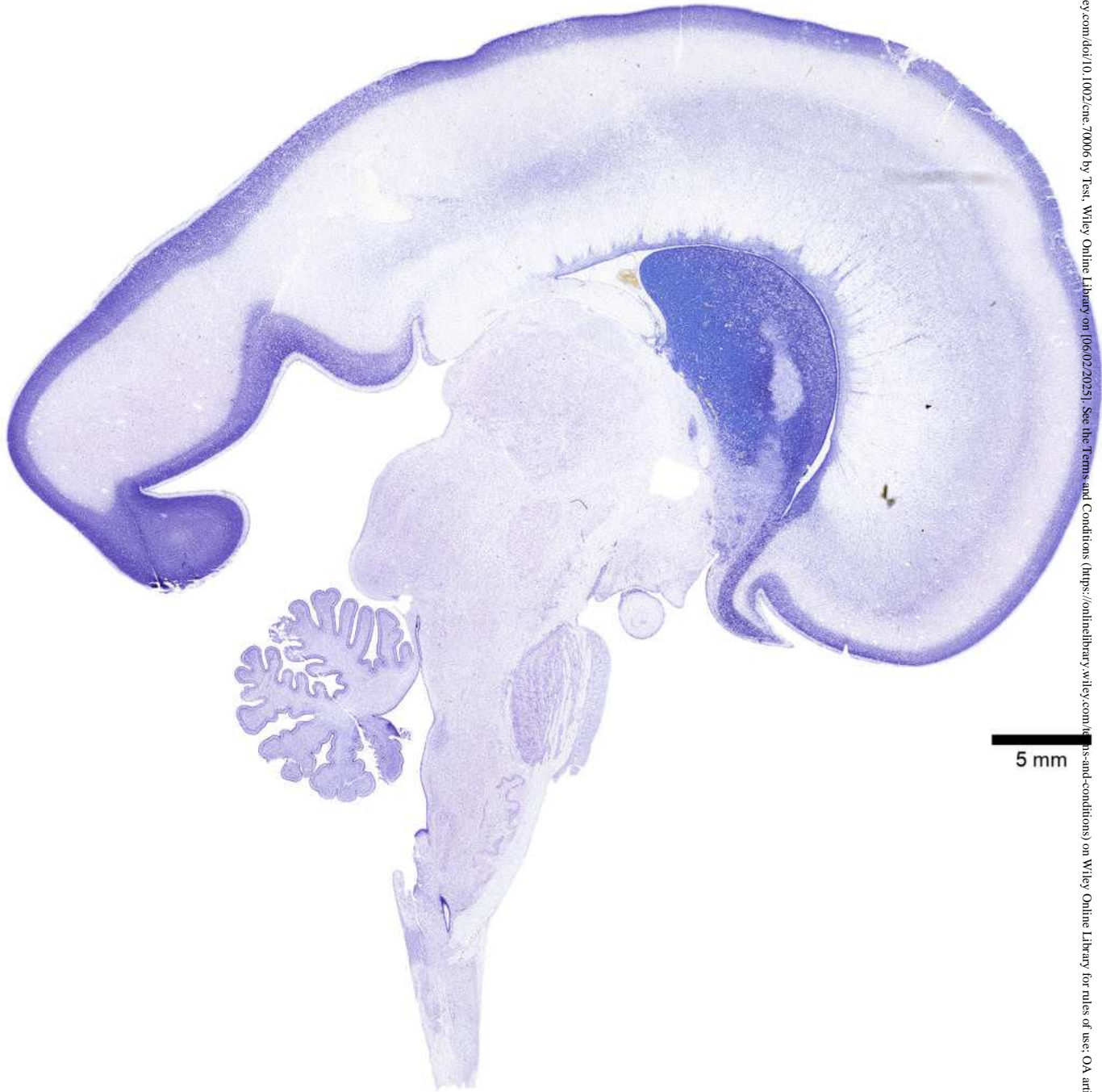
5 mm

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|---|--|---|
| <ul style="list-style-type: none"> AP: Area postrema AV: Anteroventral nucleus [thalamus] BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CC: Central canal CMT: Centromedian nucleus [thalamus] COM: Commissural nucleus Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus FN: Fastigial nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment GR: Gracile nucleus HEM: Cerebellar hemispheres HPF: Cortical plate, hippocampal formation HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus IO: Inferior olive IV: Trochlear nerve LC: Locus coeruleus | <ul style="list-style-type: none"> LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LPO: Lateral preoptic area LTN: Lateral tuberal nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] OT: Olfactory tubercle PAG: Periaqueductal gray PG: Pontine gray PMv: Ventral premammillary nucleus PRP: Nucleus prepositus PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] | <ul style="list-style-type: none"> RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SI: Substantia innominata Snc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SOL: Solitary nucleus SP: Spinal cord SUB: Cortical plate, subiculum SUM: Supramammillary area Sth: Subthalamus TMM: Tuberoammammillary nucleus TRI: Germinal trigone Tct: Tectum V: Mesencephalic nucleus VA: Ventral anterior nucleus [thalamus] VIn: Facial motor nucleus VIn: Abducens nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] Xn: Dorsal motor nucleus ZI: Zona incerta |
|---|--|---|
- CaS: Calcarine sulcus
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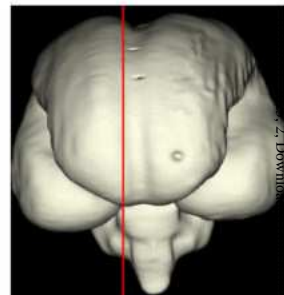
Age: 21 GW



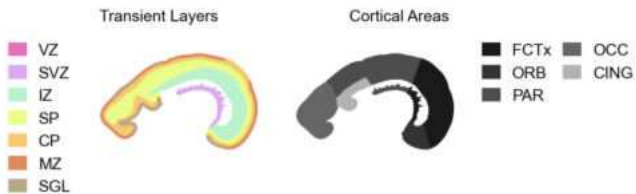
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5 mm



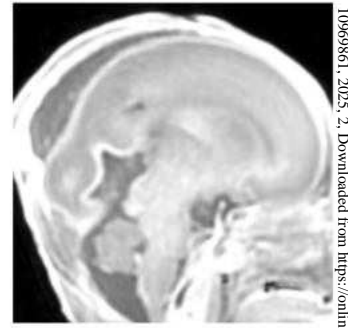
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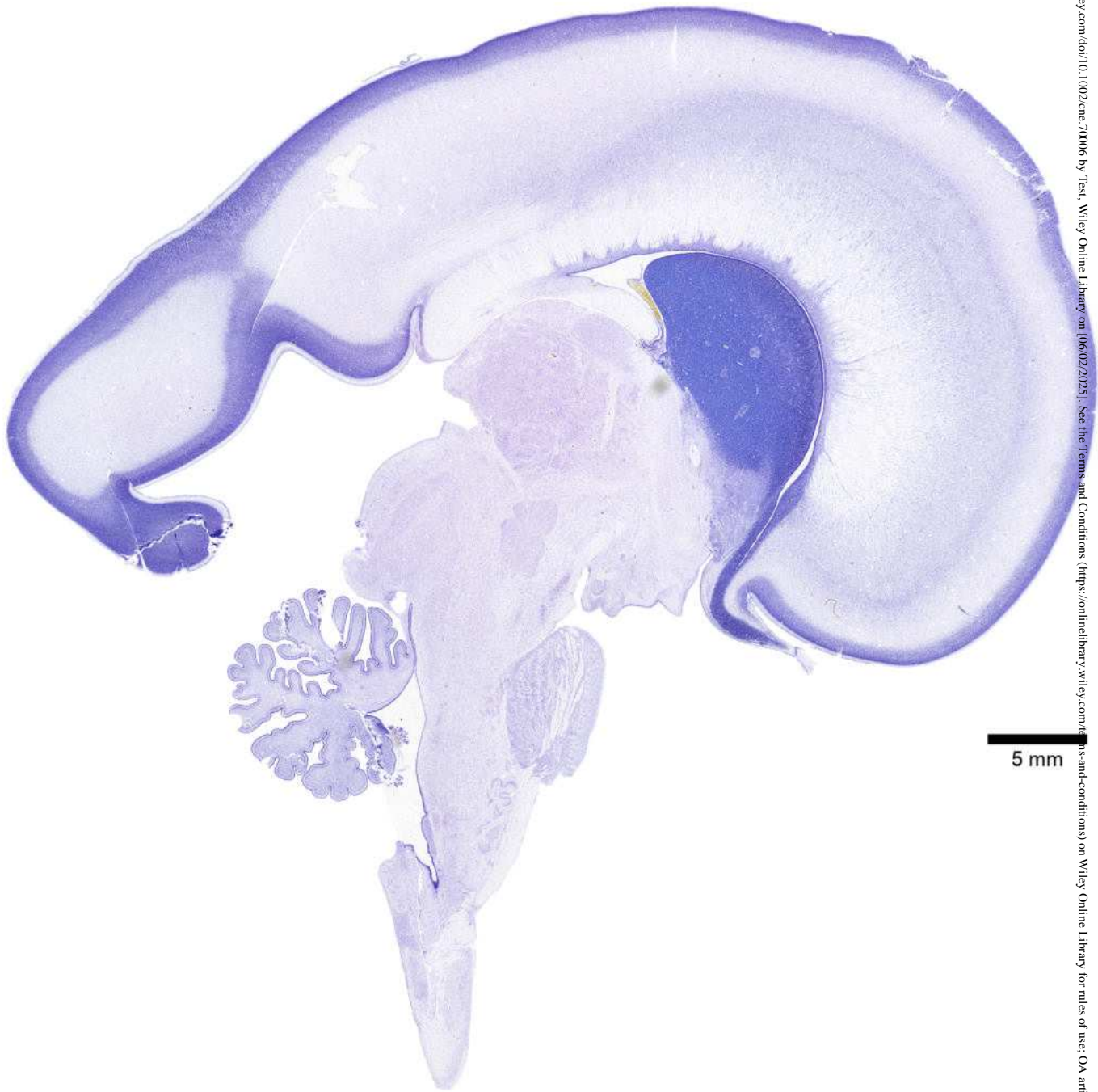
5 mm

- 4V: Fourth ventricle
 - AV: Anteroventral nucleus [thalamus]
 - BST: Bed nucleus of the stria terminalis
 - CA1: CA1 field [hippocampus]
 - CA2: CA2 field [hippocampus]
 - CA3: CA3 field [hippocampus]
 - CC: Central canal
 - CG: Central gray of the spinal cord
 - CMT: Centromedian nucleus [thalamus]
 - Cau: Caudate nucleus
 - Chp: Choroid plexus
 - DGSC: Dorsal gray of the spinal cord
 - DTN: Dorsal tegmental nucleus
 - FF: Field of Forel
 - GE: Ganglionic eminence
 - GPM: Globus pallidus medial segment
 - GR: Gracile nucleus
 - HEM: Cerebellar hemispheres
 - HY: Hypothalamus
 - IC: Inferior colliculus
 - IO: Inferior olive
 - IV: Trochlear nerve
 - LD: Lateral dorsal nucleus [thalamus]
 - LHA: Lateral hypothalamic area
 - LMN: Lateral mammillary nucleus
 - LP: Lateral posterior nucleus [thalamus]
 - LPO: Lateral preoptic area
 - LV: Lateral ventricle
 - MD: Medial dorsal nucleus [thalamus]
 - NAC: Nucleus accumbens
 - NDB: Nucleus of the diagonal band
 - NL: Nucleus limitans [thalamus]
 - NR: Nucleus of Roller
 - OT: Olfactory tubercle
 - PAG: Periaqueductal gray
 - PARG: Parahippocampal gyrus
 - PG: Pontine gray
 - PMD: Dorsal premammillary nucleus
 - PMV: Ventral premammillary nucleus
 - PRP: Nucleus prepositus
 - PULV: Pulvinar nucleus [thalamus]
 - Pf: Parafascicular nucleus [thalamus]
 - Prt: Pretectum
 - R: Red nucleus
 - RCH: Retrochiasmatic nucleus [hypothalamus]
 - RR: Retrorubral area
 - RT: Reticular nucleus [thalamus]
 - RTN: Reticular tegmental nucleus
 - Raphe: Raphe nuclei
 - Ret-MB: Reticular formation, Midbrain
 - Ret-Med: Reticular formation, Medulla
 - Rms: Rostral migratory stream
 - SC: Superior colliculus
 - SCH: Suprachiasmatic nucleus [hypothalamus]
 - SI: Substantia innominata
 - SNC: Substantia nigra pars compacta
 - SNr: Substantia nigra pars reticulata
 - SOL: Solitary nucleus
 - SUB: Cortical plate, subiculum
 - SUM: Supramammillary area
 - Sth: Subthalamus
 - TMM: Tuberomammillary nucleus
 - TRI: Germinal trigone
 - Tct: Tectum
 - VA: Ventral anterior nucleus [thalamus]
 - VG: Ventral gray of the spinal cord
 - VIIIn: Facial motor nucleus
 - VIn: Abducens nucleus
 - VL: Ventral lateral nucleus [thalamus]
 - VM: Ventral medial nucleus [thalamus]
 - VMH: Ventromedial nucleus [hypothalamus]
 - VPM: Ventral posteromedial nucleus [thalamus]
 - XIIIn: Hypoglossal nucleus
 - XIIn: Accessory nucleus
 - ZI: Zona incerta
- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

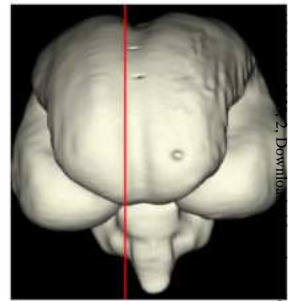
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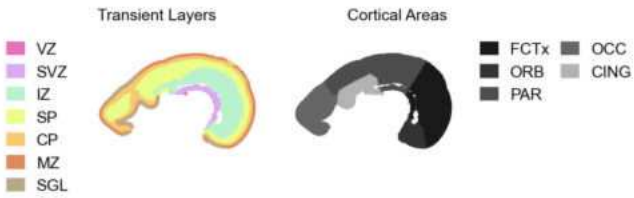
L-R Level: 3.36 mm



5 mm



L-R Level: 3.36 mm

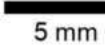


- 4V: Fourth ventricle
- AP: Area postrema
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BST: Bed nucleus of the stria terminalis
- CMT: Centromedian nucleus [thalamus]
- COM: Commissural nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- IP: Interposed nucleus
- IV: Trochlear nerve
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area

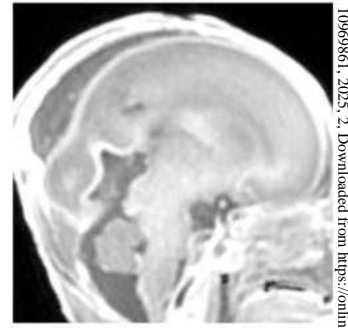
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MPT: Medial pretecal nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NPC: Nucleus of the posterior commissure
- NR: Nucleus of Roller
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]

- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream

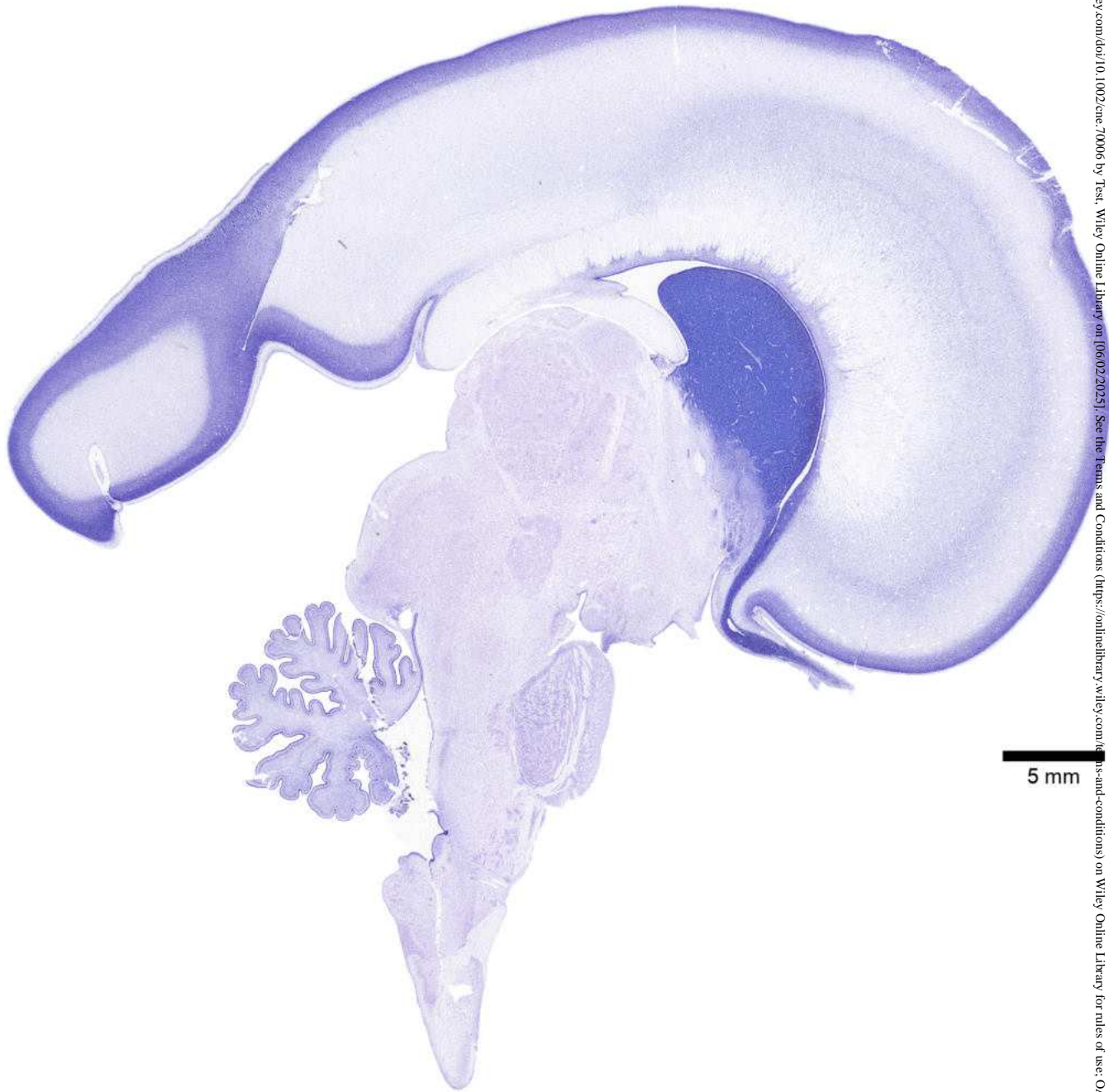
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- Snc: Substantia nigra pars compacta
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- XIIIn: Hypoglossal nucleus
- XIIn: Accessory nucleus
- ZI: Zona incerta



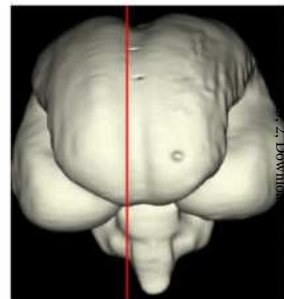
Age: 21 GW



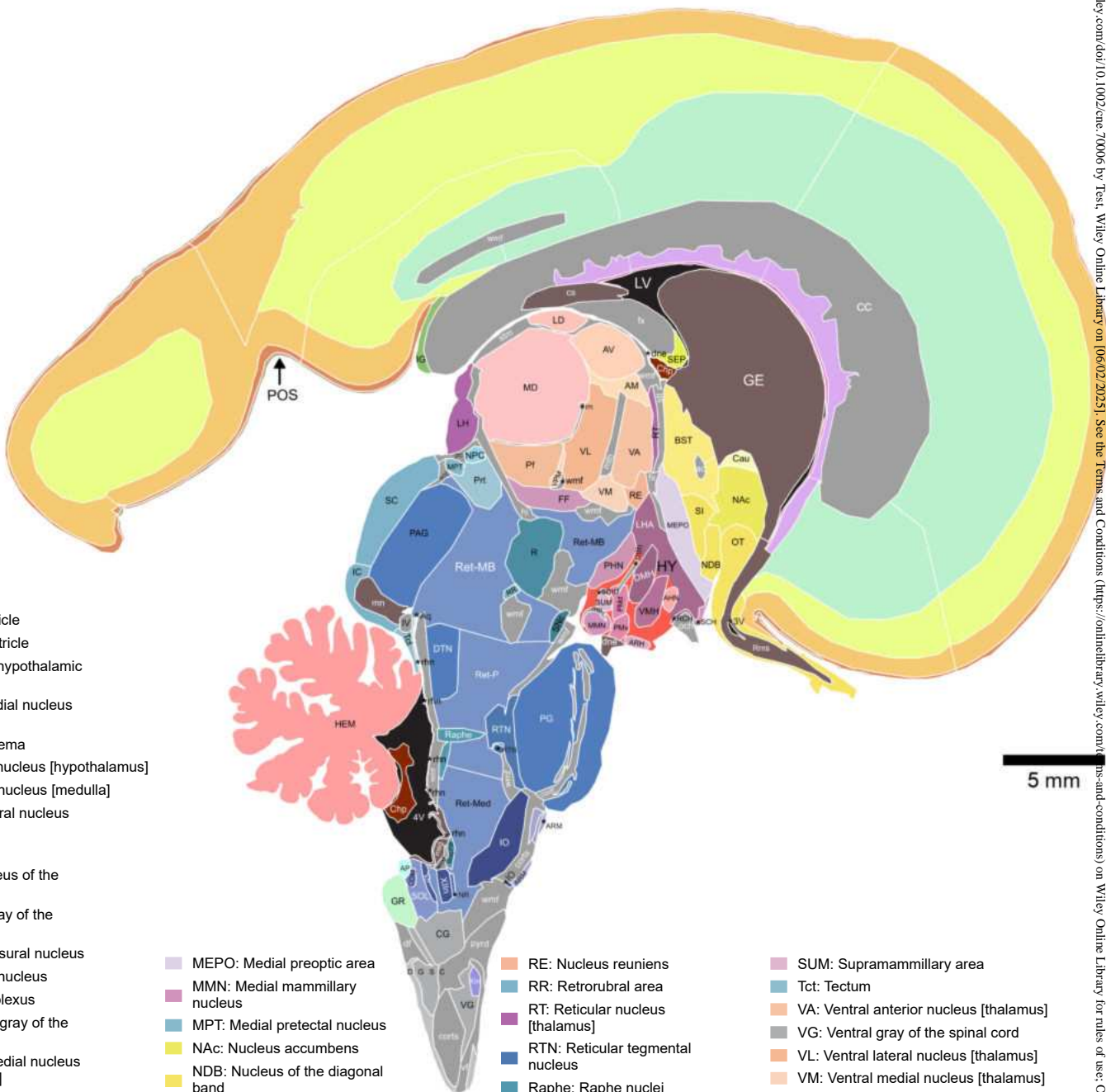
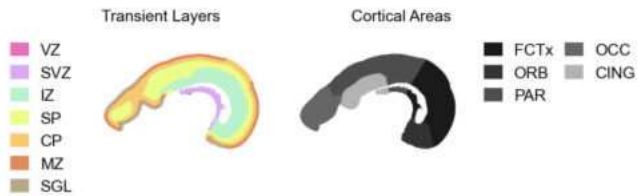
L-R Level: 3.0 mm



5 mm

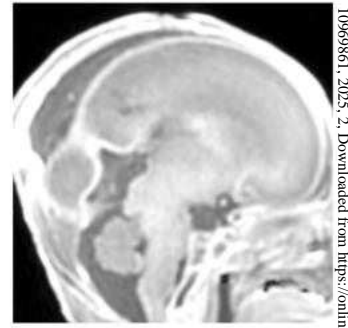


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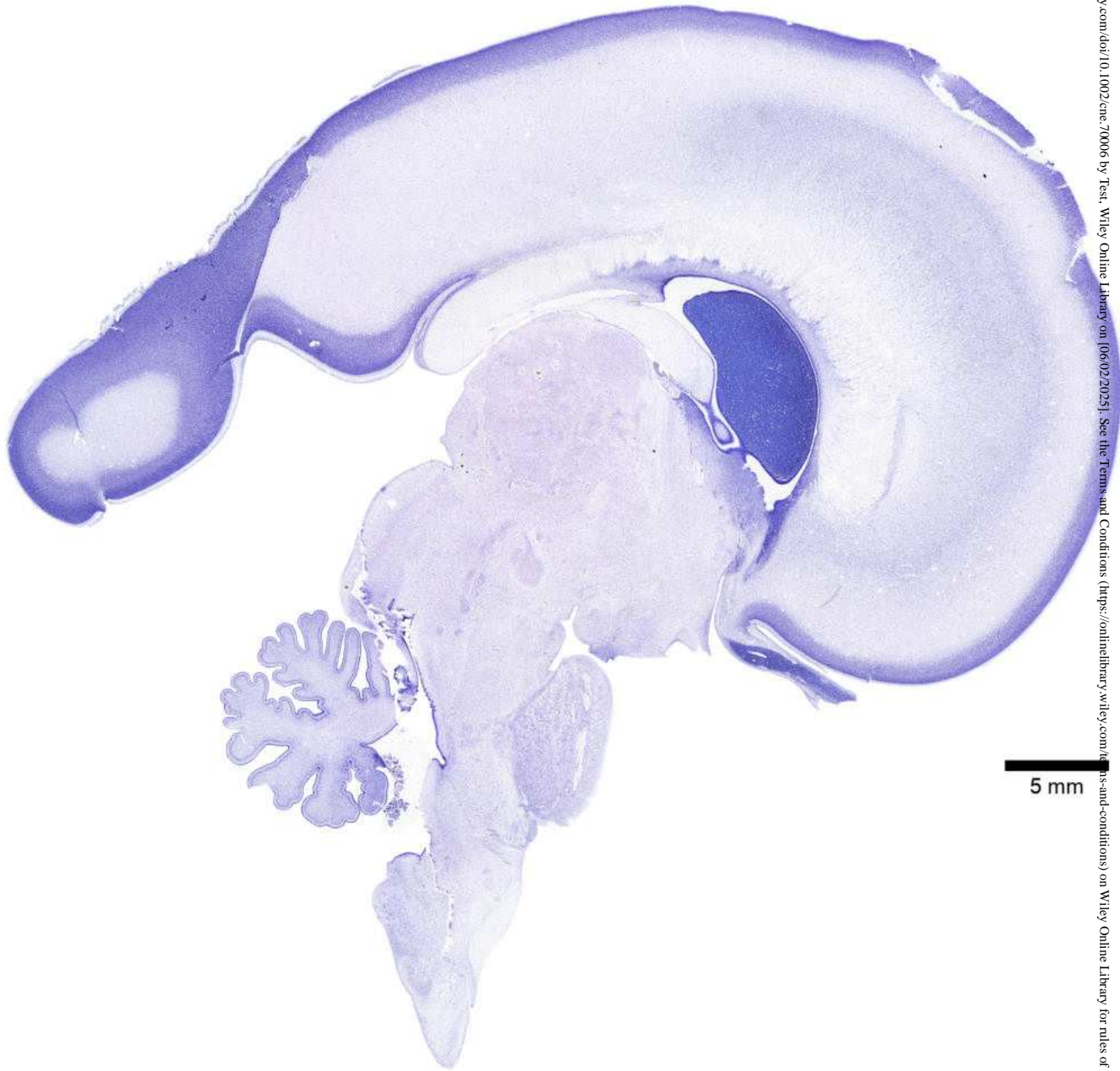


- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AM: Anteromedial nucleus [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BST: Bed nucleus of the stria terminalis
- CG: Central gray of the spinal cord
- COM: Commissural nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- IV: Trochlear nerve
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPT: Medial pretecal nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NPC: Nucleus of the posterior commissure
- NR: Nucleus of Roller
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- XIIIn: Hypoglossal nucleus
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus
- ➔ POS: Parieto-occipital sulcus

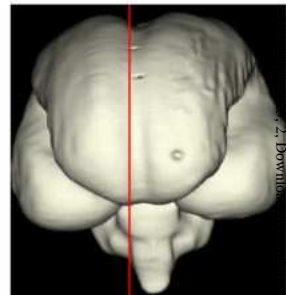
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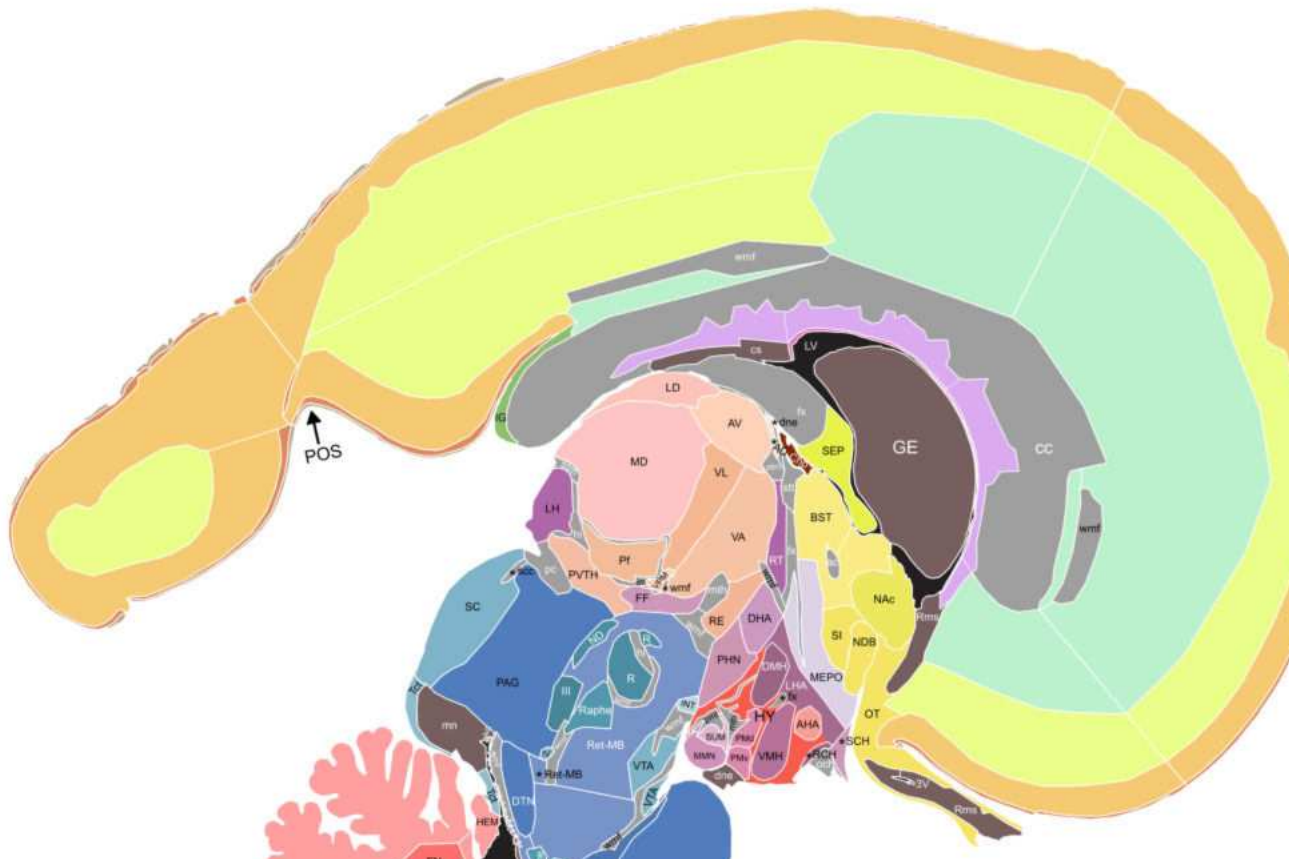
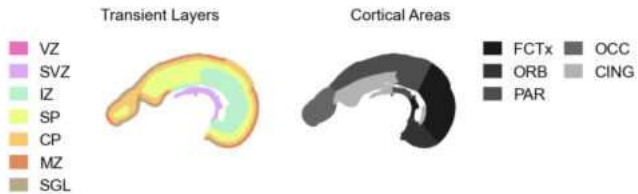
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5 mm



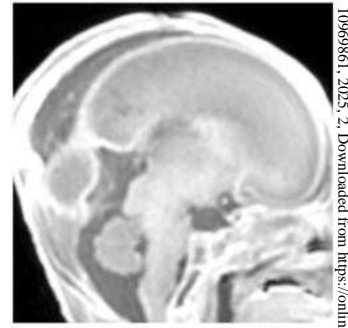
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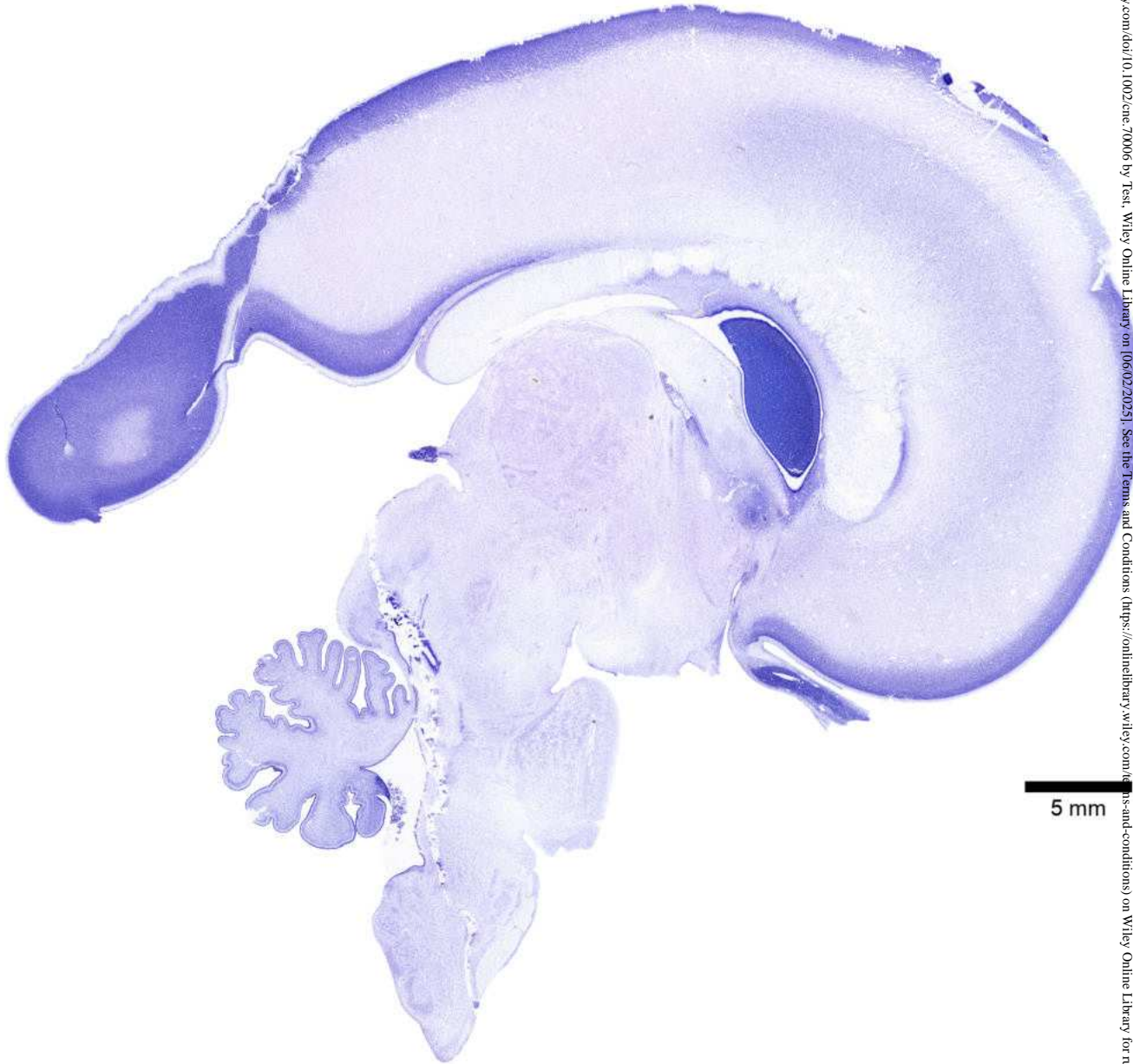
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHA: Anterior hypothalamic area
- AP: Area postrema
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BST: Bed nucleus of the stria terminalis
- COM: Commissural nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- INM: Intercalated nucleus [medulla]
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IV: Trochlear nucleus
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- NAC: Nucleus accumbens
- ND: Nucleus of Darkschewitsch
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- XIIIn: Hypoglossal nucleus
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus
- POS: Parieto-occipital sulc

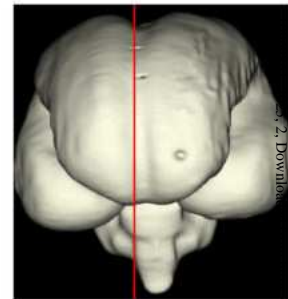
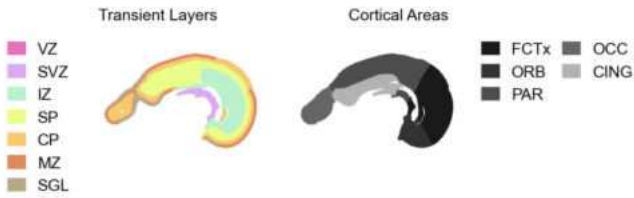
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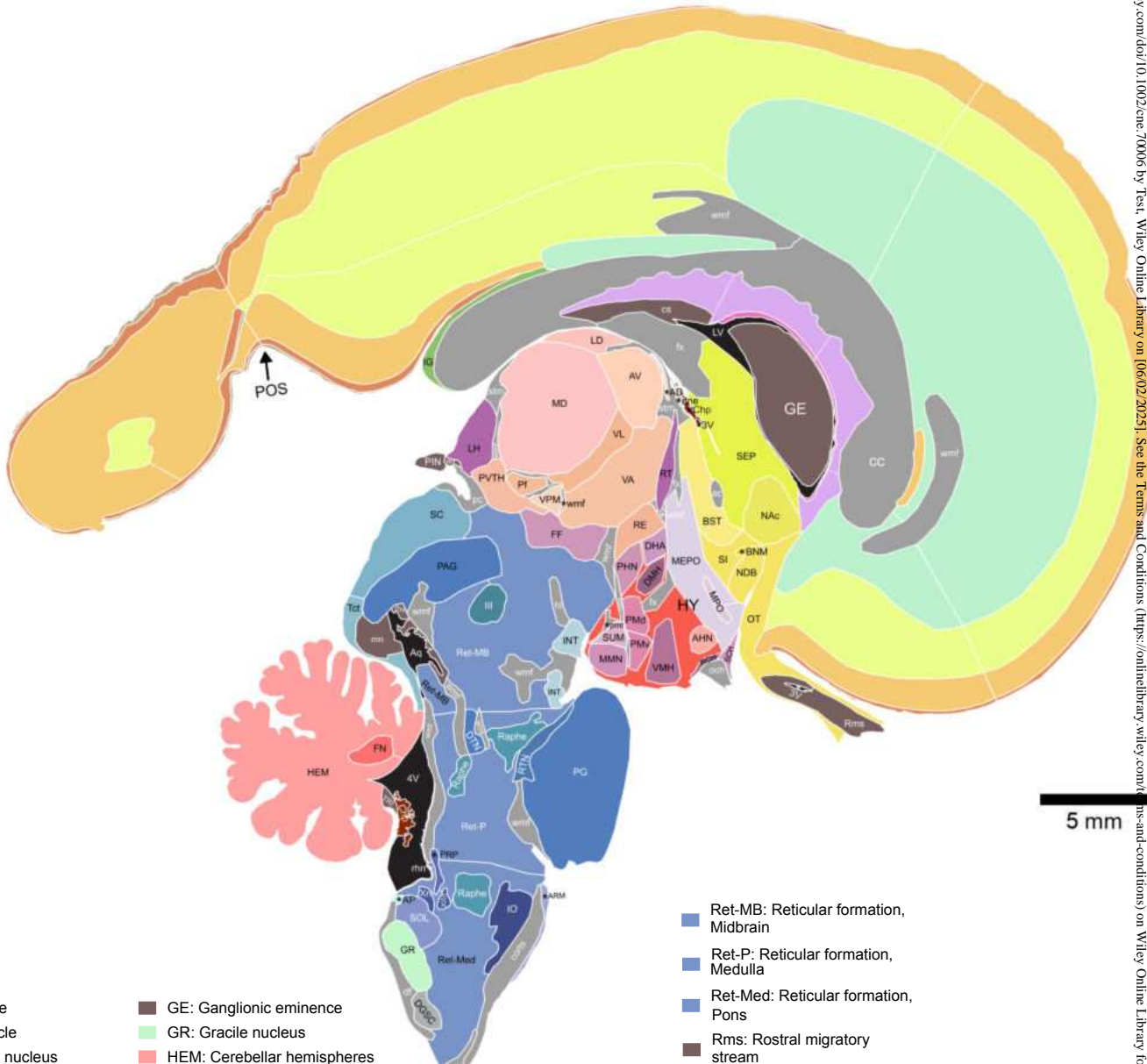
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5 mm



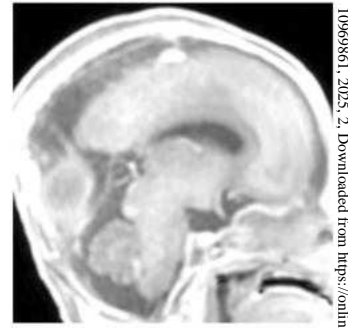
L-R Level: 2.28 mm



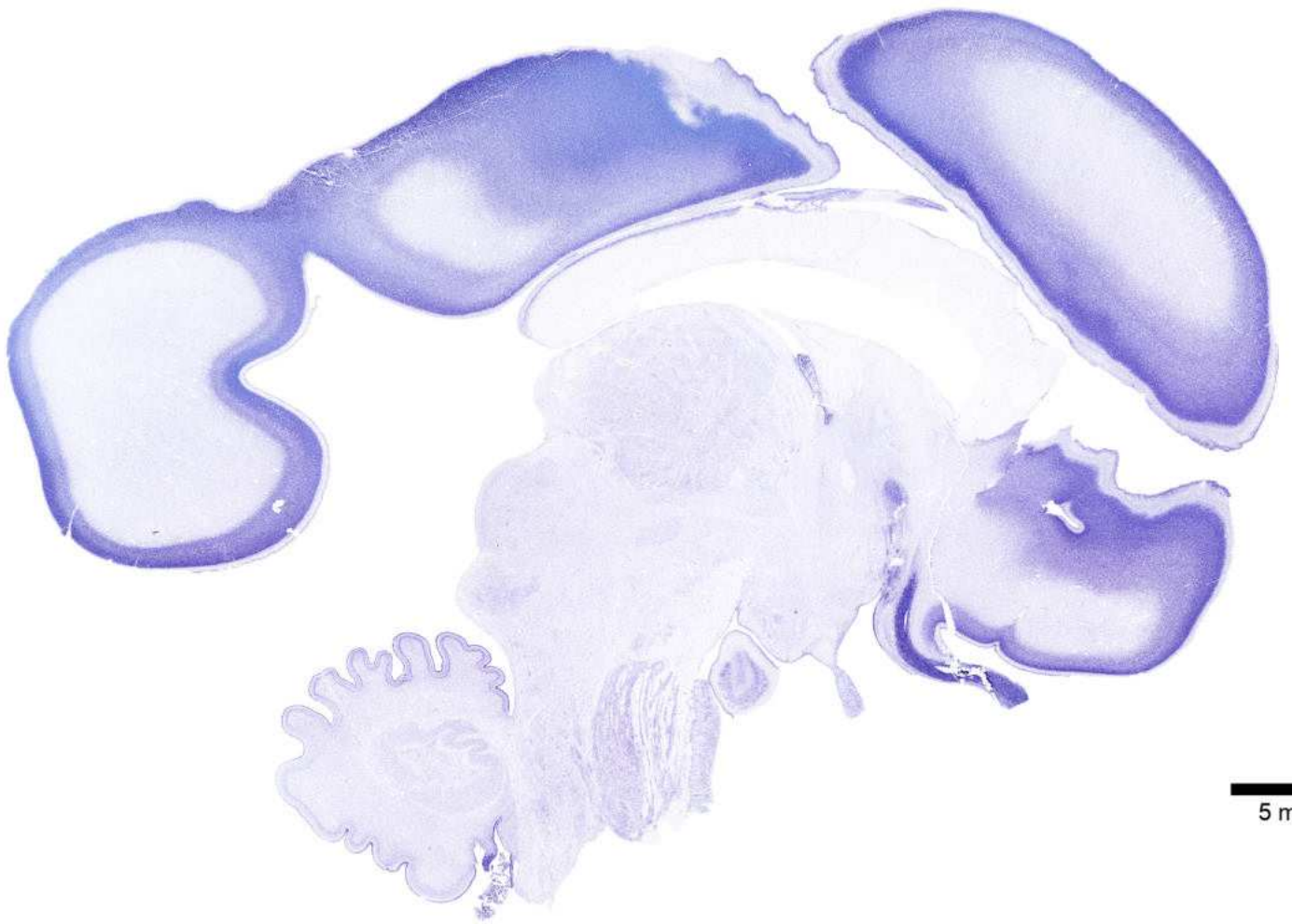
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHN: Anterior hypothalamic nucleus
- AP: Area postrema
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BNM: Basal nucleus of Meynert
- BST: Bed nucleus of the stria terminalis
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- INT: Interpeduncular nucleus
- IO: Inferior olive
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMD: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-P: Reticular formation, Medulla
- Ret-Med: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SOL: Solitary nucleus
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- XIIIn: Hypoglossal nucleus
- Xn: Dorsal motor nucleus
- POS: Parieto-occipital sulcus

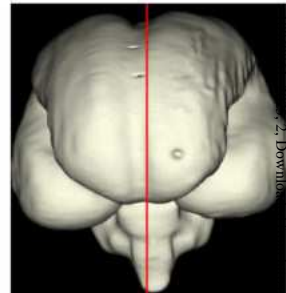
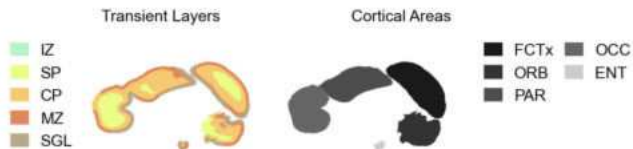
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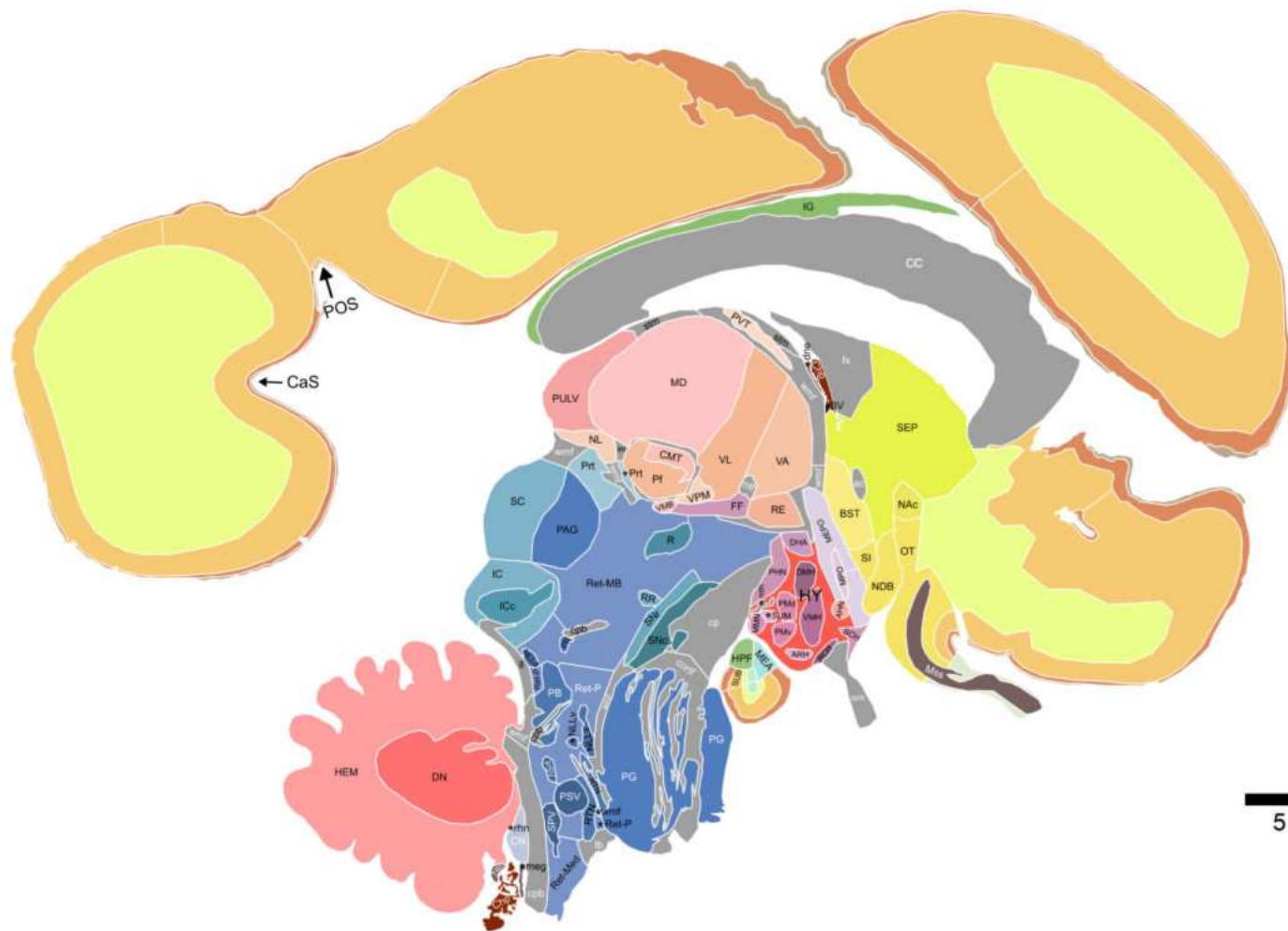
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5 mm



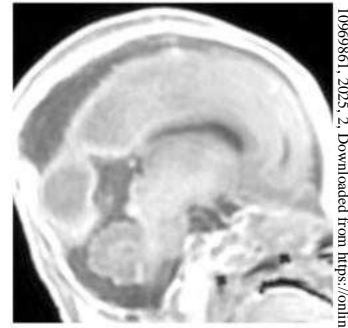
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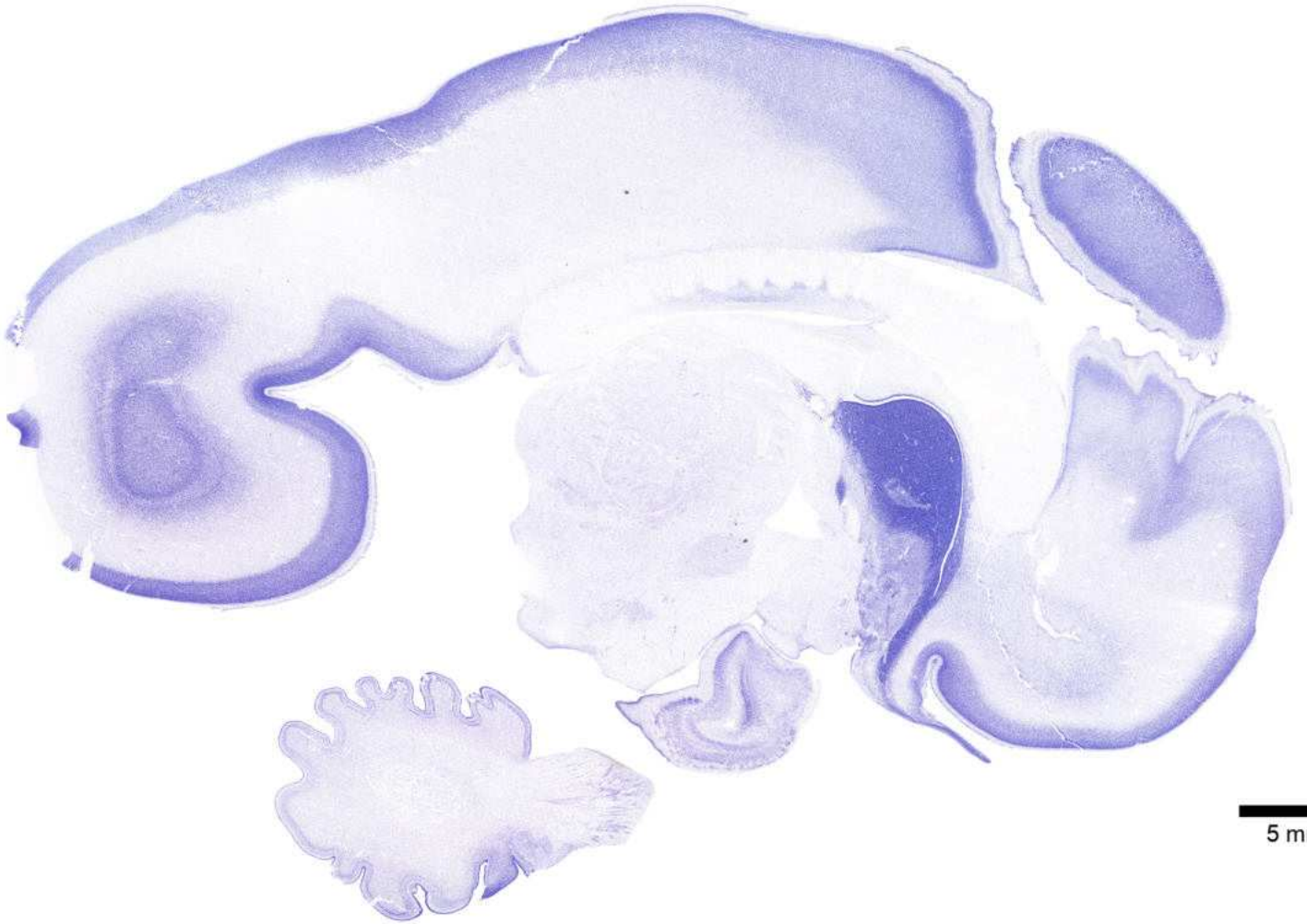
5 mm

- 3V: Third ventricle
- AHN: Anterior hypothalamic nucleus
- ARH: Arcuate nucleus [hypothalamus]
- BST: Bed nucleus of the stria terminalis
- CMT: Centromedian nucleus [thalamus]
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DN: Dentate nucleus
- FF: Field of Forel
- HEM: Cerebellar hemispheres
- HPF: Hippocampal formation
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- MD: Medial dorsal nucleus [thalamus]
- MEA: Medial nucleus [amygdala]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- Mss: Migratory streams
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NLLd: Nucleus of the lateral lemniscus, dorsal
- NLLv: Nucleus of the lateral lemniscus, ventral
- OLFb: Olfactory bulb
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

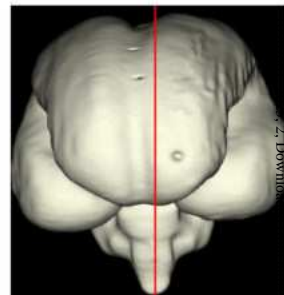
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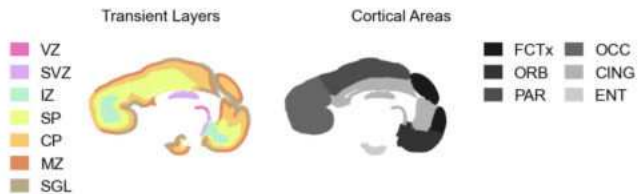
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5 mm



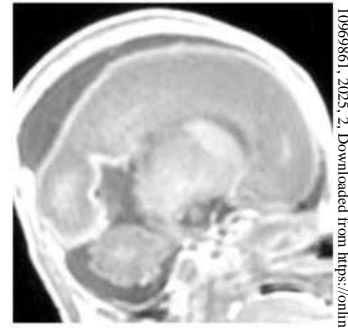
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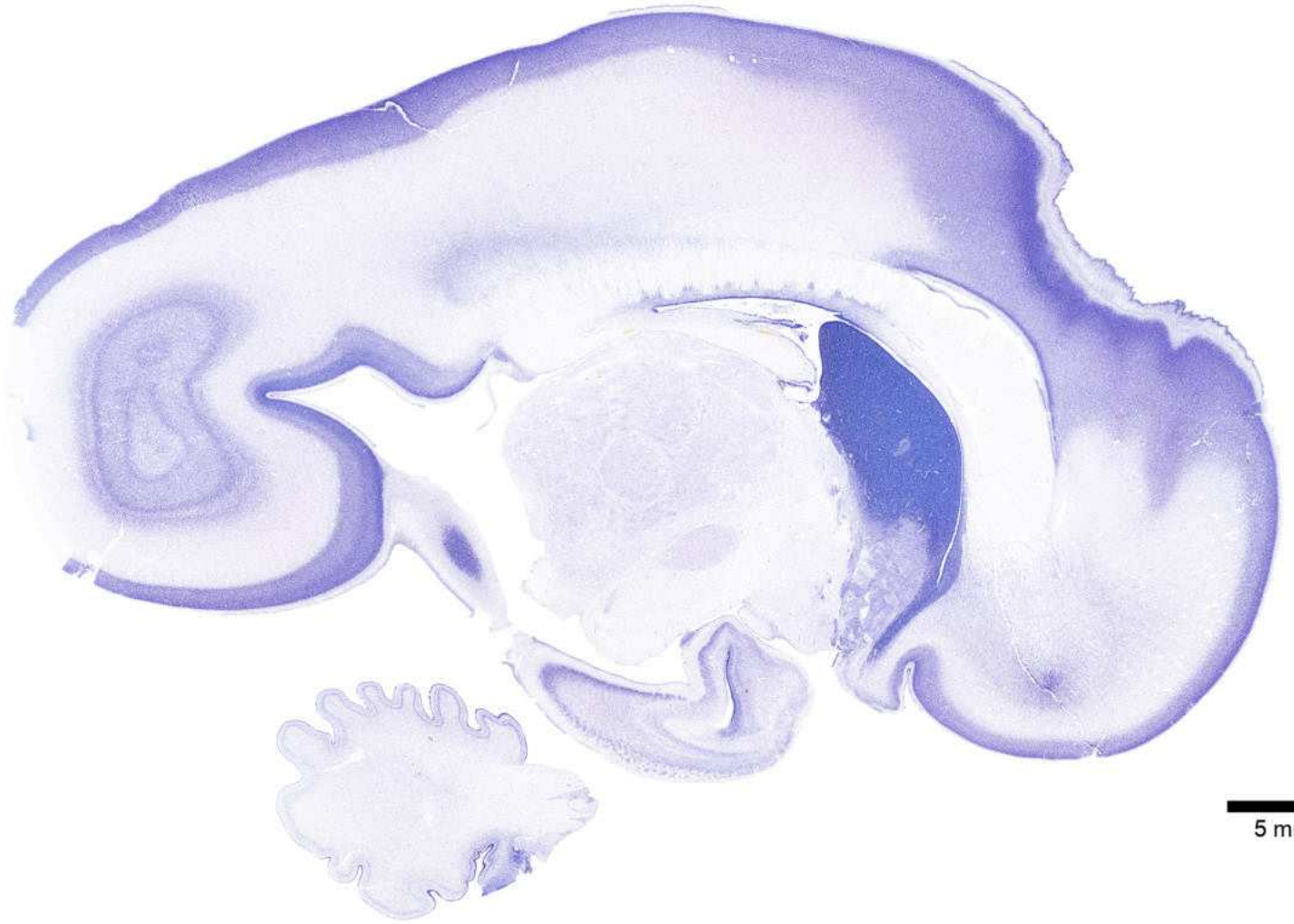
5 mm

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| <ul style="list-style-type: none"> AHi: Amygdalo-hippocampal area AV: Anteroventral nucleus [thalamus] BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CMT: Centromedian nucleus [thalamus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> HY: Hypothalamus IC: Inferior colliculus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LPO: Lateral preoptic area LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] OT: Olfactory tubercle PANA: Cortical plate, parasubiculum PBN: Parabigeminal nucleus PG: Pontine gray PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> Pf: Parafascicular nucleus [thalamus] PreS: Cortical plate, presubiculum Prt: Pretectum RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Rms: Rostral migratory stream SC: Superior colliculus SEP: Septum SI: Substantia innominata SN: Substantia nigra SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone | <ul style="list-style-type: none"> VM: Ventral medial nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure cc: Corpus callosum cpb: Cerebellar peduncle ccp: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix im: Internal medullary lamina [thalamus] int: Internal capsule mth: Mammillothalamic tract ot: Optic tract stt: Stria terminalis wmf: White matter fibers <p>→ CaS: Calcarine sulcus
 → CINGs: Cingulate sulcus
 → POS: Parieto-occipital sulcus</p> |
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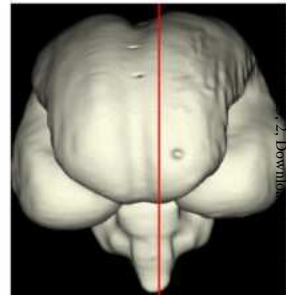
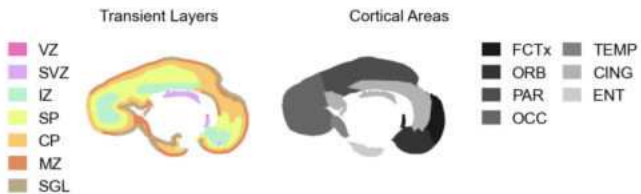
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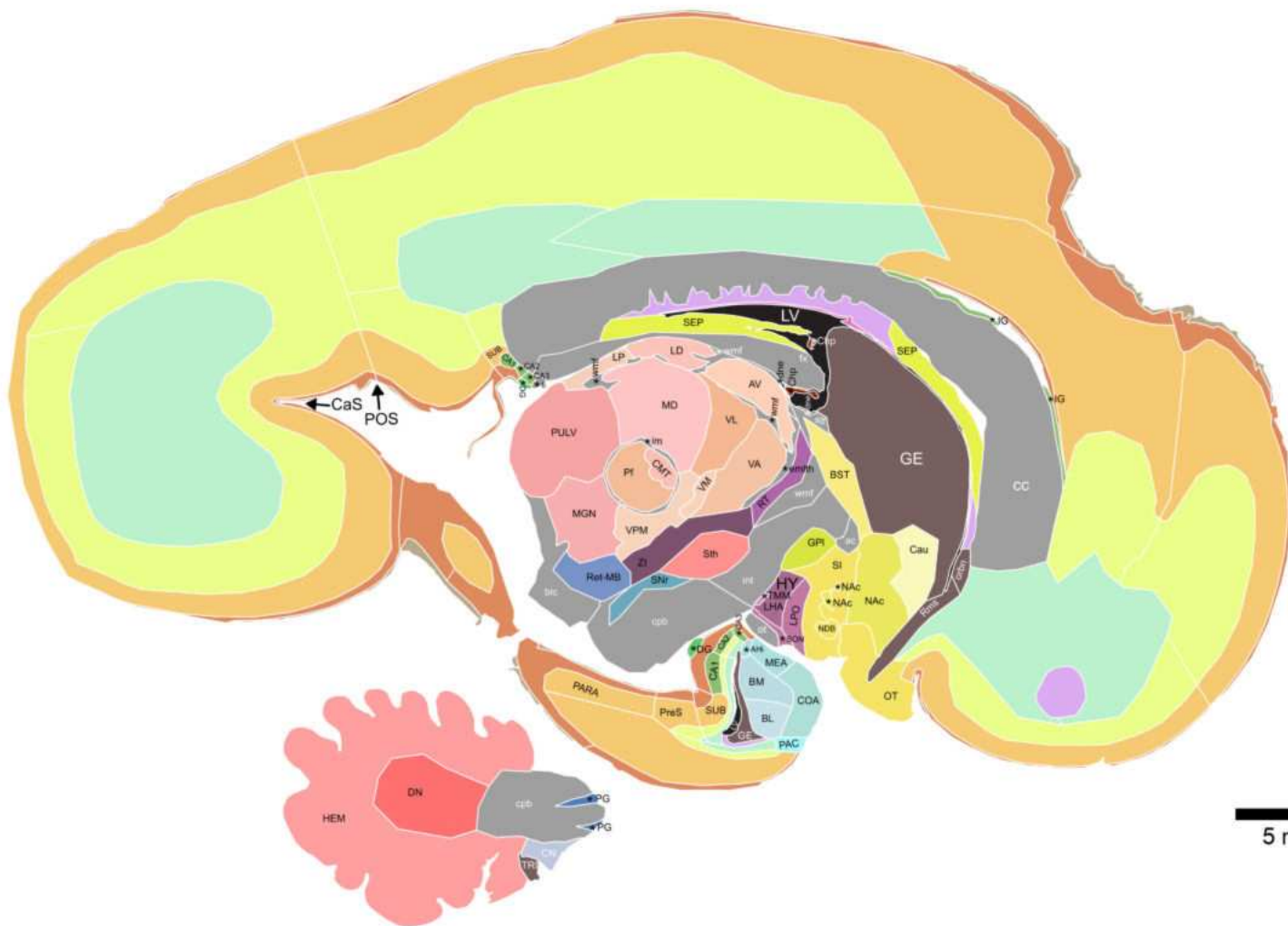
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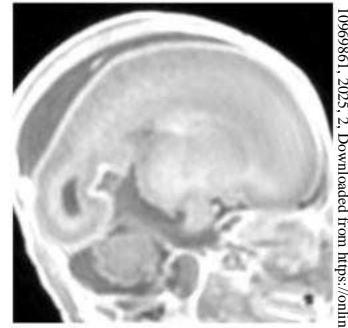


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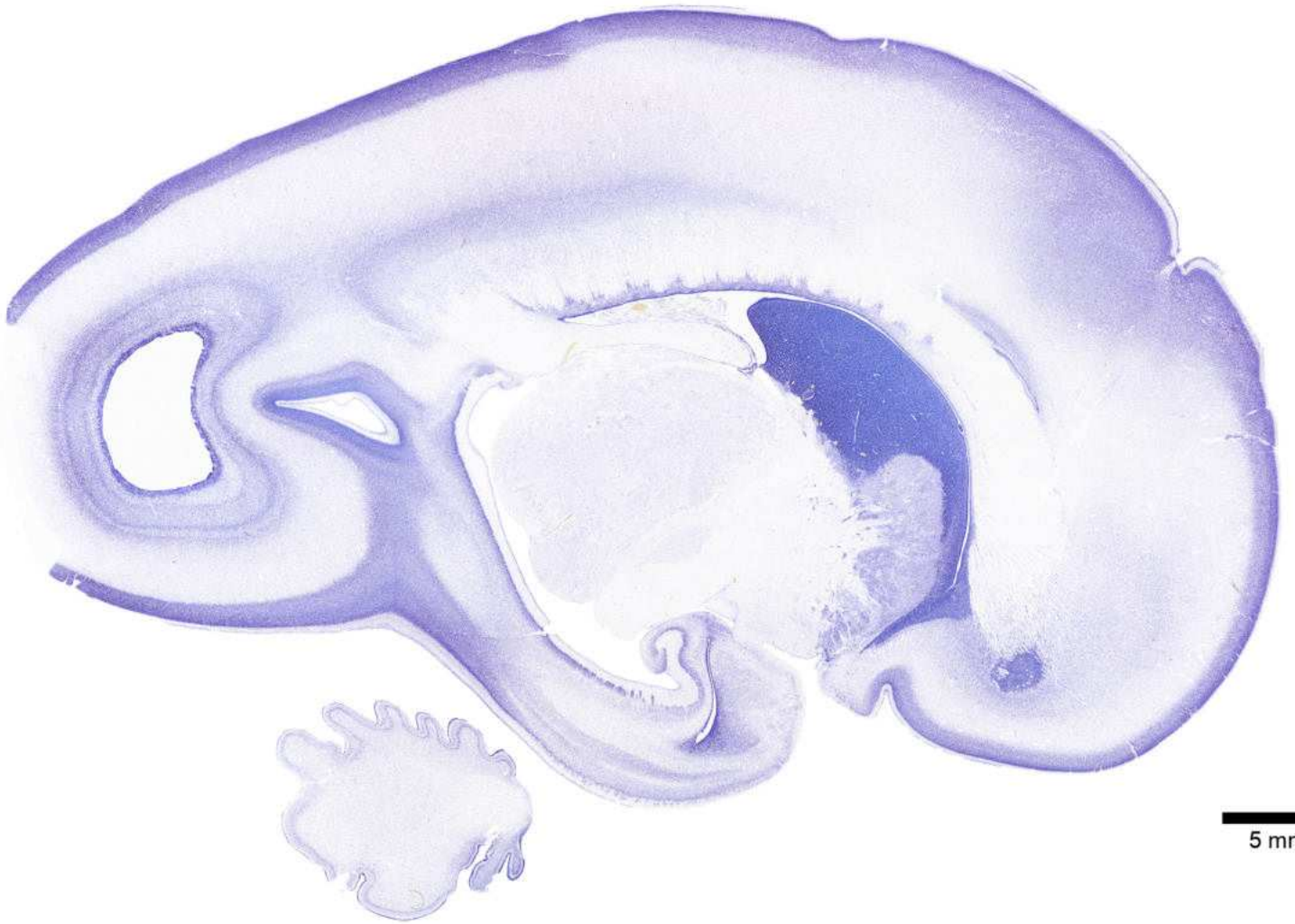


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| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ AV: Anteroventral nucleus [thalamus] ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BST: Bed nucleus of the stria terminalis ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CMT: Centromedian nucleus [thalamus] ■ CN: Cochlear nuclei ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DN: Dentate nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment | <ul style="list-style-type: none"> ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IG: Induseum griseum ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LPO: Lateral preoptic area ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEA: Medial nucleus [amygdala] ■ MGN: Medial geniculate nucleus ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> ■ Pf: Parafascicular nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ RT: Reticular nucleus [thalamus] ■ Ret-MB: Reticular formation, Midbrain ■ Rms: Rostral migratory stream ■ SEP: Septum ■ SI: Substantia innominata ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TMM: Tubero-mammillary nucleus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] | <ul style="list-style-type: none"> ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ bic: Brachium of the inferior colliculus ■ cc: Corpus callosum ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emLth: External medullary lamina [thalamus] ■ fi: Fimbria ■ fx: Fornix ■ im: Internal medullary lamina [thalamus] ■ int: Internal capsule ■ orbn: Orbitofrontal neuroepithelium ■ ot: Optic tract ■ stt: Stria terminalis ■ wmf: White matter fibers |
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- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

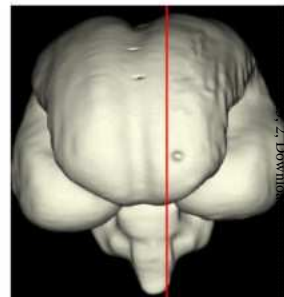
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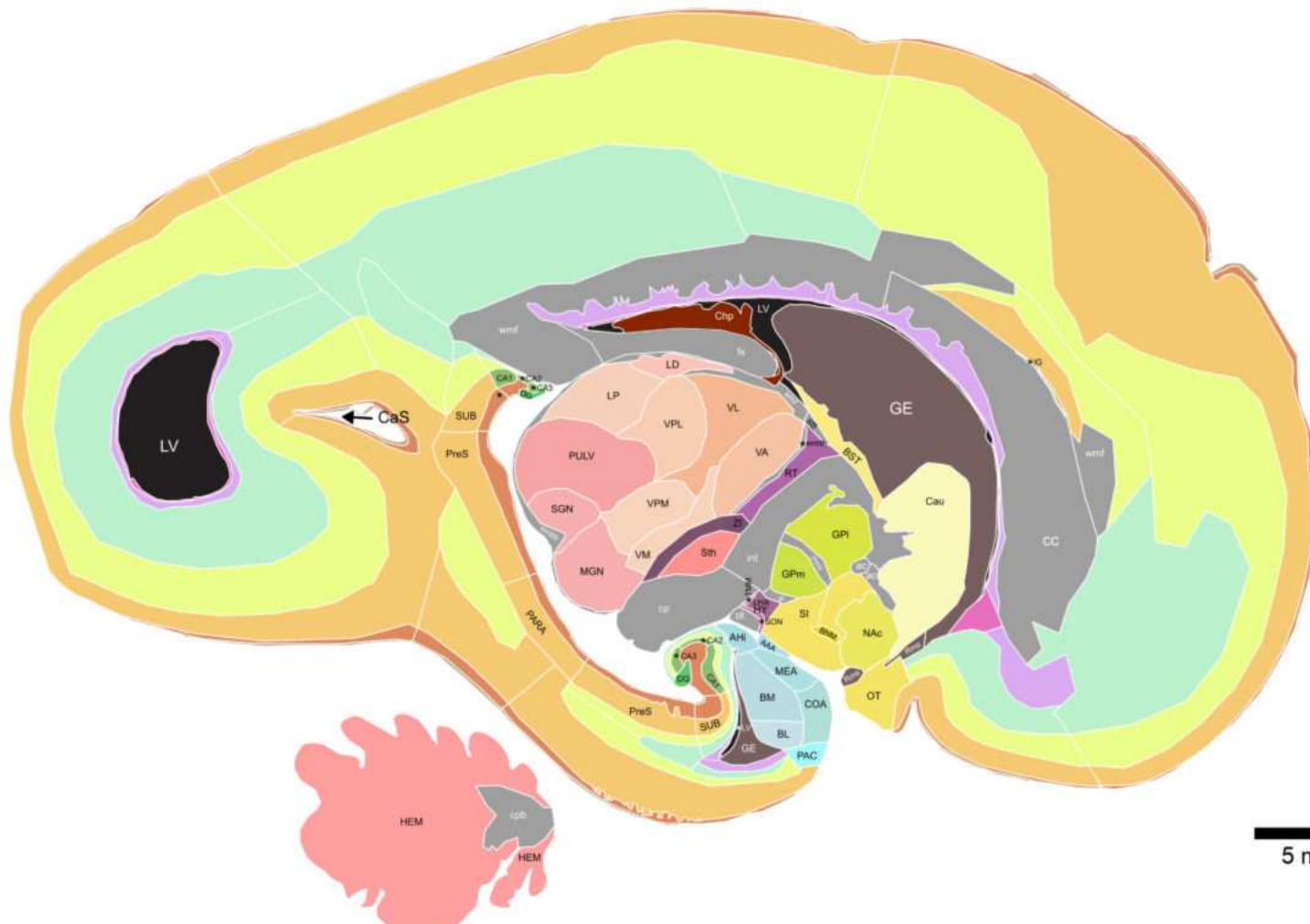
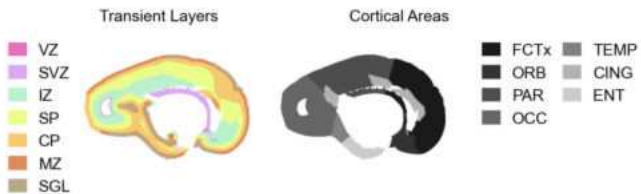
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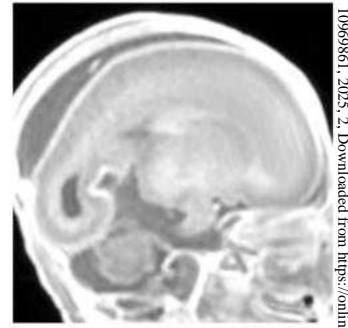
L-R Level: -3.0 mm



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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IG: Induseum griseum LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] Rms: Rostral migratory stream SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure al: Ansa lenticularis cc: Corpus callosum cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix int: Internal capsule mm: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers → CaS: Calcarine sulcus |
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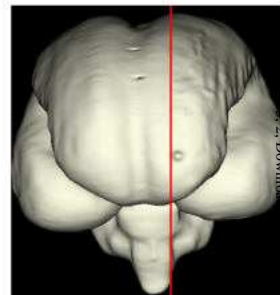
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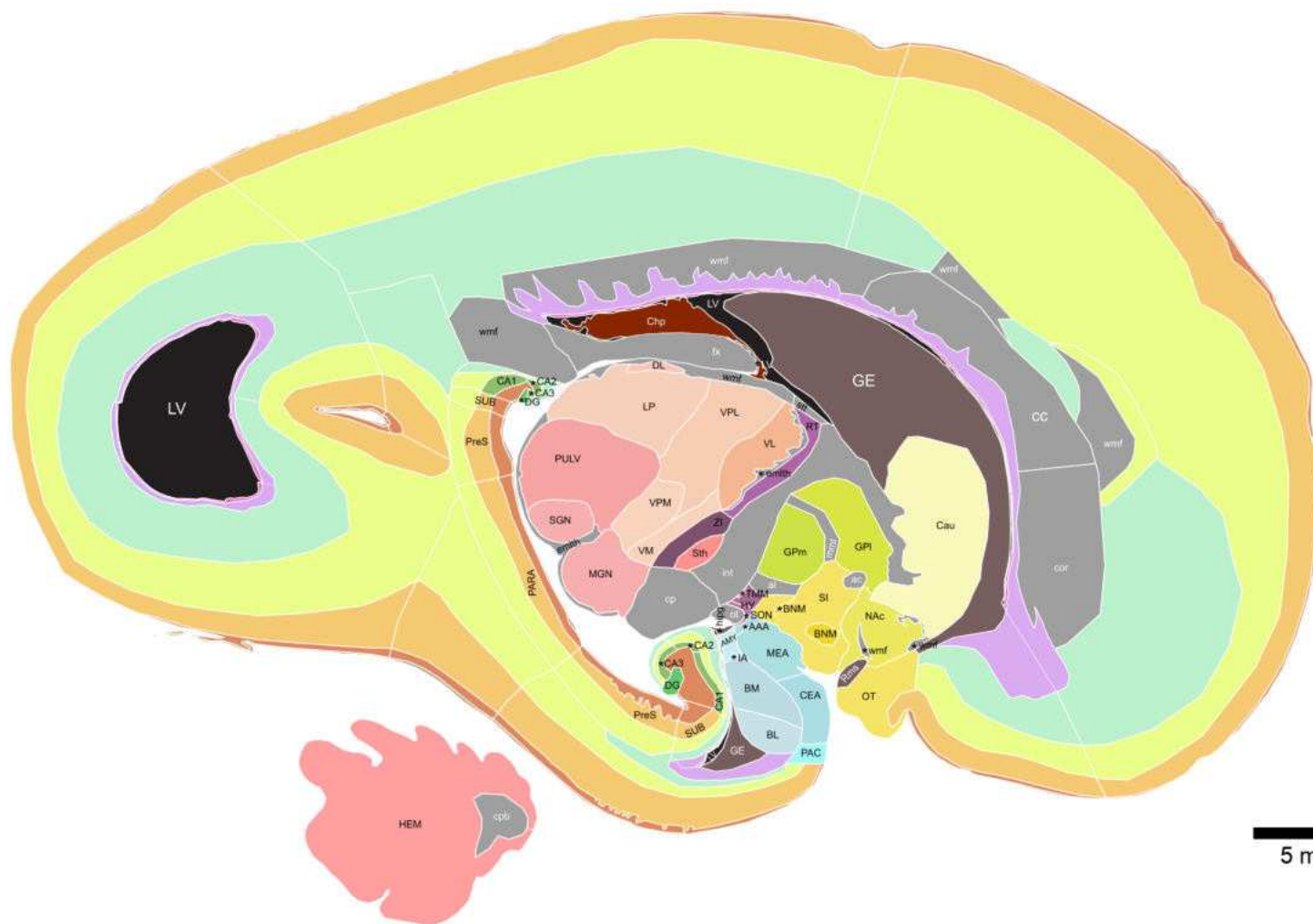
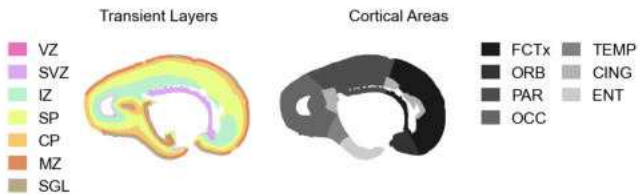
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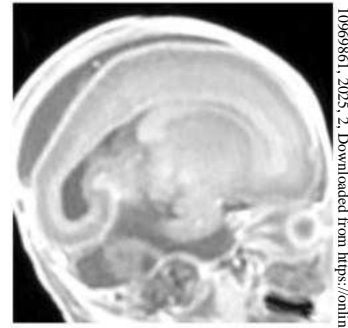
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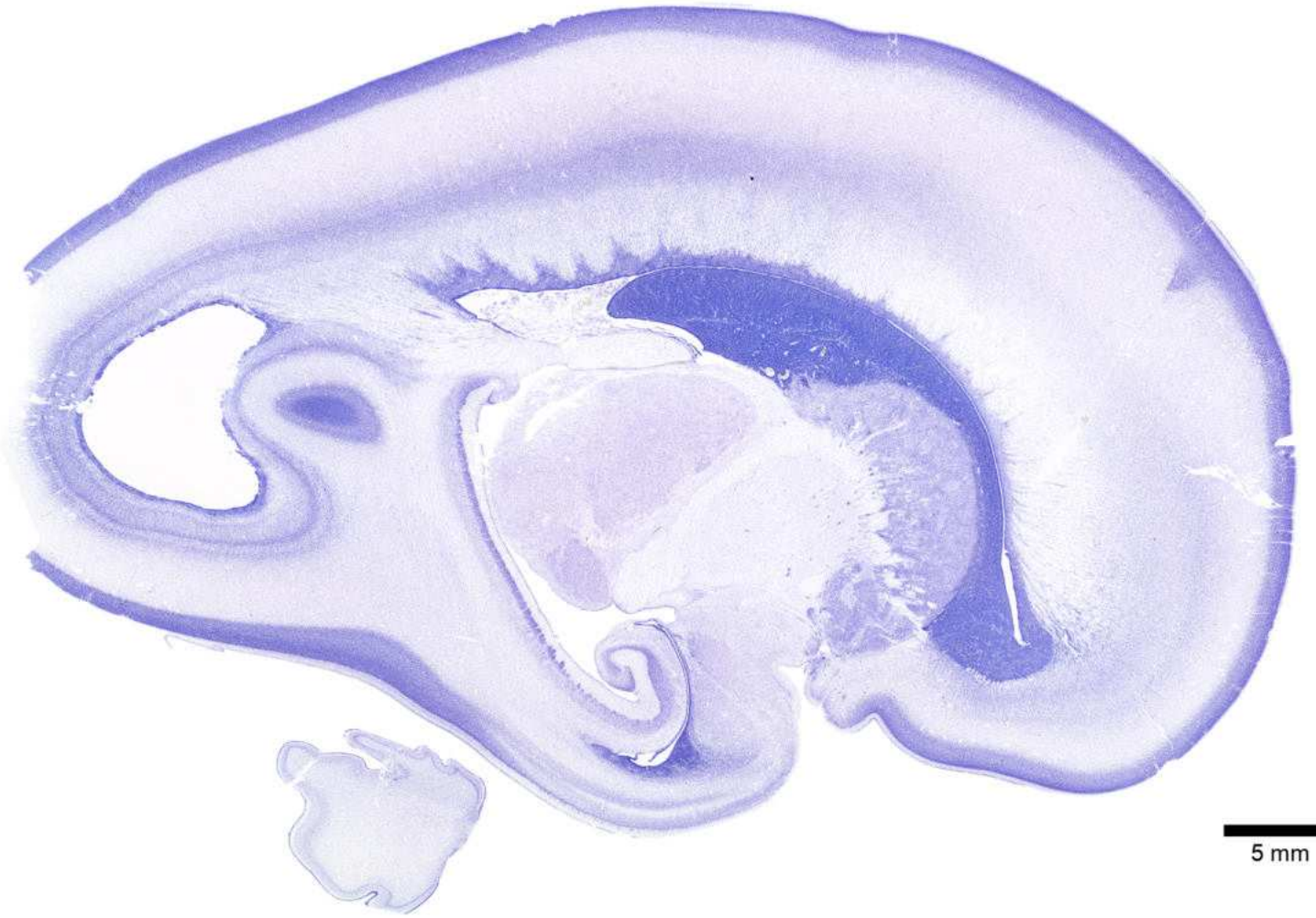
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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DL: Dorsolateral nucleus [thalamus] GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAc: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] Rms: Rostral migratory stream SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta | <ul style="list-style-type: none"> ac: Anterior commissure al: Ansa lenticularis cc: Corpus callosum cor: Corona radiata cp: Cerebral peduncle cpb: Cerebellar peduncles emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract st: Stria terminalis wmf: White matter fibers |
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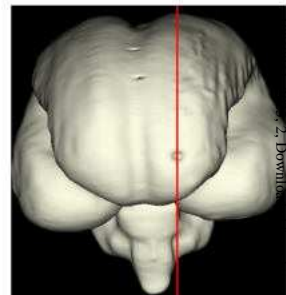
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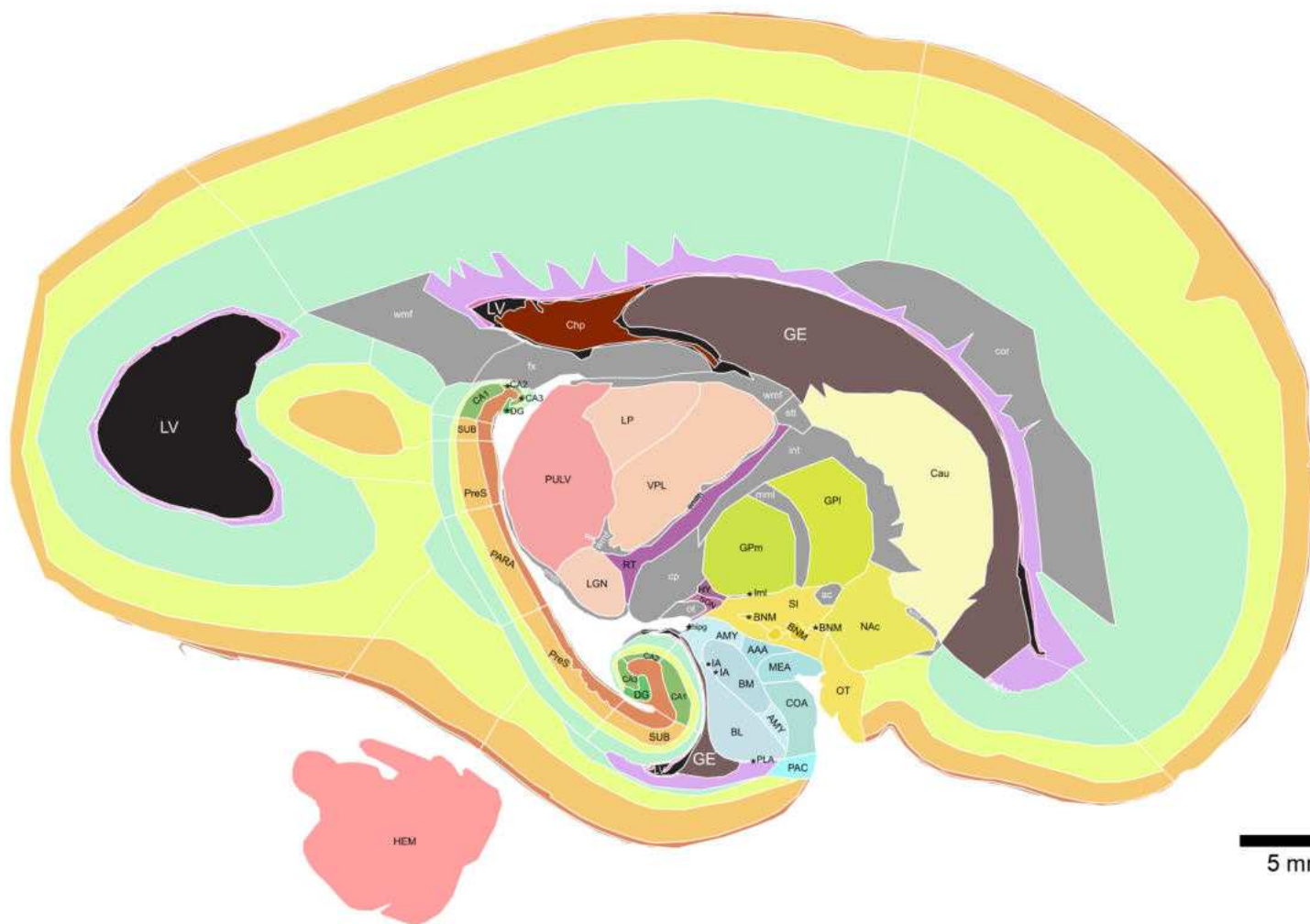
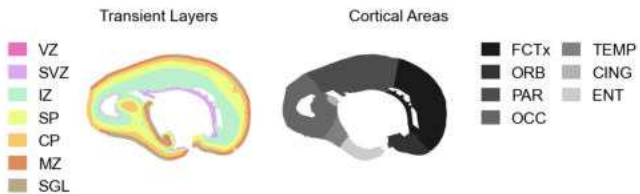
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5 mm



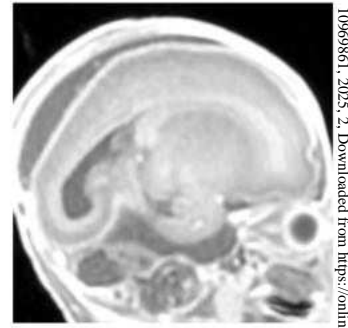
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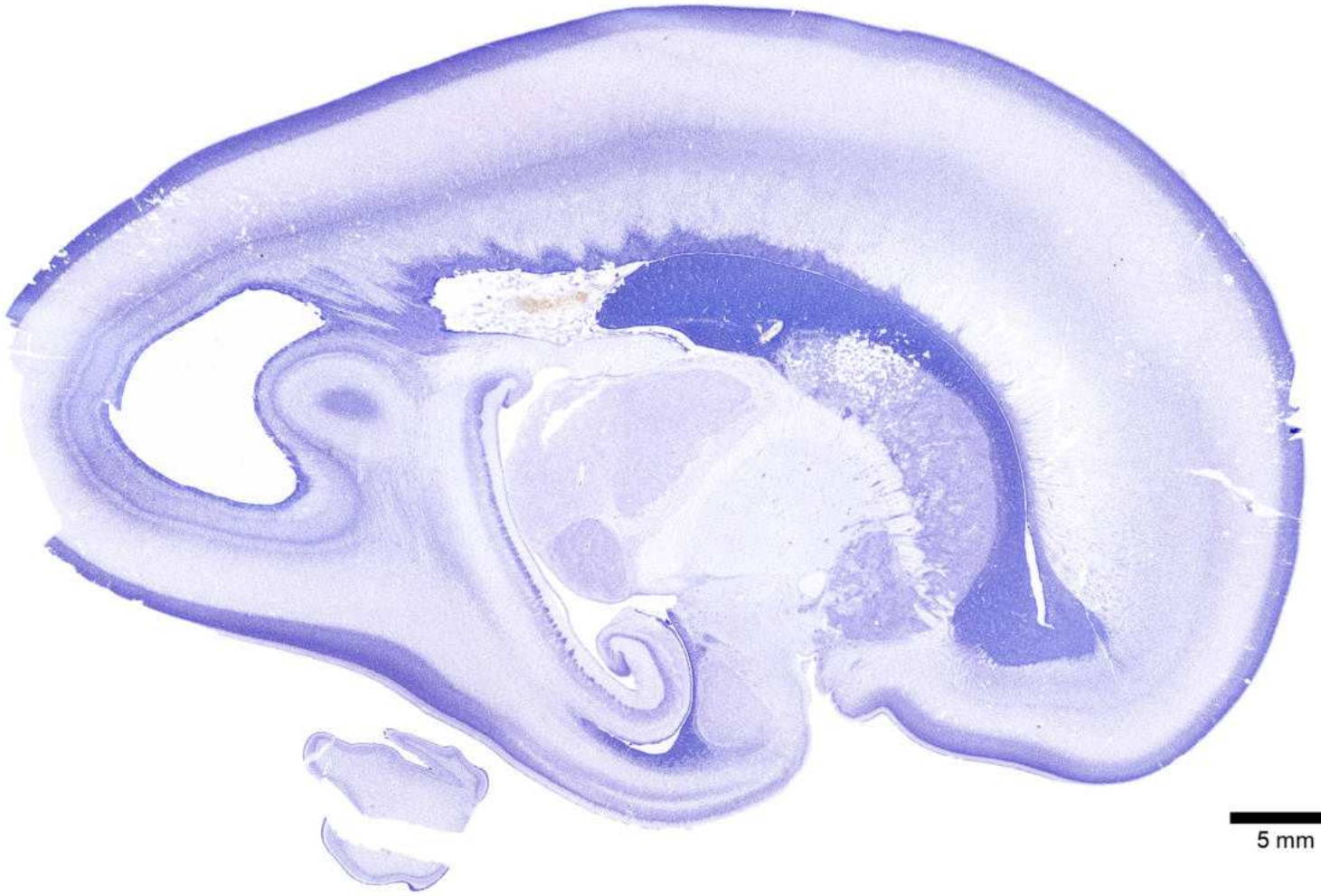
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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens | <ul style="list-style-type: none"> OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure cor: Corona radiata | <ul style="list-style-type: none"> cp: Cerebral peduncle emlth: External medullary lamina [thalamus] fi: Fimbria fx: Fornix hipg: Hippocampal glioeepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract sst: Stria terminalis wmf: White matter fibers |
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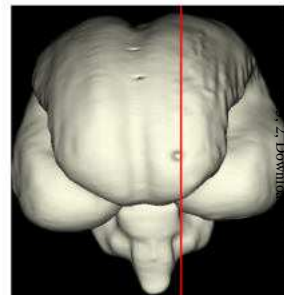
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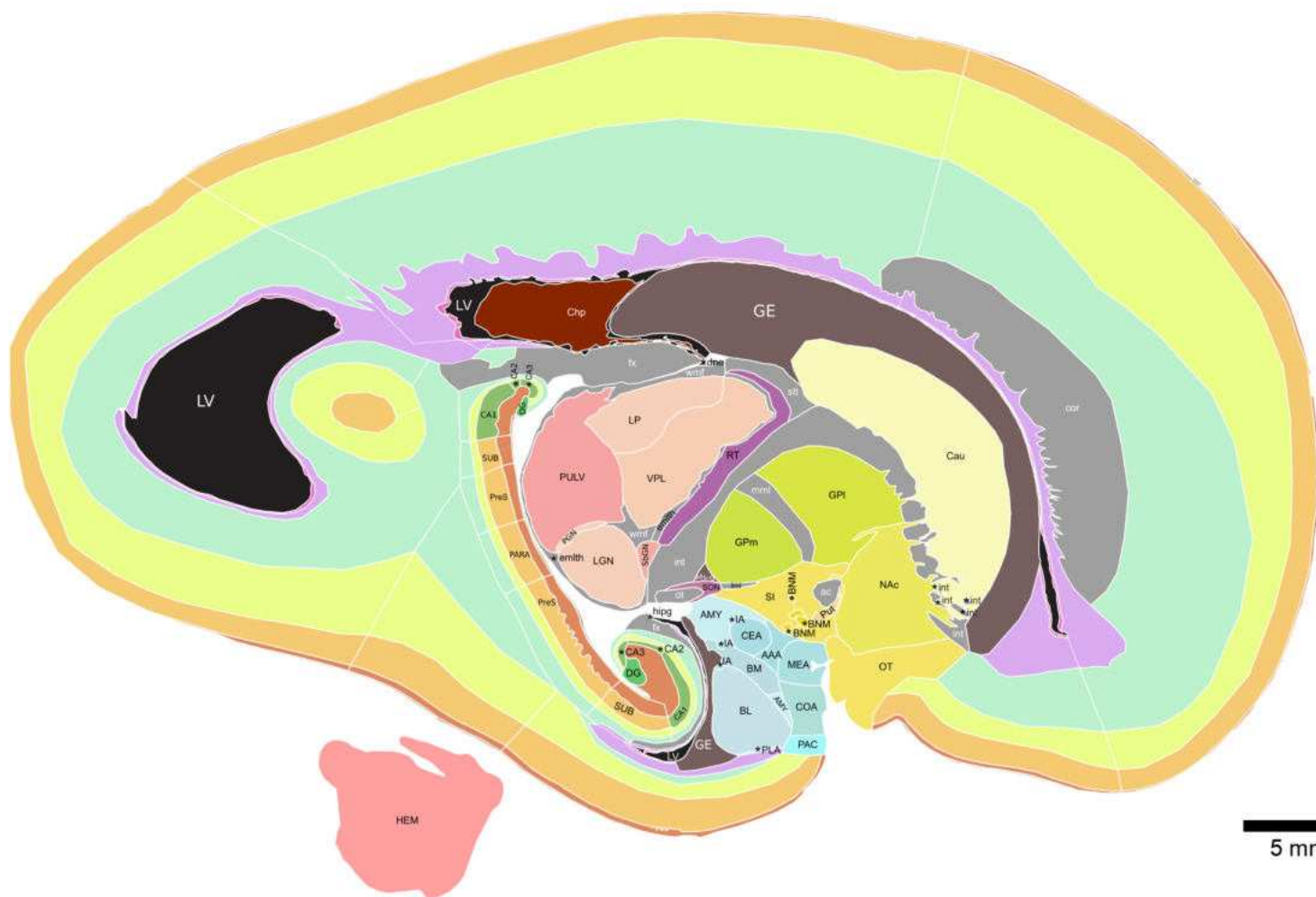
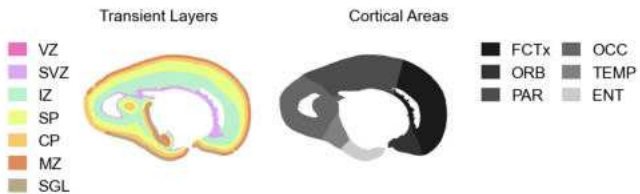
L-R Level: -4.8 mm



5 mm



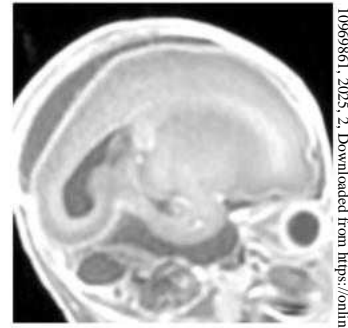
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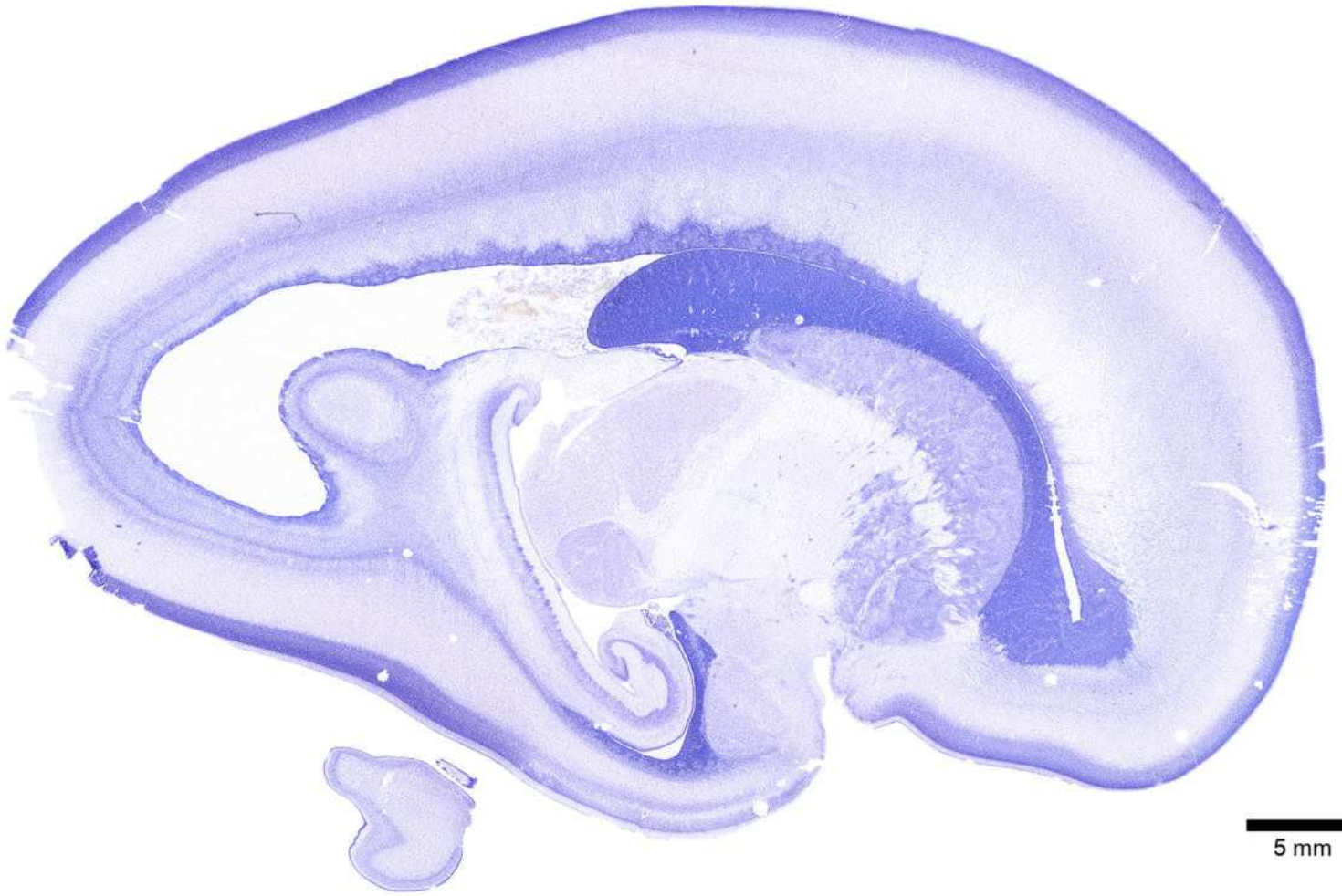
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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle ME: Medial nucleus [amygdala] Ms-g: Migratory stream, general NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure cor: Corona radiata dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers |
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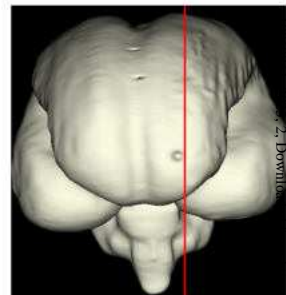
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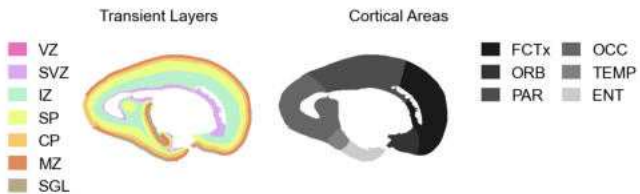
L-R Level: -5.28 mm



5 mm



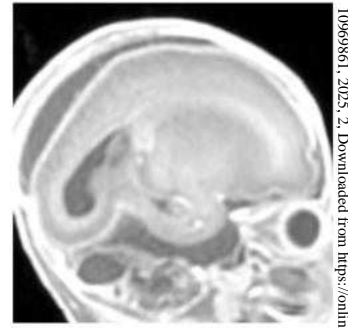
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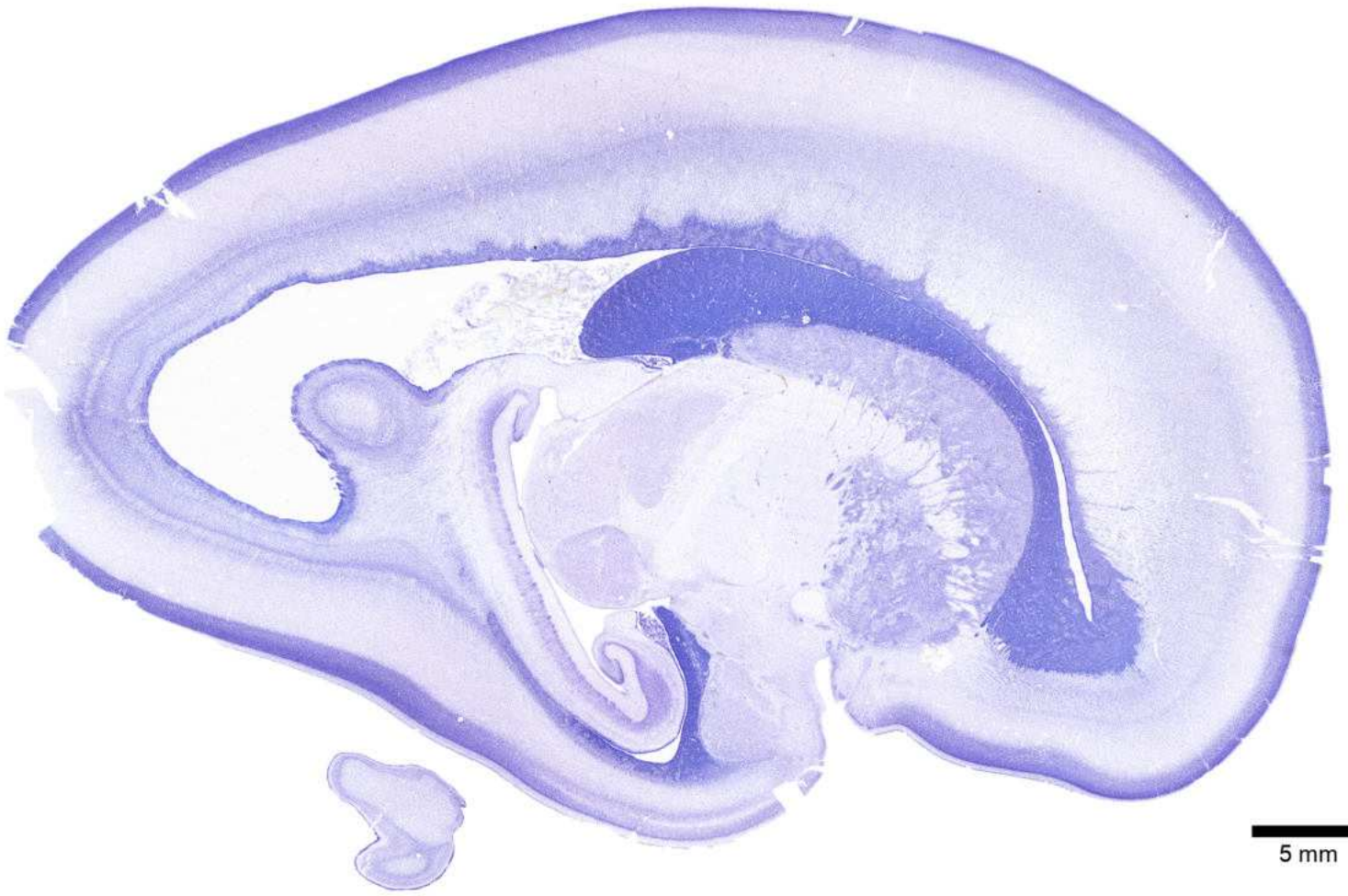
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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus | <ul style="list-style-type: none"> DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general | <ul style="list-style-type: none"> NAc: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure cor: Corona radiata dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers |
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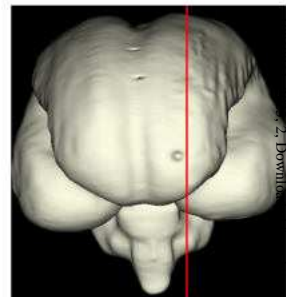
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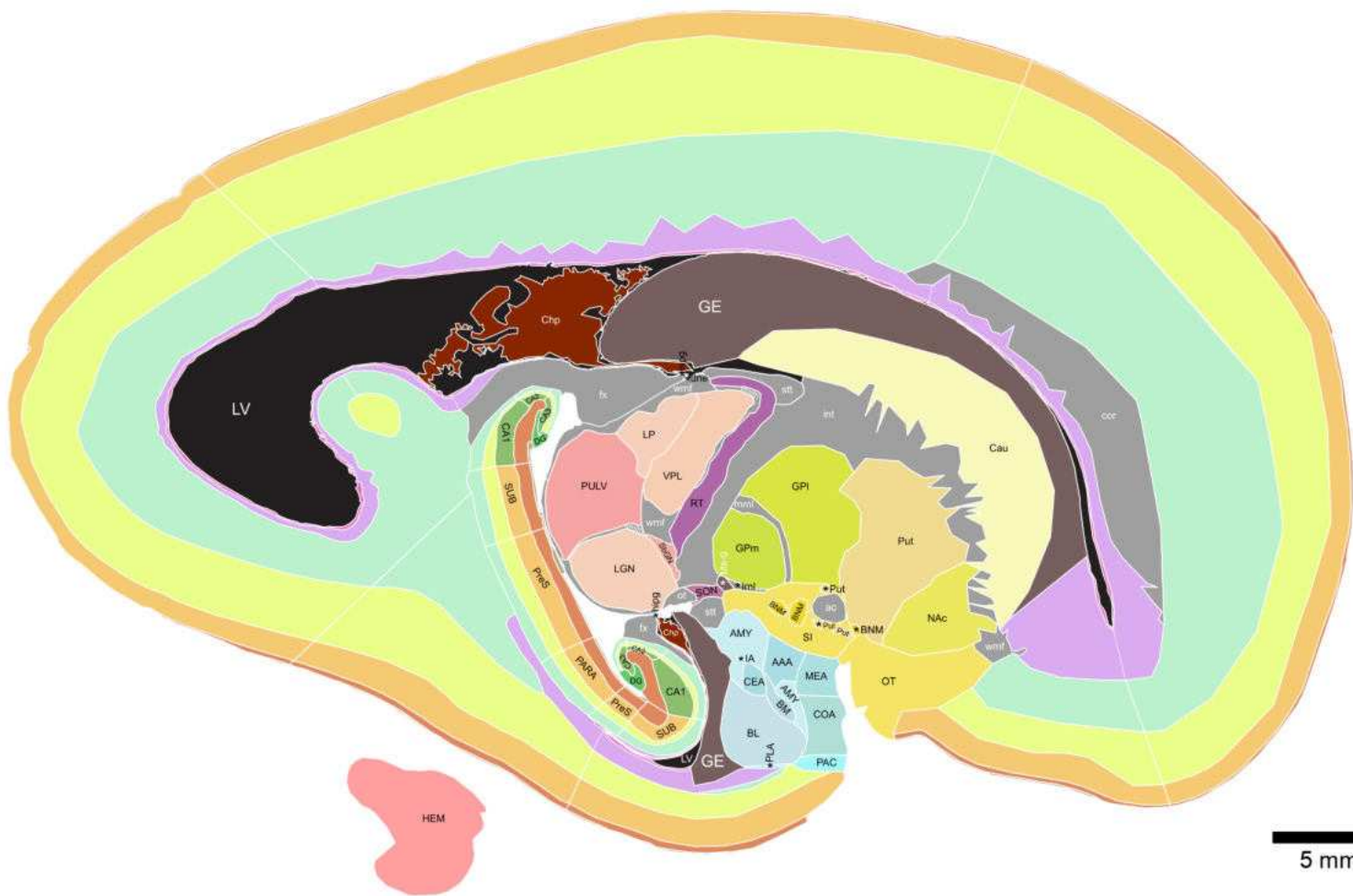
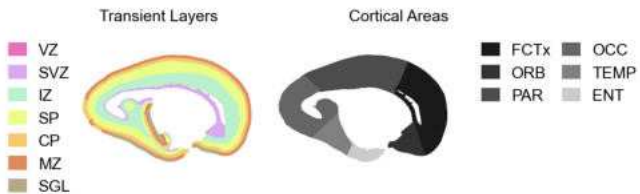
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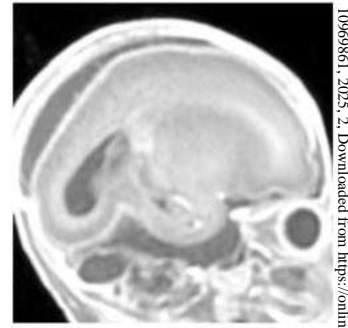
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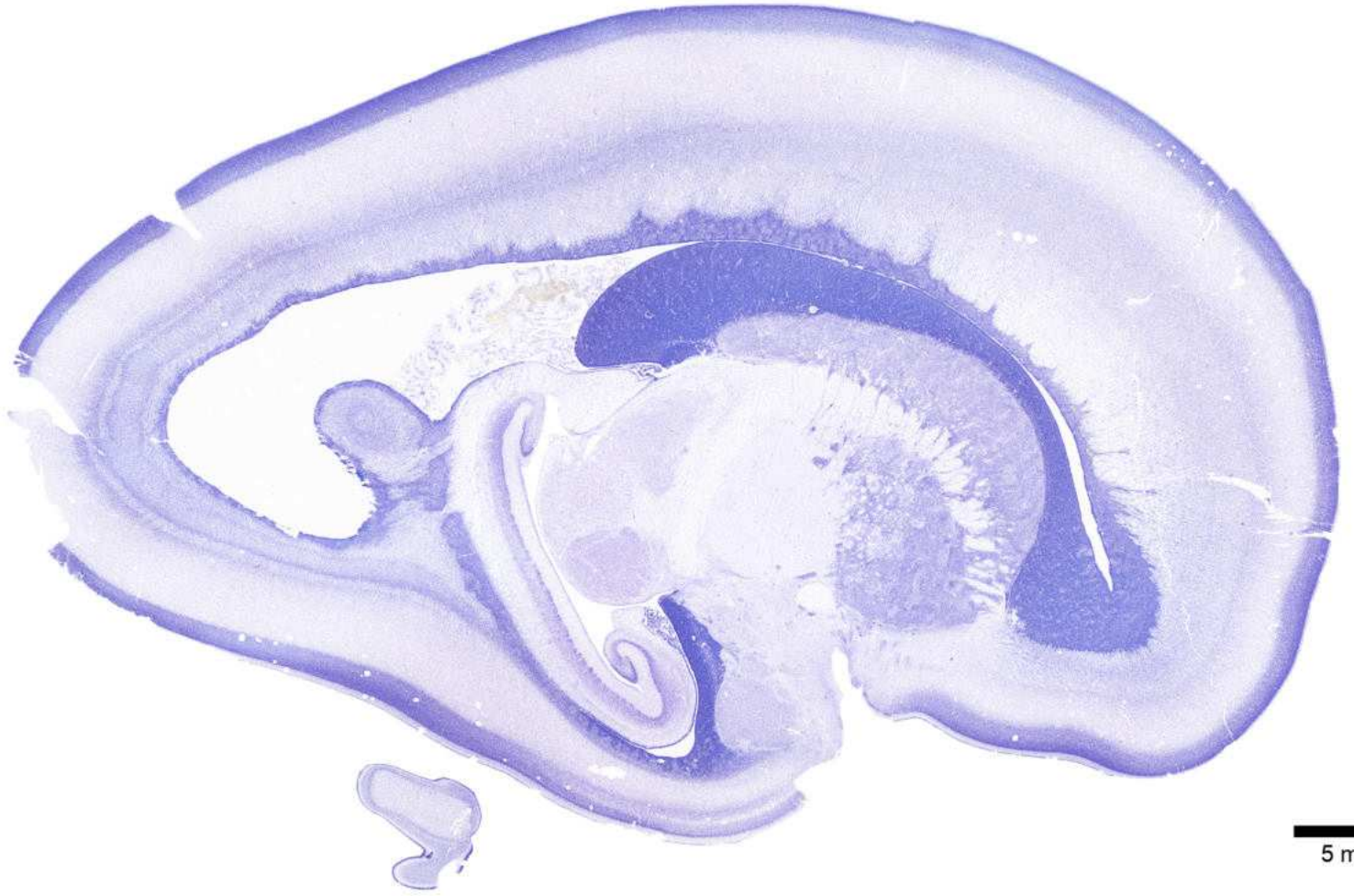
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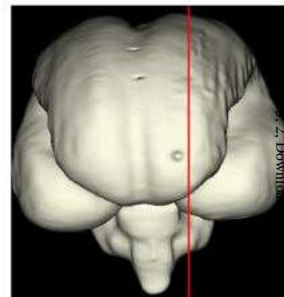
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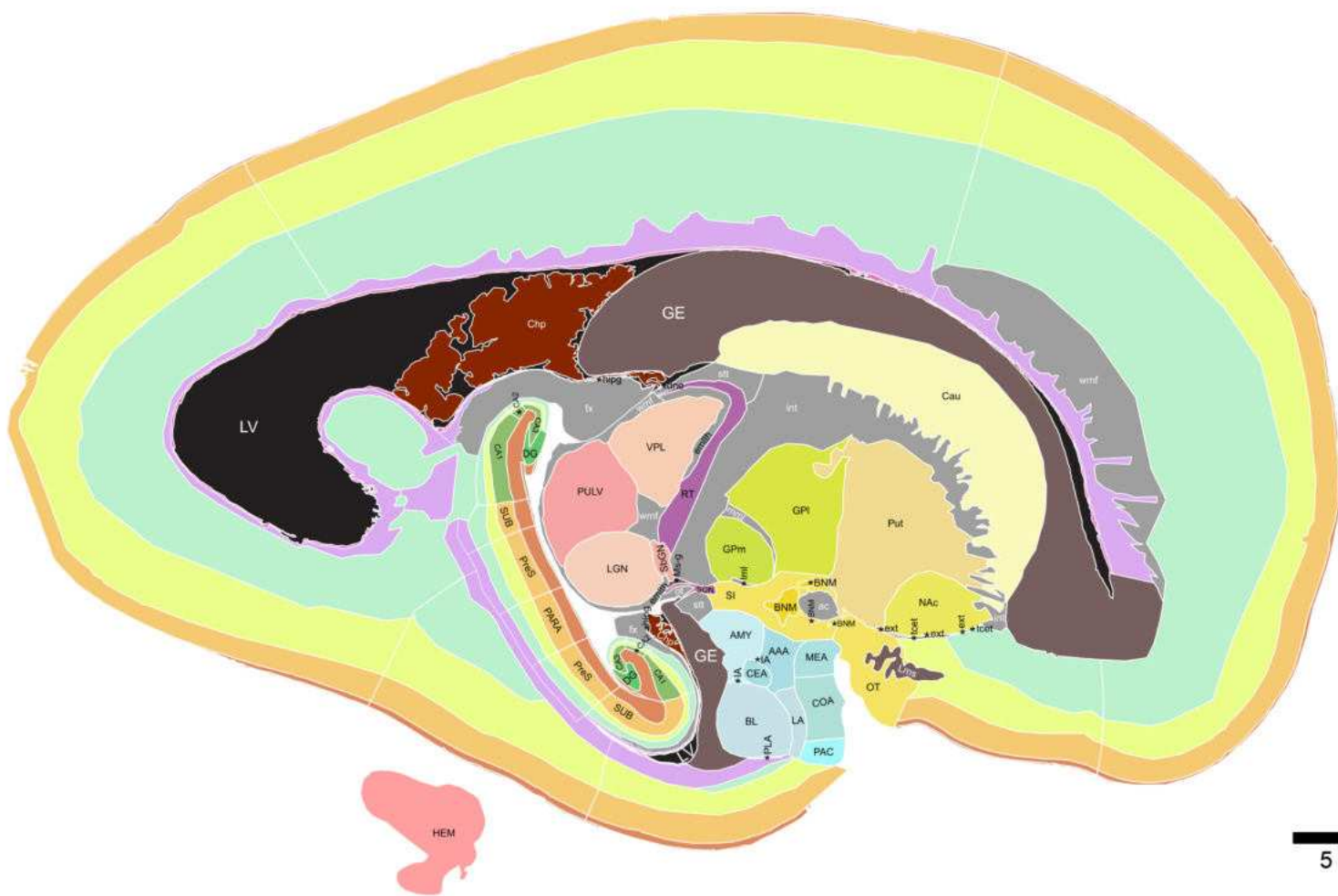
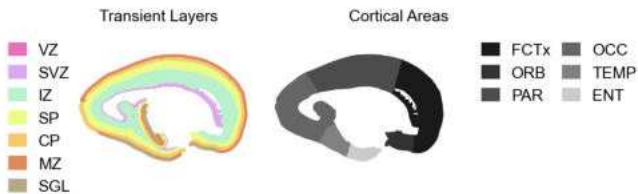
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5 mm



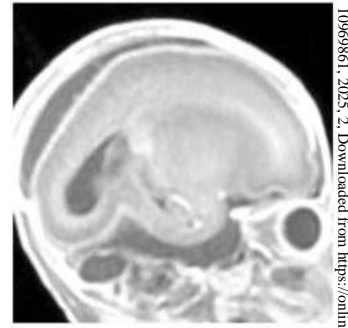
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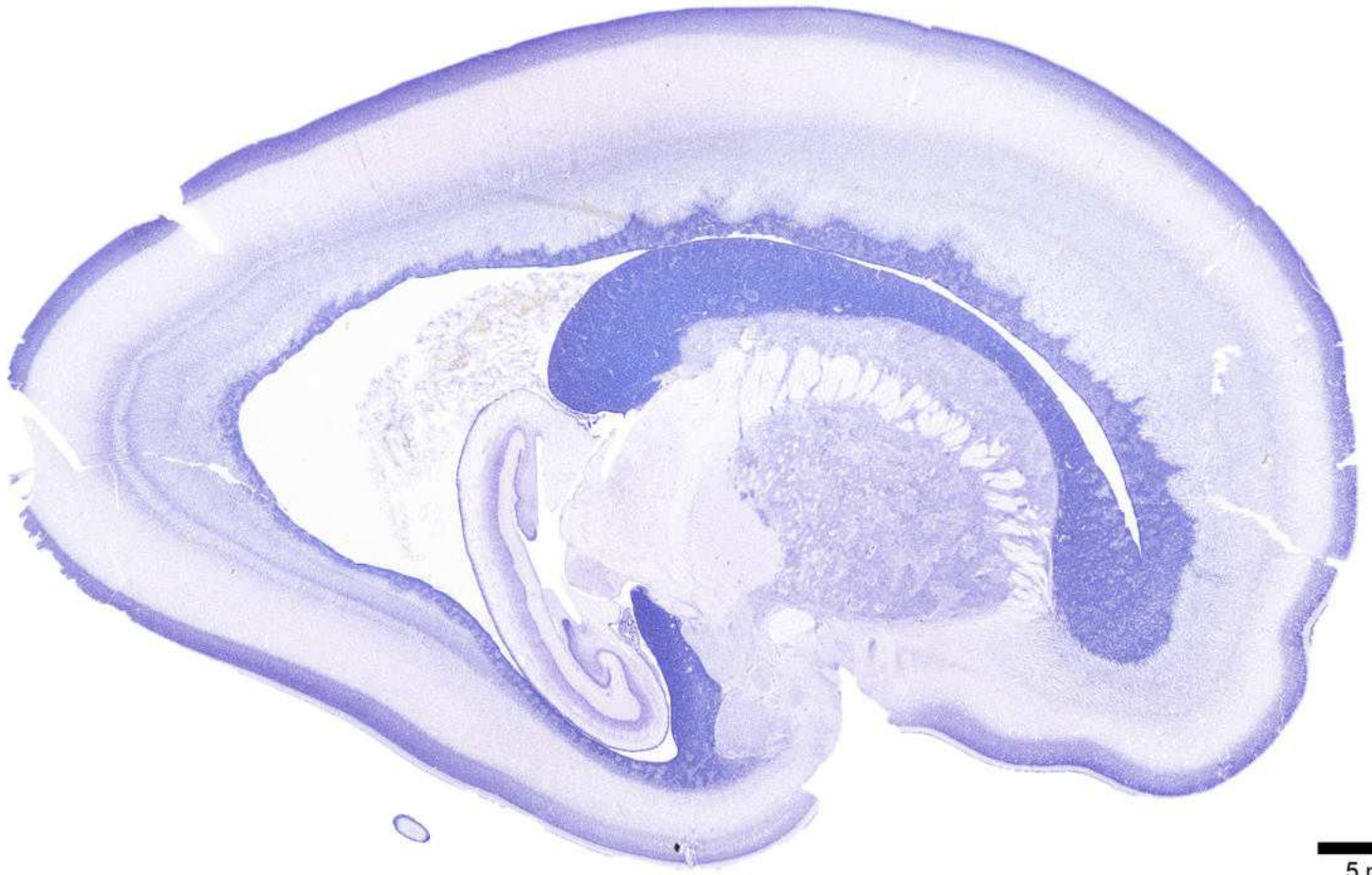
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| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipp: Hippocampal glioeepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract sst: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|---|---|---|--|

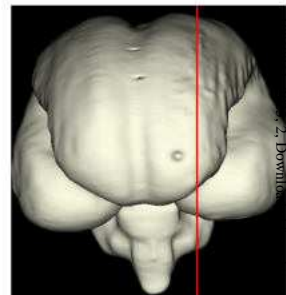
Age: 21 GW



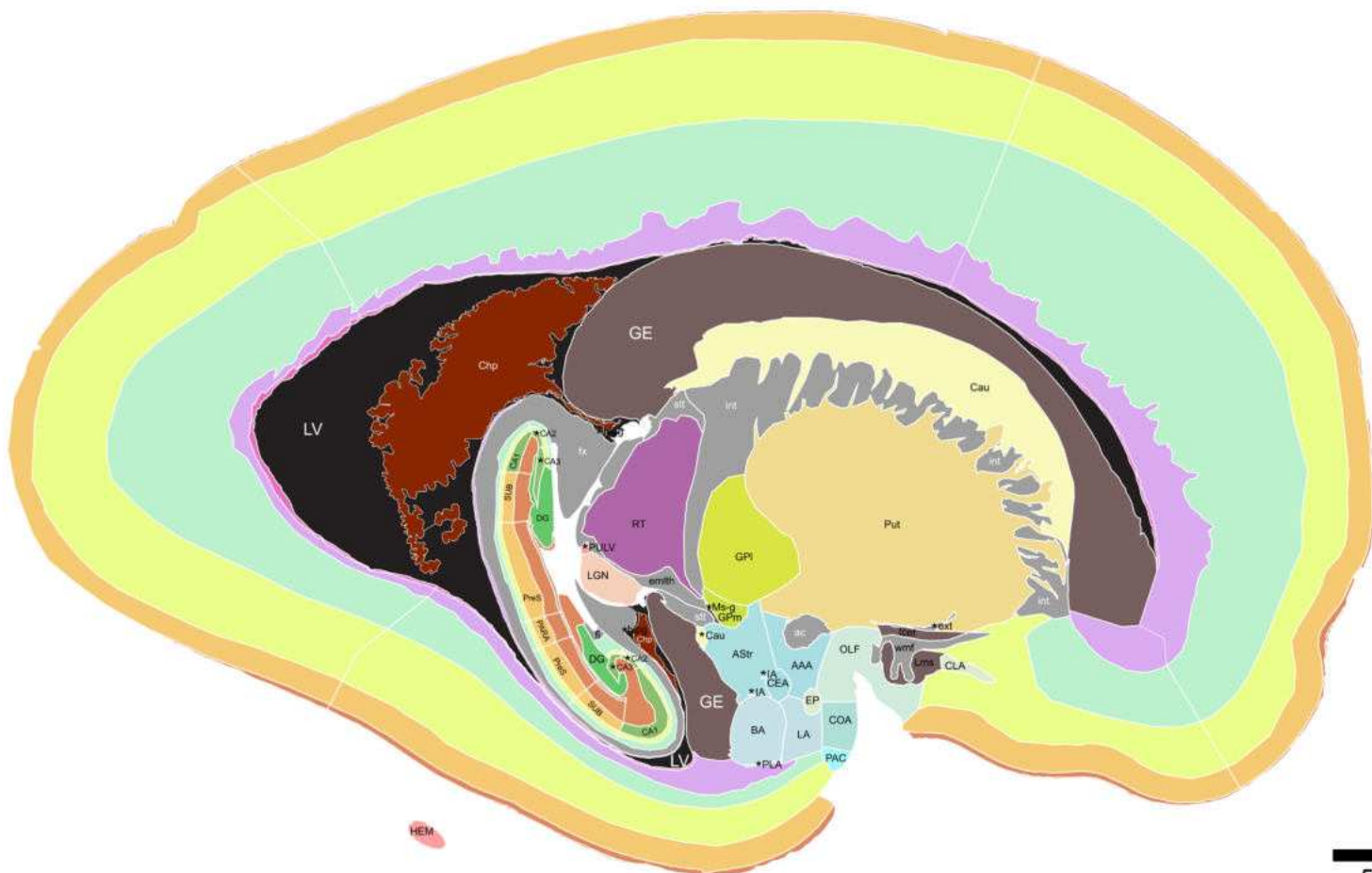
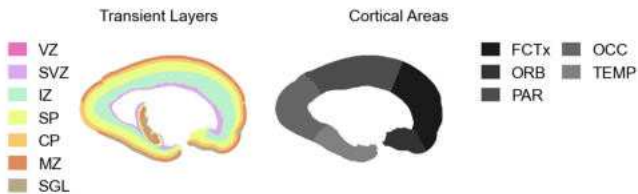
L-R Level: -6.84 mm



5 mm



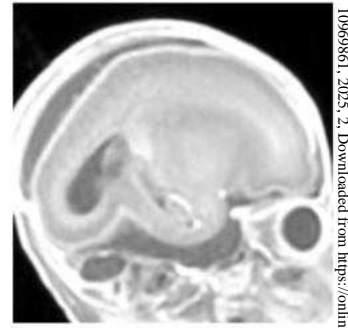
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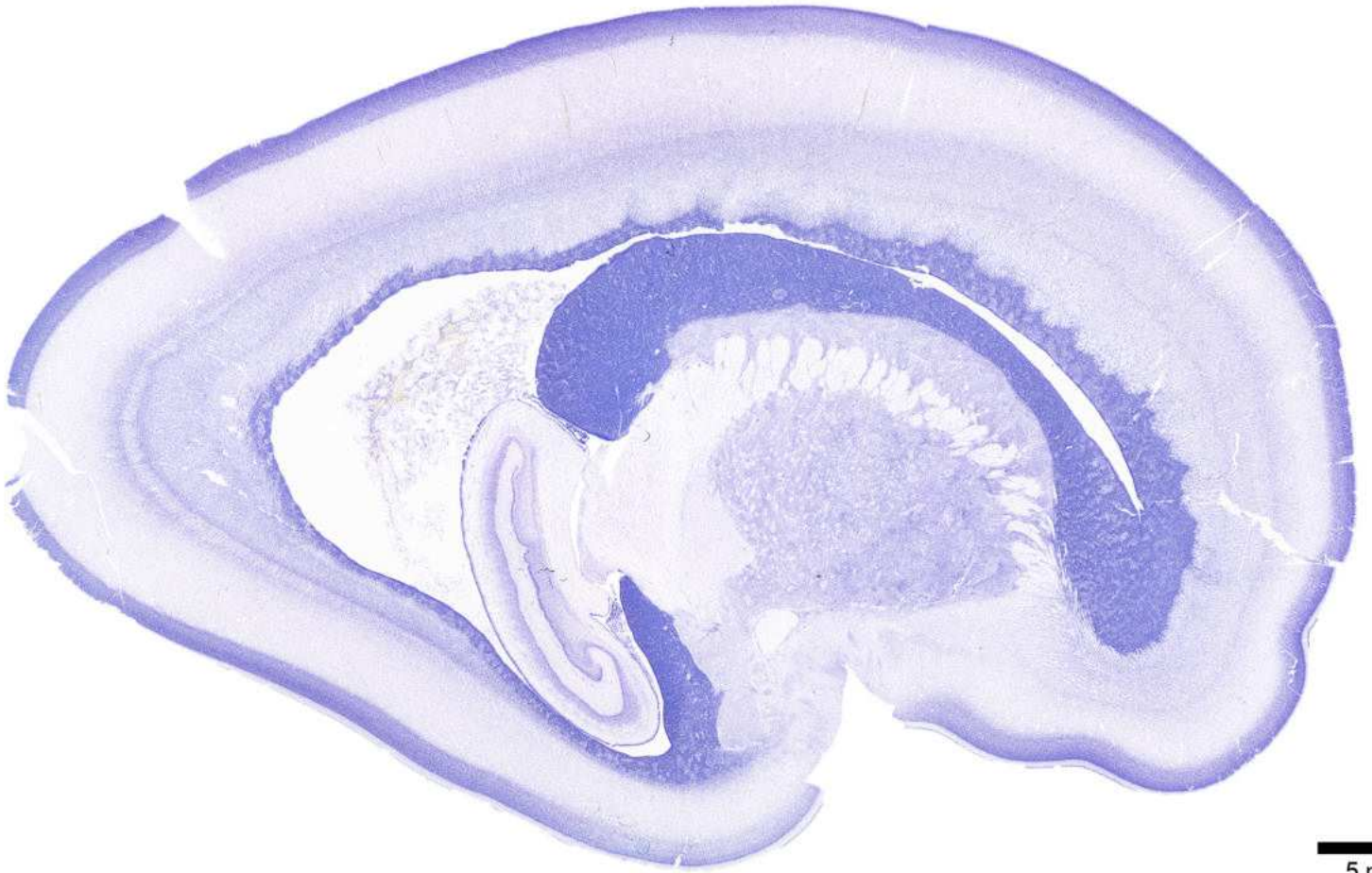
5 mm

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|--|---|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BA: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure emlth: External medullary lamina [thalamus] ext: External capsule fi: Fimbria fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|--|--|

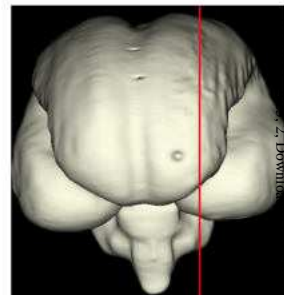
Age: 21 GW



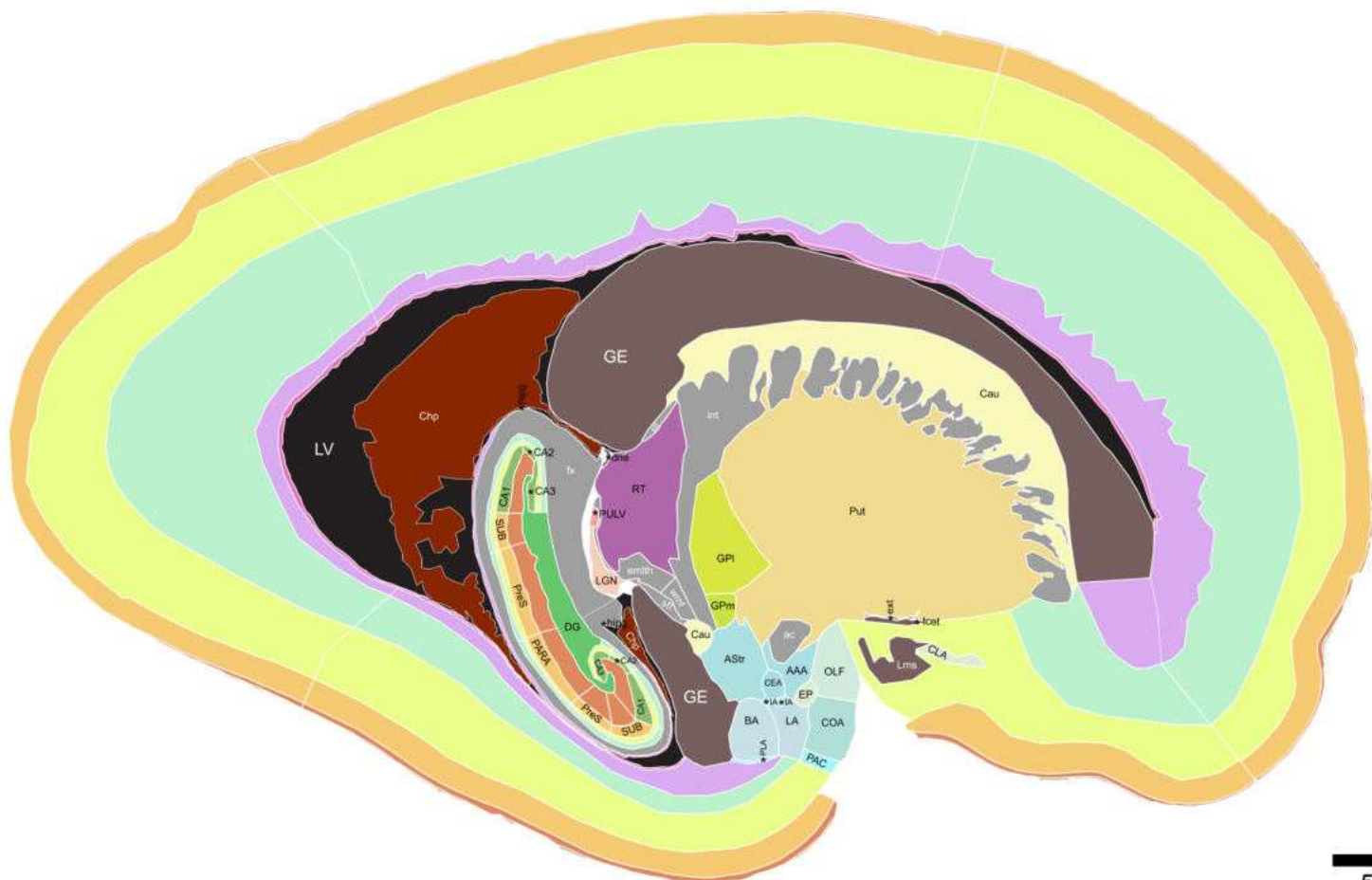
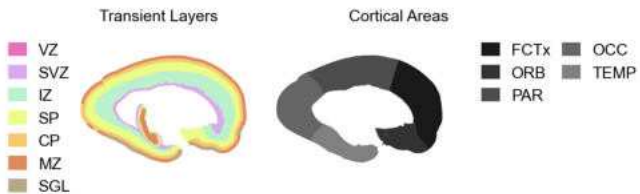
L-R Level: -7.2 mm



5 mm



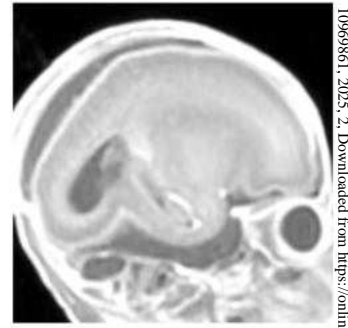
L-R Level: -7.2 mm



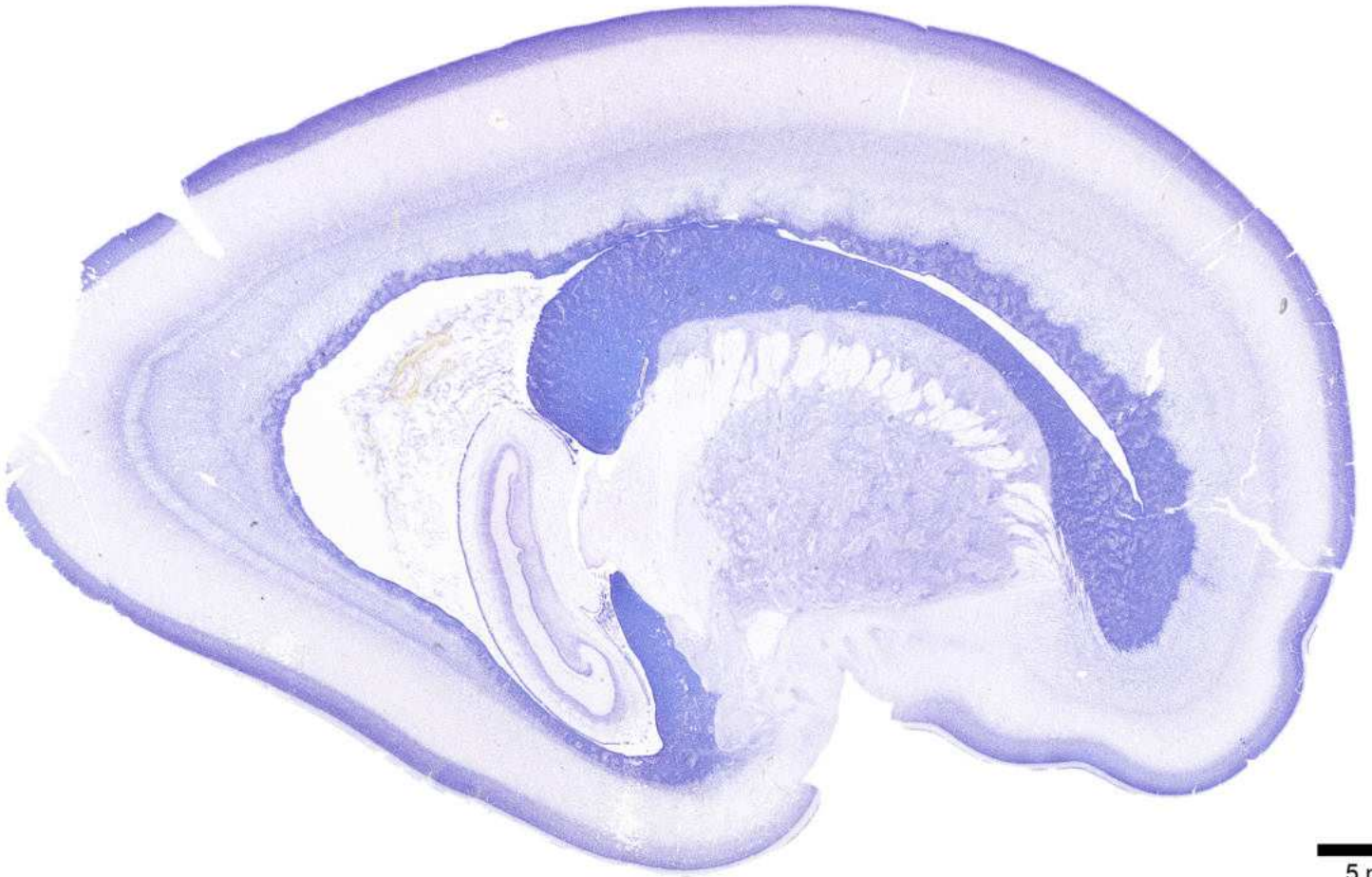
5 mm

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|--|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BA: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeptithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|--|

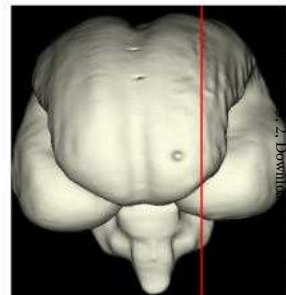
Age: 21 GW



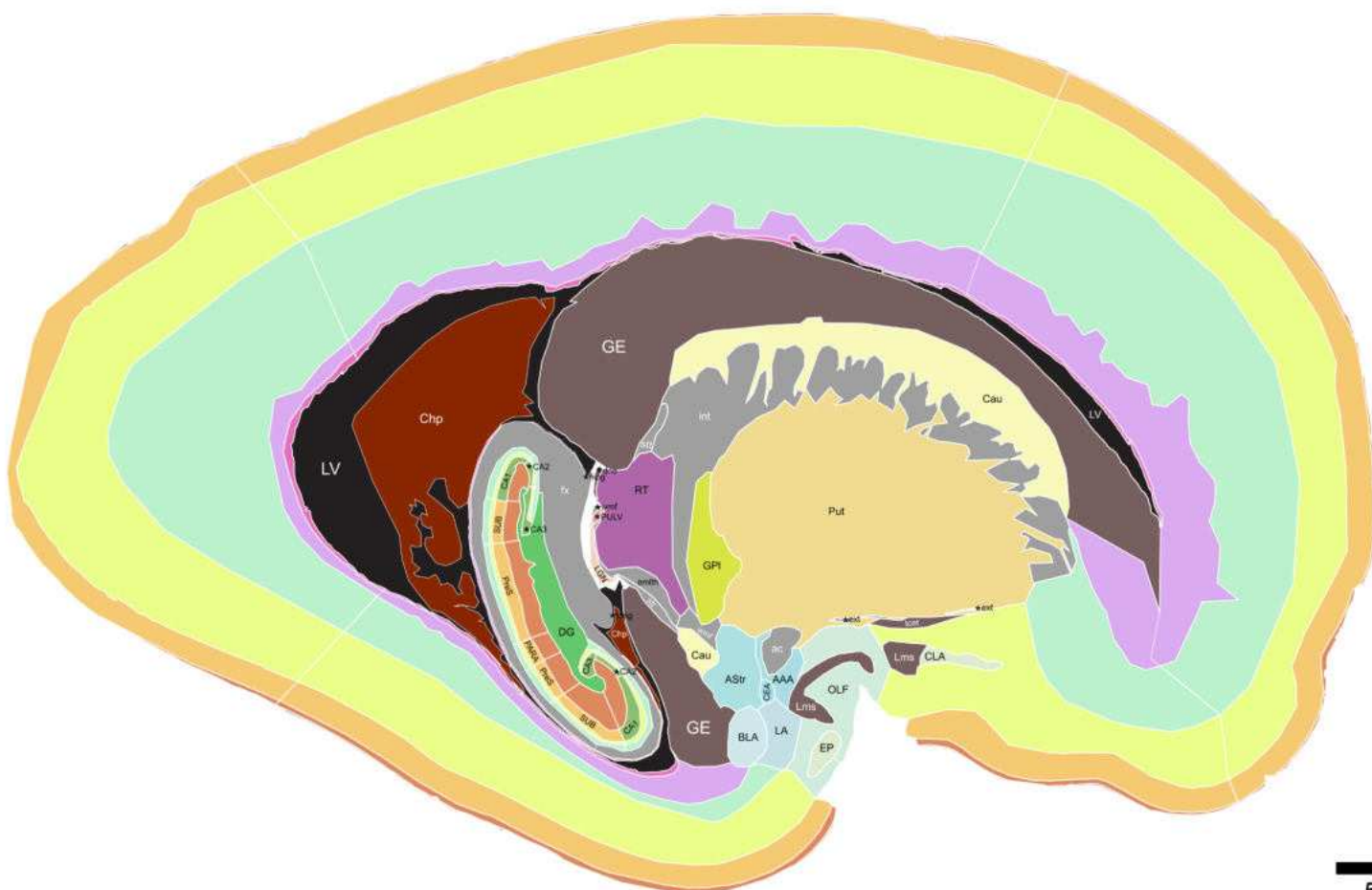
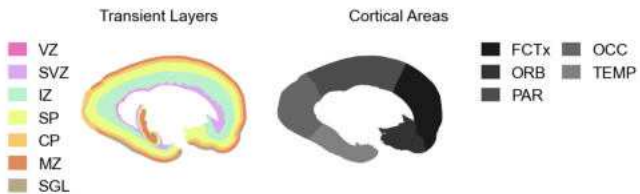
L-R Level: -7.38 mm



5 mm



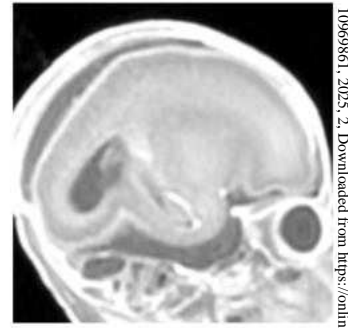
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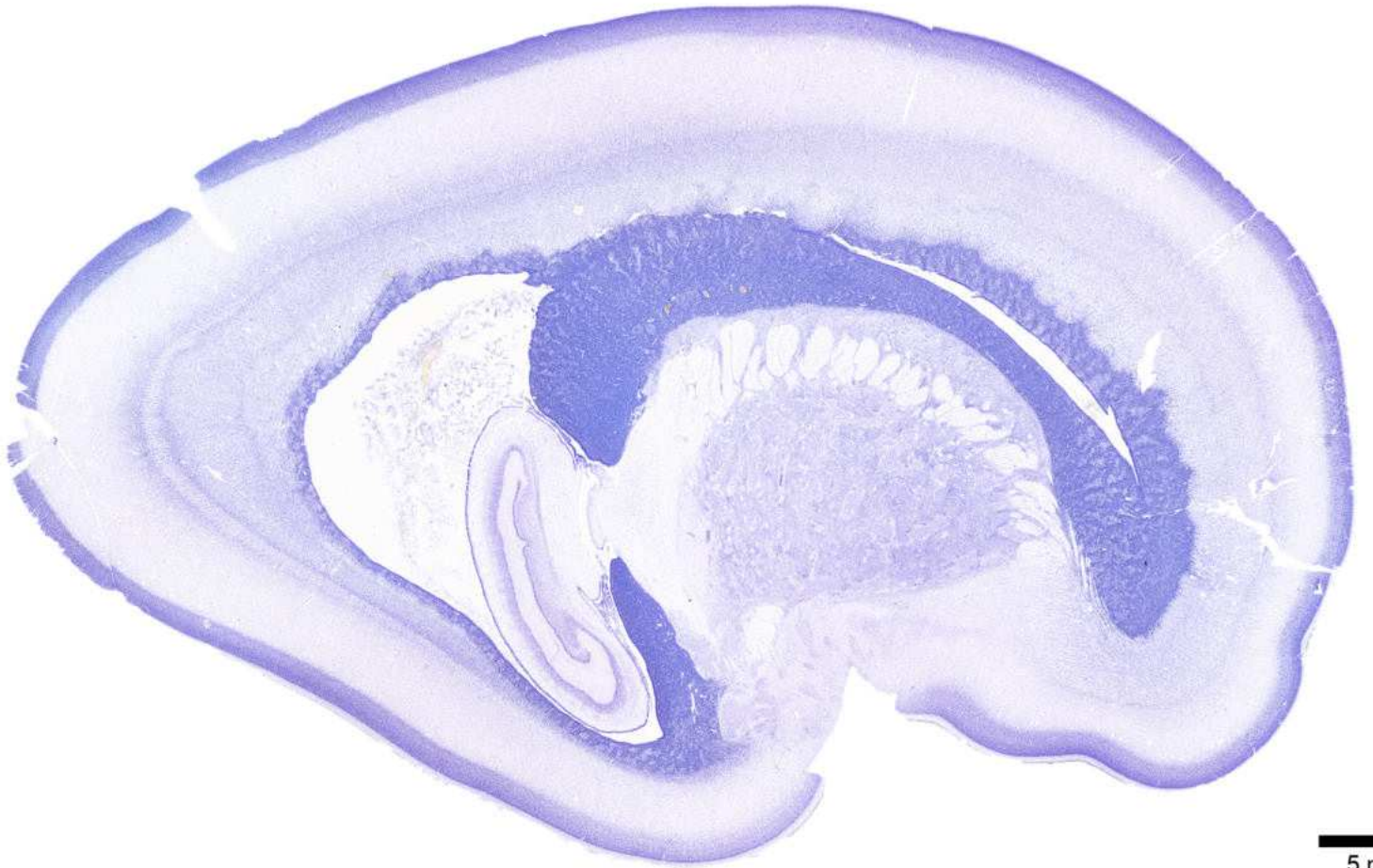
5 mm

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|--|--|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium | <ul style="list-style-type: none"> emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloepithelium/ependyma int: Internal capsule st: Stria terminalis tct: Transient cell zone in the external capsule wmf: White matter fibers |
|--|--|--|---|

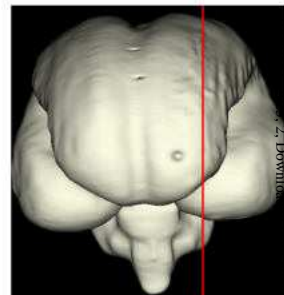
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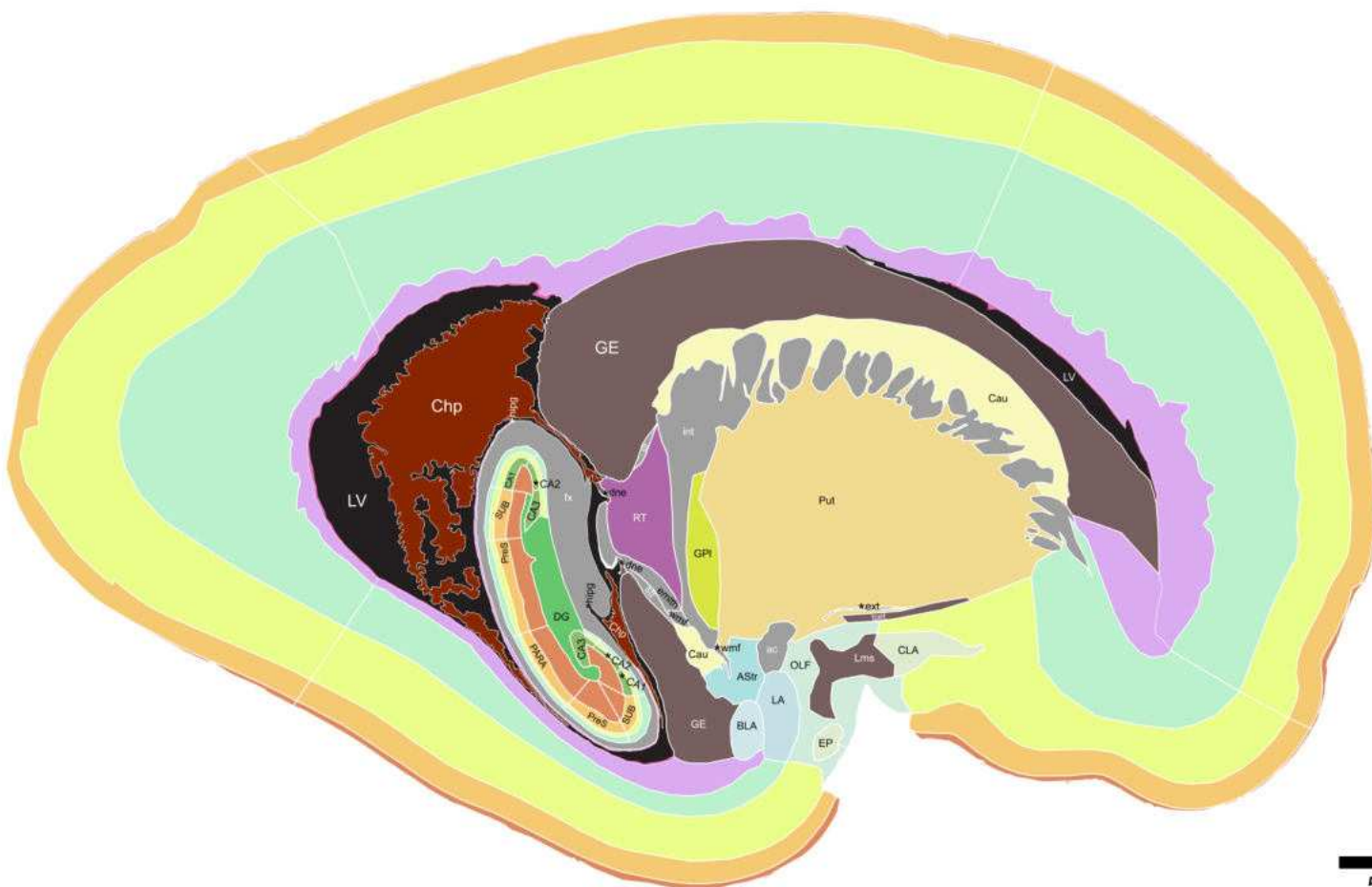
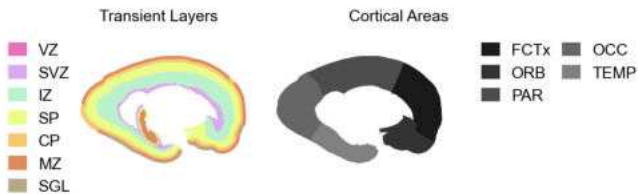
L-R Level: -7.56 mm



5 mm



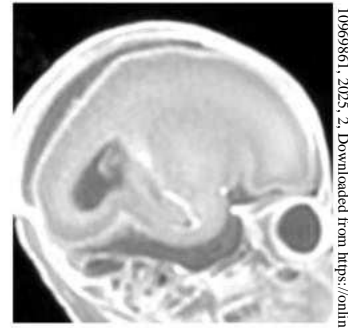
L-R Level: -7.56 mm



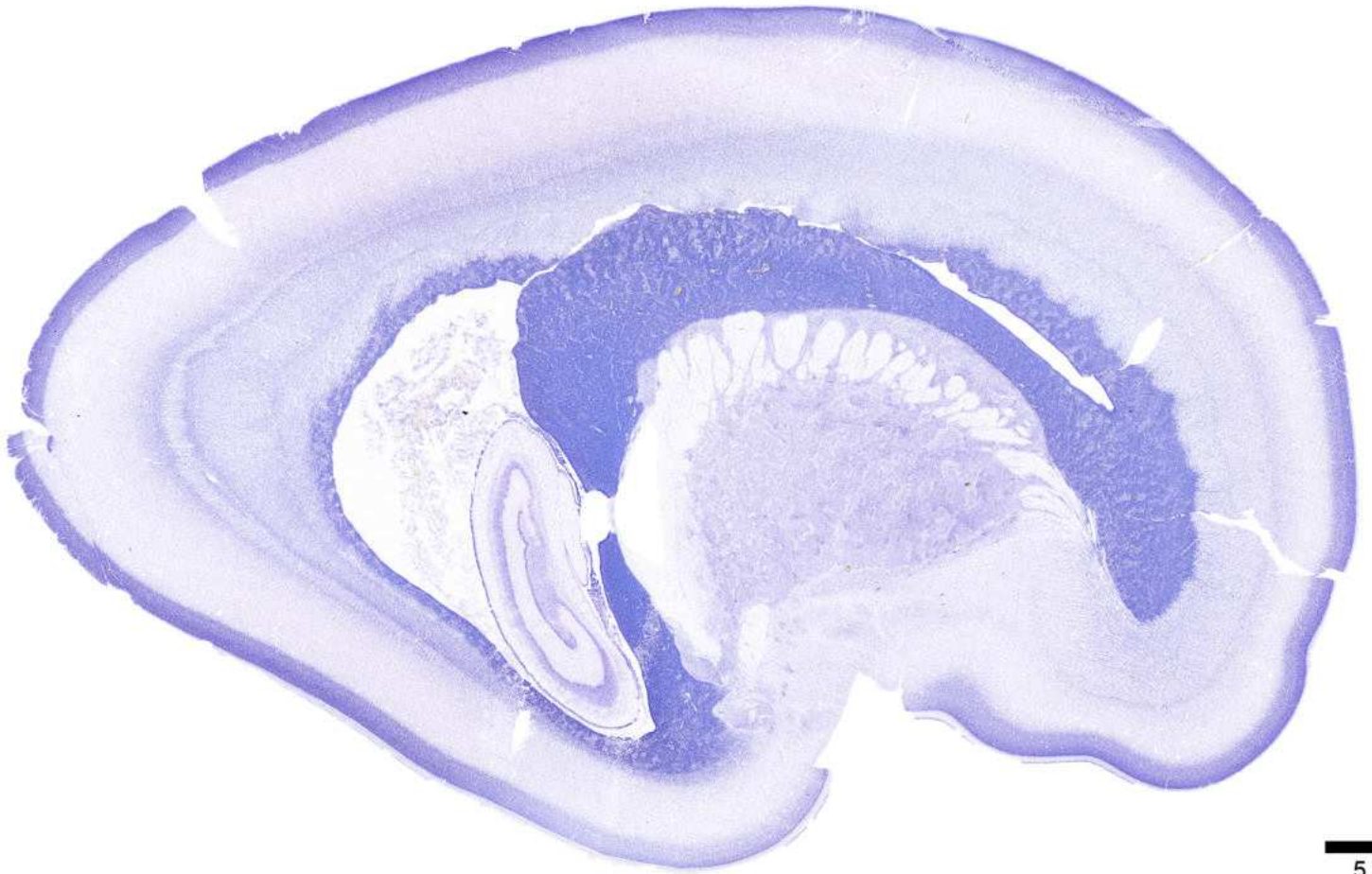
5 mm

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|---|---|--|--|
| ■ Astr: Amygdalo-striatal area | ■ DG: Dentate gyrus | ■ PreS: Cortical plate, presubiculum | ■ ext: External capsule |
| ■ BL: Basal nucleus [amygdala] | ■ EP: Endopiriform nucleus | ■ Put: Putamen | ■ fx: Fornix |
| ■ CA1: CA1 field [hippocampus] | ■ GE: Ganglionic eminence | ■ RT: Reticular nucleus [thalamus] | ■ hippg: Hippocampal glioepithelium/ependyma |
| ■ CA2: CA2 field [hippocampus] | ■ GPI: Globus pallidus lateral segment | ■ SUB: Cortical plate, subiculum | ■ int: Internal capsule |
| ■ CA3: CA3 field [hippocampus] | ■ LA: Lateral nucleus [amygdala] | ■ ac: Anterior commissure | ■ sst: Stria terminalis |
| ■ CLA: Claustrum | ■ LV: Lateral ventricle | ■ dne: Diencephalic neuroepithelium | ■ tcet: Transient cell zone in the external capsule |
| ■ Cau: Caudate nucleus | ■ Lms: Lateral migratory stream | ■ emlth: External medullary lamina [thalamus] | ■ wmf: White matter fibers |
| ■ Chp: Choroid plexus | ■ PARA: Cortical plate, parasubiculum | | |

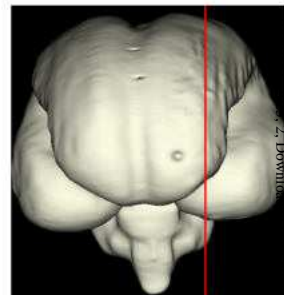
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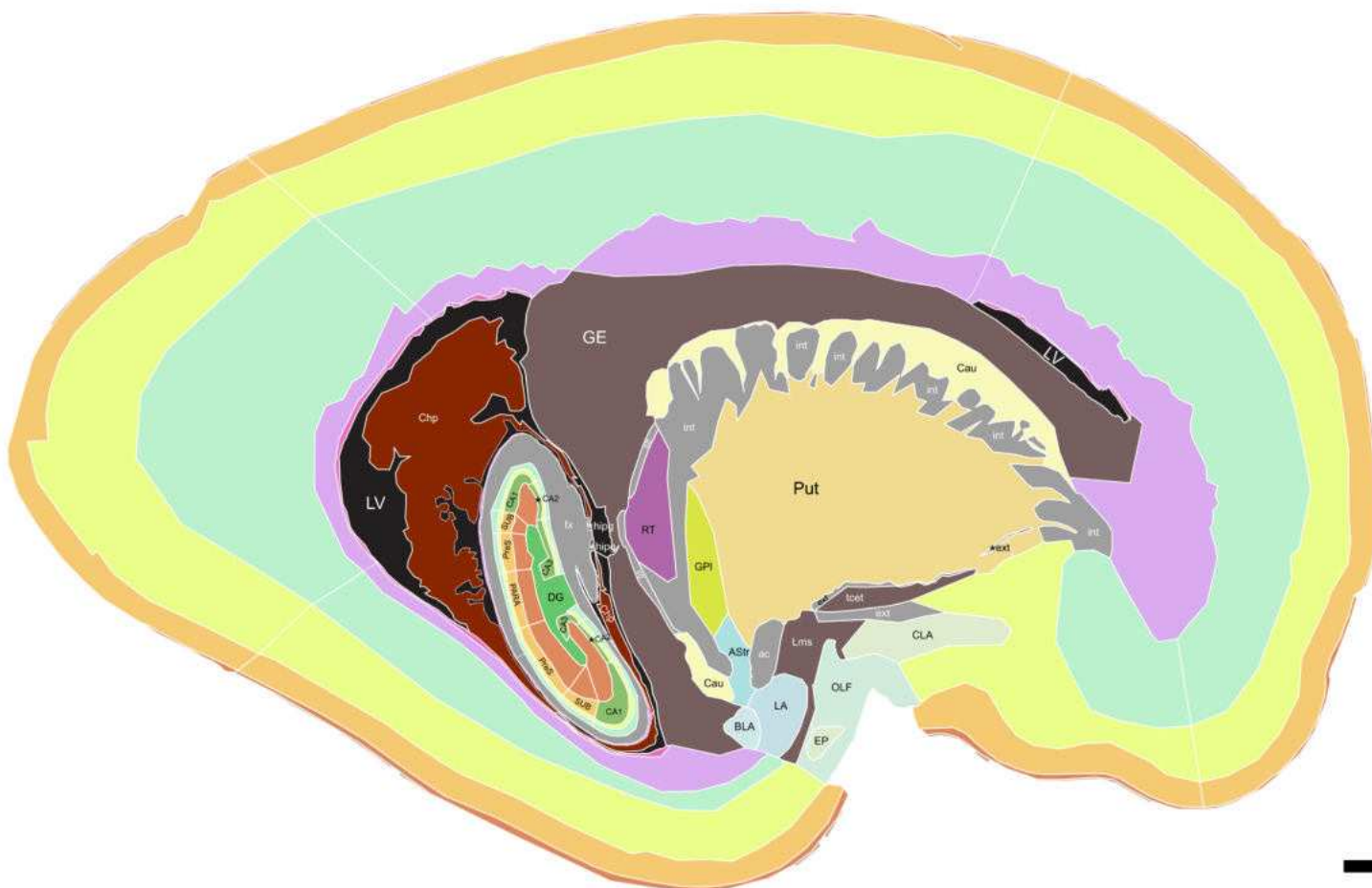
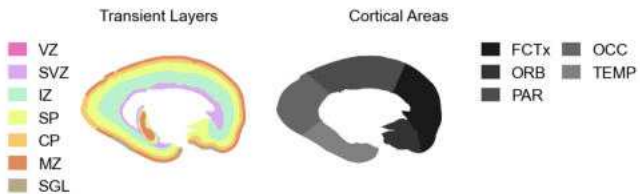
L-R Level: -7.92 mm



5 mm



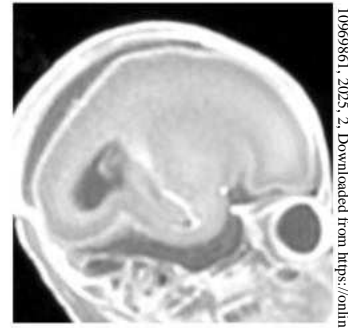
L-R Level: -7.92 mm



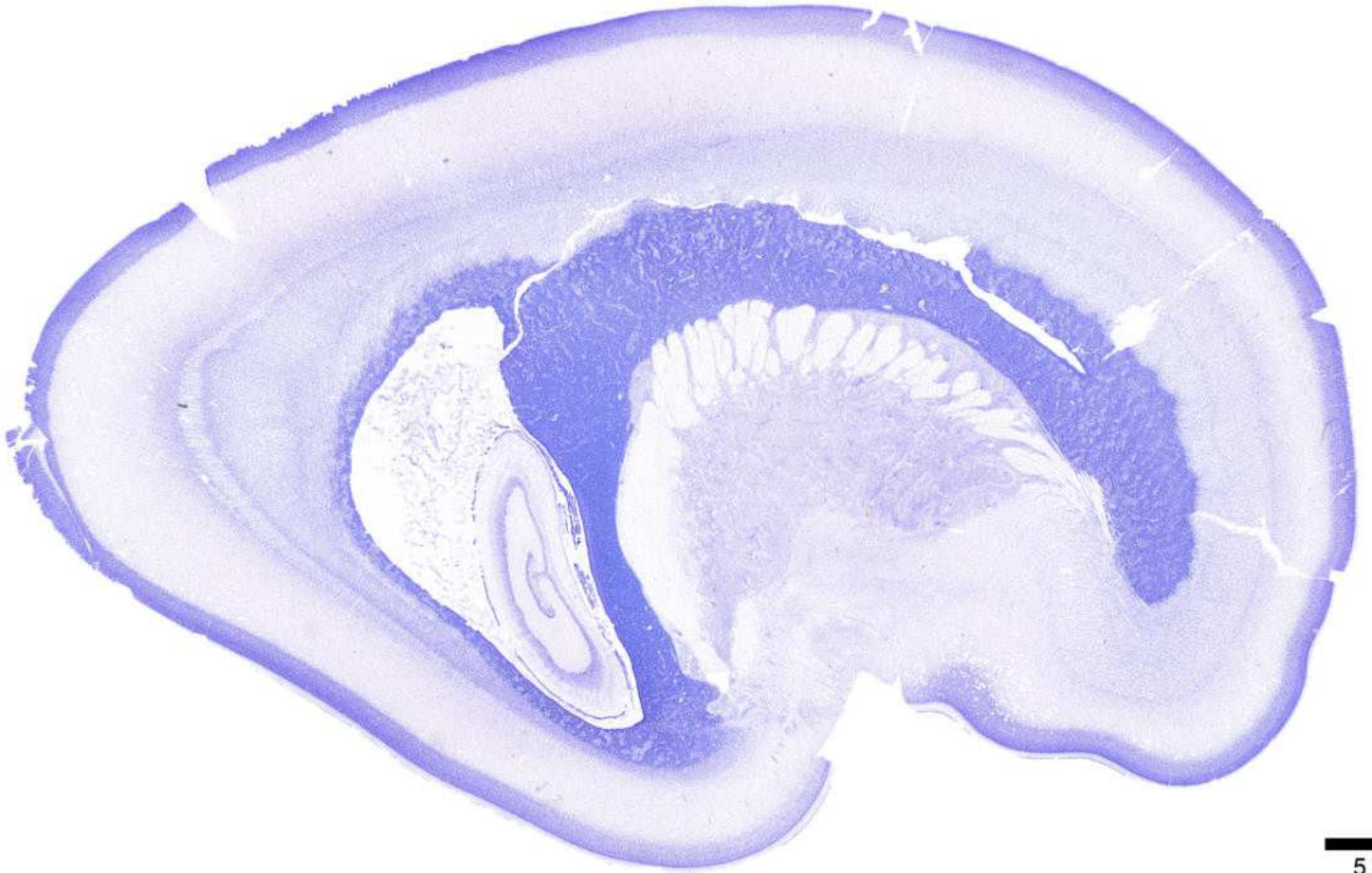
5 mm

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|--|--|---|--|
| <ul style="list-style-type: none"> AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule st: Stria terminalis tcet: Transient cell zone in the external capsule |
|--|--|---|--|

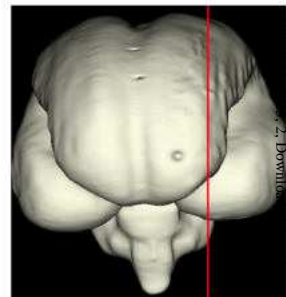
Age: 21 GW



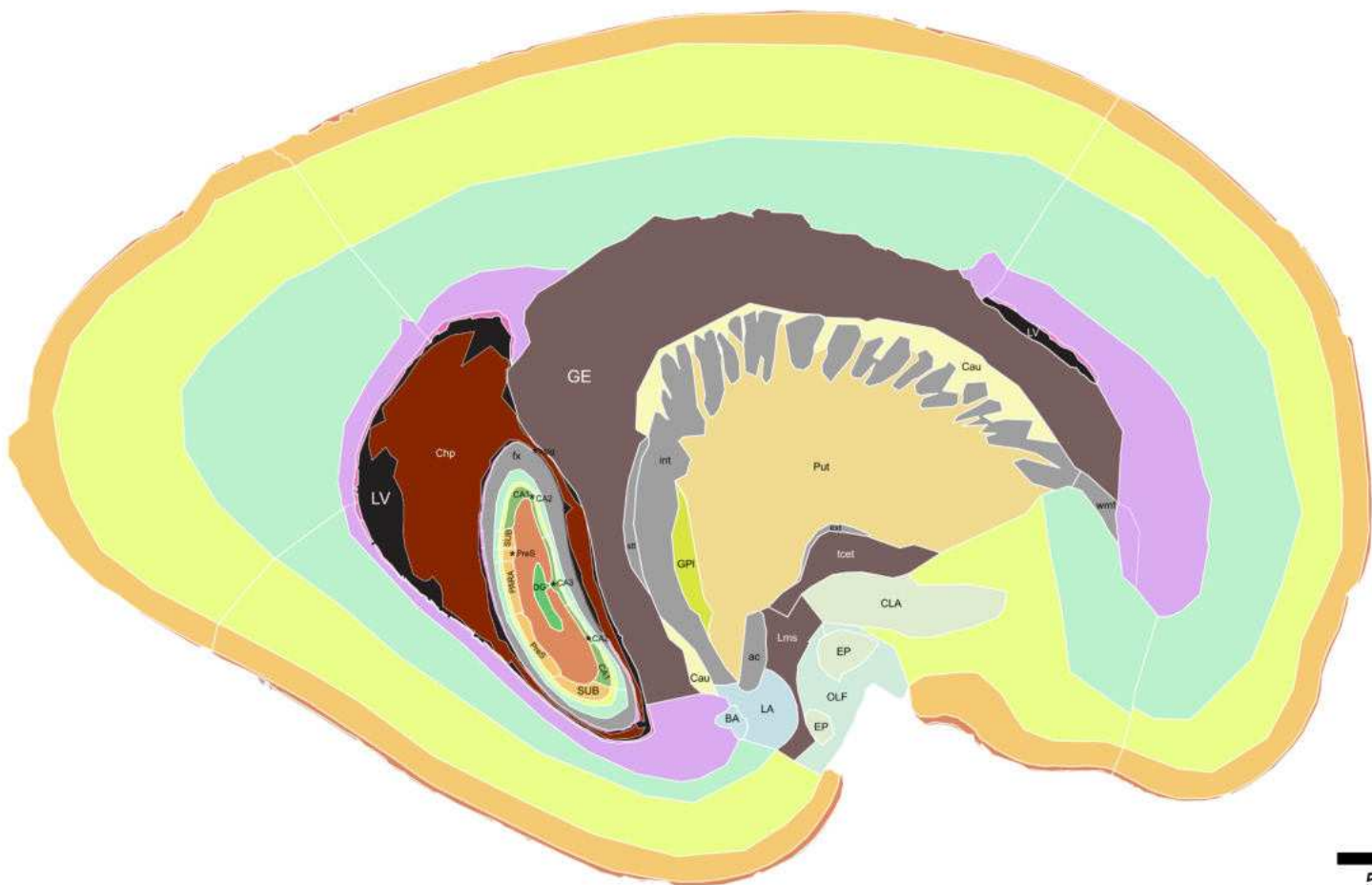
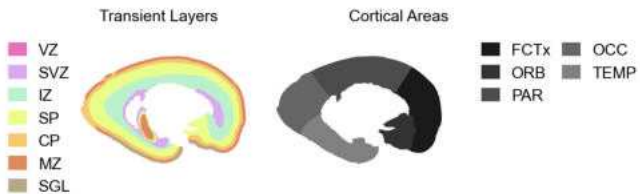
L-R Level: -8.22 mm



5 mm



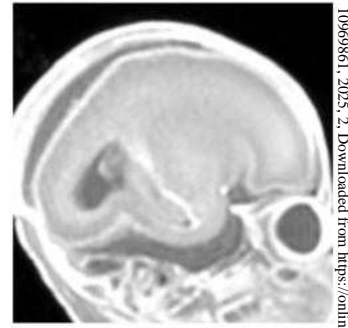
L-R Level: -8.22 mm



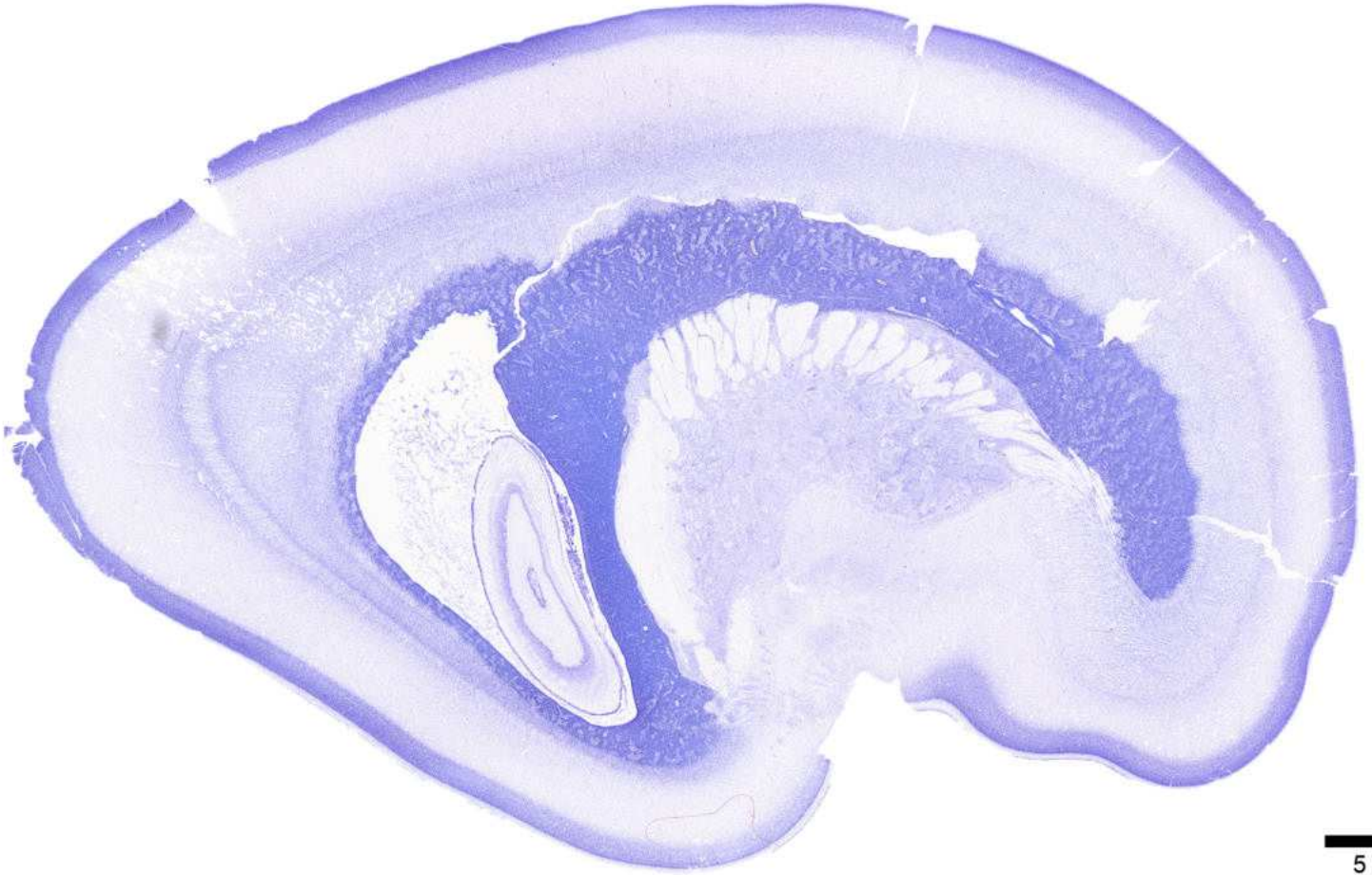
5 mm

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|------------------------------|--------------------------------------|-------------------------------------|---|
| BA: Basal nucleus [amygdala] | DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | fx: Fornix |
| CA1: CA1 field [hippocampus] | EP: Endopiriform nucleus | PreS: Cortical plate, presubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GE: Ganglionic eminence | Put: Putamen | int: Internal capsule |
| CA3: CA3 field [hippocampus] | GPI: Globus pallidus lateral segment | SUB: Cortical plate, subiculum | stt: Stria terminalis |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ext: External capsule | wmf: White matter fibers |
| Chp: Choroid plexus | Lms: Lateral migratory stream | | |

Age: 21 GW

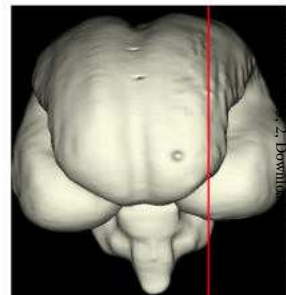


L-R Level: -8.34 mm

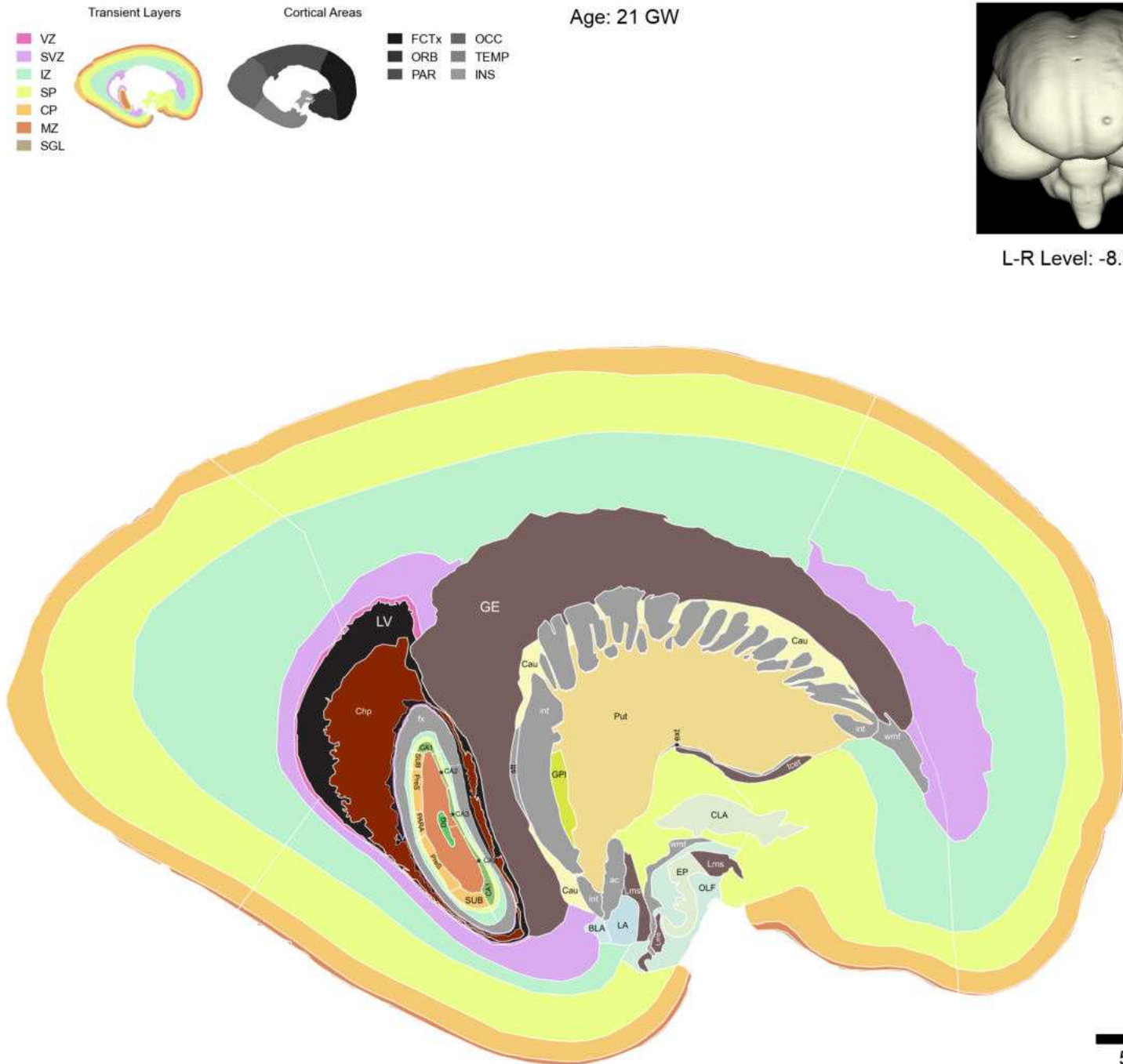


5 mm

Age: 21 GW



L-R Level: -8.34 mm

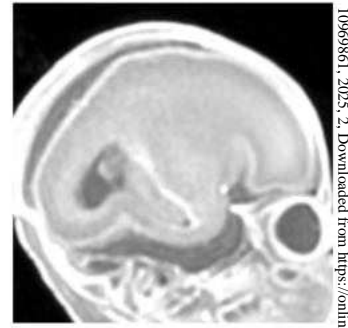


5 mm

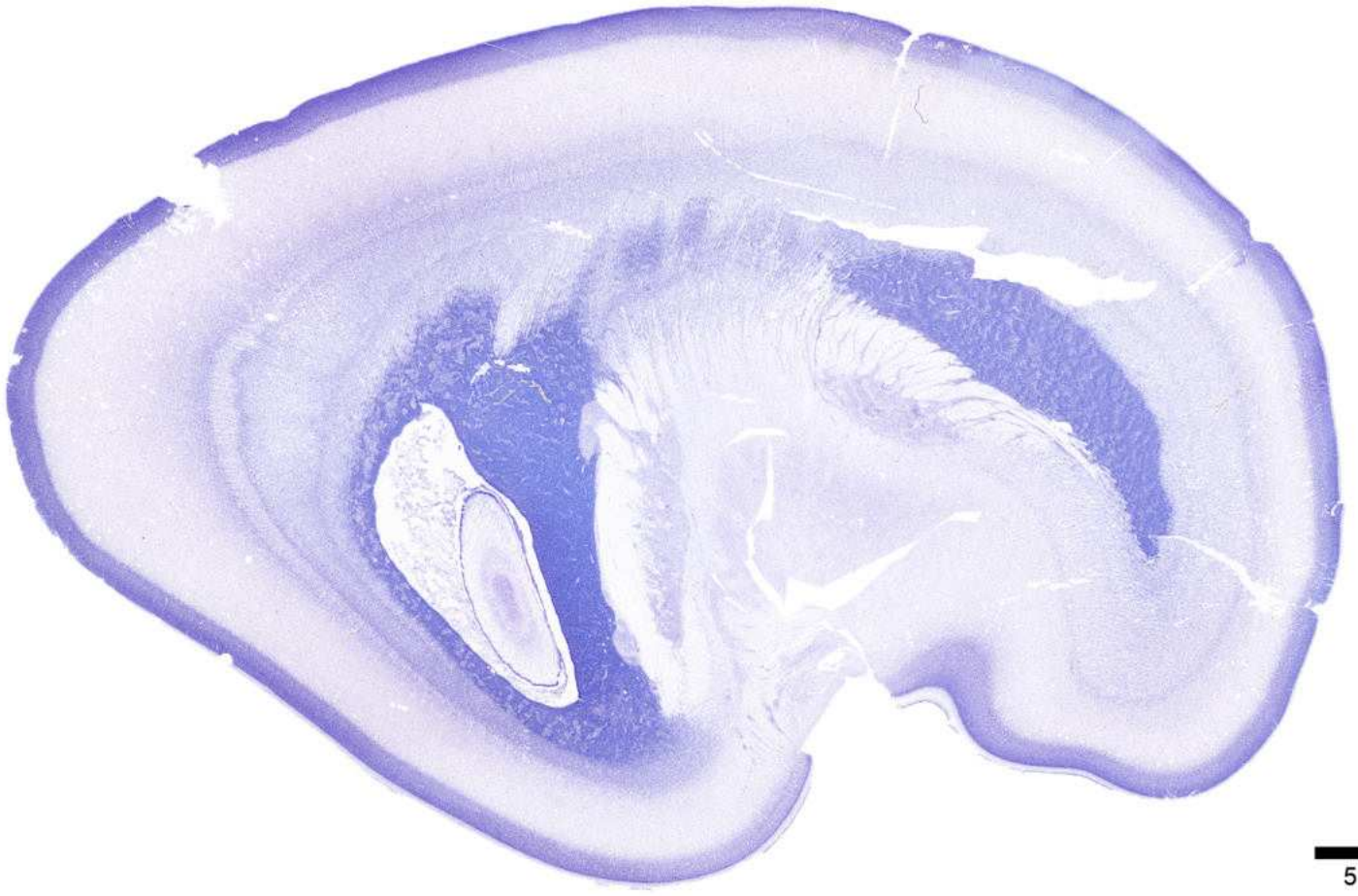
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|------------------|-----|----------------|------|
| Transient Layers | | Cortical Areas | |
| VZ | SVZ | FCTx | OCC |
| IZ | SP | ORB | TEMP |
| CP | MZ | PAR | INS |
| SGL | | | |

- | | | | |
|------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | Lms: Lateral migratory stream | ext: External capsule |
| CA1: CA1 field [hippocampus] | EP: Endopiriform nucleus | PARA: Cortical plate, parasubiculum | fx: Fornix |
| CA2: CA2 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | int: Internal capsule |
| CA3: CA3 field [hippocampus] | GPI: Globus pallidus lateral segment | Put: Putamen | stt: Stria terminalis |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | SUB: Cortical plate, subiculum | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | wmf: White matter fibers |
| Chp: Choroid plexus | | | |

Age: 21 GW

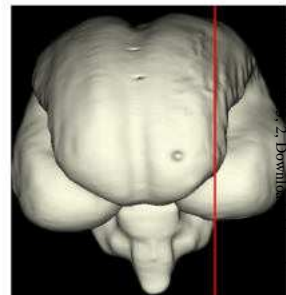


L-R Level: -9.12 mm

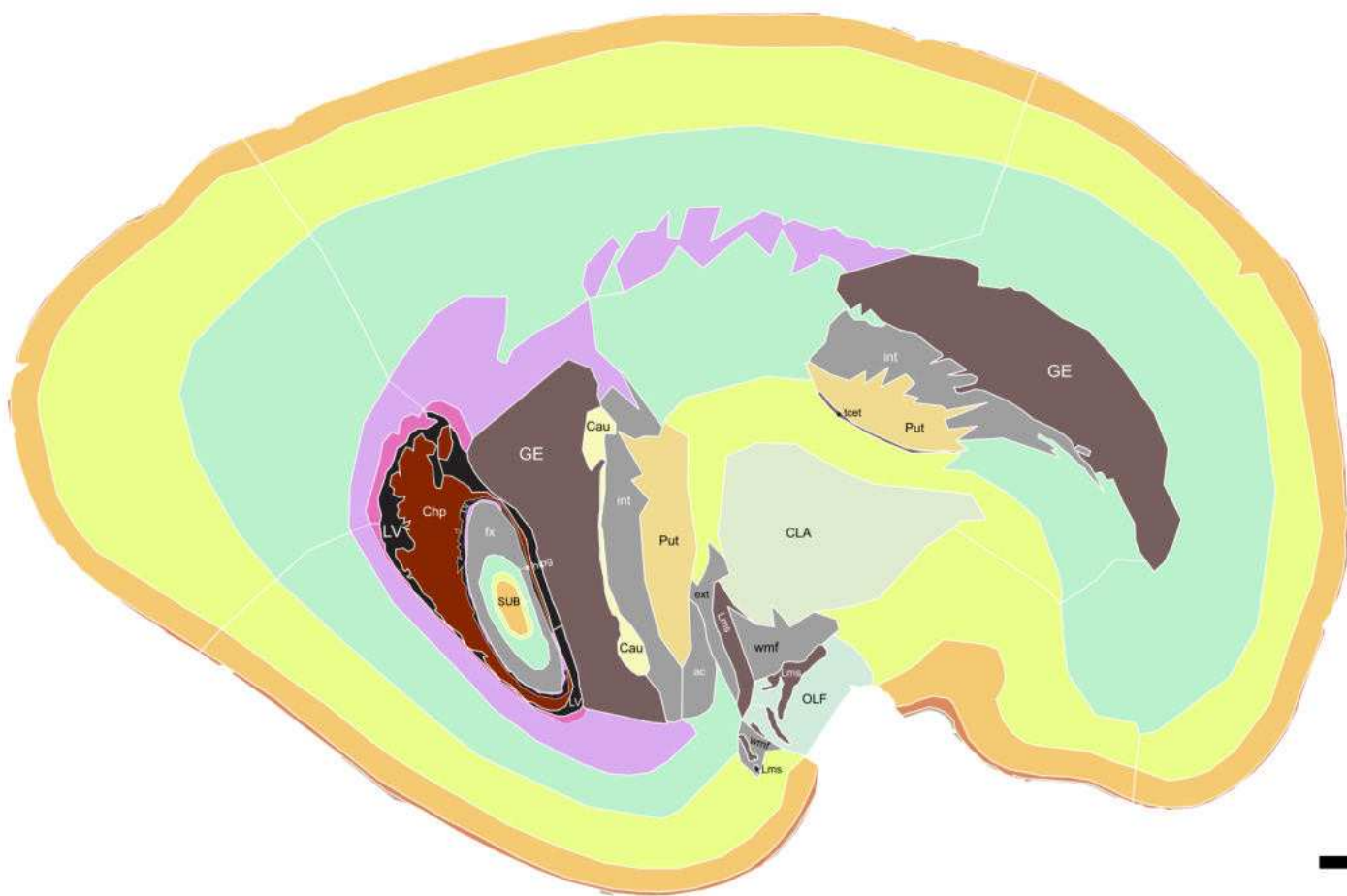
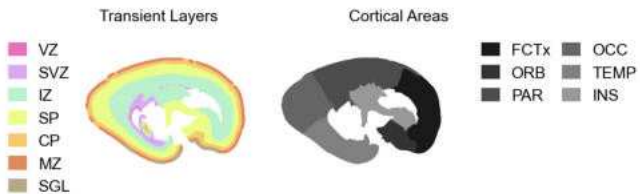


5 mm

Age: 21 GW



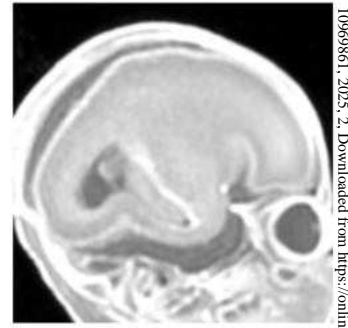
L-R Level: -9.12 mm



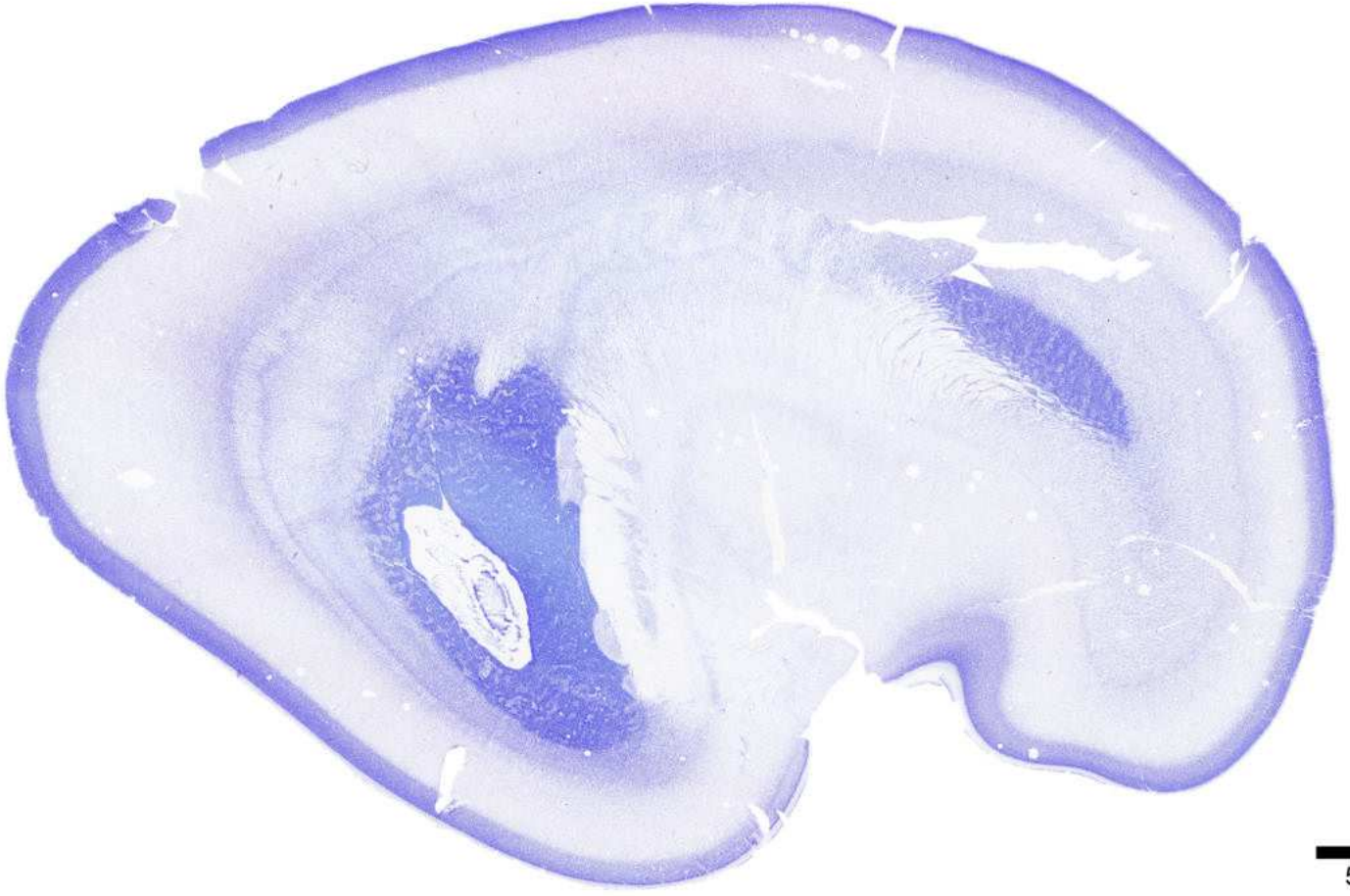
5 mm

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|-------------------------|--------------------------------|---|---|
| CLA: Claustrum | LV: Lateral ventricle | ac: Anterior commissure | int: Internal capsule |
| Cau: Caudate nucleus | Lms: Lateral migratory stream | ext: External capsule | toet: Transient cell zone in the external capsule |
| Chp: Choroid plexus | Put: Putamen | fx: Fornix | wmf: White matter fibers |
| GE: Ganglionic eminence | SUB: Cortical plate, subiculum | hipg: Hippocampal glioepithelium/ependyma | |

Age: 21 GW

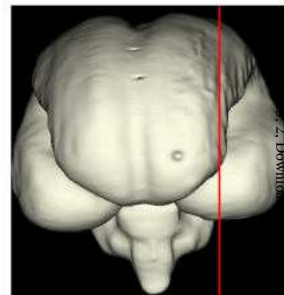


L-R Level: -9.66 mm

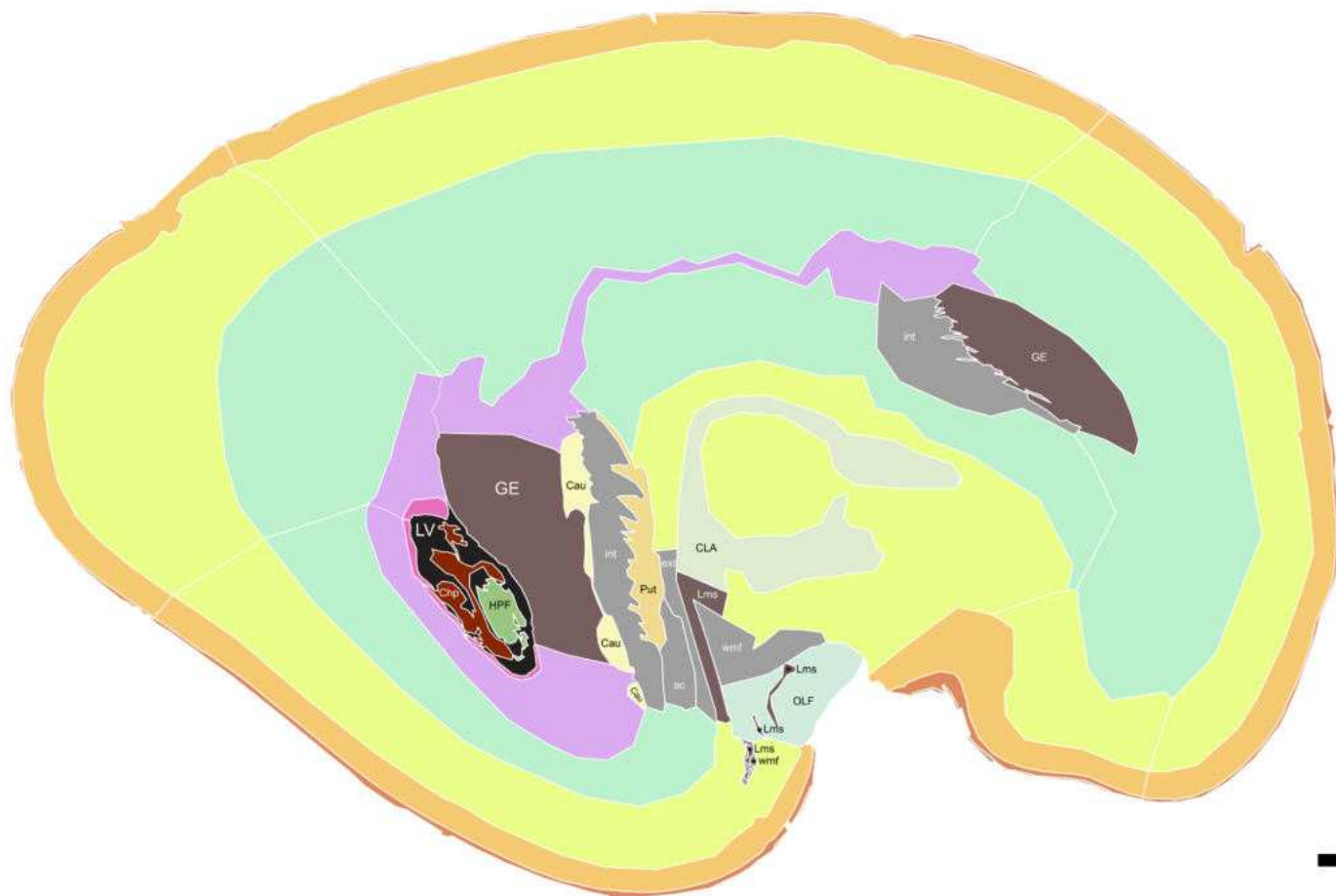
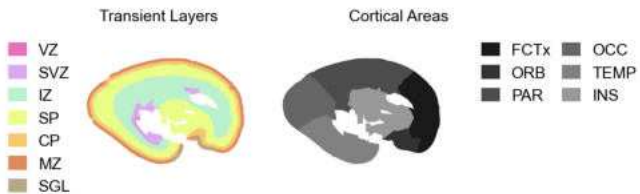


5 mm

Age: 21 GW



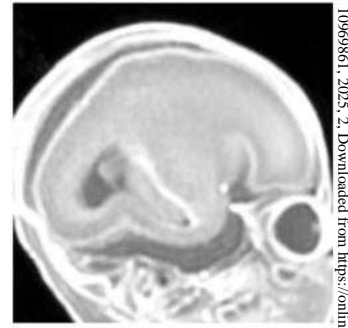
L-R Level: -9.66 mm



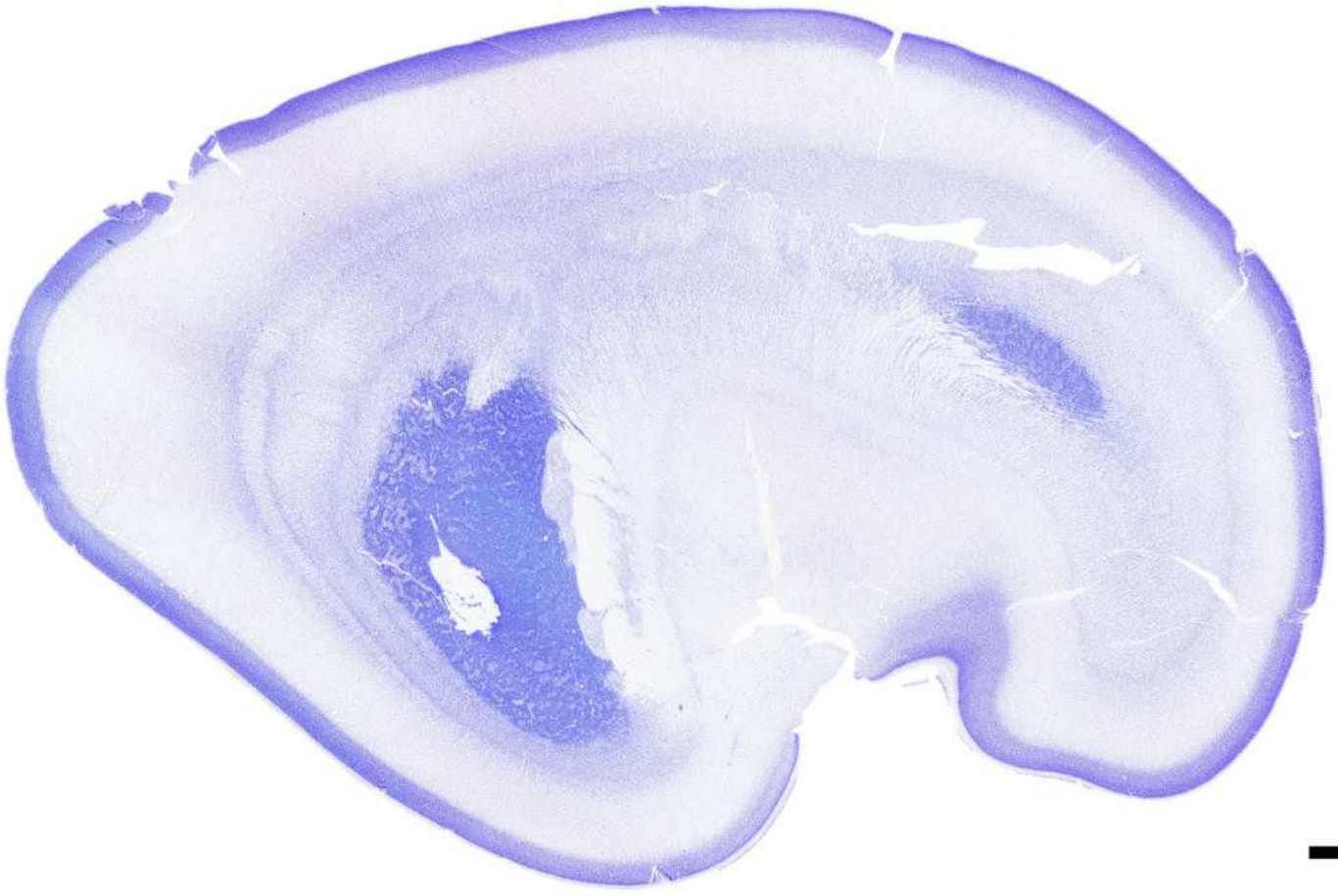
5 mm

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|----------------------|----------------------------|-------------------------------|--------------------------|
| CLA: Claustrum | GE: Ganglionic eminence | Lms: Lateral migratory stream | ext: External capsule |
| Cau: Caudate nucleus | HPF: Hippocampal formation | Put: Putamen | int: Internal capsule |
| Chp: Choroid plexus | LV: Lateral ventricle | ac: Anterior commissure | wmf: White matter fibers |

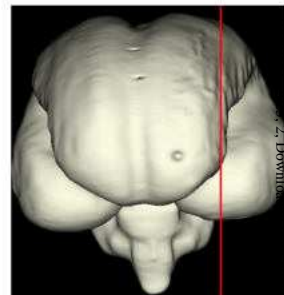
Age: 21 GW



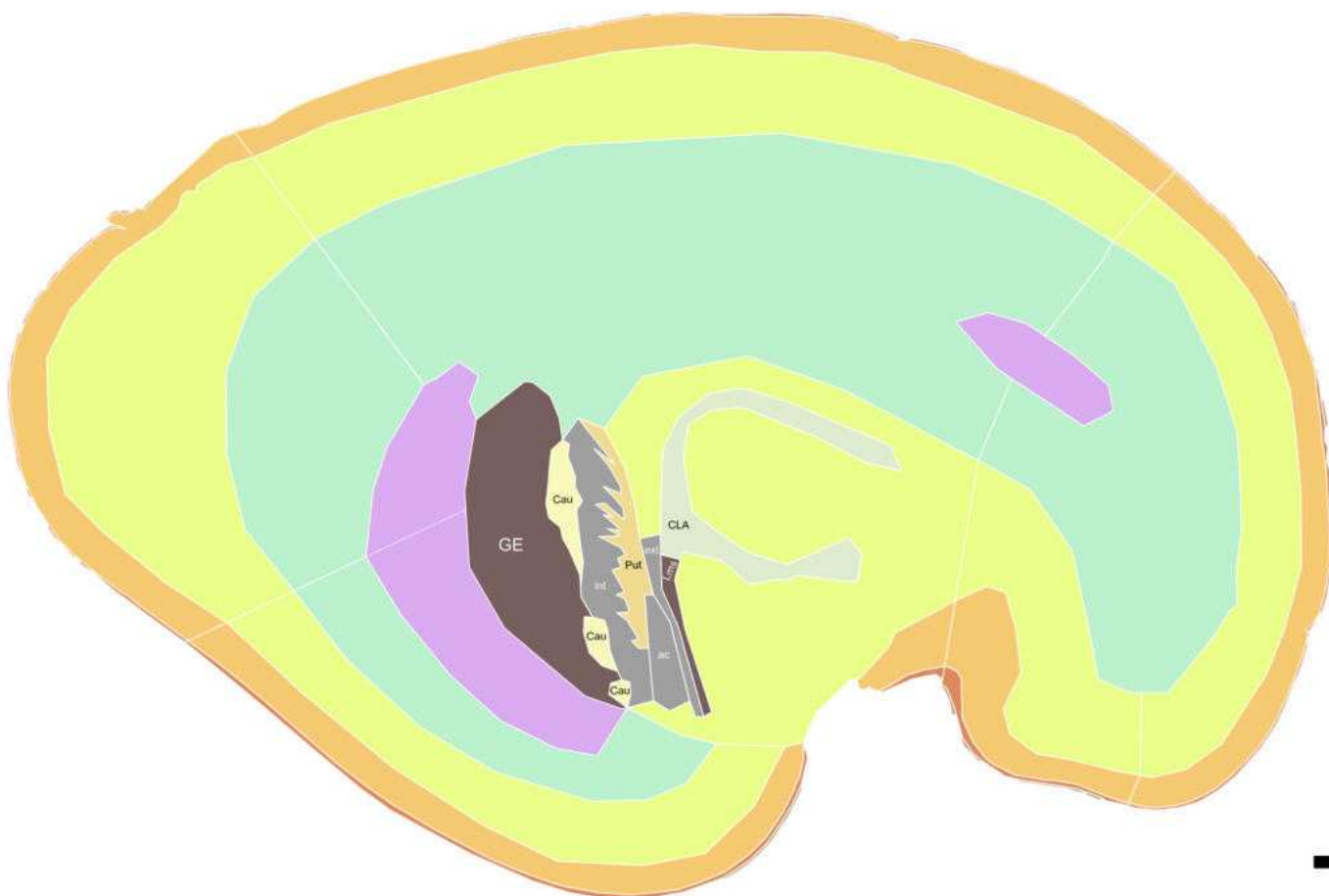
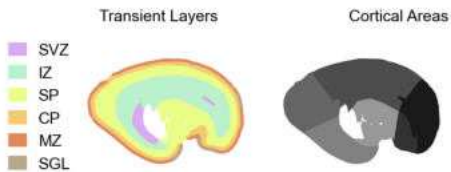
L-R Level: -9.84 mm



5 mm



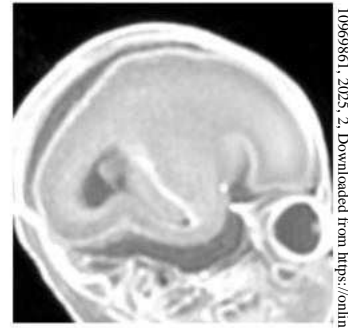
L-R Level: -9.84 mm



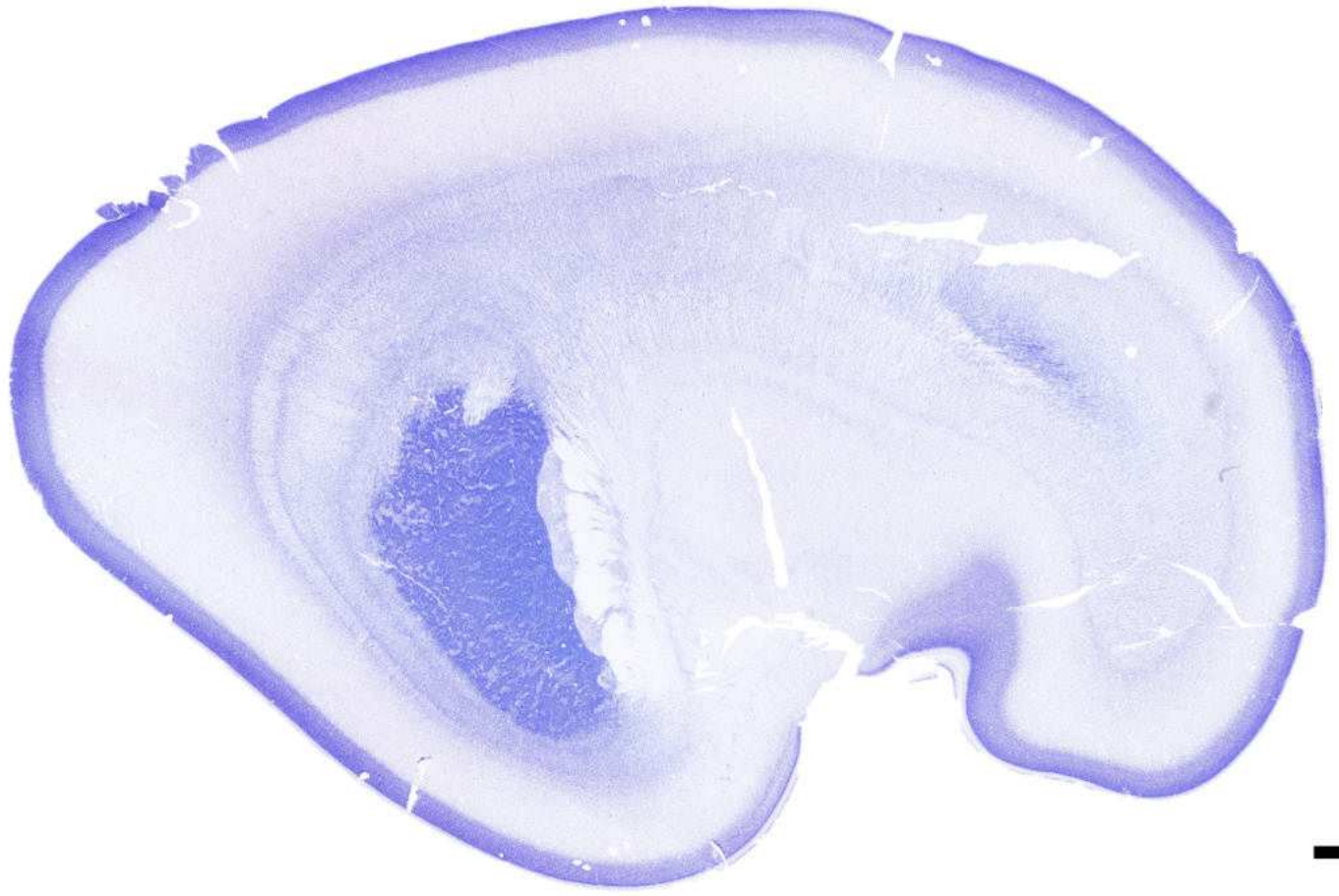
5 mm



Age: 21 GW

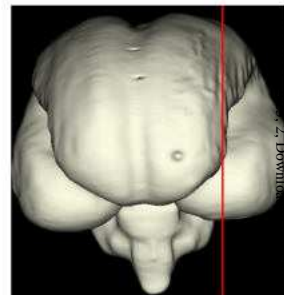


L-R Level: -10.08 mm

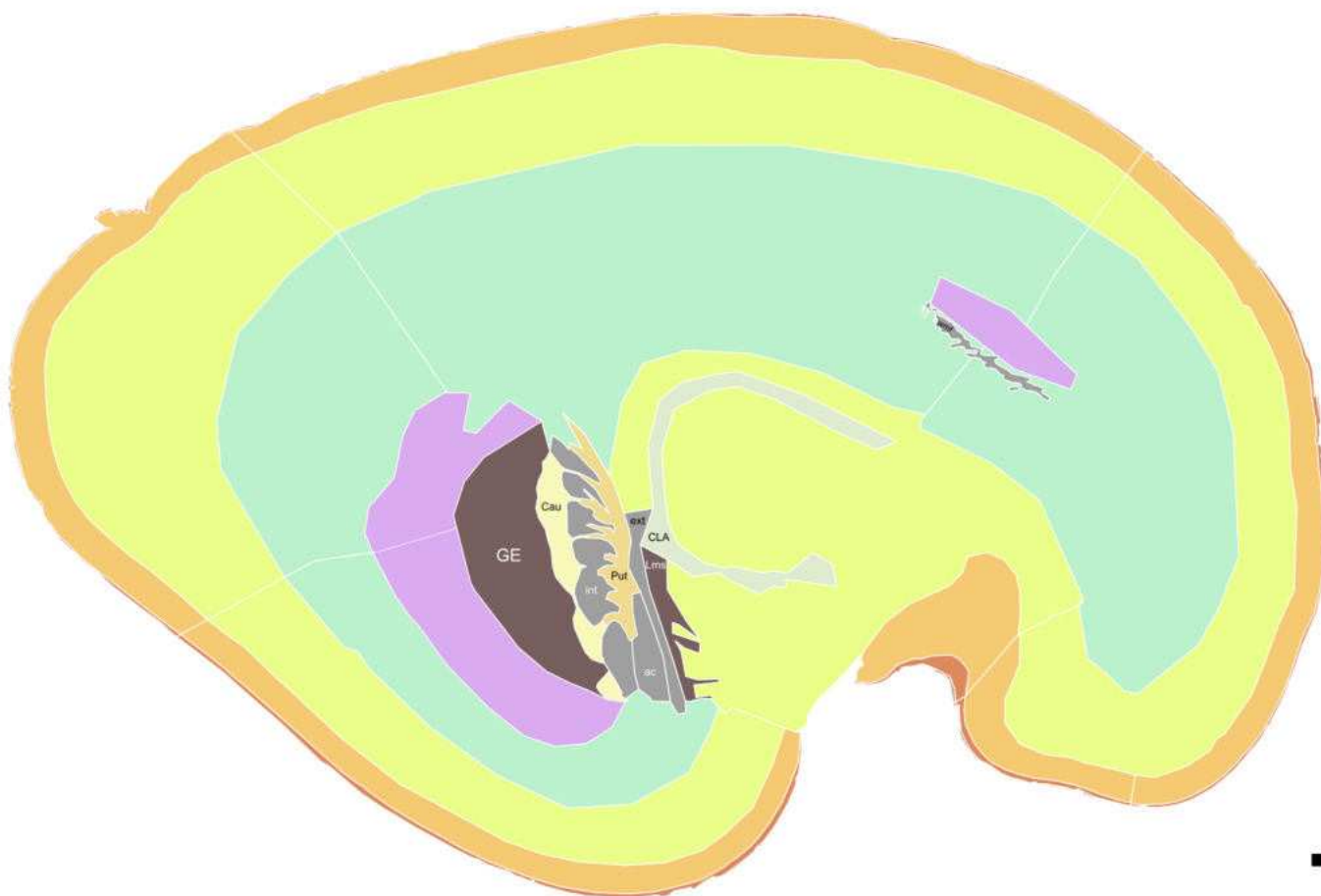
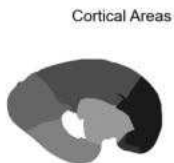
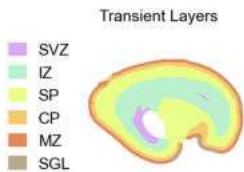


5 mm

Age: 21 GW



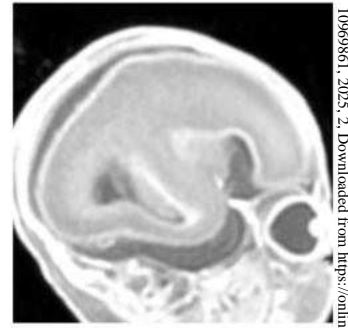
L-R Level: -10.08 mm



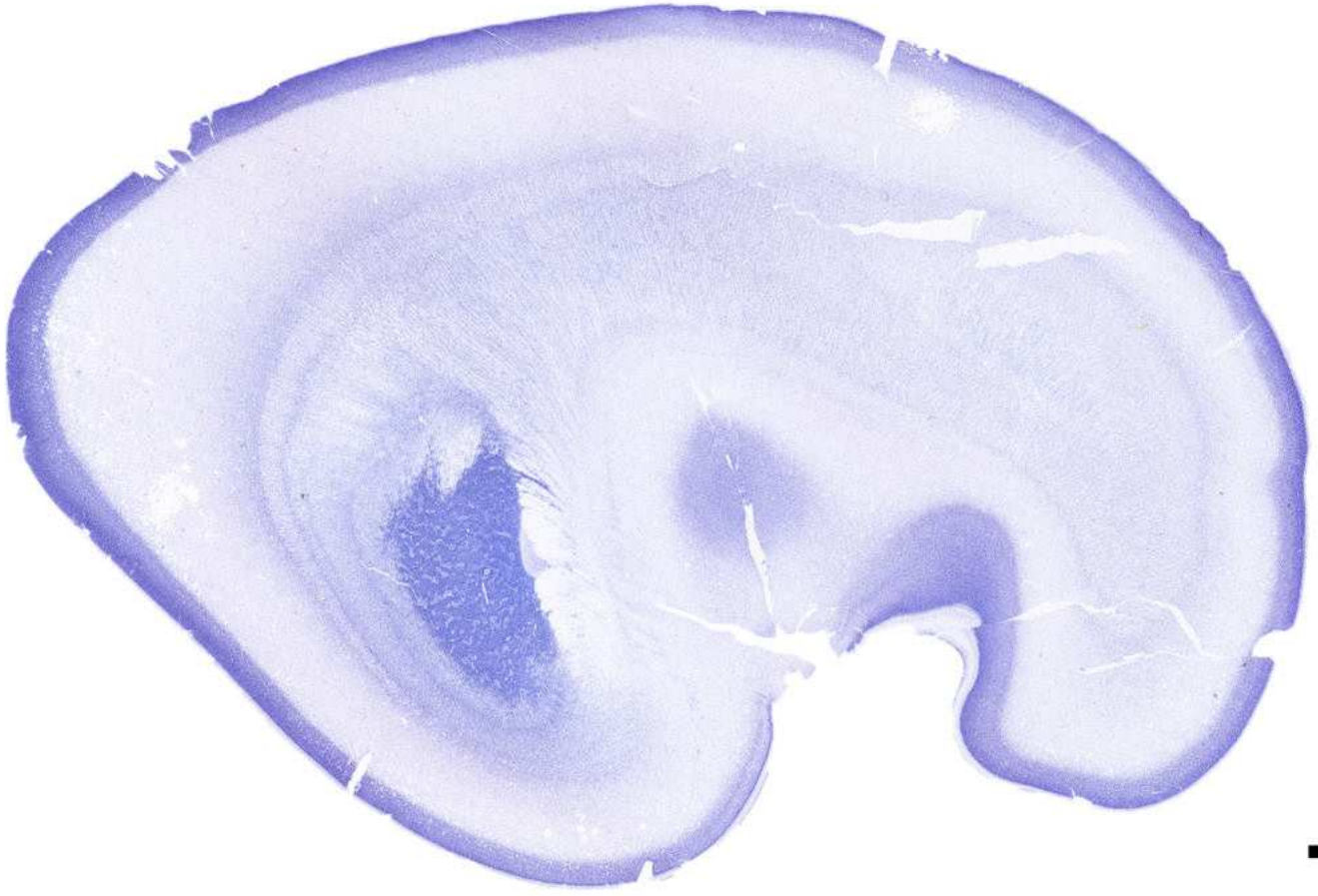
5 mm

- | | | | |
|-------------------------|-------------------------------|-------------------------|--------------------------|
| CLA: Clastrum | Lms: Lateral migratory stream | ac: Anterior commissure | int: Internal capsule |
| Cau: Caudate nucleus | Put: Putamen | ext: External capsule | wmf: White matter fibers |
| GE: Ganglionic eminence | | | |

Age: 21 GW

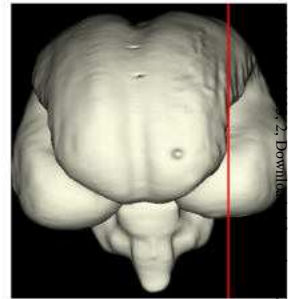
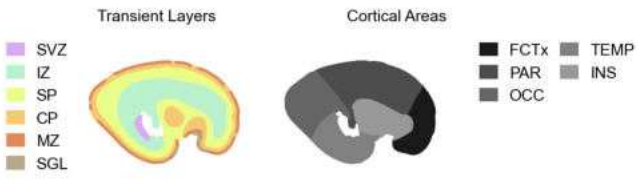


L-R Level: -10.8 mm

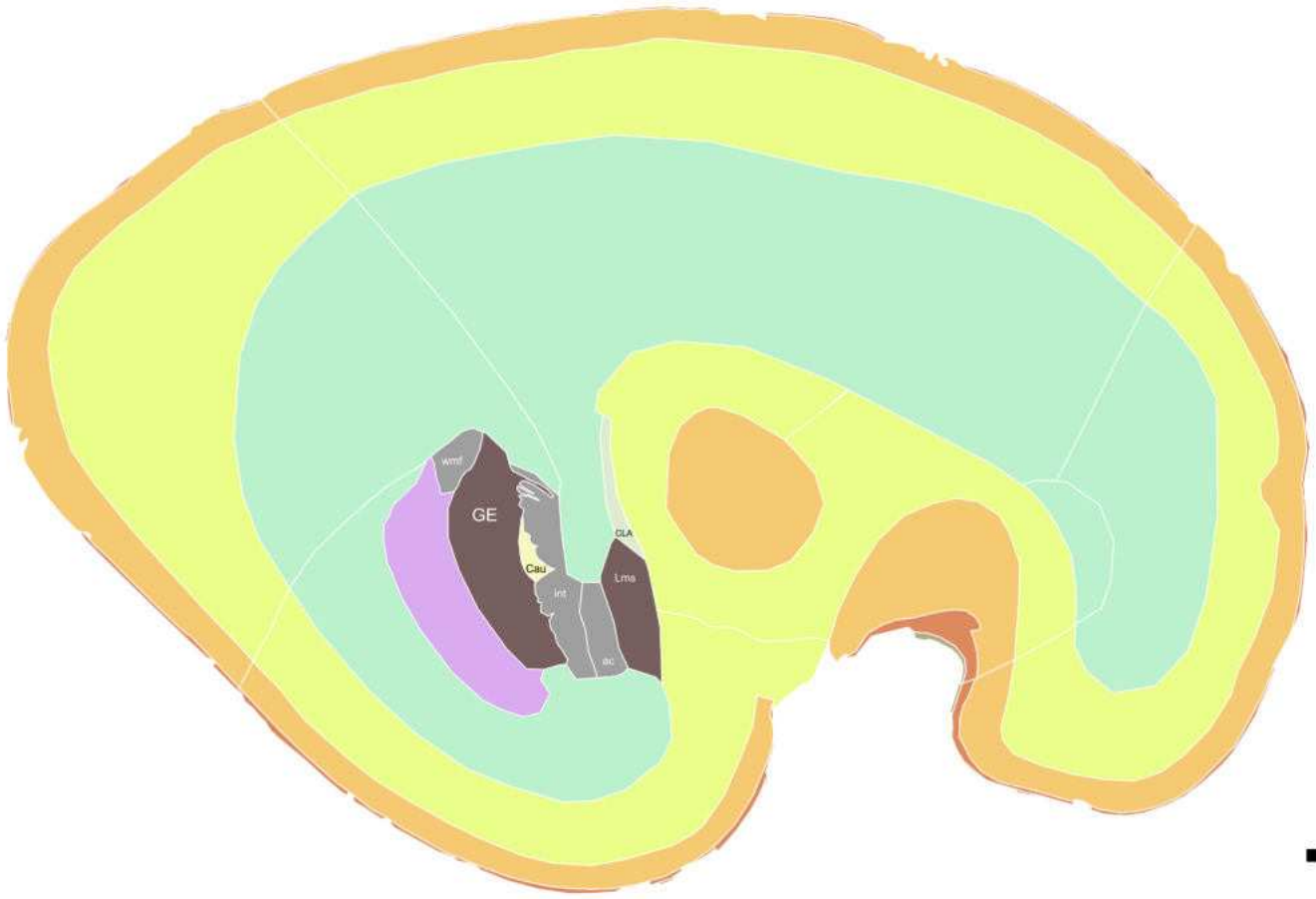


5 mm

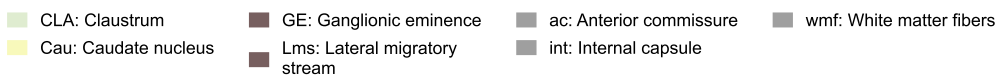
Age: 21 GW



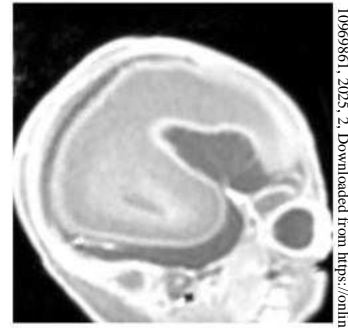
L-R Level: -10.8 mm



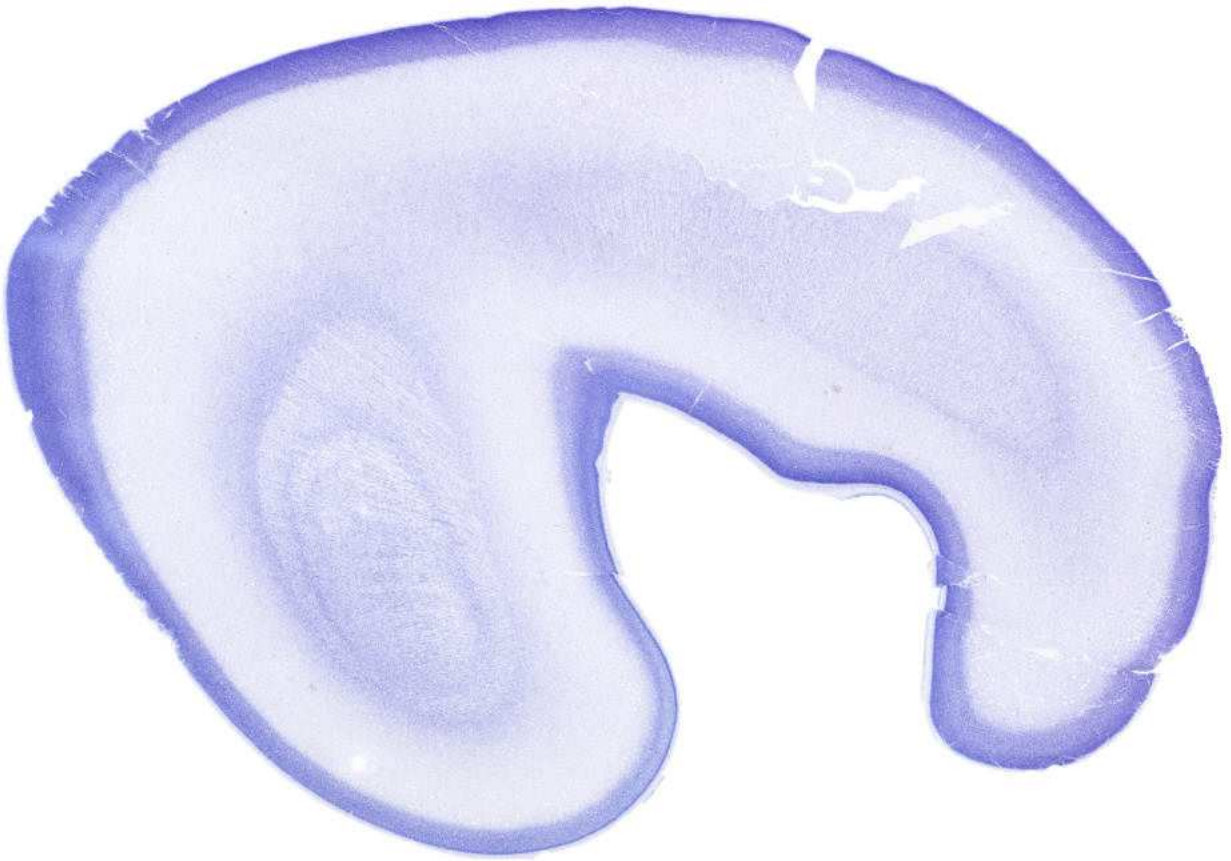
5 mm



Age: 21 GW

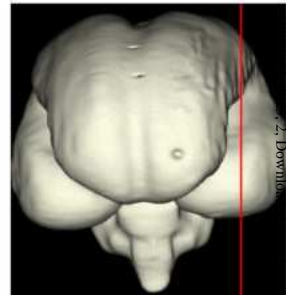
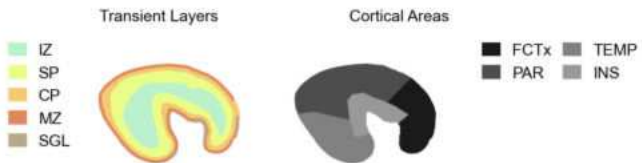


L-R Level: -12.42 mm

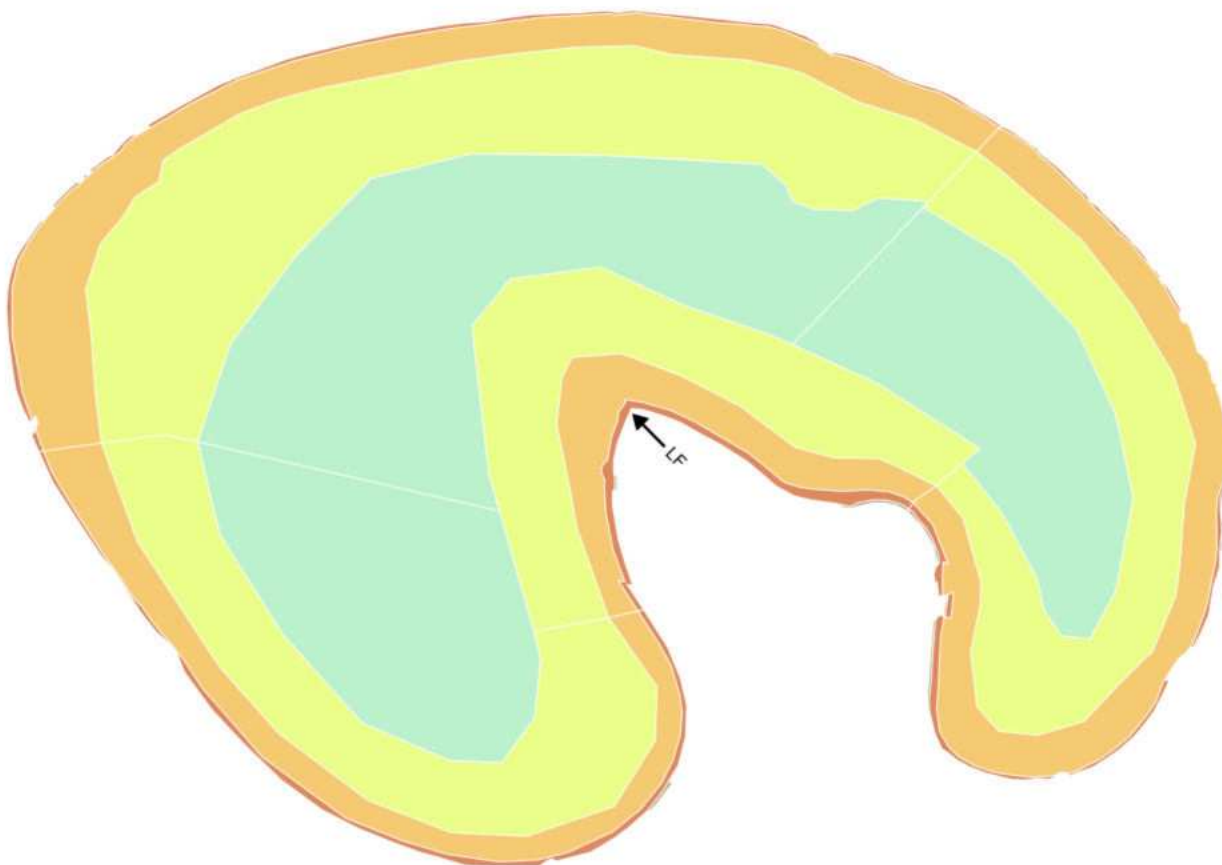


5 mm

Age: 21 GW



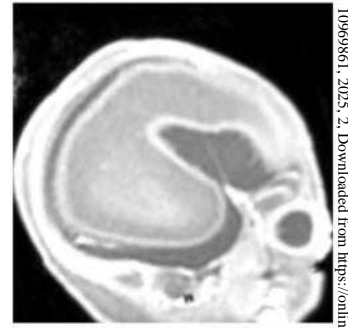
L-R Level: -12.42 mm



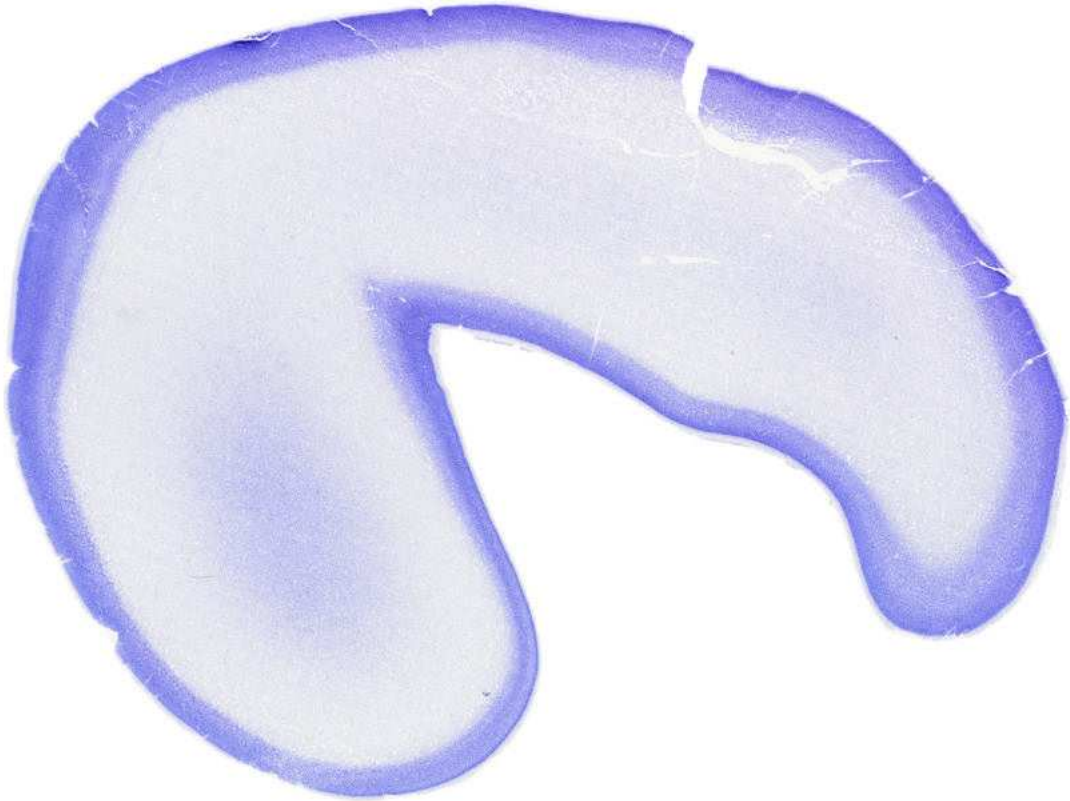
5 mm

→ LF: Lateral fissure

Age: 21 GW

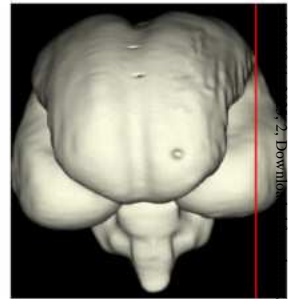
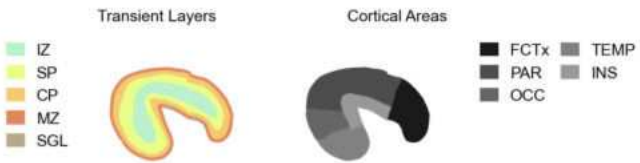


L-R Level: -14.34 mm

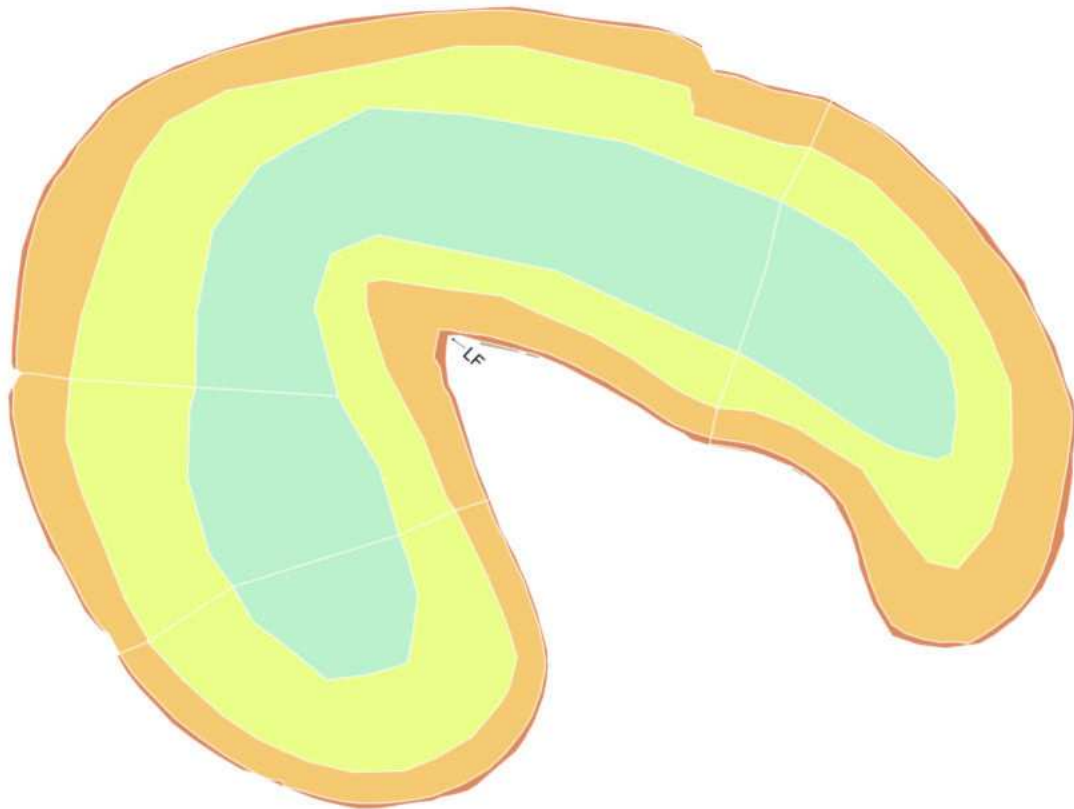


5 mm

Age: 21 GW



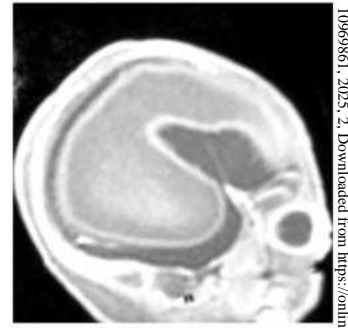
L-R Level: -14.34 mm



5 mm

→ LF - Lateral fissure

Age: 21 GW

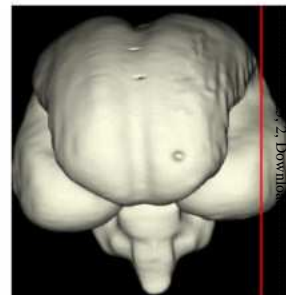


L-R Level: -14.88 mm

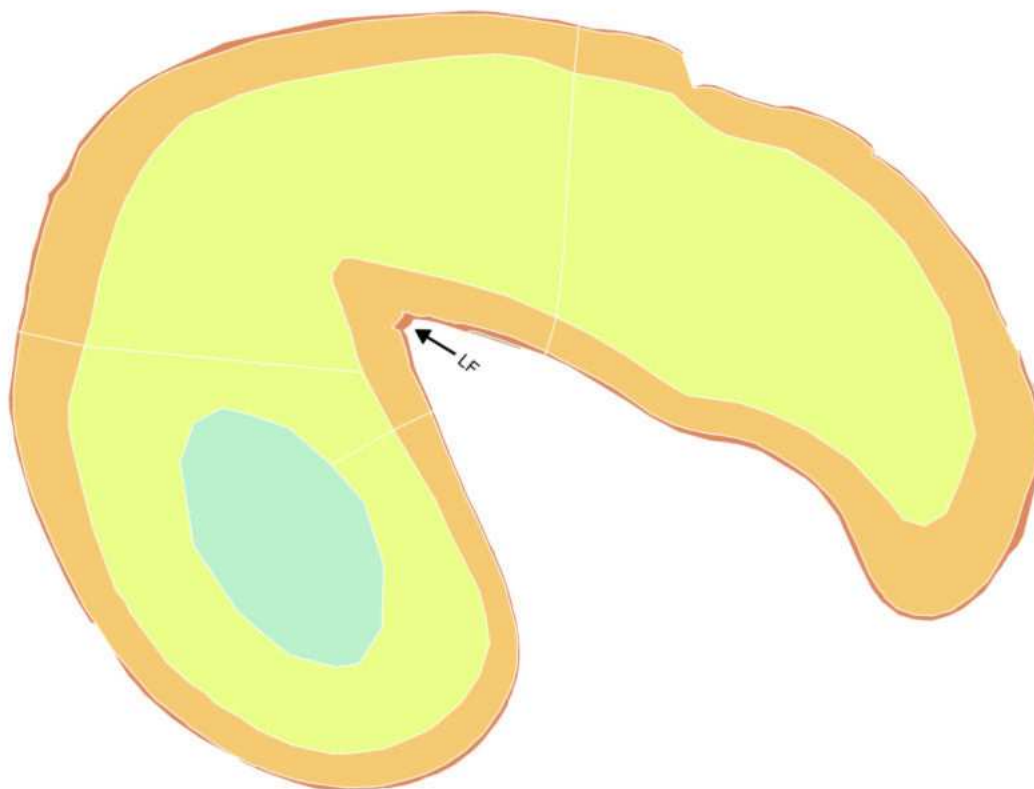
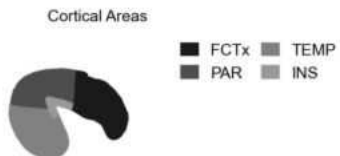
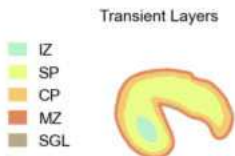


5 mm

Age: 21 GW



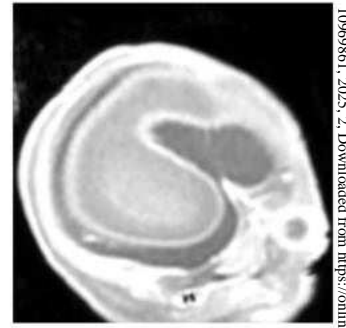
L-R Level: -14.88 mm



5 mm

→ LF: Lateral fissure

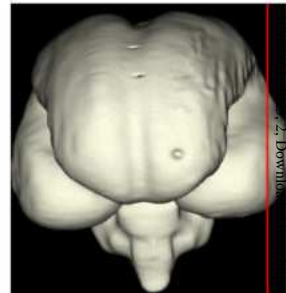
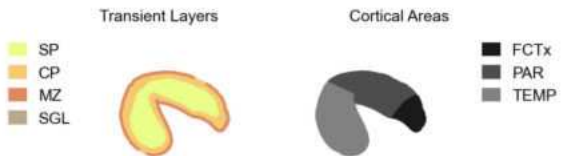
Age: 21 GW



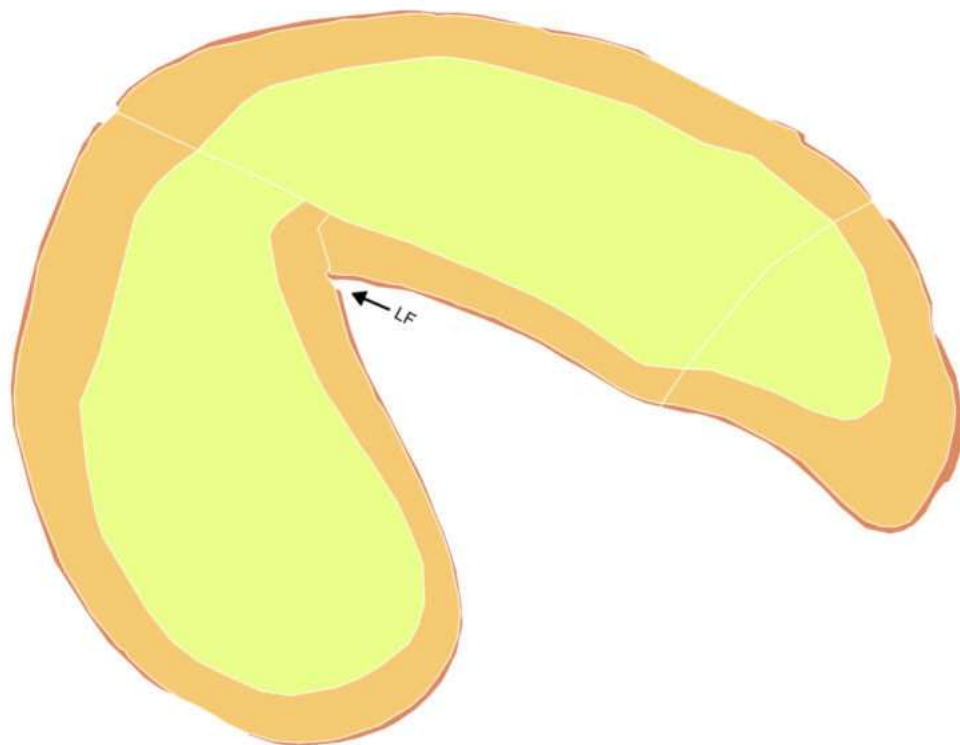
L-R Level: -15.78 mm



5 mm



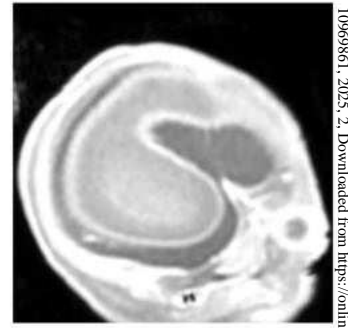
L-R Level: -15.78 mm



5 mm

→ LF: Lateral fissure

Age: 21 GW



L-R Level: -16.14 mm

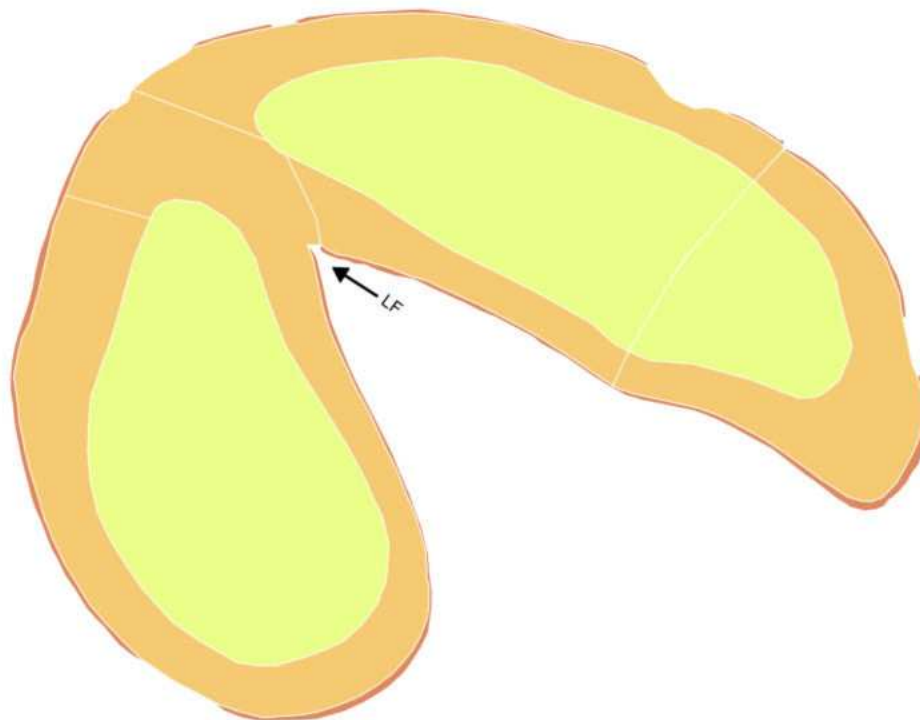


5 mm

Age: 21 GW



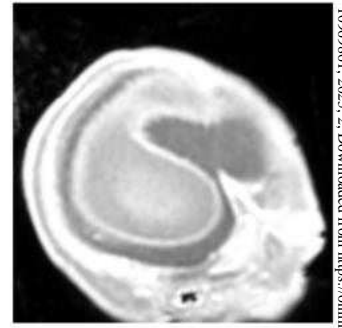
L-R Level: -16.14 mm



5 mm

→ LF: Lateral fissure

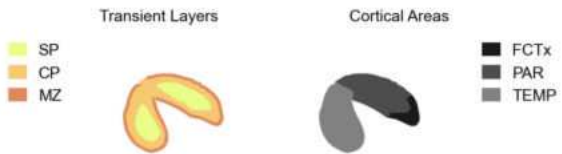
Age: 21 GW



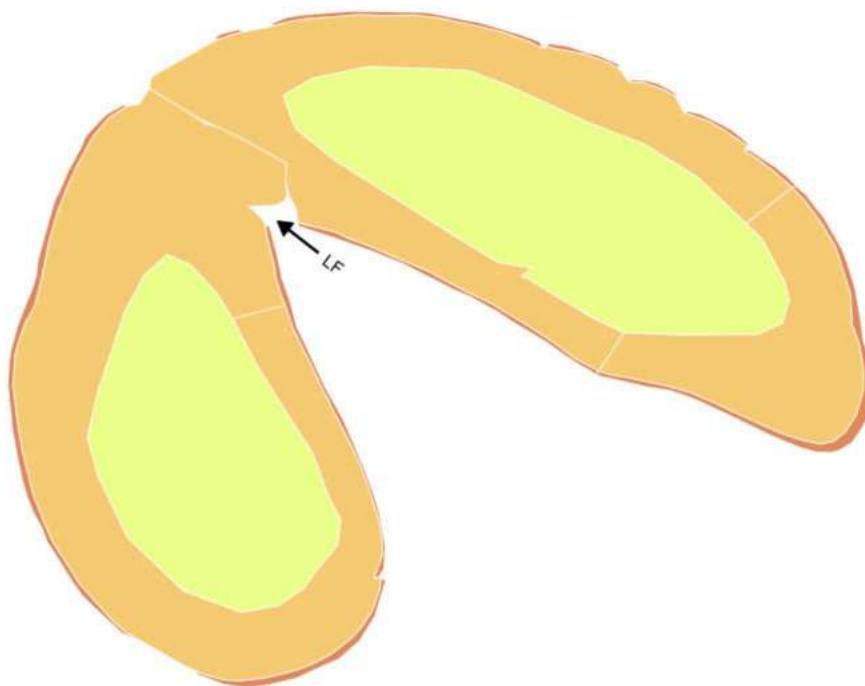
L-R Level: -16.68 mm



5 mm



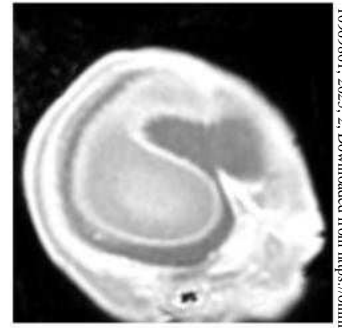
L-R Level: -16.68 mm



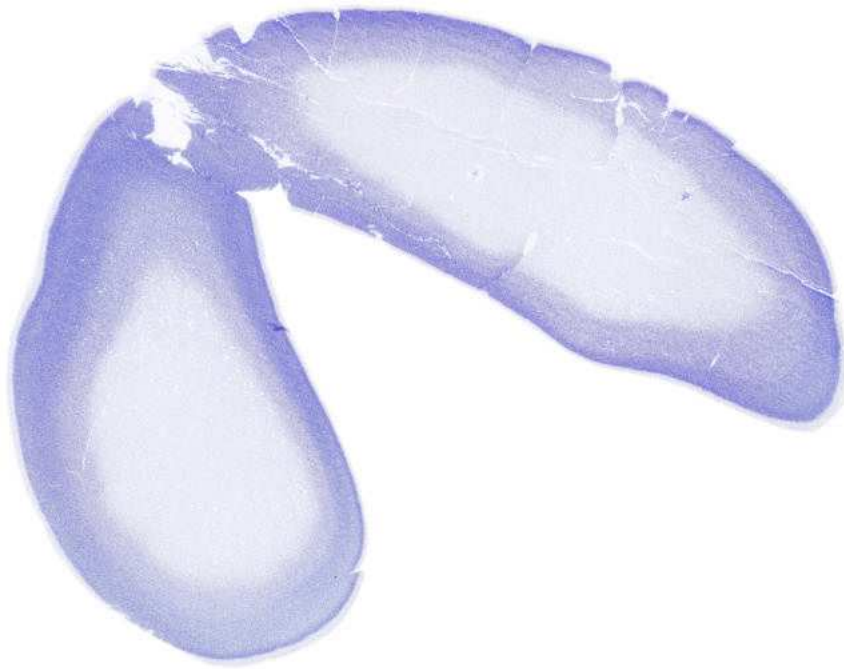
→ LF: Lateral fissure

5 mm

Age: 21 GW



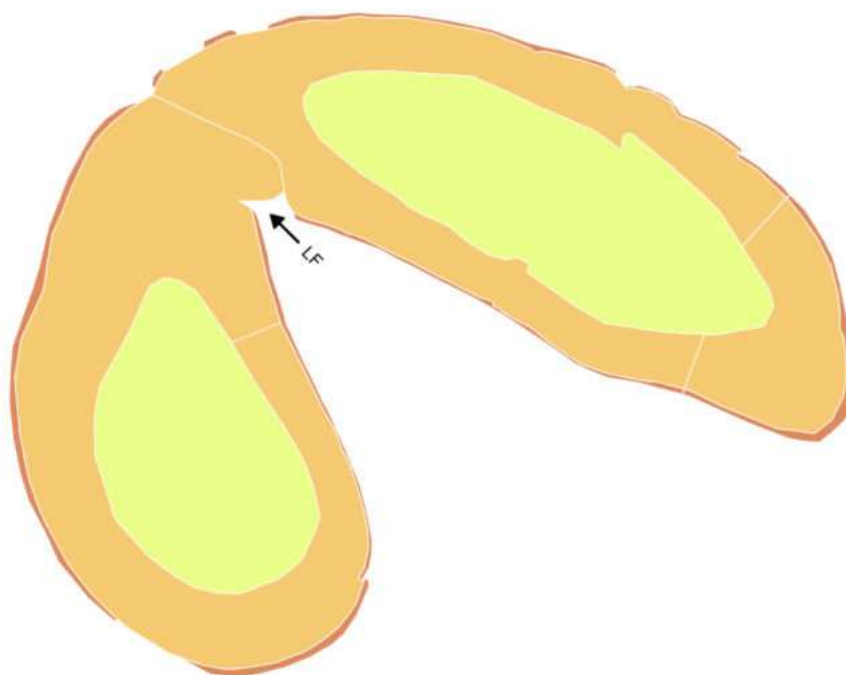
L-R Level: -16.86 mm



5 mm



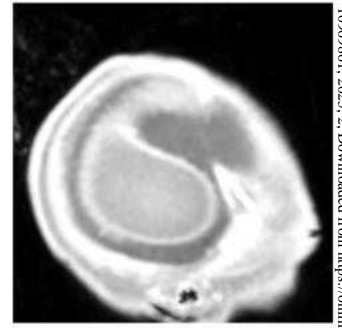
L-R Level: -16.86 mm



→ LF: Lateral fissure

5 mm

Age: 21 GW



L-R Level: -17.52 mm

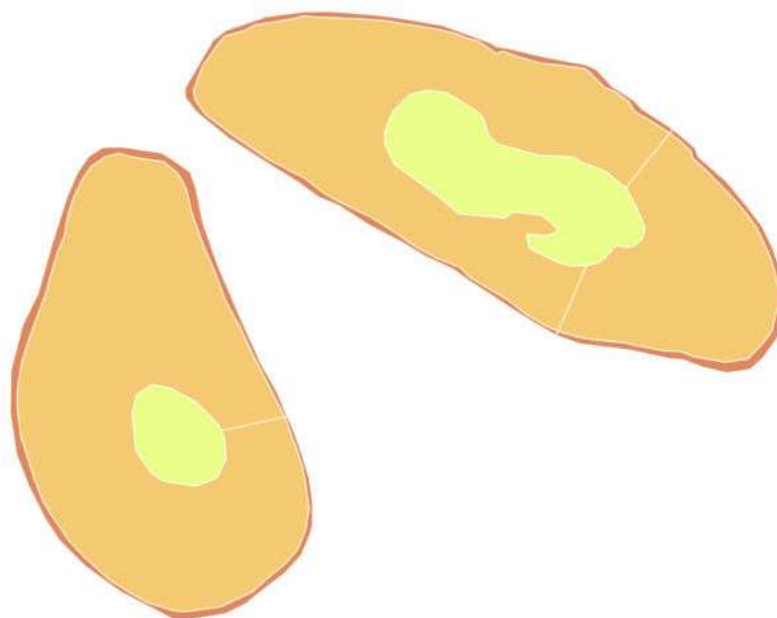


5 mm

Age: 21 GW

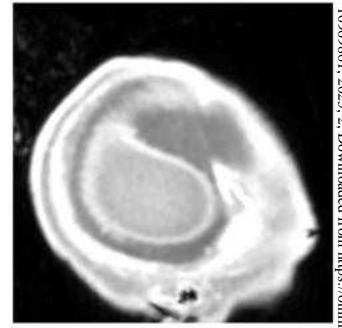


L-R Level: -17.52 mm

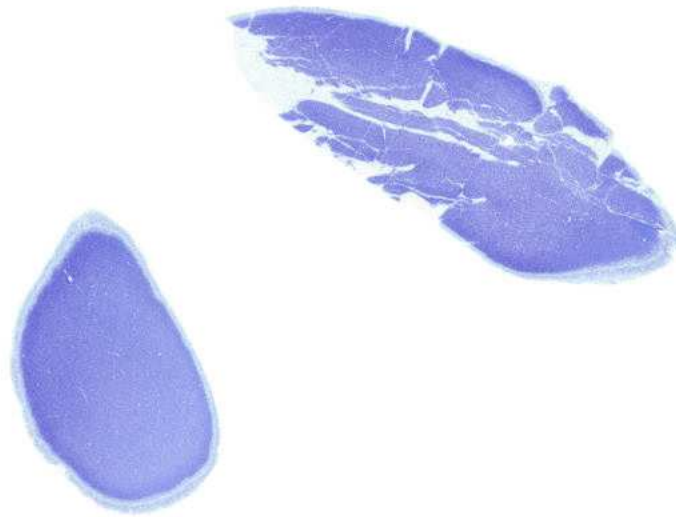


5 mm

Age: 21 GW

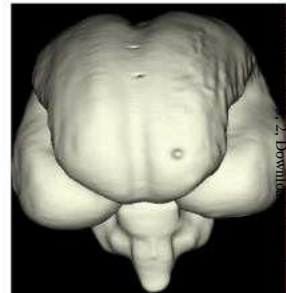


L-R Level: -18.24 mm

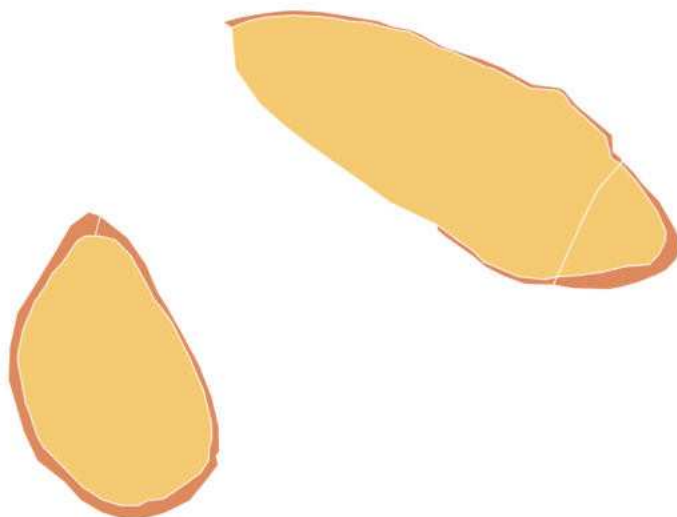


5 mm

Age: 21 GW



L-R Level: -18.24 mm



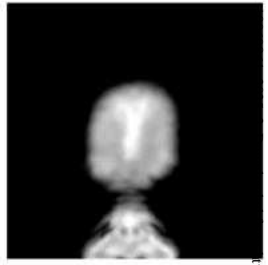
5 mm

22 Gestational Week (GW)

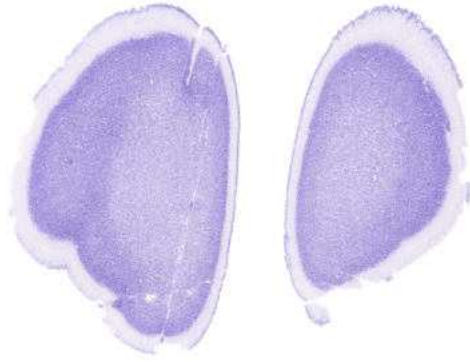
Coronal

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Age: 22 GW



A-P Level: 22.5 mm



5 mm

Transient Layers

- CP
- MZ
- SGL

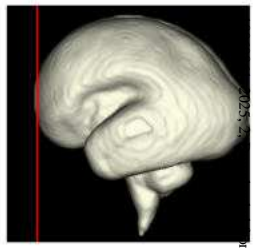


Cortical Areas

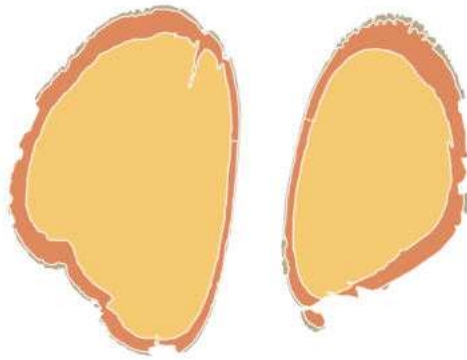


- FCTx

Age: 22 GW

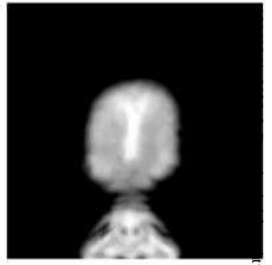


A-P Level: 22.5 mm

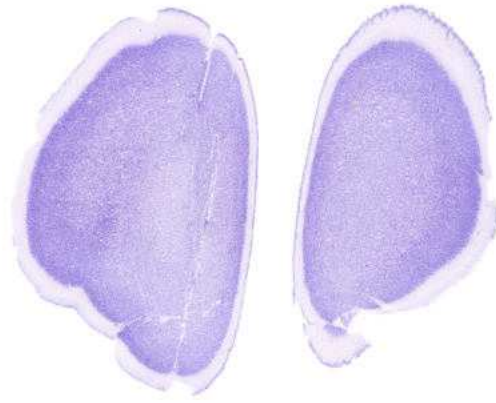


5 mm

Age: 22 GW



A-P Level: 22.32 mm



5 mm

Transient Layers

- CP
- MZ
- SGL

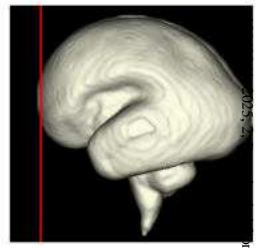


Cortical Areas

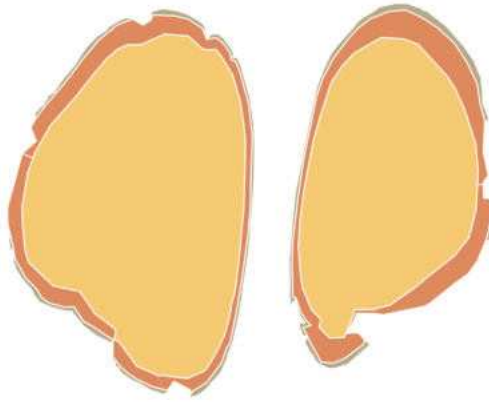


- FCTx

Age: 22 GW

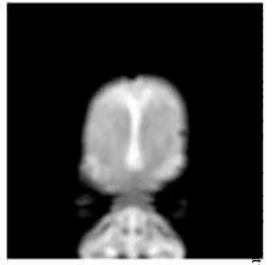


A-P Level: 22.32 mm

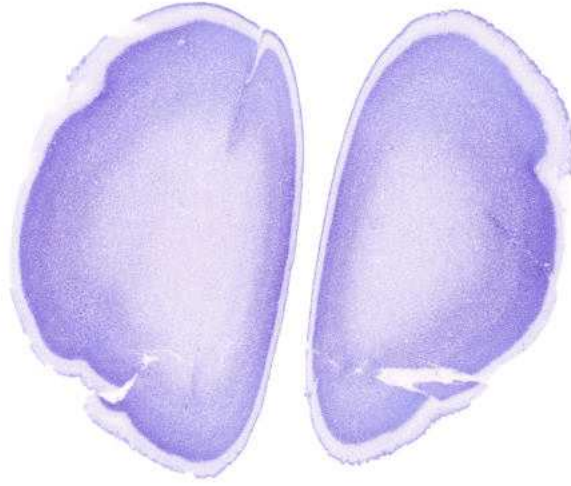


5 mm

Age: 22 GW



A-P Level: 21.78 mm



5 mm

Age: 22 GW

Transient Layers

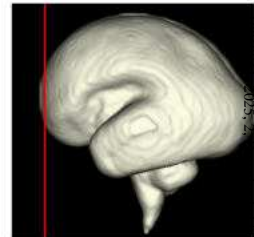
- SP
- CP
- MZ
- SGL



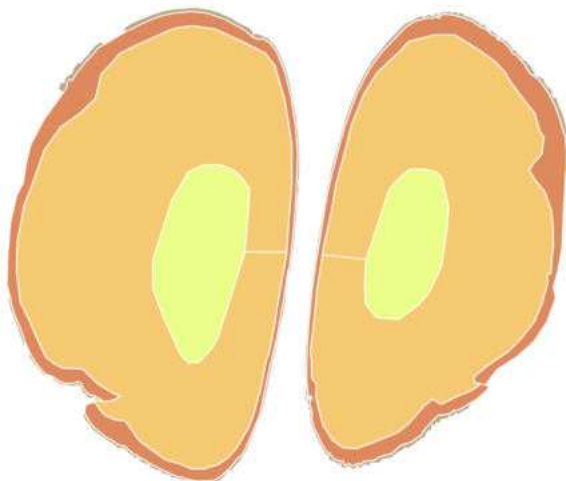
Cortical Areas



FCTx

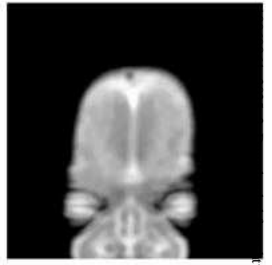


A-P Level: 21.78 mm



5 mm

Age: 22 GW



A-P Level: 20.94 mm



5 mm

Age: 22 GW

Transient Layers

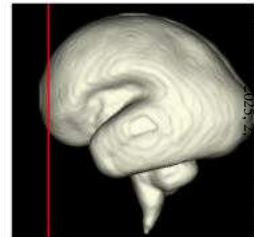
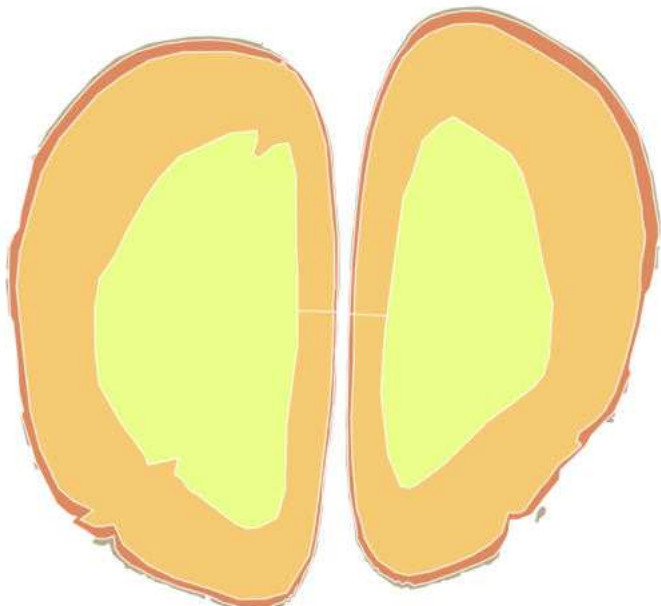
- SP
- CP
- MZ
- SGL



Cortical Areas



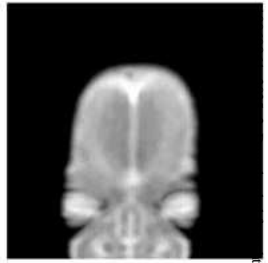
FCTx



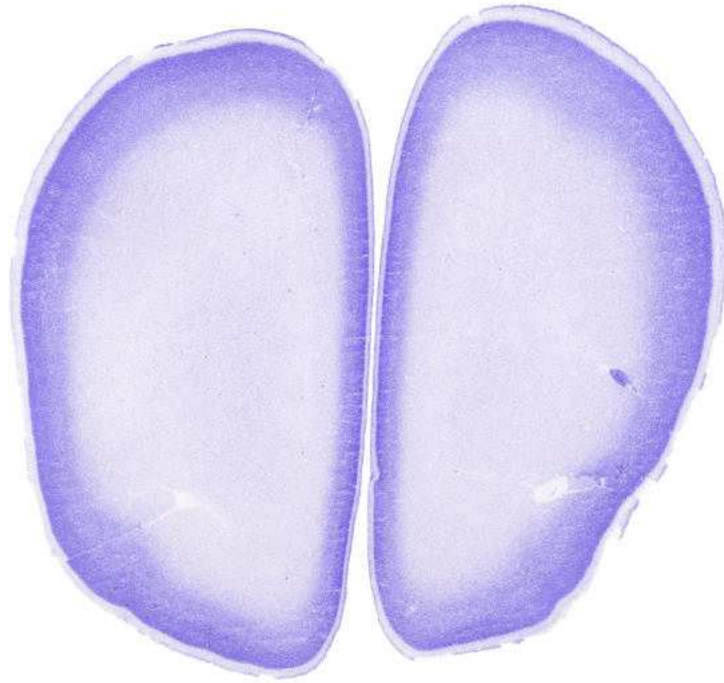
A-P Level: 20.94 mm

5 mm

Age: 22 GW



A-P Level: 20.22 mm

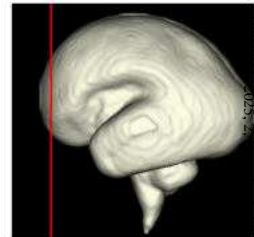


5 mm

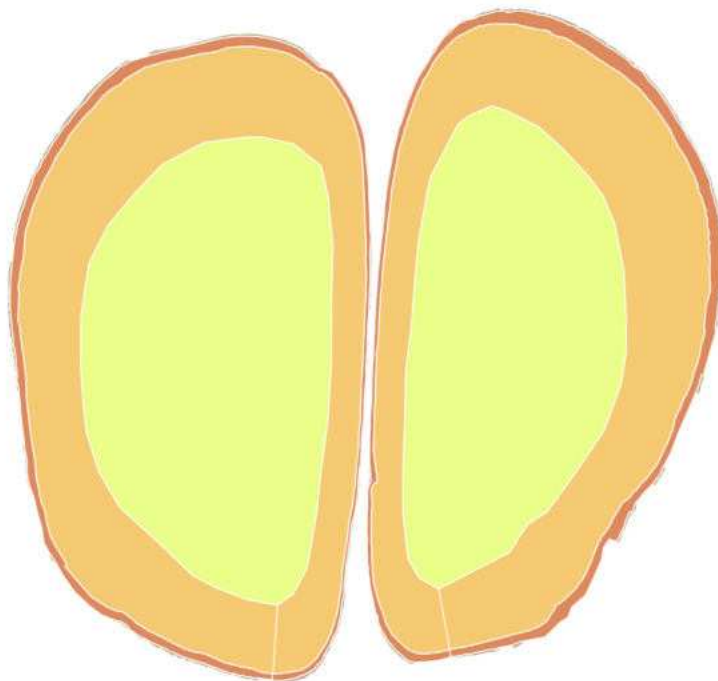
Age: 22 GW

Transient Layers
SP
CP
MZ
SGL

Cortical Areas
FCTx



A-P Level: 20.22 mm

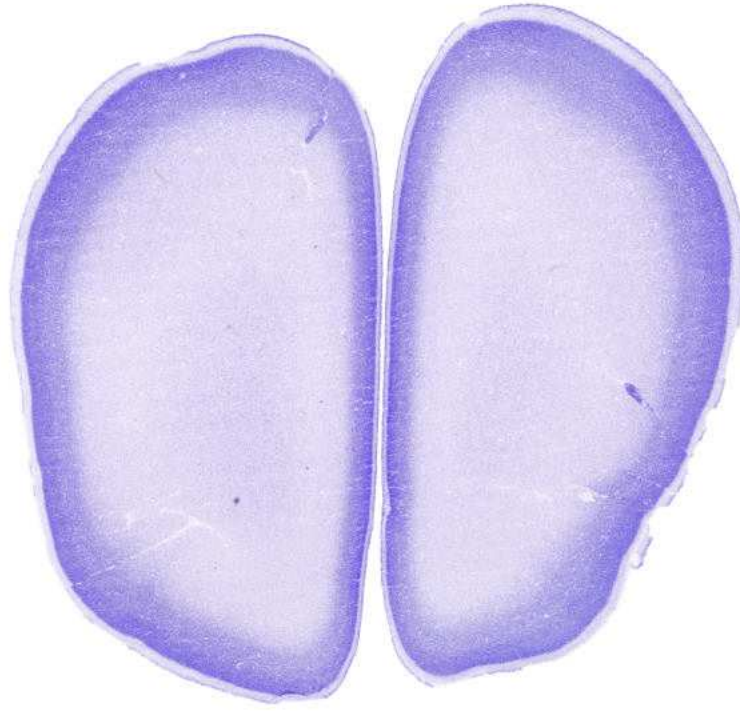


5 mm

Age: 22 GW



A-P Level: 19.98 mm



5 mm

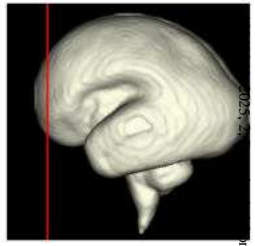
Transient Layers
SP
CP
MZ
SGL



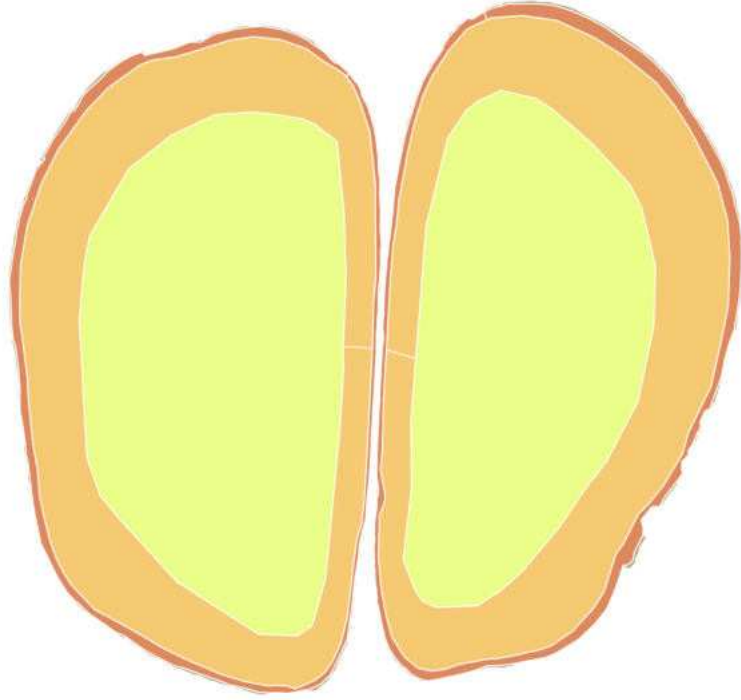
Cortical Areas
FCTx



Age: 22 GW



A-P Level: 19.98 mm

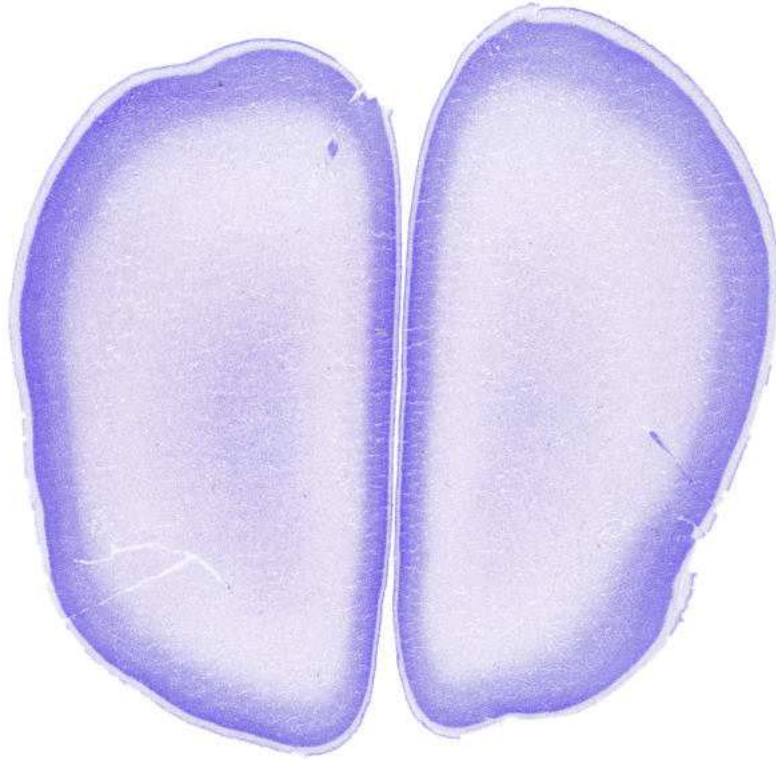


5 mm

Age: 22 GW

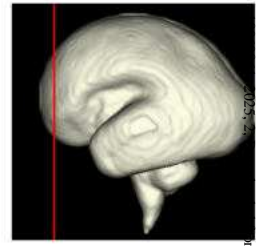
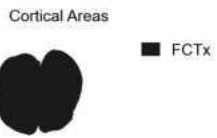
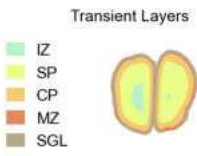


A-P Level: 19.5 mm

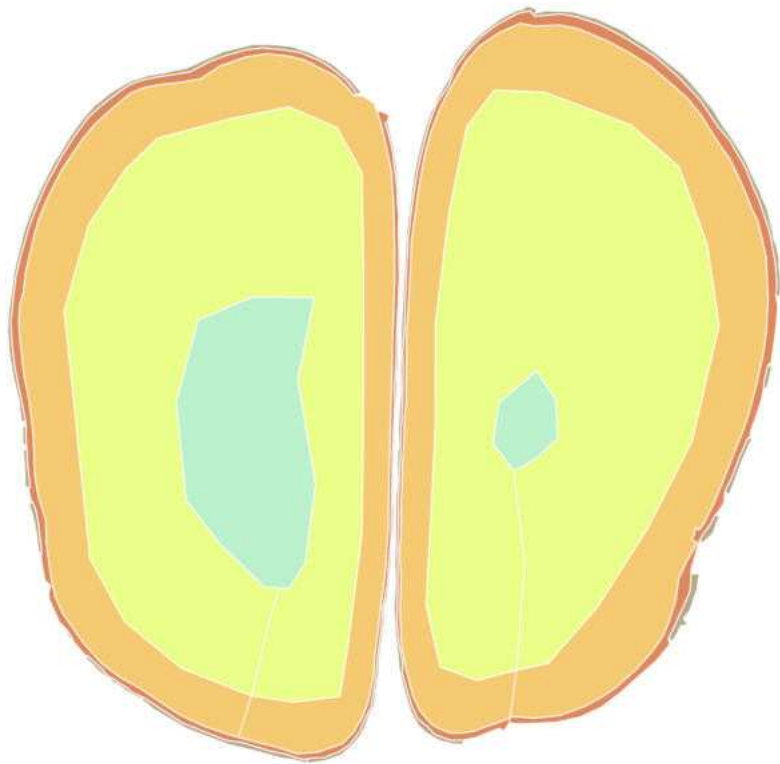


5 mm

Age: 22 GW

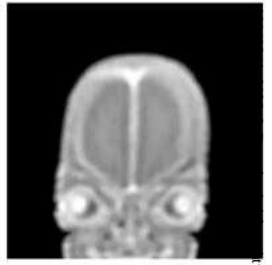


A-P Level: 19.5 mm

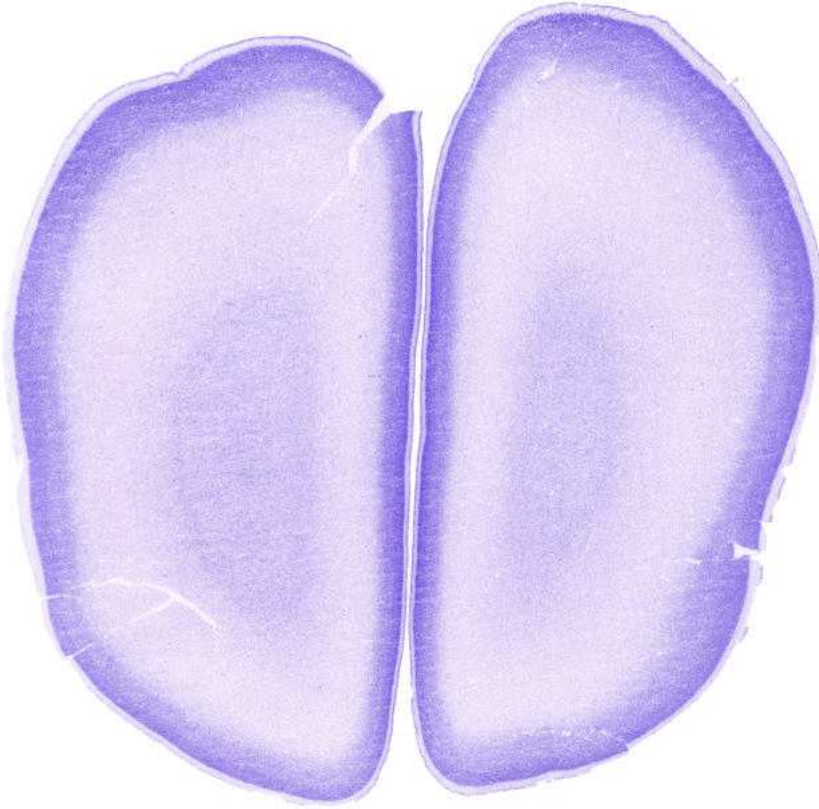


5 mm

Age: 22 GW

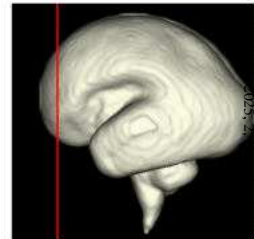
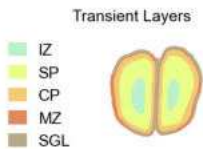


A-P Level: 18.72 mm

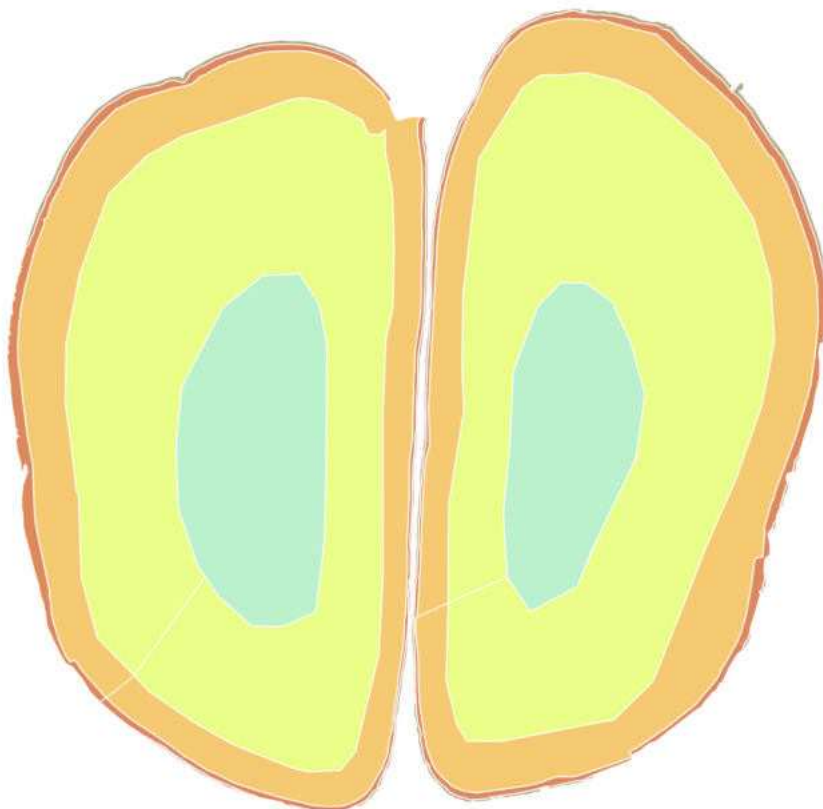


5 mm

Age: 22 GW

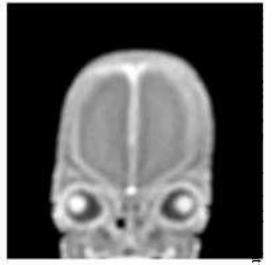


A-P Level: 18.72 mm

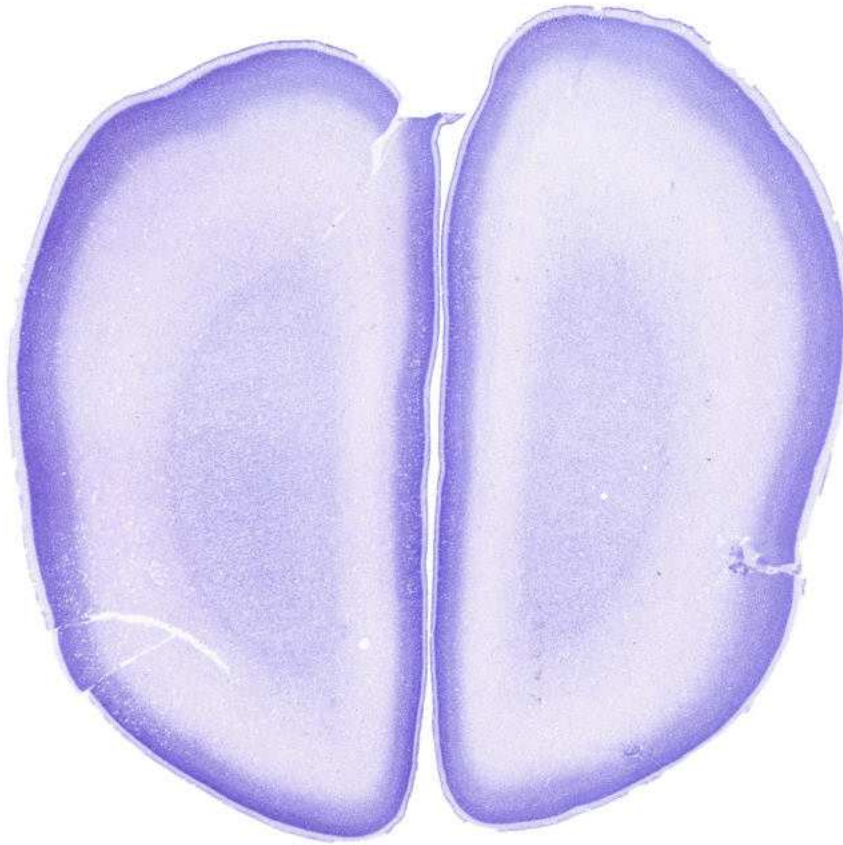


5 mm

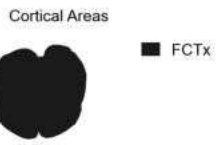
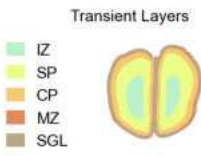
Age: 22 GW



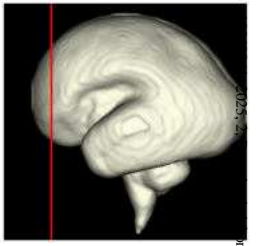
A-P Level: 18.24 mm



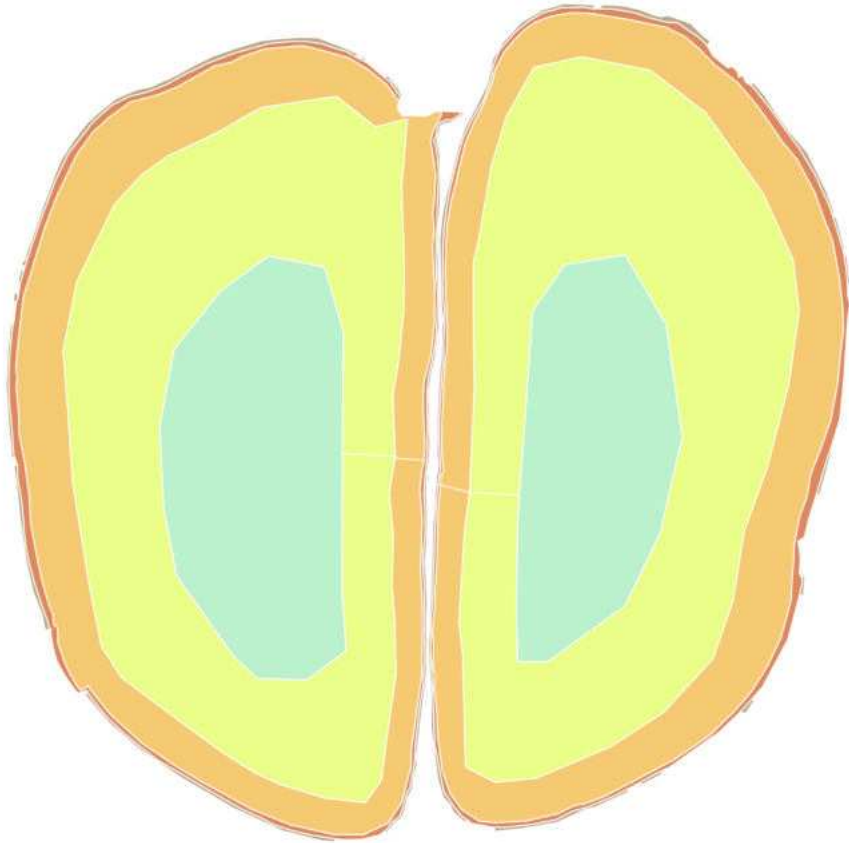
5 mm



Age: 22 GW

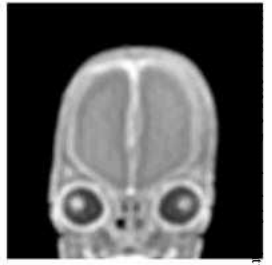


A-P Level: 18.24 mm

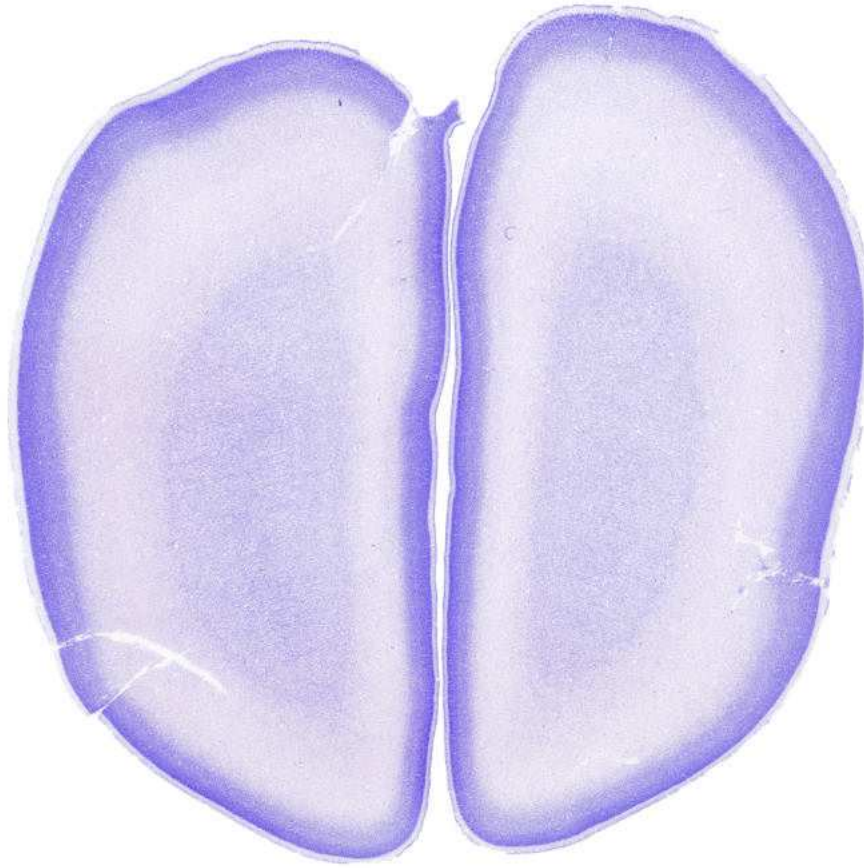


5 mm

Age: 22 GW

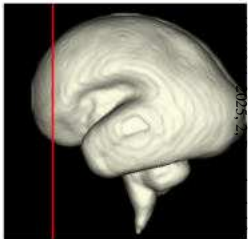
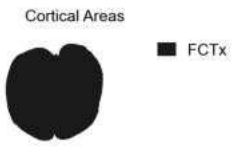
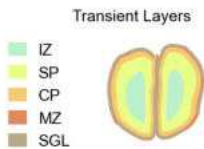


A-P Level: 17.82 mm

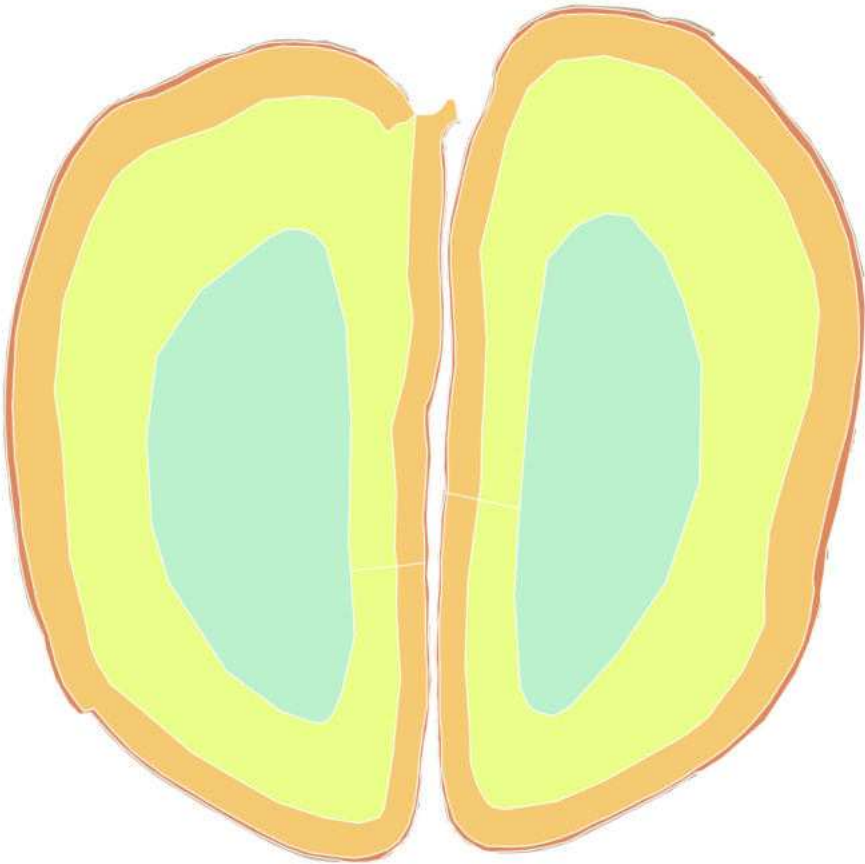


5 mm

Age: 22 GW



A-P Level: 17.82 mm

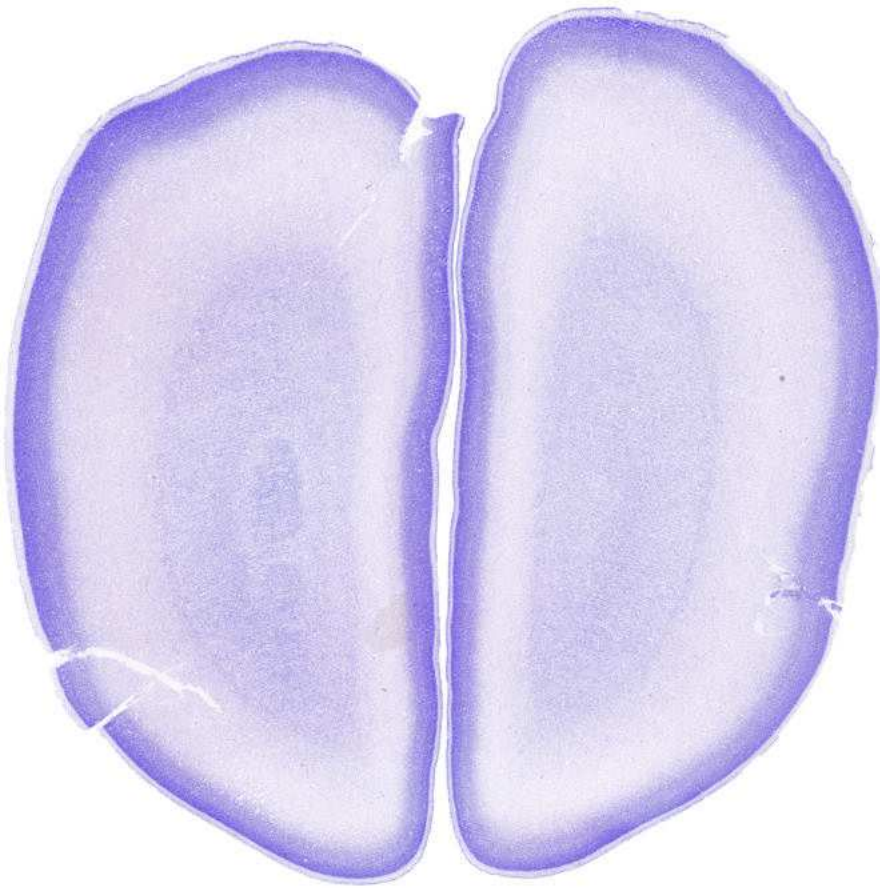


5 mm

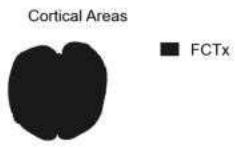
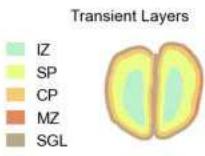
Age: 22 GW



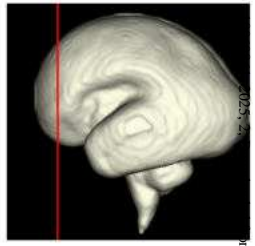
A-P Level: 17.4 mm



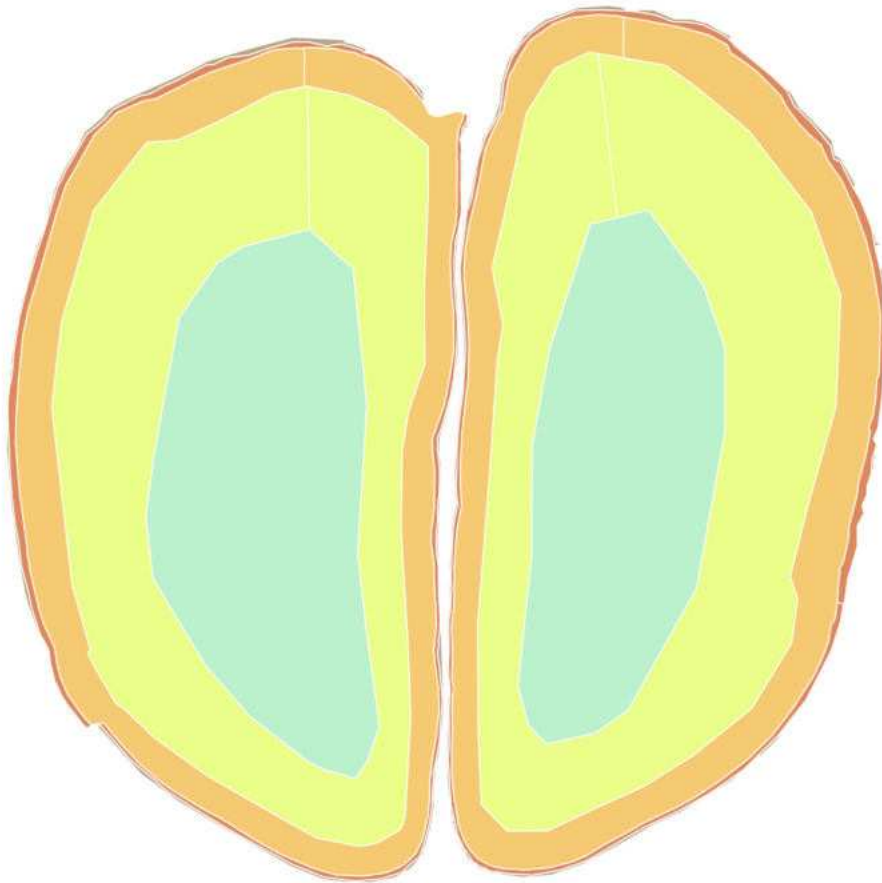
5 mm



Age: 22 GW



A-P Level: 17.4 mm

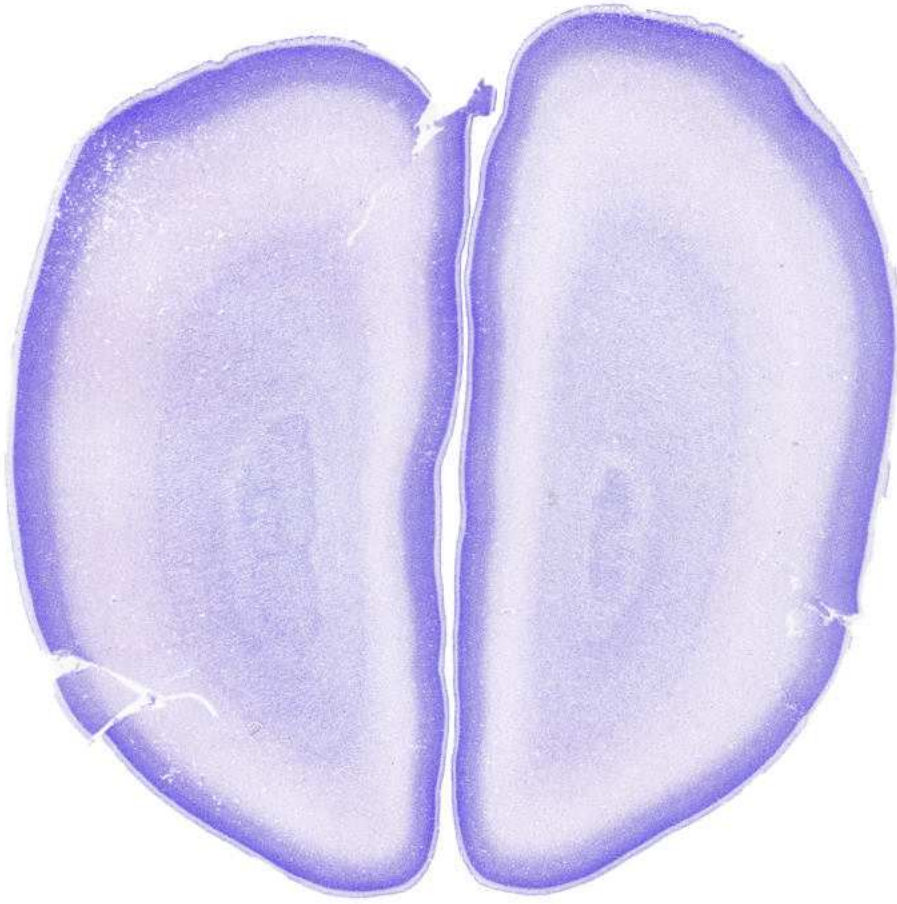


5 mm

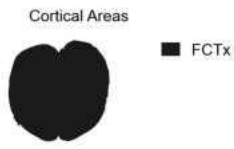
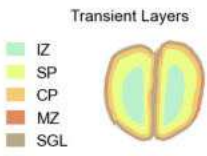
Age: 22 GW



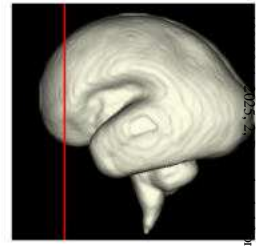
A-P Level: 16.98 mm



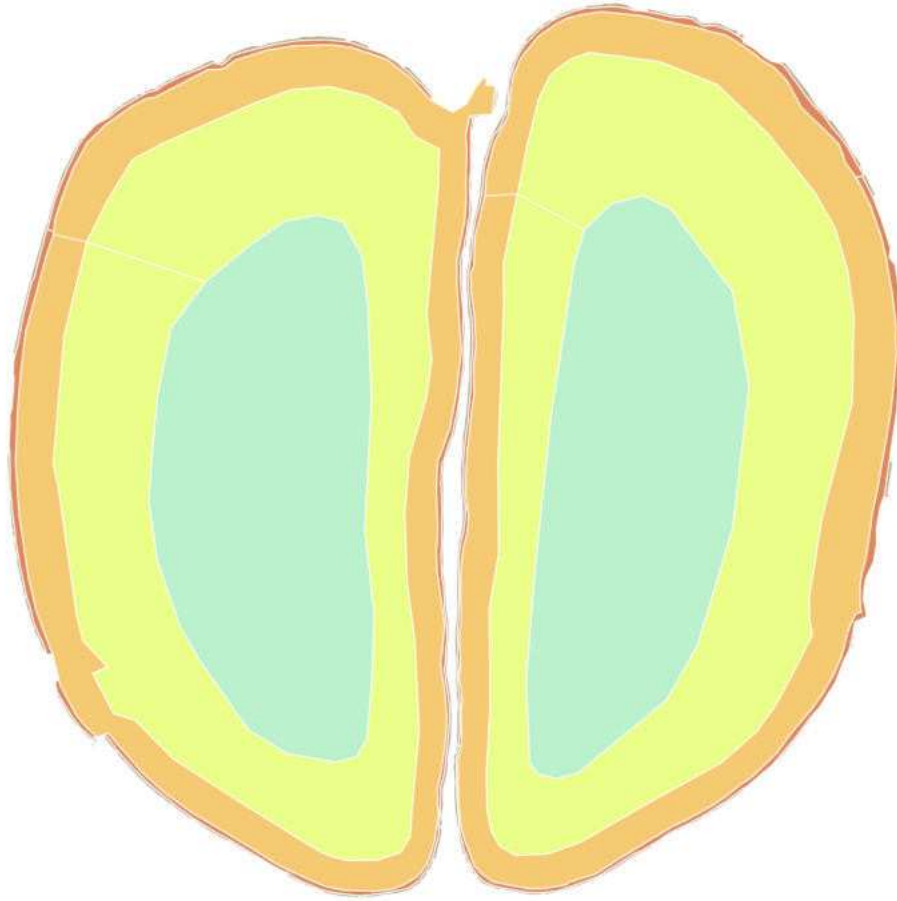
5 mm



Age: 22 GW



A-P Level: 16.98 mm

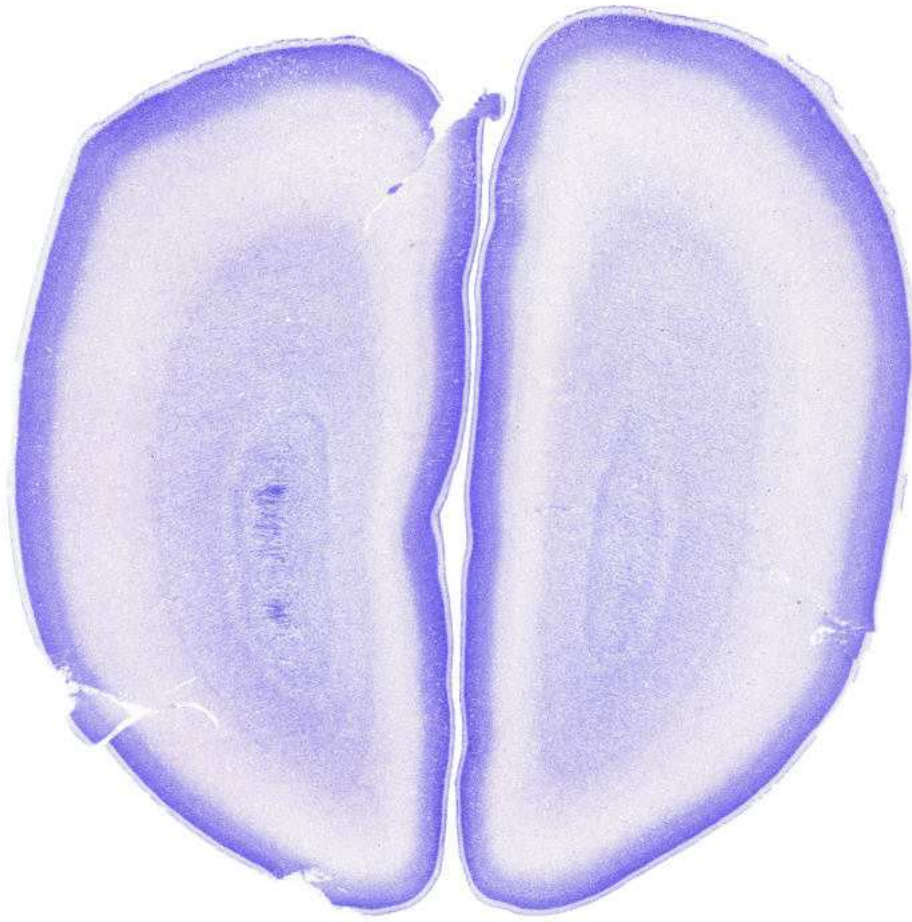


5 mm

Age: 22 GW

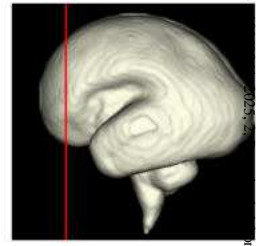
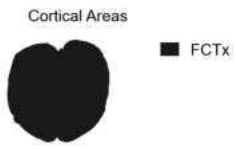
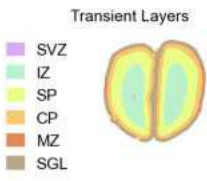


A-P Level: 16.56 mm

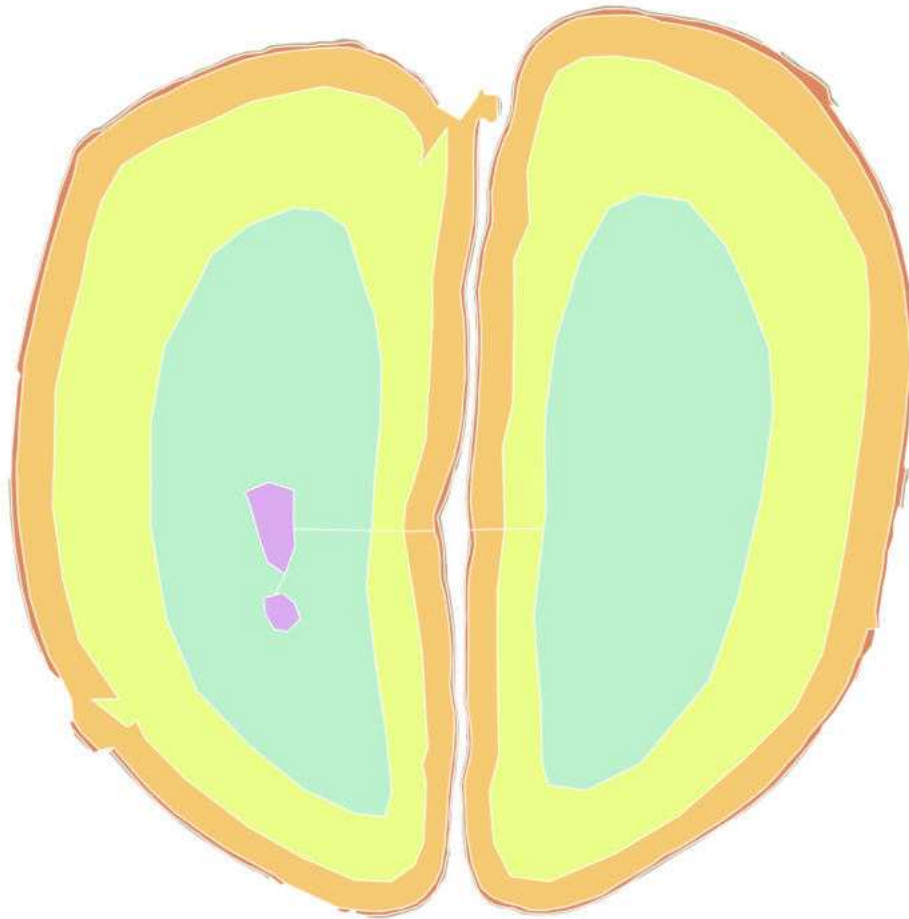


5 mm

Age: 22 GW



A-P Level: 16.56 mm

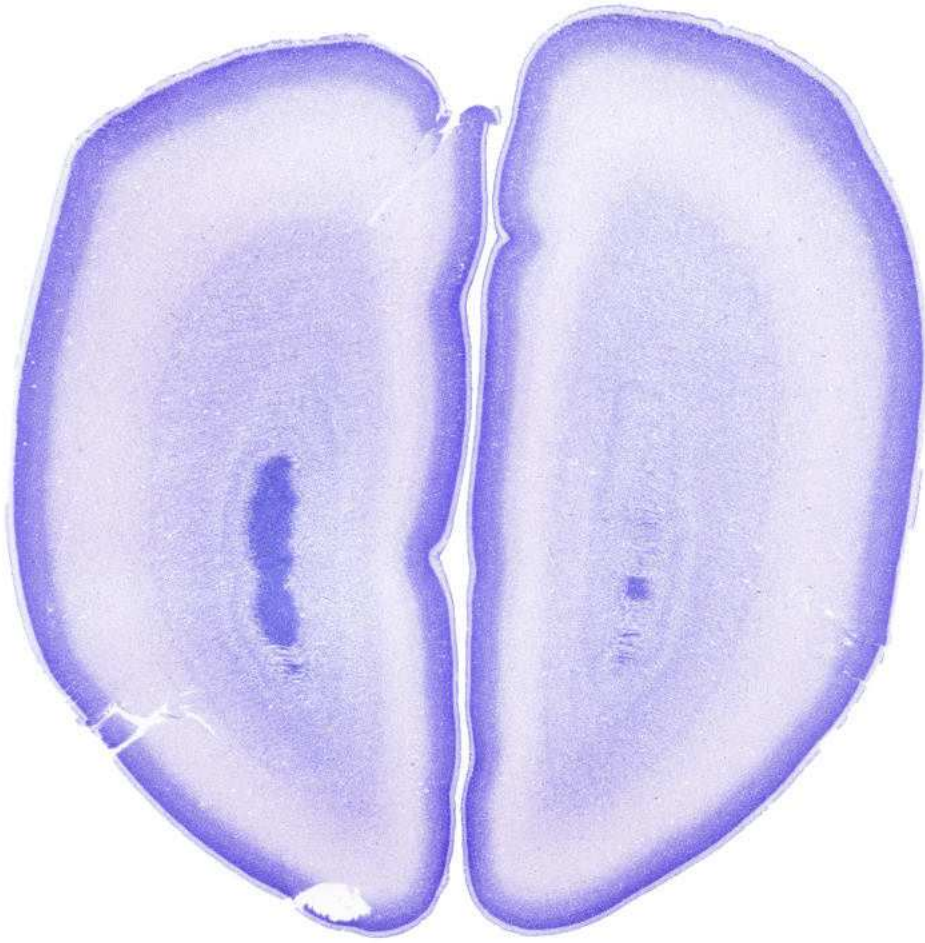


5 mm

Age: 22 GW

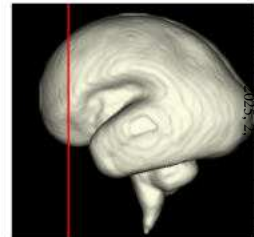
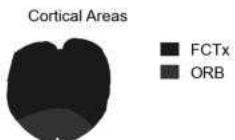
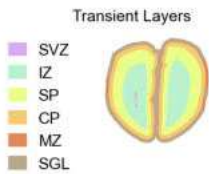


A-P Level: 16.02 mm



5 mm

Age: 22 GW



A-P Level: 16.02 mm

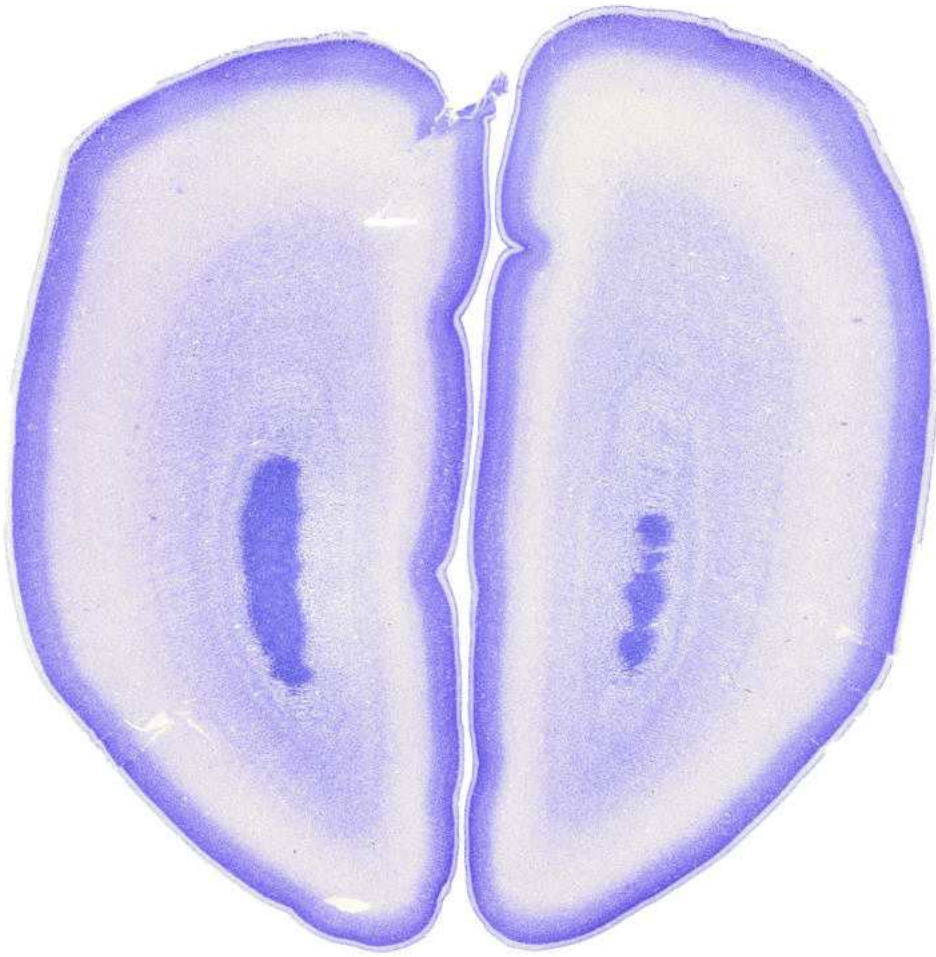


5 mm

Age: 22 GW

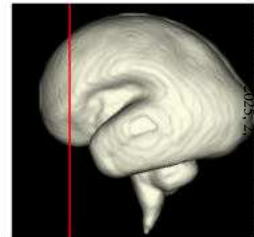
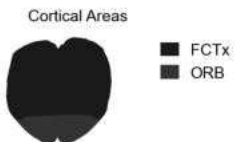
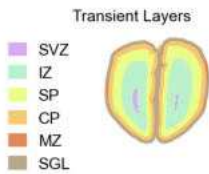


A-P Level: 15.66 mm

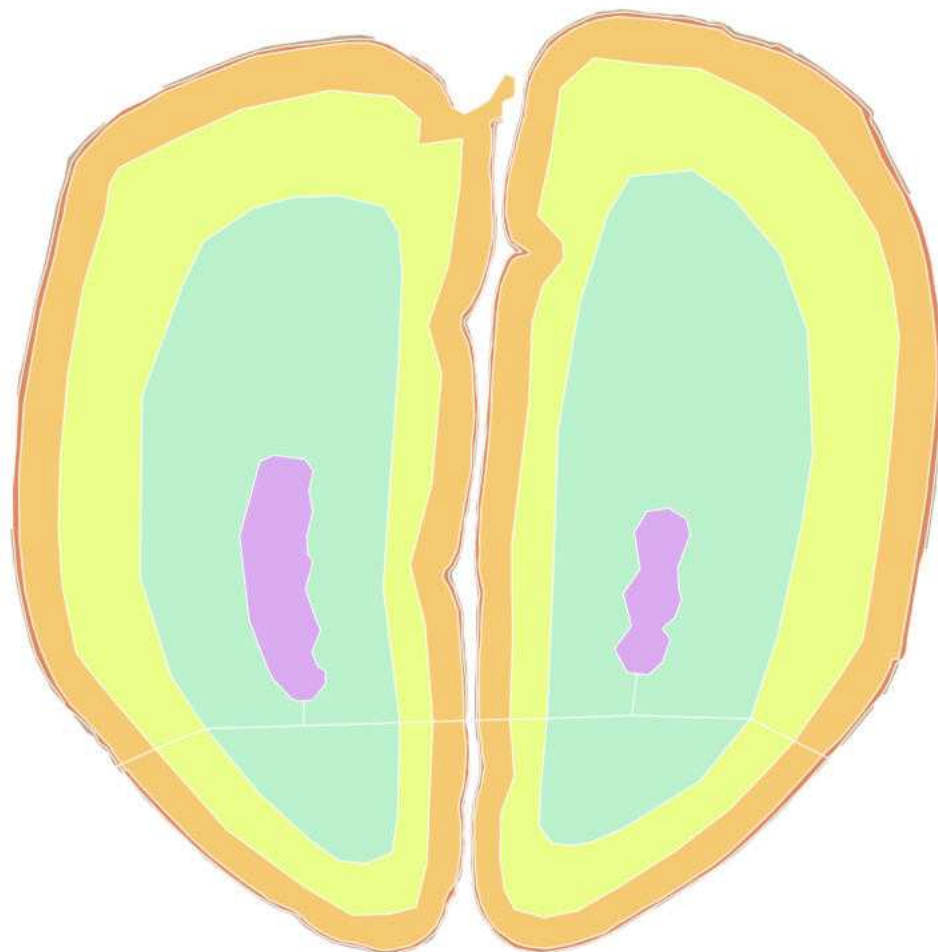


5 mm

Age: 22 GW



A-P Level: 15.66 mm

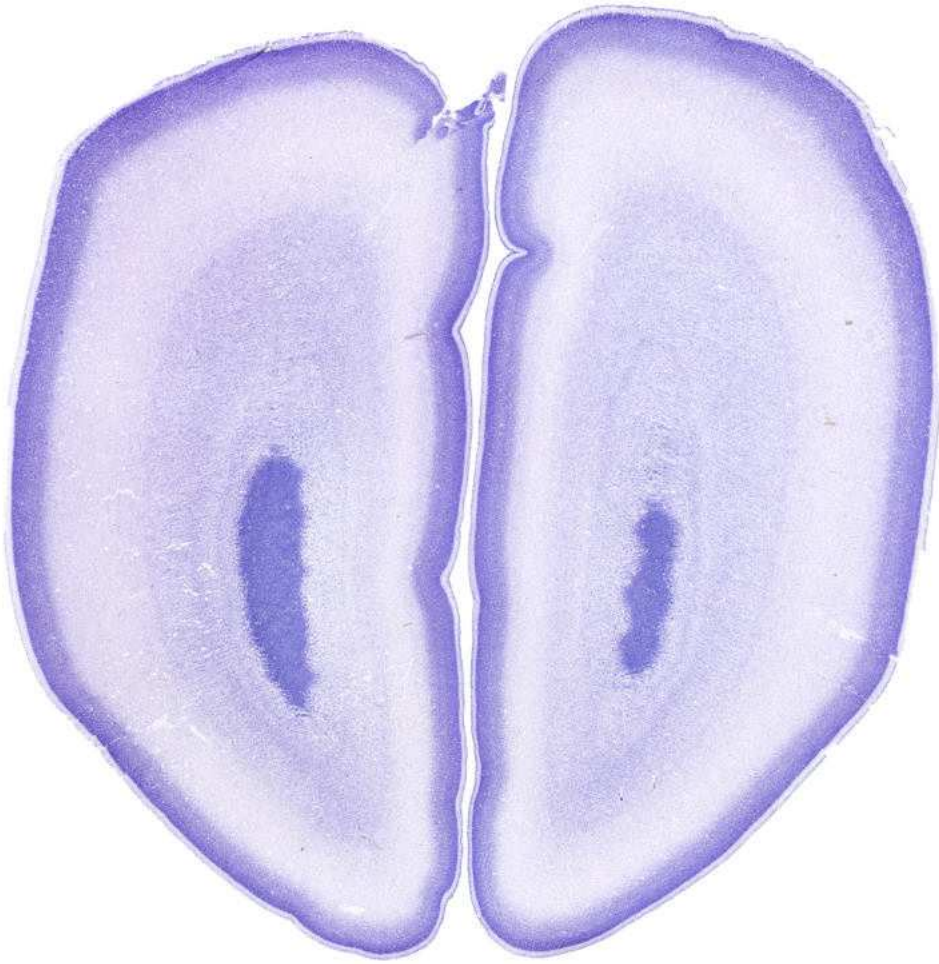


5 mm

Age: 22 GW

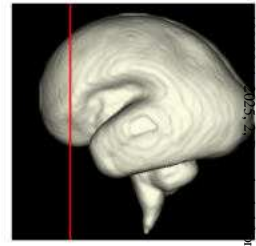
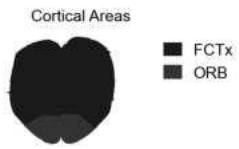
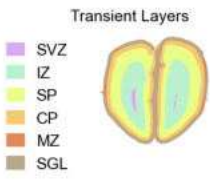


A-P Level: 15.48 mm

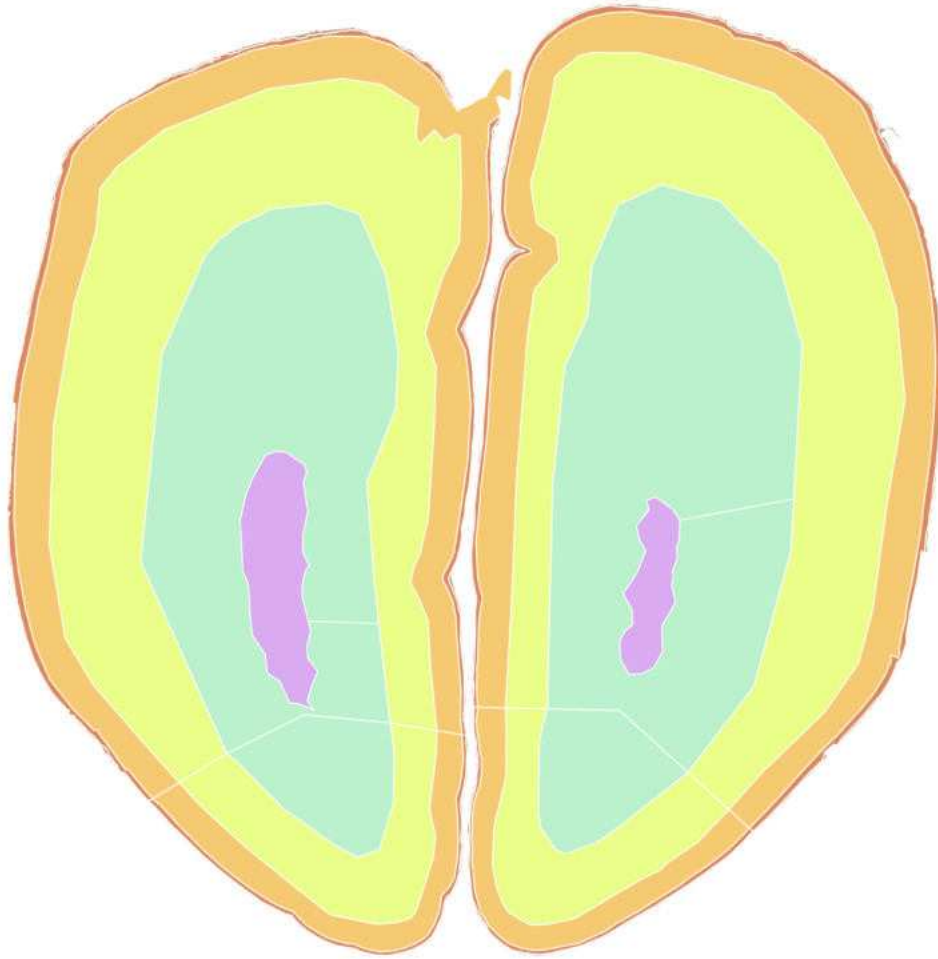


5 mm

Age: 22 GW



A-P Level: 15.48 mm

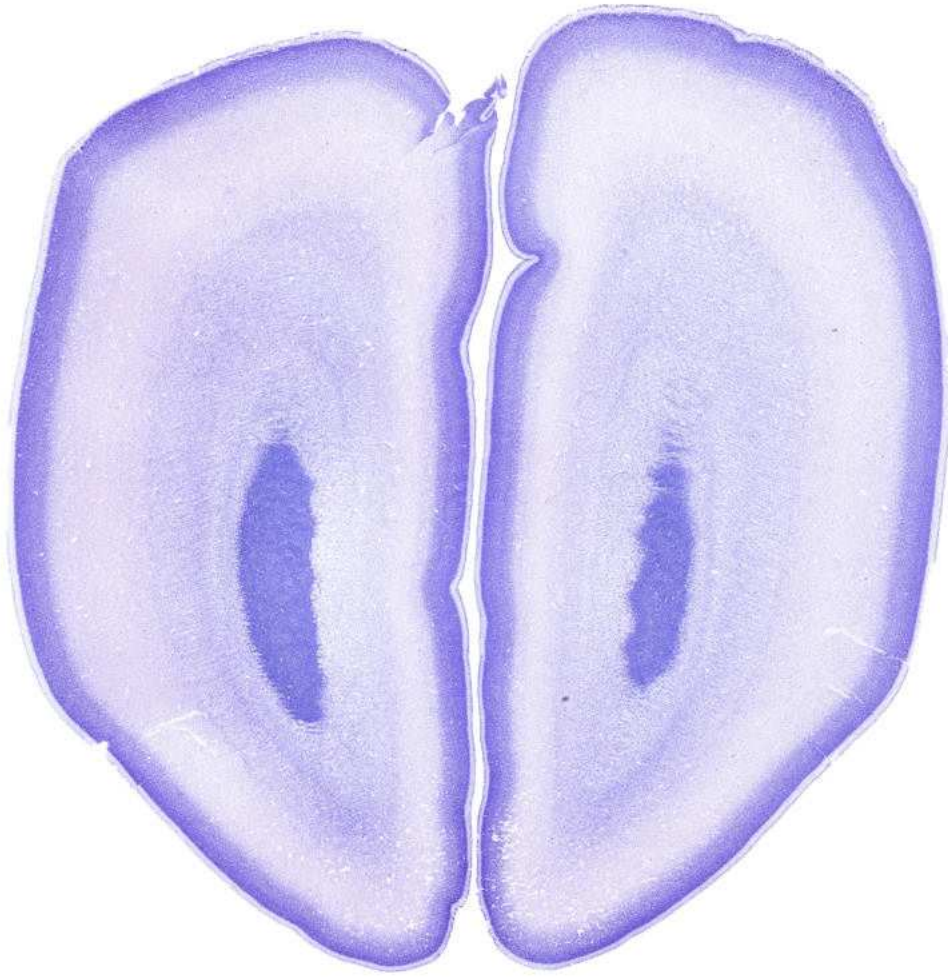


5 mm

Age: 22 GW

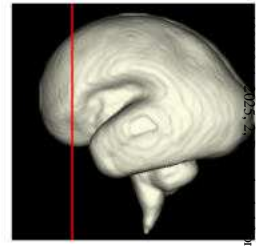
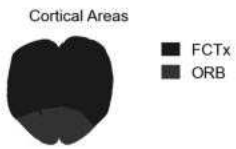
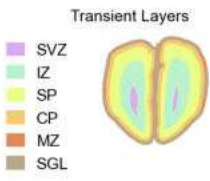


A-P Level: 15.12 mm

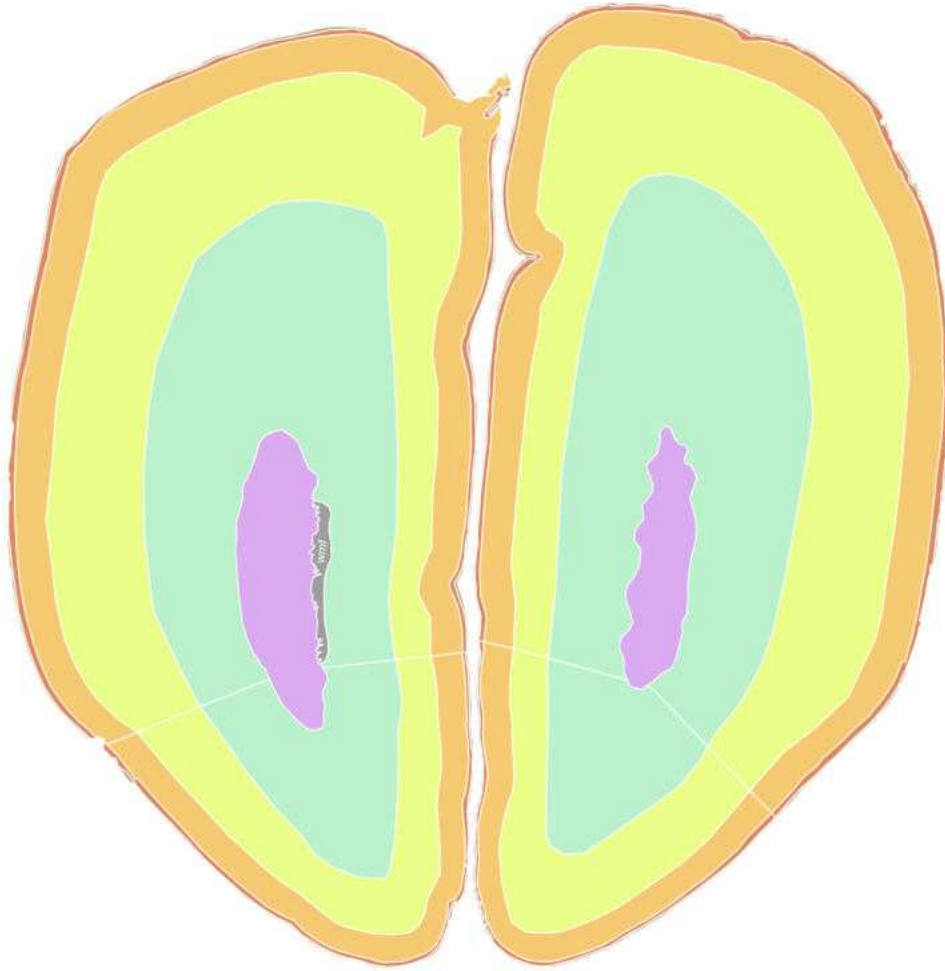


5 mm

Age: 22 GW



A-P Level: 15.12 mm



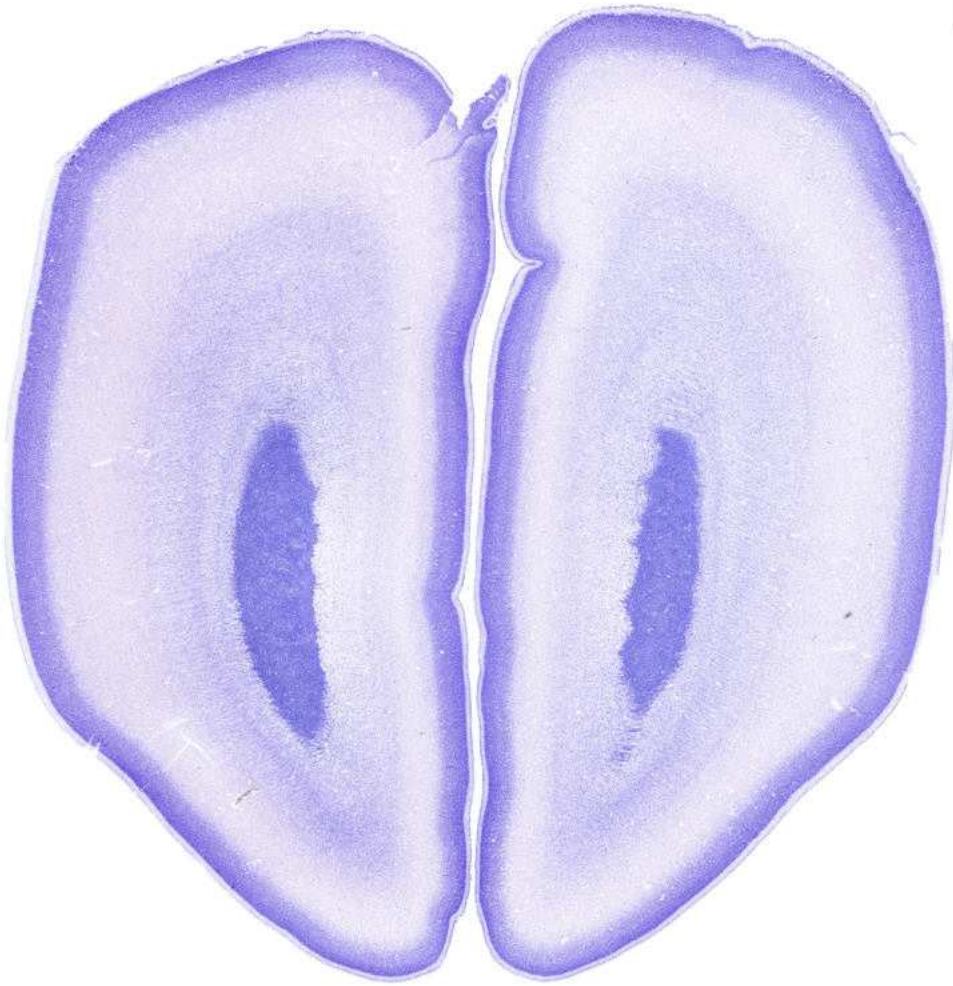
■ wmf: White matter fibers

5 mm

Age: 22 GW

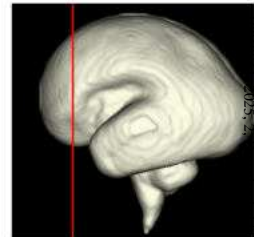
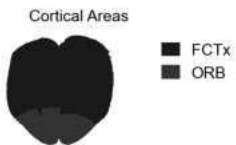
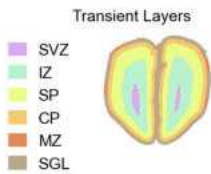


A-P Level: 14.82 mm

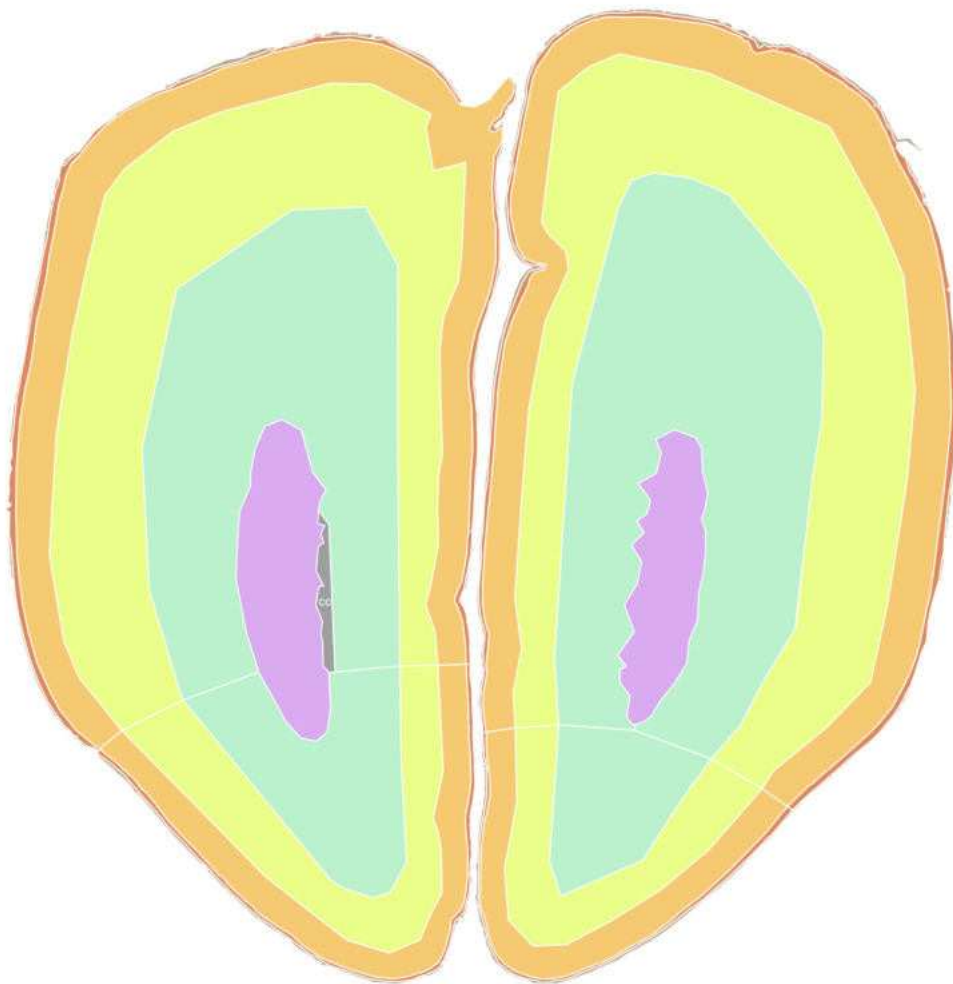


5 mm

Age: 22 GW



A-P Level: 14.82 mm



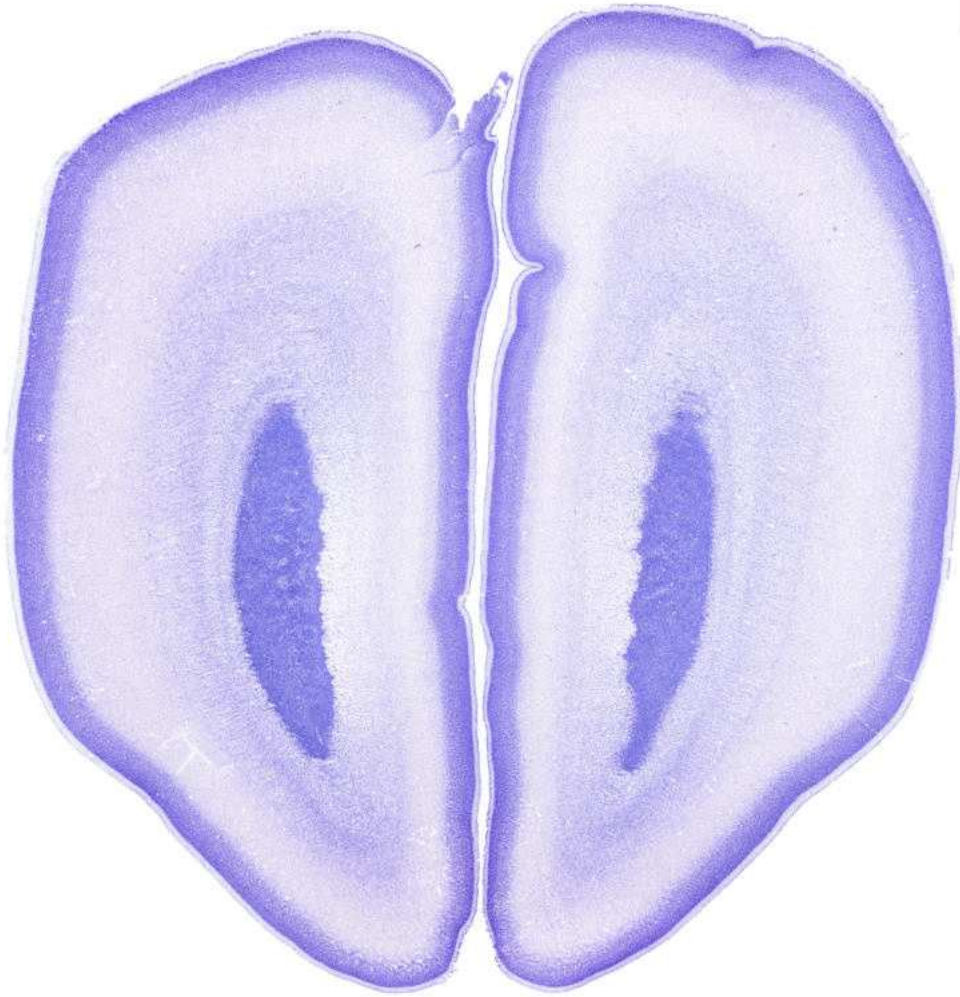
cc: Corpus callosum

5 mm

Age: 22 GW

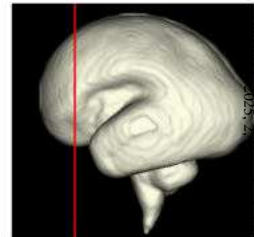
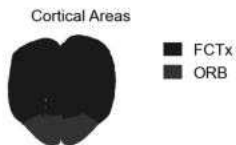
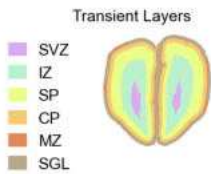


A-P Level: 14.46 mm

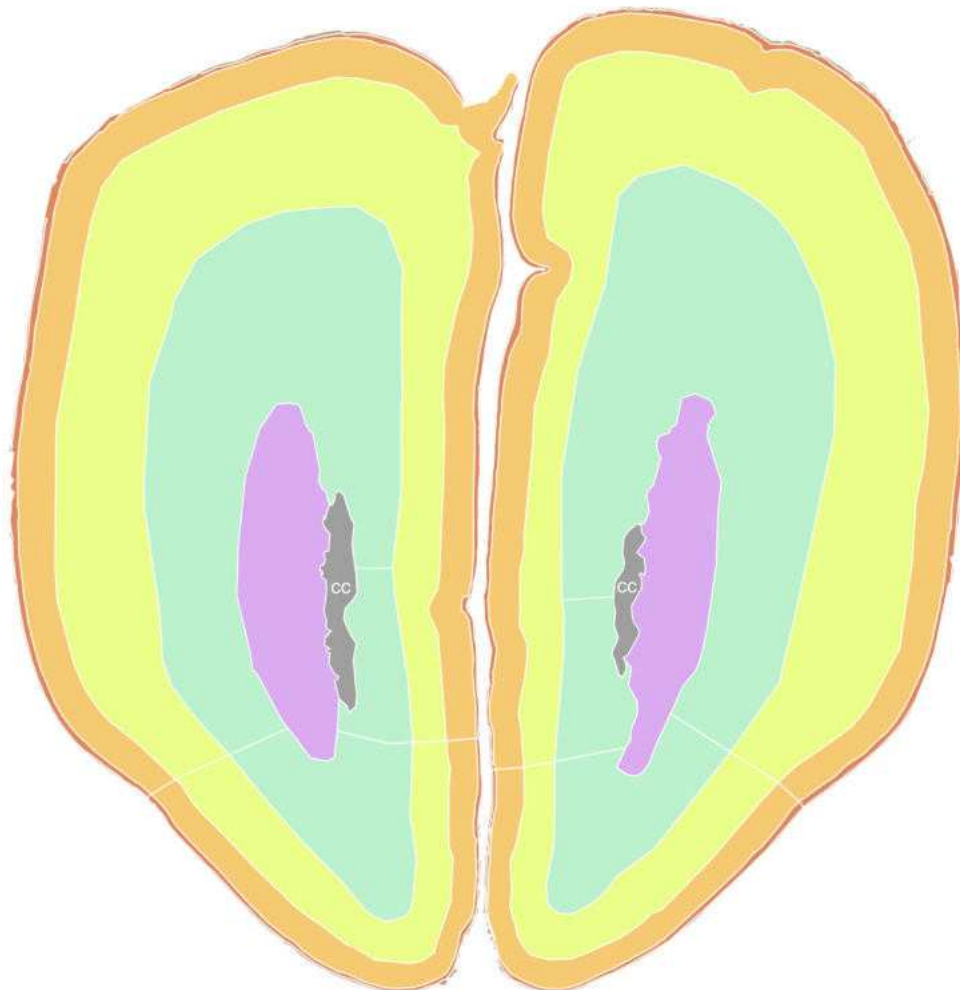


5 mm

Age: 22 GW



A-P Level: 14.46 mm



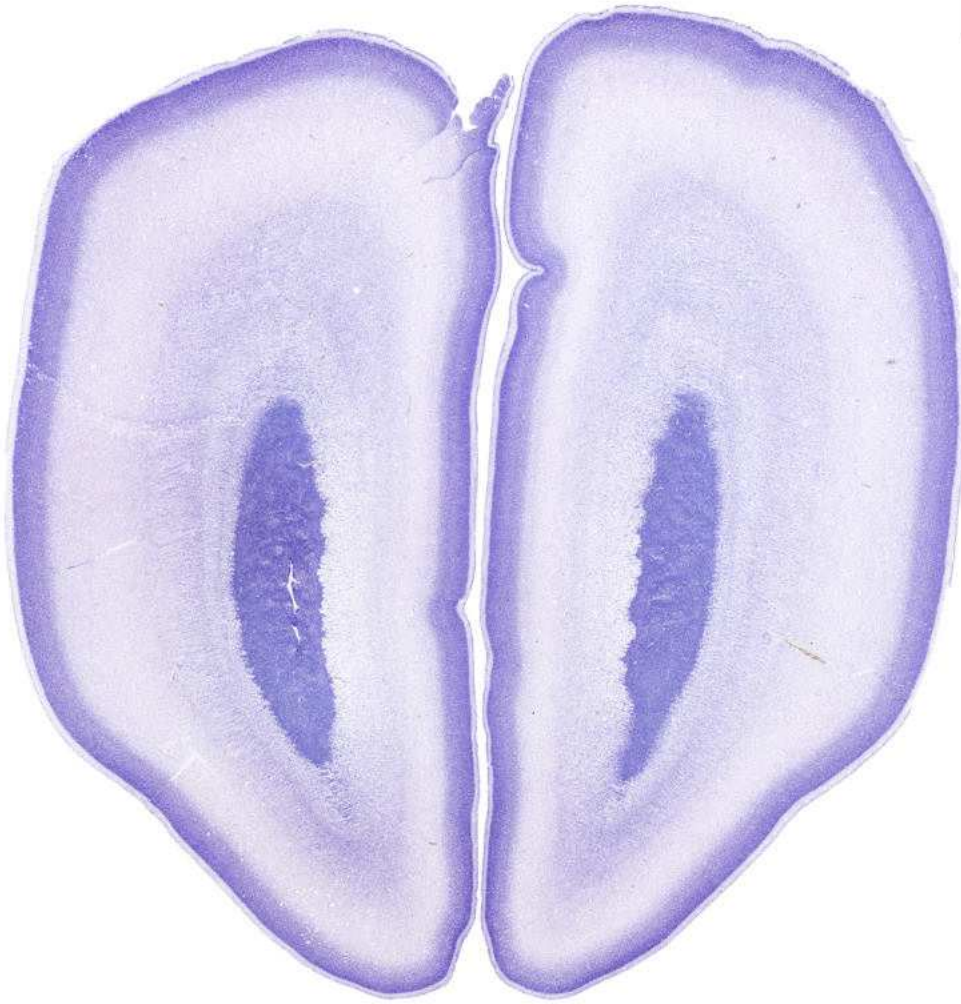
5 mm

■ cc: Corpus callosum

Age: 22 GW

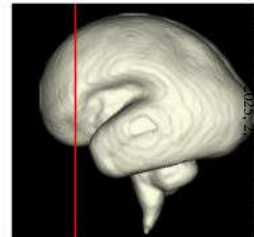
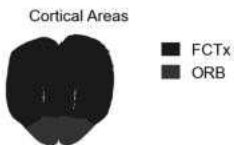
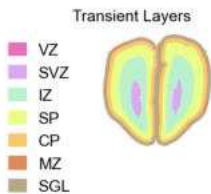


A-P Level: 14.28 mm



5 mm

Age: 22 GW



A-P Level: 14.28 mm



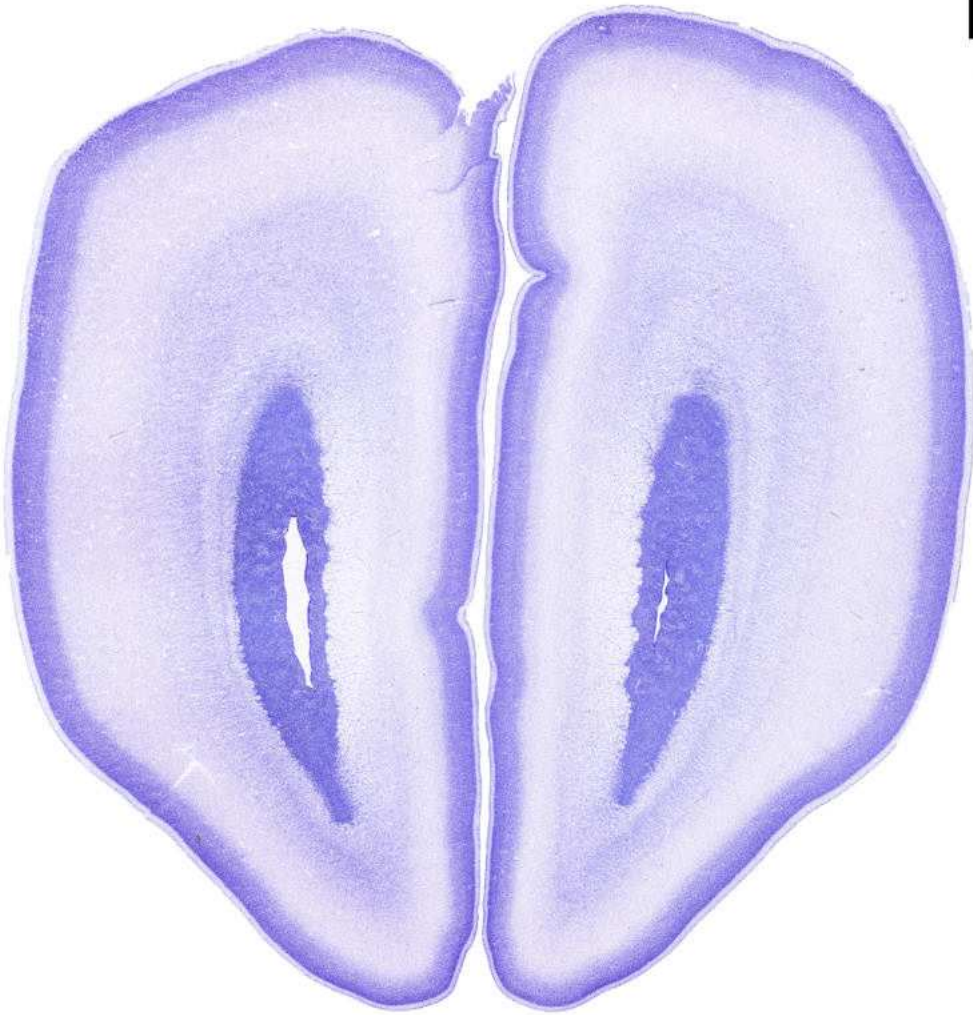
5 mm

■ LV: Lateral ventricle ■ cc: Corpus callosum

Age: 22 GW

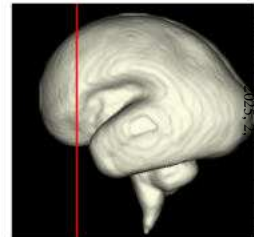
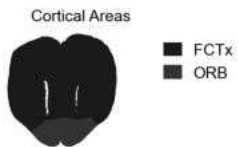
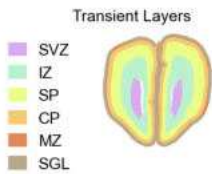


A-P Level: 13.92 mm



5 mm

Age: 22 GW



A-P Level: 13.92 mm



■ LV: Lateral ventricle ■ cc: Corpus callosum

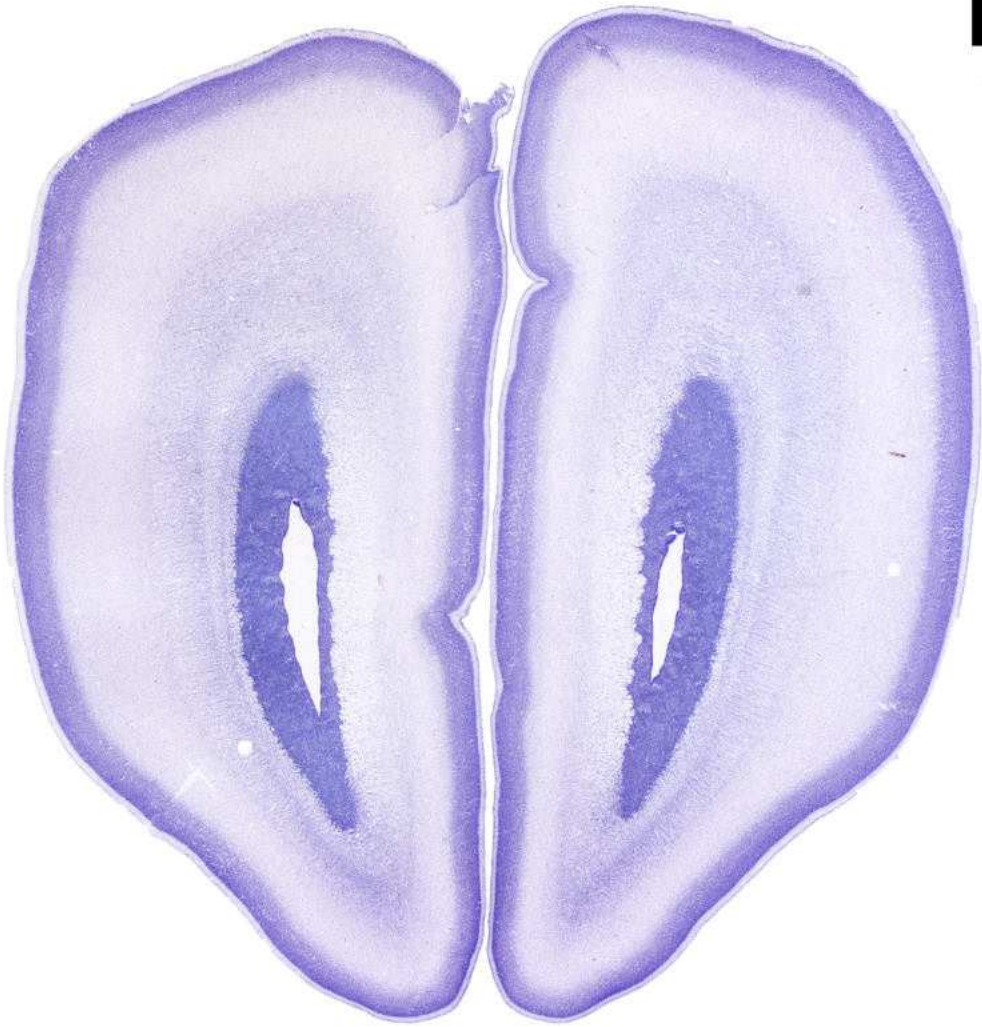
5 mm

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Age: 22 GW

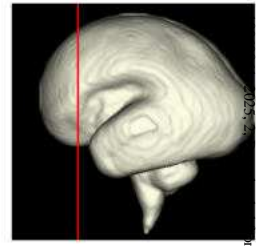
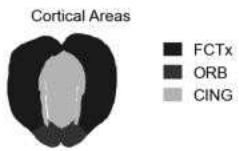
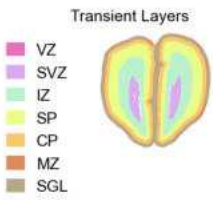


A-P Level: 13.56 mm

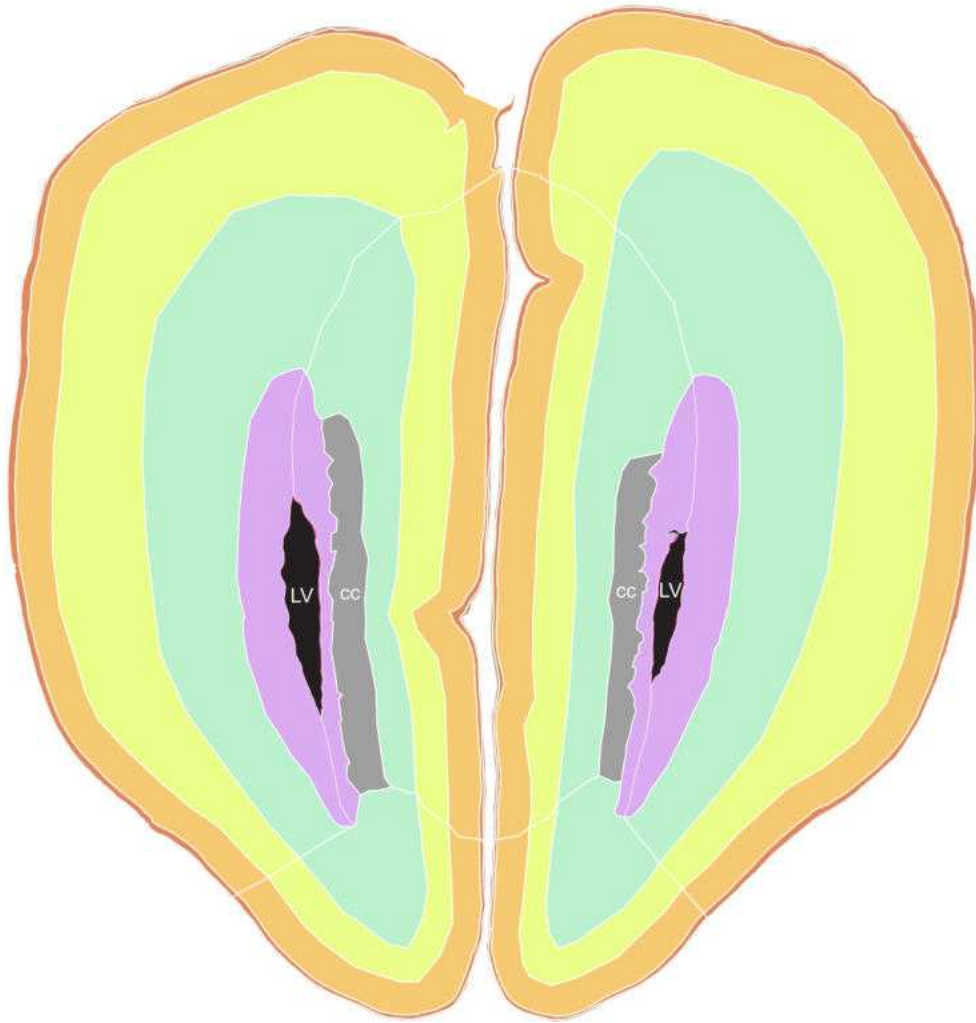


5 mm

Age: 22 GW



A-P Level: 13.56 mm



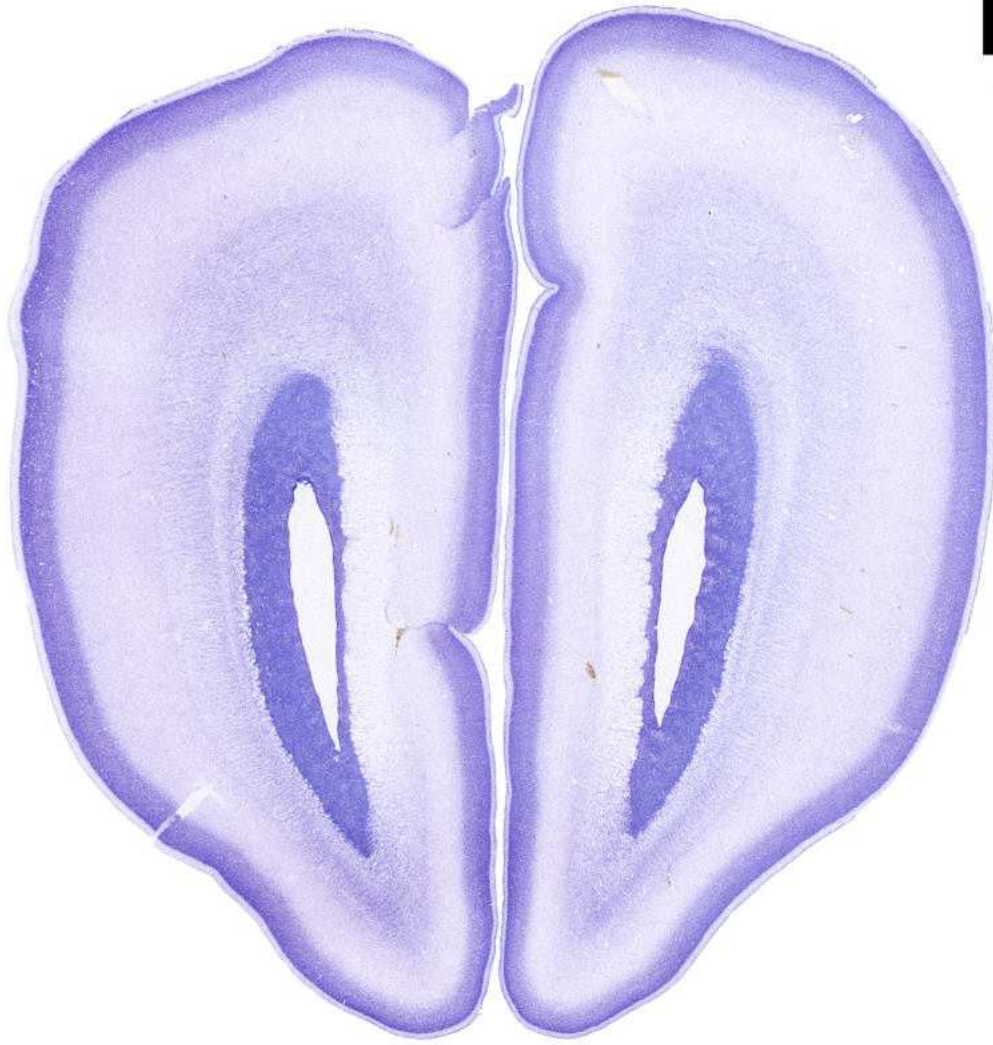
5 mm

■ LV: Lateral ventricle ■ cc: Corpus callosum

Age: 22 GW

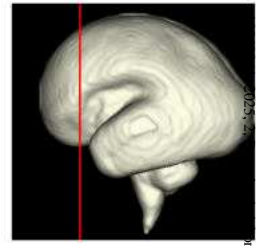
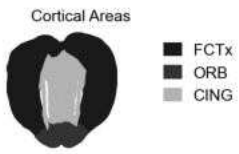
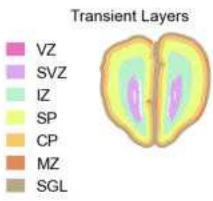


A-P Level: 13.14 mm



5 mm

Age: 22 GW



A-P Level: 13.14 mm



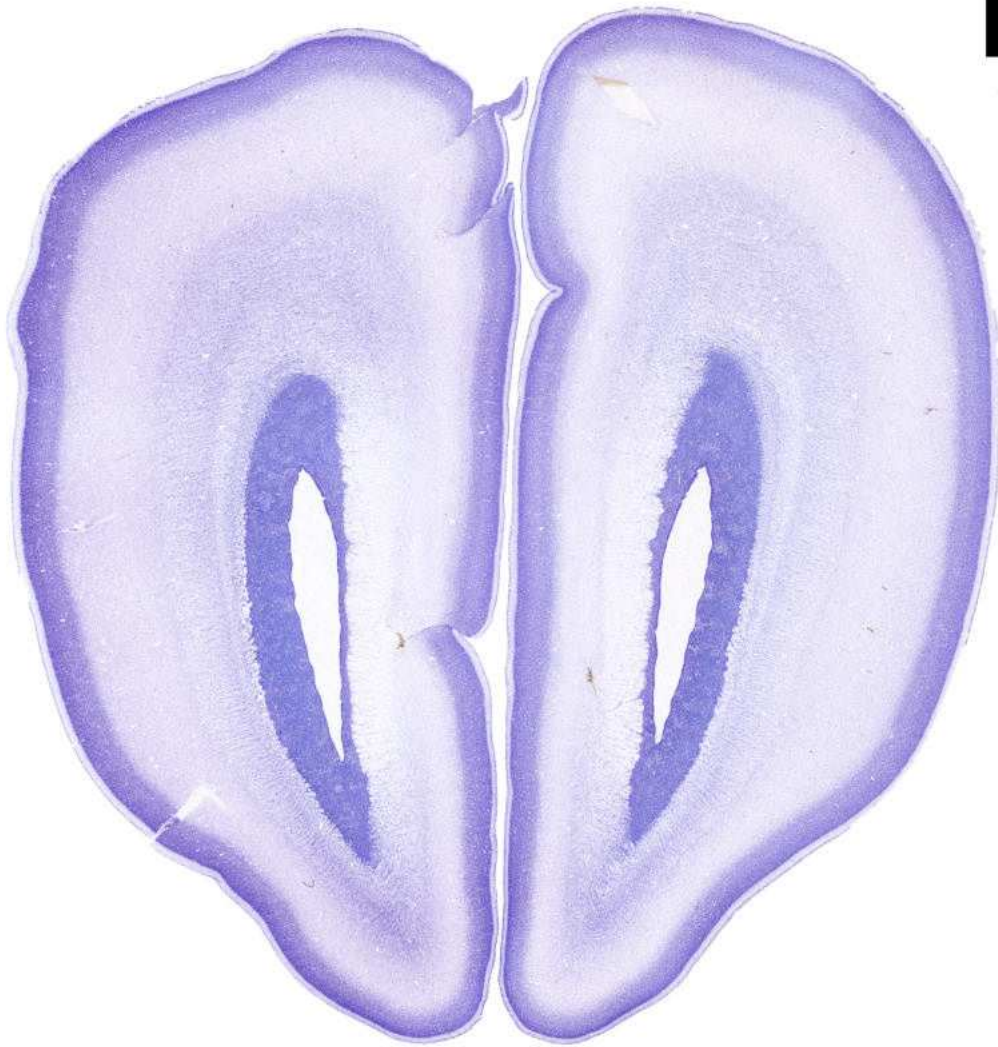
5 mm

■ LV: Lateral ventricle ■ cc: Corpus callosum ■ int: Internal capsule

Age: 22 GW

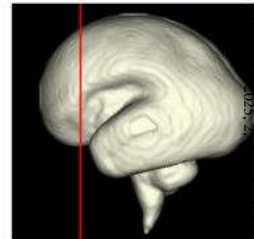


A-P Level: 12.96 mm

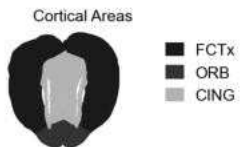
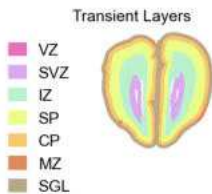


5 mm

Age: 22 GW



A-P Level: 12.96 mm



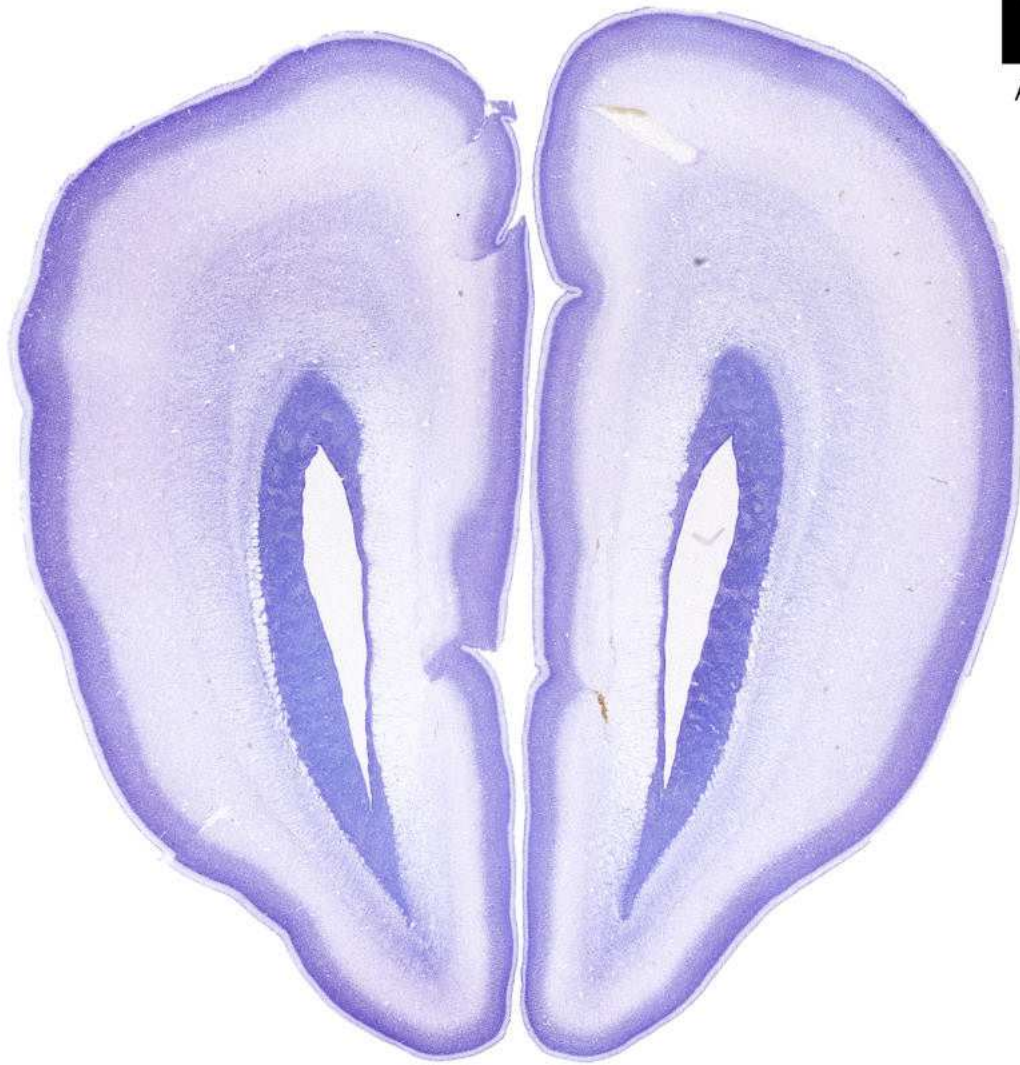
5 mm

LV: Lateral ventricle
 cc: Corpus callosum
 int: Internal capsule

Age: 22 GW

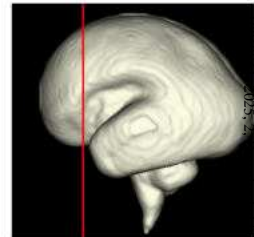


A-P Level: 12.36 mm

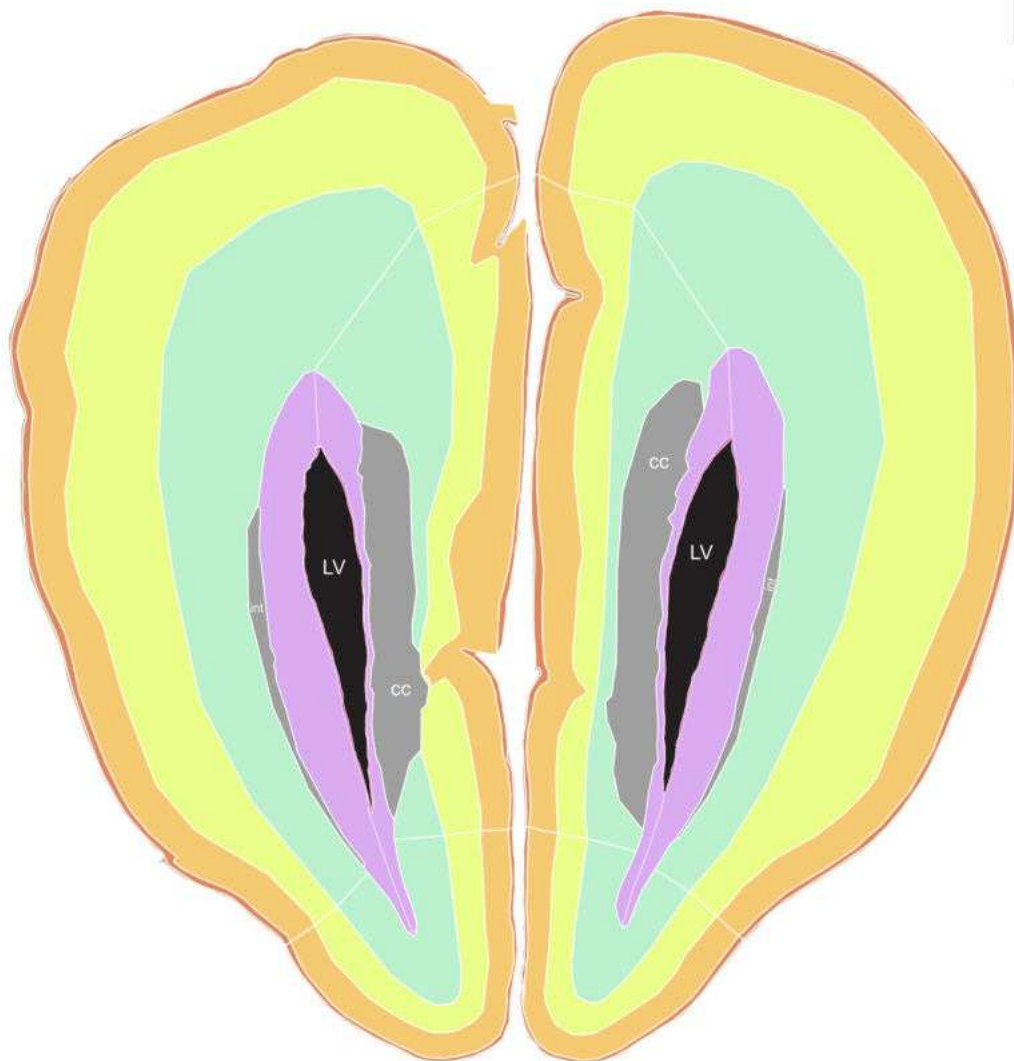
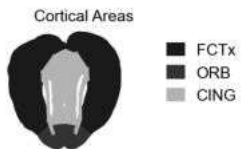
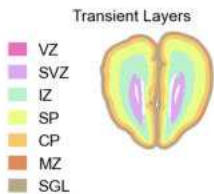


5 mm

Age: 22 GW



A-P Level: 12.36 mm



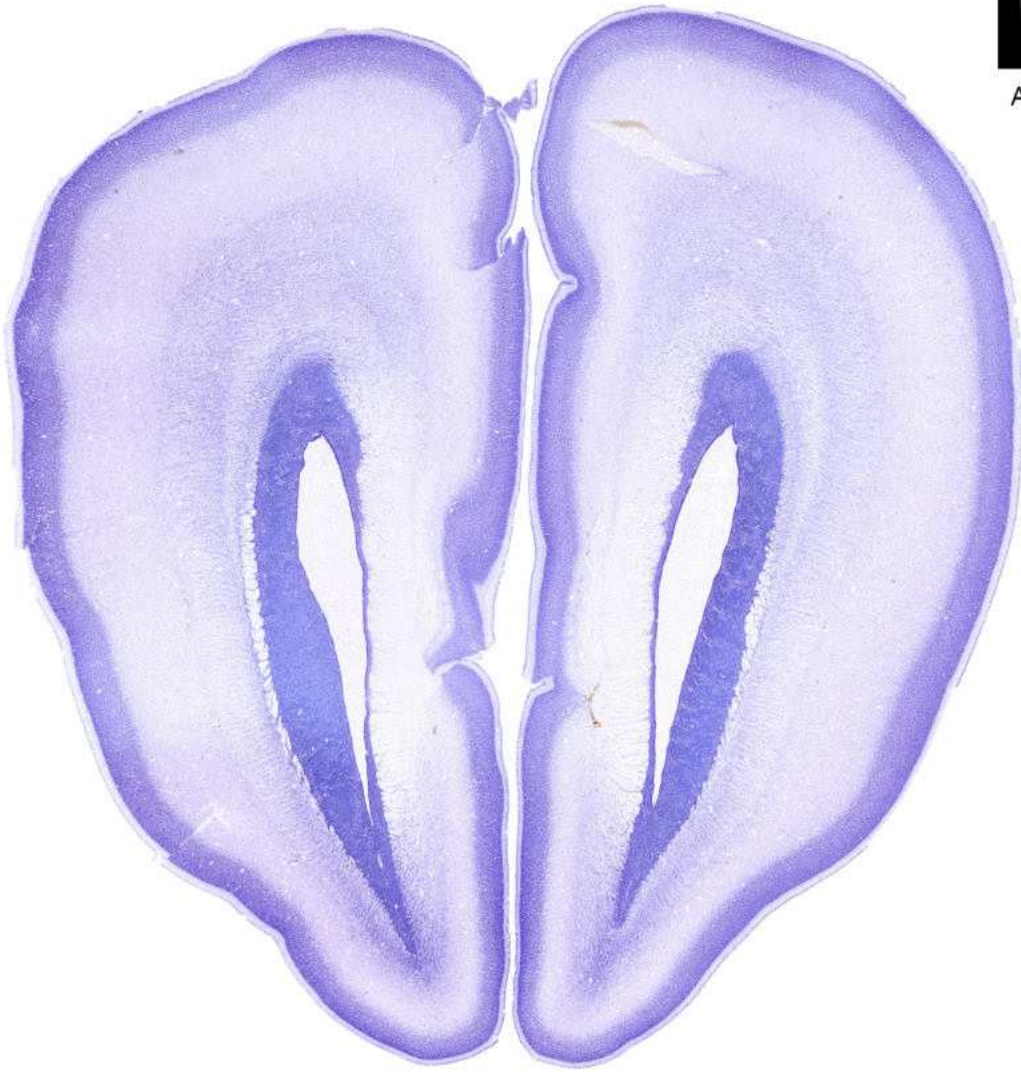
5 mm

LV: Lateral ventricle
 cc: Corpus callosum
 int: Internal capsule

Age: 22 GW

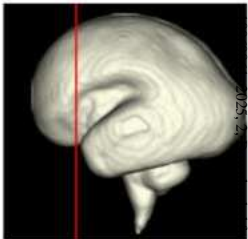


A-P Level: 12.06 mm

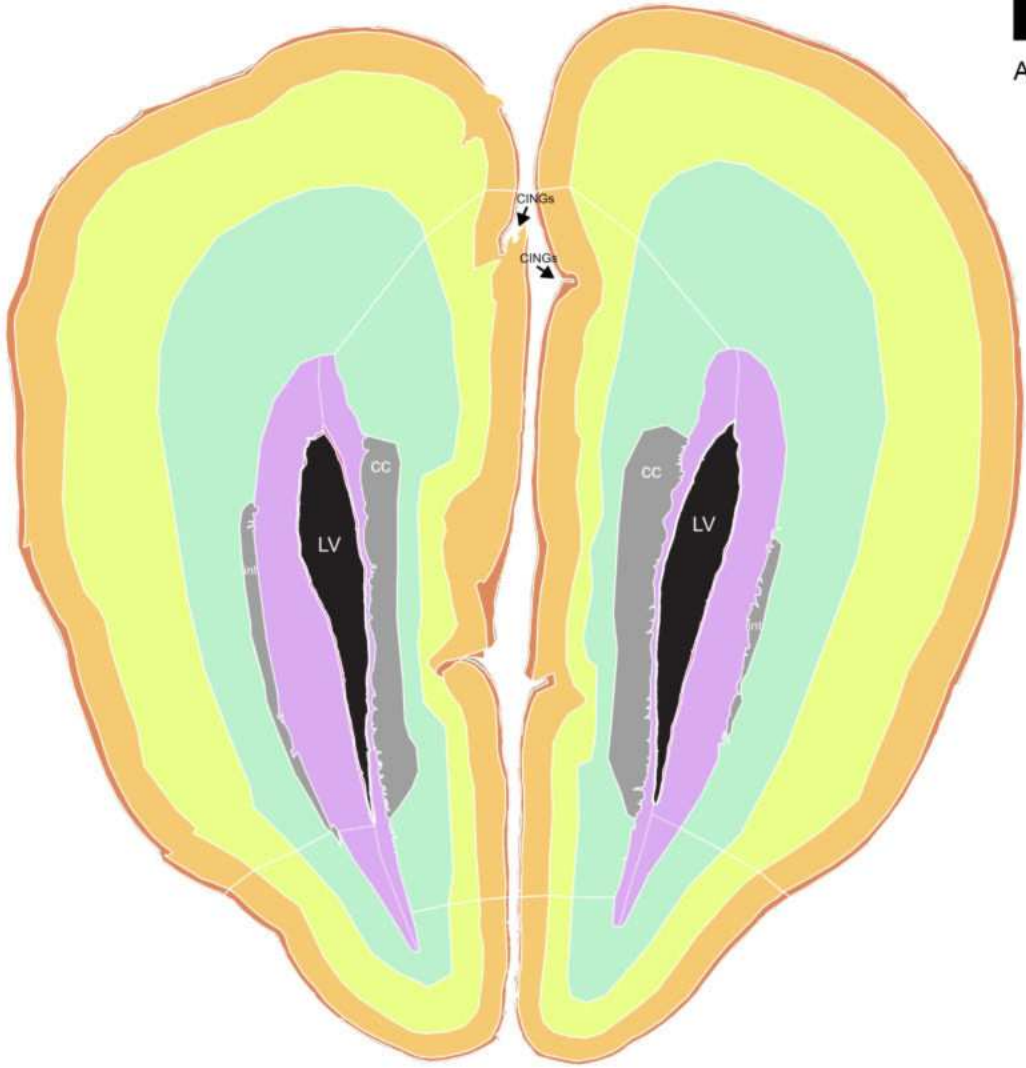
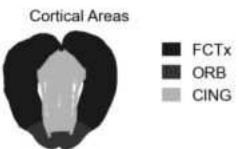
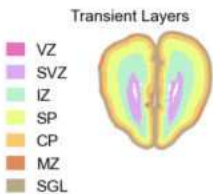


5 mm

Age: 22 GW



A-P Level: 12.06 mm



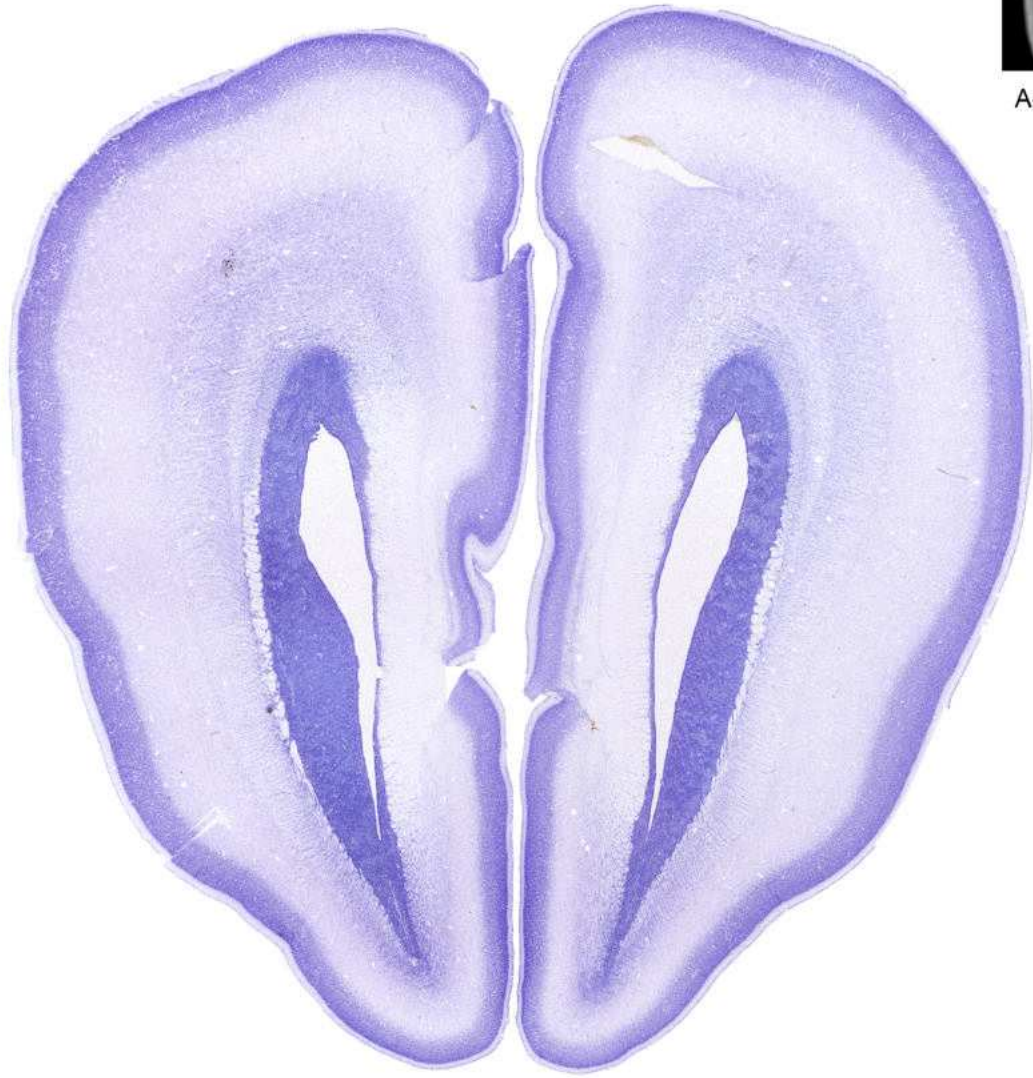
5 mm

■ LV: Lateral ventricle ■ cc: Corpus callosum ■ int: Internal capsule → CINGs: Cingulate sulcus

Age: 22 GW

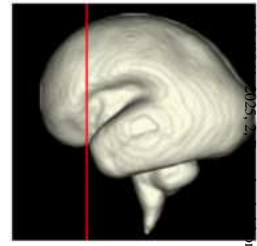
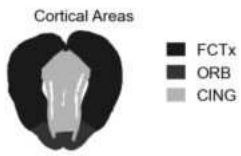
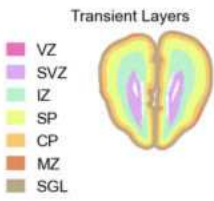


A-P Level: 11.64 mm



5 mm

Age: 22 GW



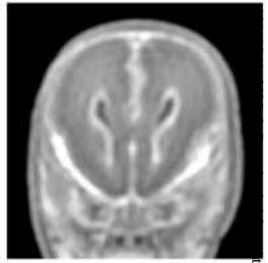
A-P Level: 11.64 mm



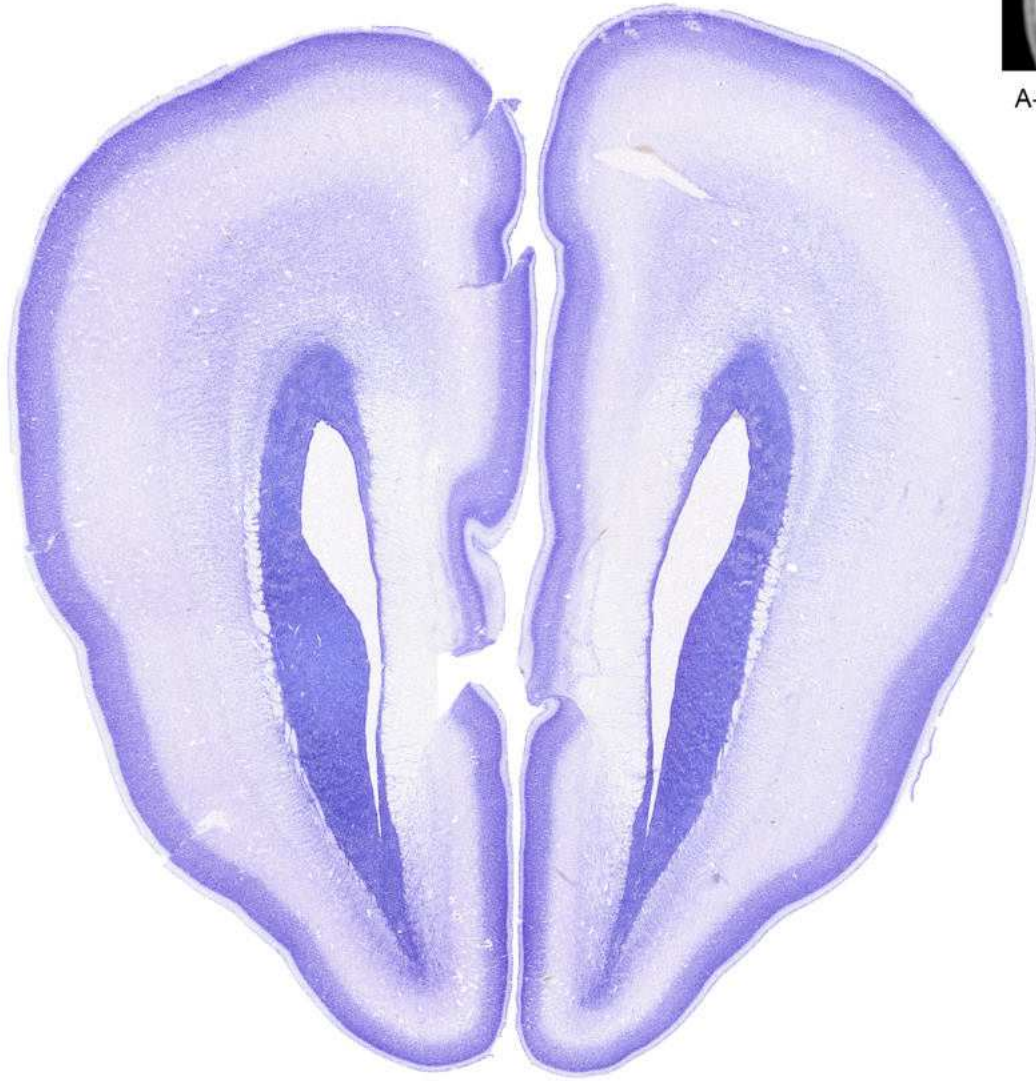
5 mm

■ LV: Lateral ventricle ■ cc: Corpus callosum ■ int: Internal capsule → CINGs: Cingulate sulcus

Age: 22 GW

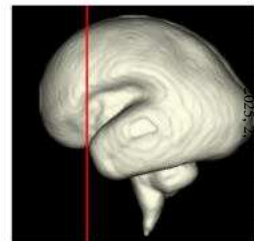


A-P Level: 11.4 mm

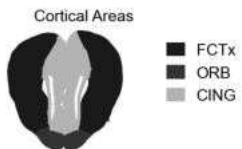
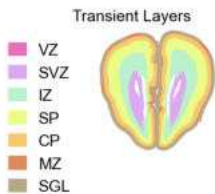


5 mm

Age: 22 GW



A-P Level: 11.4 mm



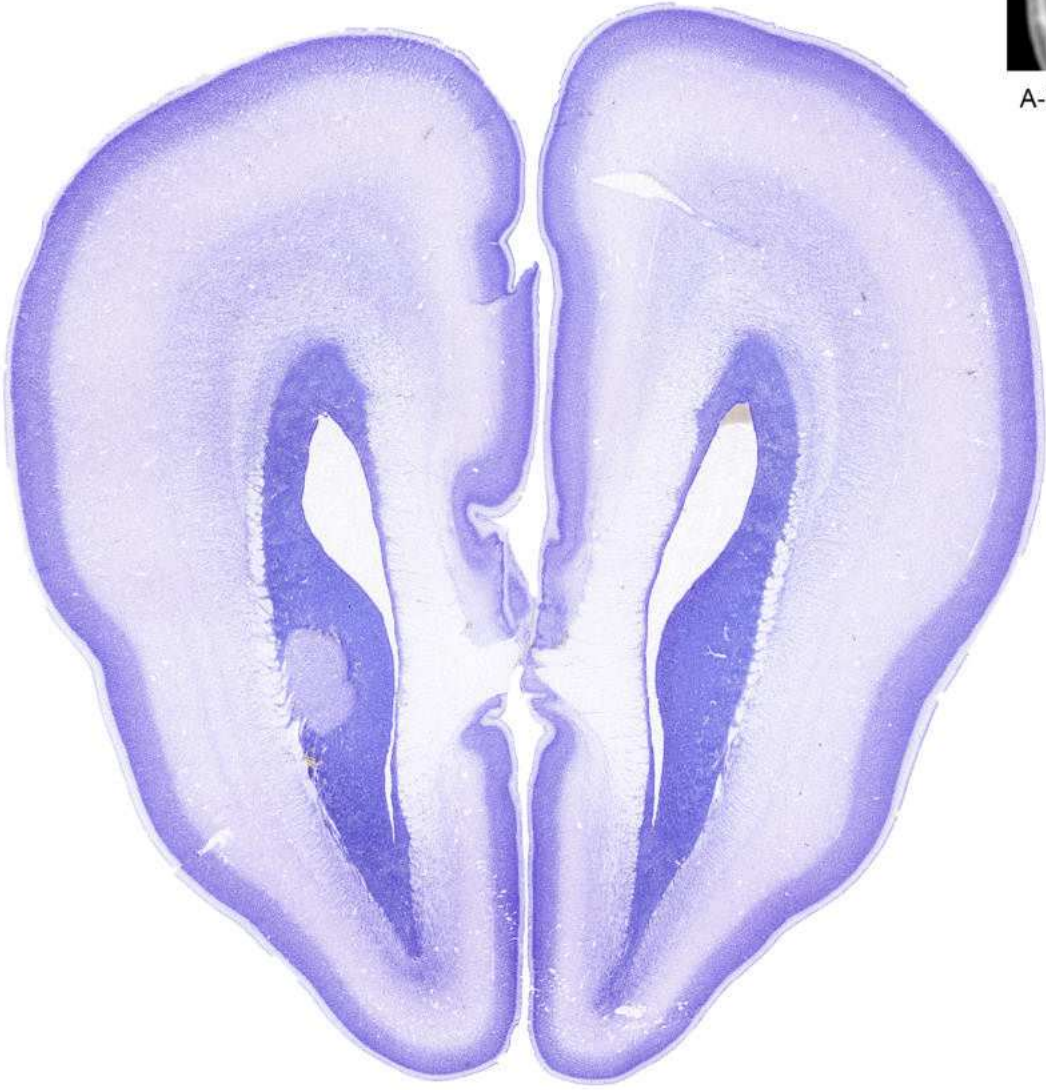
5 mm

■ LV: Lateral ventricle ■ cc: Corpus callosum ■ int: Internal capsule

Age: 22 GW

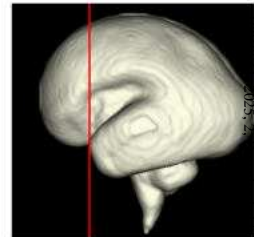


A-P Level: 10.86 mm

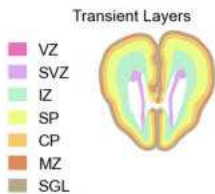


5 mm

Age: 22 GW



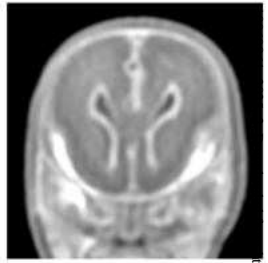
A-P Level: 10.86 mm



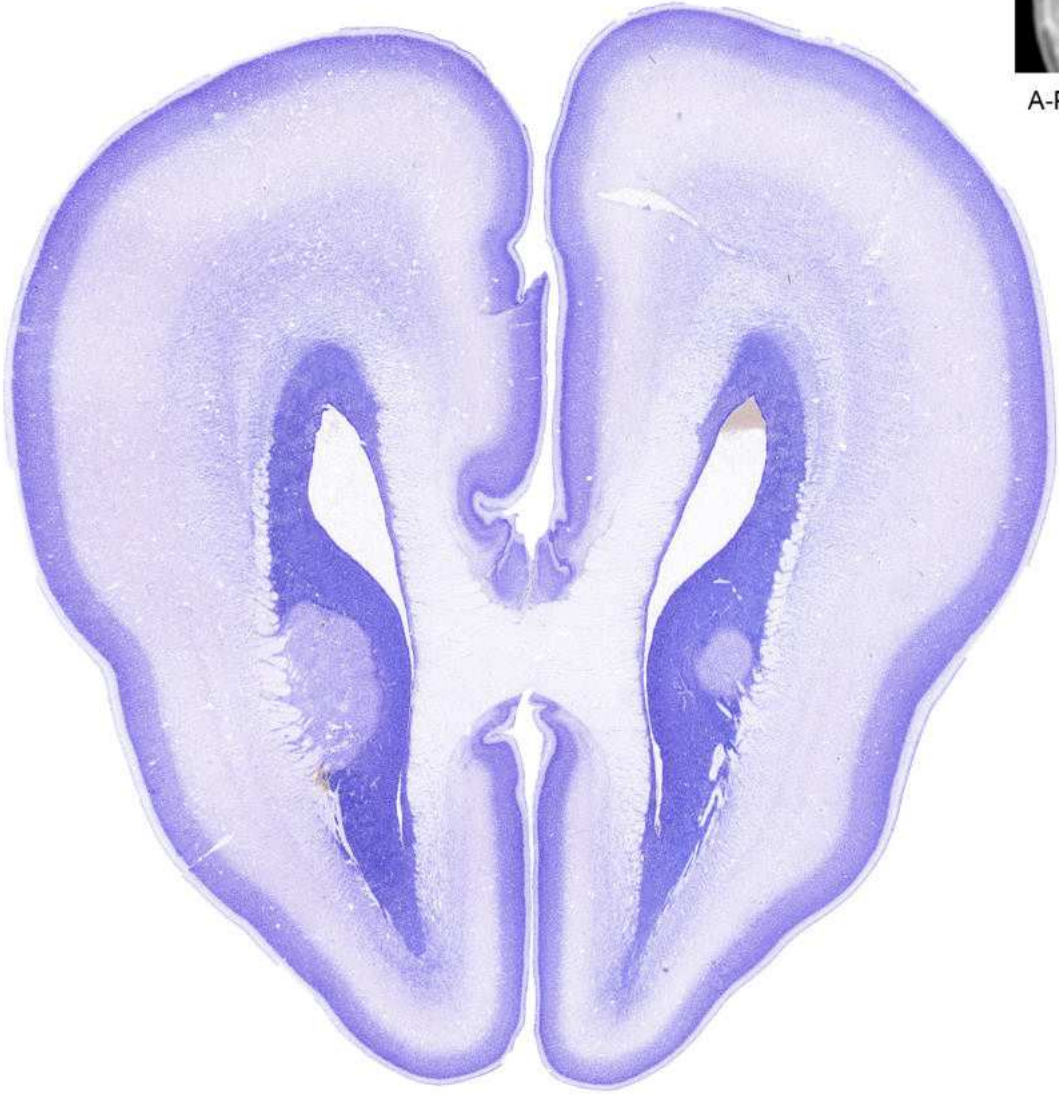
5 mm

- CLA: Claustrum
- Cau: Caudate nucleus
- GE: Ganglionic eminence
- IG: Induseum griseum
- LV: Lateral ventricle
- TT: Tenia tecta
- cc: Corpus callosum
- int: Internal capsule

Age: 22 GW

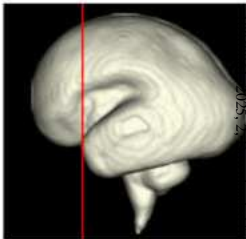


A-P Level: 10.5 mm

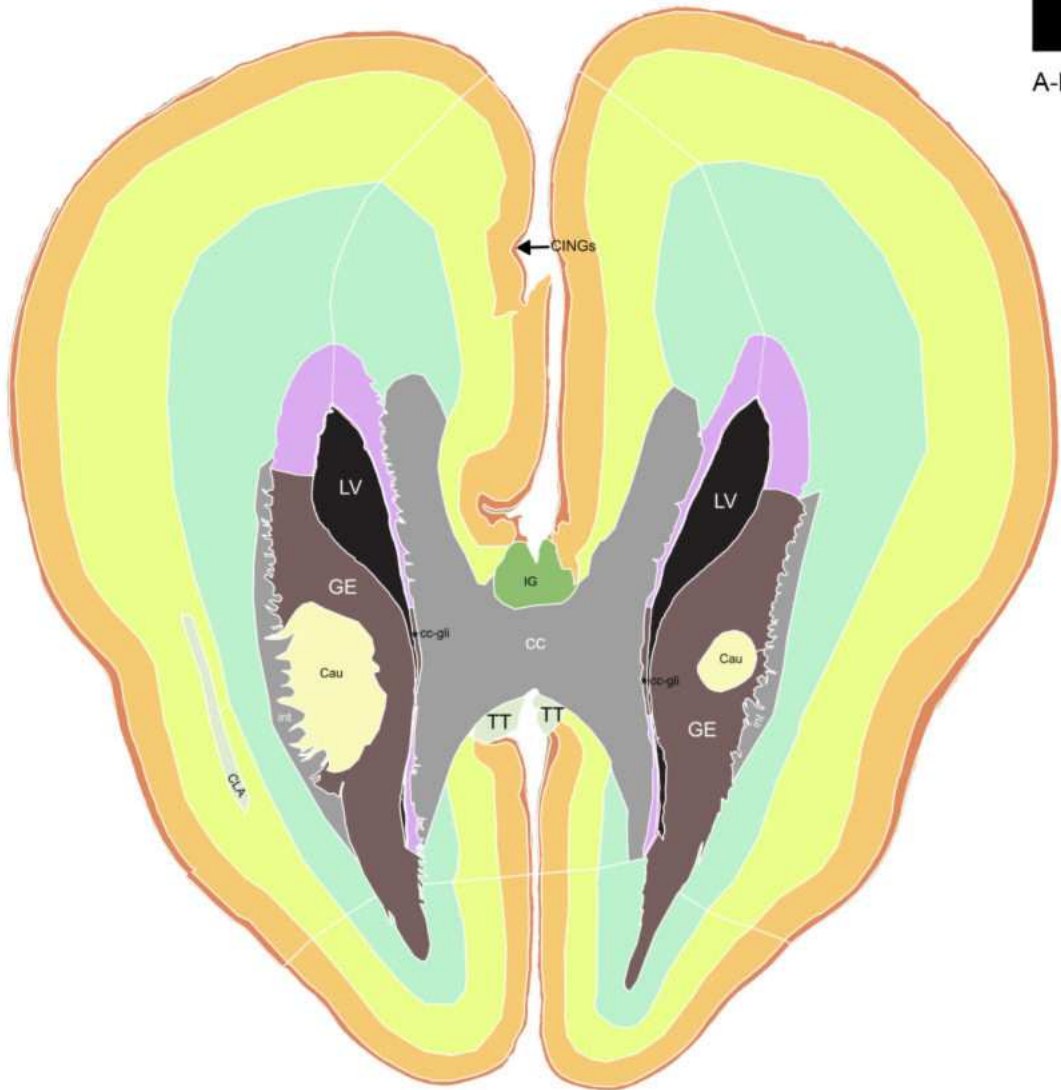
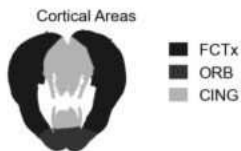
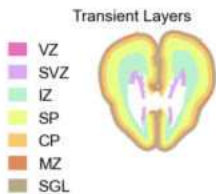


5 mm

Age: 22 GW



A-P Level: 10.5 mm



5 mm

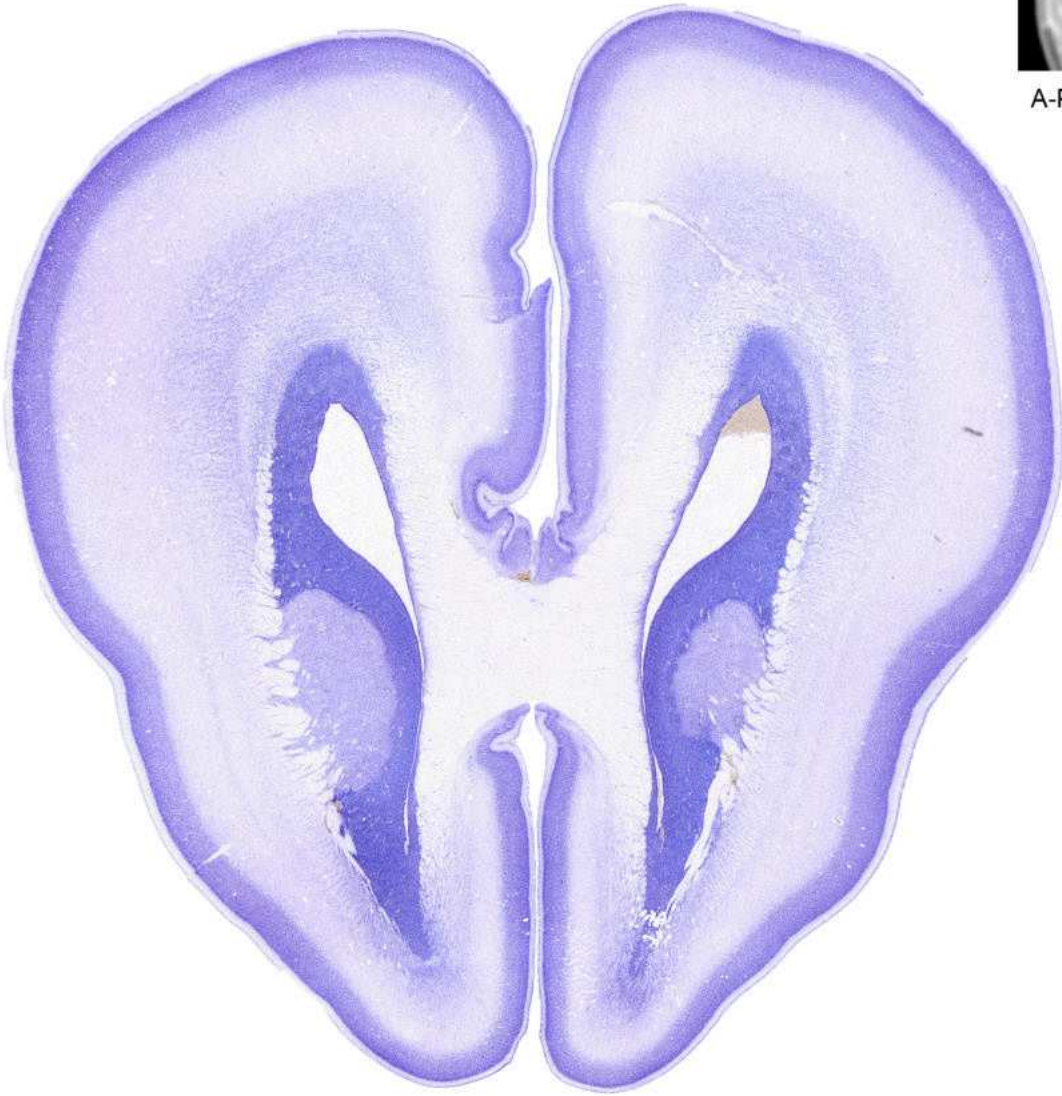
- CLA: Claustrum
- Cau: Caudate nucleus
- GE: Ganglionic eminence
- IG: Induseum griseum
- LV: Lateral ventricle
- TT: Tenia tecta
- cc: Corpus callosum
- cc-gli: Callosal gliopithelium
- int: Internal capsule
- CINGs: Cingulate sulcus

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Age: 22 GW

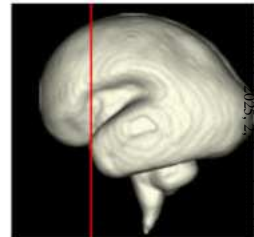


A-P Level: 10.26 mm

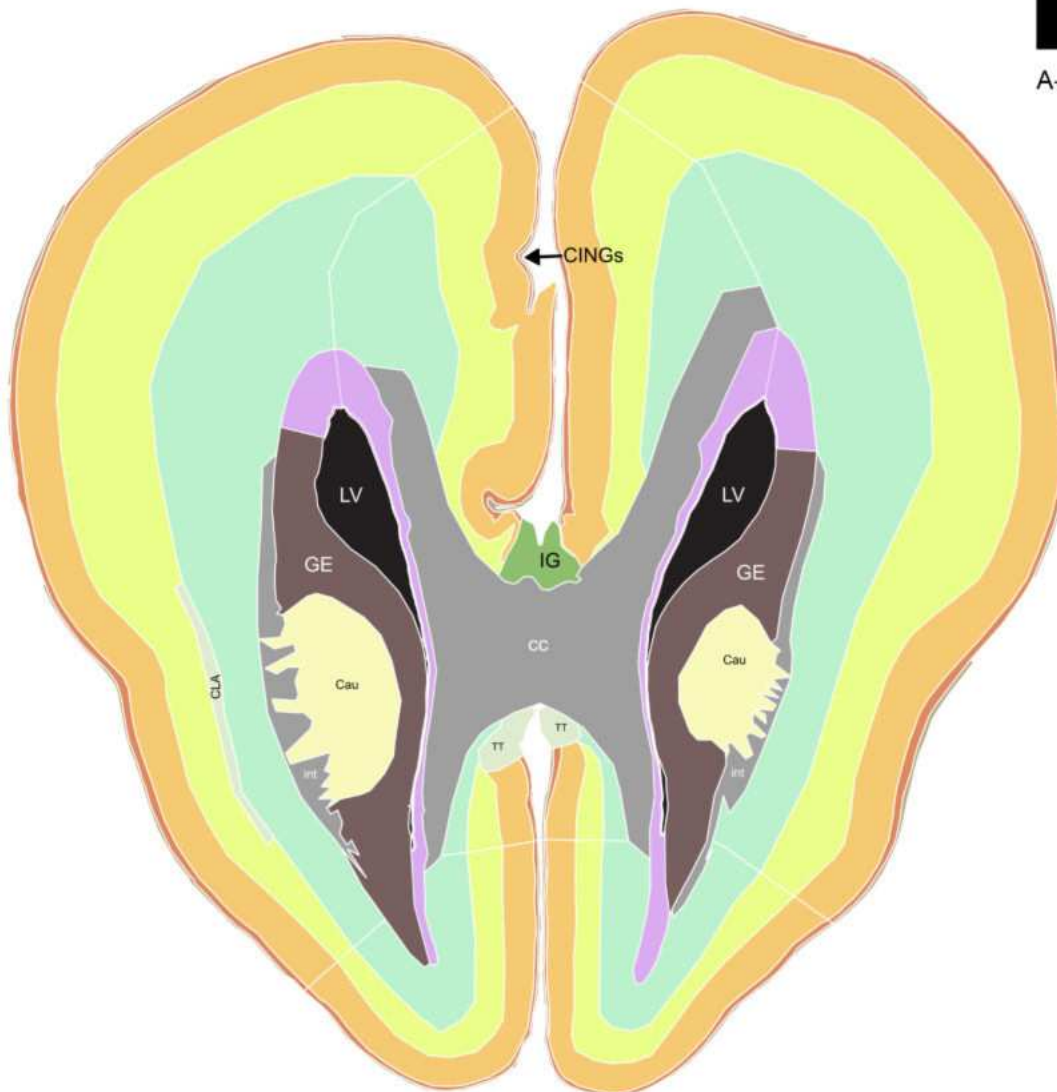
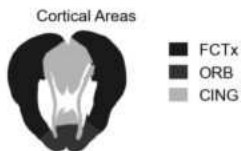
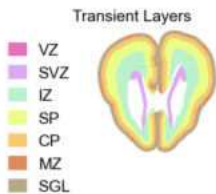


5 mm

Age: 22 GW



A-P Level: 10.26 mm



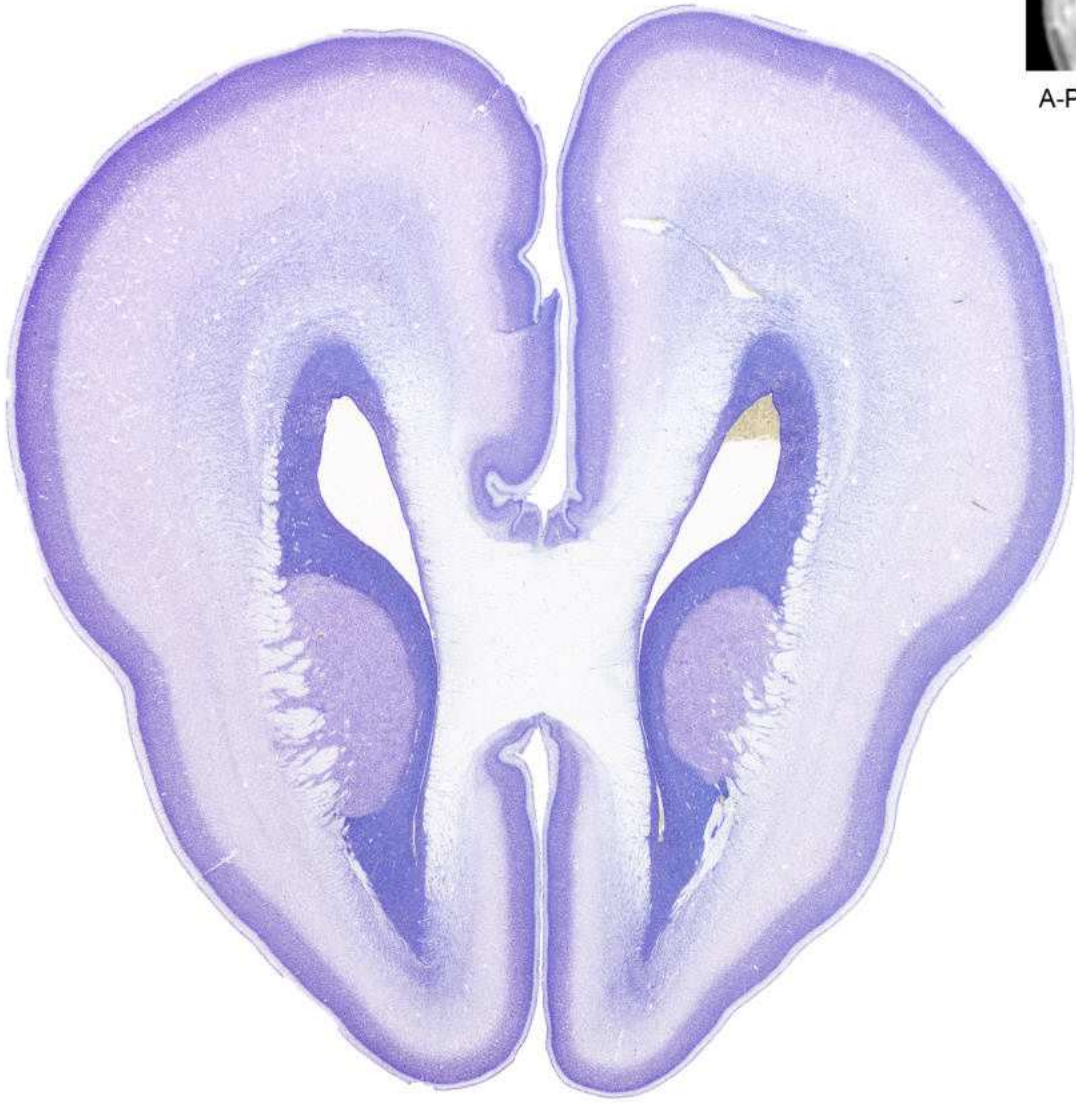
5 mm

- CLA: Claustrum
- Cau: Caudate nucleus
- GE: Ganglionic eminence
- IG: Induseum griseum
- LV: Lateral ventricle
- TT: Tenia tecta
- cc: Corpus callosum
- int: Internal capsule
- CINGs: Cingulate sulcus

Age: 22 GW

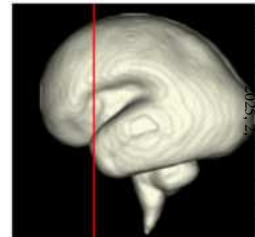


A-P Level: 9.9 mm

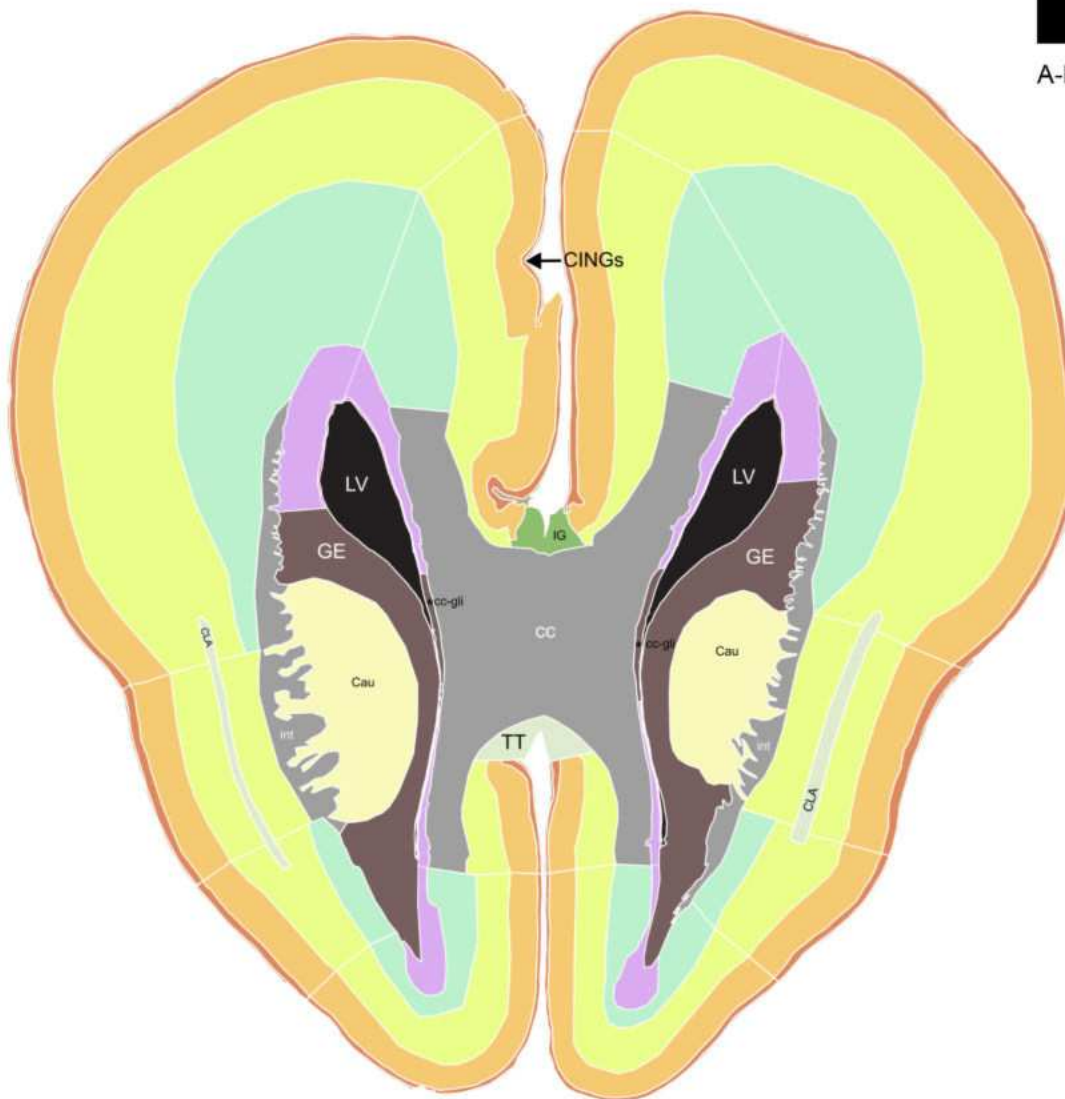
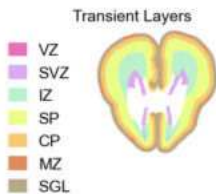


5 mm

Age: 22 GW



A-P Level: 9.9 mm



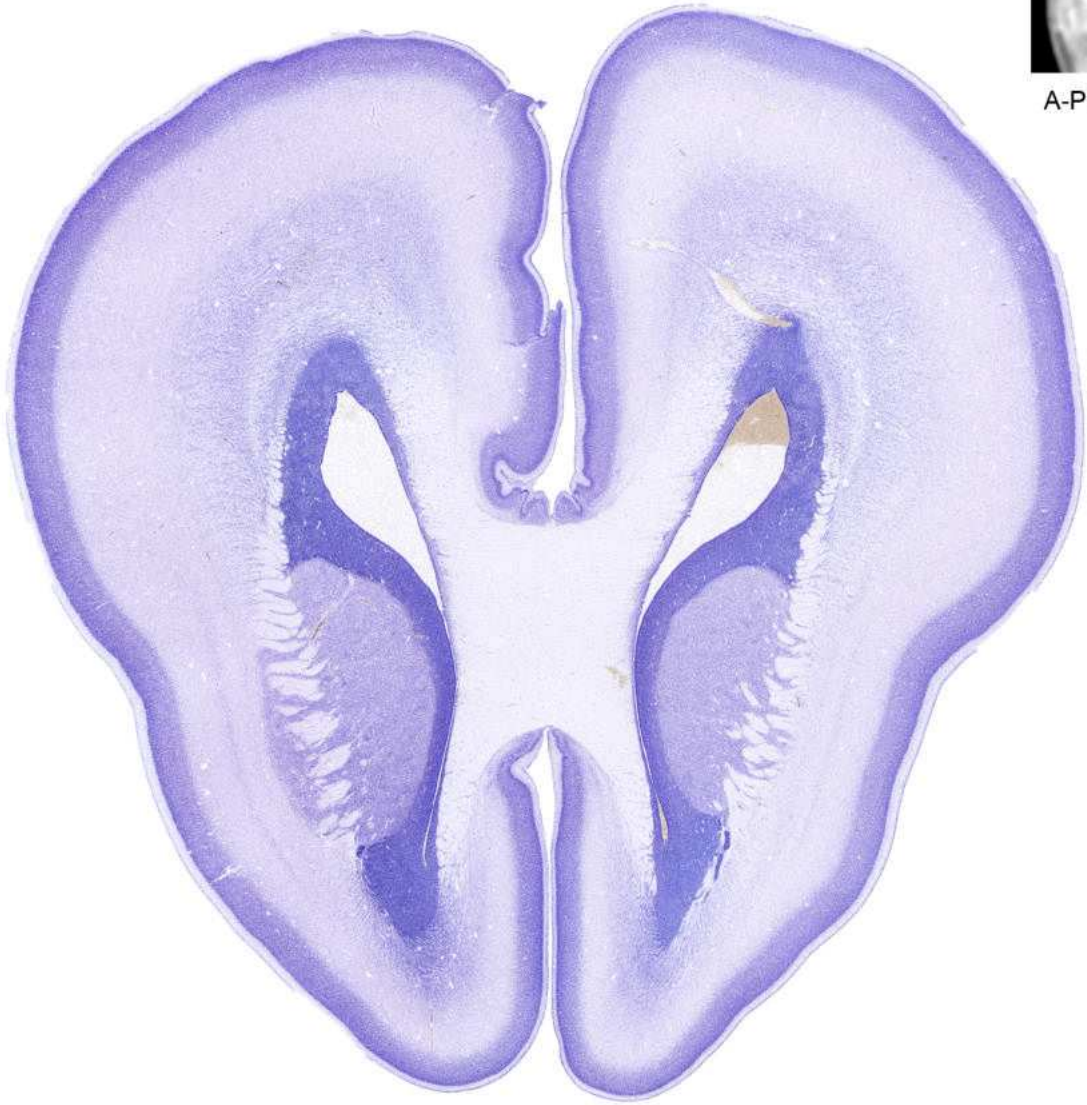
5 mm

- | | | | |
|-------------------------|---------------------------|---------------------|---------------------------------|
| CLA: Claustrum | IG: Induseum griseum | TT: Tena tecta | cc-gli: Callosal glioepithelium |
| Cau: Caudate nucleus | LV: Lateral ventricle | cc: Corpus callosum | int: Internal capsule |
| GE: Ganglionic eminence | → CINGs: Cingulate sulcus | | |

Age: 22 GW

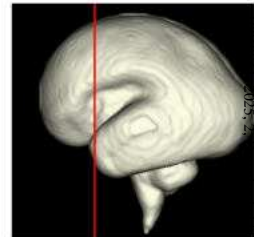


A-P Level: 9.48 mm

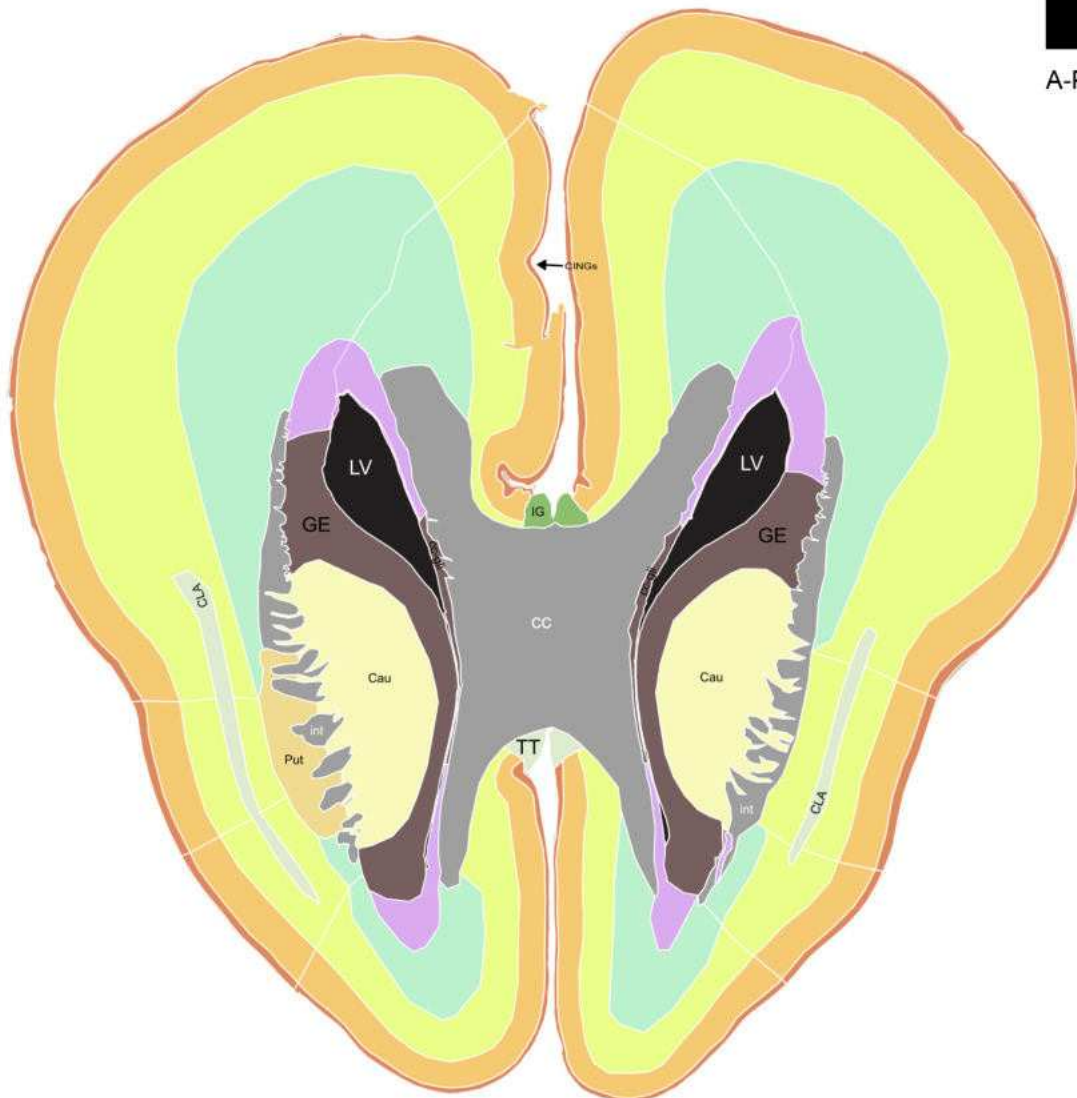
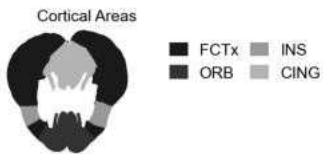
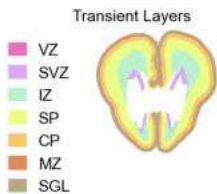


5 mm

Age: 22 GW



A-P Level: 9.48 mm



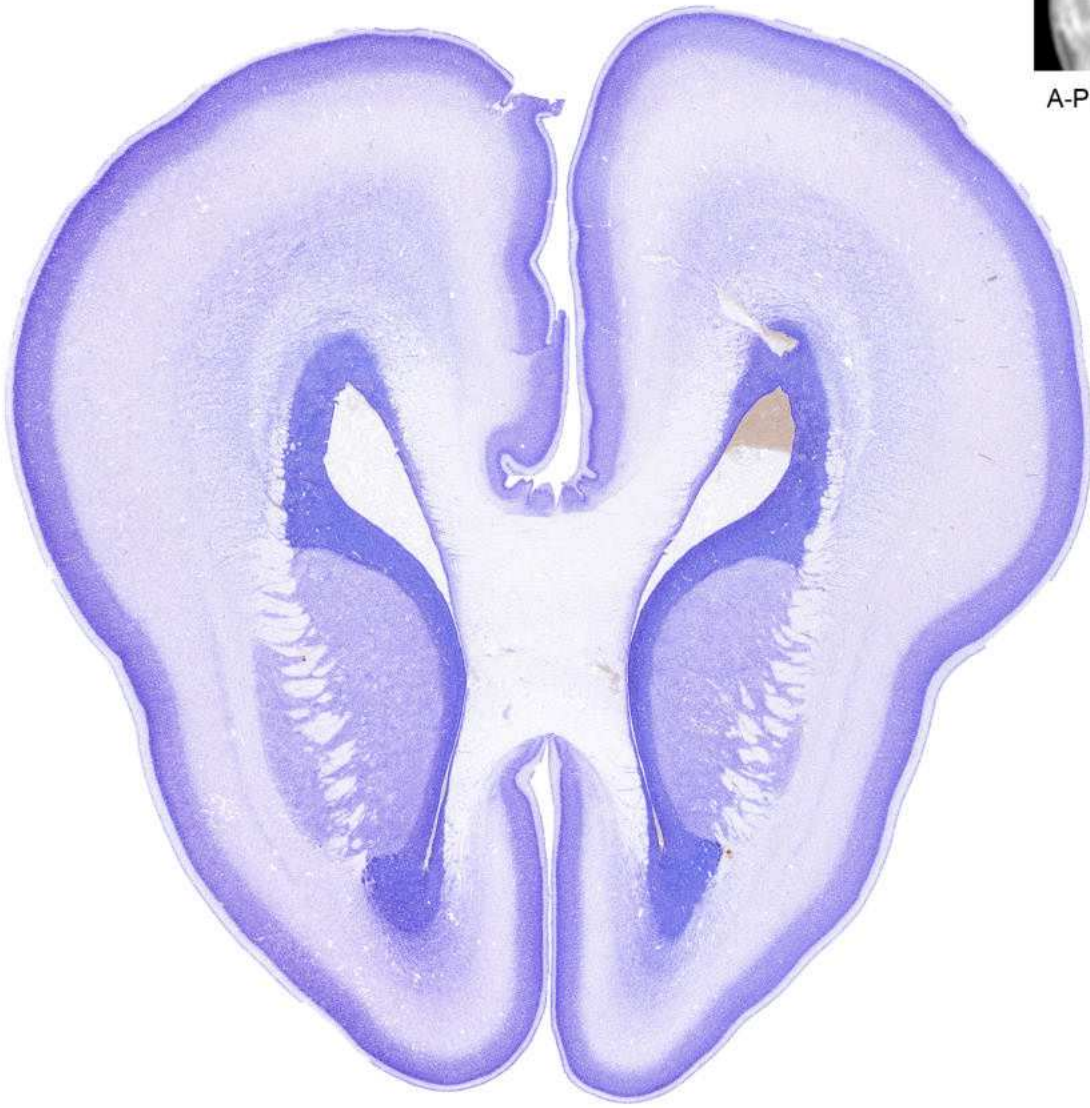
5 mm

- CLA: Claustrum
- Cau: Caudate nucleus
- GE: Ganglionic eminence
- IG: Induseum griseum
- LV: Lateral ventricle
- Put: Putamen
- TT: Tenia tecta
- cc: Corpus callosum
- cc-gli: Callosal glioepithelium
- int: Internal capsule

Age: 22 GW

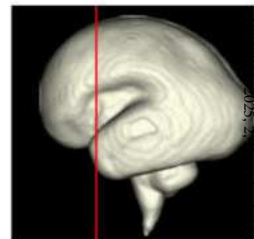


A-P Level: 9.12 mm

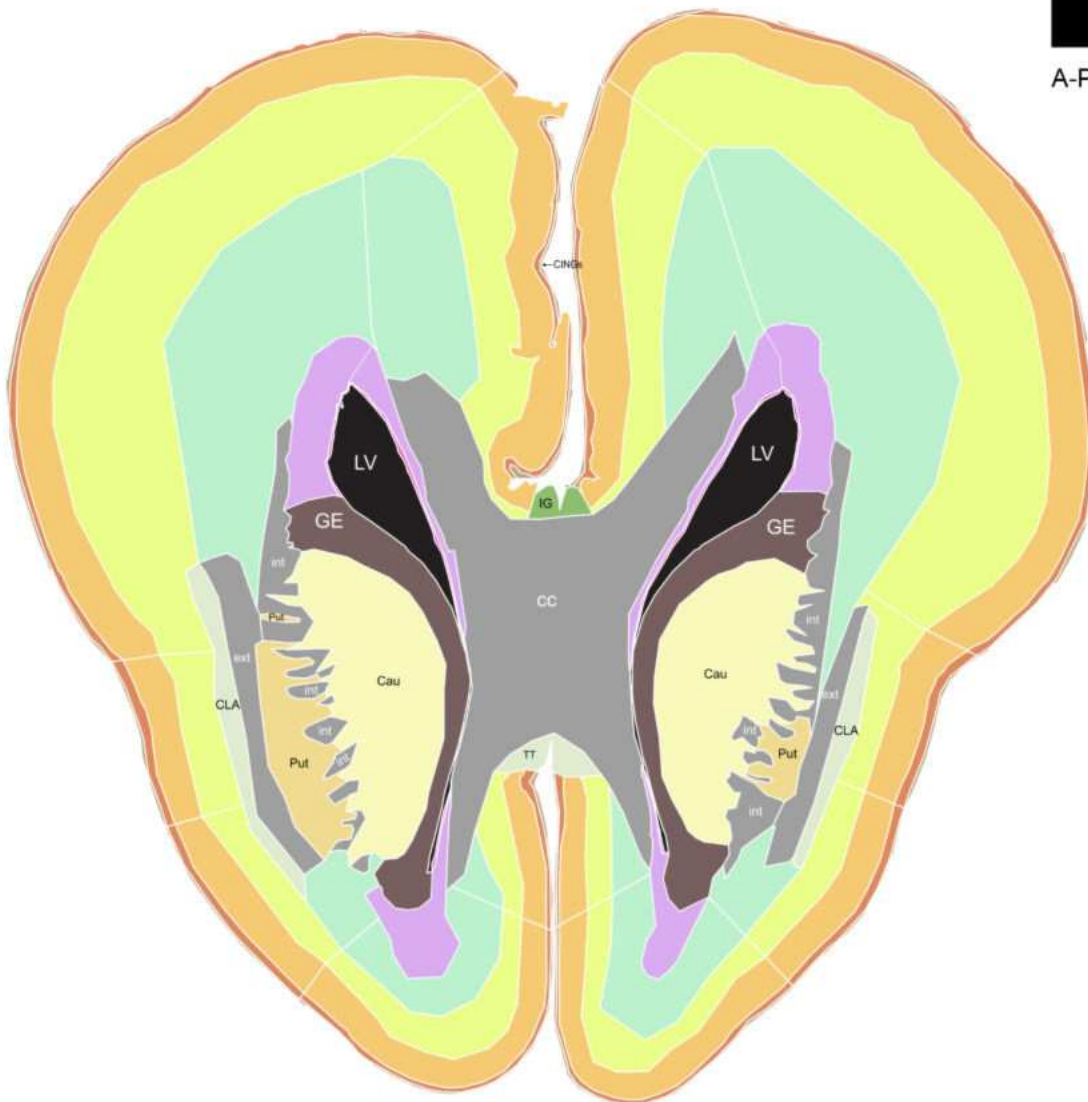
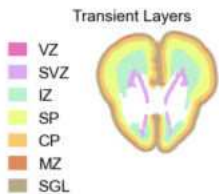


5 mm

Age: 22 GW



A-P Level: 9.12 mm



5 mm

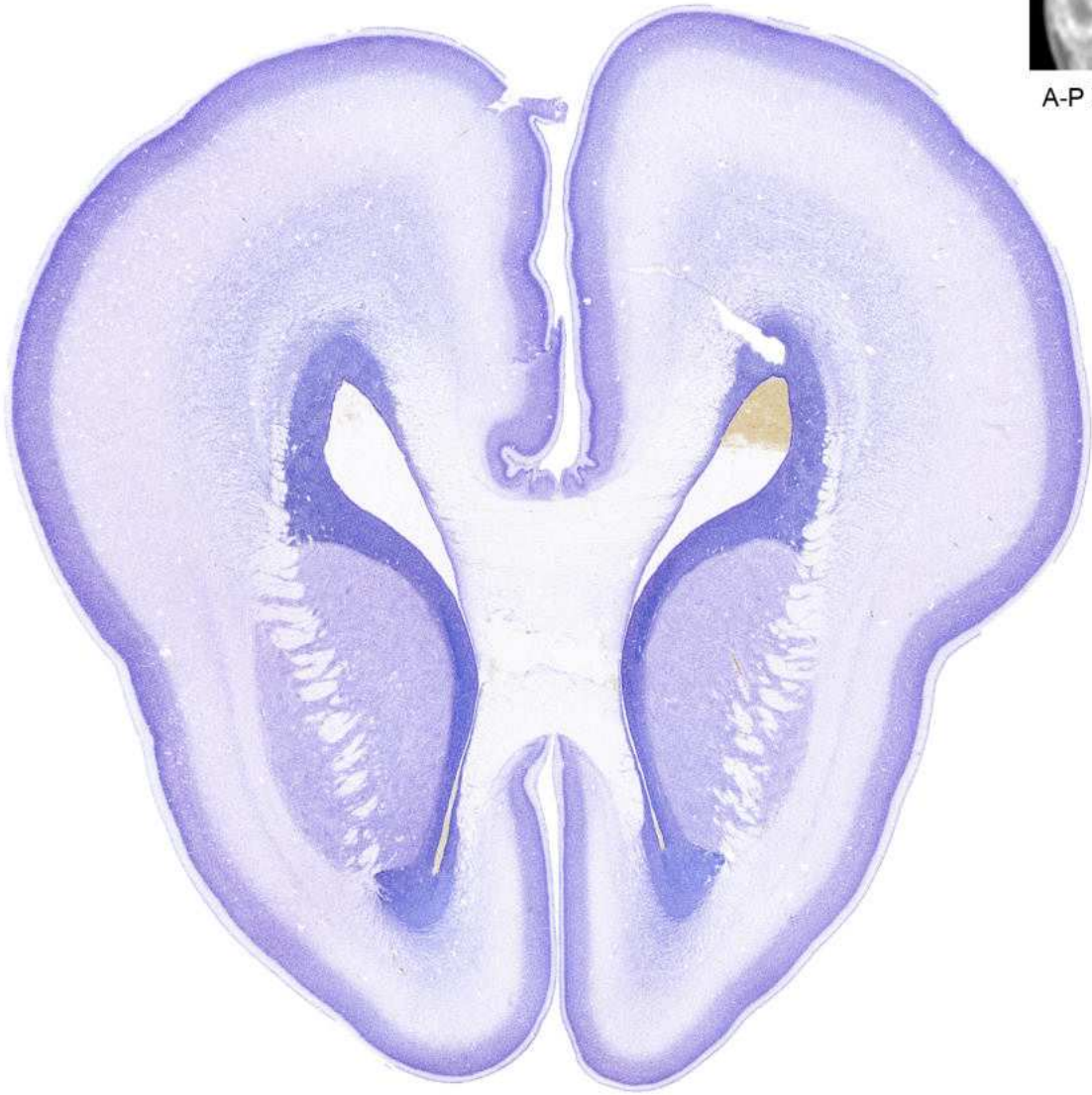
- | | | | |
|-------------------------|-----------------------|---------------------------|-----------------------|
| CLA: Claustrum | IG: Induseum griseum | TT: Tenia tecta | ext: External capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | cc: Corpus callosum | int: Internal capsule |
| GE: Ganglionic eminence | Put: Putamen | → CINGs: Cingulate sulcus | |

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Age: 22 GW

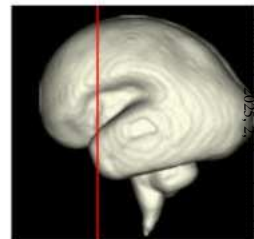


A-P Level: 8.76 mm

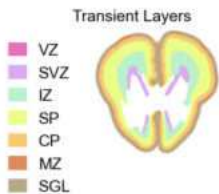


5 mm

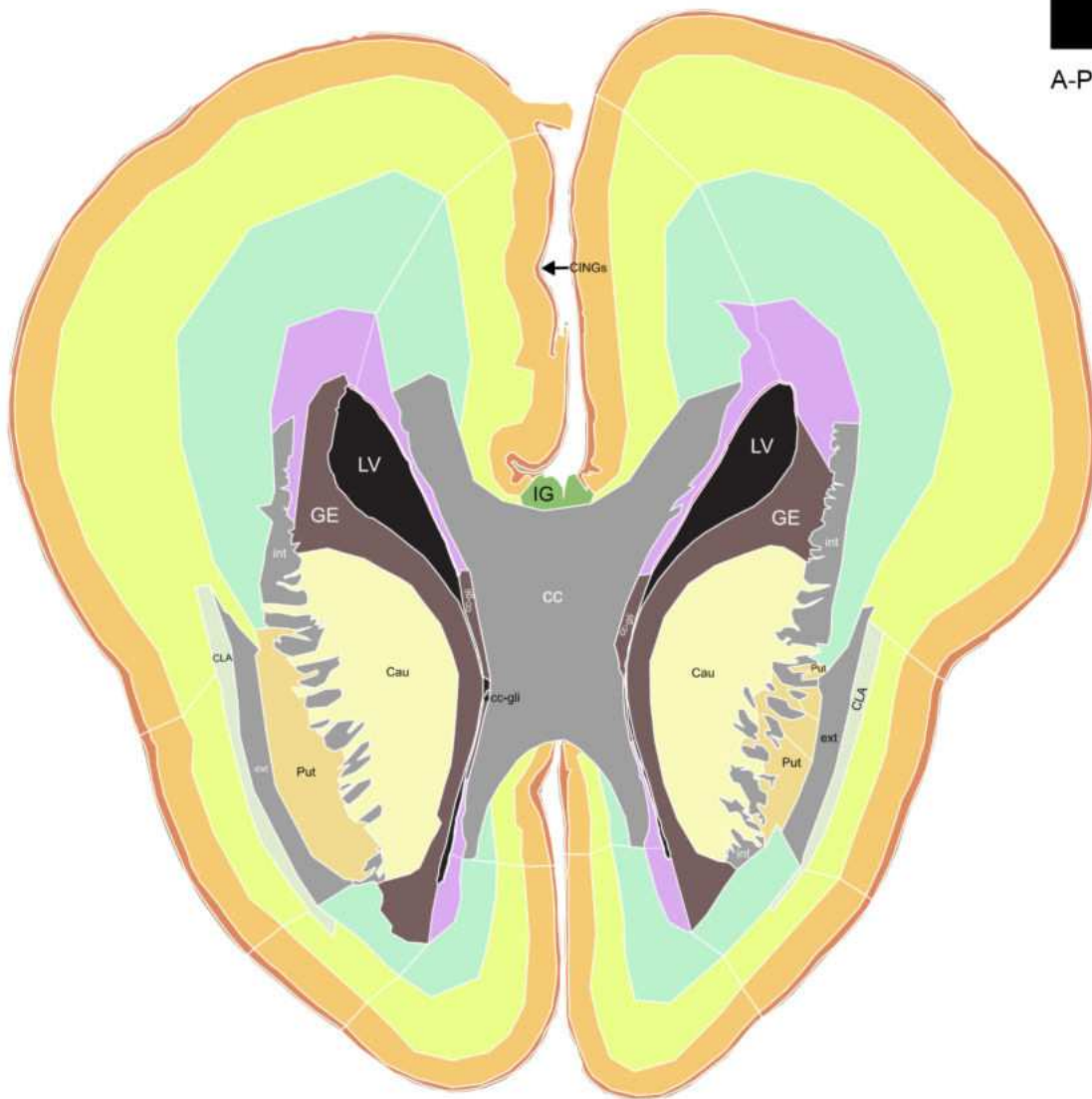
Age: 22 GW



A-P Level: 8.76 mm



- FCTx ■ INS
- ORB ■ CING



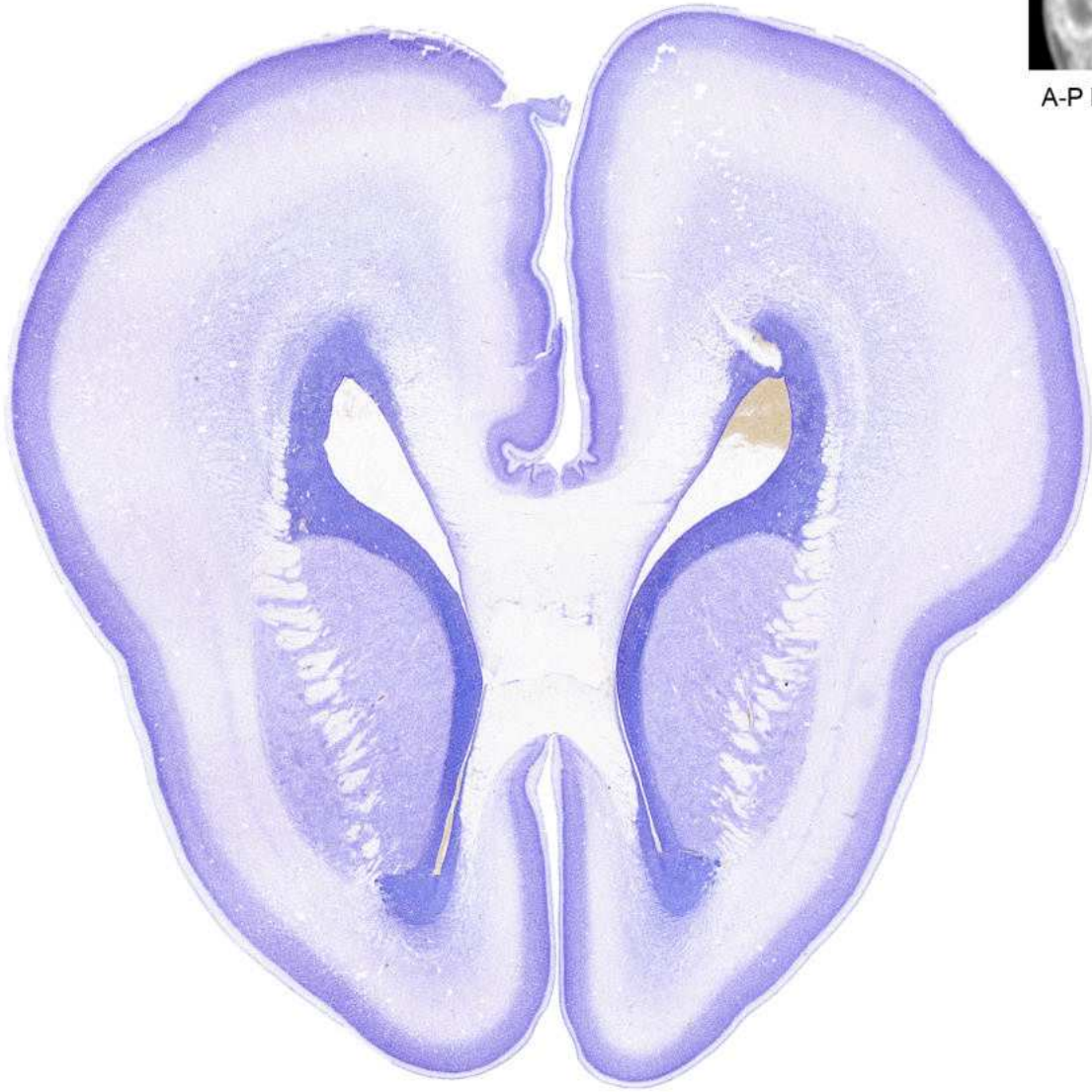
5 mm

- CLA: Claustrum
- IG: Induseum griseum
- cc: Corpus callosum
- ext: External capsule
- Cau: Caudate nucleus
- LV: Lateral ventricle
- cc-gli: Callosal glioepithelium
- int: Internal capsule
- GE: Ganglionic eminence
- Put: Putamen
- CINGs: Cingulate sulcus

Age: 22 GW

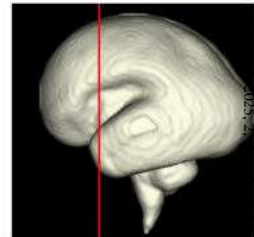


A-P Level: 8.4 mm

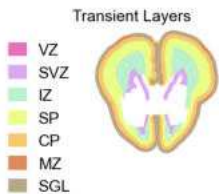


5 mm

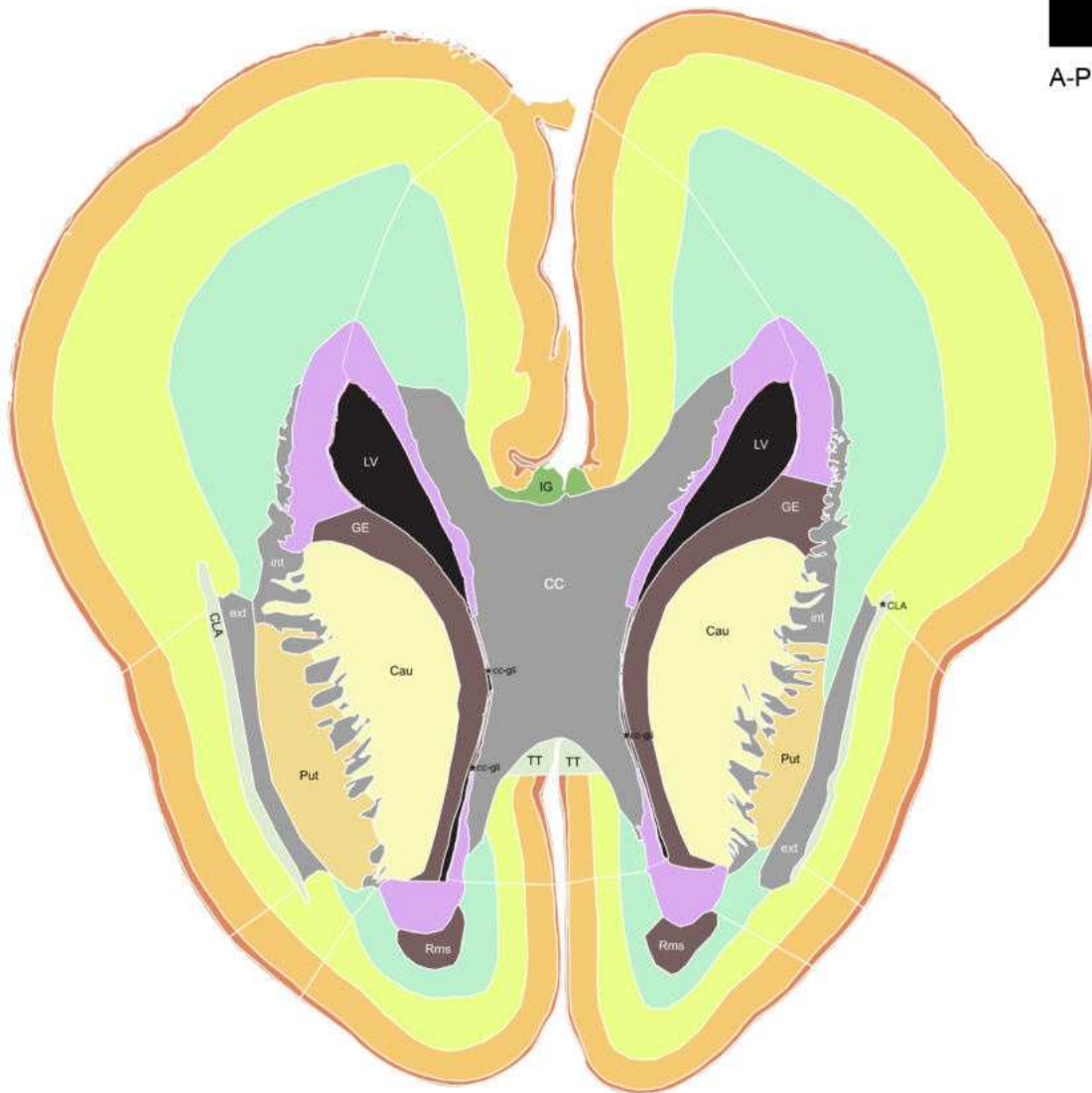
Age: 22 GW



A-P Level: 8.4 mm



- FCTx ■ INS
- ORB ■ CING



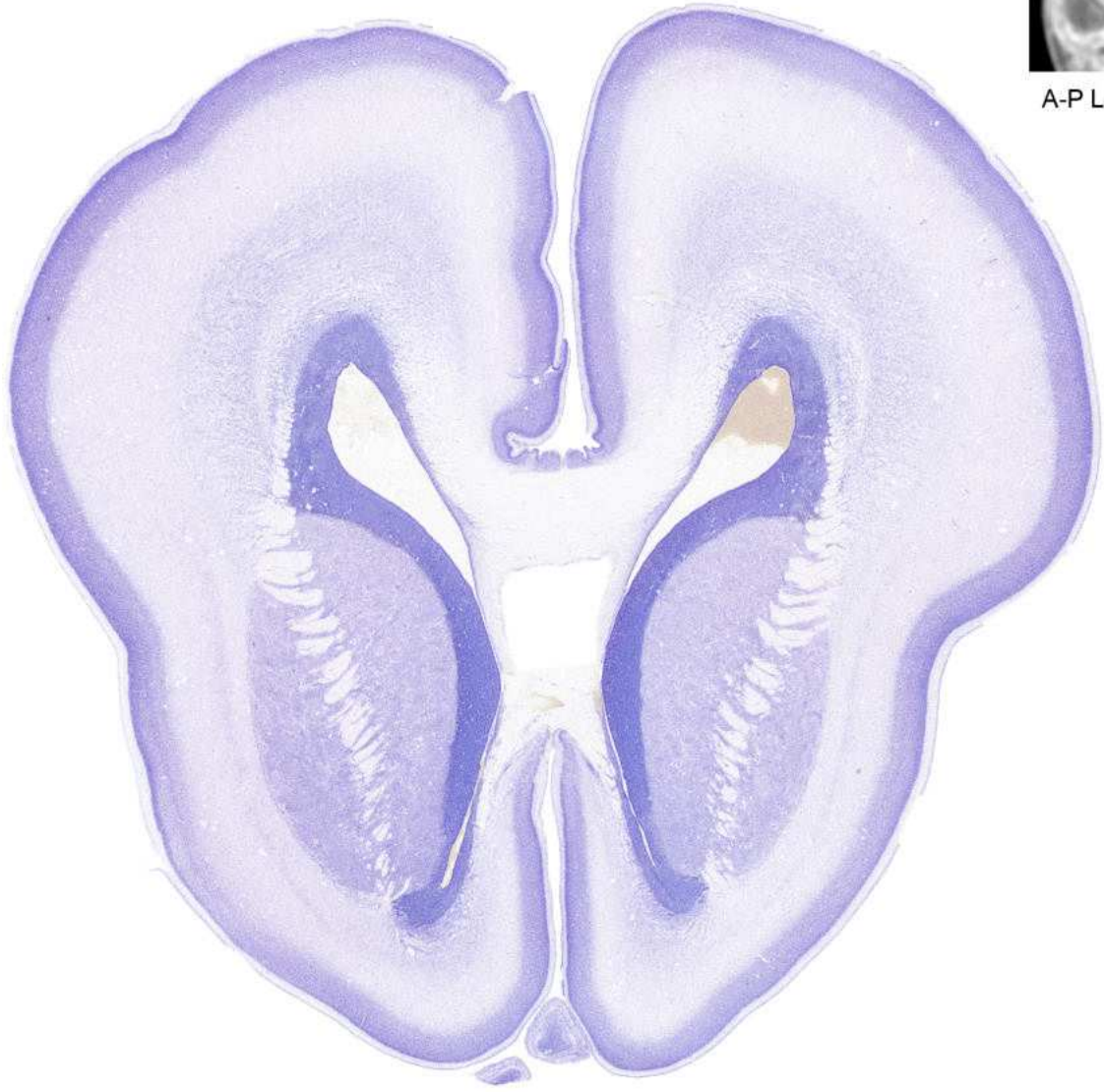
5 mm

- | | | | |
|---------------------------|-------------------------|---------------------------------|-----------------------------------|
| ■ CLA: Claustrum | ■ IG: Induseum griseum | ■ Rms: Rostral migratory stream | ■ cc-gli: Callosal glioepithelium |
| ■ Cau: Caudate nucleus | ■ LV: Lateral ventricle | ■ TT: Tenia tecta | ■ ext: External capsule |
| ■ GE: Ganglionic eminence | ■ Put: Putamen | ■ cc: Corpus callosum | ■ int: Internal capsule |

Age: 22 GW

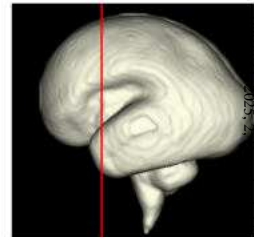


A-P Level: 7.86 mm

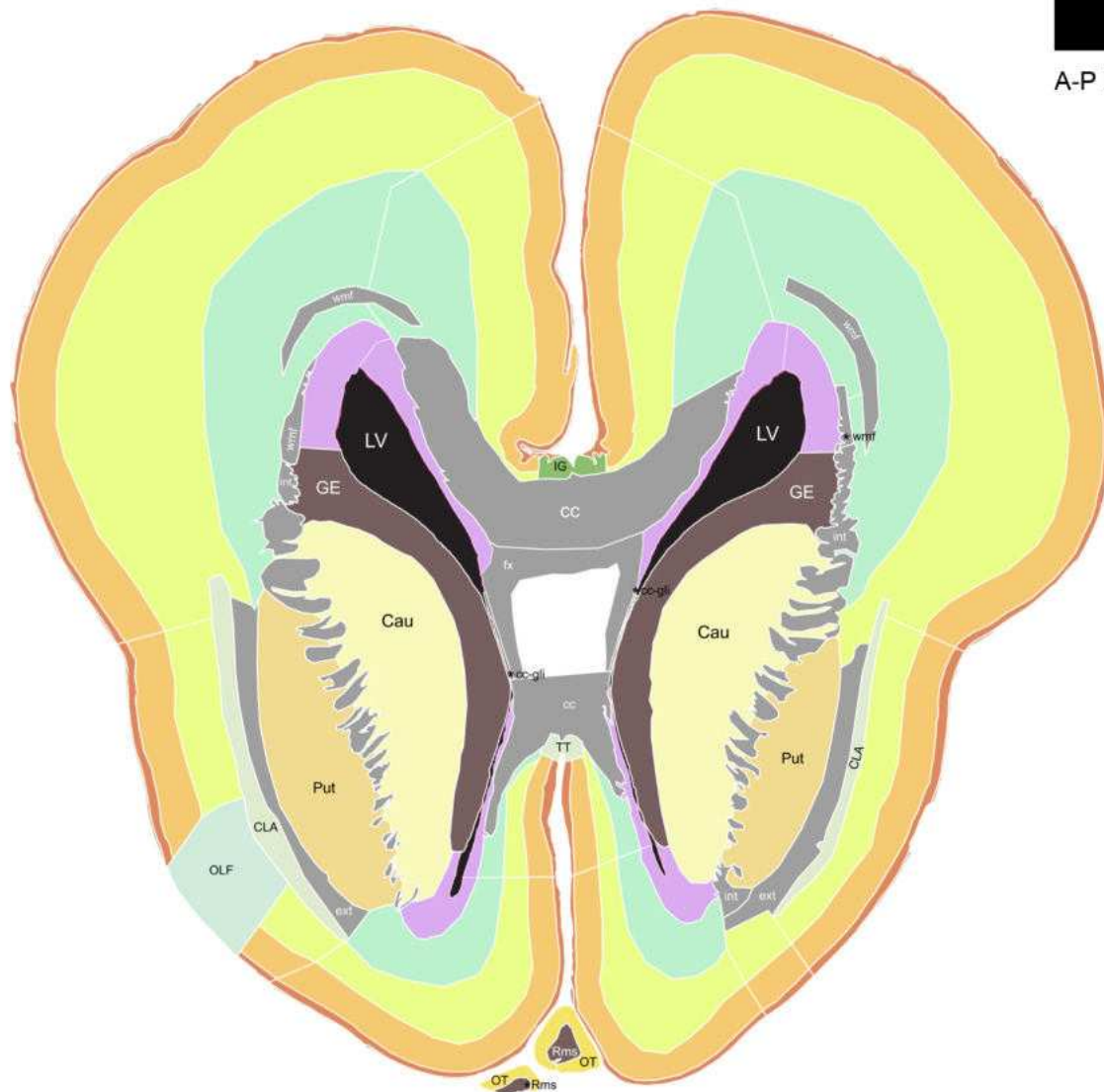
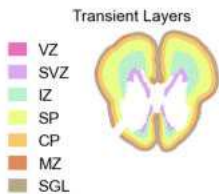


5 mm

Age: 22 GW



A-P Level: 7.86 mm



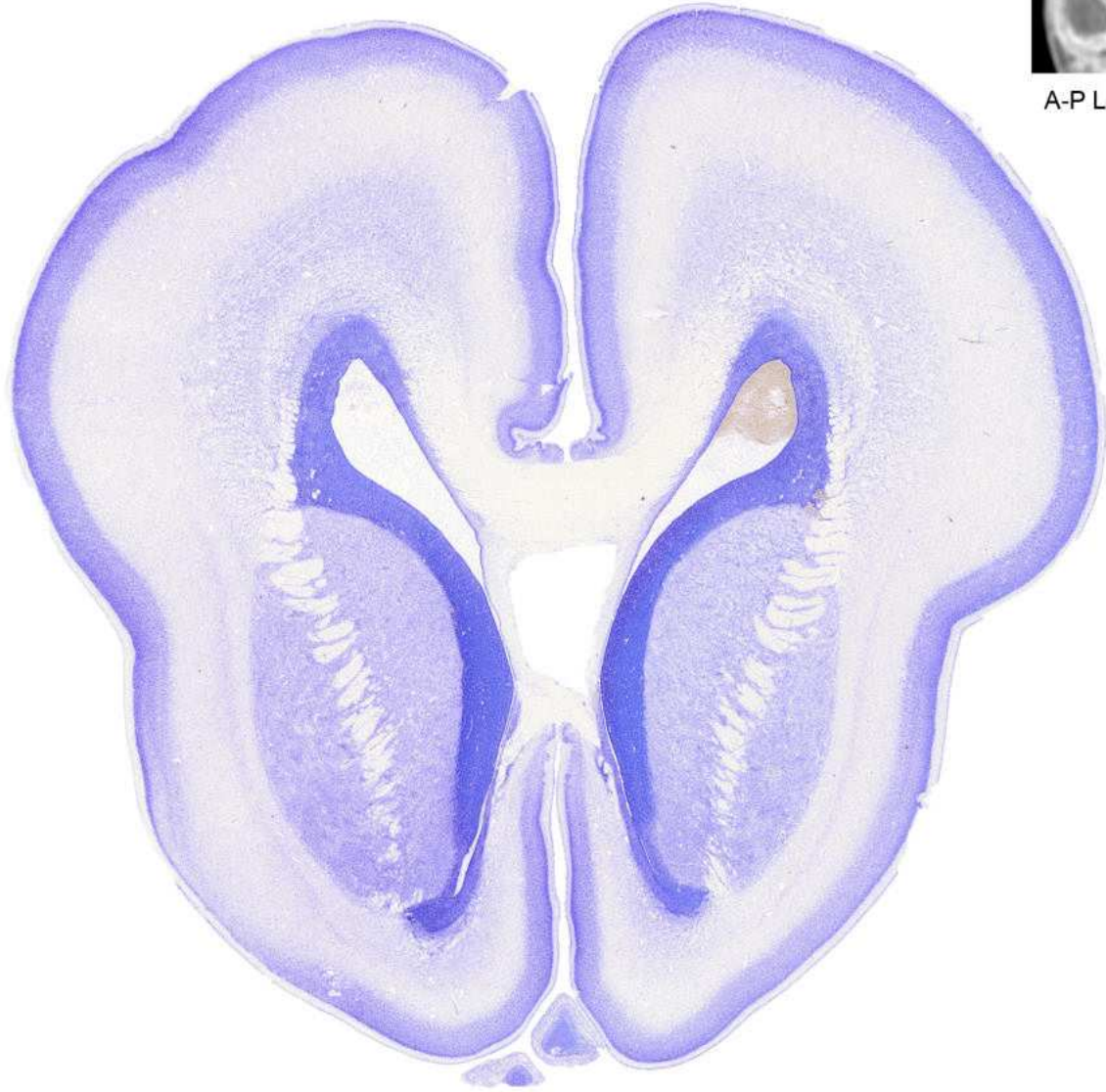
5 mm

- | | | | |
|-------------------------|-------------------------------|---------------------------------|--------------------------|
| CLA: Claustrum | LV: Lateral ventricle | TT: Tenia tecta | fx: Fornix |
| Cau: Caudate nucleus | OT: Olfactory tubercle | cc: Corpus callosum | int: Internal capsule |
| GE: Ganglionic eminence | Put: Putamen | cc-gli: Callosal glioepithelium | wmf: White matter fibers |
| IG: Induseum griseum | Rms: Rostral migratory stream | ext: External capsule | |

Age: 22 GW

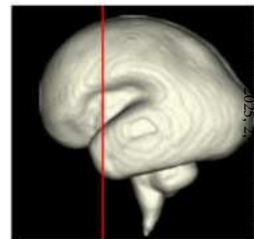


A-P Level: 7.44 mm

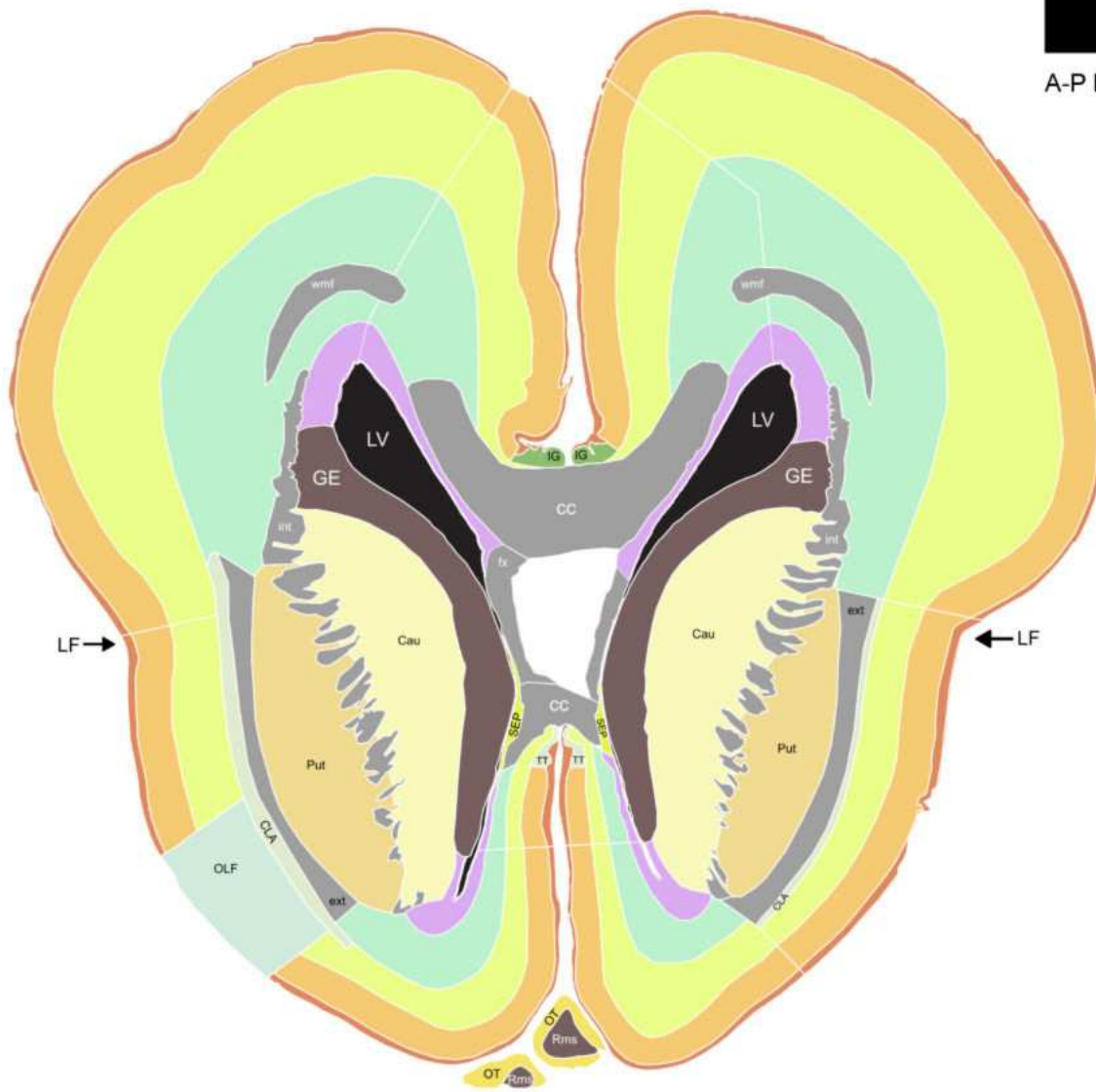
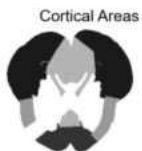
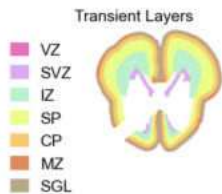


5 mm

Age: 22 GW



A-P Level: 7.44 mm



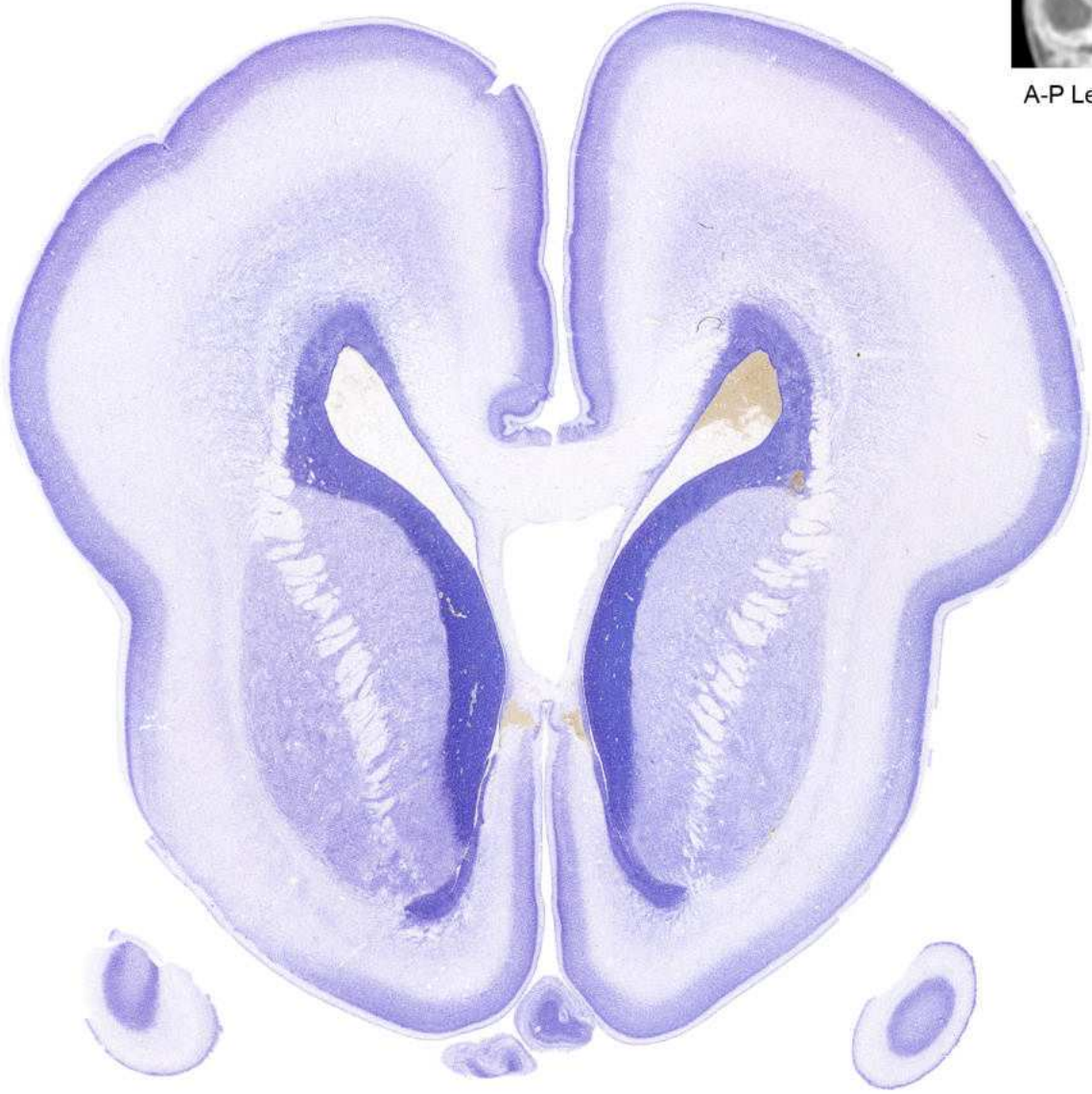
5 mm

- | | | | |
|-------------------------|-------------------------------|-----------------------|--------------------------|
| CLA: Claustrum | LV: Lateral ventricle | SEP: Septum | fx: Fornix |
| Cau: Caudate nucleus | OT: Olfactory tubercle | TT: Tenia tecta | int: Internal capsule |
| GE: Ganglionic eminence | Put: Putamen | cc: Corpus callosum | wmf: White matter fibers |
| IG: Induseum griseum | Rms: Rostral migratory stream | ext: External capsule | → LF: Lateral fissure |

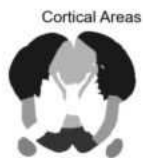
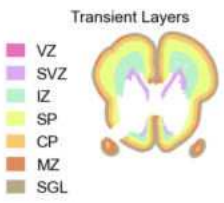
Age: 22 GW



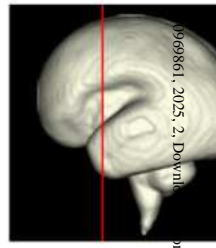
A-P Level: 6.96 mm



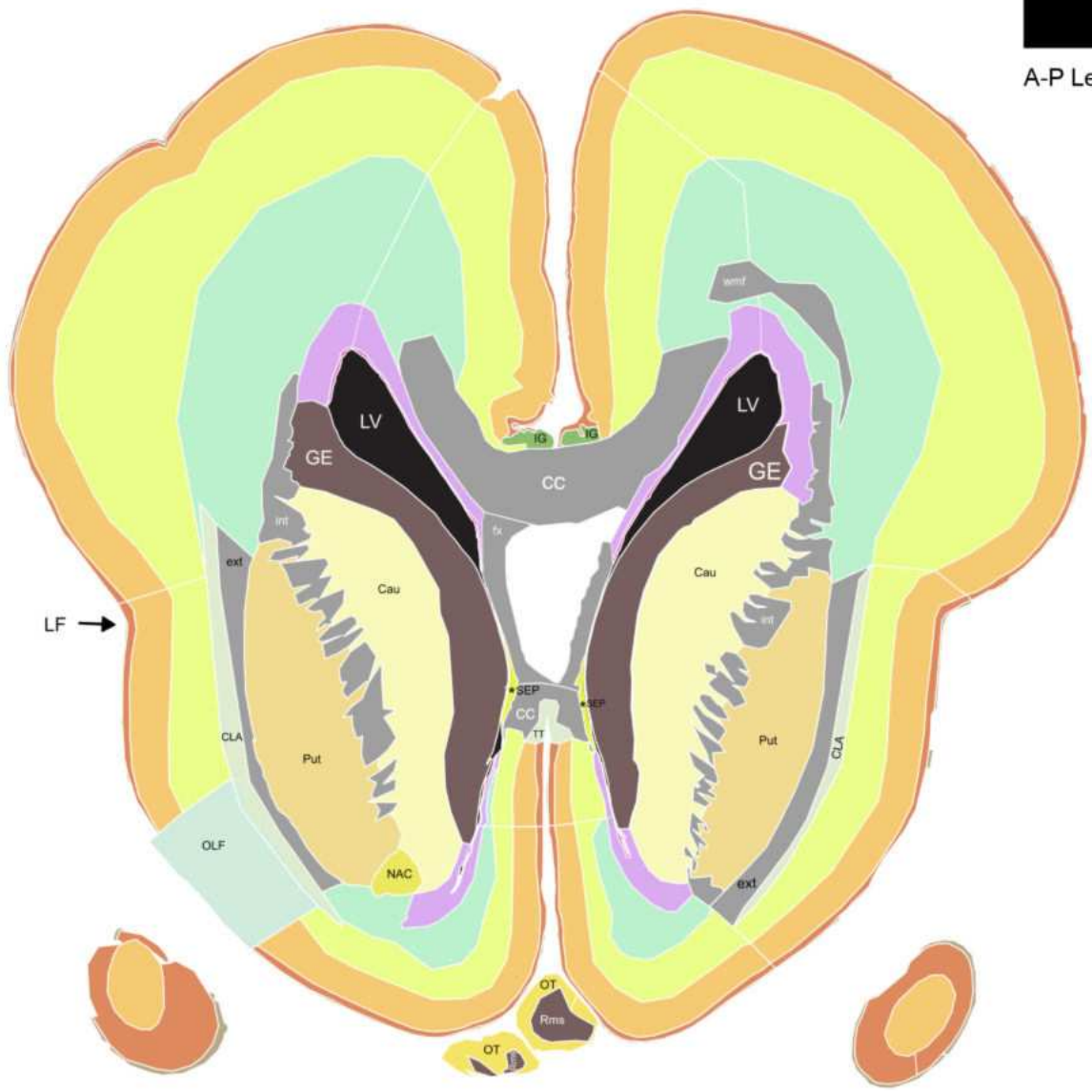
5 mm



Age: 22 GW



A-P Level: 6.90 mm



LF →

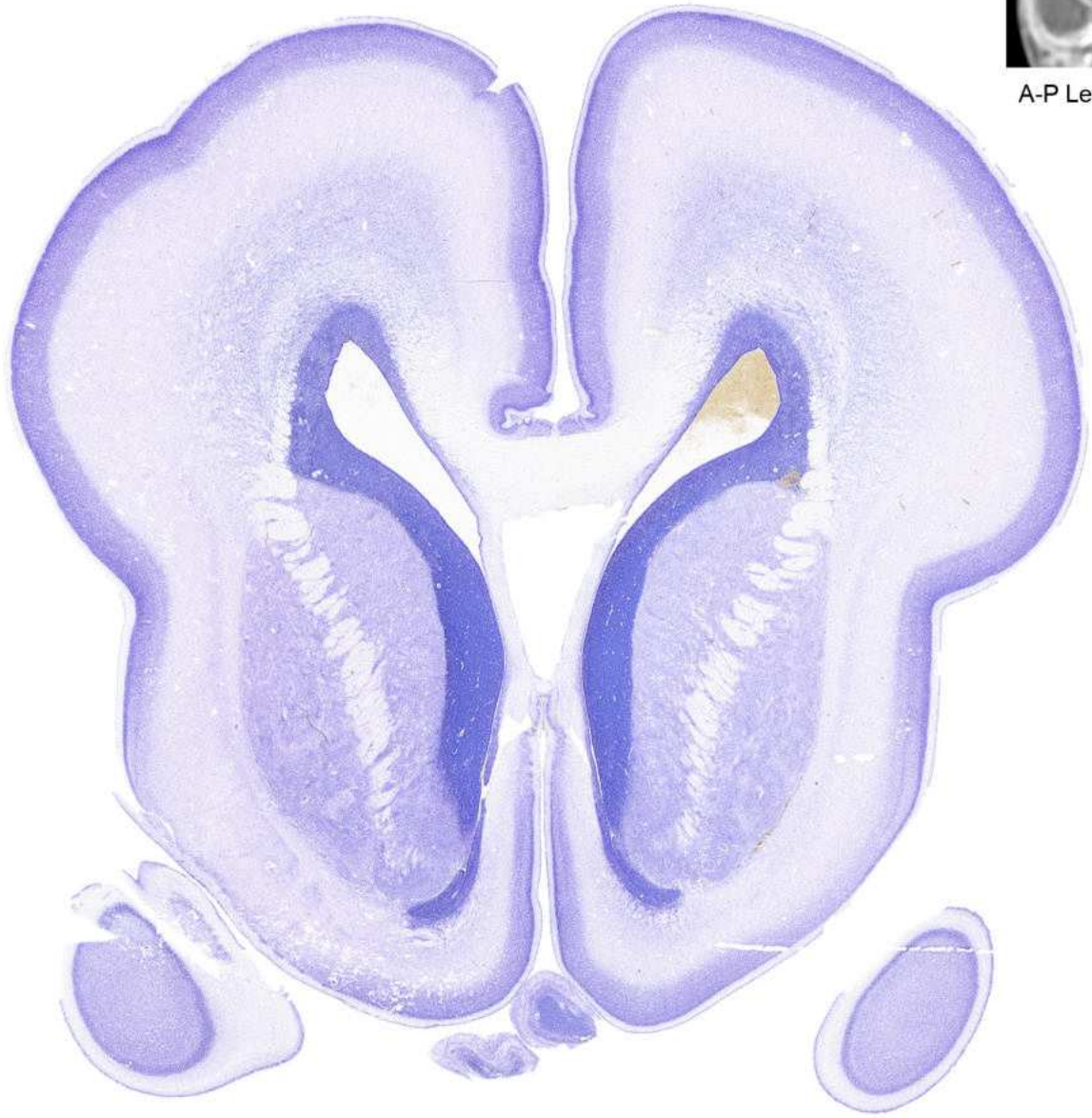
5 mm

- | | | | |
|-------------------------|------------------------|-------------------------------|--------------------------|
| CLA: Claustrum | LV: Lateral ventricle | Rms: Rostral migratory stream | ext: External capsule |
| Cau: Caudate nucleus | NAC: Nucleus accumbens | SEP: Septum | fx: Fornix |
| GE: Ganglionic eminence | OT: Olfactory tubercle | TT: Tenia tecta | int: Internal capsule |
| IG: Induseum griseum | Put: Putamen | cc: Corpus callosum | wmf: White matter fibers |
| | | | → LF: Lateral fissure |

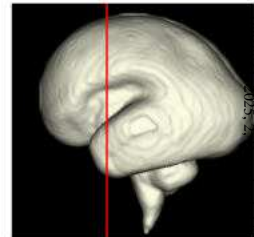
Age: 22 GW



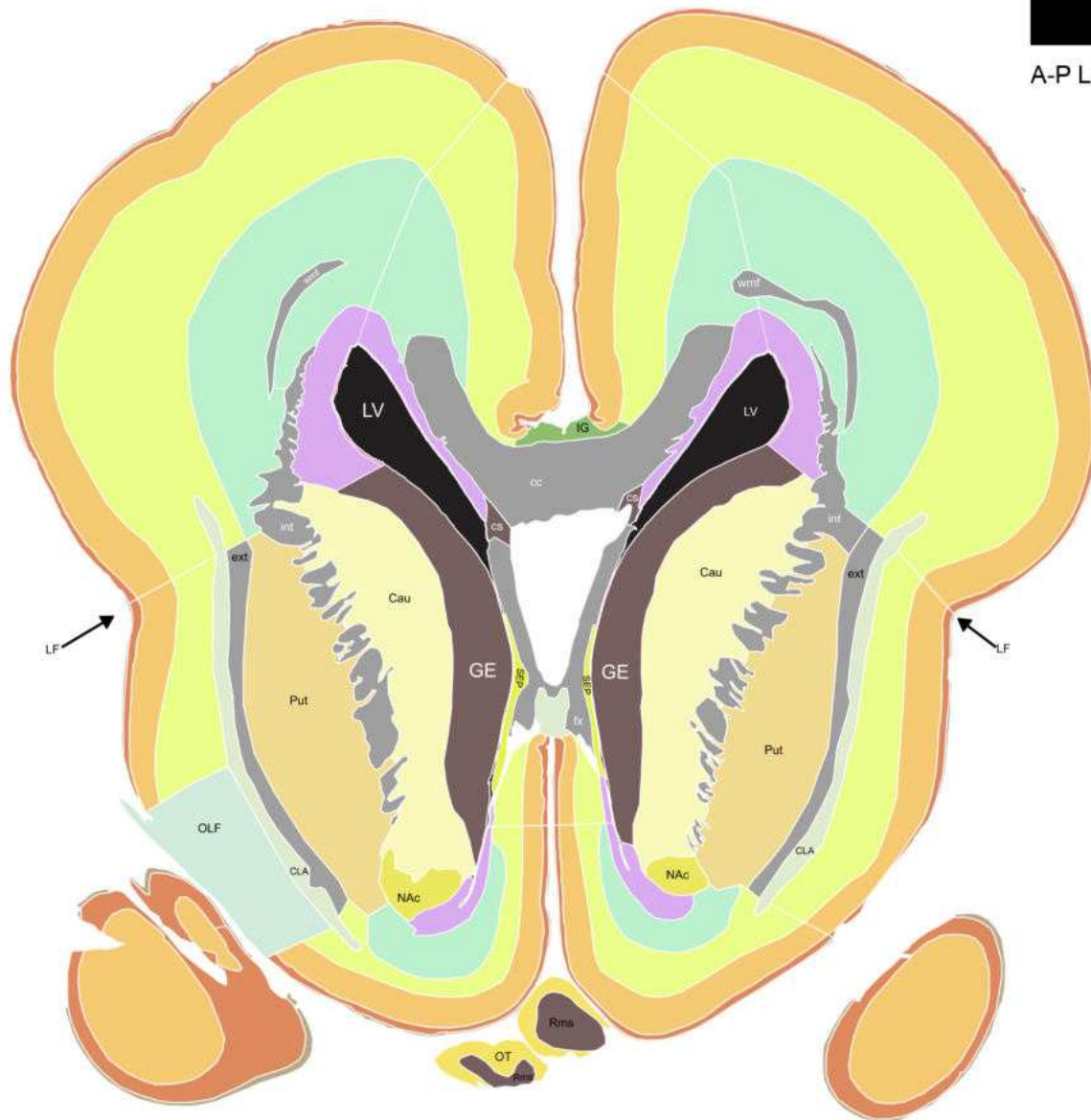
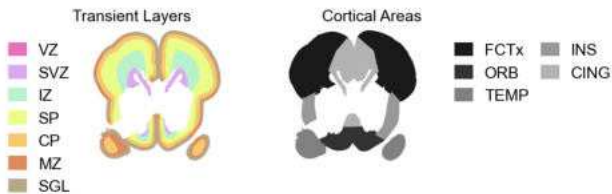
A-P Level: 6.6 mm



5 mm



A-P Level: 6.6 mm



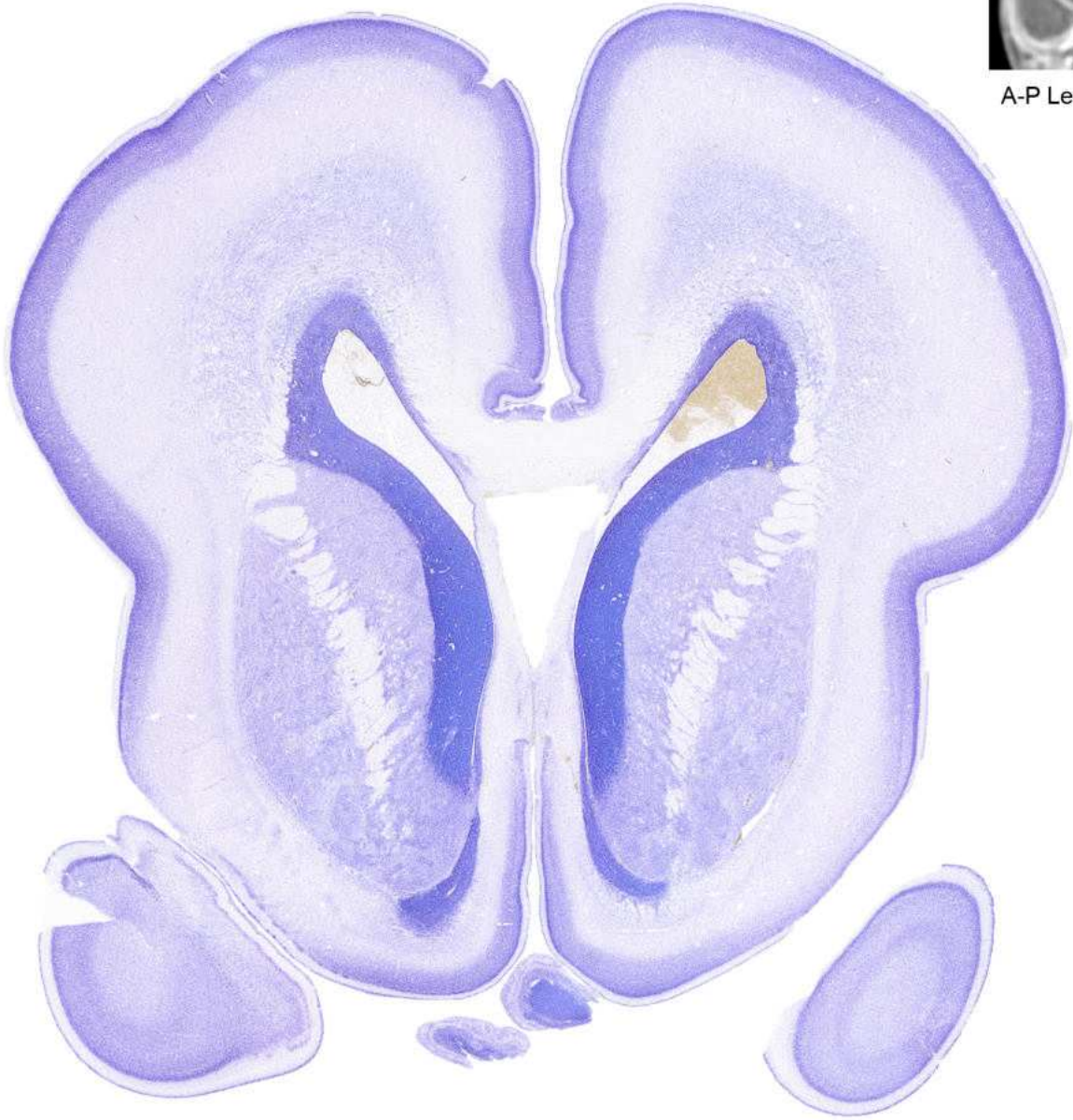
5 mm

- | | | | |
|-------------------------|-------------------------------|---------------------|--------------------------|
| CLA: Claustrum | NAc: Nucleus accumbens | SEP: Septum | ext: External capsule |
| Cau: Caudate nucleus | OT: Olfactory tubercle | TT: Tenia tecta | fx: Fornix |
| GE: Ganglionic eminence | Put: Putamen | cc: Corpus callosum | int: Internal capsule |
| IG: Induseum griseum | Rms: Rostral migratory stream | cs: Calossal sling | wmf: White matter fibers |
| LV: Lateral ventricle | | | |

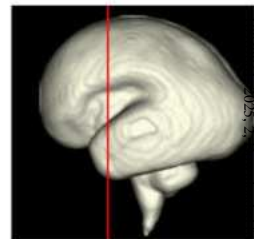
Age: 22 GW



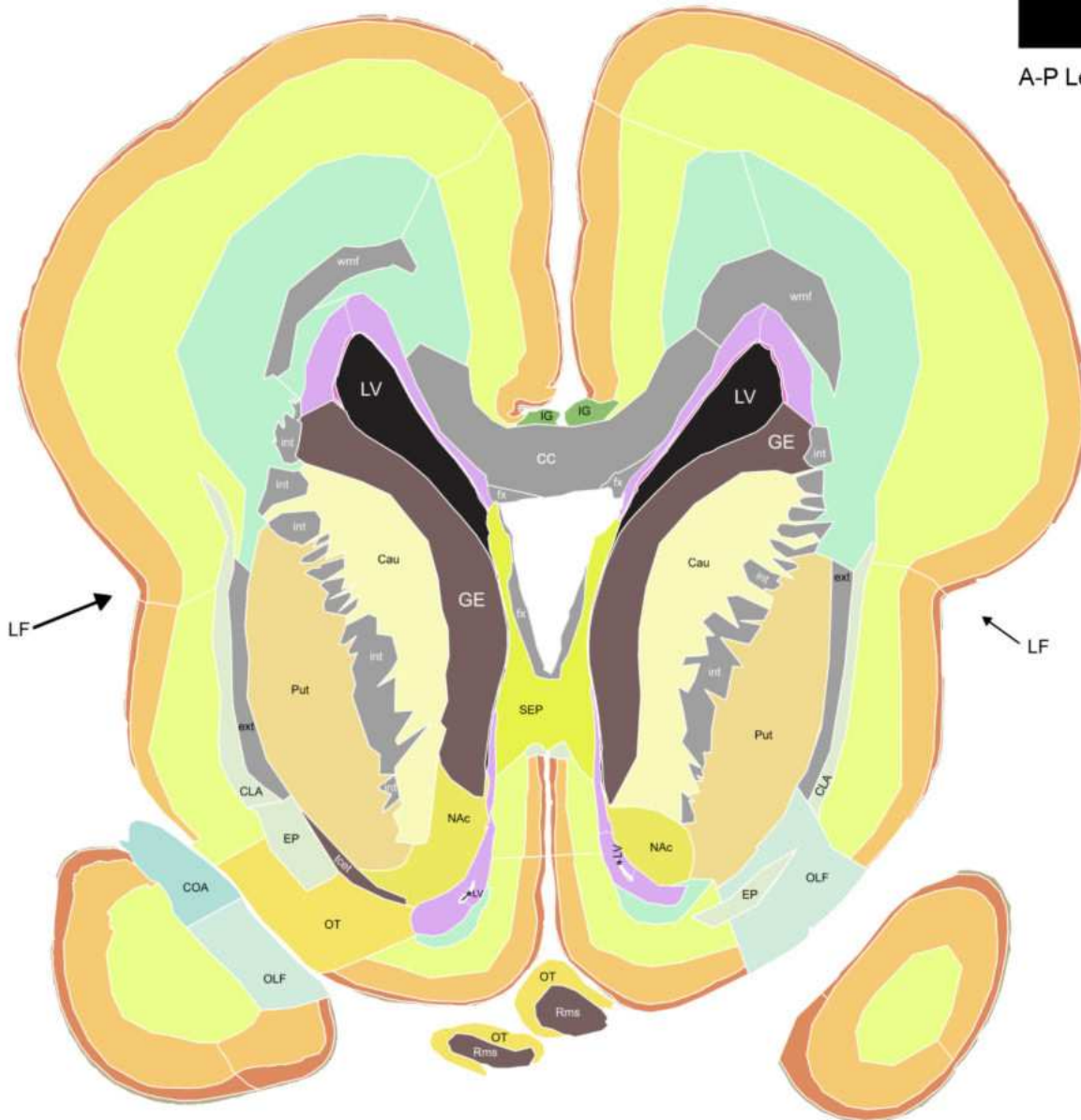
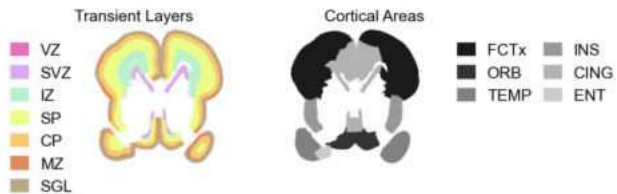
A-P Level: 6.18 mm



5 mm



A-P Level: 6.18 mm



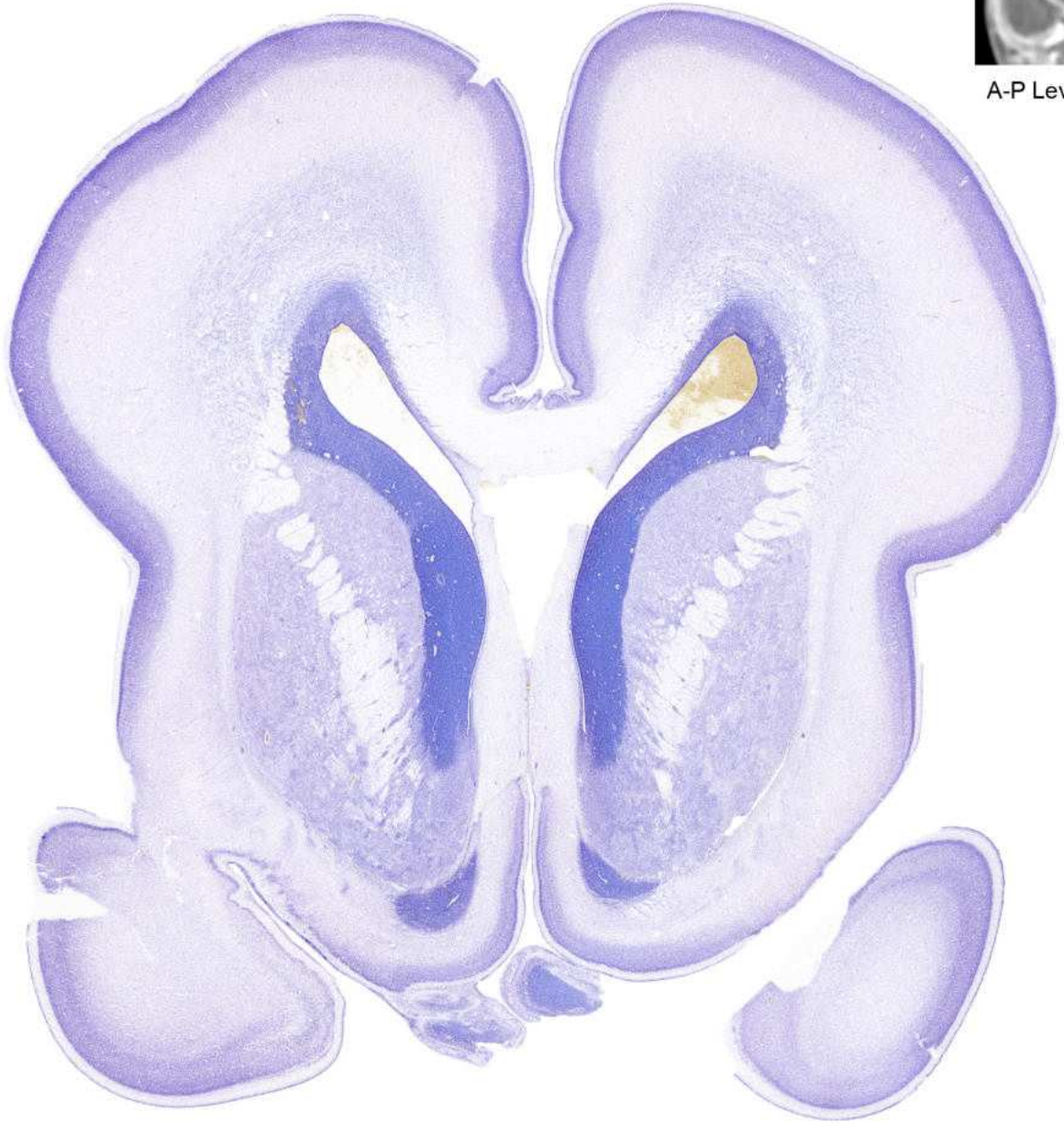
5 mm

- | | | | |
|----------------------------------|------------------------|-------------------------------|---|
| CLA: Claustrum | IG: Induseum griseum | Rms: Rostral migratory stream | fx: Fornix |
| COA: Cortical nucleus [amygdala] | LV: Lateral ventricle | SEP: Septum | int: Internal capsule |
| Cau: Caudate nucleus | NAc: Nucleus accumbens | TT: Tenia tecta | tcet: Transient cell zone in the external capsule |
| EP: Endopiriform nucleus | OT: Olfactory tubercle | cc: Corpus callosum | wmf: White matter fibers |
| GE: Ganglionic eminence | Put: Putamen | ext: External capsule | → LF: Lateral fissure |

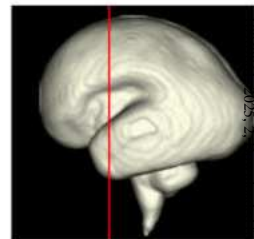
Age: 22 GW



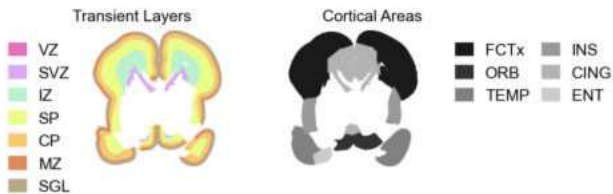
A-P Level: 5.94 mm



5 mm



A-P Level: 5.94 mm



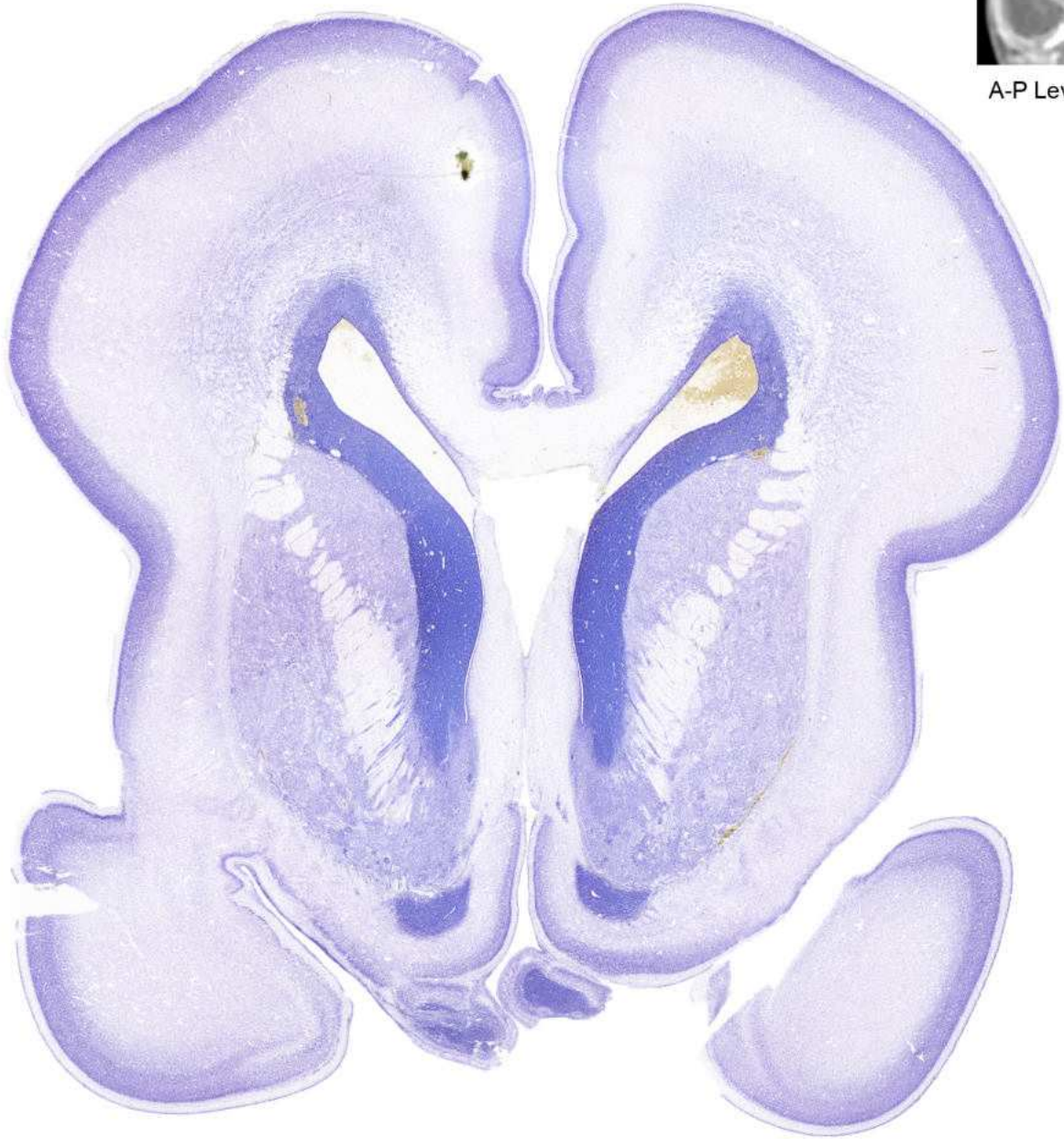
5 mm

- | | | | | |
|----------------------------------|-------------------------------|-------------------------------|--|-----------------------|
| CLA: Claustrum | IG: Induseum griseum | Put: Putamen | ext: External capsule | → LF: Lateral fissure |
| COA: Cortical nucleus [amygdala] | LV: Lateral ventricle | Rms: Rostral migratory stream | fx: Fornix | |
| Cau: Caudate nucleus | Lms: Lateral migratory stream | SEP: Septum | int: Internal capsule | |
| EP: Endopiriform nucleus | NAc: Nucleus accumbens | TT: Tenia tecta | tct: Transient cell zone in the external capsule | |
| GE: Ganglionic eminence | OT: Olfactory tubercle | cc: Corpus callosum | wmf: White matter fibers | |

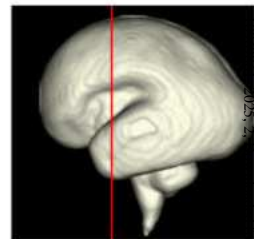
Age: 22 GW



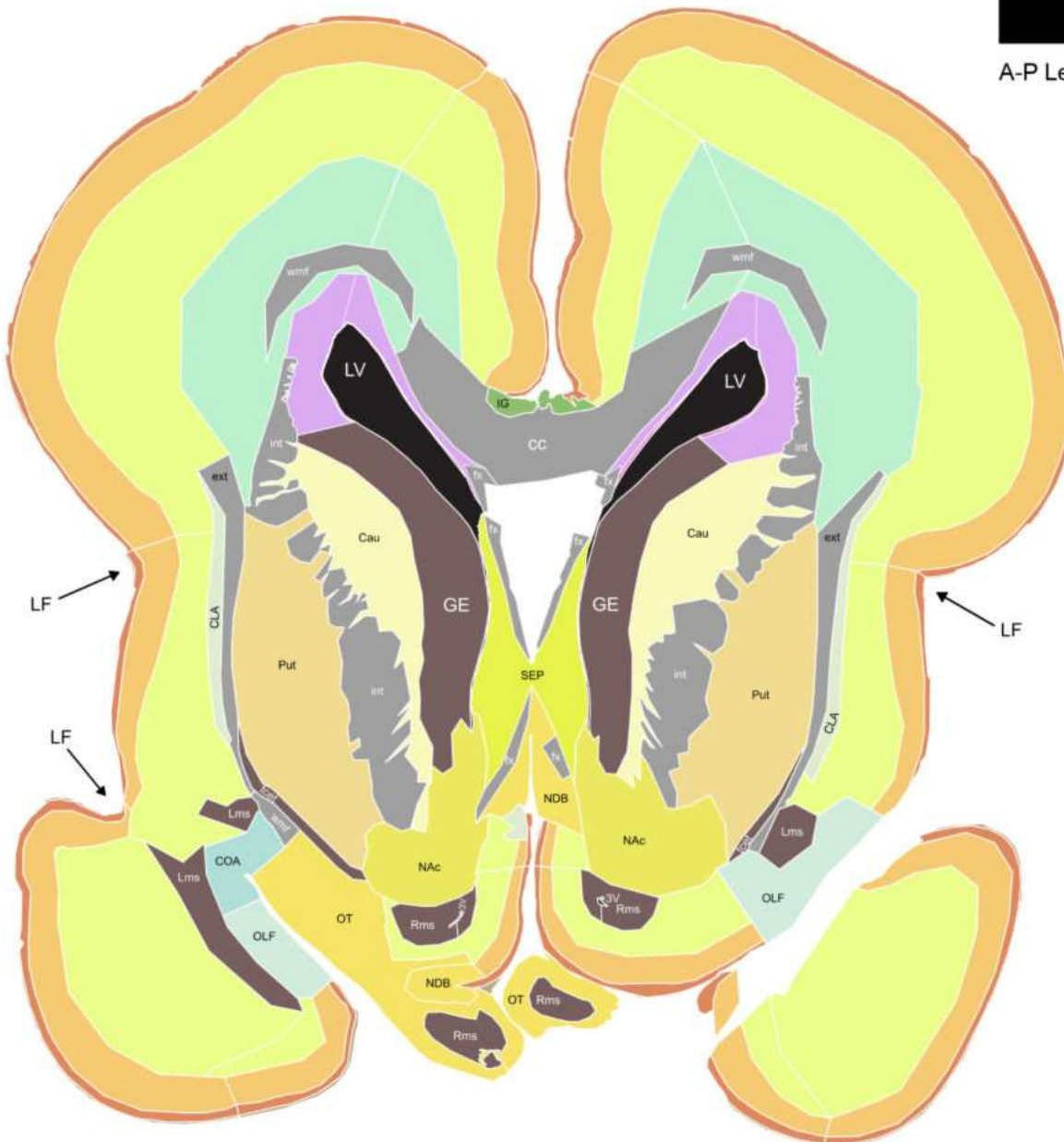
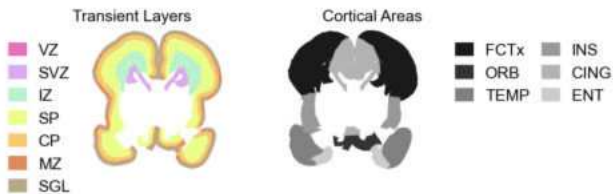
A-P Level: 5.34 mm



5 mm



A-P Level: 5.34 mm



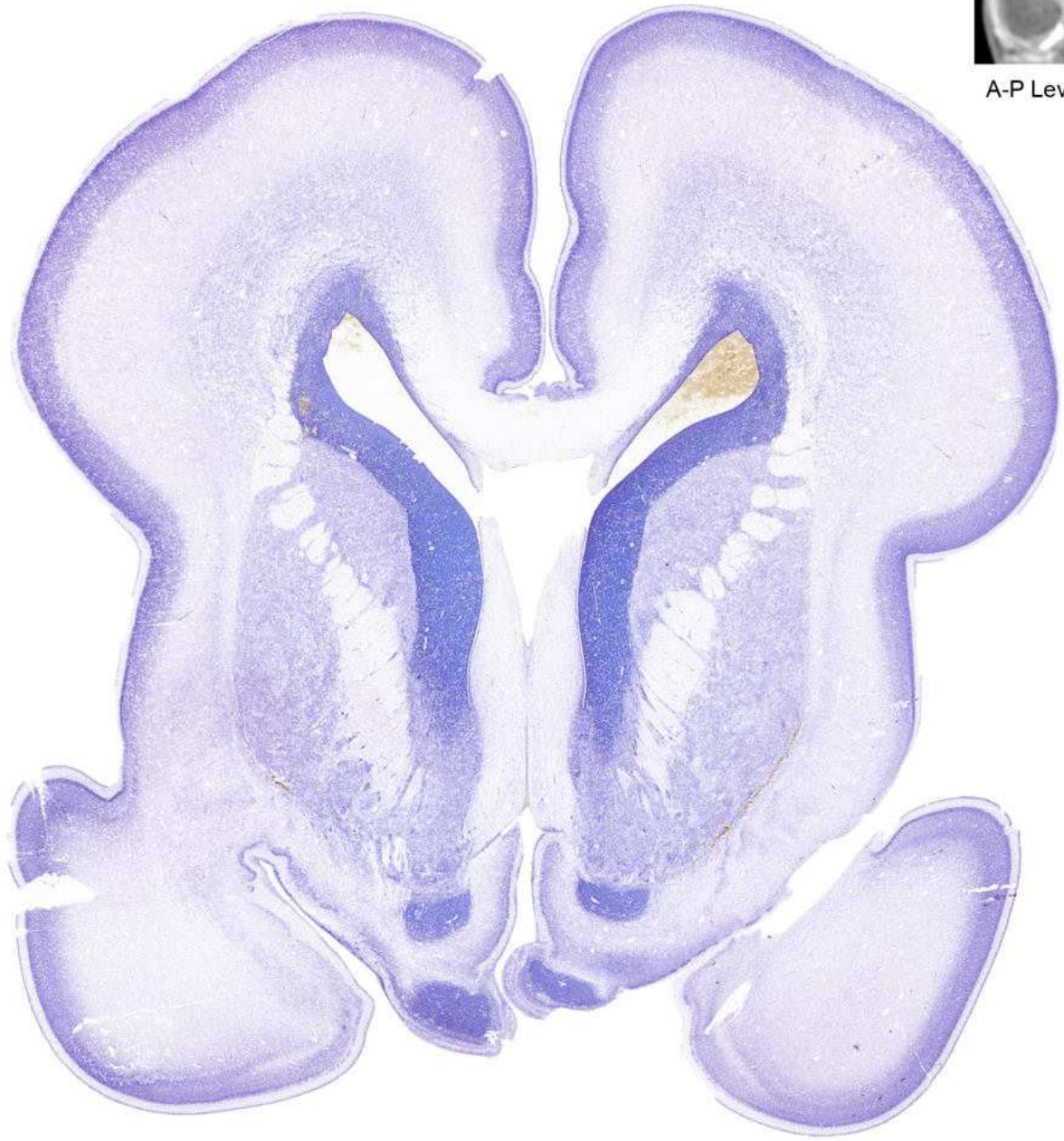
5 mm

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|--|---|--|---|
| <ul style="list-style-type: none"> 3V: Third ventricle CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus GE: Ganglionic eminence IG: Induseum griseum | <ul style="list-style-type: none"> LV: Lateral ventricle Lms: Lateral migratory stream NAC: Nucleus accumbens NDB: Nucleus of the diagonal band OT: Olfactory tubercle | <ul style="list-style-type: none"> Put: Putamen Rms: Rostral migratory stream SEP: Septum TT: Tenia tecta cc: Corpus callosum | <ul style="list-style-type: none"> ext: External capsule fx: Fornix int: Internal capsule tct: Transient cell zone in the external capsule wmf: White matter fibers → LF: Lateral fissure |
|--|---|--|---|

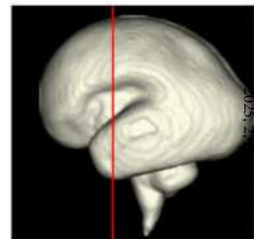
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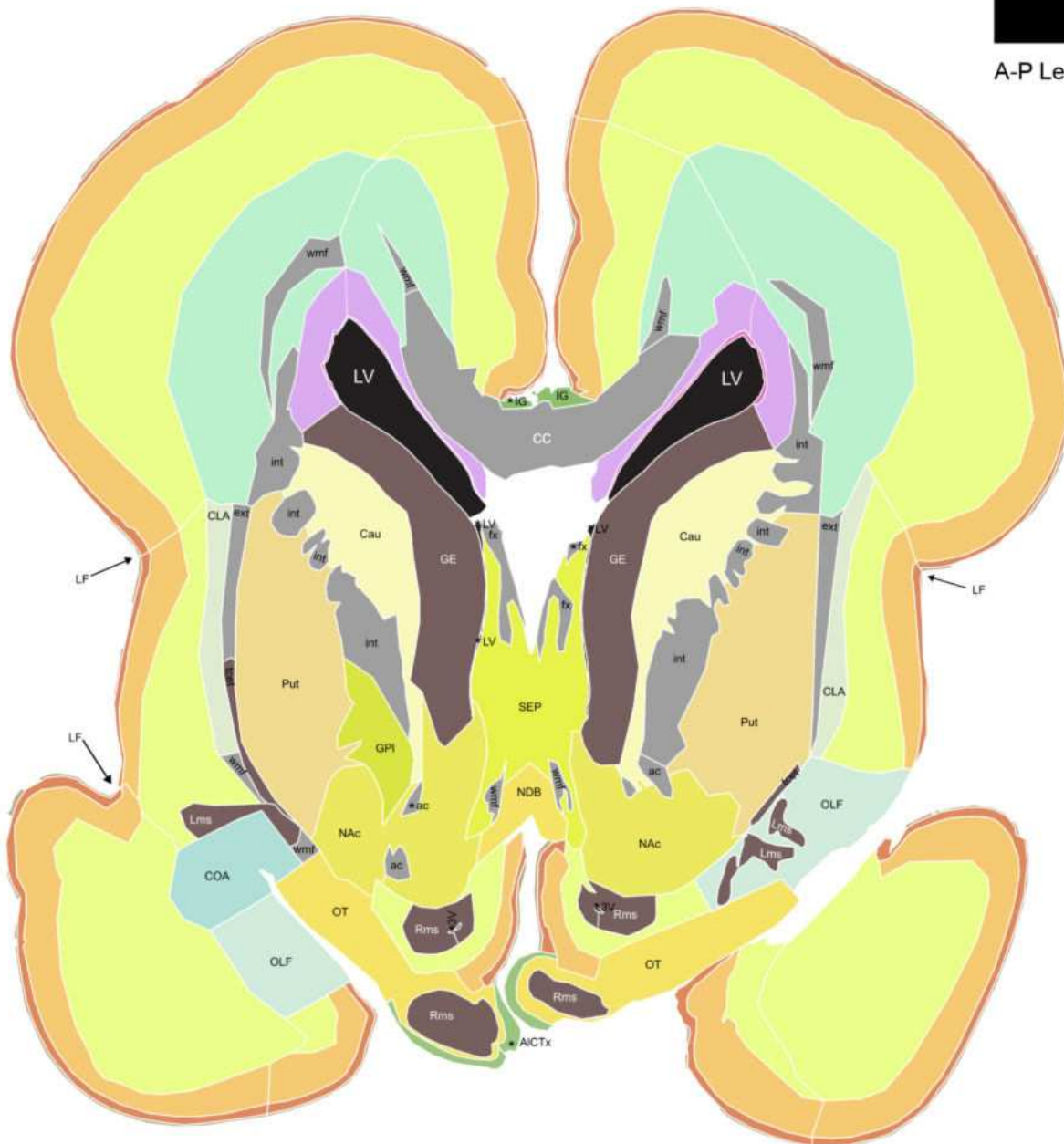
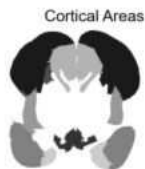
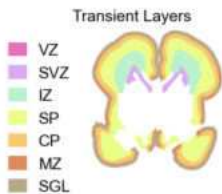
A-P Level: 4.98 mm



5 mm



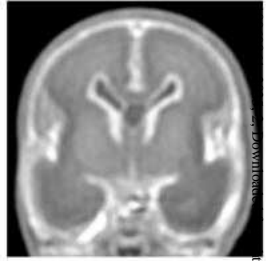
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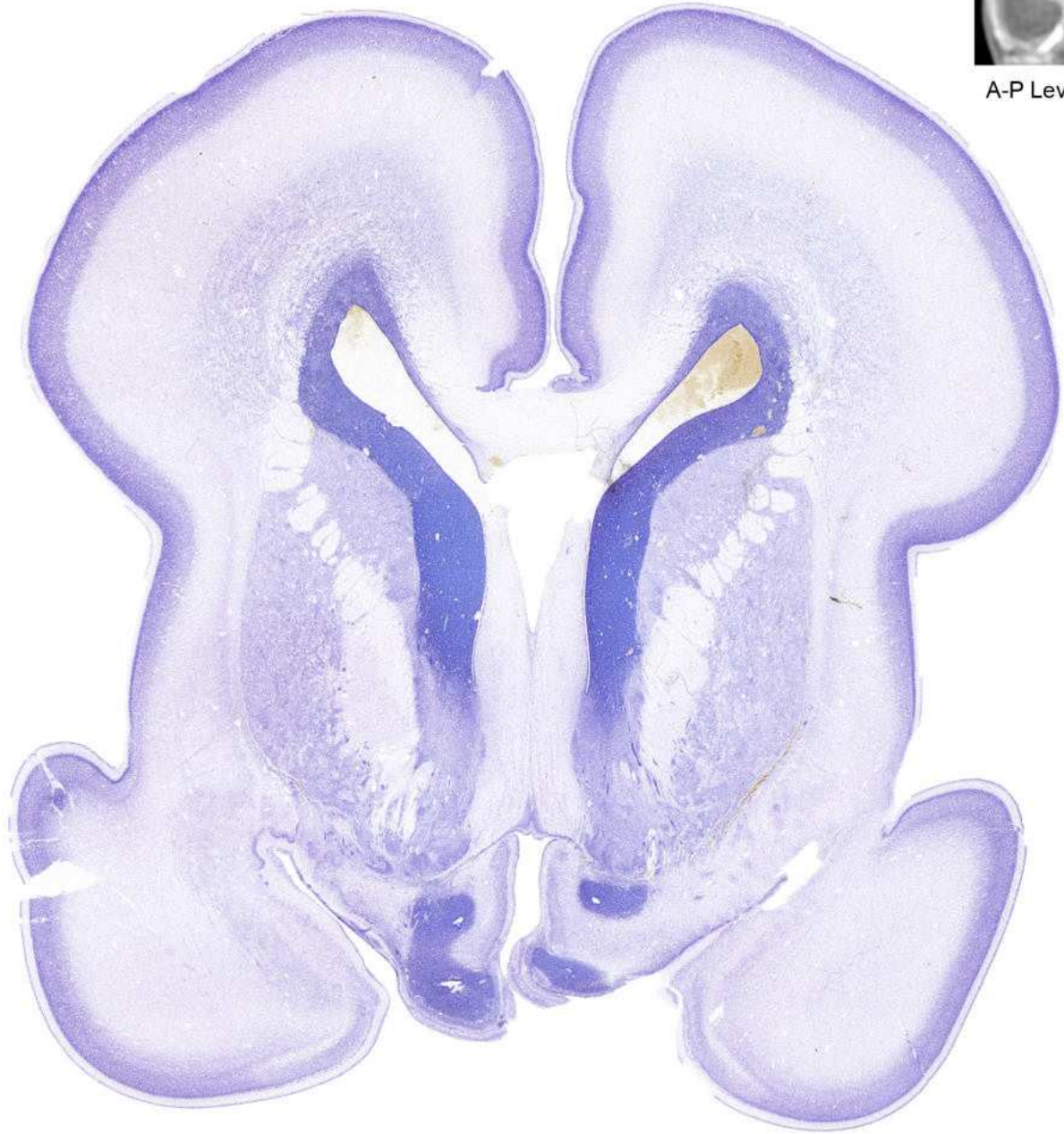
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| <ul style="list-style-type: none"> 3V: Third ventricle AICTx: Allocortex CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment IG: Induseum griseum LV: Lateral ventricle Lms: Lateral migratory stream NAC: Nucleus accumbens NDB: Nucleus of the diagonal band | <ul style="list-style-type: none"> OT: Olfactory tubercle Put: Putamen Rms: Rostral migratory stream SEP: Septum ac: Anterior commissure cc: Corpus callosum | <ul style="list-style-type: none"> ext: External capsule fx: Fornix int: Internal capsule tcet: Transient cell zone in the external capsule wmf: White matter fibers LF: Lateral fissure |
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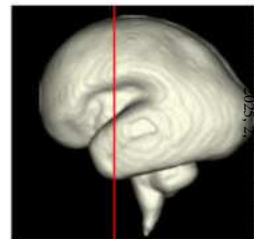
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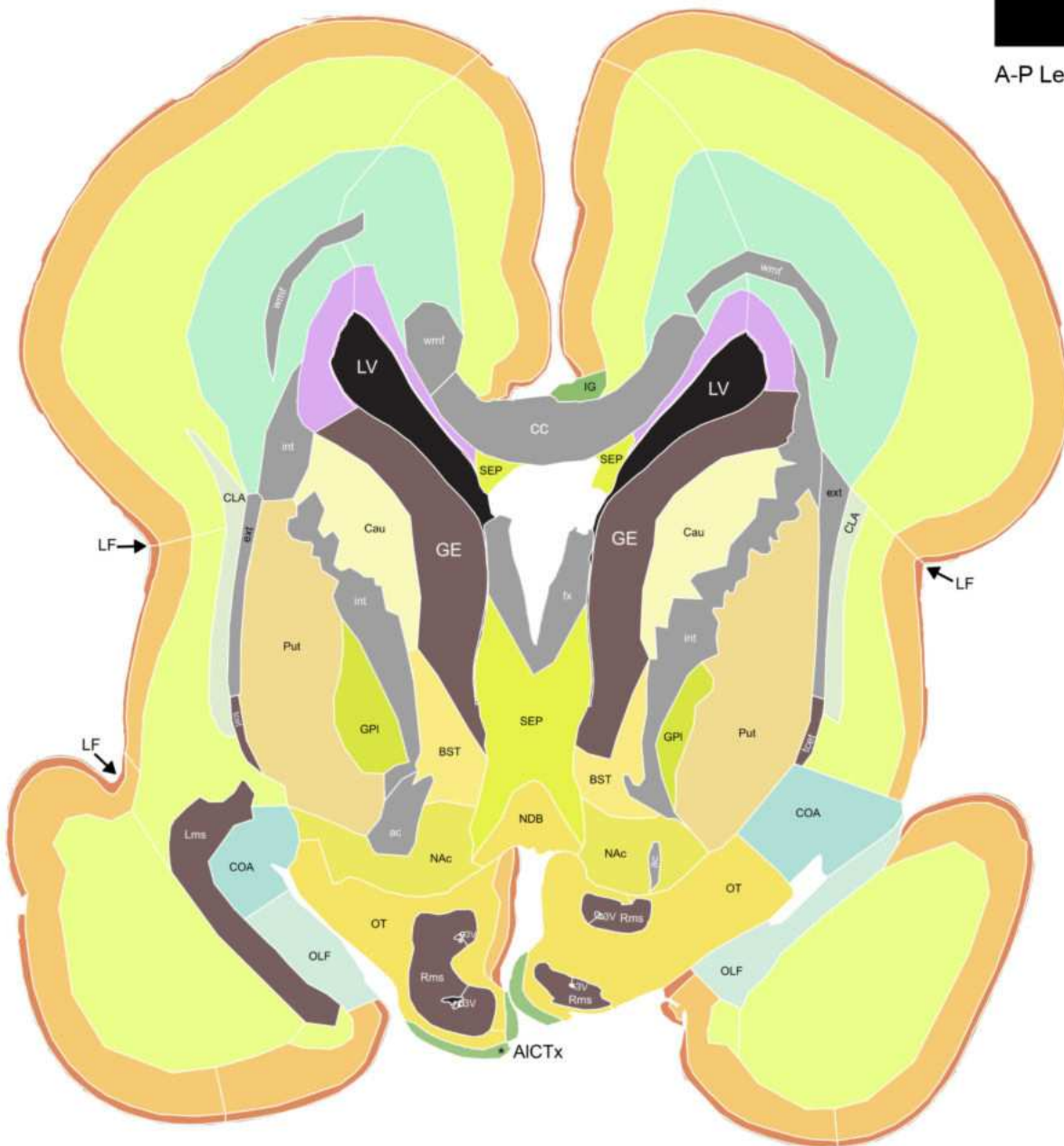
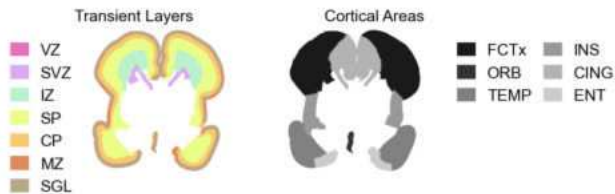
A-P Level: 4.68 mm



5 mm



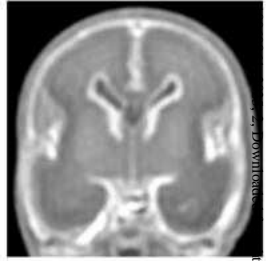
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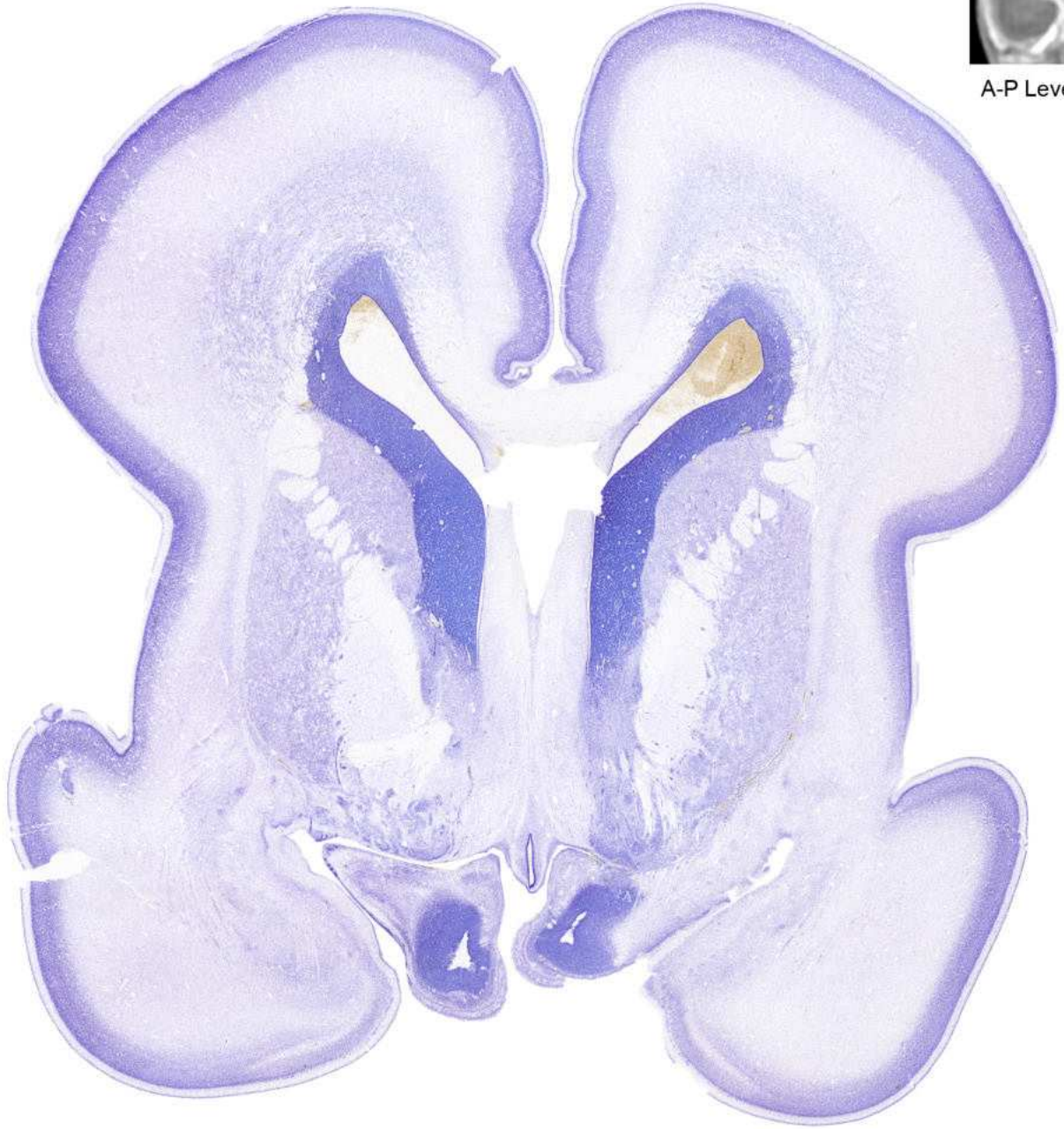
5 mm

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| <ul style="list-style-type: none"> 3V: Third ventricle AICTx: Allocortex BST: Bed nucleus of the stria terminalis CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment IG: Induseum griseum LV: Lateral ventricle Lms: Lateral migratory stream NAC: Nucleus accumbens | <ul style="list-style-type: none"> NDB: Nucleus of the diagonal band OT: Olfactory tubercle Put: Putamen Rms: Rostral migratory stream SEP: Septum ac: Anterior commissure | <ul style="list-style-type: none"> cc: Corpus callosum ext: External capsule fx: Fornix int: Internal capsule tect: Transient cell zone in the external capsule wmf: White matter fibers LF: Lateral fissure |
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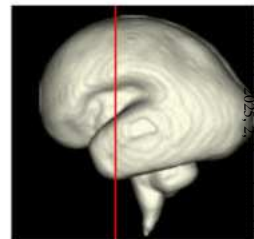
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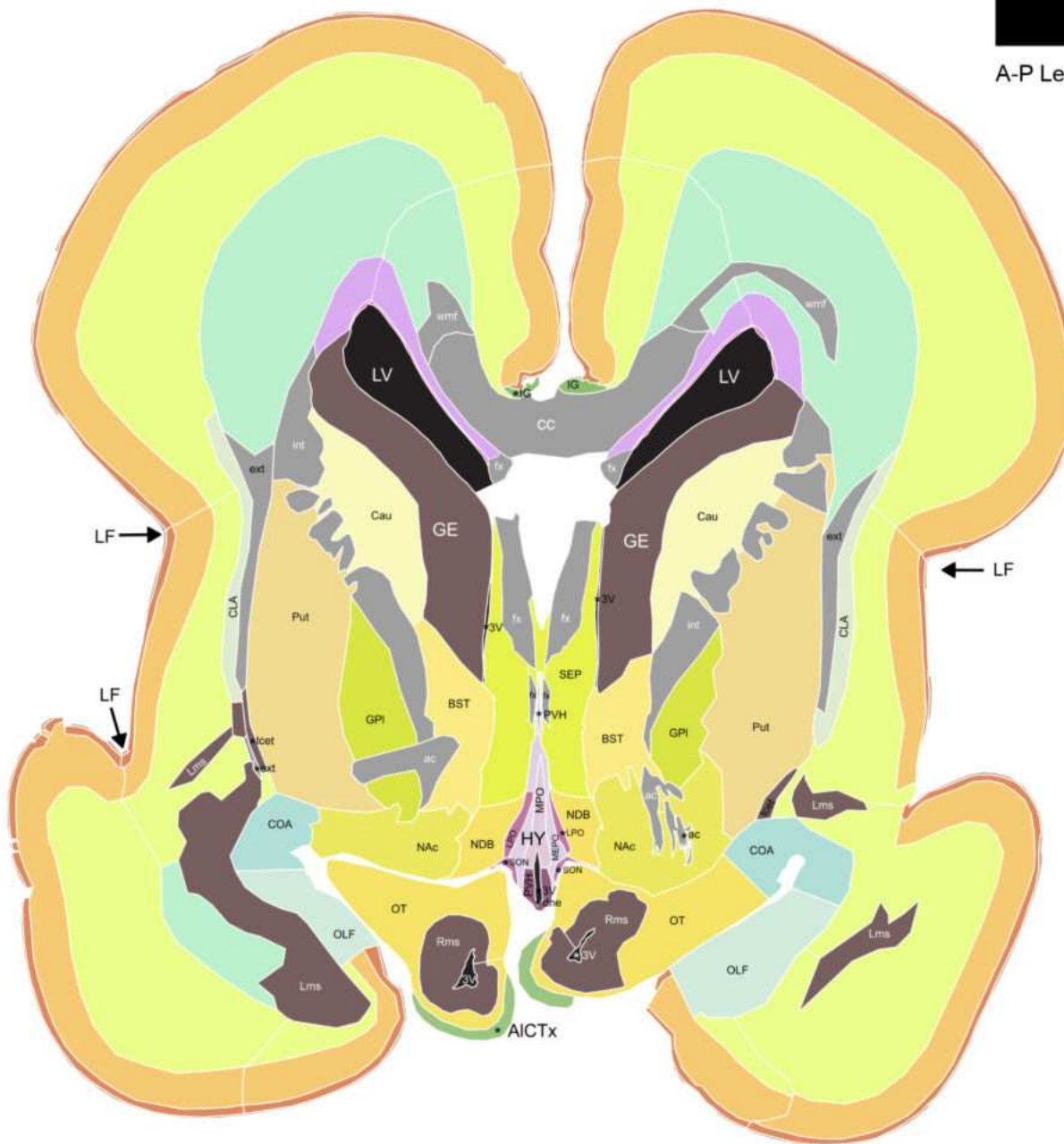
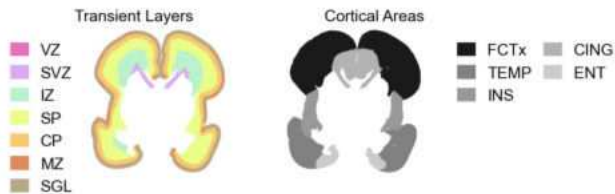
A-P Level: 4.26 mm



5 mm



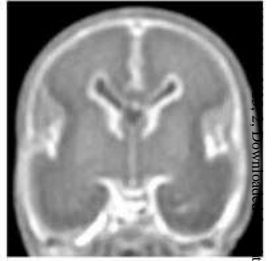
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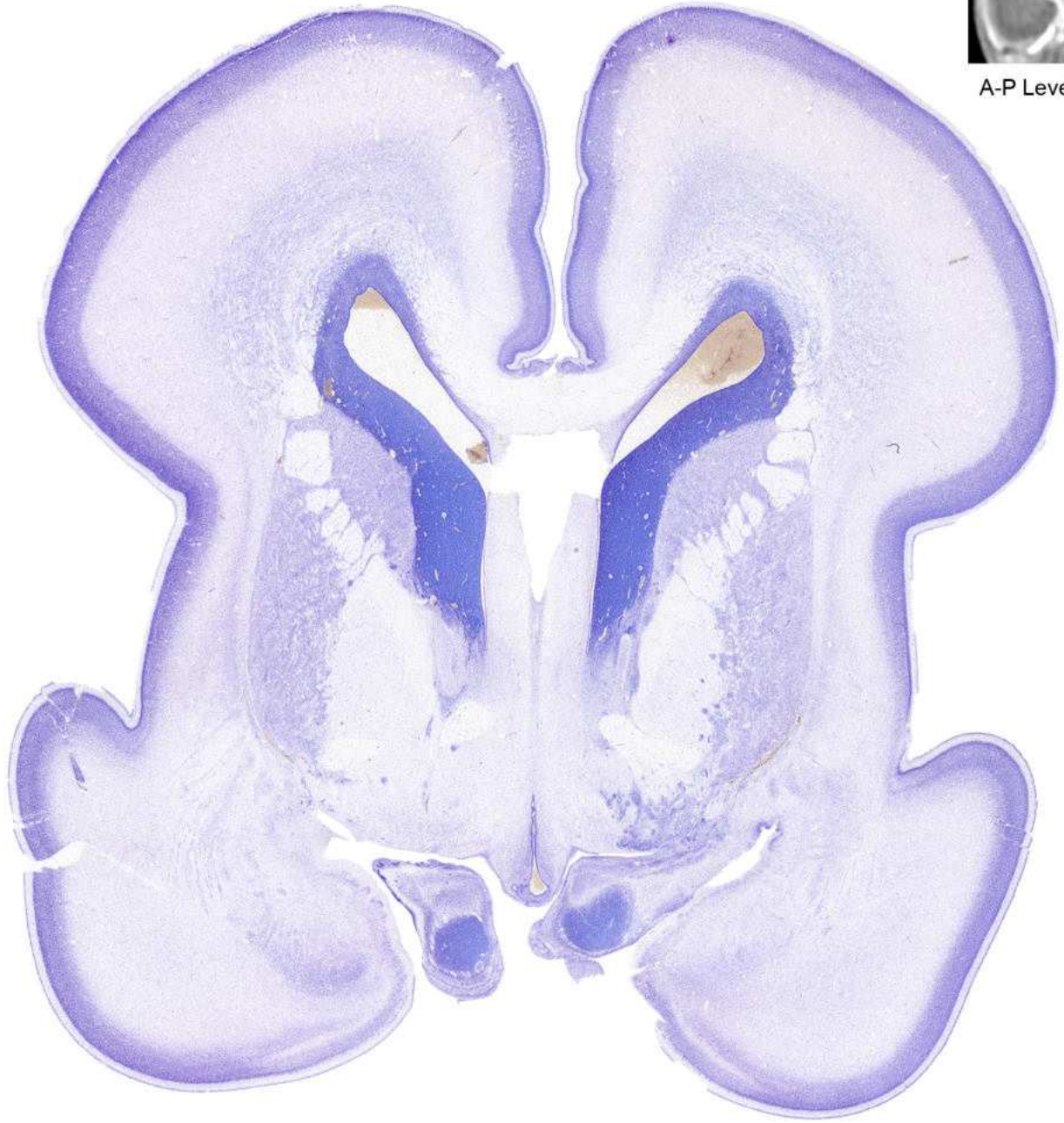
5 mm

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| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ AICTx: Allocortex ■ BST: Bed nucleus of the stria terminalis ■ CLA: Claustrum ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment | <ul style="list-style-type: none"> ■ HY: Hypothalamus ■ IG: Induseum griseum ■ LPO: Lateral preoptic area ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream ■ MEPO: Medial preoptic area ■ MPO: Medial preoptic nucleus ■ NAC: Nucleus accumbens | <ul style="list-style-type: none"> ■ NDB: Nucleus of the diagonal band ■ OT: Olfactory tubercle ■ PVH: Paraventricular nucleus [hypothalamus] ■ Put: Putamen ■ Rms: Rostral migratory stream ■ SEP: Septum ■ SON: Supraoptic nucleus [hypothalamus] ■ ac: Anterior commissure | <ul style="list-style-type: none"> ■ cc: Corpus callosum ■ dne: Diencephalic neuroepithelium ■ ext: External capsule ■ fx: Fornix ■ int: Internal capsule ■ tcet: Transient cell zone in the external capsule ■ wmf: White matter fibers → LF: Lateral fissure |
|---|--|---|--|

Age: 22 GW



A-P Level: 3.78 mm

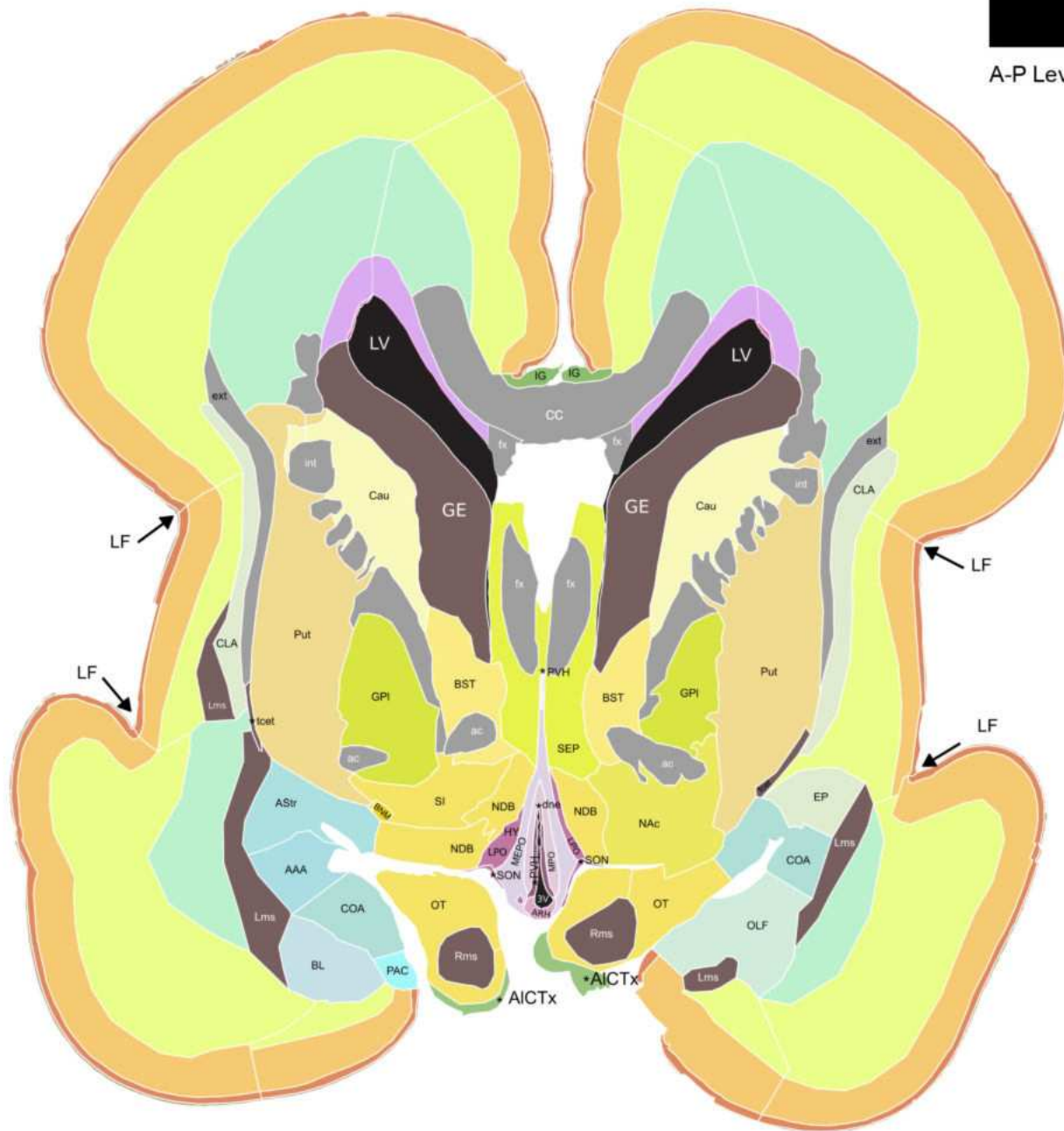
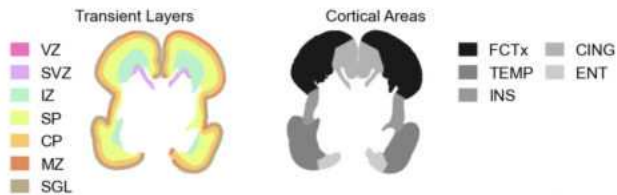


5 mm

Age: 22 GW



A-P Level: 3.78 mm



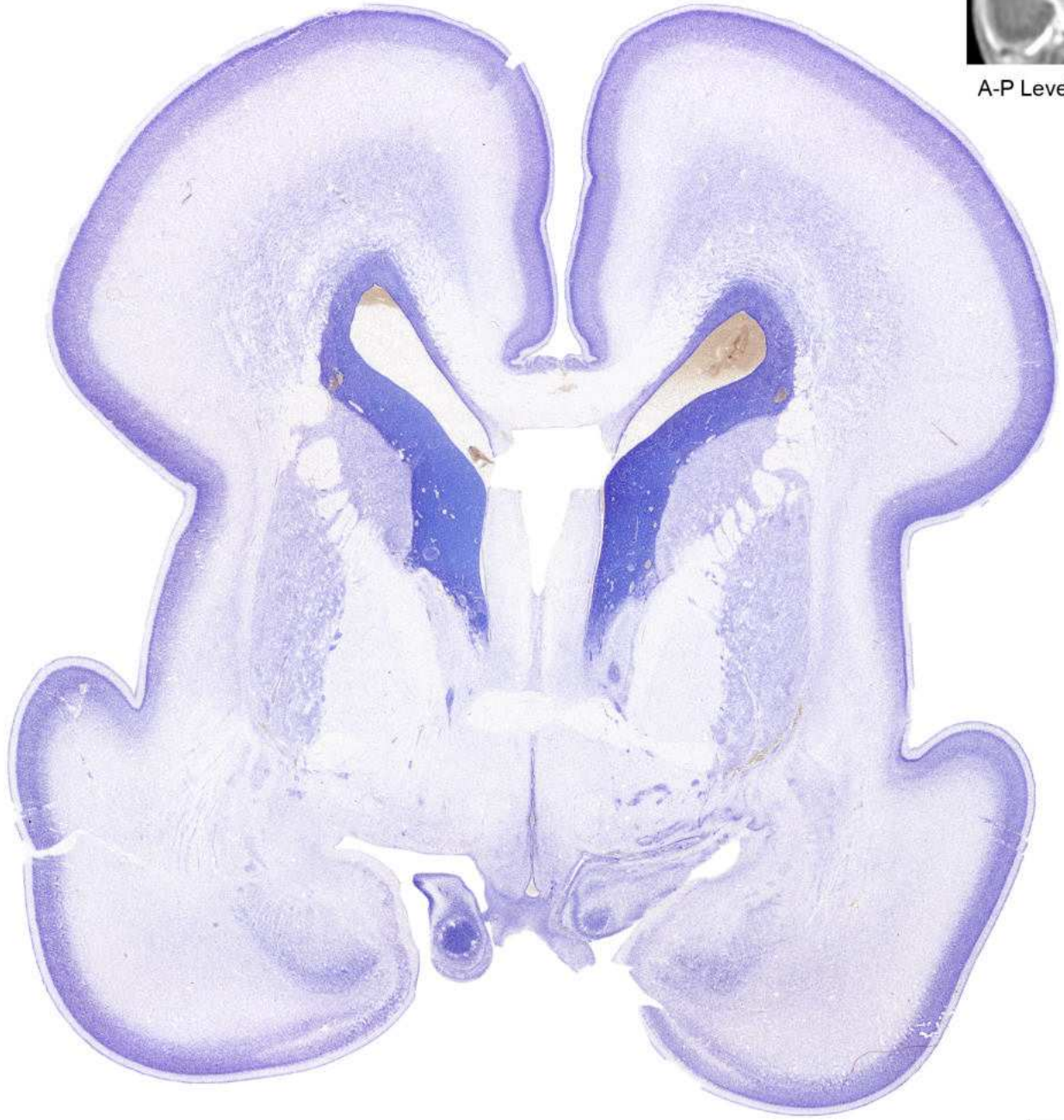
5 mm

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|---|---|--|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ AAA: Anterior amygdaloid area ■ ARH: Arcuate nucleus [hypothalamus] ■ AStr: Amygdalo-striatal area ■ AICTx: Allocortex ■ BL: Basal nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ BST: Bed nucleus of the stria terminalis ■ CLA: Claustrum ■ COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> ■ Cau: Caudate nucleus ■ EP: Endopiriform nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ HY: Hypothalamus ■ IG: Induseum griseum ■ LPO: Lateral preoptic area ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream | <ul style="list-style-type: none"> ■ MEPO: Medial preoptic area ■ MPO: Medial preoptic nucleus ■ NAc: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ OT: Olfactory tubercle ■ PVH: Paraventricular nucleus [hypothalamus] ■ Put: Putamen ■ Rms: Rostral migratory stream ■ SEP: Septum | <ul style="list-style-type: none"> ■ SI: Substantia innominata ■ SON: Supraoptic nucleus [hypothalamus] ■ ac: Anterior commissure ■ cc: Corpus callosum ■ dne: Diencephalic neuroepithelium ■ ext: External capsule ■ fx: Fornix ■ int: Internal capsule ■ tctet: Transient cell zone in the external capsule → LF: Lateral fissure |
|---|---|--|---|

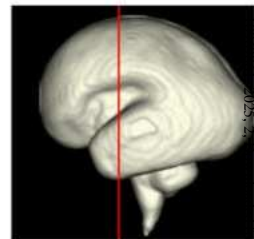
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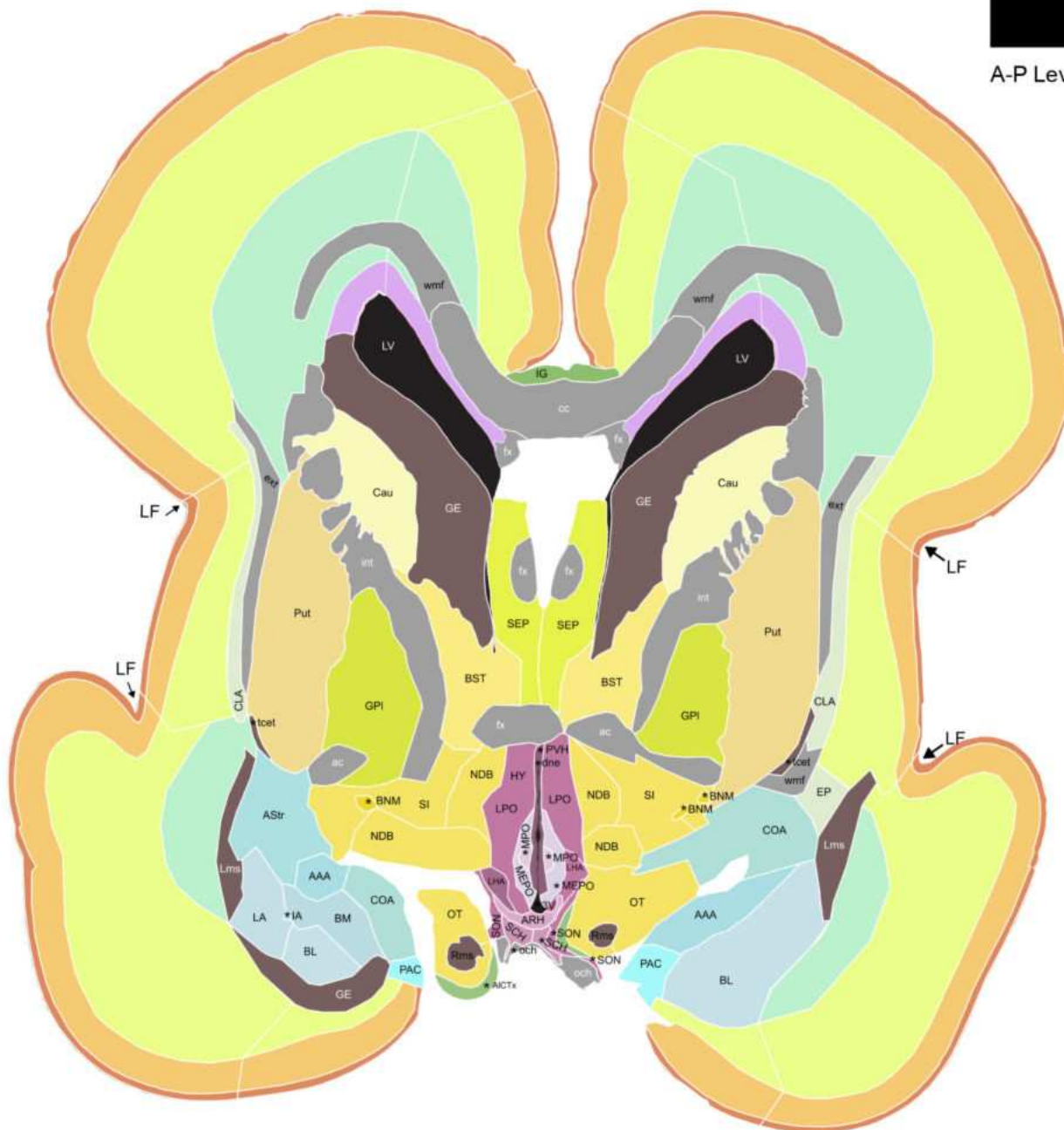
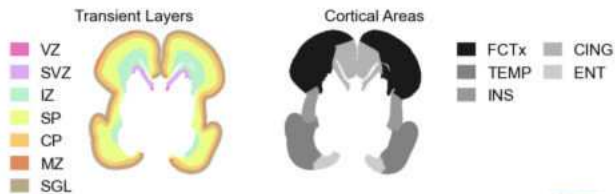
A-P Level: 3.48 mm



5 mm



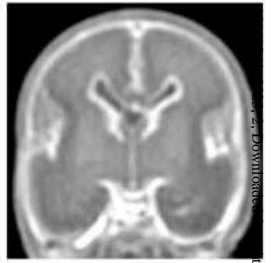
A-P Level: 3.48 mm



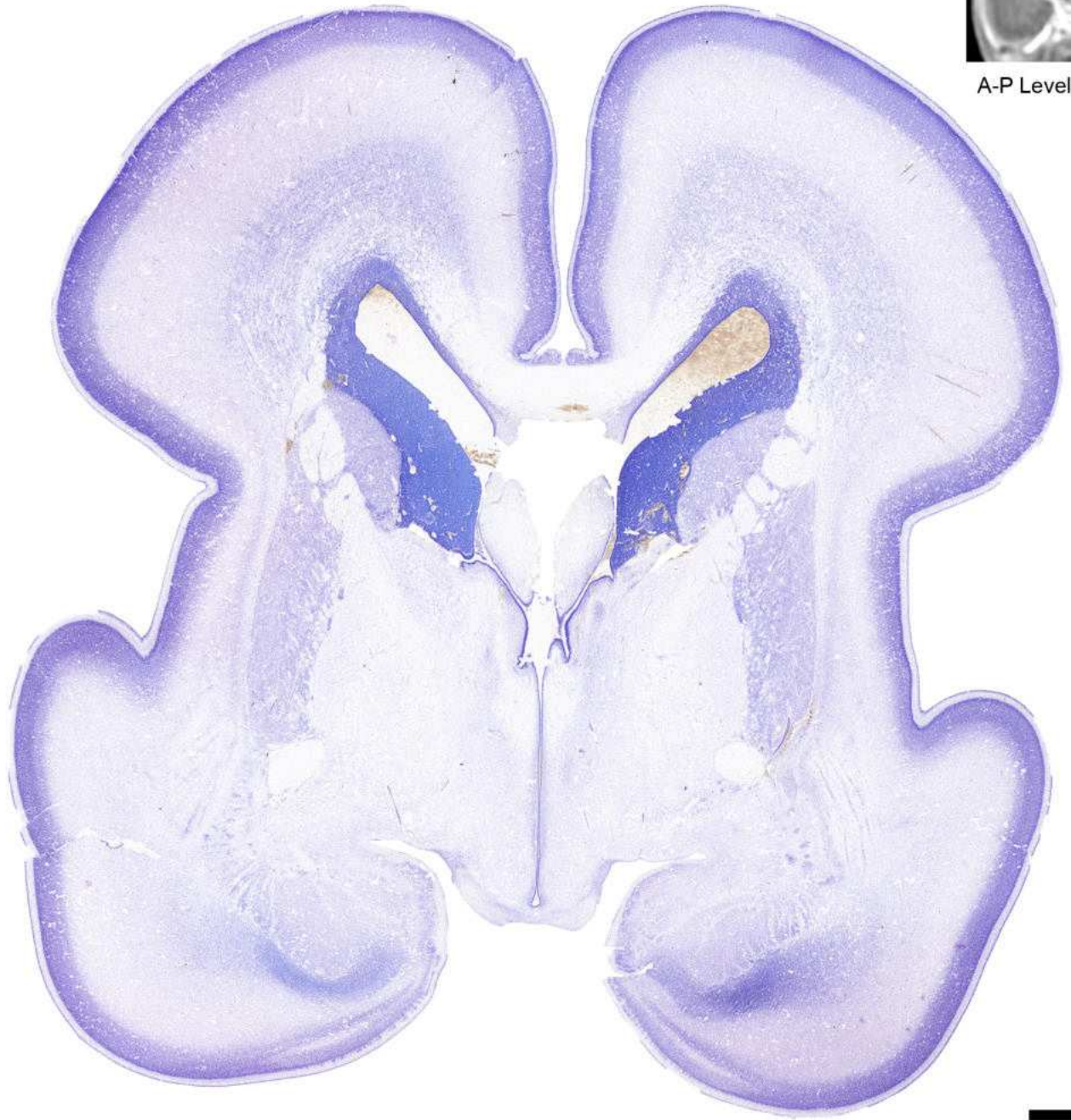
5 mm

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|--|---|---|--|
| <ul style="list-style-type: none"> 3V: Third ventricle AAA: Anterior amygdaloid area ARH: Arcuate nucleus [hypothalamus] AStr: Amygdalo-striatal area AICTx: Allocortex BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert BST: Bed nucleus of the stria terminalis CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HY: Hypothalamus IA: Intercalated cell groups [amygdala] IG: Induseum griseum LA: Lateral nucleus [amygdala] LHA: Lateral hypothalamic area LPO: Lateral preoptic area LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream MEPO: Medial preoptic area MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band OT: Olfactory tubercle OT: Olfactory tubercle PVH: Paraventricular nucleus [hypothalamus] Put: Putamen Rms: Rostral migratory stream SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SI: Substantia innominata | <ul style="list-style-type: none"> SON: Supraoptic nucleus [hypothalamus] ac: Anterior commissure cc: Corpus callosum dne: Diencephalic neuroepithelium ext: External capsule fx: Fornix int: Internal capsule och: Optic chiasm tect: Transient cell zone in the external capsule wmf: White matter fibers → LF: Lateral fissure |
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Age: 22 GW



A-P Level: 2.4 mm



5 mm

Transient Layers

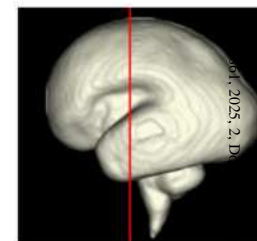
- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



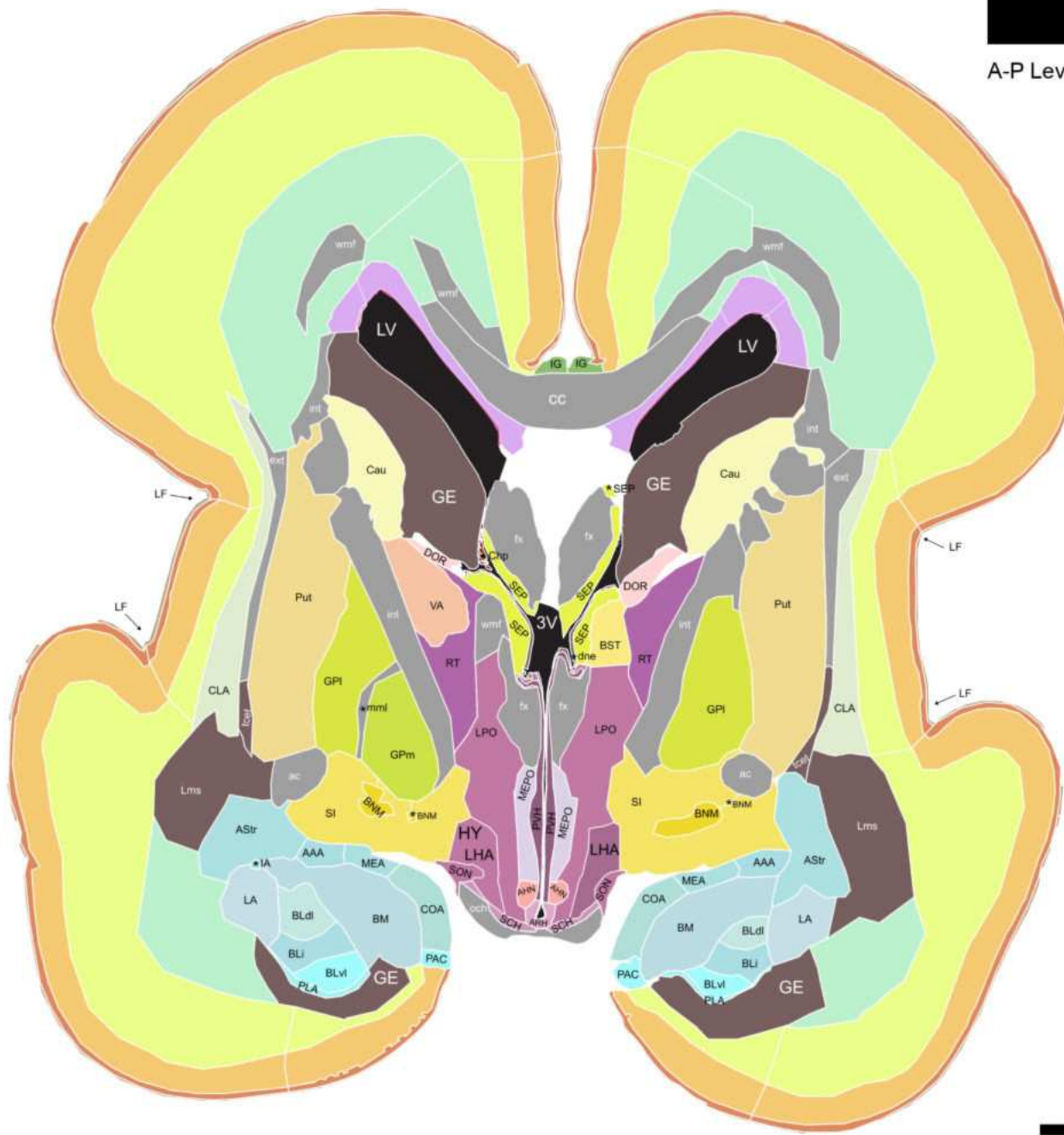
Cortical Areas



- FCTx
- PAR
- TEMP
- INS
- CING
- ENT



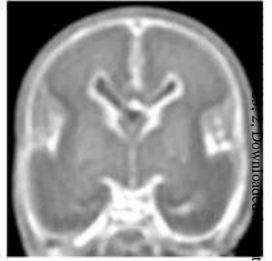
A-P Level: 2.4 mm



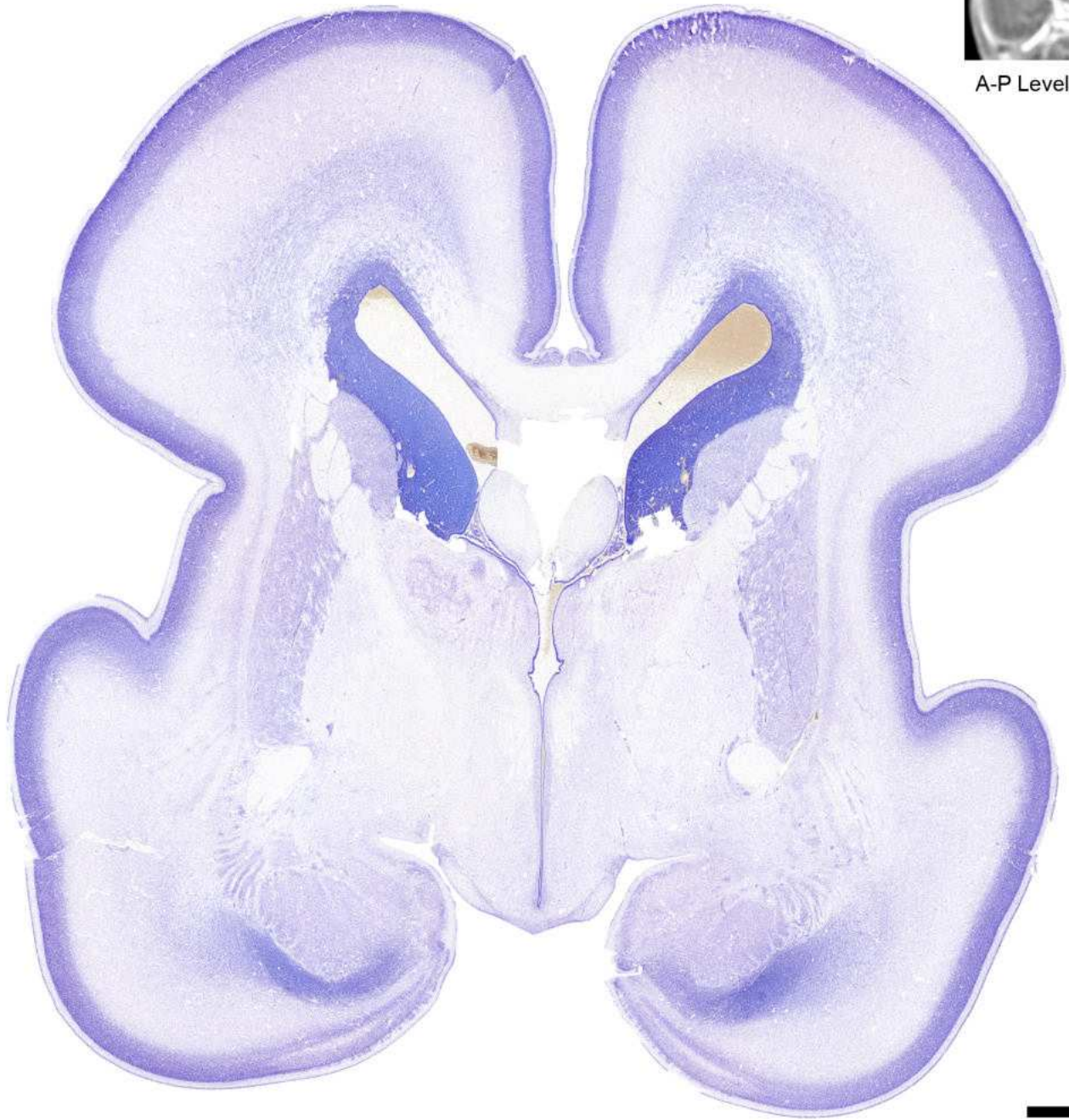
5 mm

- 3V: Third ventricle
- AAA: Anterior amygdaloid area
- AHN: Anterior hypothalamic nucleus
- ARH: Arcuate nucleus [hypothalamus]
- AStr: Amygdalo-striatal area
- BLd: Basal nucleus [amygdala], dorsolateral part
- BLi: Basal nucleus [amygdala], intermediate part
- BLvl: Basal nucleus [amygdala], ventrolateral part
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- BST: Bed nucleus of the stria terminalis
- CLA: Claustrum
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DOR: Dorsal complex [thalamus]
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- HY: Hypothalamus
- IA: Intercalated cell groups [amygdala]
- IG: Induseum griseum
- LA: Lateral nucleus [amygdala]
- LHA: Lateral hypothalamic area
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- MEA: Medial nucleus [amygdala]
- MEPO: Medial preoptic area
- PLA: Paralaminar nucleus [amygdala]
- PVH: Paraventricular nucleus [hypothalamus]
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SON: Supraoptic nucleus [hypothalamus]
- VA: Ventral anterior nucleus [thalamus]
- ac: Anterior commissure
- cc: Corpus callosum
- dne: Diencephalic neuroepithelium
- ext: External capsule
- fx: Fornix
- int: Internal capsule
- mml: Medial medullary lamina
- och: Optic chiasm
- tcet: Transient cell zone in the external capsule
- wmf: White matter fibers
- LF: Lateral fissure

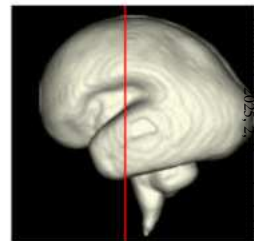
Age: 22 GW



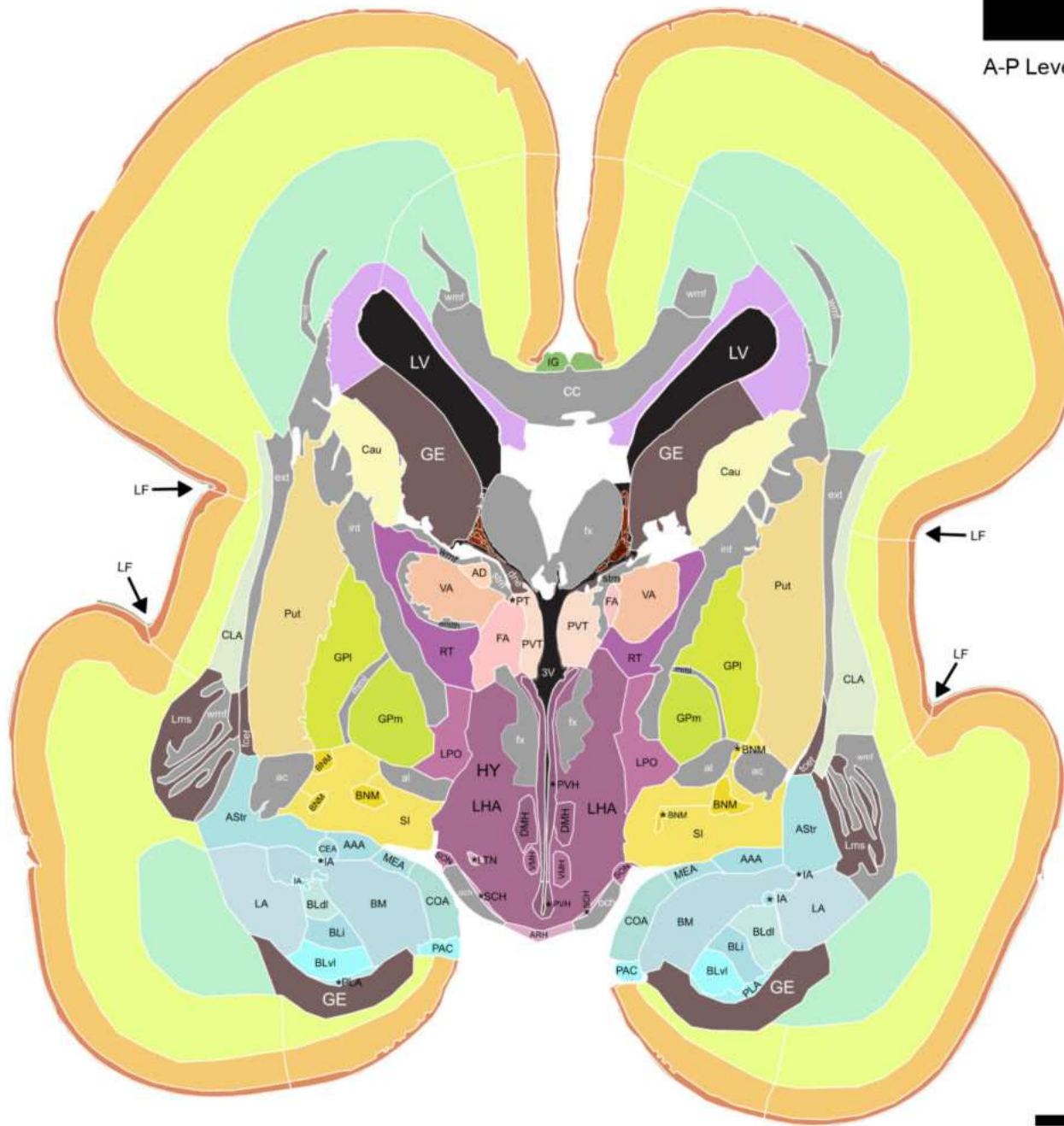
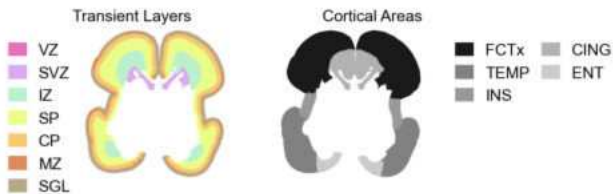
A-P Level: 2.04 mm



5 mm



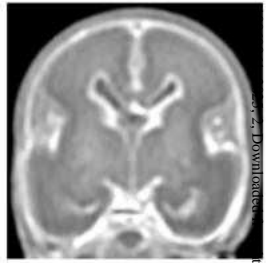
A-P Level: 2.04 mm



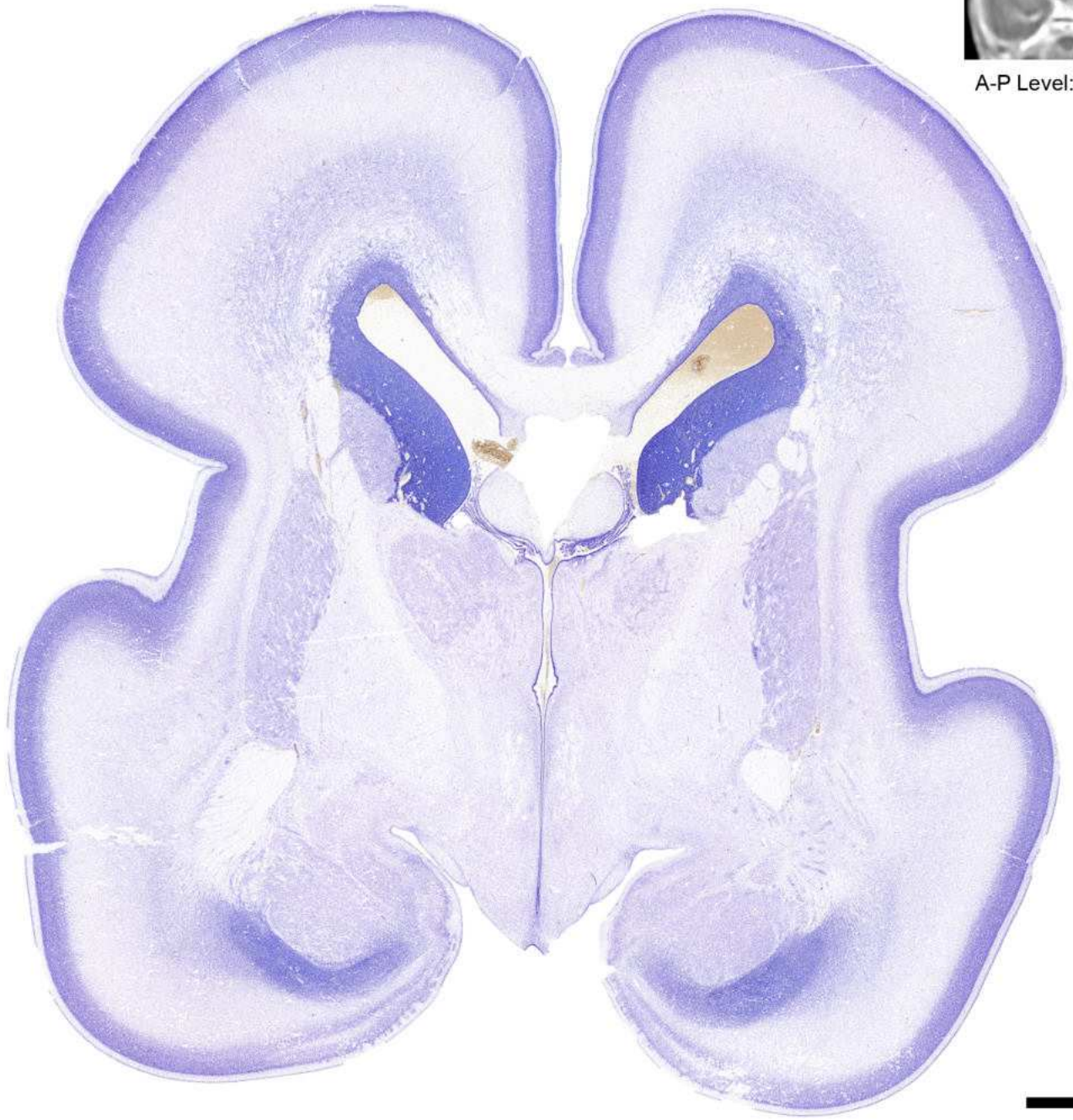
5 mm

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|---|---|--|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ AAA: Anterior amygdaloid area ■ AD: Anterodorsal nucleus [thalamus] ■ ARH: Arcuate nucleus [hypothalamus] ■ AStr: Amygdalo-striatal area ■ BLd: Basal nucleus [amygdala], dorsolateral part ■ BLi: Basal nucleus [amygdala], intermediate part ■ BLvl: Basal nucleus [amygdala], ventrolateral part ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CEA: Central nucleus [amygdala] ■ CLA: Claustrum ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus | <ul style="list-style-type: none"> ■ Chp: Choroid plexus ■ DMH: Dorsomedial nucleus [hypothalamus] ■ FA: Nucleus fasciculosus [thalamus] ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPm: Globus pallidus medial segment ■ HY: Hypothalamus ■ IA: Intercalated cell groups [amygdala] ■ IG: Induseum griseum ■ LA: Lateral nucleus [amygdala] ■ LHA: Lateral hypothalamic area ■ LPO: Lateral preoptic area ■ LTN: Lateral tuberal nucleus ■ LV: Lateral ventricle | <ul style="list-style-type: none"> ■ Lms: Lateral migratory stream ■ MEA: Medial nucleus [amygdala] ■ PLA: Paralaminar nucleus [amygdala] ■ PT: Paratenial nucleus [thalamus] ■ PVH: Paraventricular nucleus [hypothalamus] ■ PVT: Paraventricular nucleus [thalamus] ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SI: Substantia innominata ■ SON: Supraoptic nucleus [hypothalamus] ■ VA: Ventral anterior nucleus [thalamus] ■ VMH: Ventromedial nucleus [hypothalamus] | <ul style="list-style-type: none"> ■ ac: Anterior commissure ■ al: Ansa lenticularis ■ cc: Corpus callosum ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fx: Fornix ■ int: Internal capsule ■ mml: Medial medullary lamina ■ och: Optic chiasm ■ stm: Stria medullaris ■ toet: Transient cell zone in the external capsule ■ wmf: White matter fibers → LF: Lateral fissure |
|---|---|--|---|

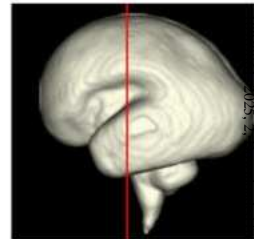
Age: 22 GW



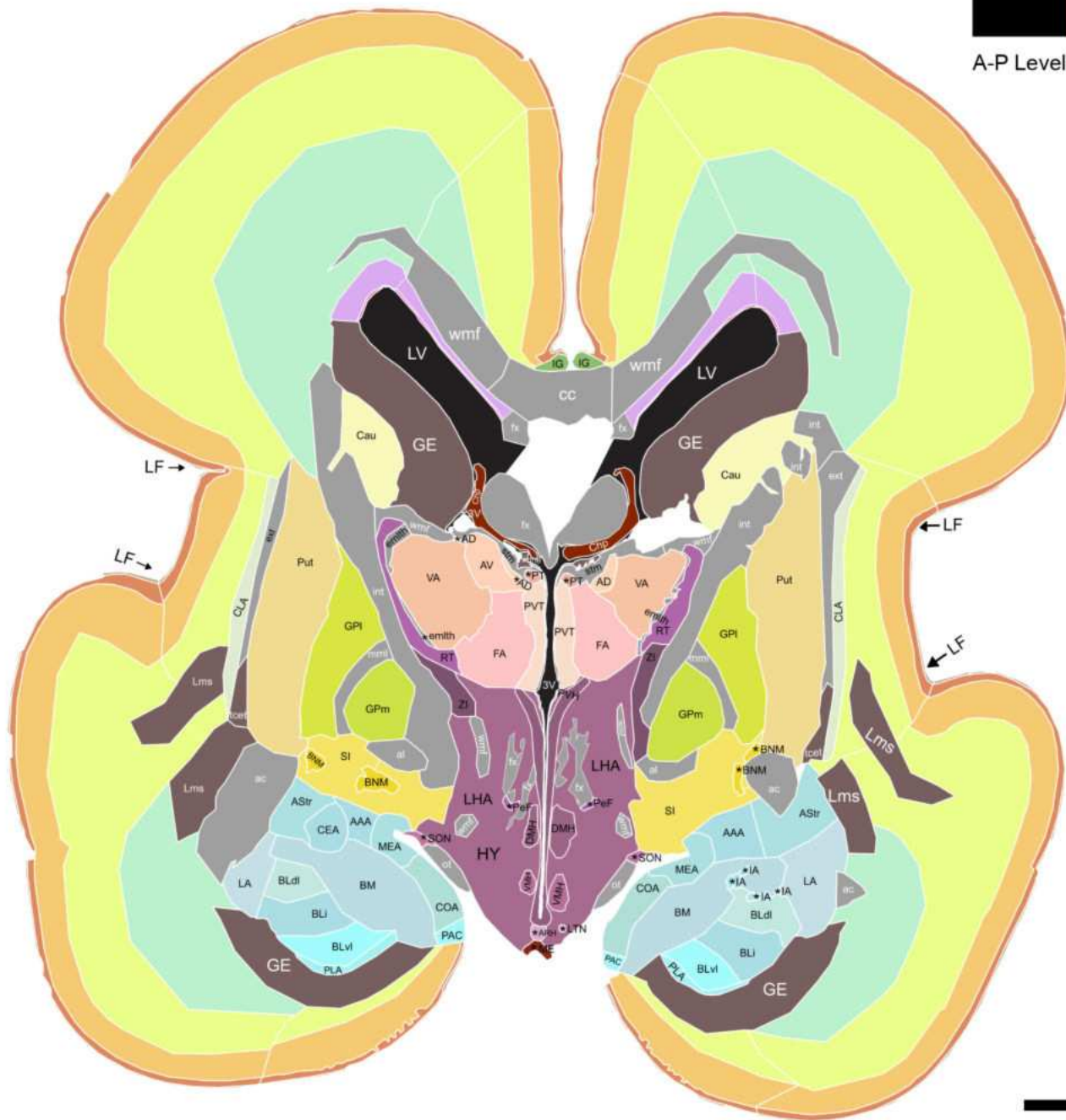
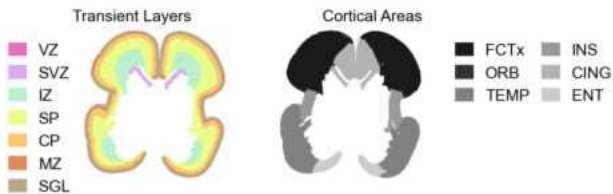
A-P Level: 1.56 mm



5 mm



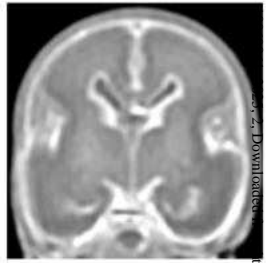
A-P Level: 1.56 mm



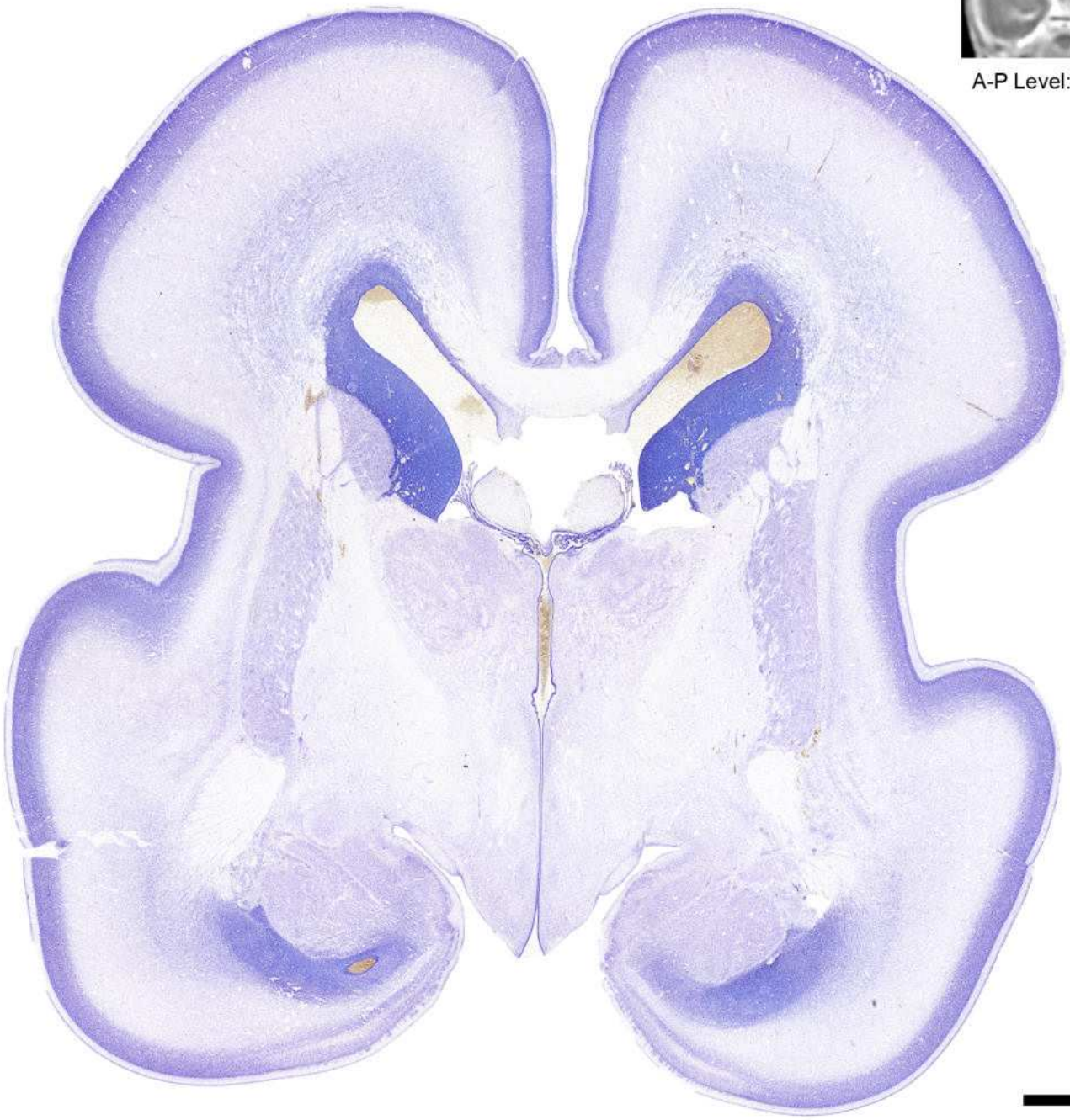
5 mm

- 3V: Third ventricle
- AAA: Anterior amygdaloid area
- AD: Anterodorsal nucleus [thalamus]
- ARH: Arcuate nucleus [hypothalamus]
- AStr: Amygdalo-striatal area
- AV: Anteroventral nucleus [thalamus]
- BLdI: Basal nucleus [amygdala], dorsolateral part
- BLI: Basal nucleus [amygdala], intermediate part
- BLvI: Basal nucleus [amygdala], ventrolateral part
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CEA: Central nucleus [amygdala]
- CLA: Claustrum
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DMH: Dorsomedial nucleus [hypothalamus]
- FA: Nucleus fasciculosus [thalamus]
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- HY: Hypothalamus
- IA: Intercalated cell groups [amygdala]
- IG: Induseum griseum
- LA: Lateral nucleus [amygdala]
- LHA: Lateral hypothalamic area
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- ME: Median eminence
- MEA: Medial nucleus [amygdala]
- PLA: Paralaminar nucleus [amygdala]
- PT: Paratenial nucleus [thalamus]
- PVH: Paraventricular nucleus [hypothalamus]
- PVT: Paraventricular nucleus [thalamus]
- PeF: Perifornical nucleus
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- SI: Substantia innominata
- SON: Supraoptic nucleus [hypothalamus]
- VA: Ventral anterior nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- al: Ansa lenticularis
- cc: Corpus callosum
- dne: Diencephalic neuroepithelium
- emlth: External medullary lamina [thalamus]
- ext: External capsule
- fx: Fornix
- int: Internal capsule
- mml: Medial medullary lamina
- ot: Optic tract
- stm: Stria medullaris
- toet: Transient cell zone in the external capsule
- wmf: White matter fibers
- LF: Lateral fissure

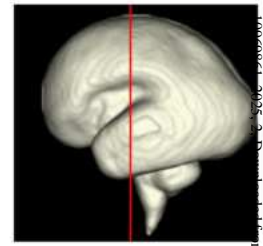
Age: 22 GW



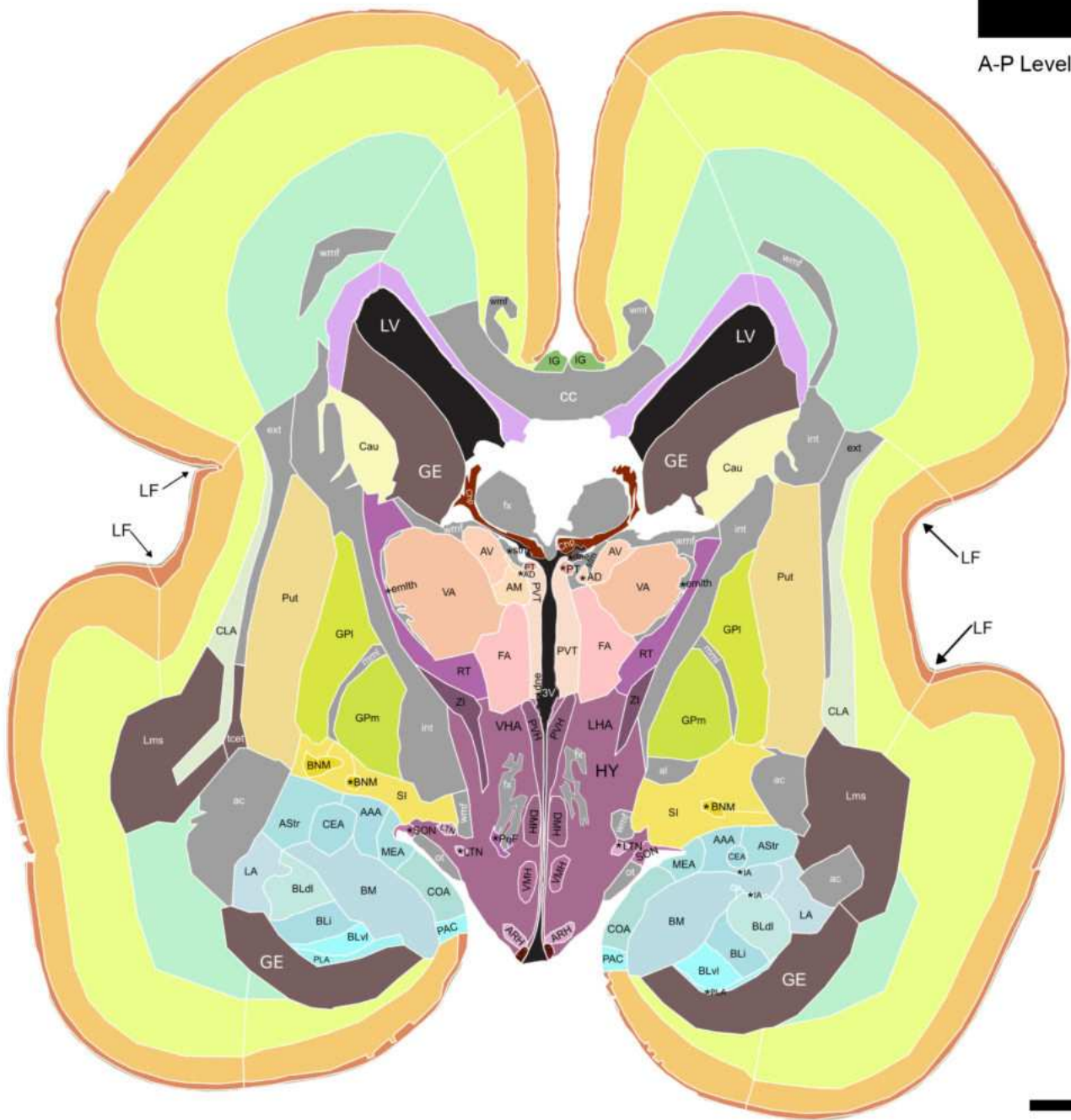
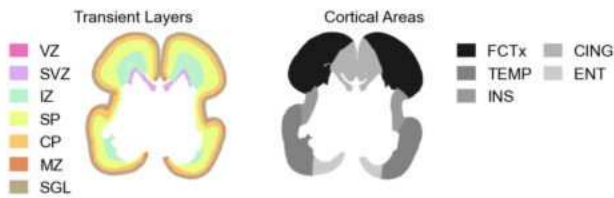
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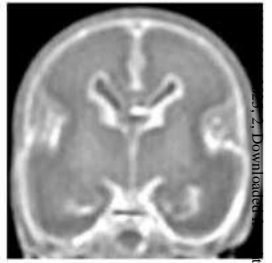
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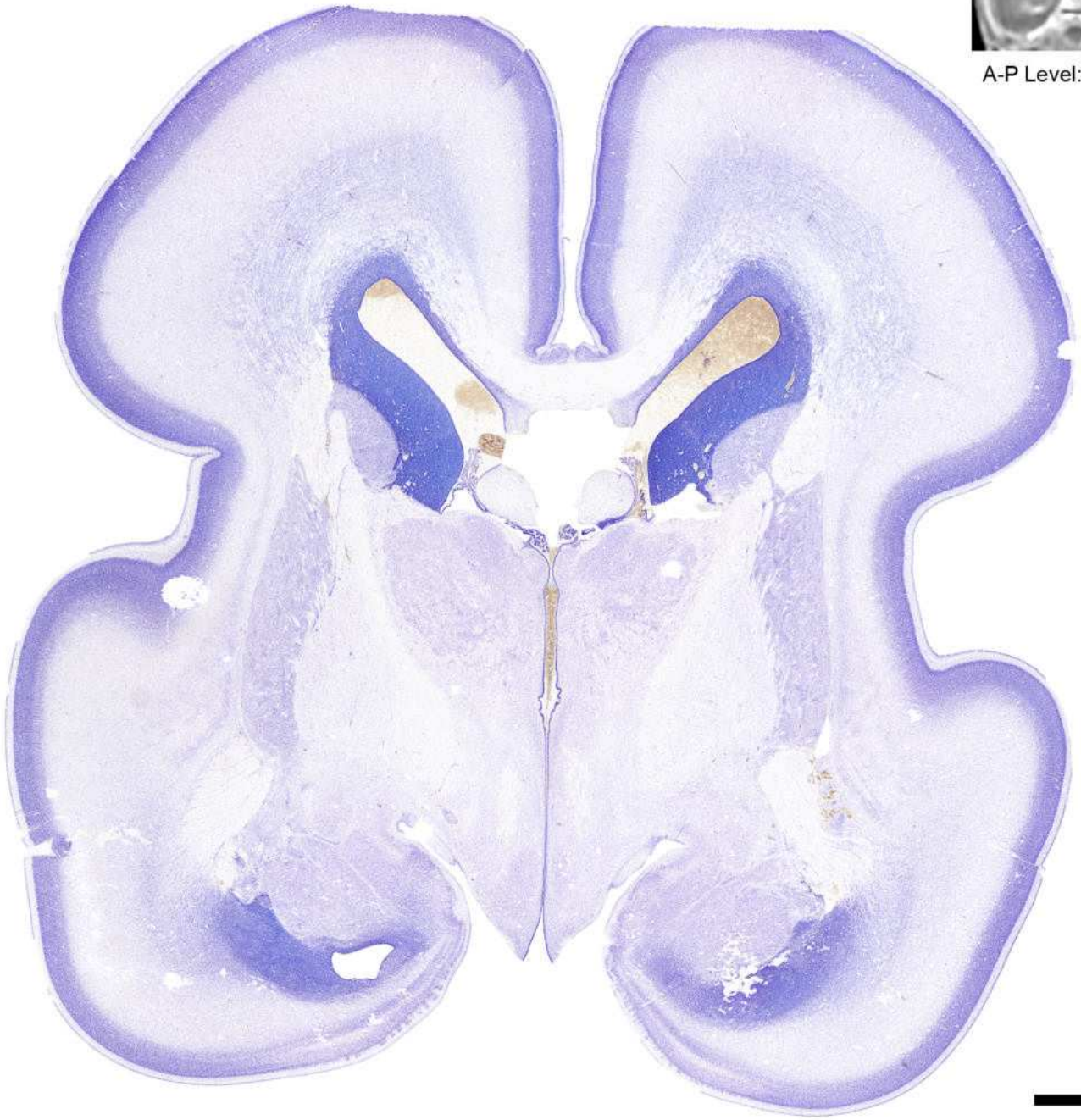
5 mm

- 3V: Third ventricle
- AAA: Anterior amygdaloid area
- AD: Anterodorsal nucleus [thalamus]
- AM: Anteromedial nucleus [thalamus]
- ARH: Arcuate nucleus [hypothalamus]
- AStr: Amygdalo-striatal area
- AV: Anteroventral nucleus [thalamus]
- BLdl: Basal nucleus [amygdala], dorsolateral part
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- GPM: Globus pallidus medial segment
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- IA: Intercalated cell groups [amygdala]
- IG: Induseum griseum
- LA: Lateral nucleus [amygdala]
- LHA: Lateral hypothalamic area
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- ME: Median eminence
- MEA: Medial nucleus [amygdala]
- PLA: Paralaminar nucleus [amygdala]
- PT: Paratenial nucleus [thalamus]
- PVH: Paraventricular nucleus [hypothalamus]
- PVT: Paraventricular nucleus [thalamus]
- PeF: Perifornical nucleus
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- SI: Substantia innominata
- SON: Supraoptic nucleus [hypothalamus]
- VA: Ventral anterior nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- al: Ansa lenticularis
- cc: Corpus callosum
- dne: Diencephalic neuroepithelium
- emlth: External medullary lamina [thalamus]
- ext: External capsule
- fx: Fornix
- int: Internal capsule
- mml: Medial medullary lamina
- ot: Optic tract
- stm: Stria medullaris
- toet: Transient cell zone in the external capsule
- wmf: White matter fibers
- LF: Lateral fissure

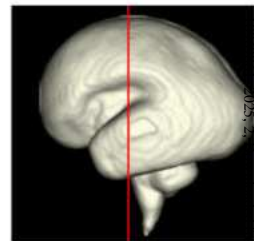
Age: 22 GW



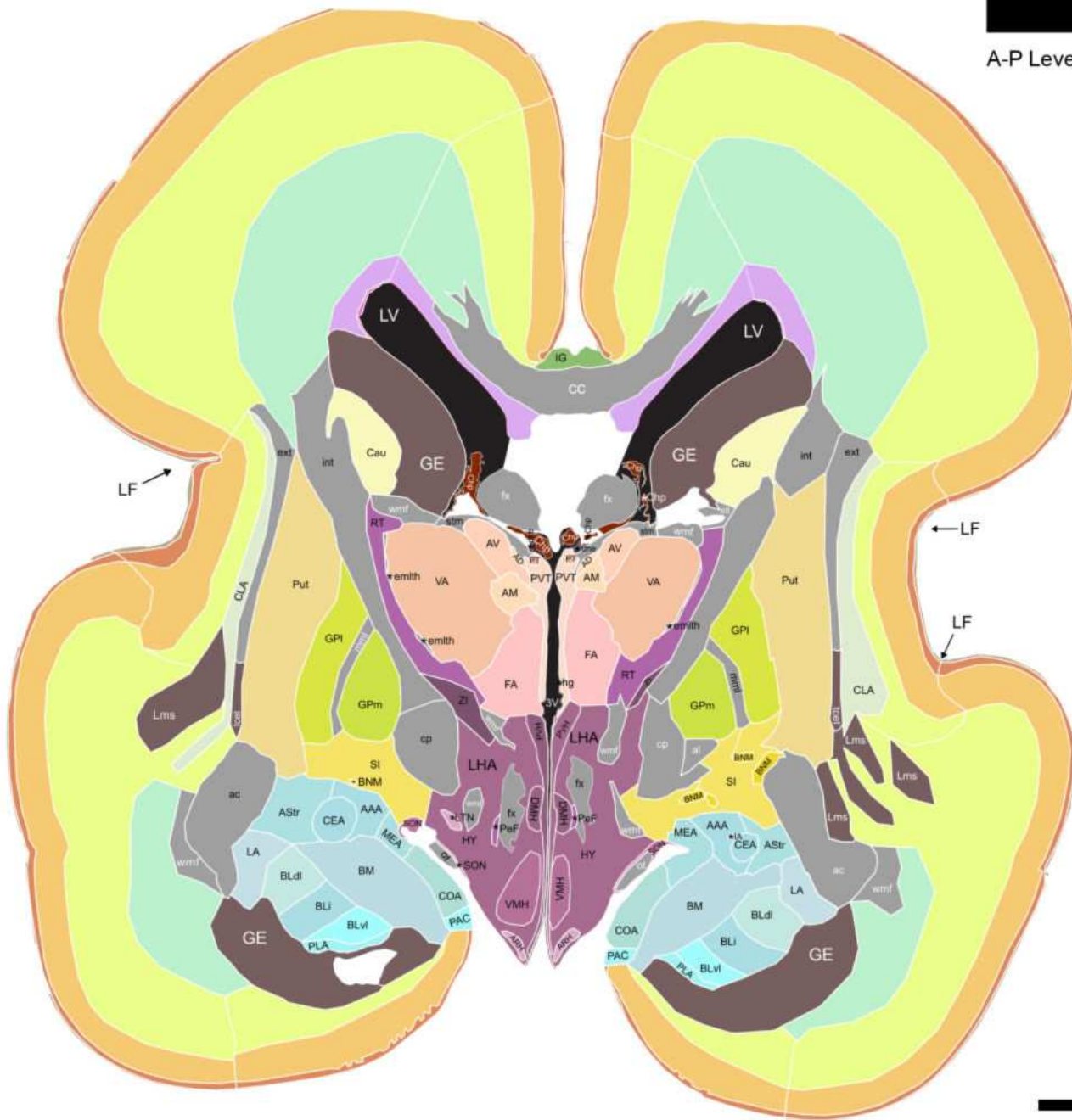
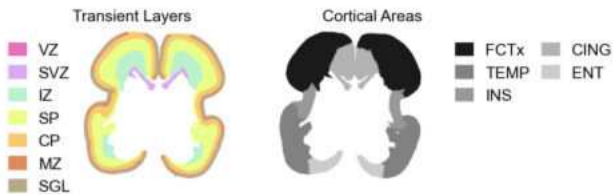
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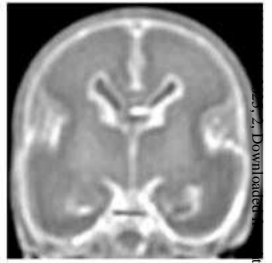
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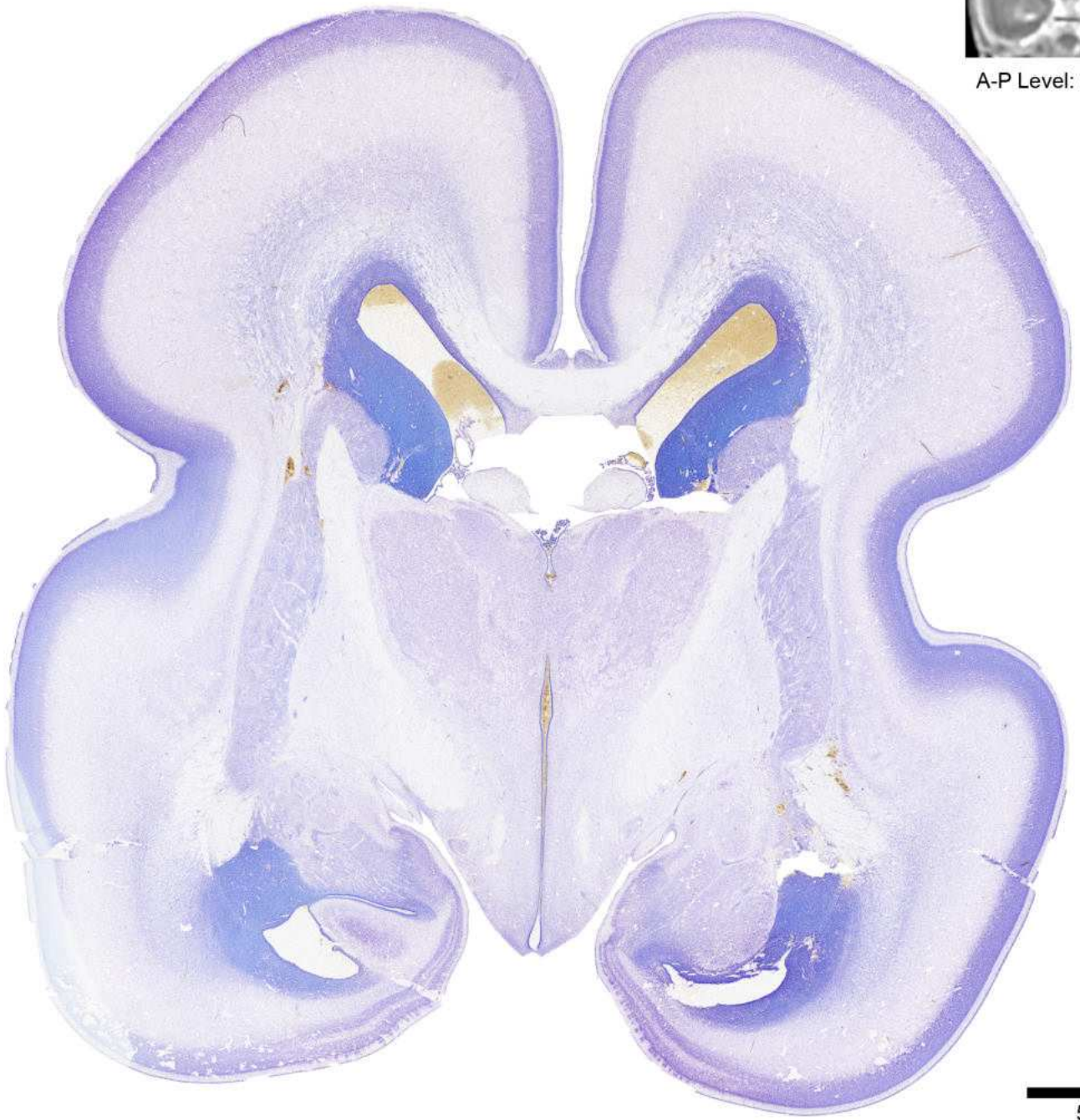
5 mm

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|--|--|--|--|
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Age: 22 GW



A-P Level: 0.48 mm

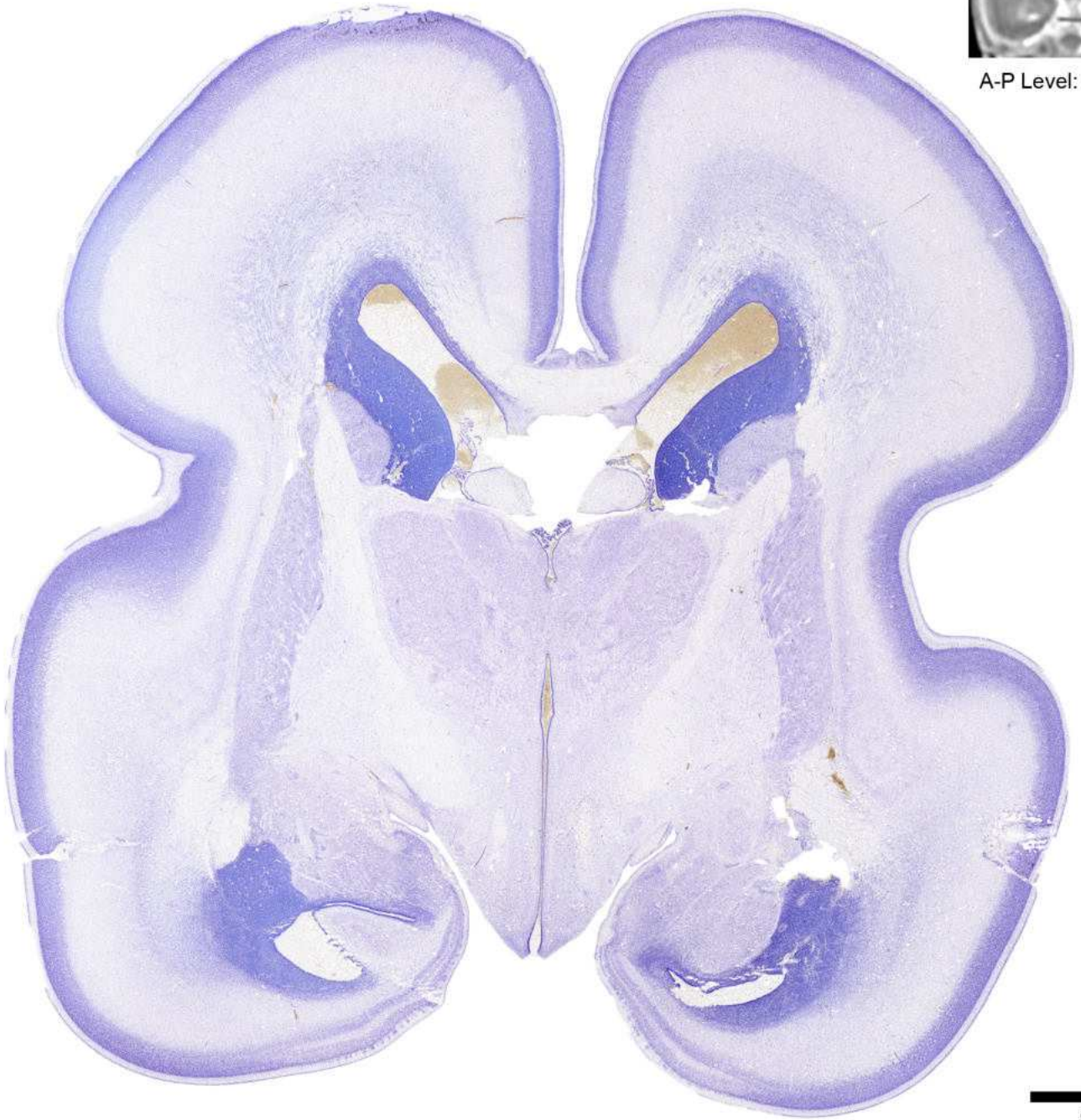


5 mm

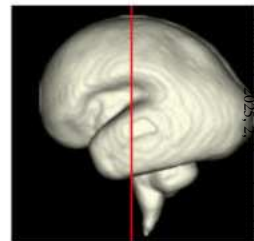
Age: 22 GW



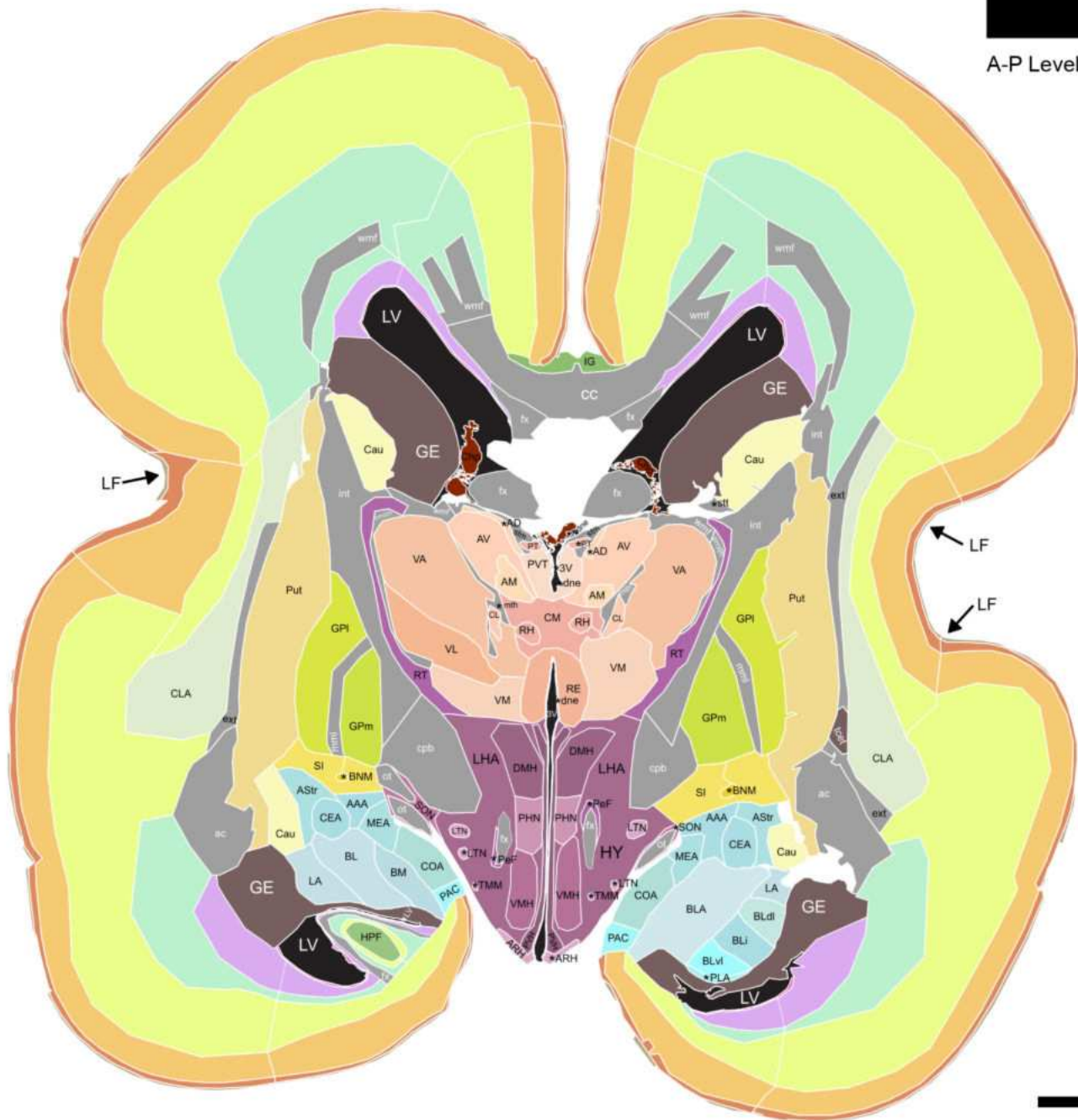
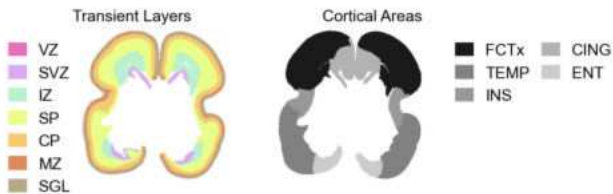
A-P Level: 0.36 mm



5 mm



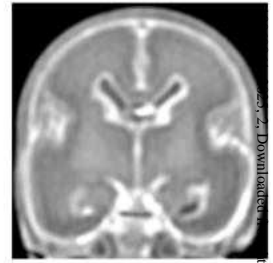
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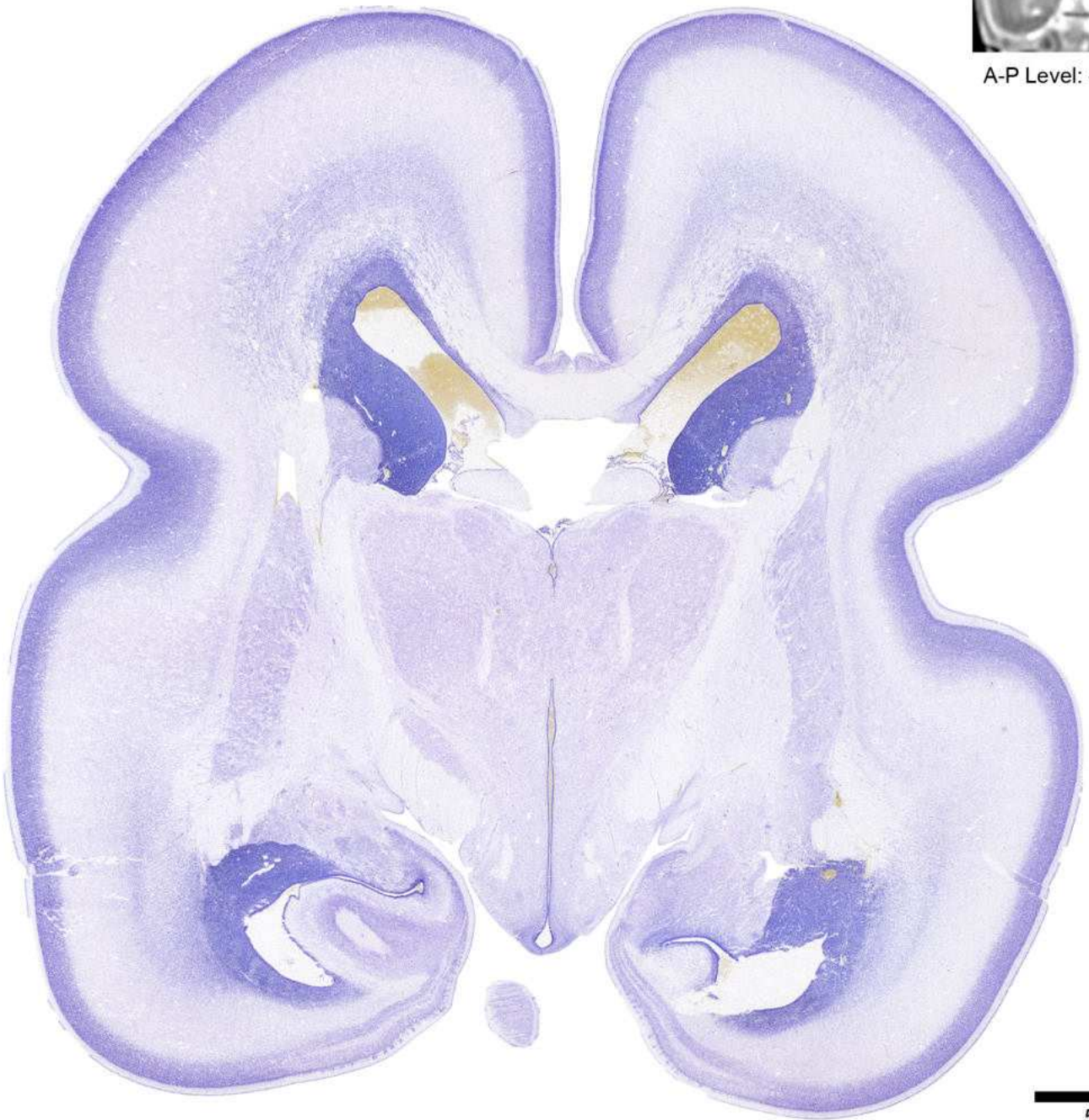
5 mm

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|--|--|---|--|
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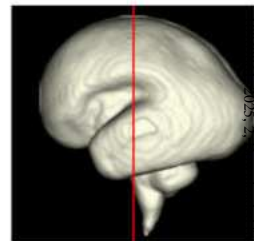
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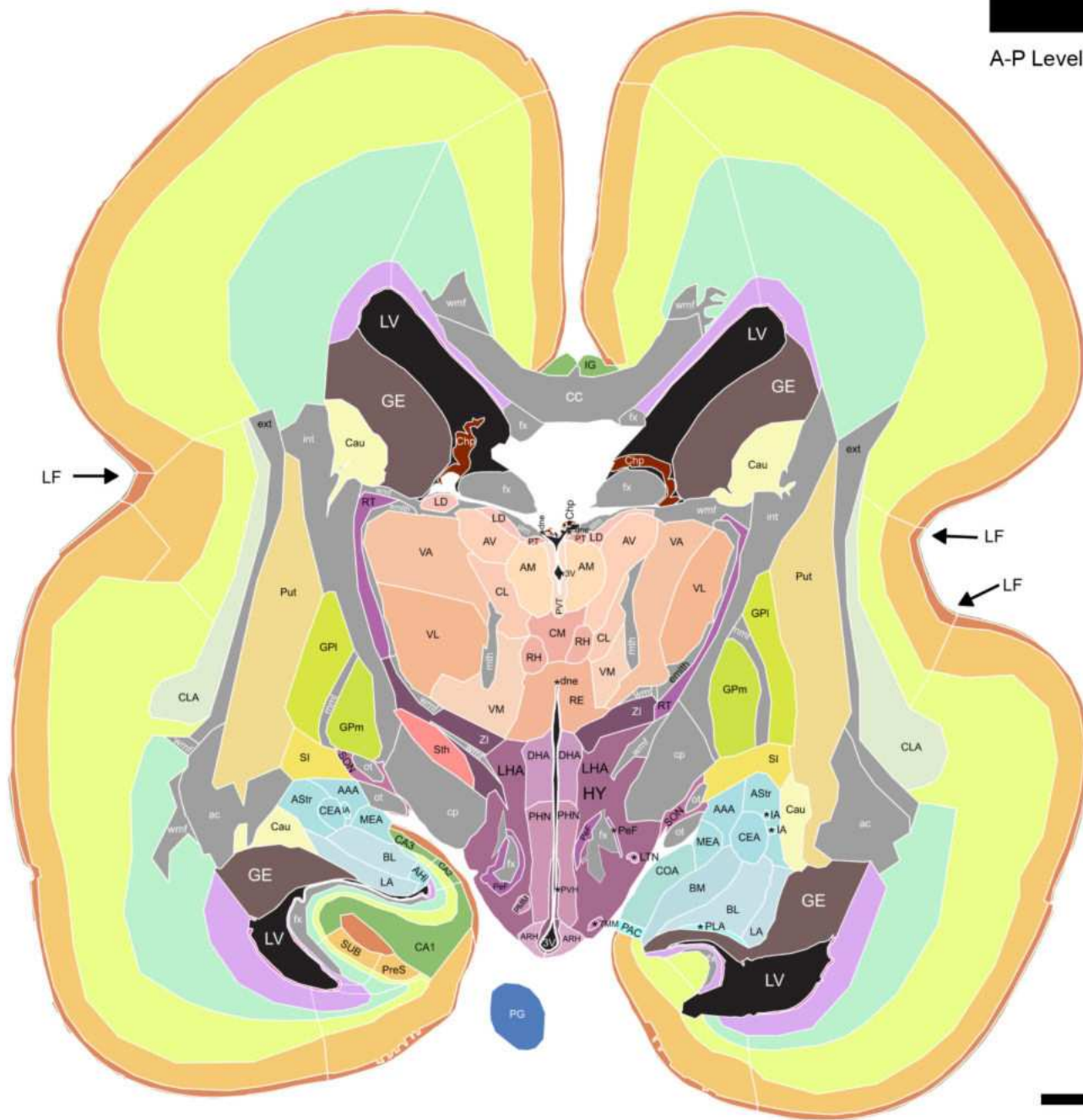
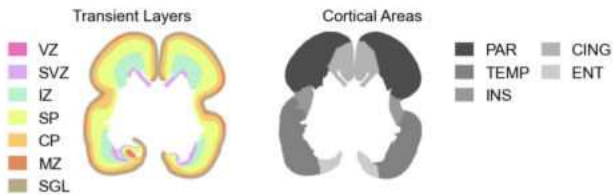
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5 mm



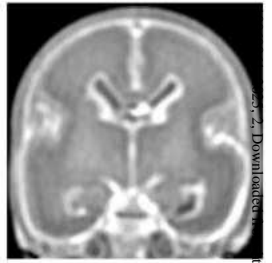
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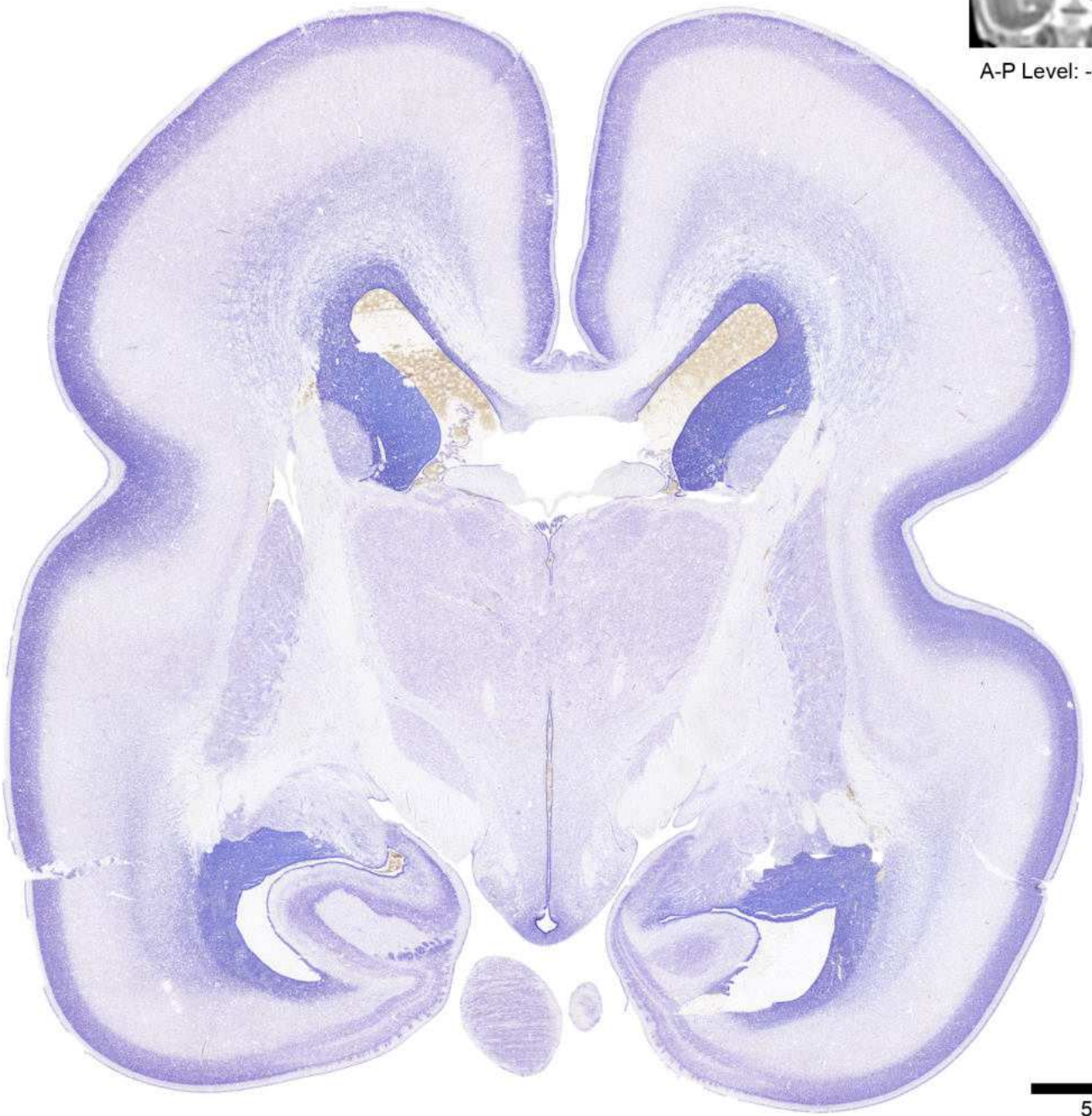
5 mm

- | | | | |
|---|---|---|--|
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|---|---|---|--|

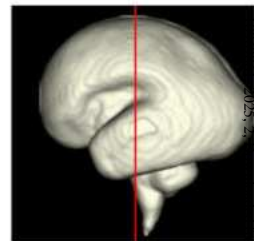
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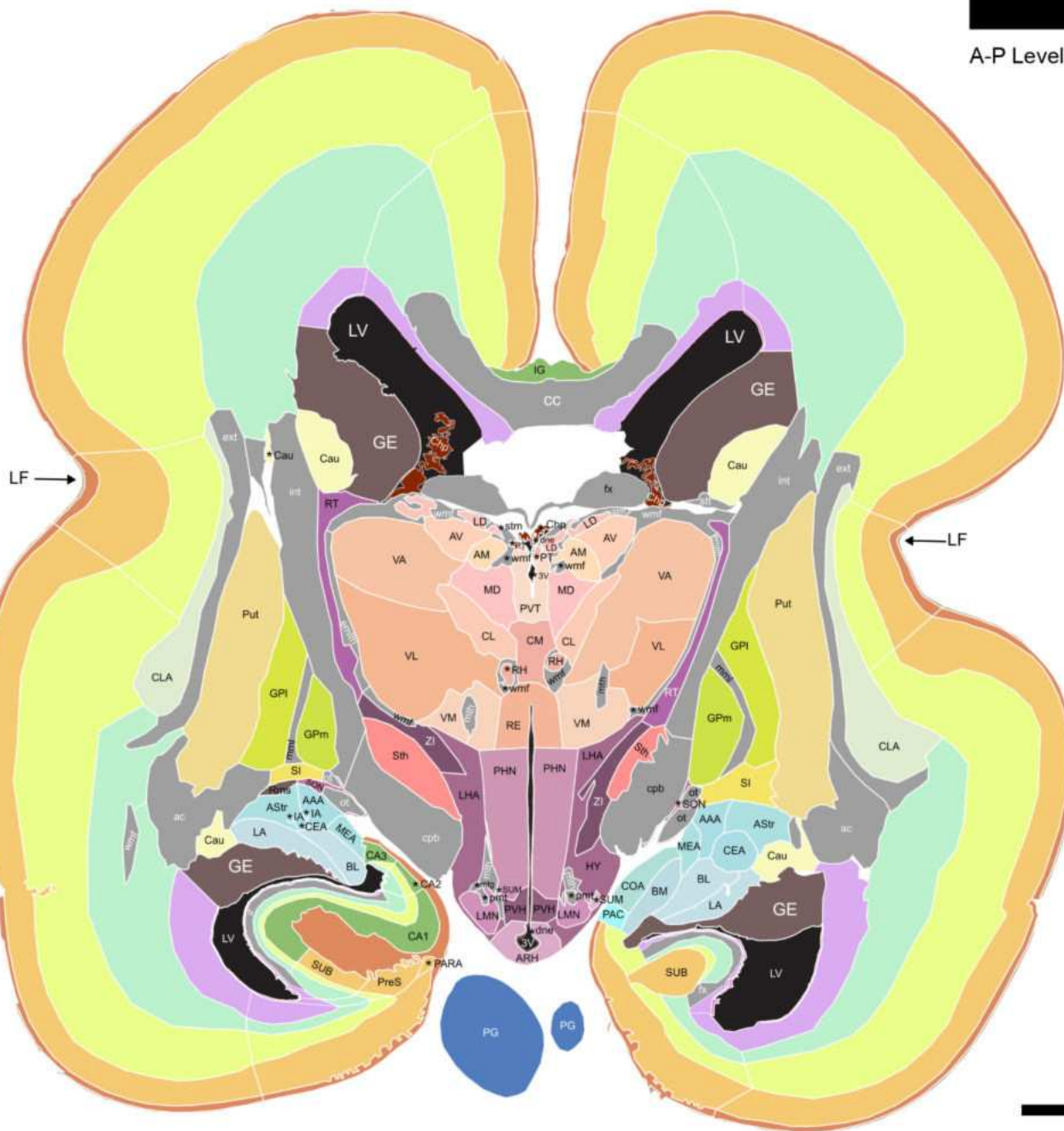
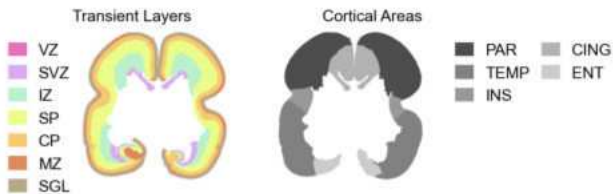
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5 mm



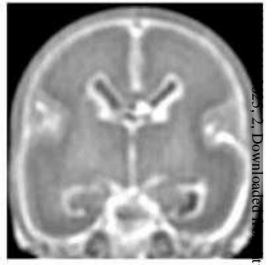
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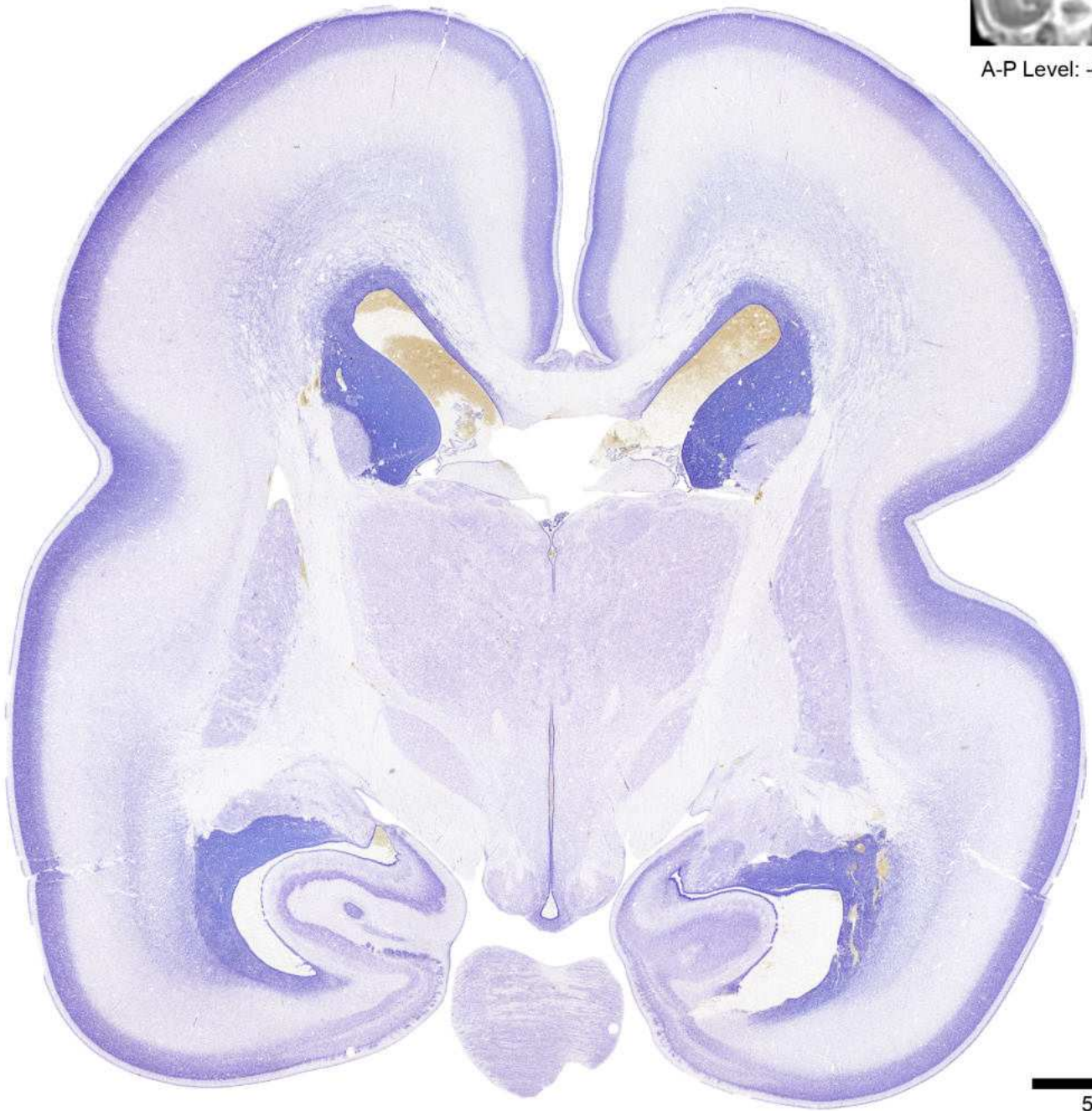
5 mm

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|---|--|--|---|
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|---|--|--|---|
- LF: Lateral fissure

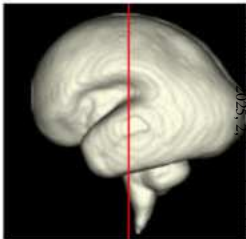
Age: 22 GW



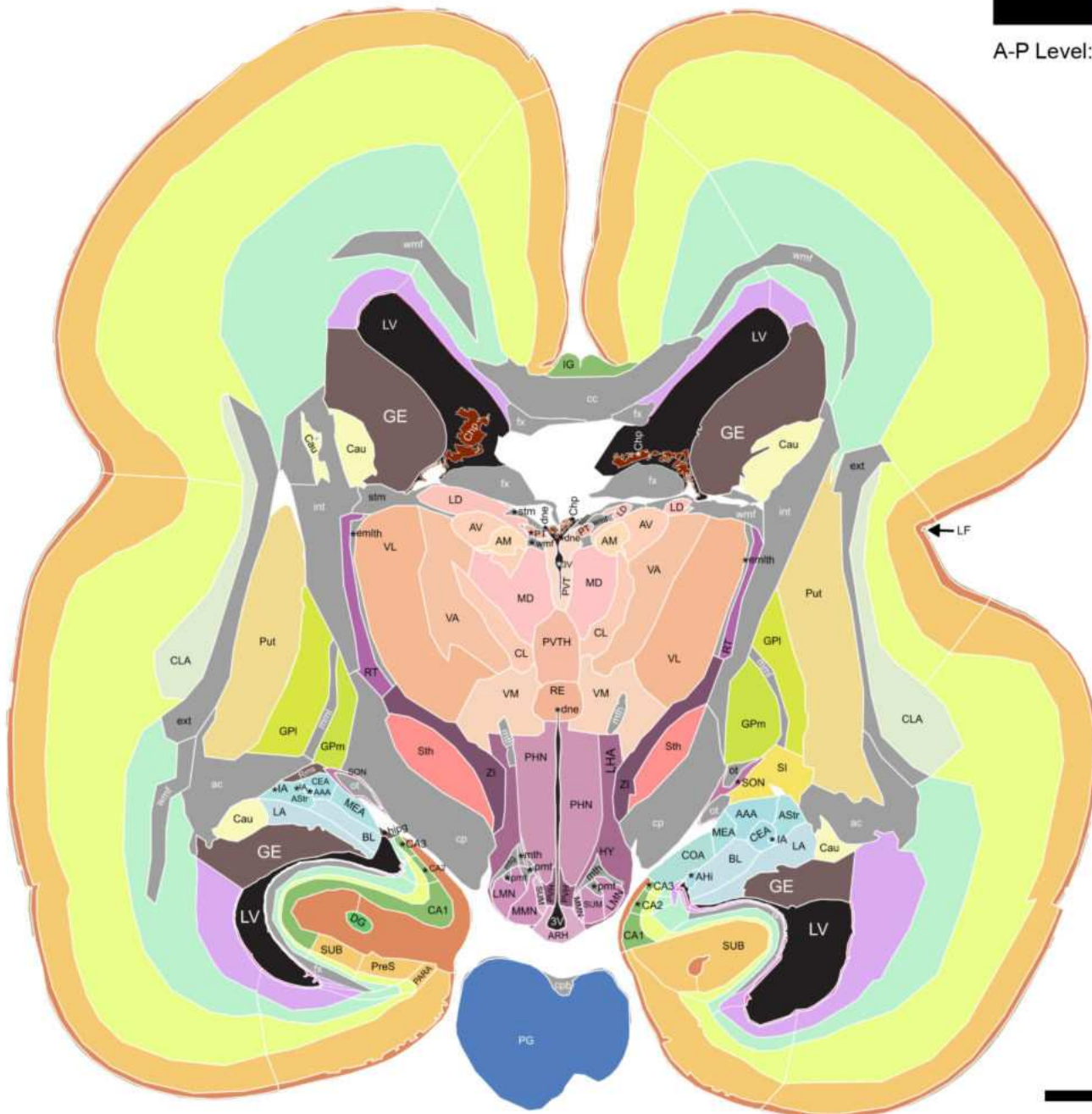
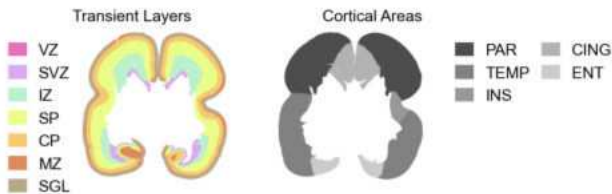
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5 mm



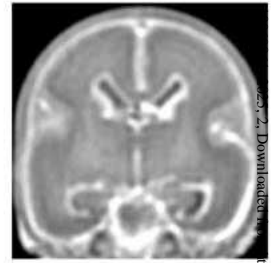
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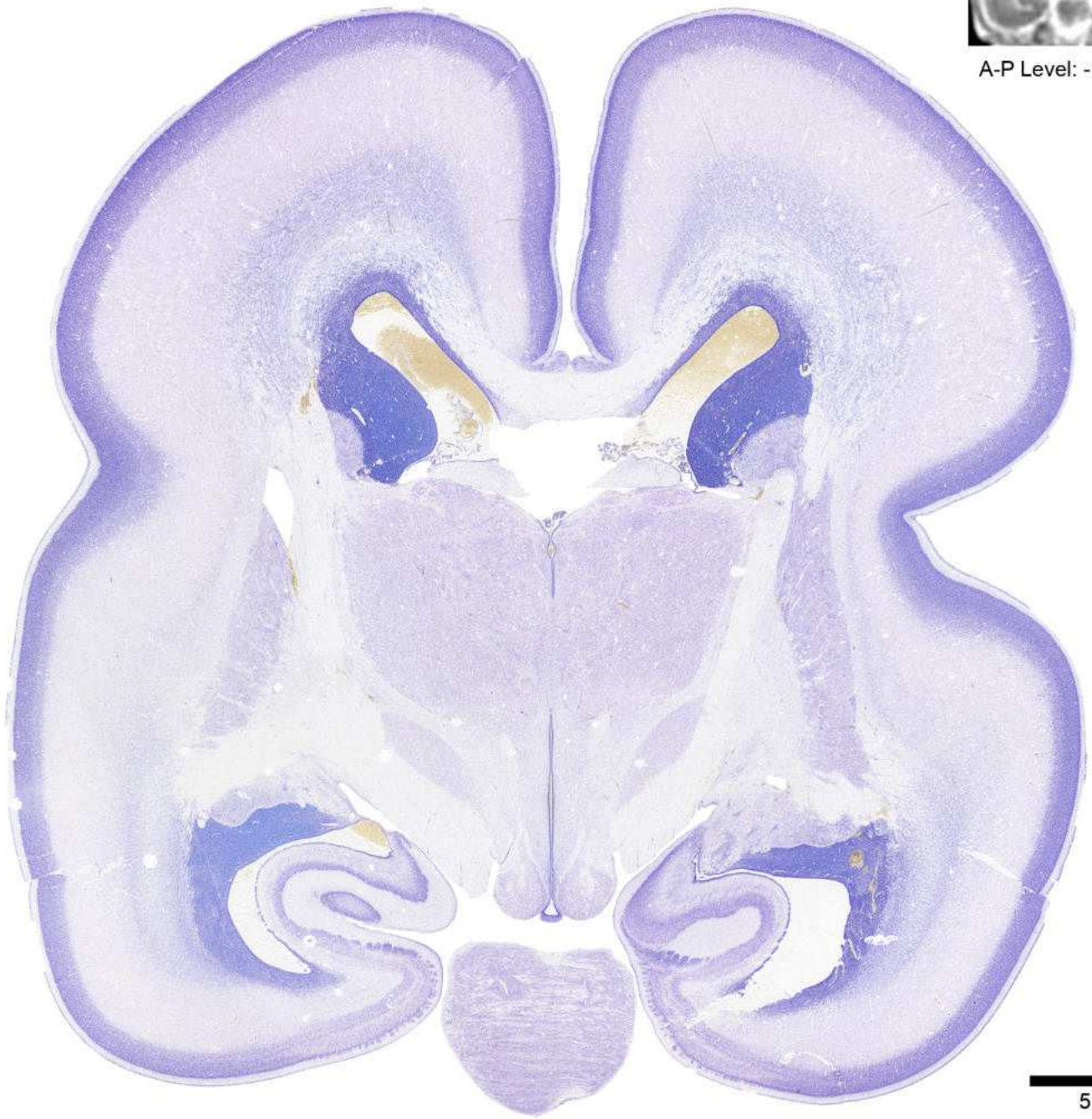
5 mm

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- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEA: Medial nucleus [amygdala]
- MMN: Medial mammillary nucleus
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PT: Paratenial nucleus [thalamus]
- PVH: Paraventricular nucleus [hypothalamus]
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
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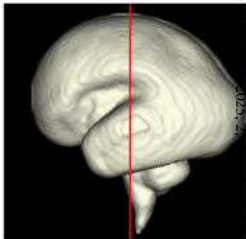
Age: 22 GW



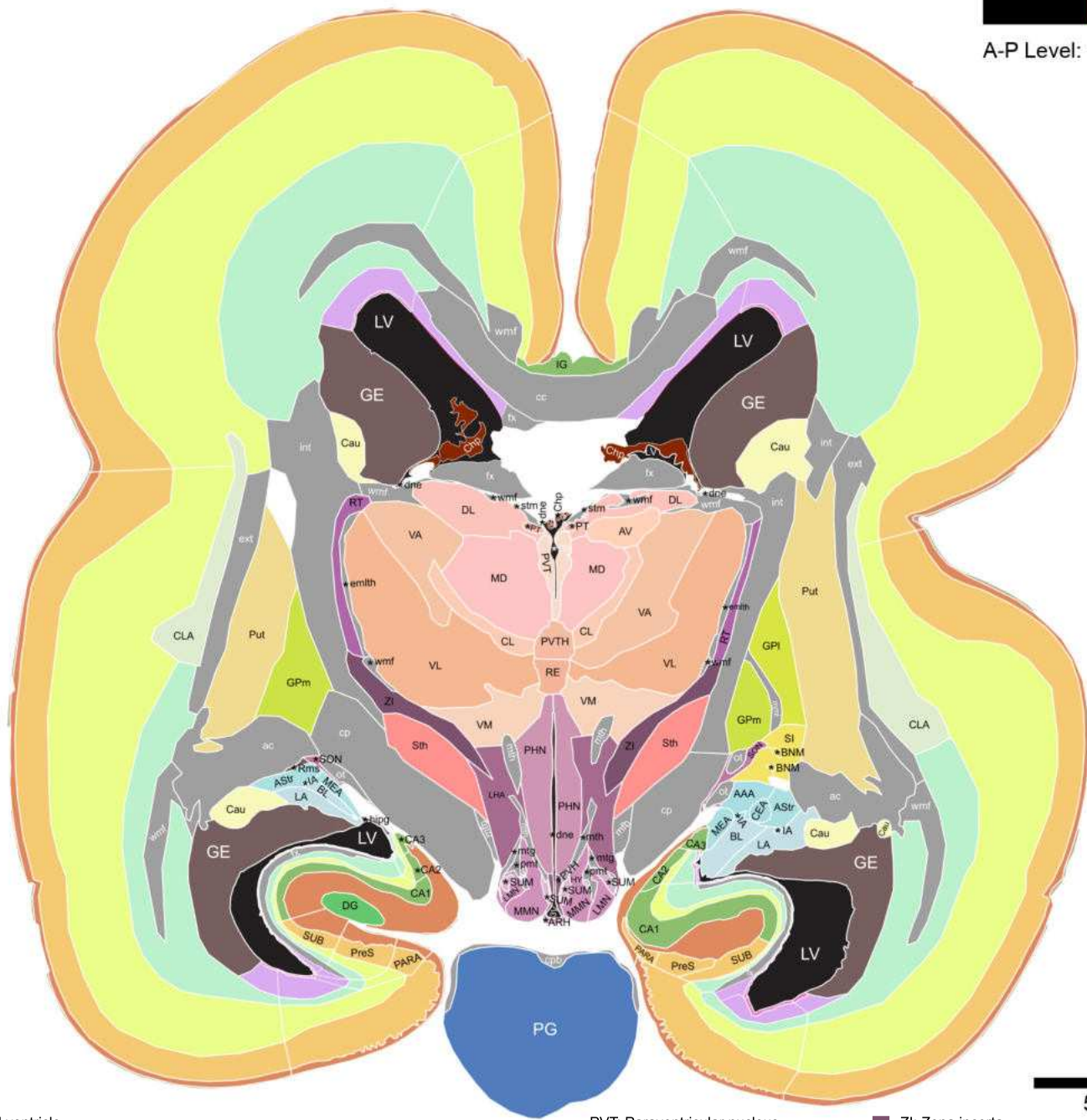
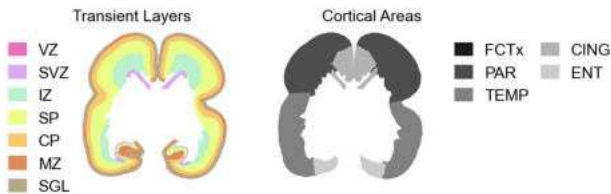
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5 mm



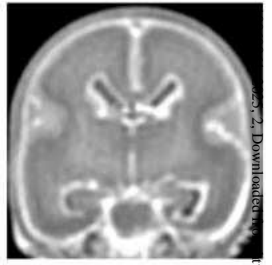
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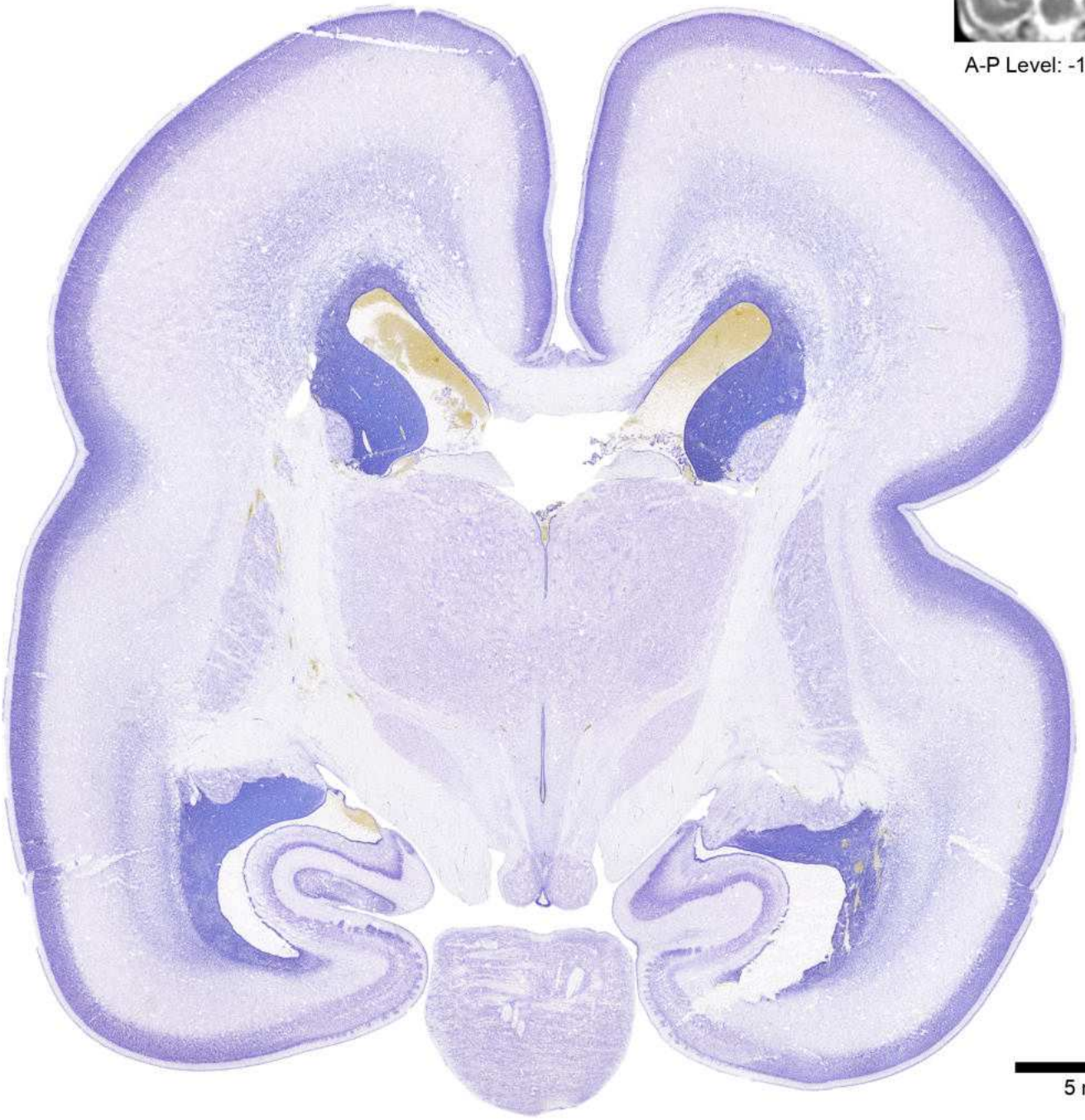
5 mm

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- SI: Substantia innominata
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- Sth: Subthalamus
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- cc: Corpus callosum
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- emlth: External medullary lamina [thalamus]
- ext: External capsule
- fx: Fornix
- hipg: Hippocampal glioeptithelium/ependyma
- int: Internal capsule
- mfb: Medial forebrain bundle
- mml: Medial medullary lamina
- mtg: Mammillotegmental tract
- mth: mammillothalamic tract
- ot: Optic tract
- pmt: Principal mammillary tract
- stm: Stria medullaris
- wmf: White matter fibers

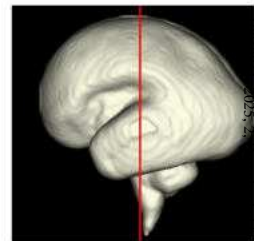
Age: 22 GW



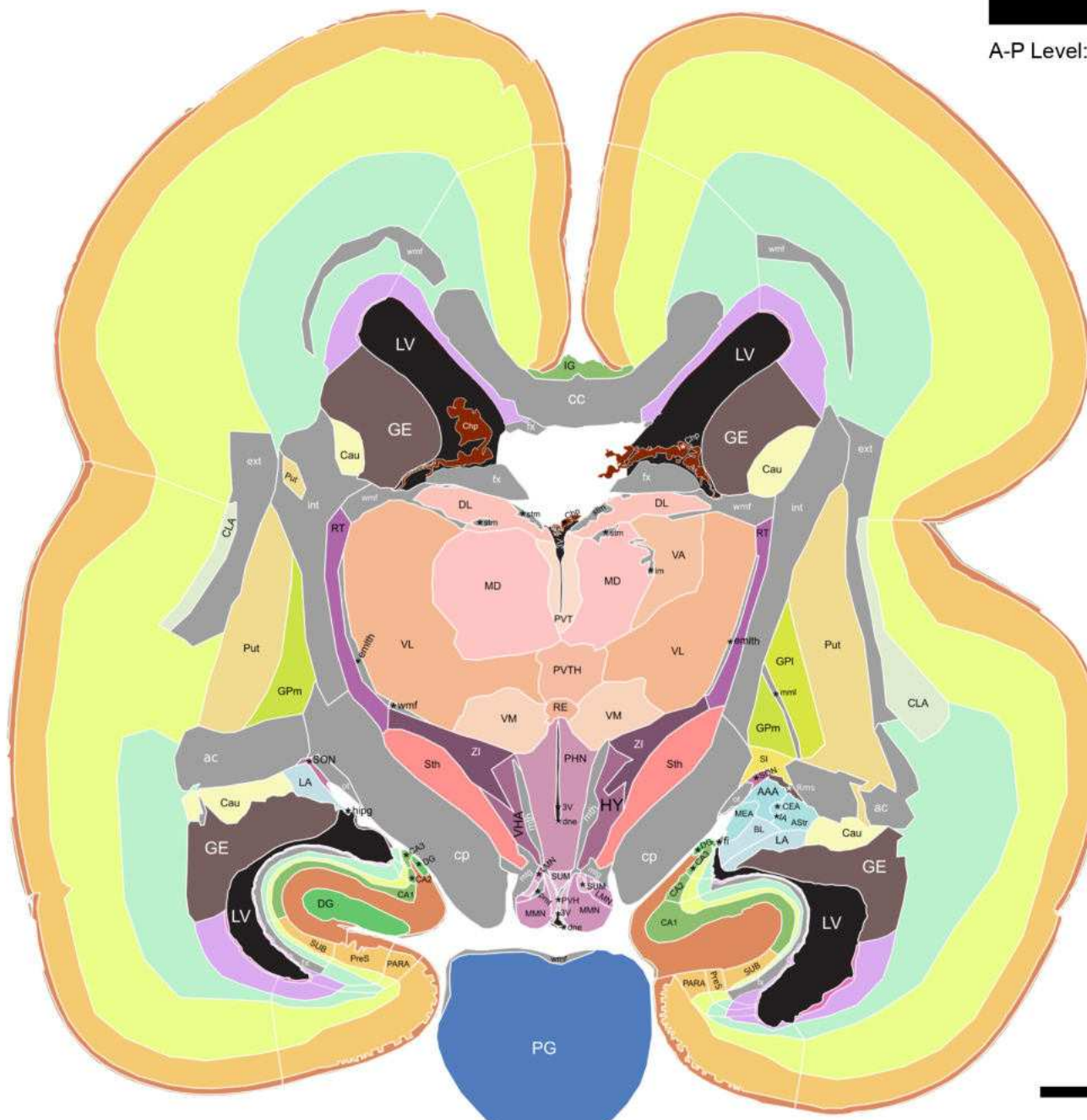
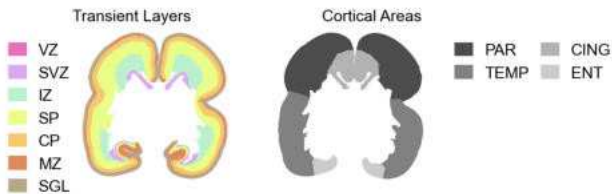
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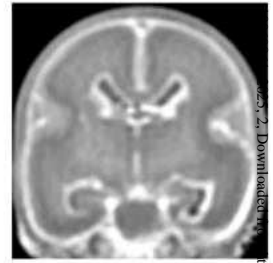
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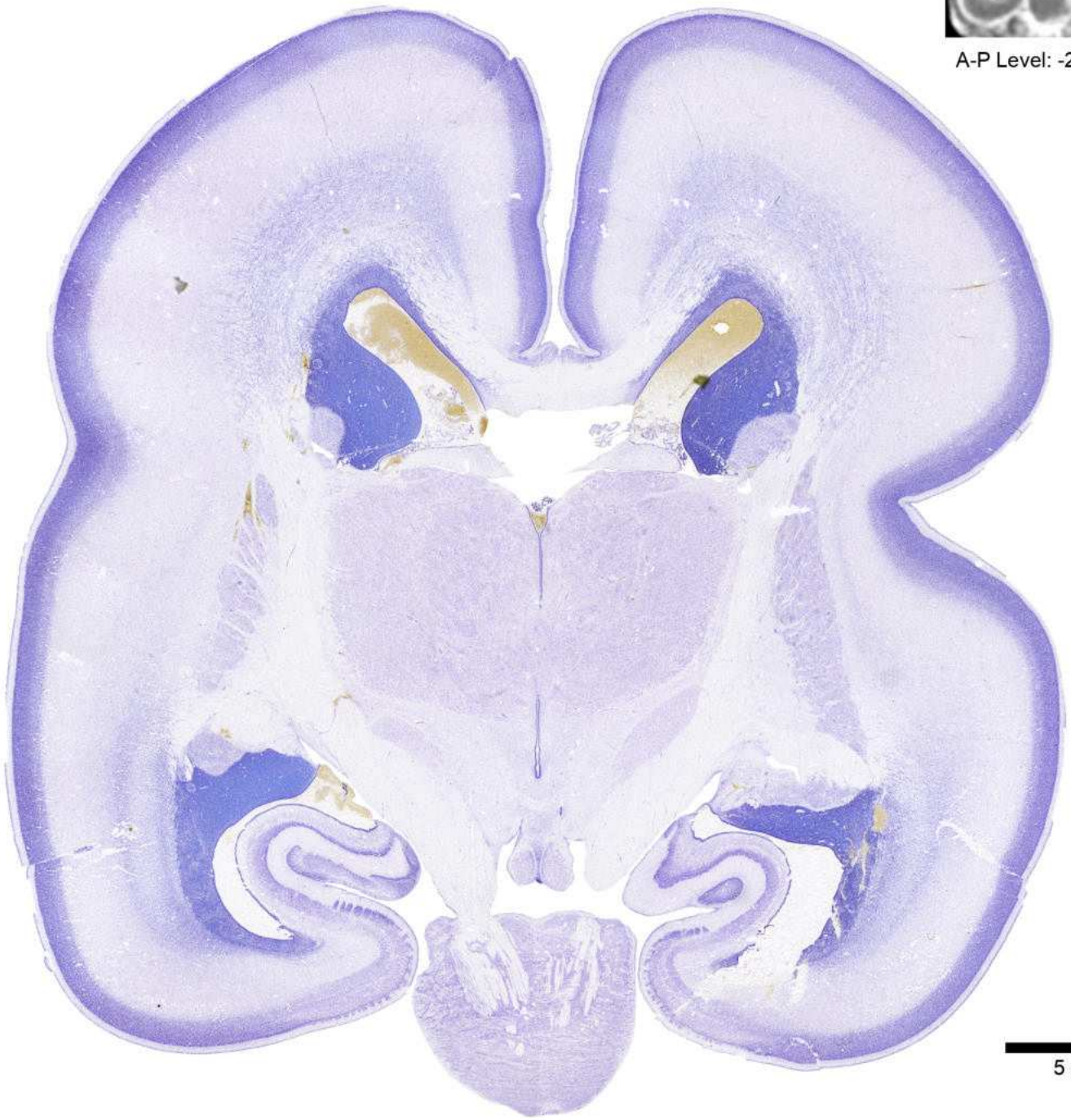
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| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ AAA: Anterior amygdaloid area ■ AStr: Amygdalo-striatal area ■ BL: Basal nucleus [amygdala] ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CEA: Central nucleus [amygdala] ■ CLA: Claustrum ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DL: Dorsolateral nucleus [thalamus] ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ HY: Hypothalamus ■ IA: Intercalated cell groups [amygdala] ■ IG: Induseum griseum ■ LA: Lateral nucleus [amygdala] ■ LHA: Lateral hypothalamic area ■ LMN: Lateral mammillary nucleus ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEA: Medial nucleus [amygdala] ■ MMN: Medial mammillary nucleus ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PHN: Posterior hypothalamic nucleus ■ PVH: Paraventricular nucleus [hypothalamus] ■ PVT: Paraventricular nucleus [thalamus] ■ PVTH: Periventricular complex [thalamus] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ RE: Nucleus reuniens ■ RT: Reticular nucleus [thalamus] ■ Rms: Rostral migratory stream ■ SI: Substantia innominata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ SUM: Supramammillary area ■ Sth: Subthalamus ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ cc: Corpus callosum ■ cp: Cerebral peduncle ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fi: Fimbria ■ fx: Fornix ■ hipg: Hippocampal gloeopithelium/ependyma ■ im: Internal medullary lamina [thalamus] ■ int: Internal capsule ■ mml: Medial medullary lamina ■ mtg: Mammillothegmental tract ■ mth: mammillothalamic tract ■ ot: Optic tract ■ pmt: Principal mammillary tract ■ stm: Stria medullaris ■ wmf: White matter fibers |
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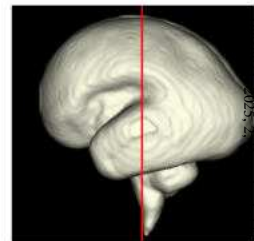
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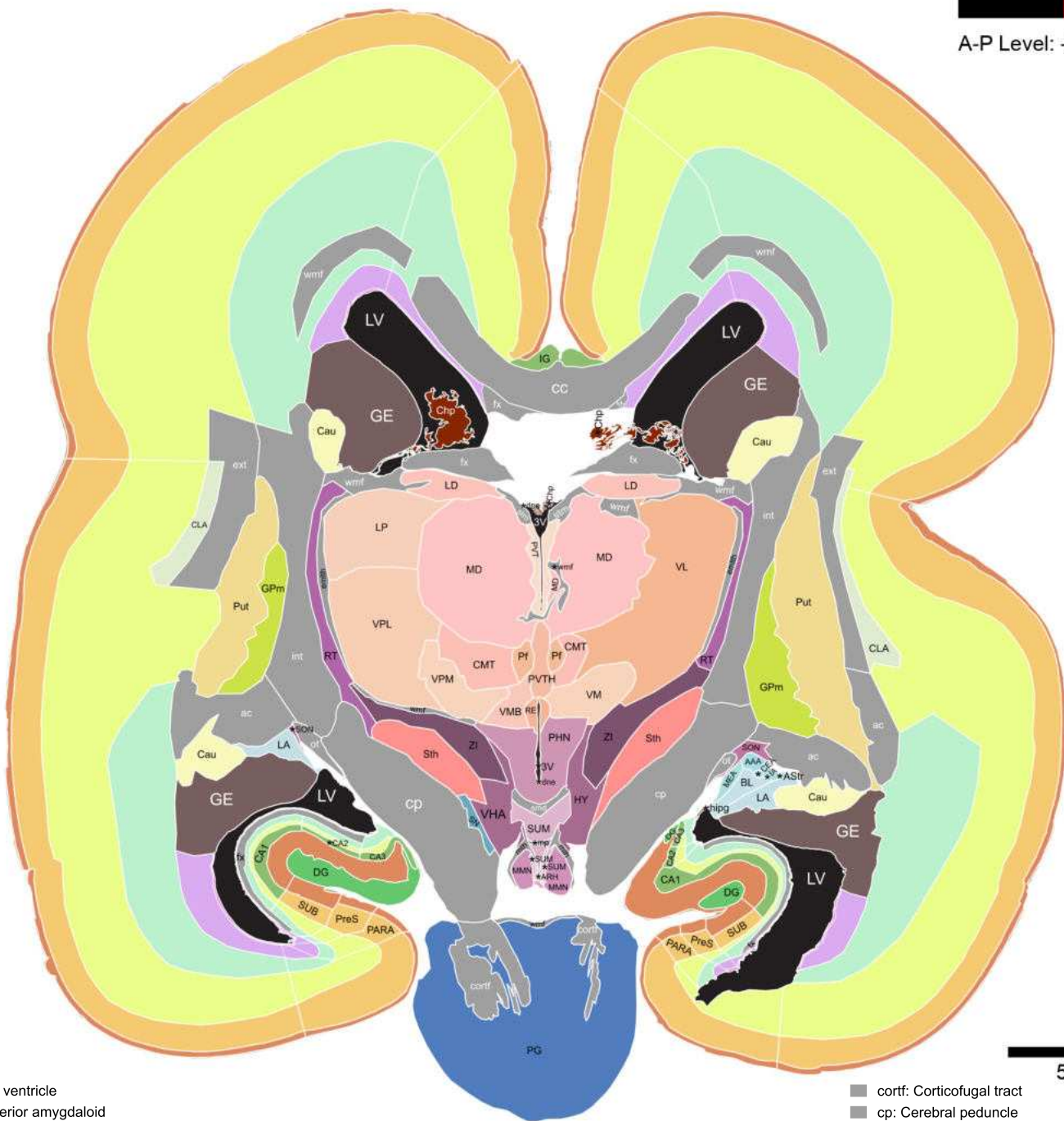
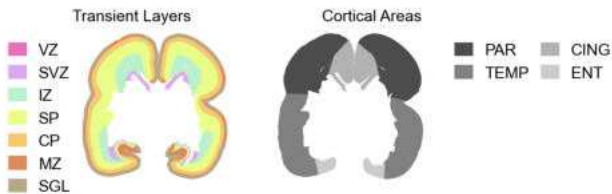
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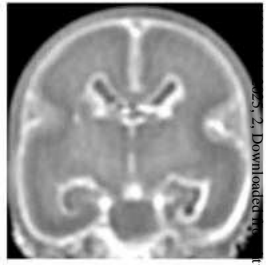
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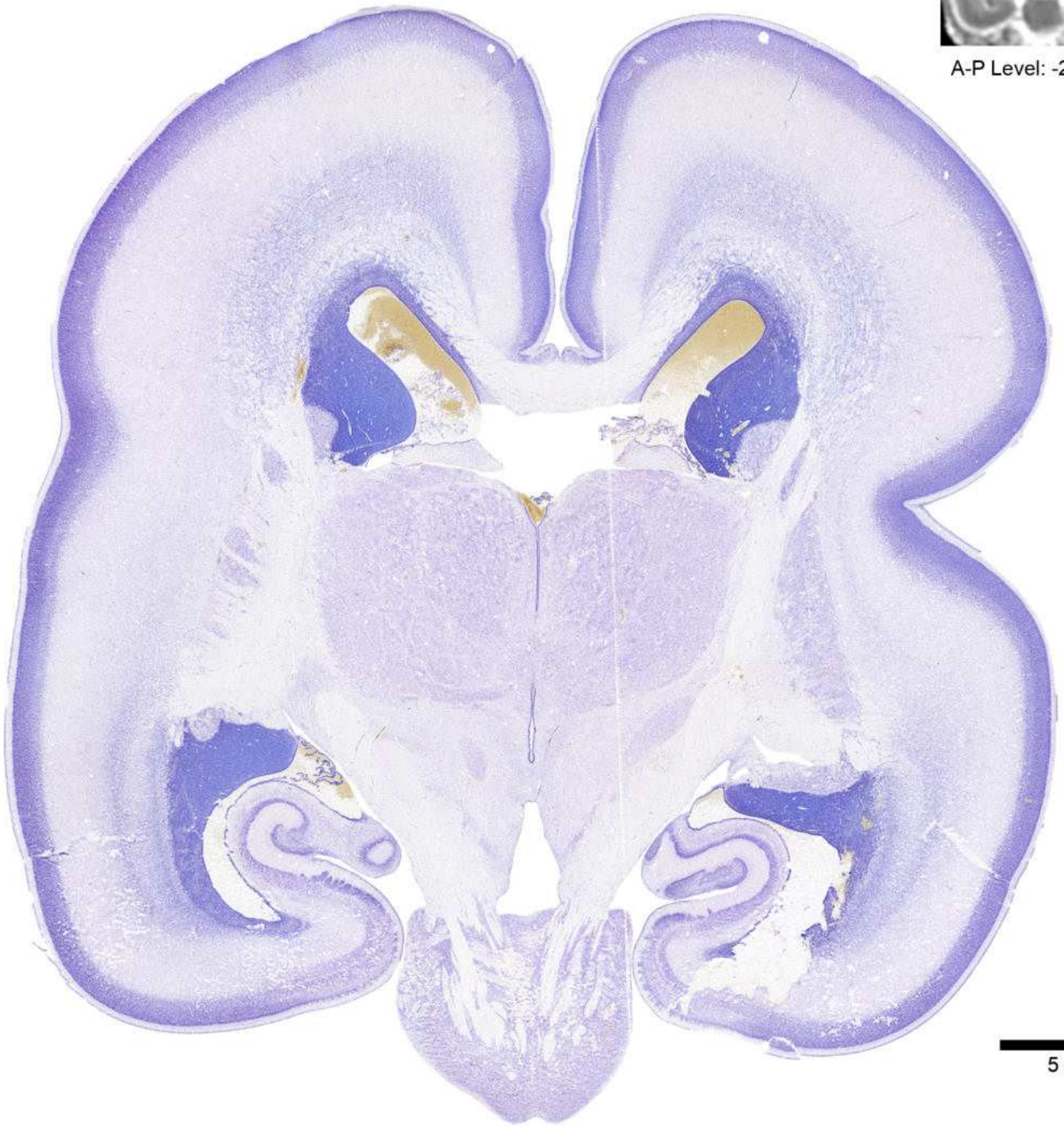
5 mm

- | |
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| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ AAA: Anterior amygdaloid area ■ ARH: Arcuate nucleus [hypothalamus] ■ AStr: Amygalo-striatal area ■ BL: Basal nucleus [amygdala] ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CEA: Central nucleus [amygdala] ■ CLA: Claustrum ■ CMT: Centromedian nucleus [thalamus] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPm: Globus pallidus medial segment ■ HY: Hypothalamus ■ IA: Intercalated cell groups [amygdala] ■ IG: Induseum griseum ■ LA: Lateral nucleus [amygdala] ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEA: Medial nucleus [amygdala] ■ MMN: Medial mammillary nucleus ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PHN: Posterior hypothalamic nucleus ■ PVT: Paraventricular nucleus [thalamus] ■ PVTH: Periventricular complex [thalamus] ■ Pf: Parafascicular nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ RE: Nucleus reuniens [thalamus] ■ RT: Reticular nucleus [thalamus] ■ SN: Substantia nigra ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ SUM: Supramammillary area ■ Sth: Subthalamus ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ cc: Corpus callosum ■ cortf: Corticofugal tract ■ cp: Cerebral peduncle ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fx: Fornix ■ hippg: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ mp: Mammillary peduncle ■ mth: Mammillothalamic tract ■ ot: Optic tract ■ smd: Supramammillary decussation ■ stm: Stria medullaris ■ wmf: White matter fibers |
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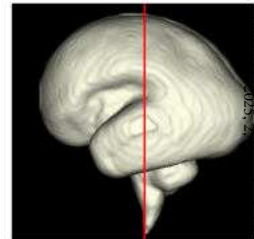
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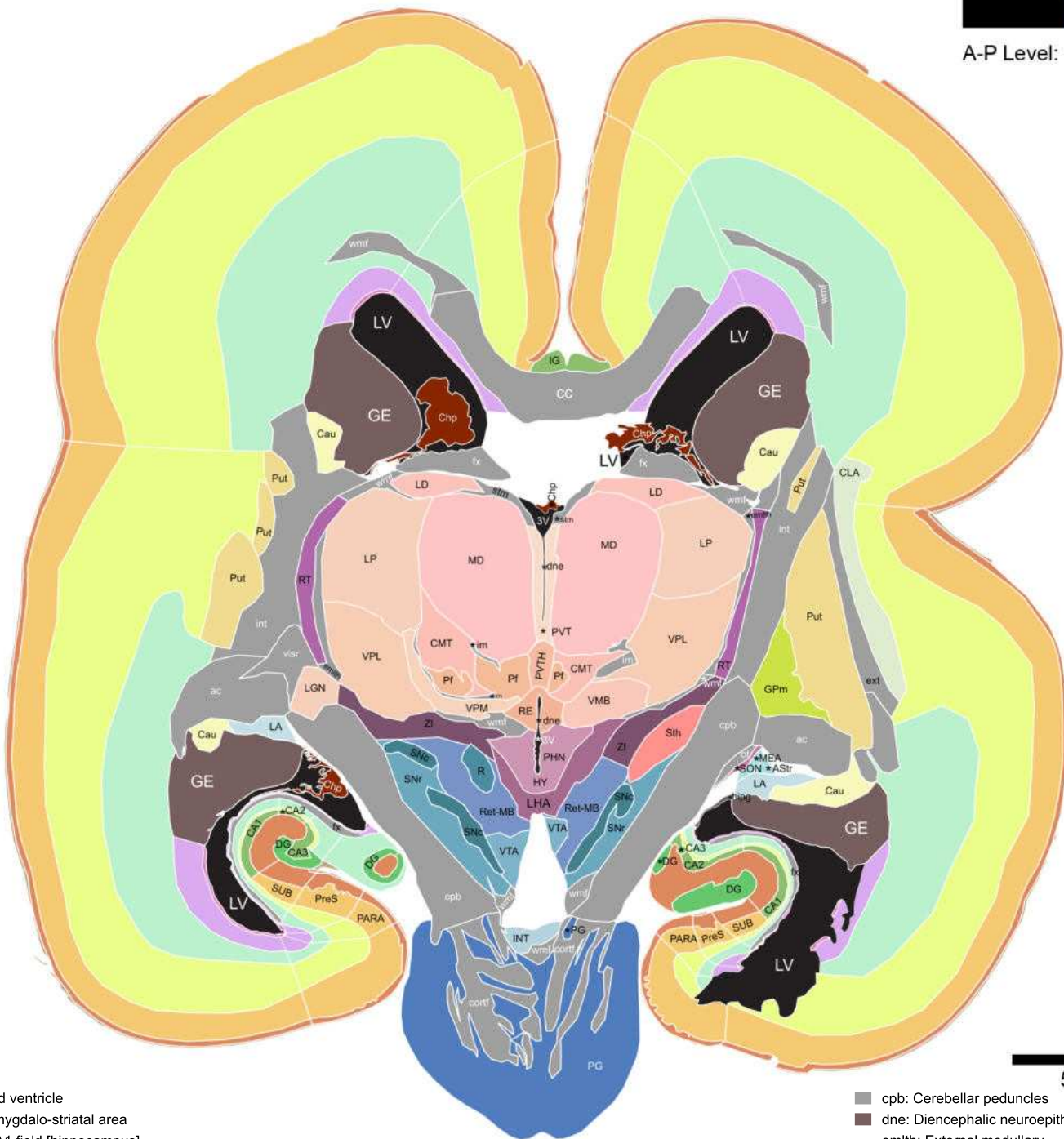
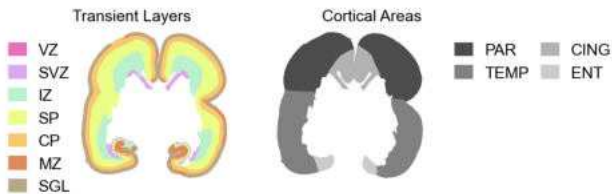
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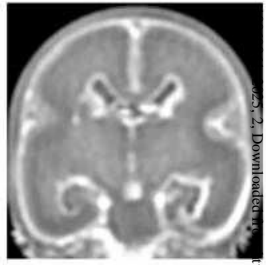
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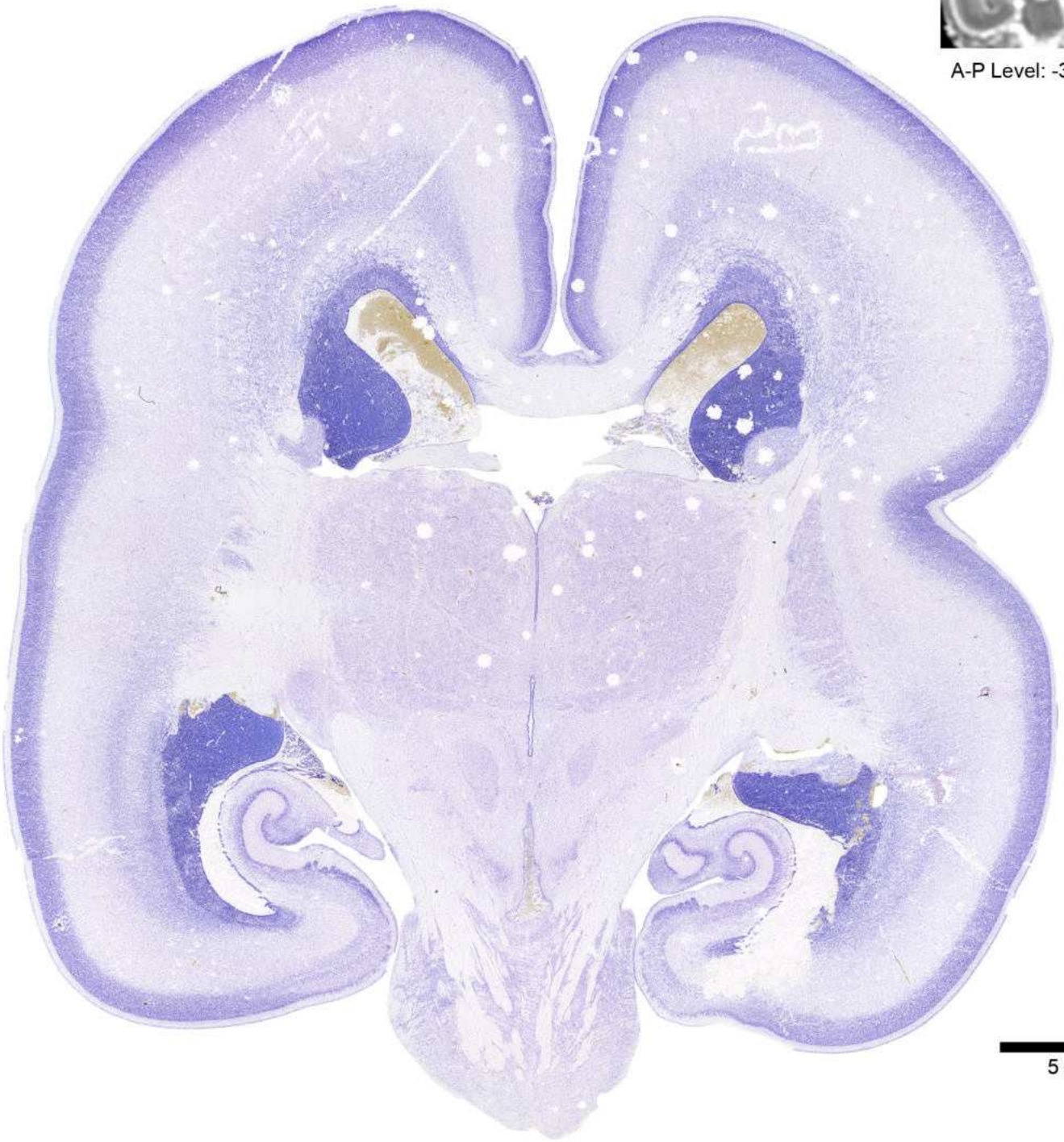
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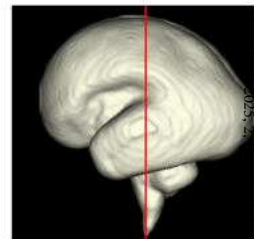
- 3V: Third ventricle
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- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
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- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- GE: Ganglionic eminence
- GPM: Globus pallidus medial segment
- HY: Hypothalamus
- IG: Induseum griseum
- INT: Interpeduncular nucleus
- LA: Lateral nucleus [amygdala]
- LD: Lateral dorsal nucleus [thalamus]
- LGN: Lateral geniculate nucleus
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEA: Medial nucleus [amygdala]
- PARA: Cortical plate, parasubiculum
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- PHN: Posterior hypothalamic nucleus
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Put: Putamen
- R: Red nucleus
- RE: Nucleus reuniens [thalamus]
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- VMB: Ventral medial basal nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- ZI: Zona incerta
- ac: Anterior commissure
- cc: Corpus callosum
- cortf: Corticofugal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- emlth: External medullary lamina [thalamus]
- ext: External capsule
- fx: Fornix
- hipp: Hippocampal glioeptithelium/ependyma
- im: Internal medullary lamina [thalamus]
- int: Internal capsule
- ot: Optic tract
- stm: Stria medullaris
- visr: Visual radiation
- wmf: White matter fibers

Age: 22 GW

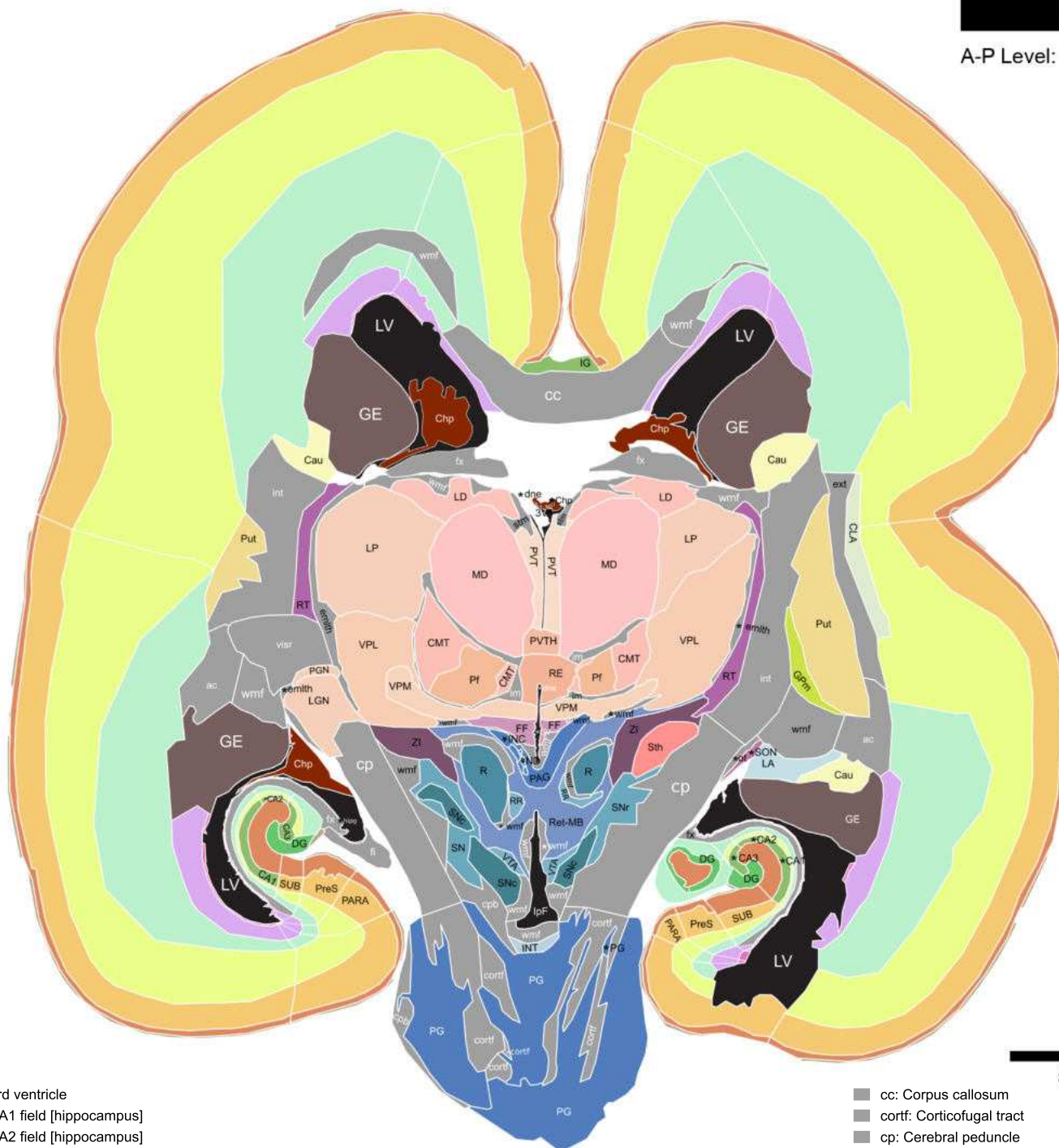
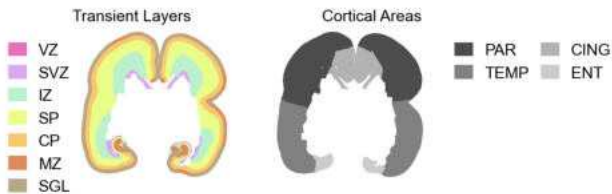


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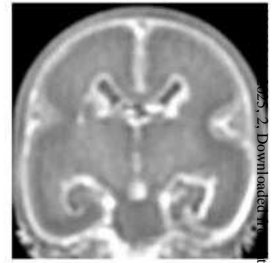
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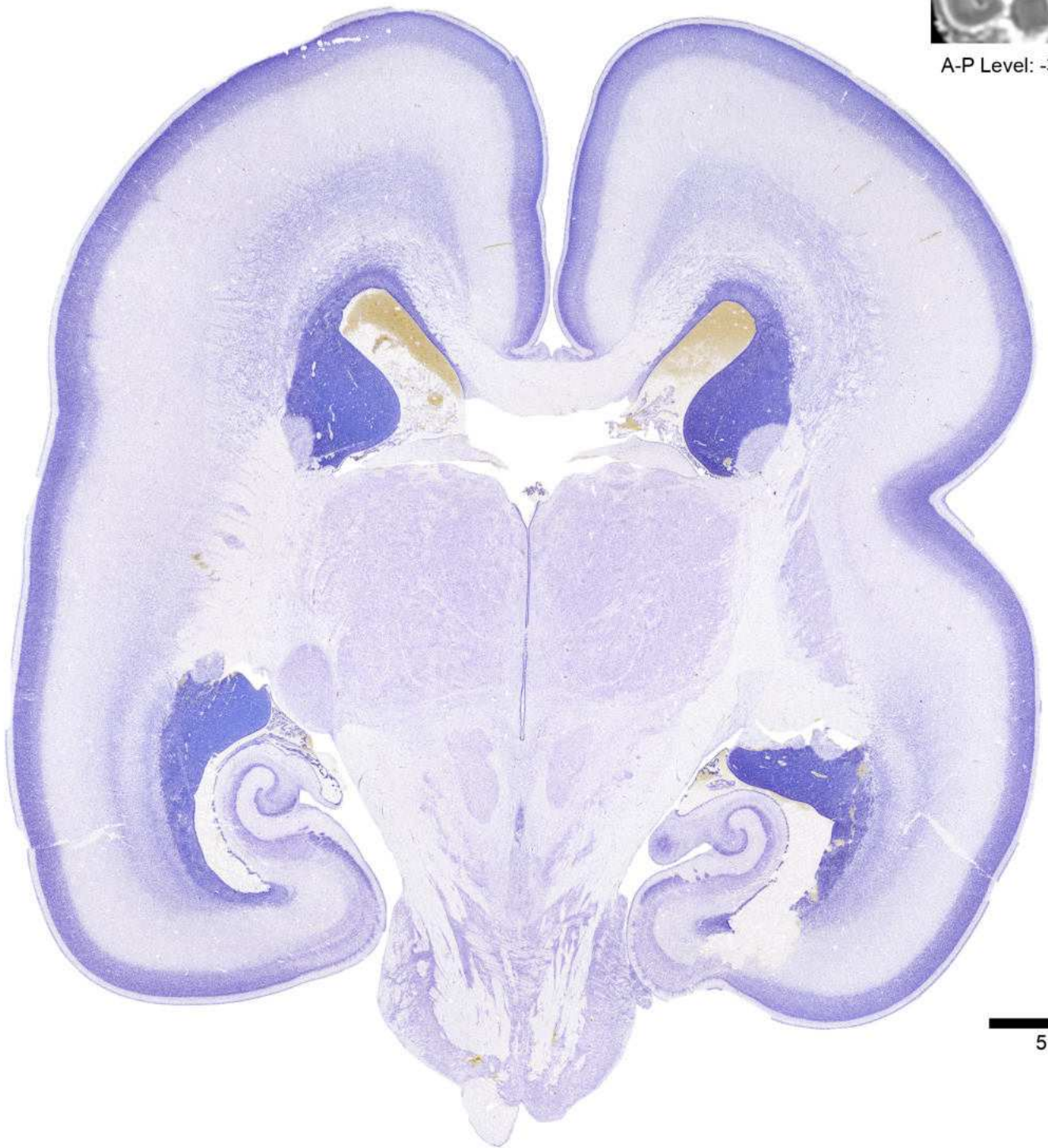
5 mm

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|---|---|--|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CLA: Claustrum ■ CMT: Centromedian nucleus [thalamus] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ FF: Field of Forel ■ GE: Ganglionic eminence ■ GPM: Globus pallidus medial segment ■ IG: Induseum griseum ■ INC: Interstitial nucleus of Cajal ■ INT: Interpeduncular nucleus ■ IpF: Interpeduncular fossa ■ LA: Lateral nucleus [amygdala] ■ LD: Lateral dorsal nucleus [thalamus] ■ LGN: Lateral geniculate nucleus ■ LP: Lateral posterior nucleus [thalamus] | <ul style="list-style-type: none"> ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ ND: Nucleus of Darkschewitsch ■ PAG: Periaqueductal gray ■ PG: Pontine gray ■ PGN: Pregeniculate nucleus [thalamus] ■ PVT: Paraventricular nucleus [thalamus] ■ PVTH: Periventricular complex [thalamus] ■ Pf: Parafascicular nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ R: Red nucleus ■ RE: Nucleus reuniens | <ul style="list-style-type: none"> ■ RR: Retrorubral area ■ RT: Reticular nucleus [thalamus] ■ Ret-MB: Reticular formation, Midbrain ■ SN: Substantia nigra ■ SNc: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ VTA: Ventral tegmental area ■ ZI: Zona incerta ■ ac: Anterior commissure | <ul style="list-style-type: none"> ■ cc: Corpus callosum ■ cortf: Corticofugal tract ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fi: Fimbria ■ fx: Fornix ■ hipp: Hippocampal glioeptithelium/ependyma ■ im: Internal medullary lamina [thalamus] ■ int: Internal capsule ■ ot: Optic tract ■ stm: Stria medullaris ■ visr: Visual radiation ■ wmf: White matter fibers |
|---|---|--|---|

Age: 22 GW

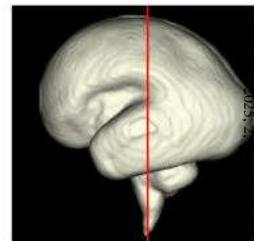


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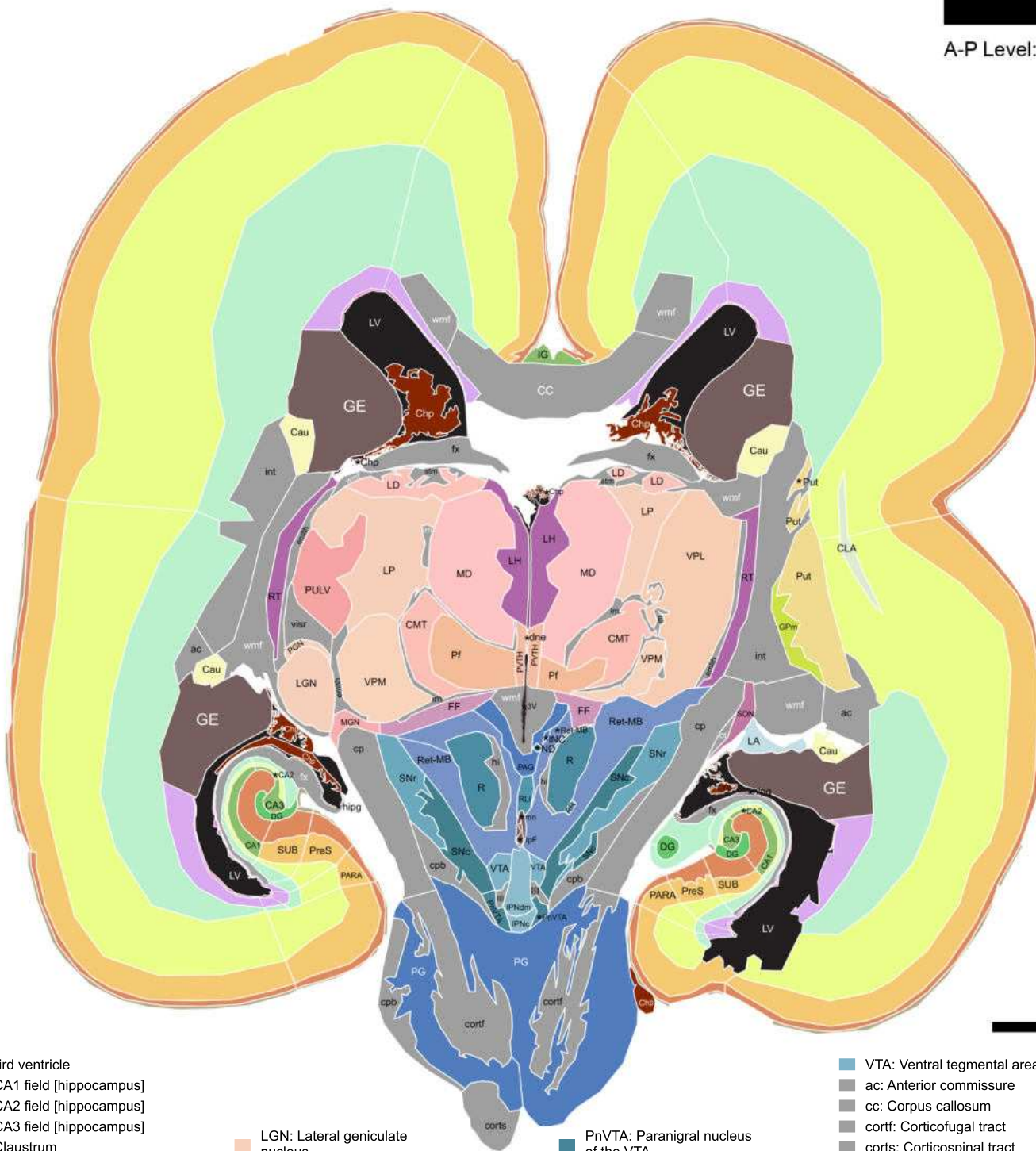
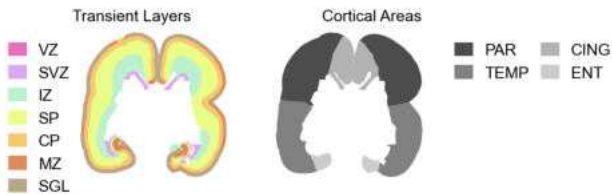


5 mm

<https://onlinelibrary.wiley.com/doi/10.1002/ene.70006> by Test, Wiley Online Library on [06/02/2025]. See the Terms and Conditions (<https://onlinelibrary.wiley.com/terms-and-conditions>) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License



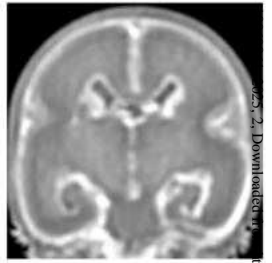
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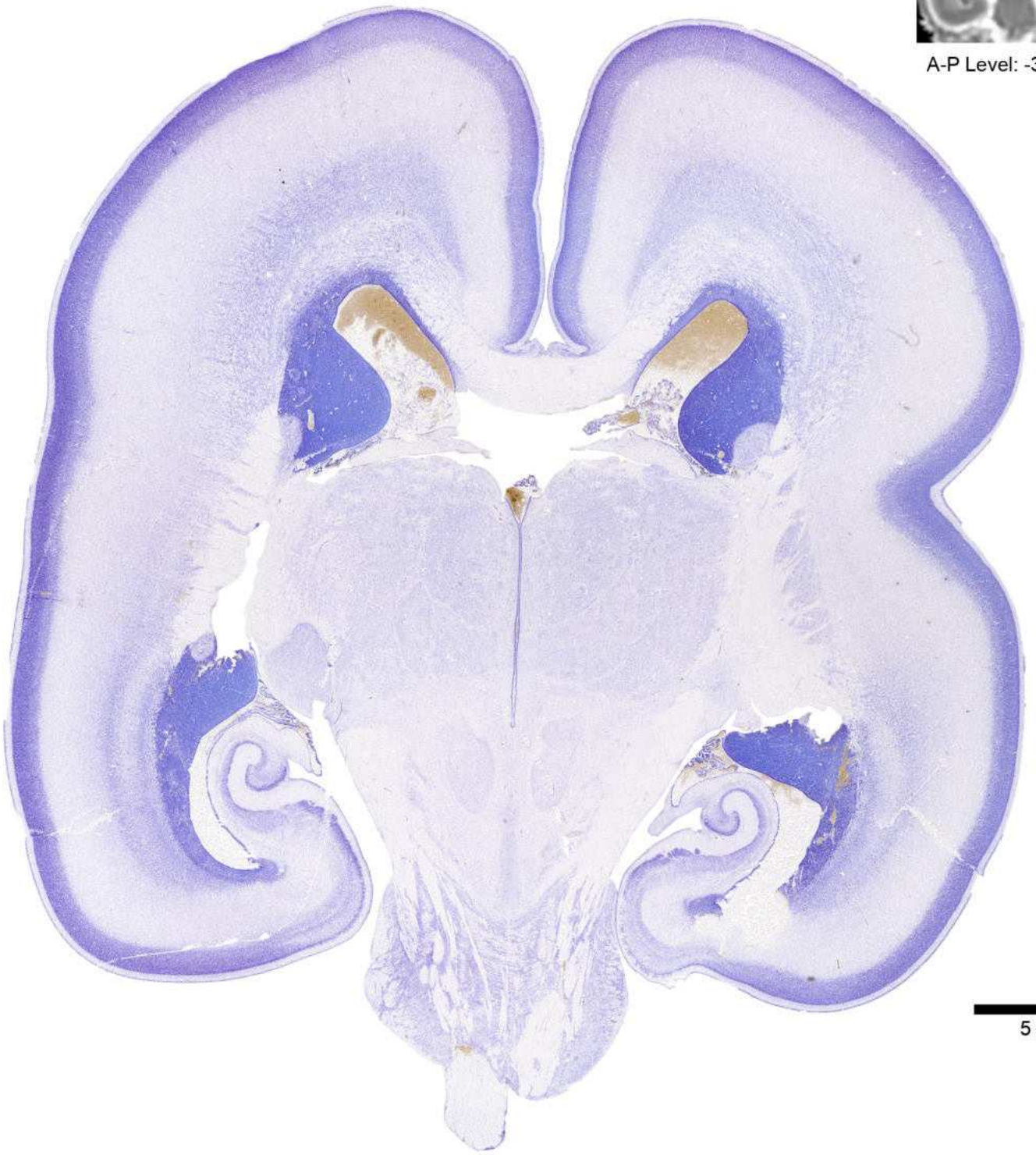
5 mm

- 3V: Third ventricle
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CLA: Claustrum
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- FF: Field of Forel
- GE: Ganglionic eminence
- GPM: Globus pallidus medial segment
- IG: Induseum griseum
- III: Oculomotor nerve
- INC: Interstitial nucleus of Cajal
- IPNc: Interpeduncular nucleus, caudal part
- IPNdm: Interpeduncular nucleus, dorsomedial part
- IPf: Interpeduncular fossa
- LA: Lateral nucleus [amygdala]
- LD: Lateral dorsal nucleus [thalamus]
- LGN: Lateral geniculate nucleus
- LH: Lateral habenula
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MGN: Medial geniculate nucleus
- ND: Nucleus of Darkschewitsch
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PGN: Pregeniculate nucleus
- PULV: Pulvinar nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- VTA: Ventral tegmental area
- ac: Anterior commissure
- cc: Corpus callosum
- cortf: Corticofugal tract
- corts: Corticospinal tract
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- emlth: External medullary lamina [thalamus]
- fx: Fornix
- hi: Habenulo-interpeduncular tract
- hipg: Hippocampal glioeptihelium/ependyma
- im: Internal medullary lamina [thalamus]
- int: Internal capsule
- mn: Mesencephalic neuroepithelium
- ot: Optic tract
- stm: Stria medullaris
- visr: Visual radiation
- wmf: White matter fibers
- PnVTA: Paranigral nucleus of the VTA
- PreS: Cortical plate, presubiculum
- Put: Putamen
- R: Red nucleus
- RLI: Rostral linear raphe nucleus
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SUB: Cortical plate, subiculum
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]

Age: 22 GW

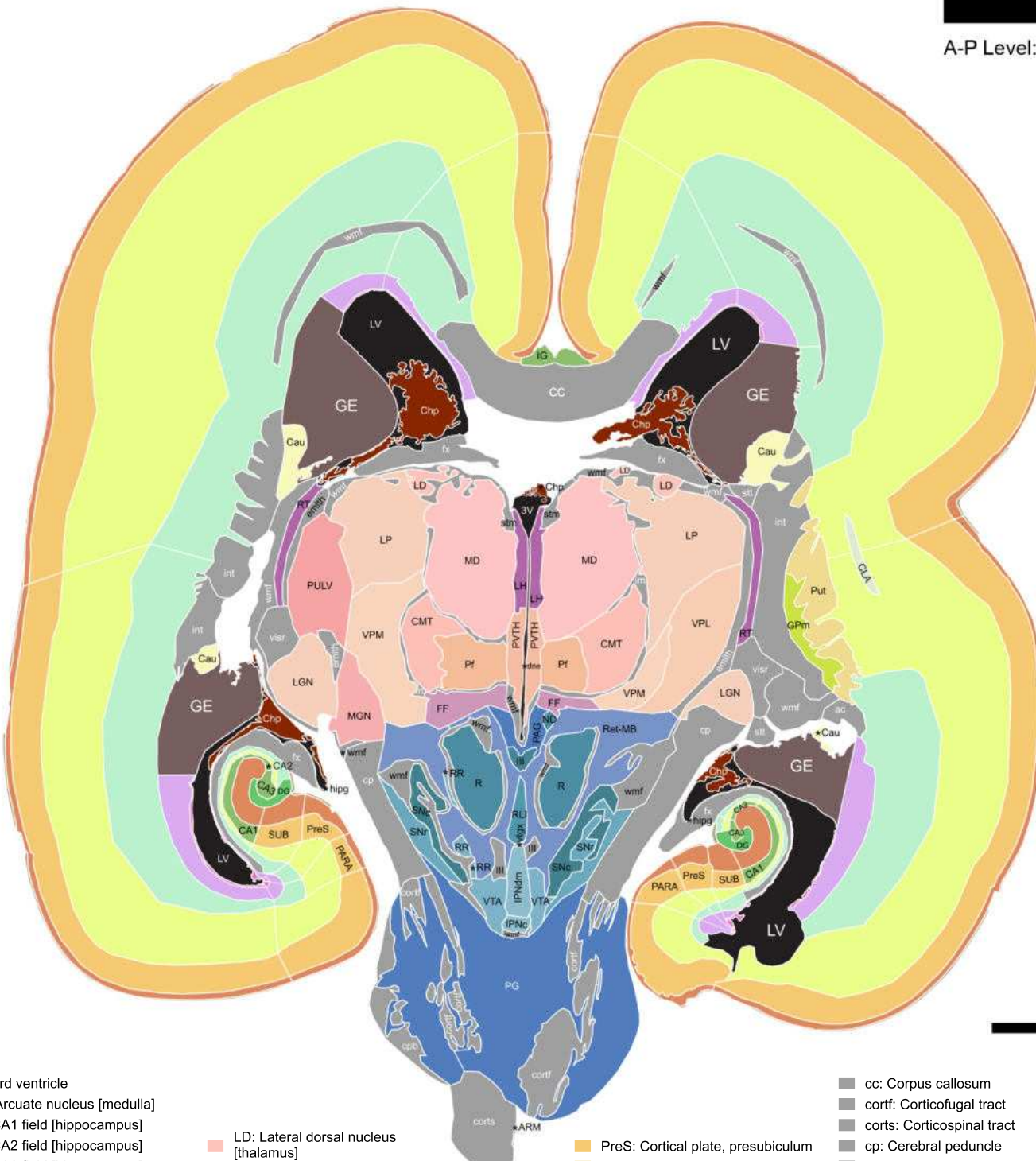
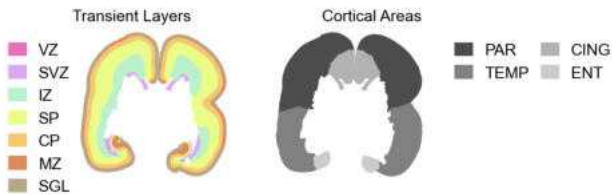


A-P Level: -3.84 mm





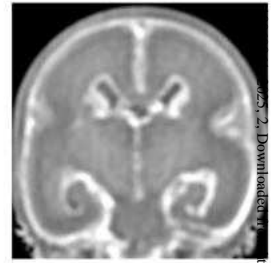
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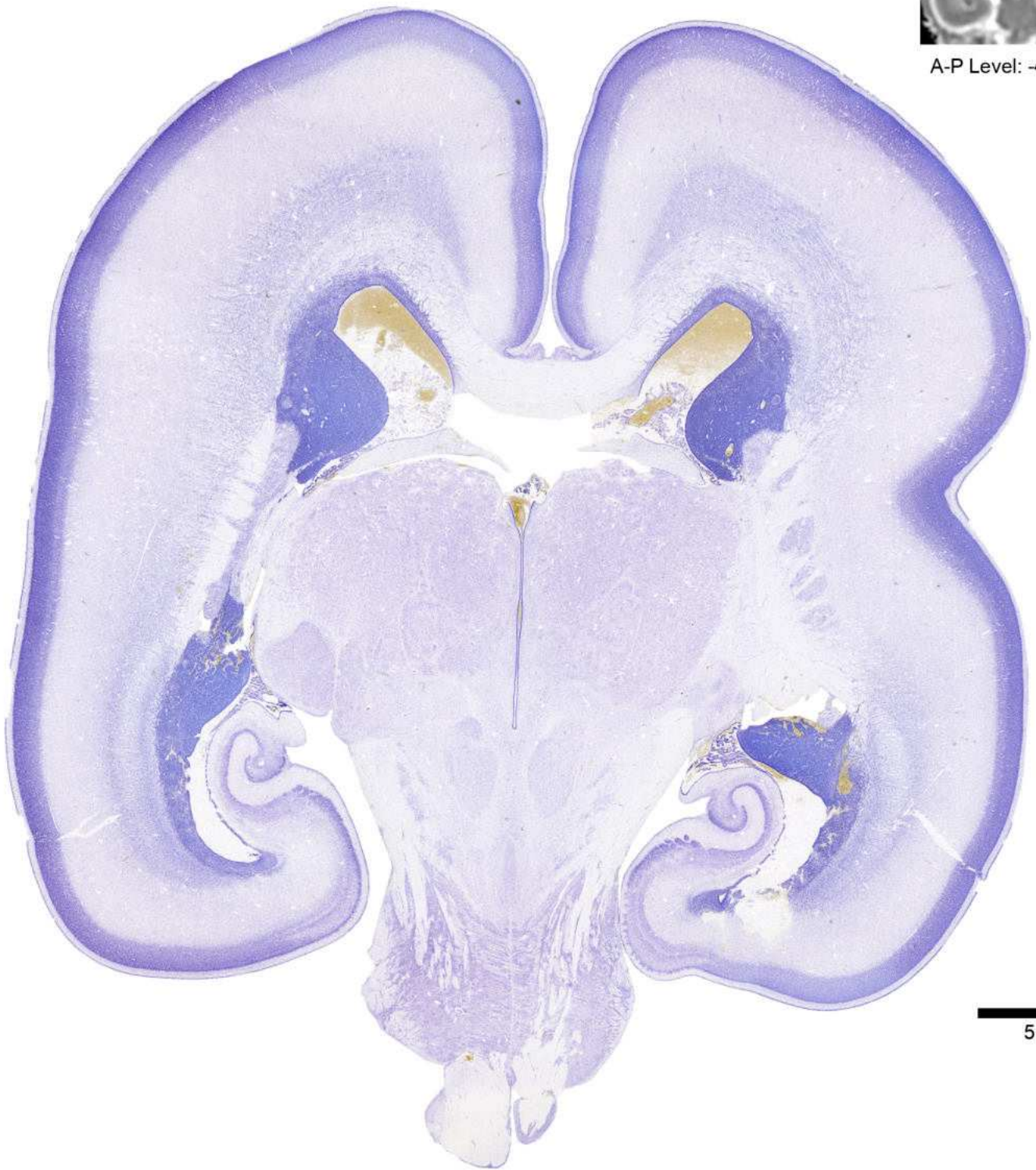
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|---|---|
| <ul style="list-style-type: none"> 3V: Third ventricle ARM: Arcuate nucleus [medulla] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum CMT: Centromedian nucleus [thalamus] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus FF: Field of Forel GE: Ganglionic eminence GPM: Globus pallidus medial segment IG: Induseum griseum III: Oculomotor nerve IPNc: Interpeduncular nucleus, caudal part IPNdm: Interpeduncular nucleus, dorsomedial part LD: Lateral dorsal nucleus [thalamus] LGN: Lateral geniculate nucleus LH: Lateral habenula LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MGN: Medial geniculate nucleus ND: Nucleus of Darkschewitsch PAG: Periaqueductal gray PARA: Cortical plate, parasubiculum PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PVTH: Periventricular complex [thalamus] Pf: Parafascicular nucleus [thalamus] | <ul style="list-style-type: none"> cc: Corpus callosum cortf: Corticofugal tract corts: Corticospinal tract cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioeptithelium/ependyma im: Internal medullary lamina [thalamus] int: Internal capsule stm: Stria medullaris stt: Stria terminalis visr: Visual radiation vtgx: Ventral tegmental decussation wmf: White matter fibers PreS: Cortical plate, presubiculum Put: Putamen R: Red nucleus RLL: Rostral linear raphe nucleus RR: Retrorubral area RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SUB: Cortical plate, subiculum VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] VTA: Ventral tegmental area ac: Anterior commissure |
|---|---|

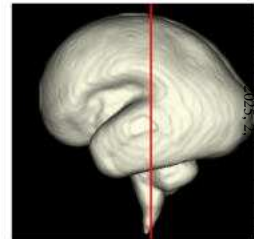
Age: 22 GW



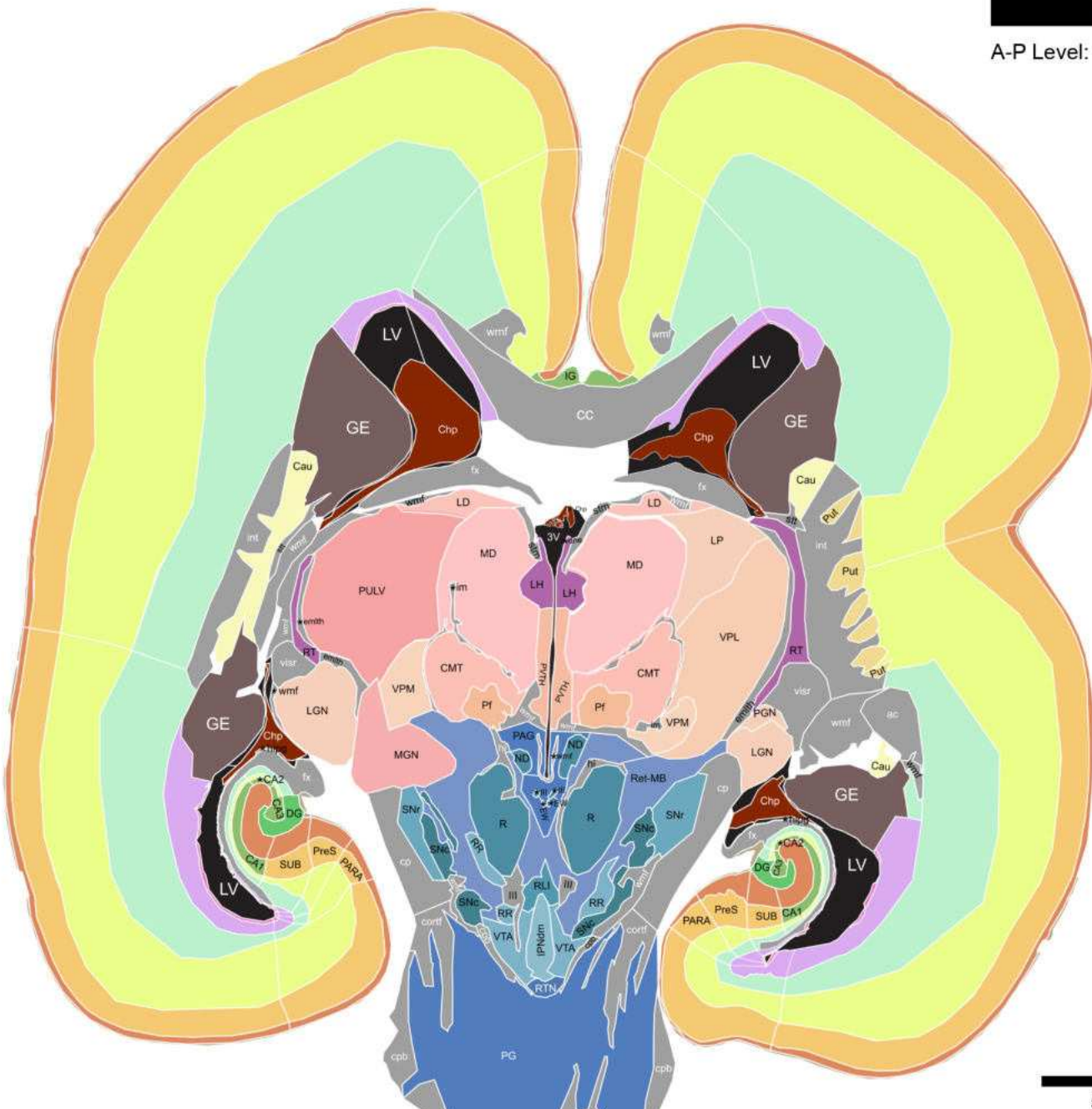
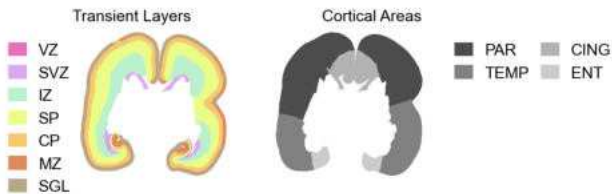
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5 mm



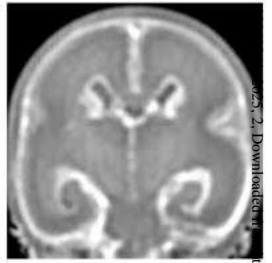
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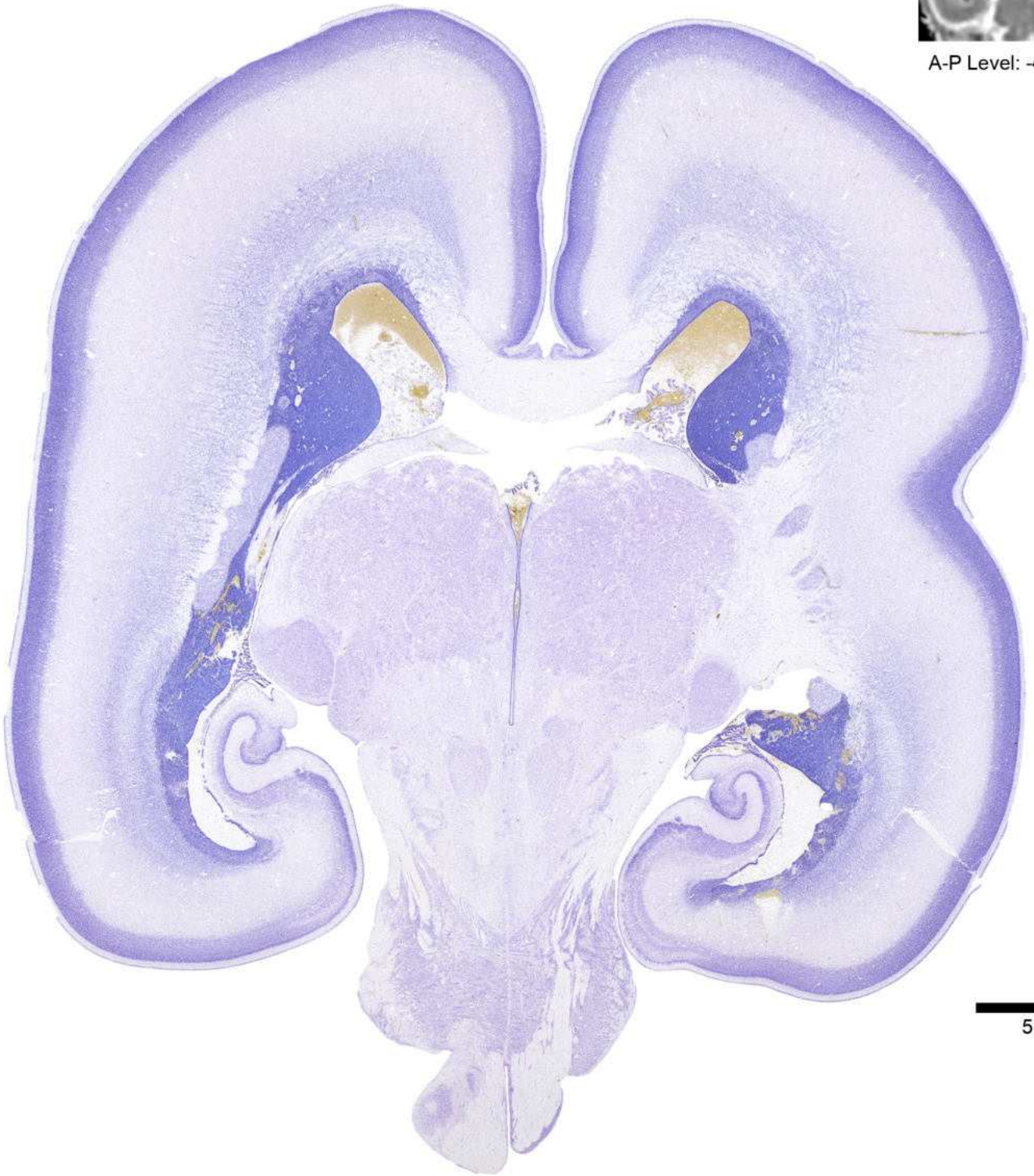
5 mm

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- Chp: Choroid plexus
- DG: Dentate gyrus
- EW: Eninger-Westphal nucleus
- GE: Ganglionic eminence
- IG: Induseum griseum
- III: Oculomotor nerve
- IO: Inferior olive
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- cortcs: Corticospinal tract
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- emlh: External medullary lamina [thalamus]
- fx: Fornix
- hi: Habenulo-interpeduncular tract
- hippg: Hippocampal glioepithelium/ependyma
- im: Internal medullary lamina [thalamus]
- int: Internal capsule
- stm: Stria medullaris
- stt: Stria terminalis
- visr: Visual radiation
- wmf: White matter fibers

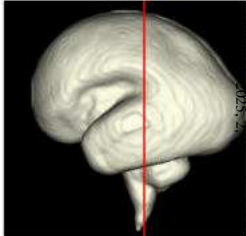
Age: 22 GW



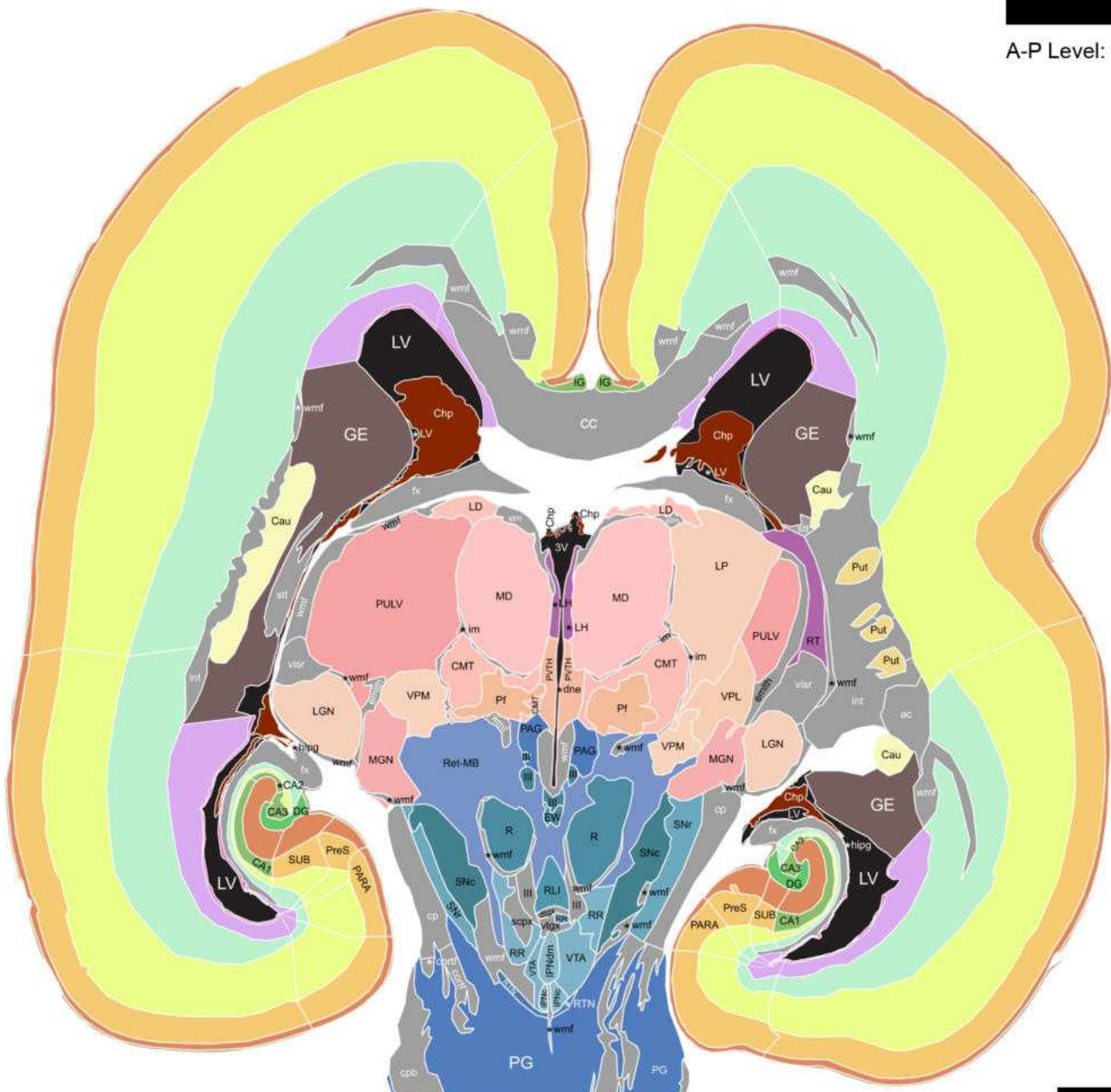
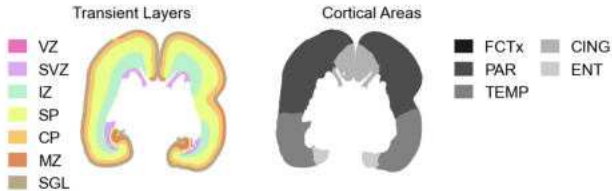
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5 mm



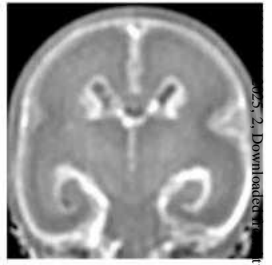
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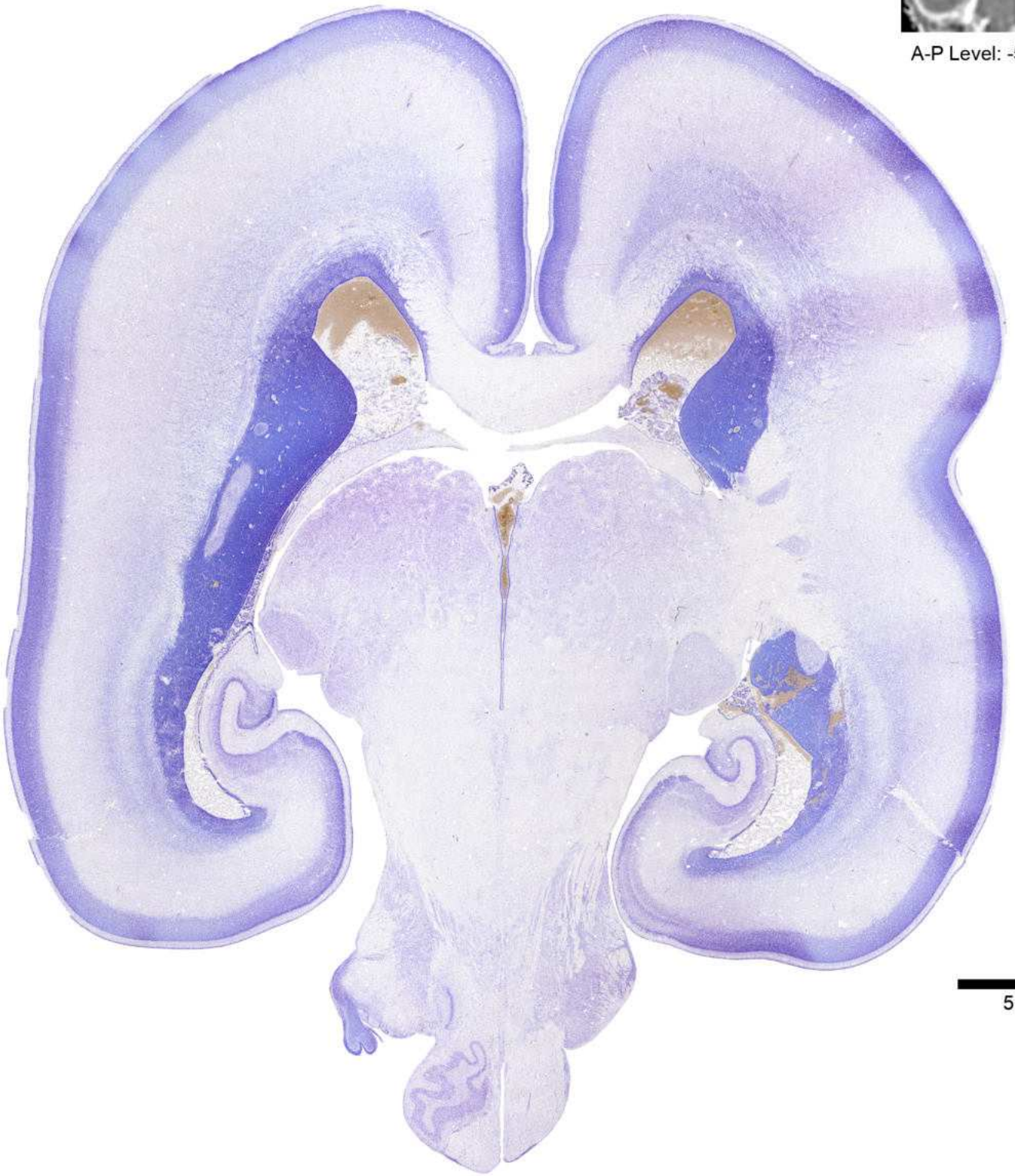
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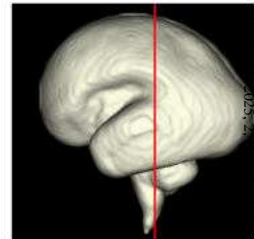
- 3V: Third ventricle
- ARM: Arcuate nucleus [medulla]
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- EW: Evinger-Westphal nucleus
- GE: Ganglionic eminence
- IG: Induseum griseum
- III: Oculomotor nerve
- IO: Inferior olive
- IPNc: Interpeduncular nucleus, caudal part
- IPNdm: Interpeduncular nucleus, dorsomedial part
- LD: Lateral dorsal nucleus [thalamus]
- LGN: Lateral geniculate nucleus
- LH: Lateral habenula
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MGN: Medial geniculate nucleus
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Put: Putamen
- R: Red nucleus
- RLI: Rostral linear raphe nucleus
- RR: Retrorubral area
- RR: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SUB: Cortical plate, subiculum
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- ac: Anterior commissure
- cc: Corpus callosum
- cortf: Corticofugal tract
- corts: Corticospinal tract
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- dtgx: Dorsal tegmental decussation
- emlth: External medullary lamina [thalamus]
- fx: Fornix
- hipg: Hippocampal gliopithelium/ependyma
- im: Internal medullary lamina [thalamus]
- int: Internal capsule
- scpx: Superior cerebellar peduncle decussation
- stm: Stria medullaris
- stt: Stria terminalis
- visr: Visual radiation
- vtgx: Ventral tegmental decussation
- wmf: White matter fibers

Age: 22 GW

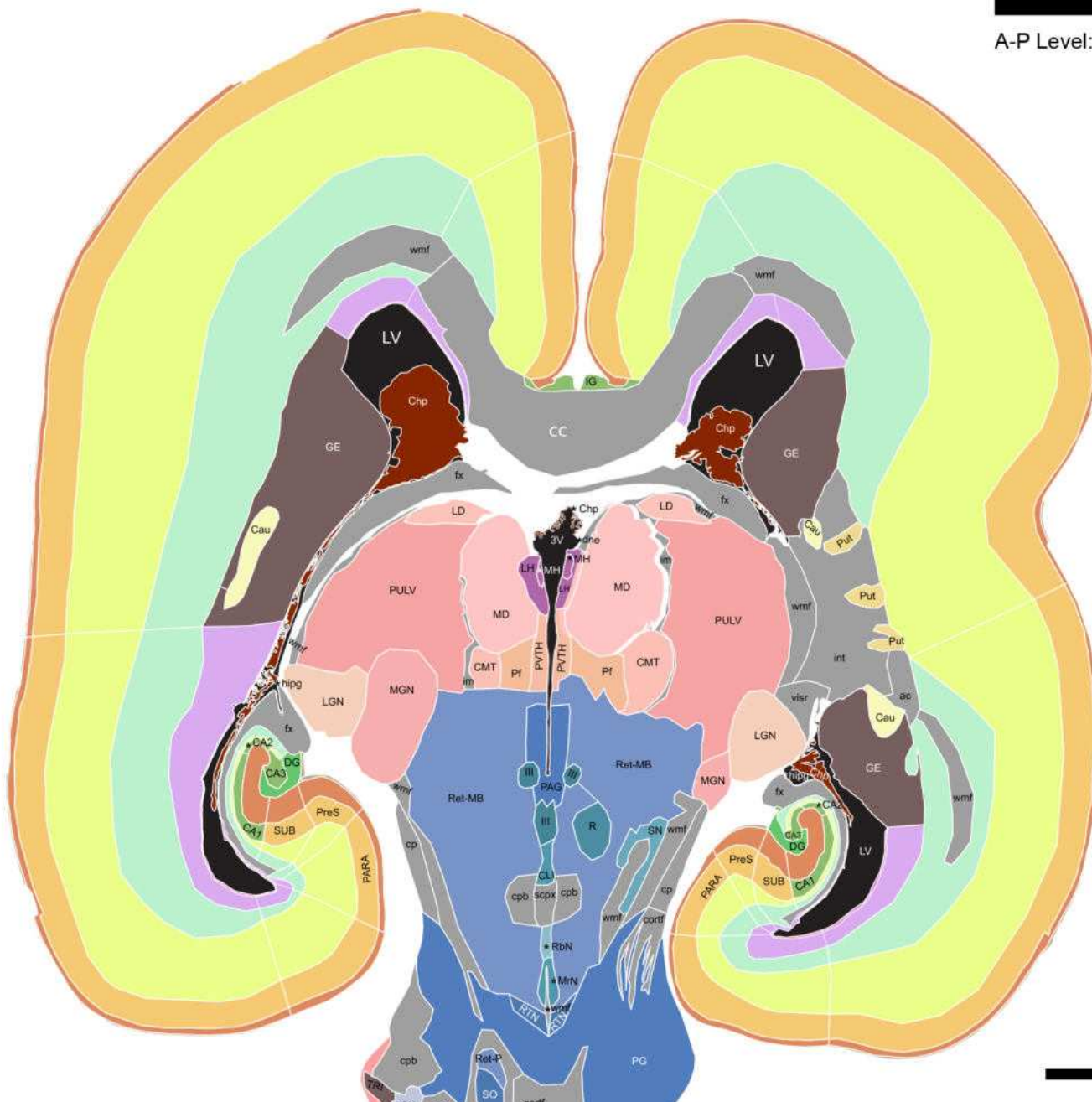
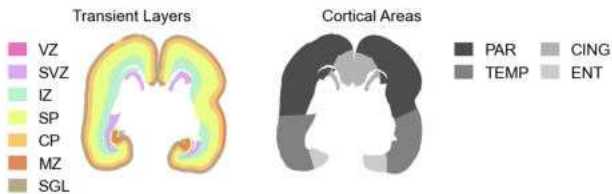


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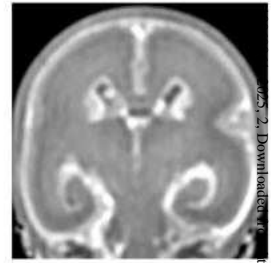
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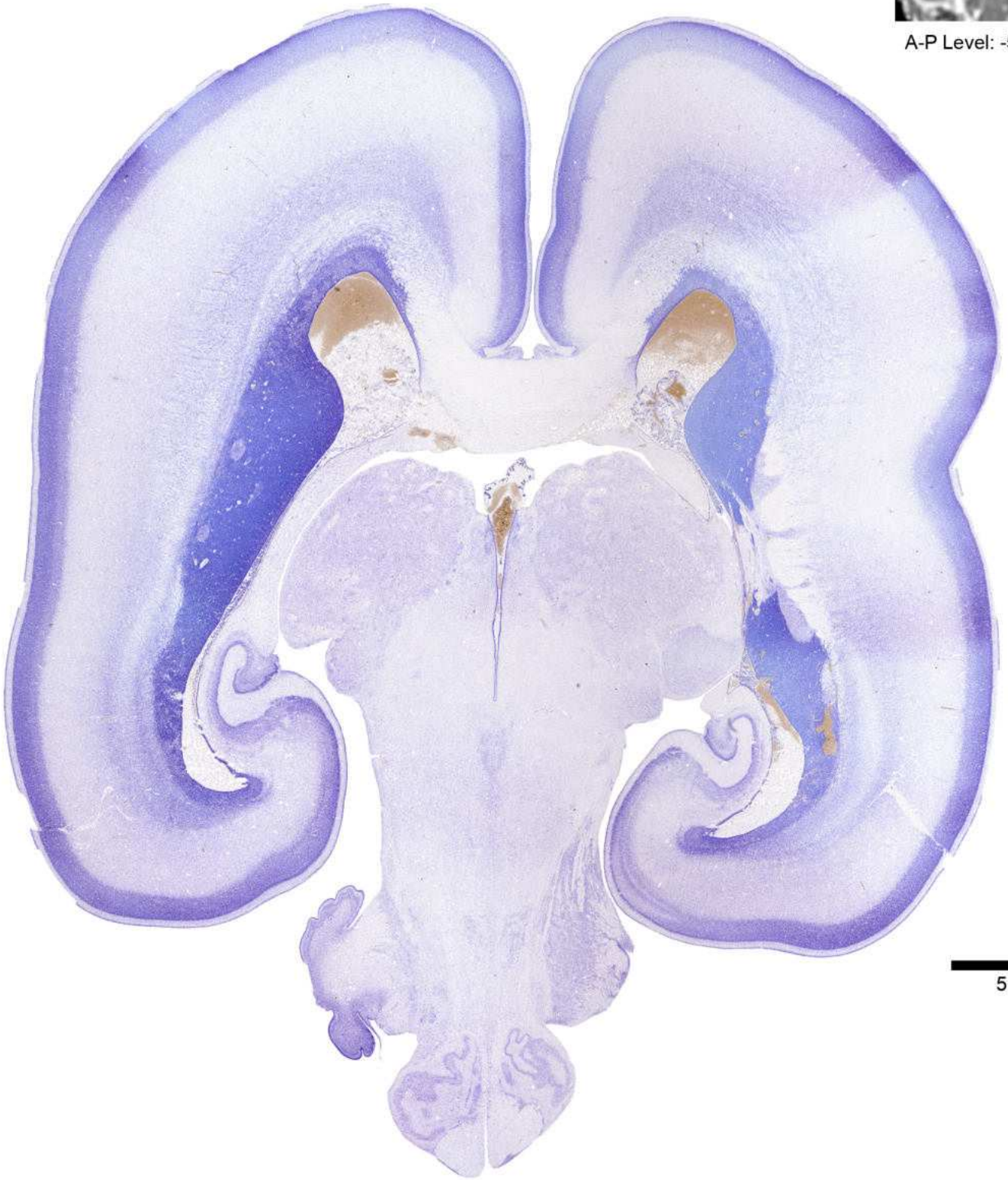
5 mm

- 3V: Third ventricle
- ARM: Arcuate nucleus [medulla]
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CL: Caudal linear raphe nucleus
- CMT: Centromedian nucleus [thalamus]
- CN: Cochlear nuclei
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- IO: Inferior olive
- LD: Lateral dorsal nucleus [thalamus]
- LGN: Lateral geniculate nucleus
- LH: Lateral habenula
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MGN: Medial geniculate nucleus
- MH: Medial habenula
- MrN: Median raphe nucleus
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Put: Putamen
- R: Red nucleus
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- RbN: Rhabdoid nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-P: Reticular formation, Pons
- SN: Substantia nigra
- SO: Superior olive
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- ac: Anterior commissure
- cc: Corpus callosum
- corft: Corticofugal tract
- corts: Corticospinal tract
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fx: Fornix
- hippg: Hippocampal glioeptihelium/ependyma
- im: Internal medullary lamina [thalamus]
- int: Internal capsule
- pcbn: Precerebellar neuroepithelium
- scpx: Superior cerebellar peduncle decussation
- visr: Visual radiation
- wmf: White matter fibers

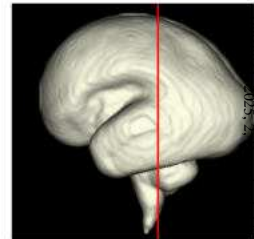
Age: 22 GW



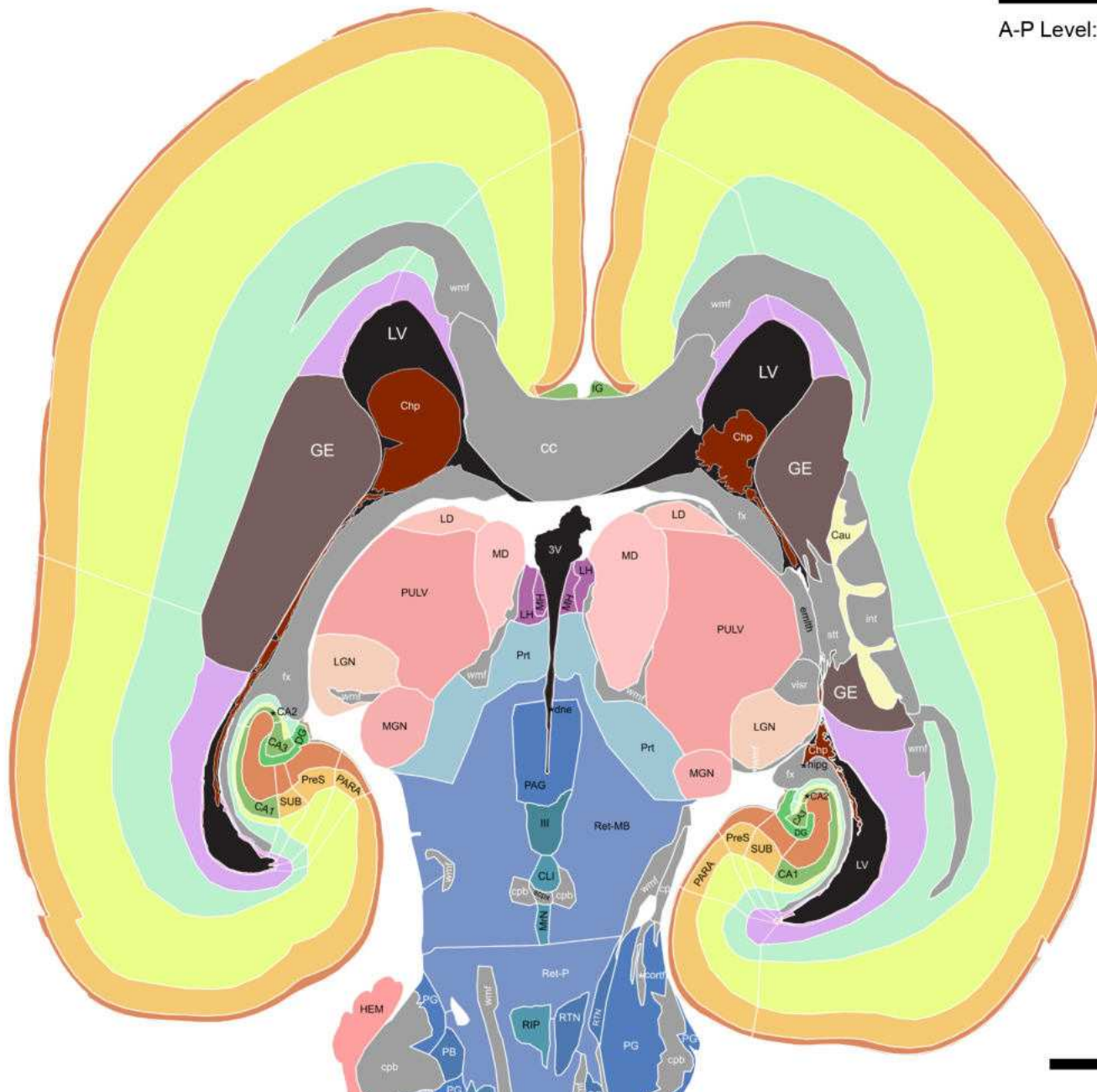
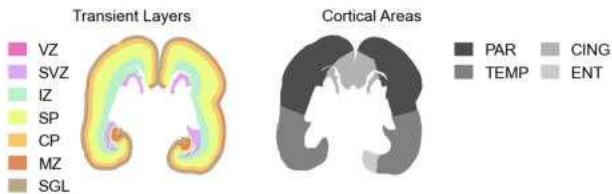
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5 mm



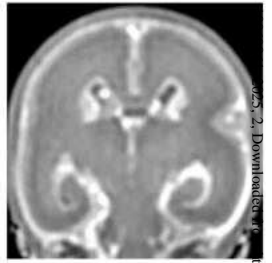
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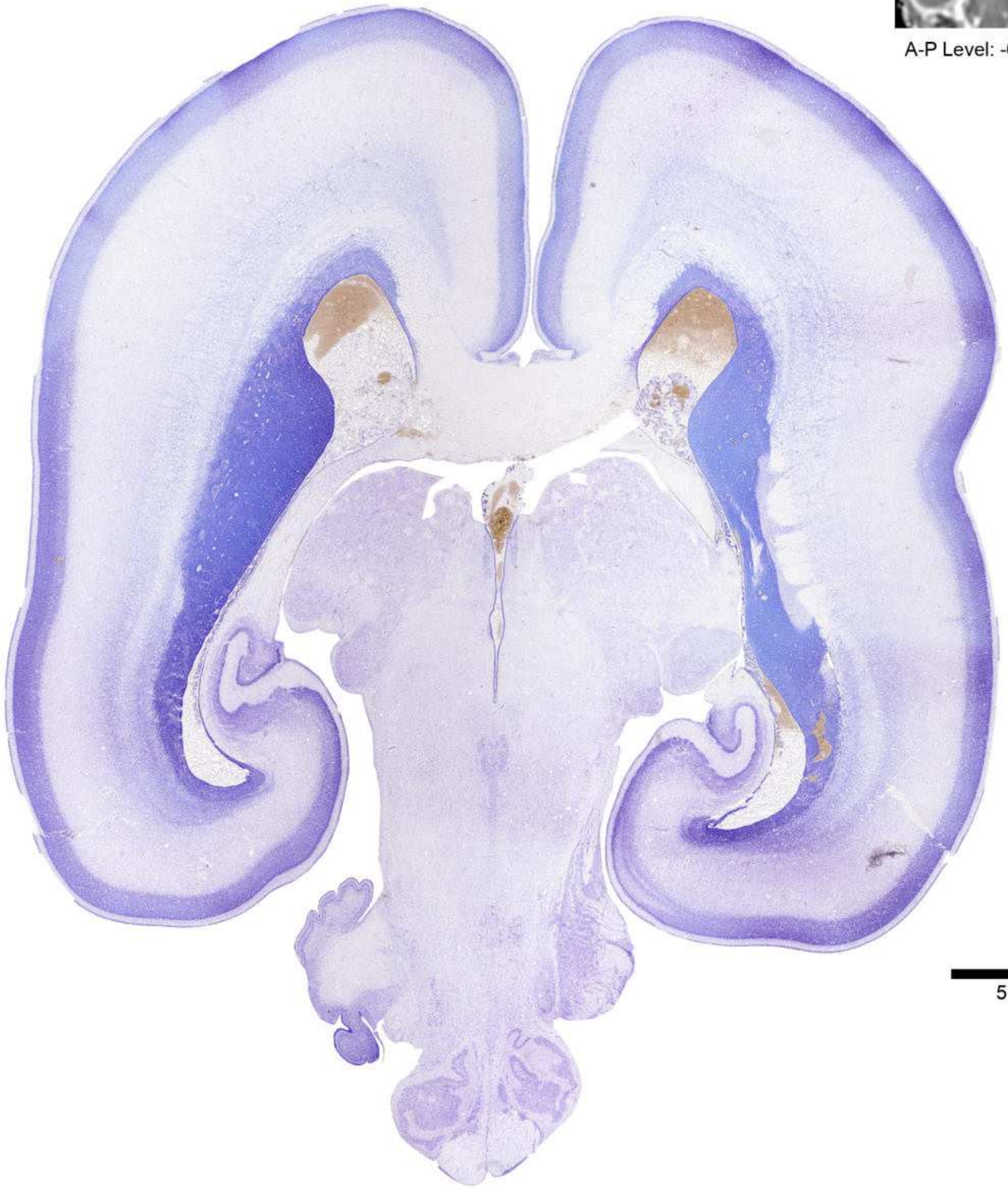
5 mm

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ ARM: Arcuate nucleus [medulla] ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CL: Caudal linear raphe nucleus ■ CN: Cochlear nuclei ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ HEM: Cerebellar hemispheres ■ IG: Induseum griseum ■ III: Oculomotor nuclear complex ■ IO: Inferior olive ■ LD: Lateral dorsal nucleus [thalamus] ■ LGN: Lateral geniculate nucleus | <ul style="list-style-type: none"> ■ LH: Lateral habenula ■ LRN: Lateral reticular nucleus ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MGN: Medial geniculate nucleus ■ MH: Medial habenula ■ MrN: Median raphe nucleus ■ PAG: Periaqueductal gray ■ PARA: Cortical plate, parasubiculum ■ PB: Parabrachial nucleus ■ PG: Pontine gray ■ PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> ■ PreS: Cortical plate, presubiculum ■ Prt: Pretectum ■ RIP: Raphe interpositus nucleus ■ RPA: Raphe pallidus nucleus ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-Med: Reticular formation, Medulla ■ Ret-P: Reticular formation, Pons ■ SO: Superior olive ■ SUB: Cortical plate, subiculum ■ TRI: Germinal trigone ■ VII: Facial motor nucleus | <ul style="list-style-type: none"> ■ cc: Corpus callosum ■ cortf: Corticofugal tract ■ cortcs: Corticospinal tract ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ fx: Fornix ■ hipp: Hippocampal glioeptithelium/ependyma ■ int: Internal capsule ■ pcbn: Precerebellar neuroepithelium ■ scp: Superior cerebellar peduncle decussation ■ stt: Stria terminalis ■ visr: Visual radiation ■ wmf: White matter fibers |
|--|---|--|---|

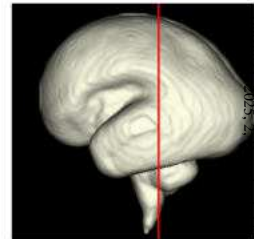
Age: 22 GW



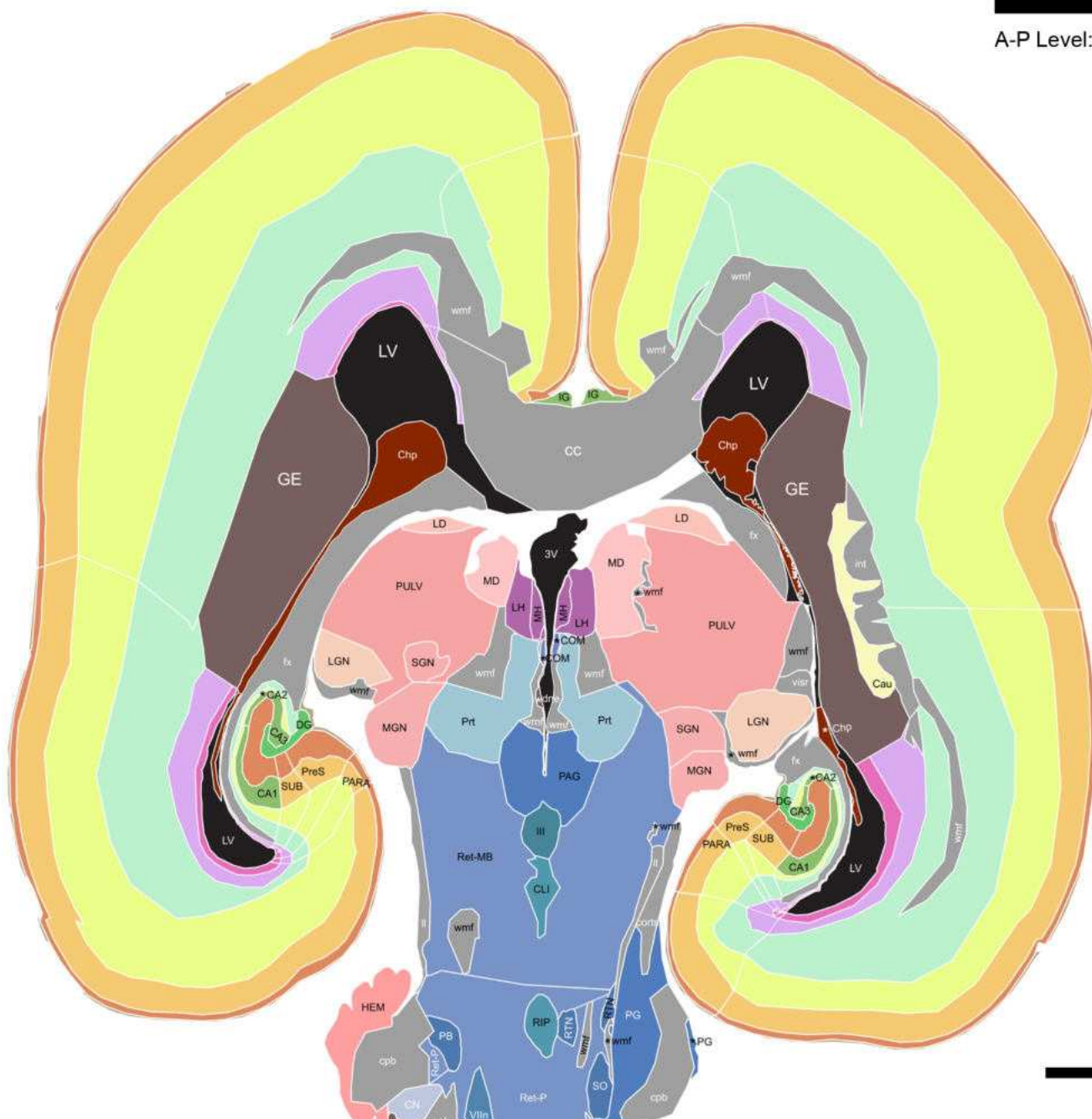
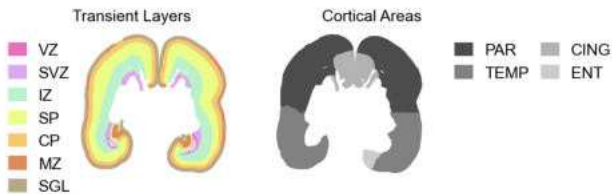
A-P Level: -6.12 mm



Age: 22 GW



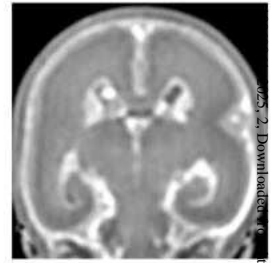
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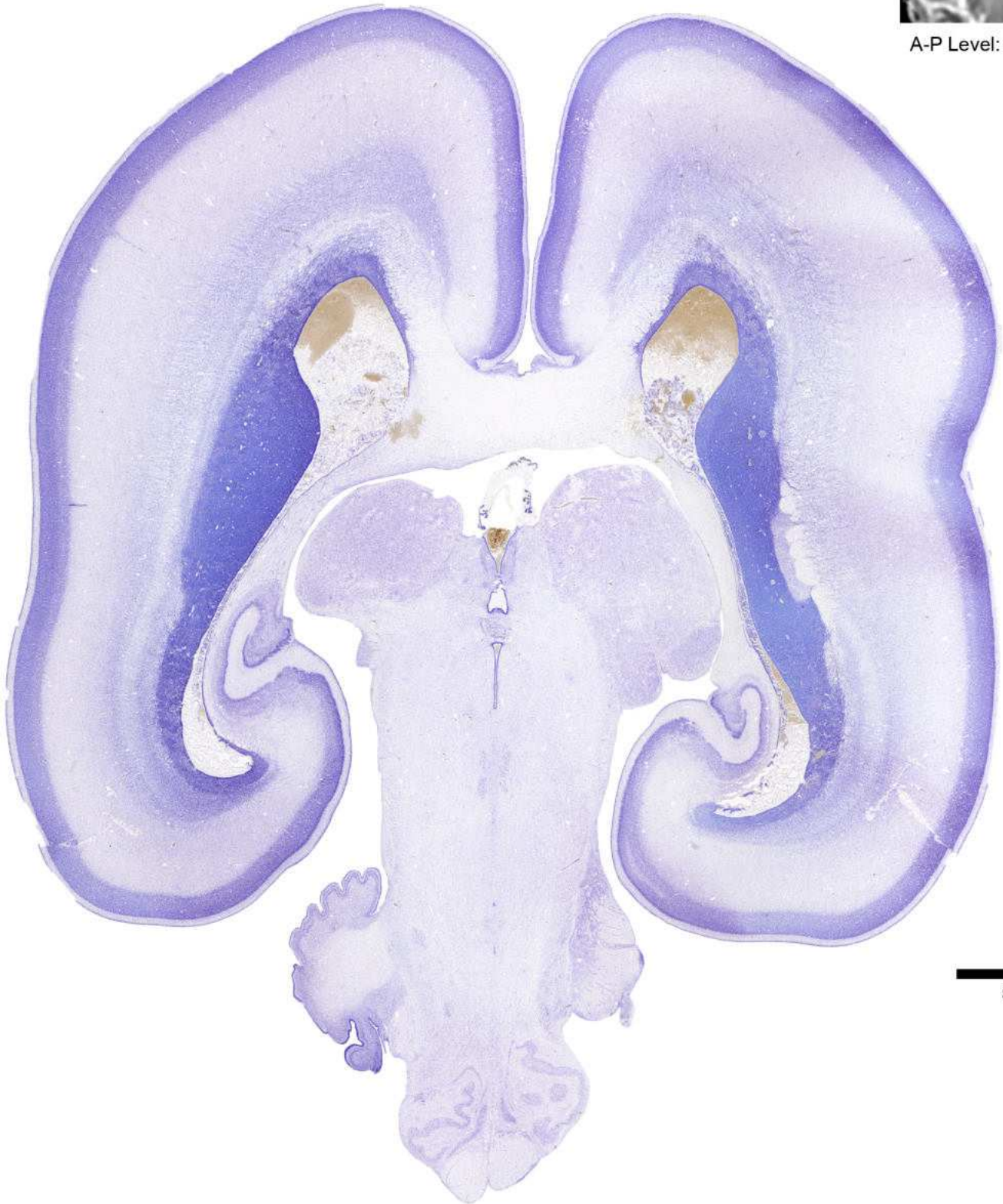
5 mm

- 3V: Third ventricle
- ARM: Arcuate nucleus [medulla]
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CLI: Caudal linear raphe nucleus
- CN: Cochlear nuclei
- COM: Commissural nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- IO: Inferior olive
- LD: Lateral dorsal nucleus [thalamus]
- LGN: Lateral geniculate nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MGN: Medial geniculate nucleus
- MH: Medial habenula
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- Vlln: Facial motor nucleus
- cc: Corpus callosum
- corts: Corticospinal tract
- int: Internal capsule
- li: Lateral lemniscus
- pcbn: Precerebellar neuroepithelium
- vis: Visual radiation
- wmf: White matter fibers
- Vlln: Facial motor nucleus
- cc: Corpus callosum
- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fx: Fornix
- hipg: Hippocampal glioeptithelium/ependyma
- int: Internal capsule
- li: Lateral lemniscus
- pcbn: Precerebellar neuroepithelium
- vis: Visual radiation
- wmf: White matter fibers
- Vlln: Facial motor nucleus
- cc: Corpus callosum
- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fx: Fornix
- hipg: Hippocampal glioeptithelium/ependyma
- int: Internal capsule
- li: Lateral lemniscus
- pcbn: Precerebellar neuroepithelium
- vis: Visual radiation
- wmf: White matter fibers
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RIP: Raphe interpositus nucleus
- RPA: Raphe pallidus nucleus
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SGN: Suprageniculate nucleus
- SO: Superior olive
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone

Age: 22 GW



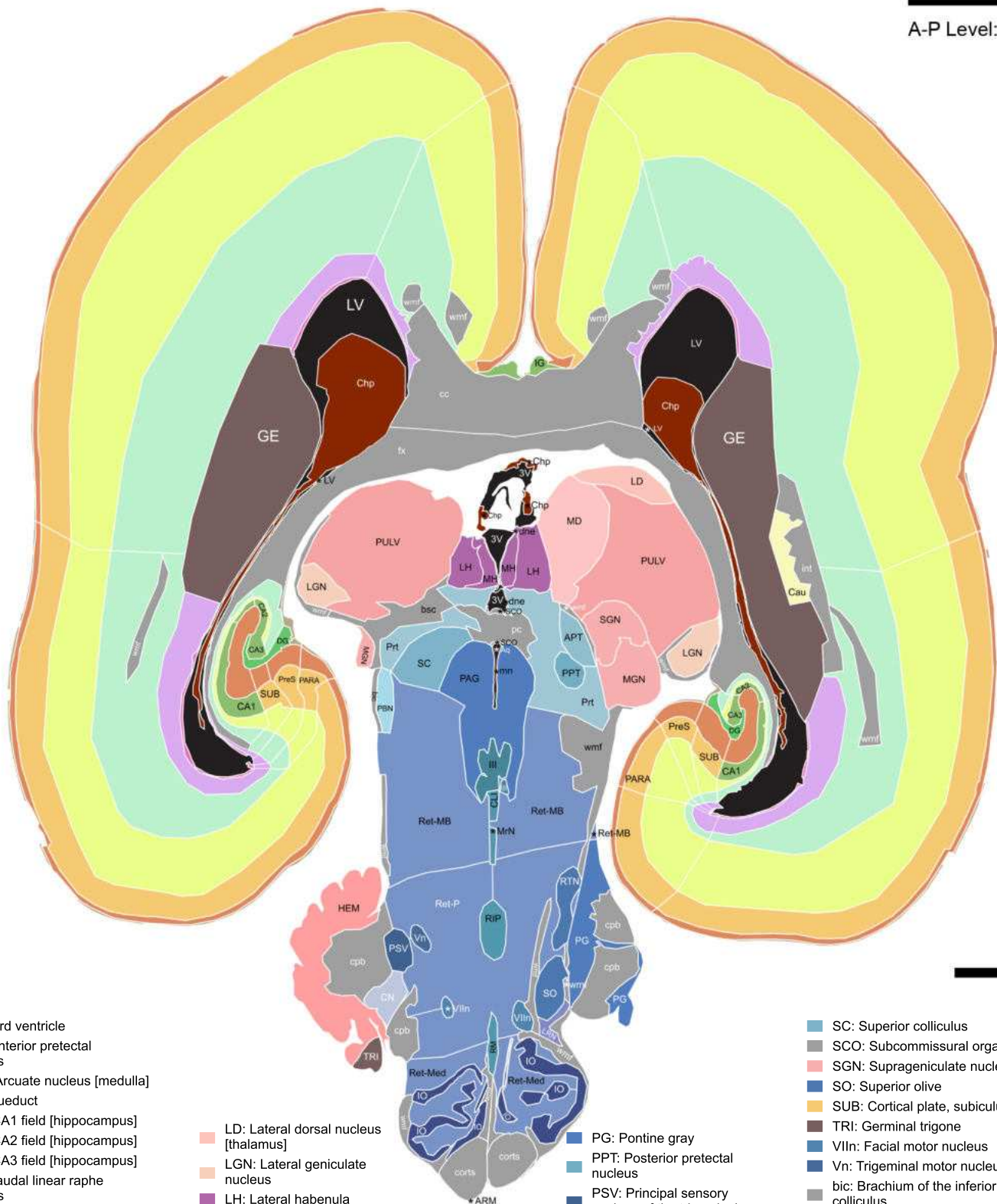
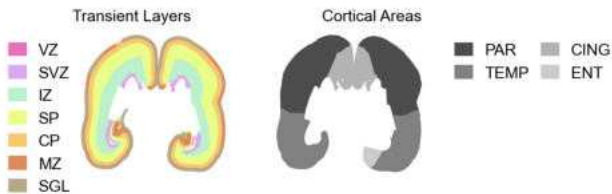
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5 mm



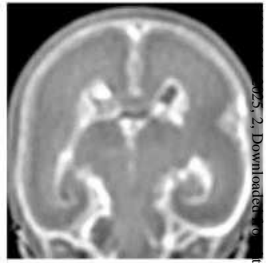
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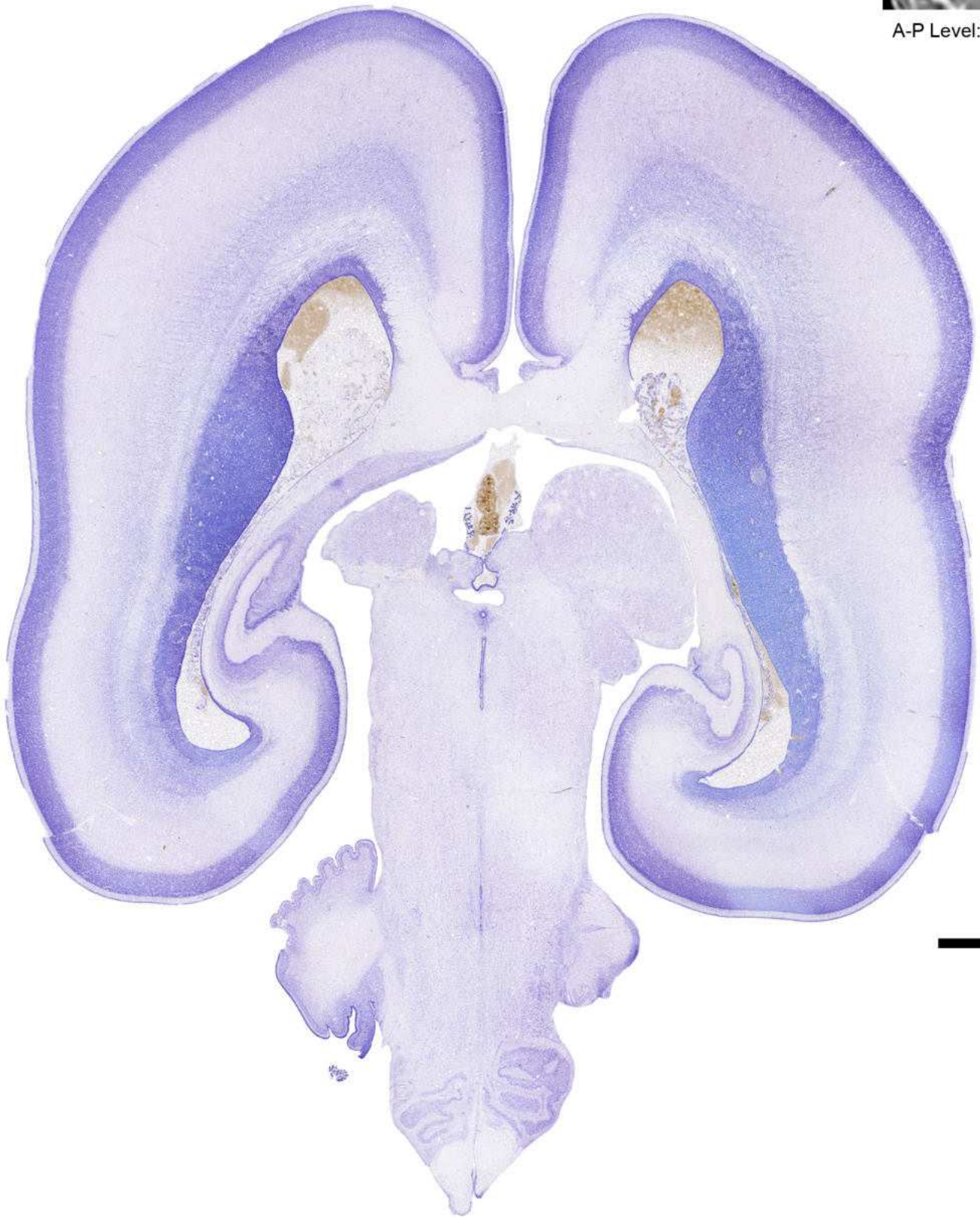
5 mm

- 3V: Third ventricle
- APT: Anterior pretecal nucleus
- ARM: Arcuate nucleus [medulla]
- Aq: Aqueduct
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CLI: Caudal linear raphe nucleus
- CN: Cochlear nuclei
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- IO: Inferior olive
- LD: Lateral dorsal nucleus [thalamus]
- LGN: Lateral geniculate nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MGN: Medial geniculate nucleus
- MH: Medial habenula
- MrN: Median raphe nucleus
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PPT: Posterior pretecal nucleus
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RIP: Raphe interpositus nucleus
- RM: Raphe magnus nucleus
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCO: Subcommissural organ
- SGN: Suprageniculate nucleus
- SO: Superior olive
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- Vlln: Facial motor nucleus
- Vn: Trigeminal motor nucleus
- bic: Brachium of the inferior colliculus
- bsc: Brachium of the superior colliculus
- cc: Corpus callosum
- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fx: Fornix
- int: Internal capsule
- mn: Mesencephalic neuroepithelium
- pc: Posterior commissure
- wmf: White matter fibers

Age: 22 GW



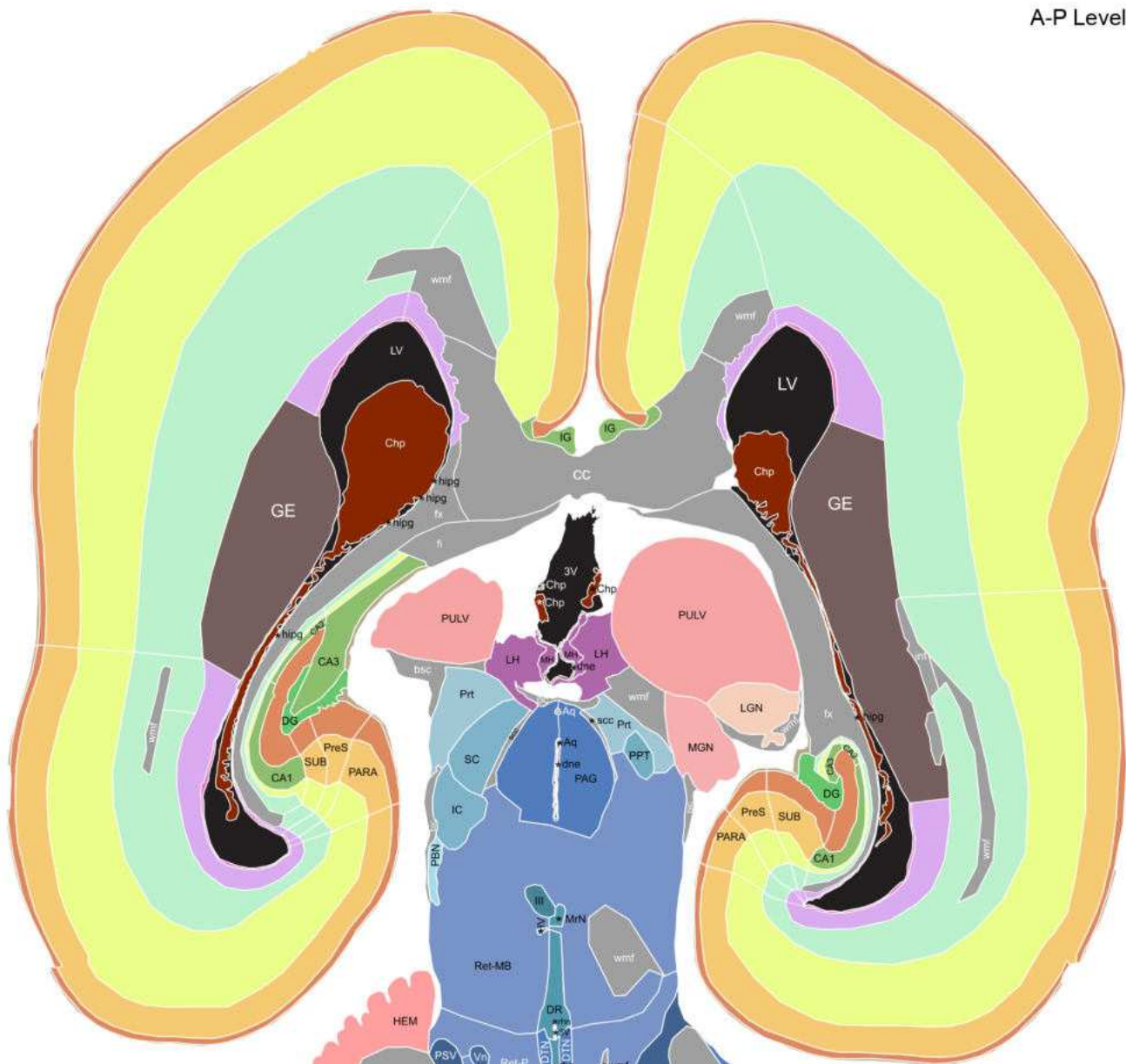
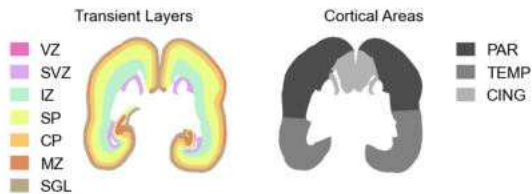
A-P Level: -7.2 mm



5 mm



A-P Level: -7.2 mm

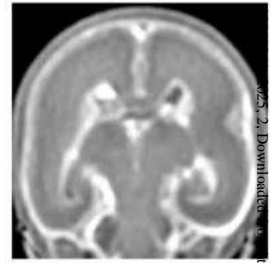


5 mm

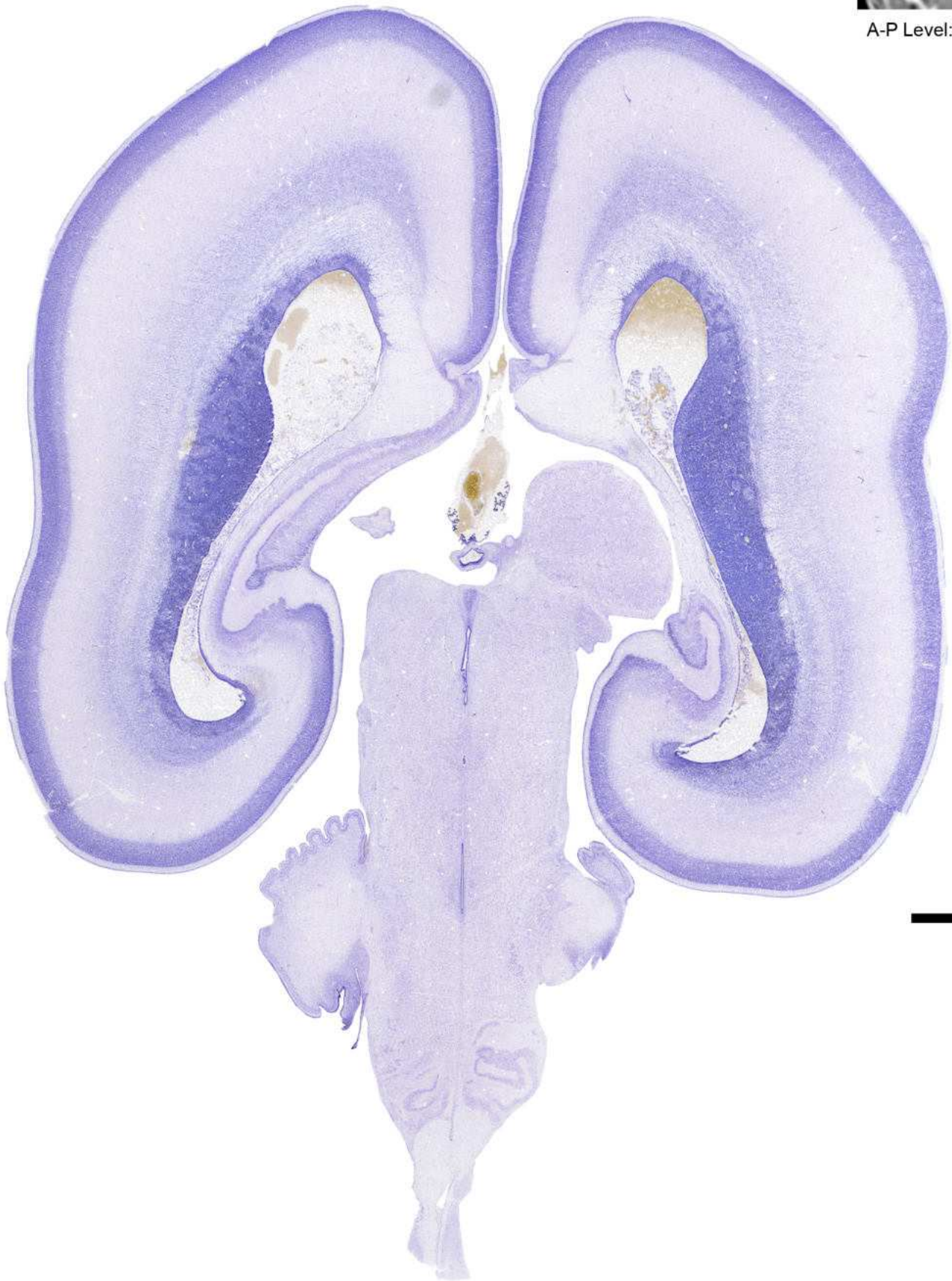
- 3V: Third ventricle
- AMB: Nucleus ambiguus
- ARM: Arcuate nucleus [medulla]
- Aq: Aqueduct
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DG: Dentate gyrus
- DR: Dorsal raphe nucleus
- DTN: Dorsal tegmental nucleus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- IC: Inferior colliculus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- IO: Inferior olive
- IV: Trochlear nucleus
- LGN: Lateral geniculate nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MGN: Medial geniculate nucleus
- MH: Medial habenula
- MrN: Median raphe nucleus
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PPT: Posterior pretectal nucleus
- PSV: Principal sensory nucleus of the trigeminal

- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RIP: Raphe interpositus nucleus
- RPA: Raphe pallidus nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SO: Superior olive
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- VIIIn: Facial motor nucleus
- Vn: Trigeminal motor nucleus
- bic: Brachium of the inferior colliculus
- bsc: Brachium of the superior colliculus
- cc: Corpus callosum
- cortS: Corticospinal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fi: Fimbria
- fx: Fornix
- hipg: Hippocampal glioeptihelium/ependyma
- int: Internal capsule
- pc: Posterior commissure
- rhn: Rhombencephalic neuroepithelium
- scc: Superior colliculus commissure
- wmf: White matter fibers

Age: 22 GW



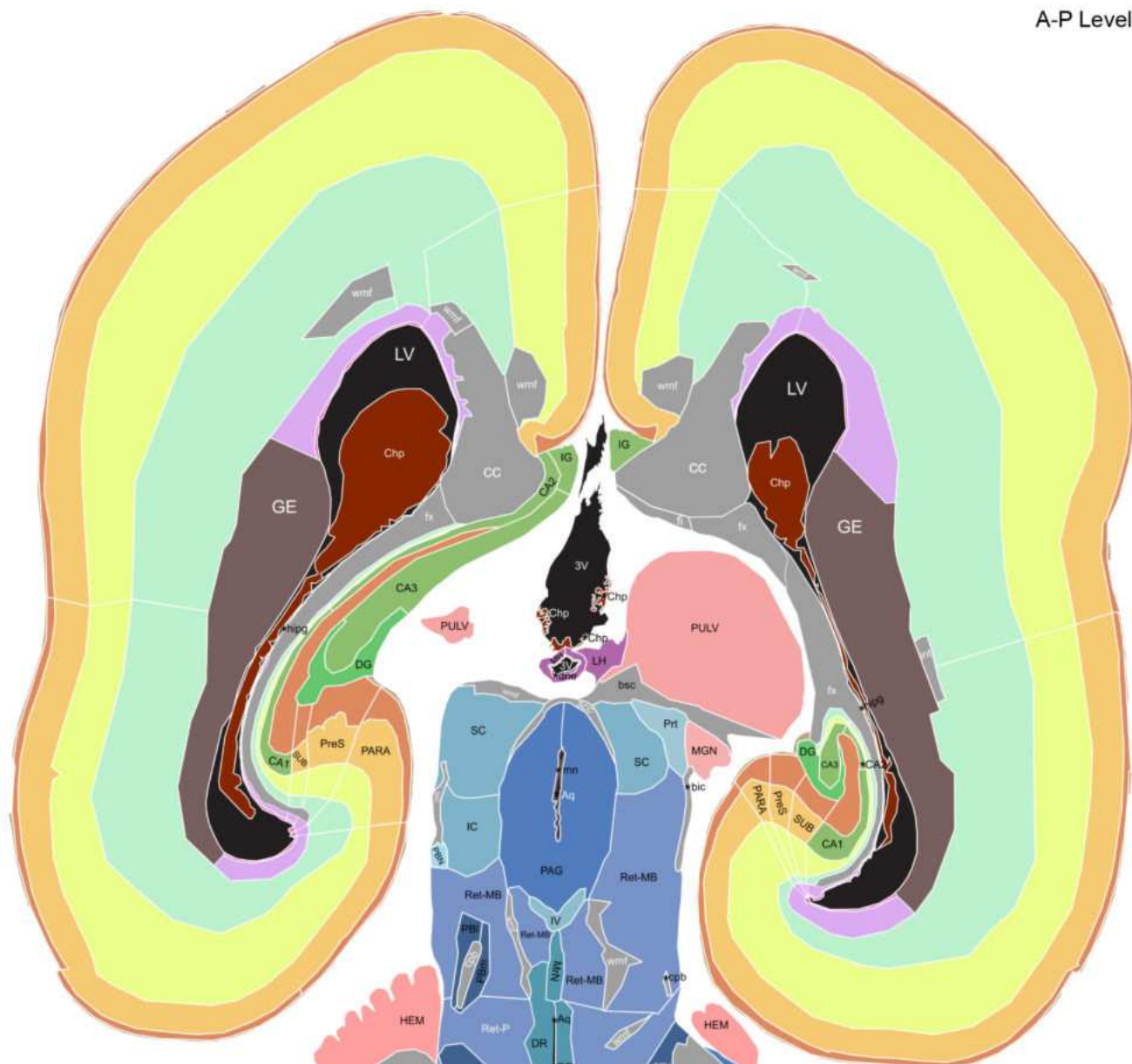
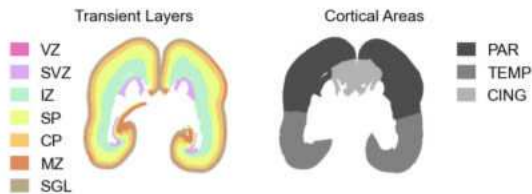
A-P Level: -7.5 mm



5 mm



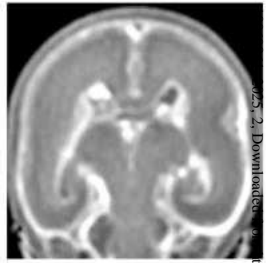
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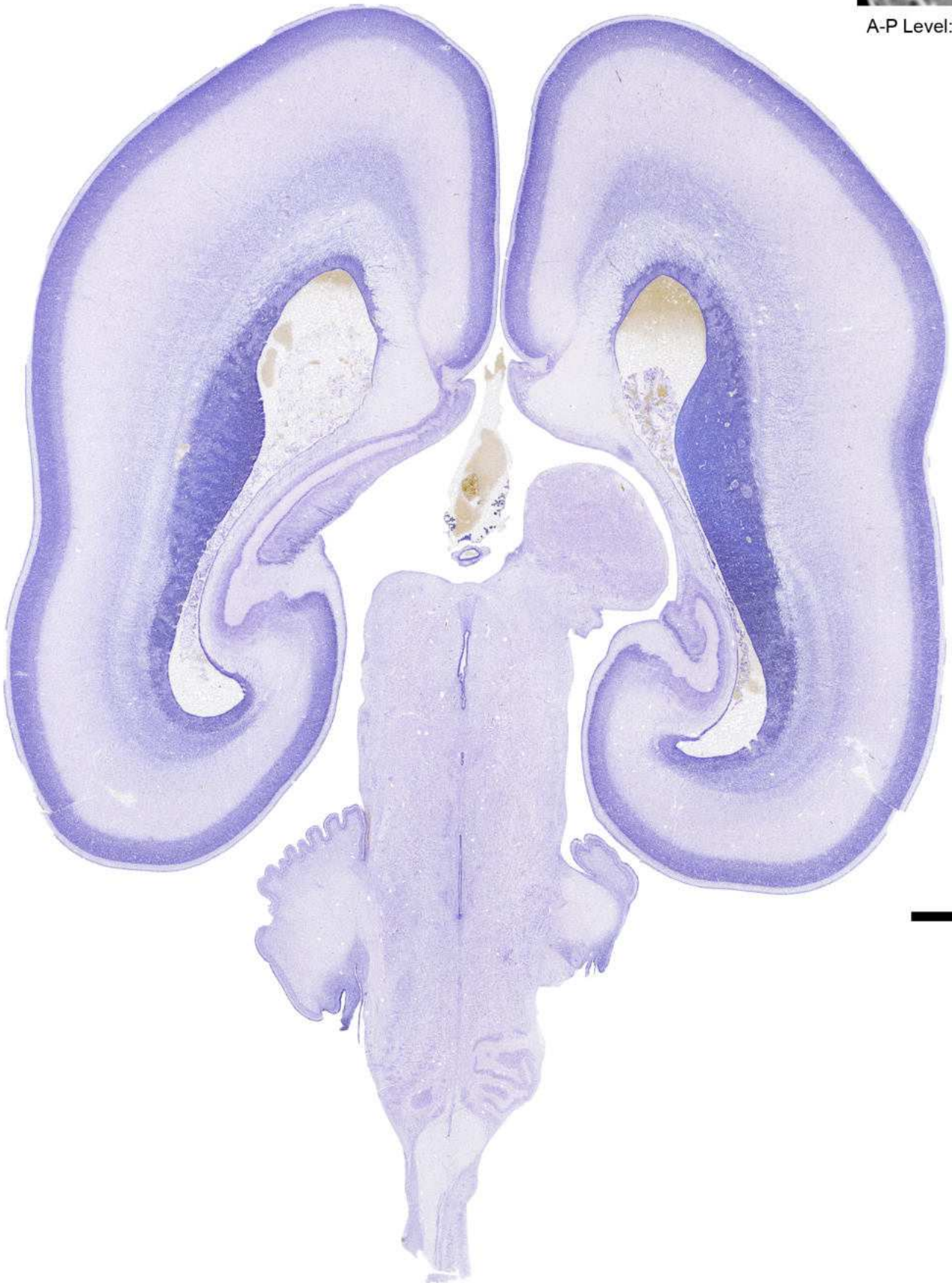
5 mm

- 3V: Third ventricle
- Aq: Aqueduct
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DG: Dentate gyrus
- DR: Dorsal raphe nucleus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- IV: Trochlear nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MGN: Medial geniculate nucleus
- MH: Medial habenula
- MrN: Median raphe nucleus
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PBN: Parabrachial nucleus
- PBI: Parabrachial nucleus, lateral part
- PBm: Parabrachial nucleus, medial part
- PG: Pontine gray
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RIP: Raphe interpositus nucleus
- RPA: Raphe pallidus nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- Vlln: Facial motor nucleus
- cc: Corpus callosum
- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fi: Fimbria
- fx: Fornix
- hippg: Hippocampal glioeptihelium/ependyma
- int: Internal capsule
- mn: Mesencephalic neuroepithelium
- pcbn: Precerebellar neuroepithelium
- pyrd: Pyramidal decussation
- rhn: Rhombencephalic neuroepithelium
- scc: Superior colliculus commissure
- vf: Ventral funiculus
- wmf: White matter fibers

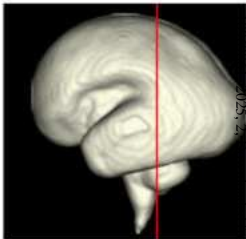
Age: 22 GW



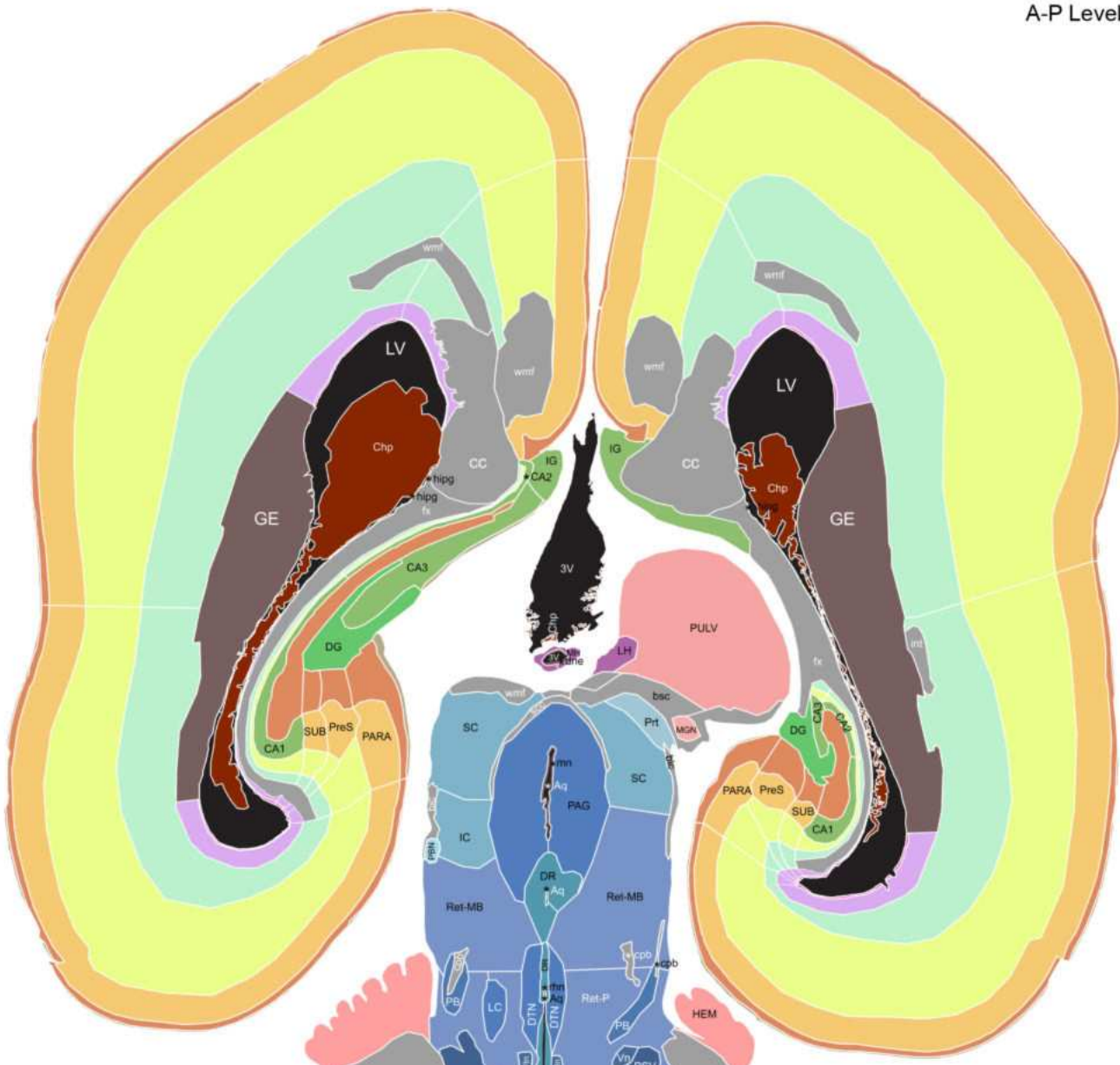
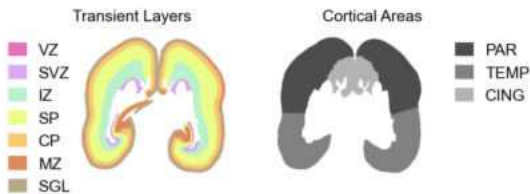
A-P Level: -7.68 mm



5 mm



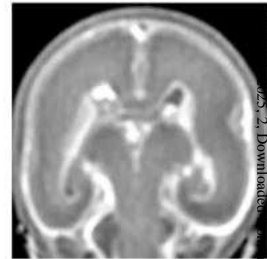
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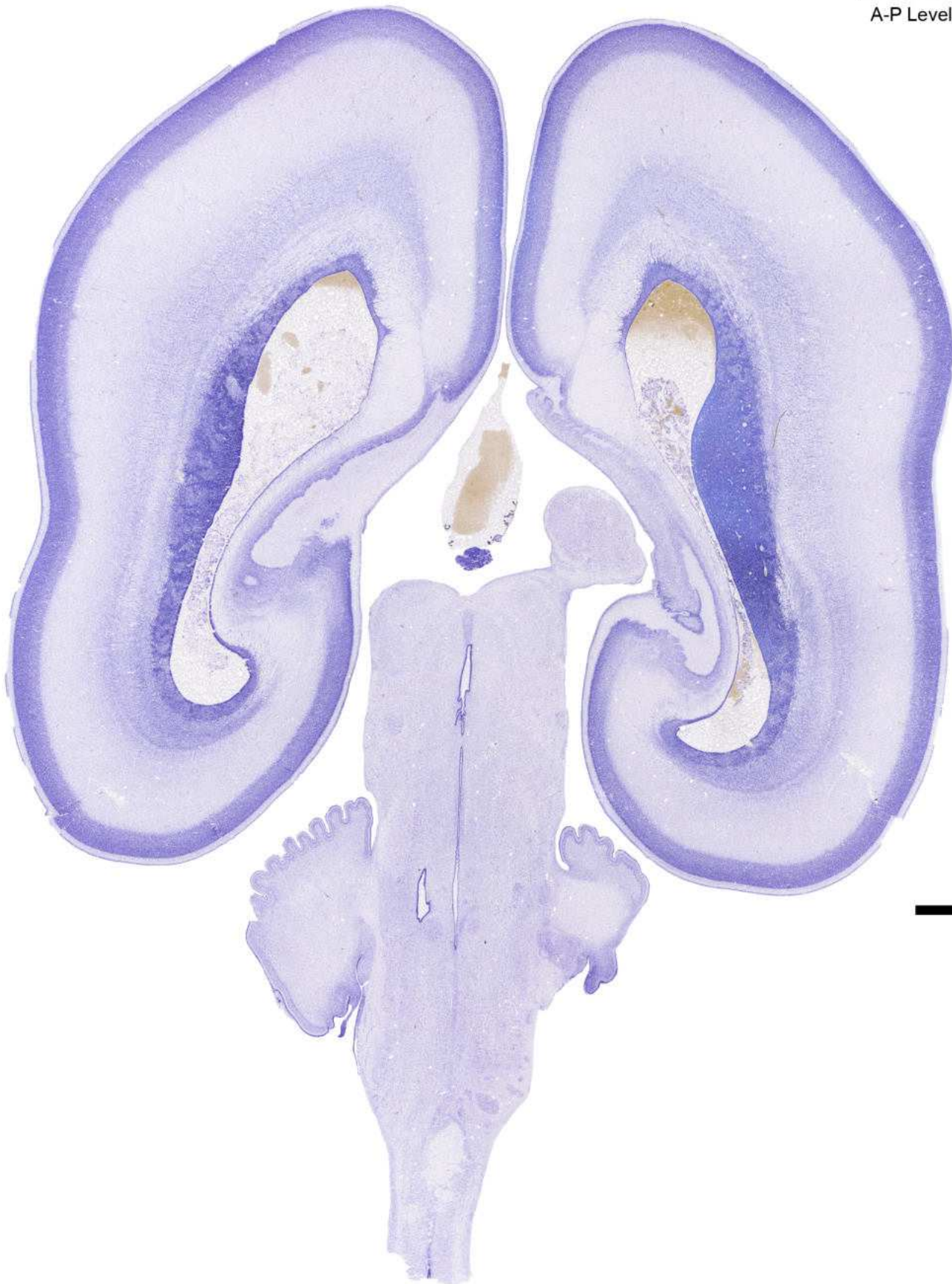
5 mm

- 3V: Third ventricle
- Aq: Aqueduct
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DG: Dentate gyrus
- DR: Dorsal raphe nucleus
- DTN: Dorsal tegmental nucleus
- HEM: Cerebellar hemispheres
- IC: Inferior colliculus
- IG: Induseum griseum
- IO: Inferior olive
- LC: Locus coeruleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MGN: Medial geniculate nucleus
- MH: Medial habenula
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PBN: Parabigeminal nucleus
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RIP: Raphe interpositus nucleus
- RM: Raphe magnus nucleus
- RPA: Raphe pallidus nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- TRI: Germinal trigone
- Vln: Facial motor nucleus
- Vn: Trigeminal motor nucleus
- Xln: Accessory nucleus
- bic: Brachium of the inferior colliculus
- bsc: Brachium of the superior colliculus
- cc: Corpus callosum
- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- fx: Fornix
- hippg: Hippocampal glioeptihelium/ependyma
- int: Internal capsule
- mn: Mesencephalic neuroepithelium
- pcbn: Precerebellar neuroepithelium
- pyrd: Pyramidal decussation
- rhn: Rhombencephalic neuroepithelium
- scc: Superior colliculus commissure
- wmf: White matter fibers

Age: 22 GW

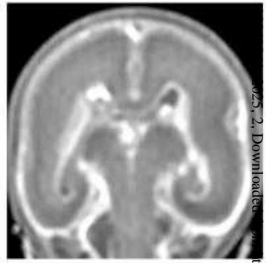


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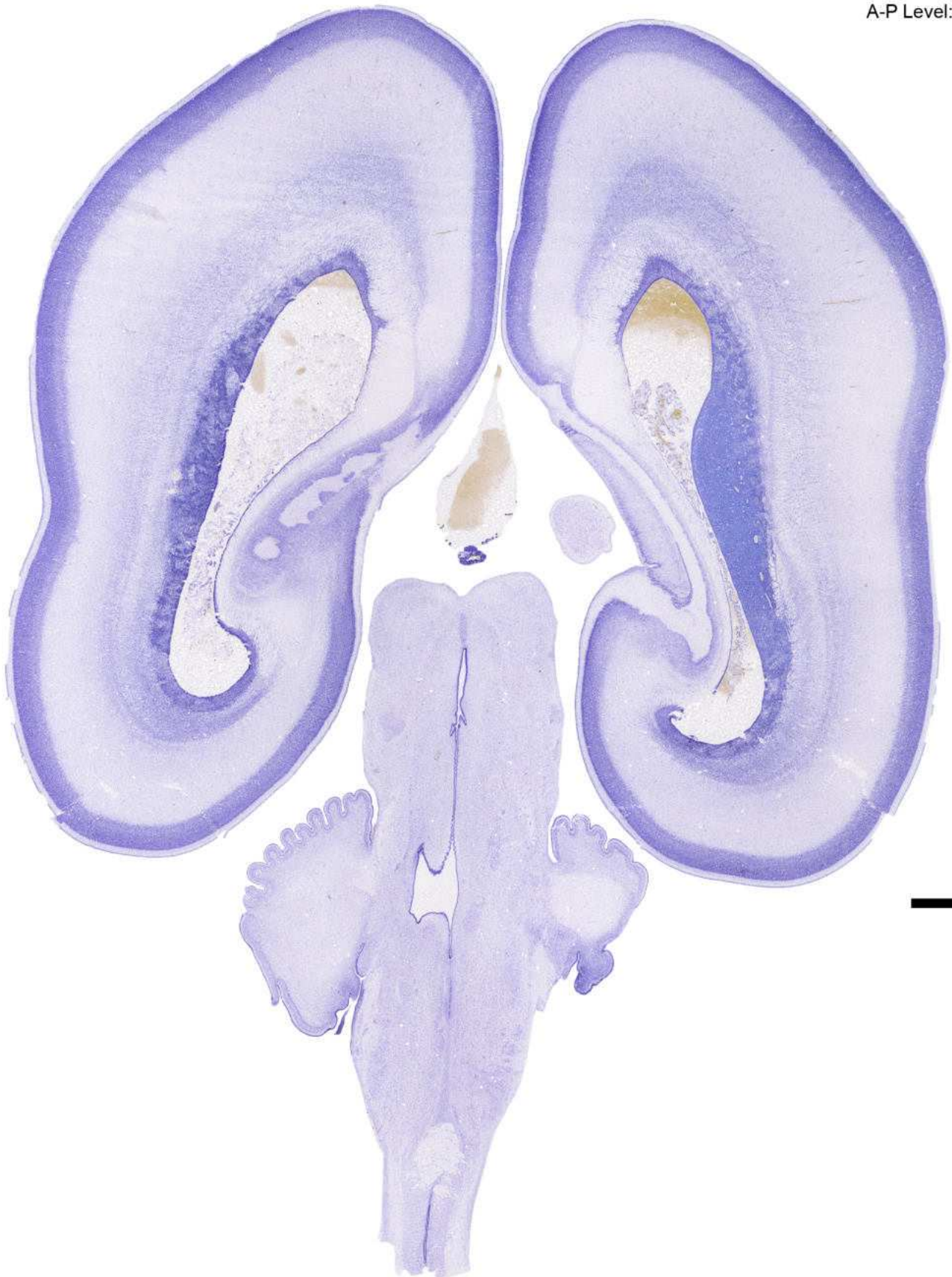


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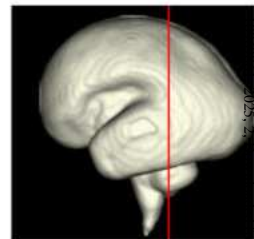
Age: 22 GW



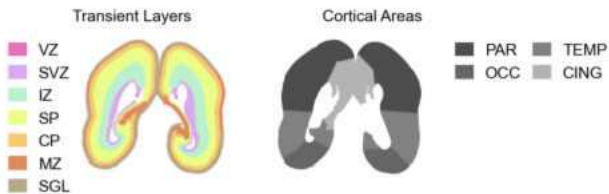
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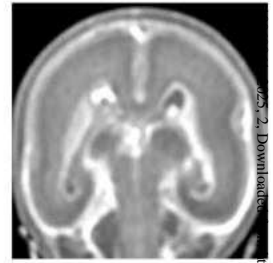
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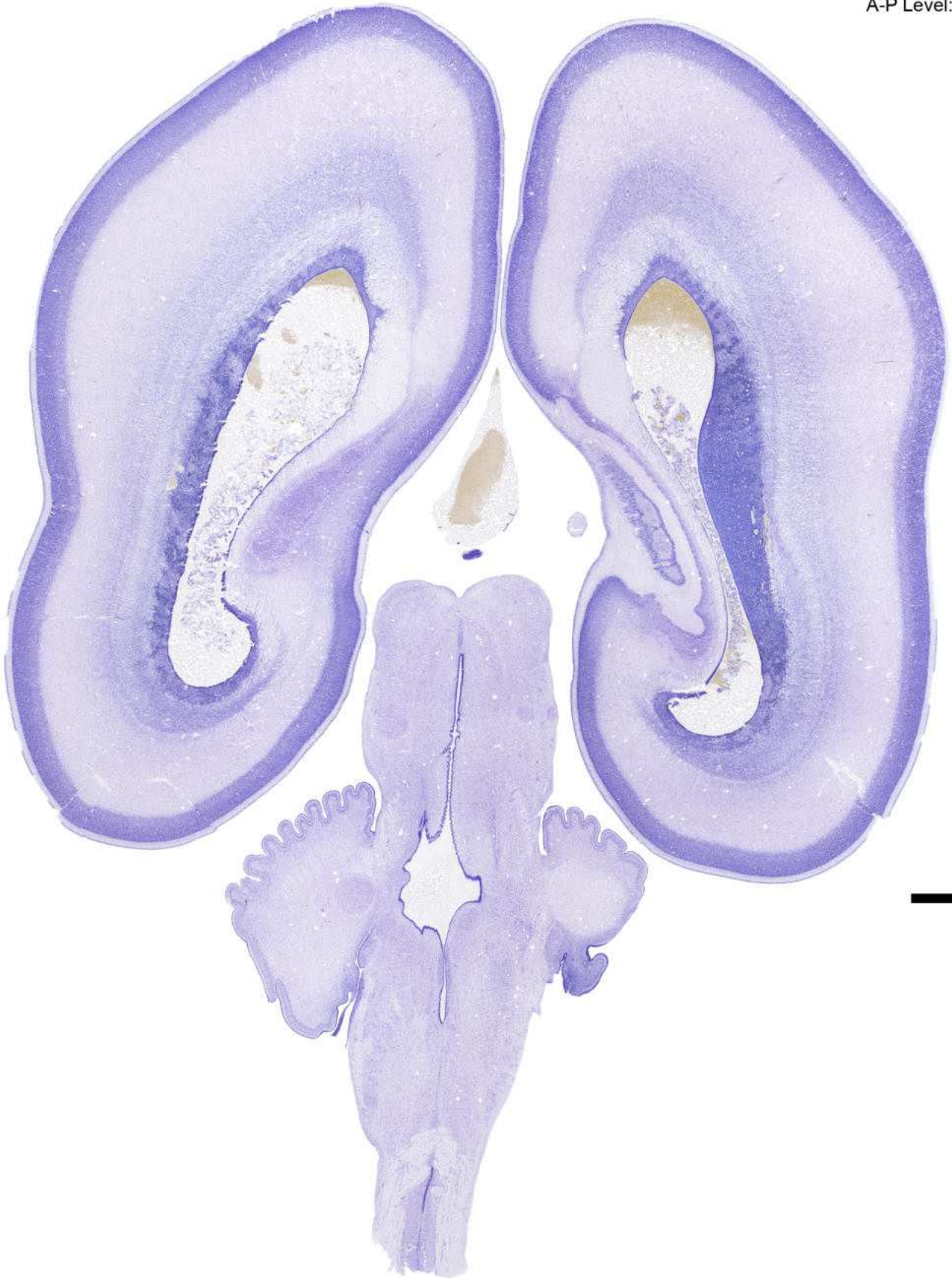
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- Aq: Aqueduct
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CBN: Cerebellar nuclei
- CC: Central canal
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DG: Dentate gyrus
- DTN: Dorsal tegmental nucleus
- HEM: Cerebellar hemispheres
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- LC: Locus coeruleus
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- NLLd: Nucleus of the lateral lemniscus, dorsal
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PBN: Parabrachial nucleus, lateral part
- PBm: Parabrachial nucleus, medial part
- PIN: Pineal gland
- PRP: Nucleus prepositus
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- VIIIn: Facial motor nucleus
- VIn: Abducens nucleus
- XIIIn: Hypoglossal nucleus
- bic: Brachium of the inferior colliculus
- cc: Corpus callosum
- corts-I: Lateral corticospinal tract
- cpb: Cerebellar peduncles
- fx: Fornix
- hipp: Hippocampal glioepithelium/ependyma
- lf: Lateral funiculus
- ll: Lateral lemniscus
- mn: Mesencephalic neuroepithelium
- pc: Posterior commissure
- pcbn: Precerebellar neuroepithelium
- pyrd: Pyramidal decussation
- rhn: Rhombencephalic neuroepithelium
- scc: Superior colliculus commissure
- wmf: White matter fibers

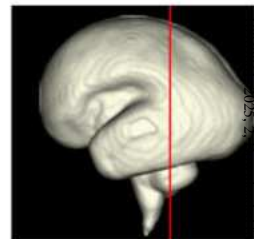
Age: 22 GW



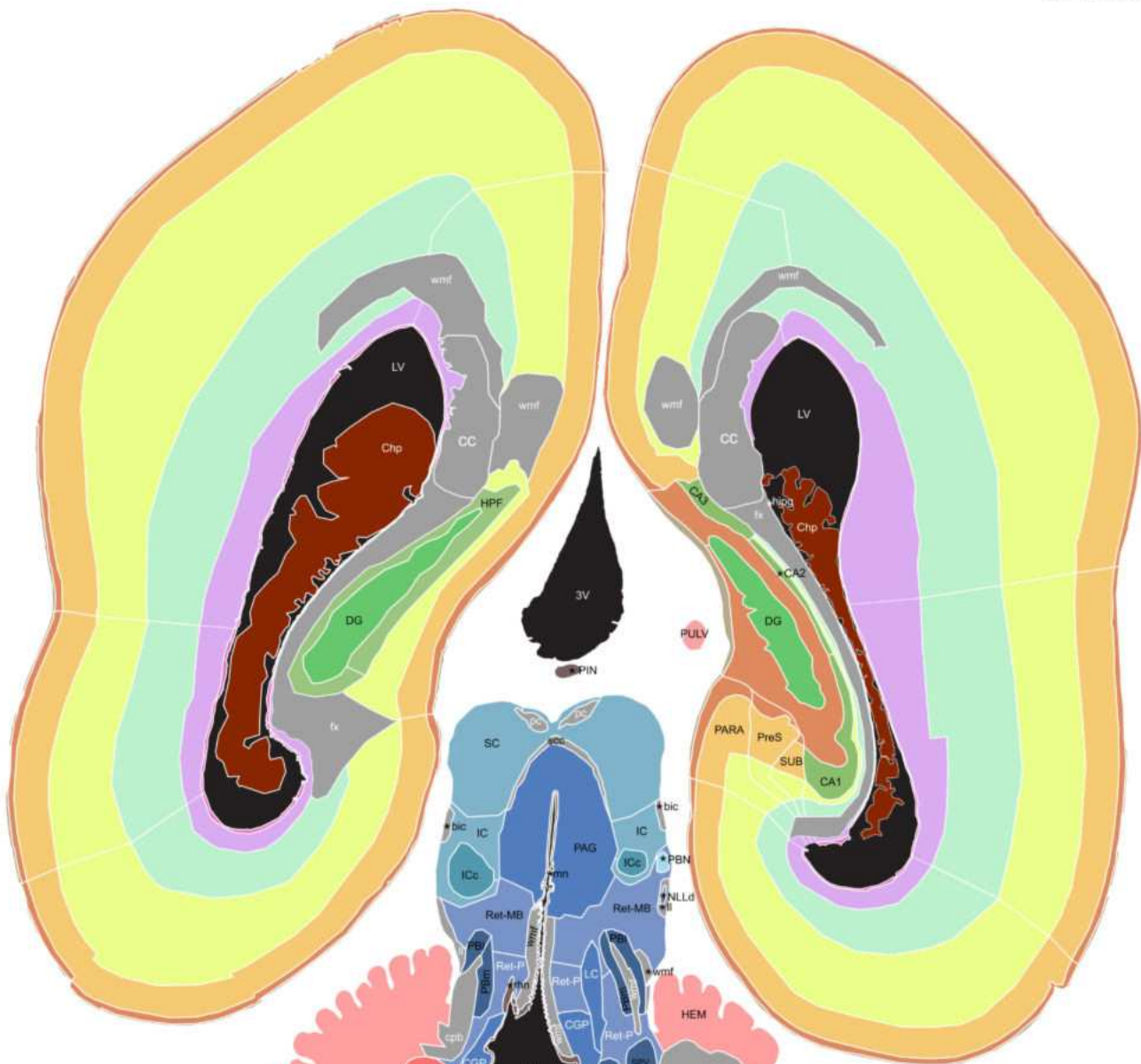
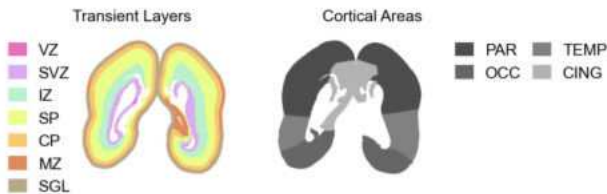
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5 mm



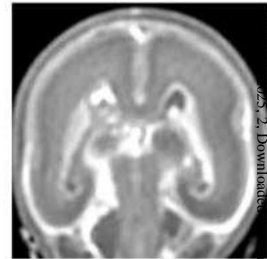
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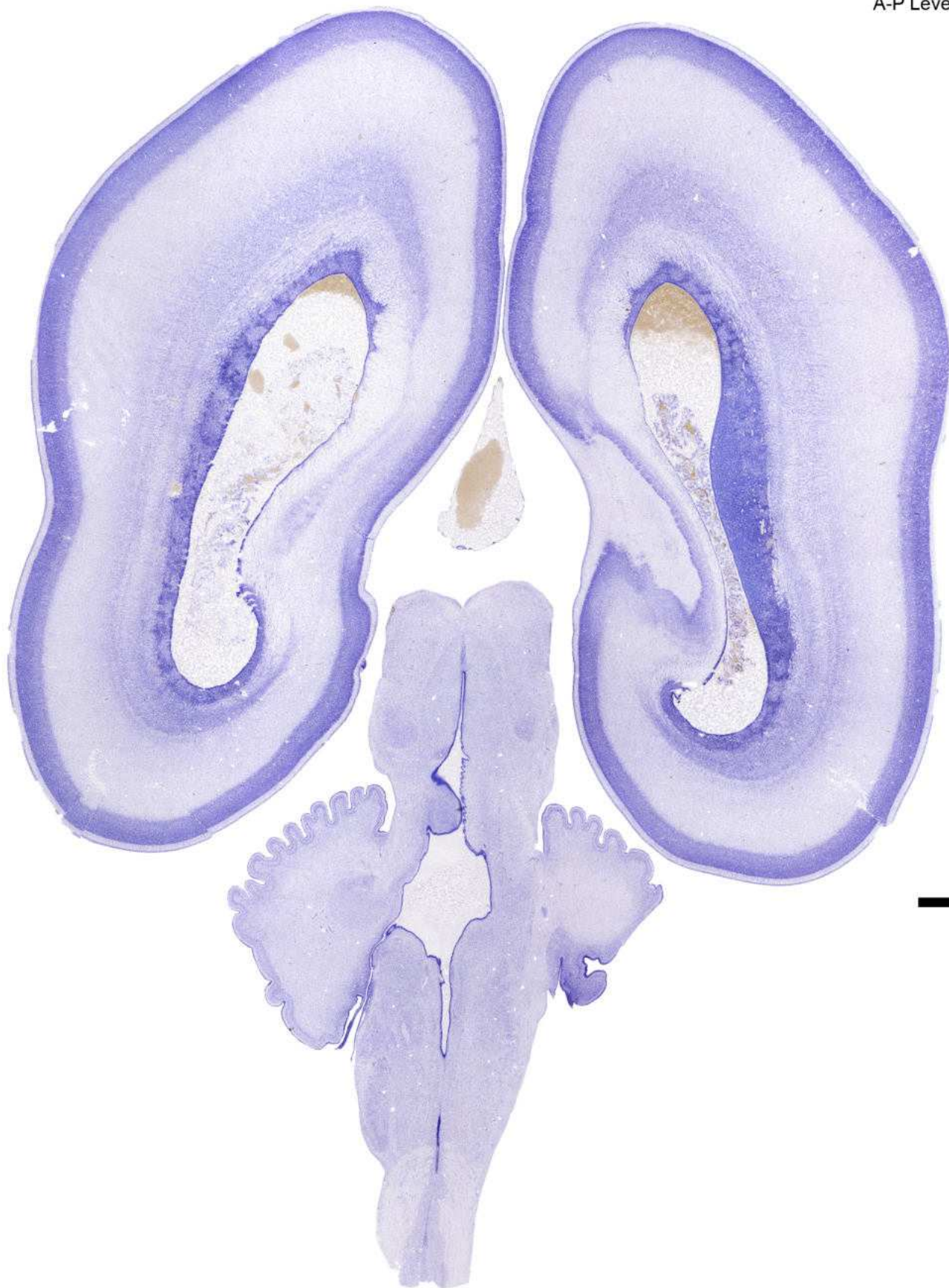
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- Aq: Aqueduct
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CC: Central canal
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- CN: Cochlear nuclei
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DN: Dentate nucleus
- HEM: Cerebellar hemispheres
- HPPF: Hippocampal formation
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IH: Intermediate gray of the spinal cord
- INM: Intercalated nucleus [medulla]
- LC: Locus coeruleus
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- NLLd: Nucleus of the lateral lemniscus, dorsal
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PBN: Parabigeminal nucleus
- PBI: Parabrachial nucleus, lateral part
- PBm: Parabrachial nucleus, medial part
- PIN: Pineal gland
- PRP: Nucleus prepositus
- TRI: Germinal trigone
- VIIIn: Facial motor nucleus
- VIn: Abducens nucleus
- VNC: Vestibular nuclear complex
- XIIIn: Hypoglossal nucleus
- Xn: Dorsal motor nucleus
- bic: Brachium of the inferior colliculus
- cc: Corpus callosum
- corts-I: Lateral corticospinal tract
- cpb: Cerebellar peduncles
- df: Dorsal funiculus
- fx: Fornix
- hipg: Hippocampal glioepithelium/ependyma
- li: Lateral lemniscus
- mn: Mesencephalic neuroepithelium
- pc: Posterior commissure
- pcbnc: Precerebellar neuroepithelium
- pyrd: Pyramidal decussation
- rhn: Rhombencephalic neuroepithelium
- scc: Superior colliculus commissure
- wmf: White matter fibers
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- RO: Raphe obscurus nucleus
- RPA: Raphe pallidus nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SOL: Solitary nucleus
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum

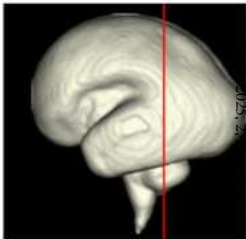
Age: 22 GW



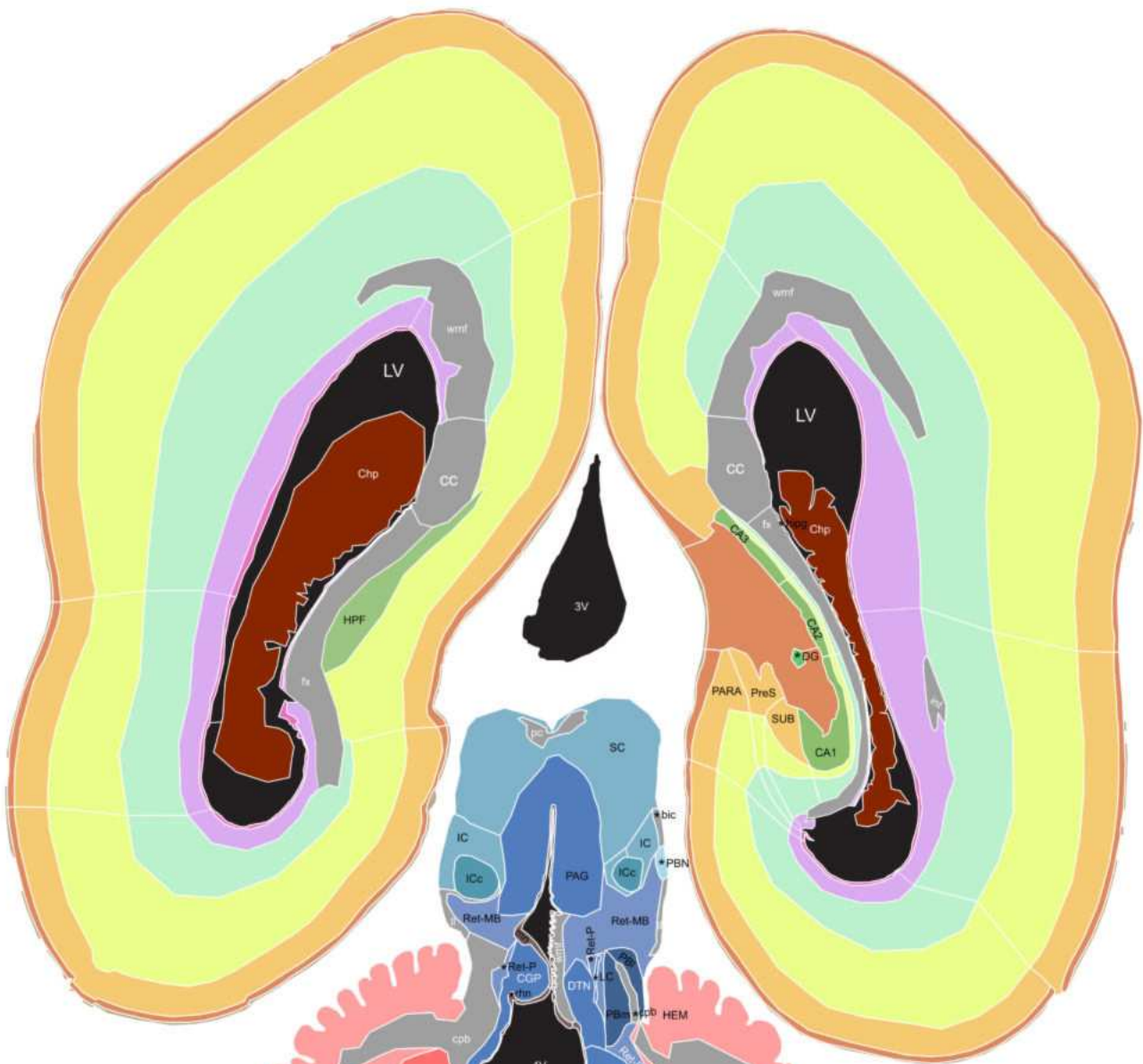
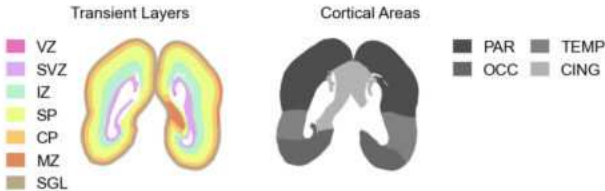
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5 mm



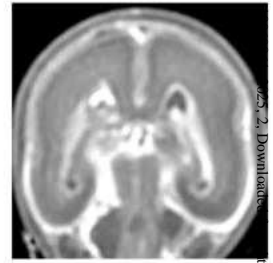
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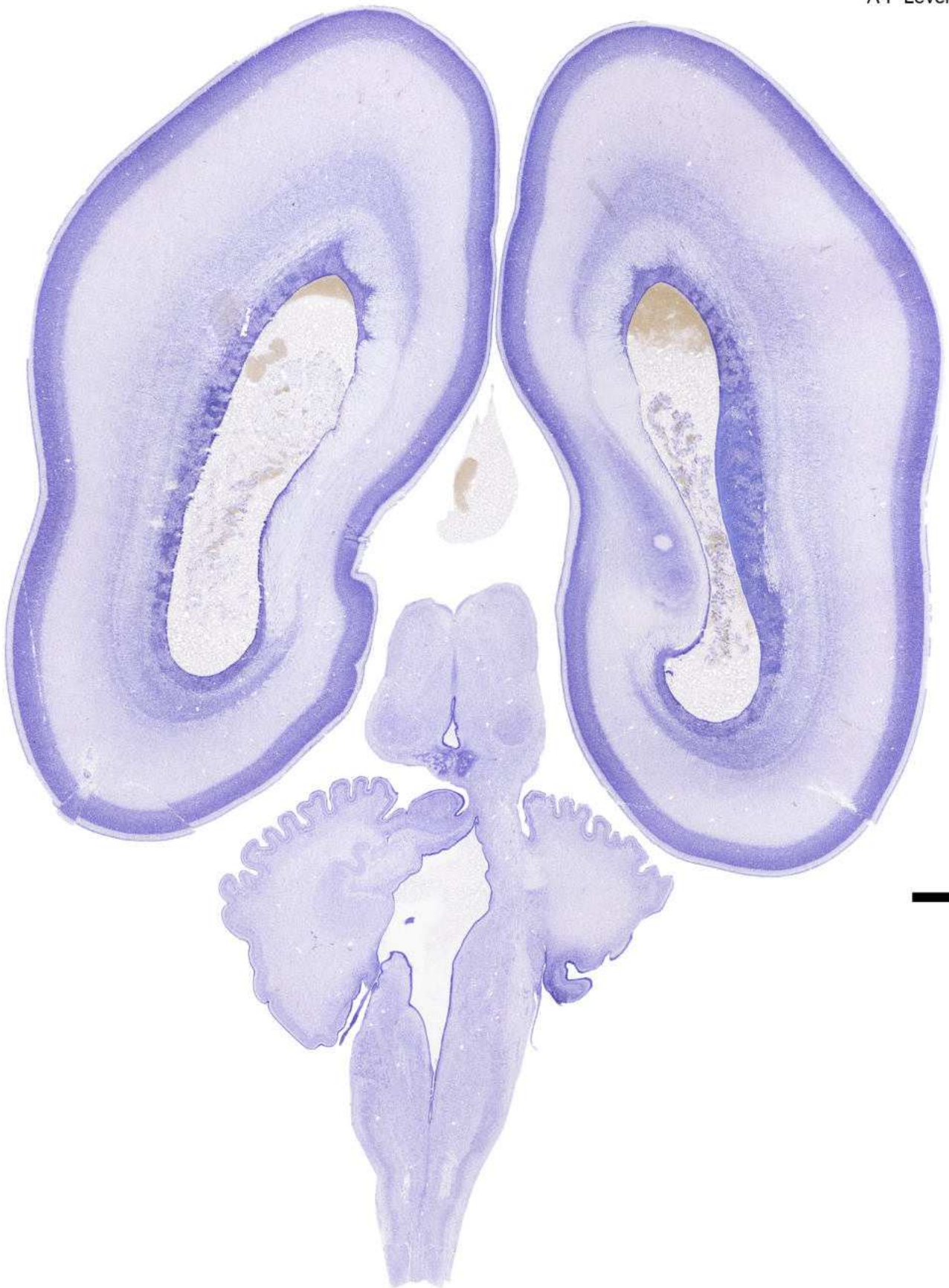
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- CN: Cochlear nuclei
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DN: Dentate nucleus
- HEM: Cerebellar hemispheres
- HPF: Hippocampal formation
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IH: Intermediate gray of the spinal cord
- INM: Intercalated nucleus [medulla]
- LC: Locus coeruleus
- LV: Lateral ventricle
- PAG: Periaqueductal gray
- PARA: Cortical plate, parasubiculum
- PBN: Parabigeminal nucleus
- PBI: Parabrachial nucleus, lateral part
- PBM: Parabrachial nucleus, medial part
- PG: Pontine gray
- PRP: Nucleus prepositus
- PreS: Cortical plate, presubiculum
- RO: Raphe obscurus nucleus
- RPA: Raphe pallidus nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal
- VIIIn: Facial motor nucleus
- VNC: Vestibular nuclear complex
- XIIIn: Hypoglossal nucleus
- bic: Brachium of the inferior colliculus
- cc: Corpus callosum
- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- df: Dorsal funiculus
- fx: Fornix
- hipg: Hippocampal glioepithelium/ependyma
- int: Internal capsule
- ll: Lateral lemniscus
- meg: Medullary glioepithelium/ependyma
- mn: Mesencephalic neuroepithelium
- pc: Posterior commissure
- pcbn: Precerebellar neuroepithelium
- pyrd: Pyramidal decussation
- rhn: Rhombencephalic neuroepithelium
- TRI: Germinal trigone
- wmf: White matter fibers

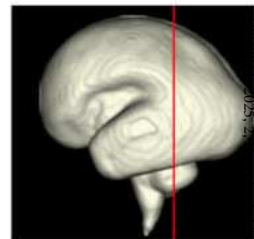
Age: 22 GW



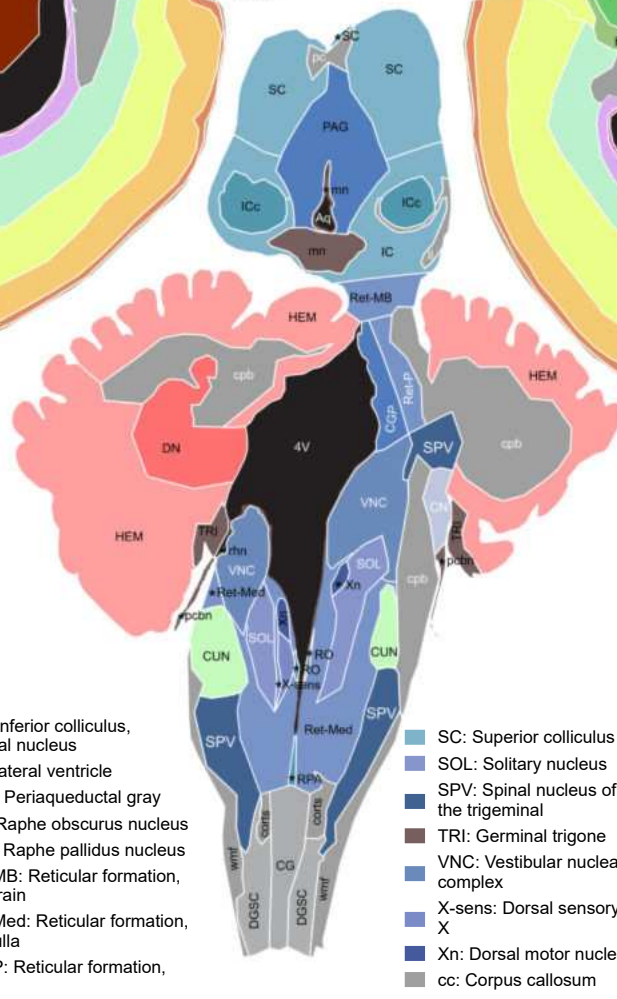
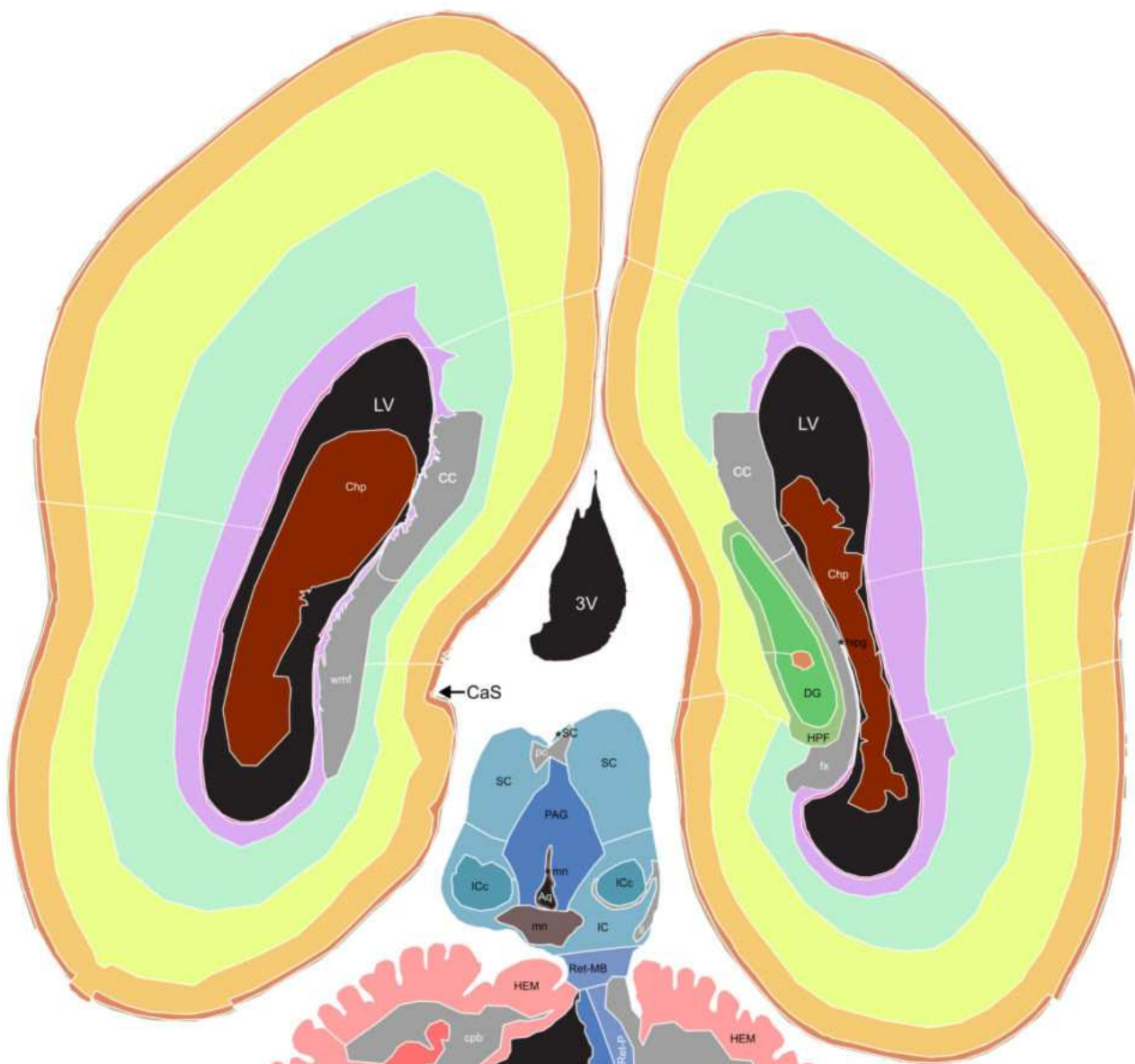
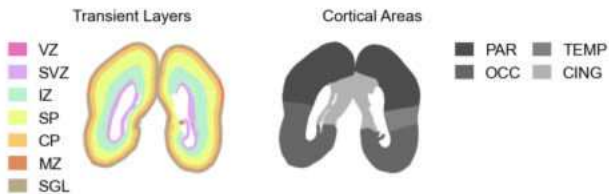
A-P Level: -9.84 mm



5 mm



A-P Level: -9.84 mm



5 mm

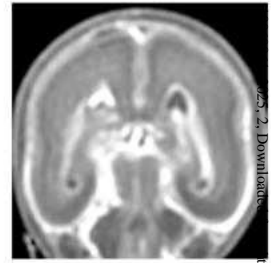
- 3V: Third ventricle
- 4V: Fourth ventricle
- Aq: Aqueduct
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- CN: Cochlear nuclei
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- DN: Dentate nucleus
- HEM: Cerebellar hemispheres
- HPF: Hippocampal formation
- IC: Inferior colliculus

- ICc: Inferior colliculus, central nucleus
- LV: Lateral ventricle
- PAG: Periaqueductal gray
- RO: Raphe obscurus nucleus
- RPA: Raphe pallidus nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons

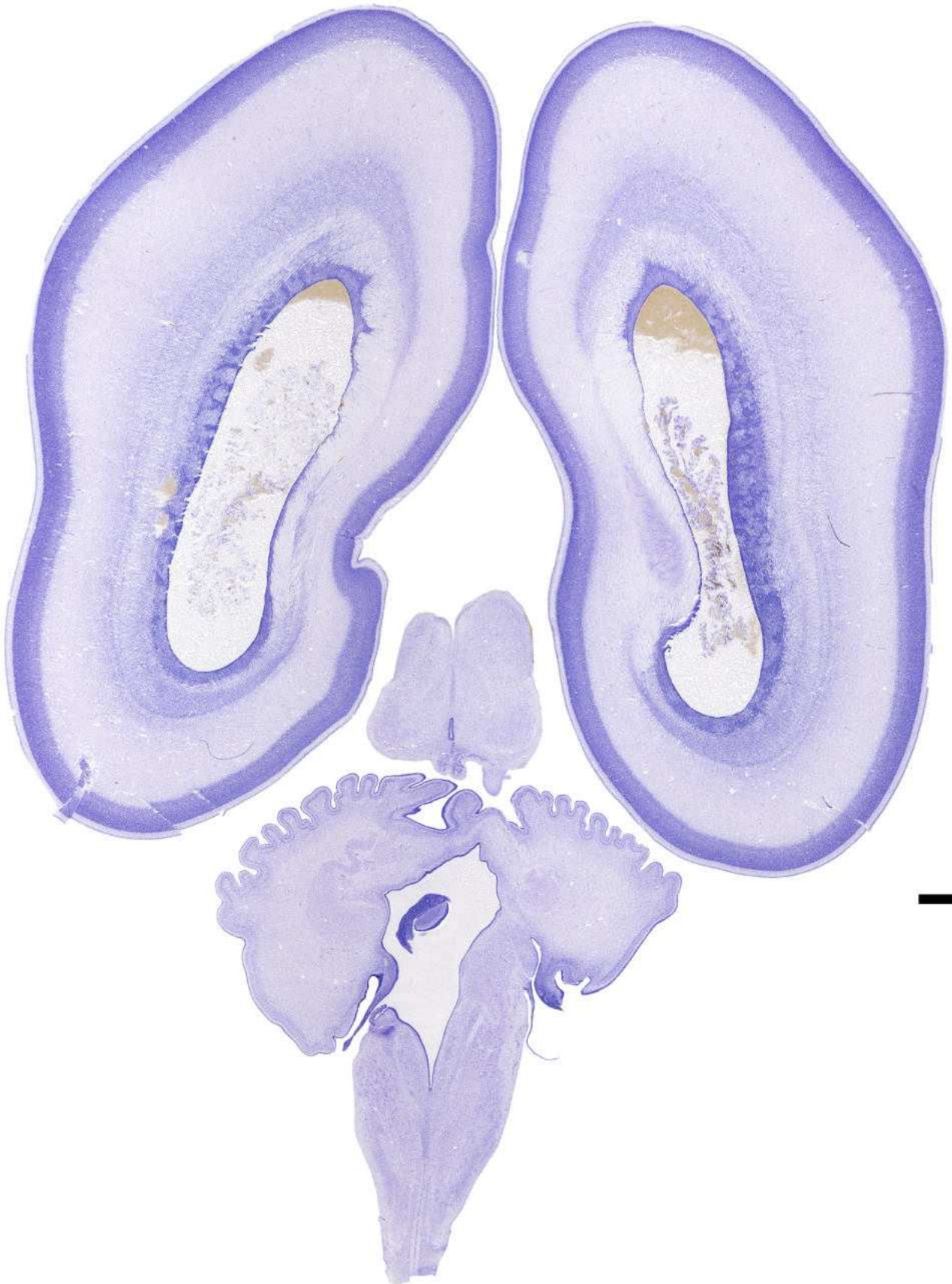
- SC: Superior colliculus
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal
- TRI: Germinal trigone
- VNC: Vestibular nuclear complex
- X-sens: Dorsal sensory nucleus X
- Xn: Dorsal motor nucleus
- cc: Corpus callosum

- corts: Corticospinal tract
- cpb: Cerebellar peduncles
- fx: Fornix
- hipg: Hippocampal glioeptithelium/ependyma
- li: Lateral lemniscus
- mn: Mesencephalic neuroepithelium
- pc: Posterior commissure
- pcb: Precerebellar neuroepithelium
- rh: Rhombencephalic neuroepithelium
- wmf: White matter fibers
- CaS: Calcarine sulcus

Age: 22 GW



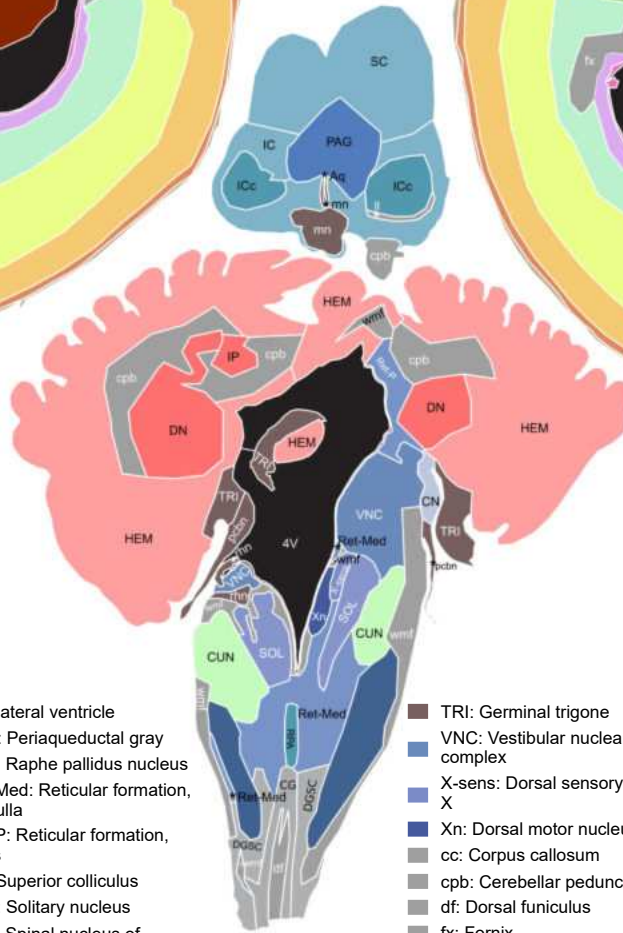
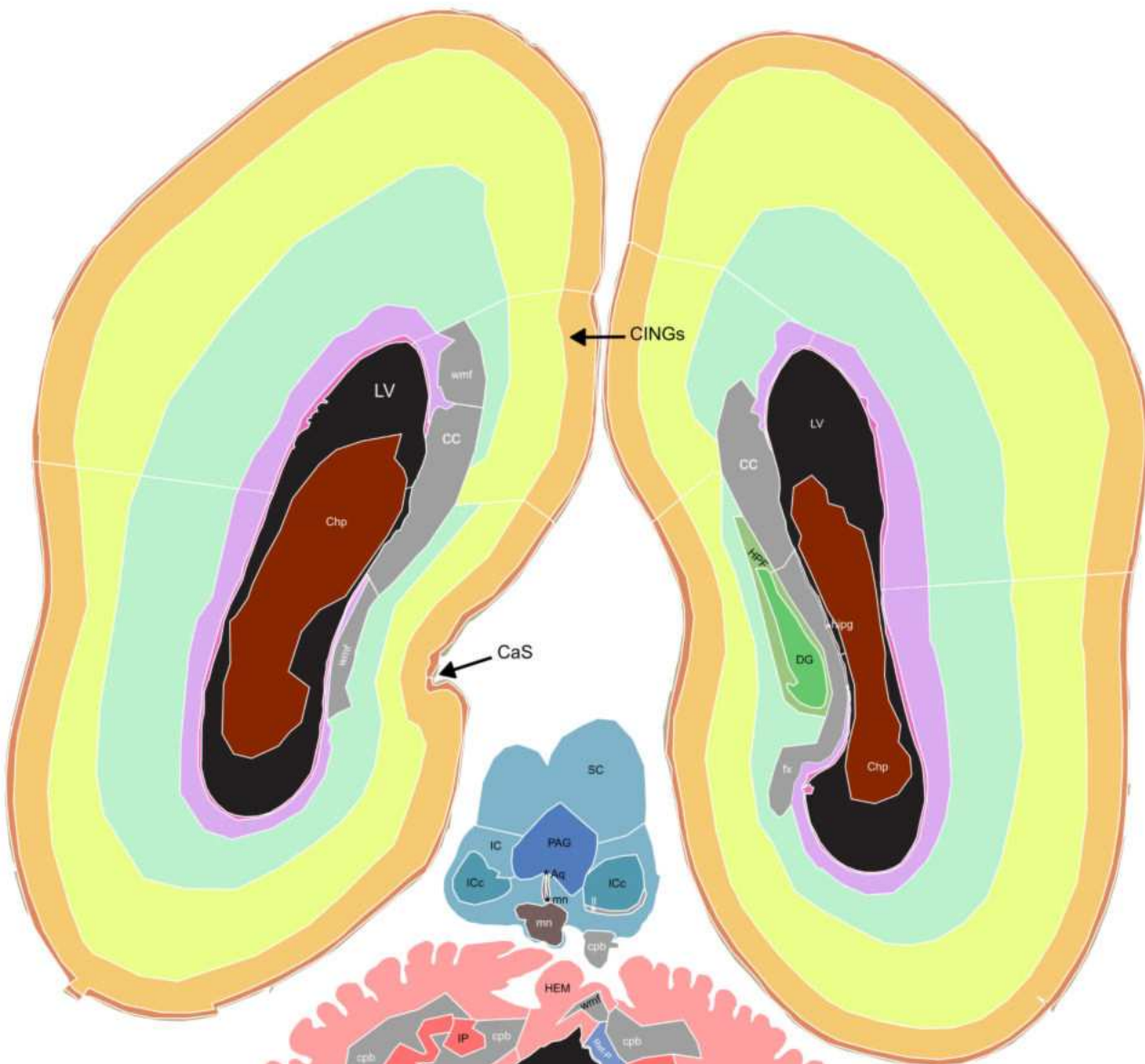
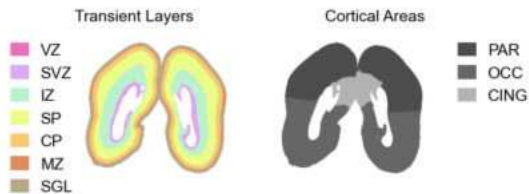
A-P Level: -10.32 mm



Age: 22 GW



A-P Level: -10.32 mm



5 mm

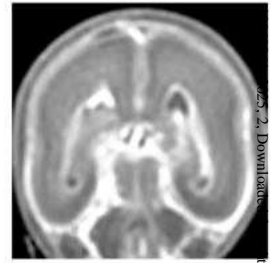
- 4V: Fourth ventricle
- Aq: Aqueduct
- CG: Central gray of the spinal cord
- CN: Cochlear nuclei
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- DN: Dentate nucleus
- HEM: Cerebellar hemispheres
- HPF: Hippocampal formation
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IP: Interposed nucleus

- LV: Lateral ventricle
- PAG: Periaqueductal gray
- RPA: Raphe pallidus nucleus
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SOL: Solitary nucleus
- SPV: Spinal nucleus of the trigeminal

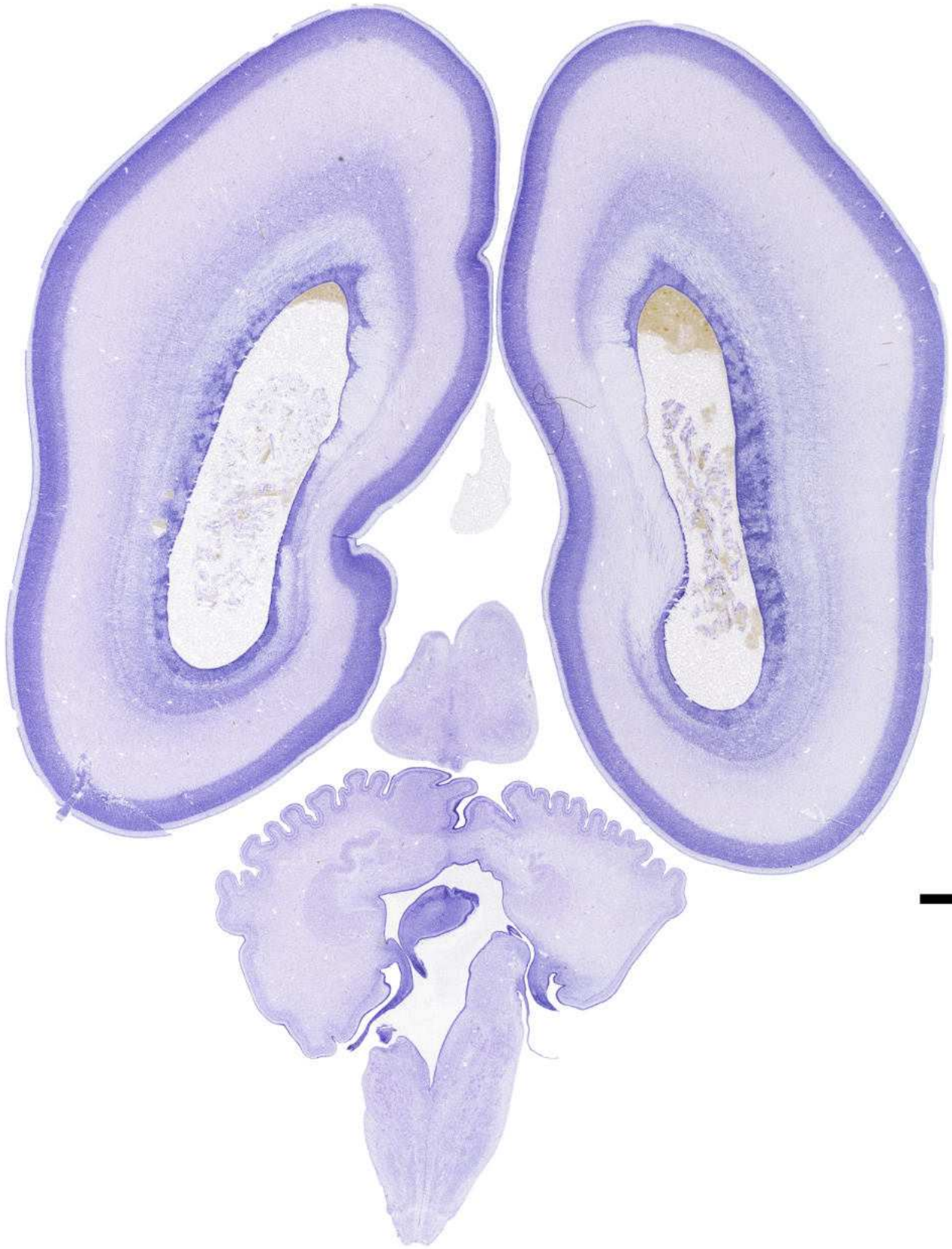
- hipg: Hippocampal gliopathelium/ependym
- li: Lateral lemniscus
- mn: Mesencephalic neuroepithelium
- pcbn: Precerebellar neuroepithelium
- rhn: Rhombencephalic neuroepithelium
- wmf: White matter fibers
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus
- TRI: Germinal trigone
- VNC: Vestibular nuclear complex
- X-sens: Dorsal sensory nucleus X
- Xn: Dorsal motor nucleus
- cc: Corpus callosum
- cpb: Cerebellar peduncles
- df: Dorsal funiculus
- fx: Fornix

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Age: 22 GW



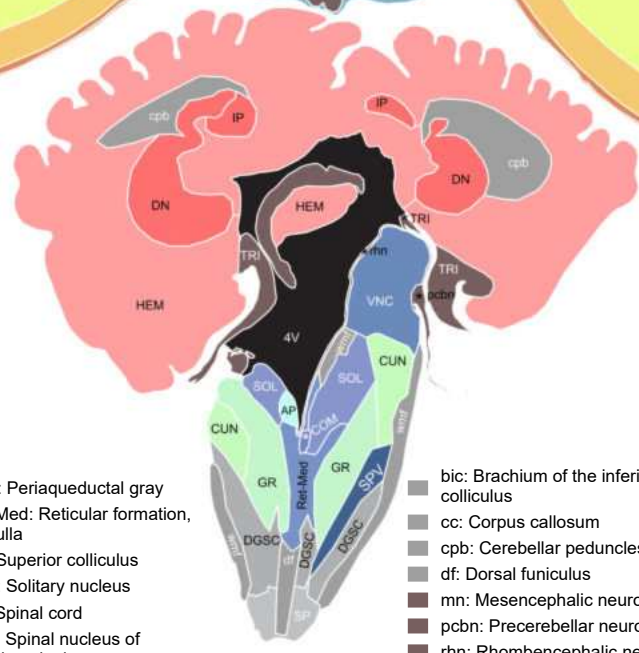
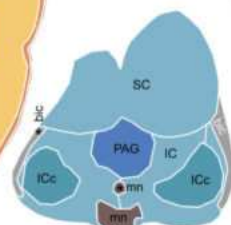
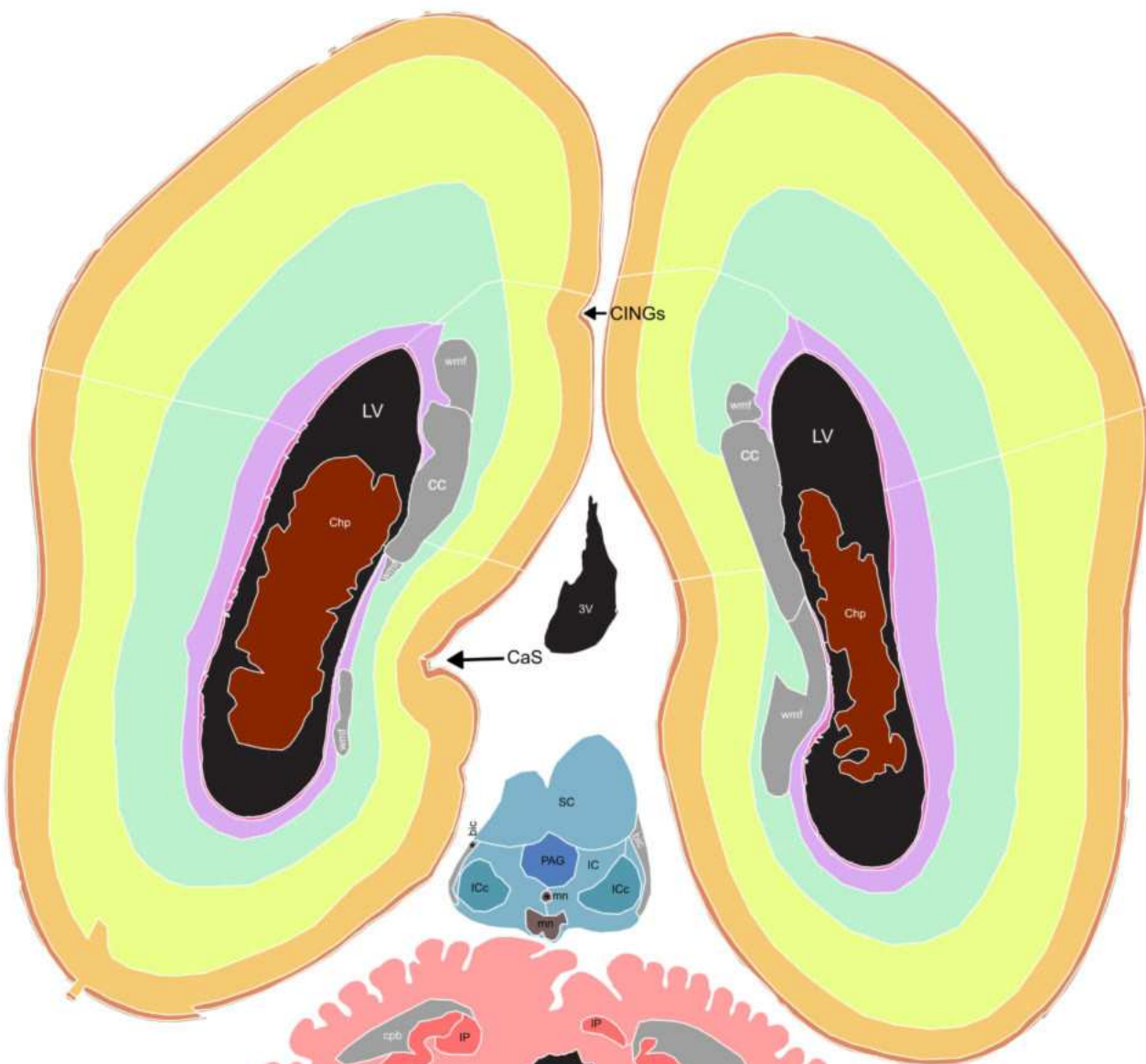
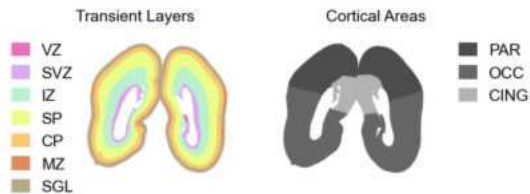
A-P Level: -10.68 mm



5 mm



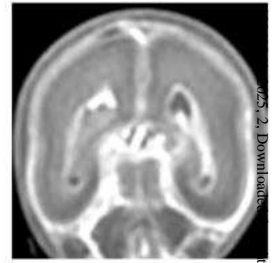
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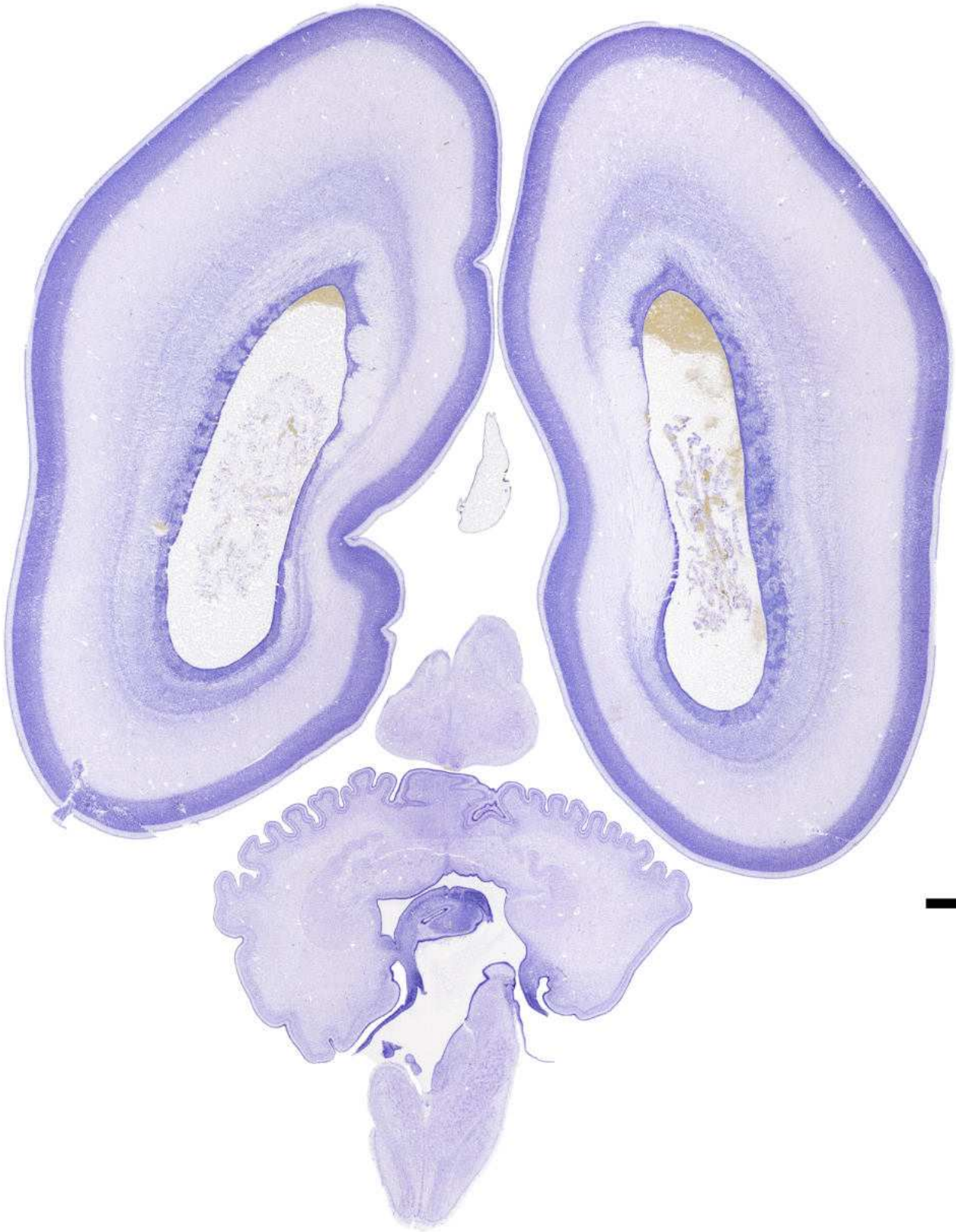
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AP: Area postrema
- COM: Commissural nucleus
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DN: Dentate nucleus
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IP: Interposed nucleus
- LV: Lateral ventricle
- PAG: Periaqueductal gray
- Ret-Med: Reticular formation, Medulla
- SC: Superior colliculus
- SOL: Solitary nucleus
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- TRI: Germinal trigone
- VNC: Vestibular nuclear complex
- bic: Brachium of the inferior colliculus
- cc: Corpus callosum
- cpb: Cerebellar peduncles
- df: Dorsal funiculus
- mn: Mesencephalic neuroepithelium
- pcbn: Precerebellar neuroepithelium
- rhn: Rhombencephalic neuroepithelium
- wmf: White matter fibers
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus

Age: 22 GW

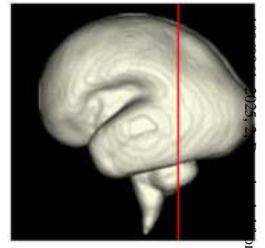


A-P Level: -10.98 mm

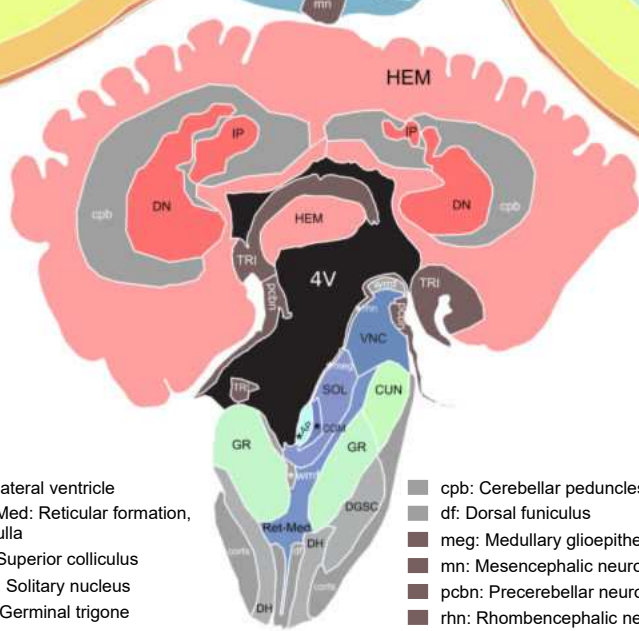
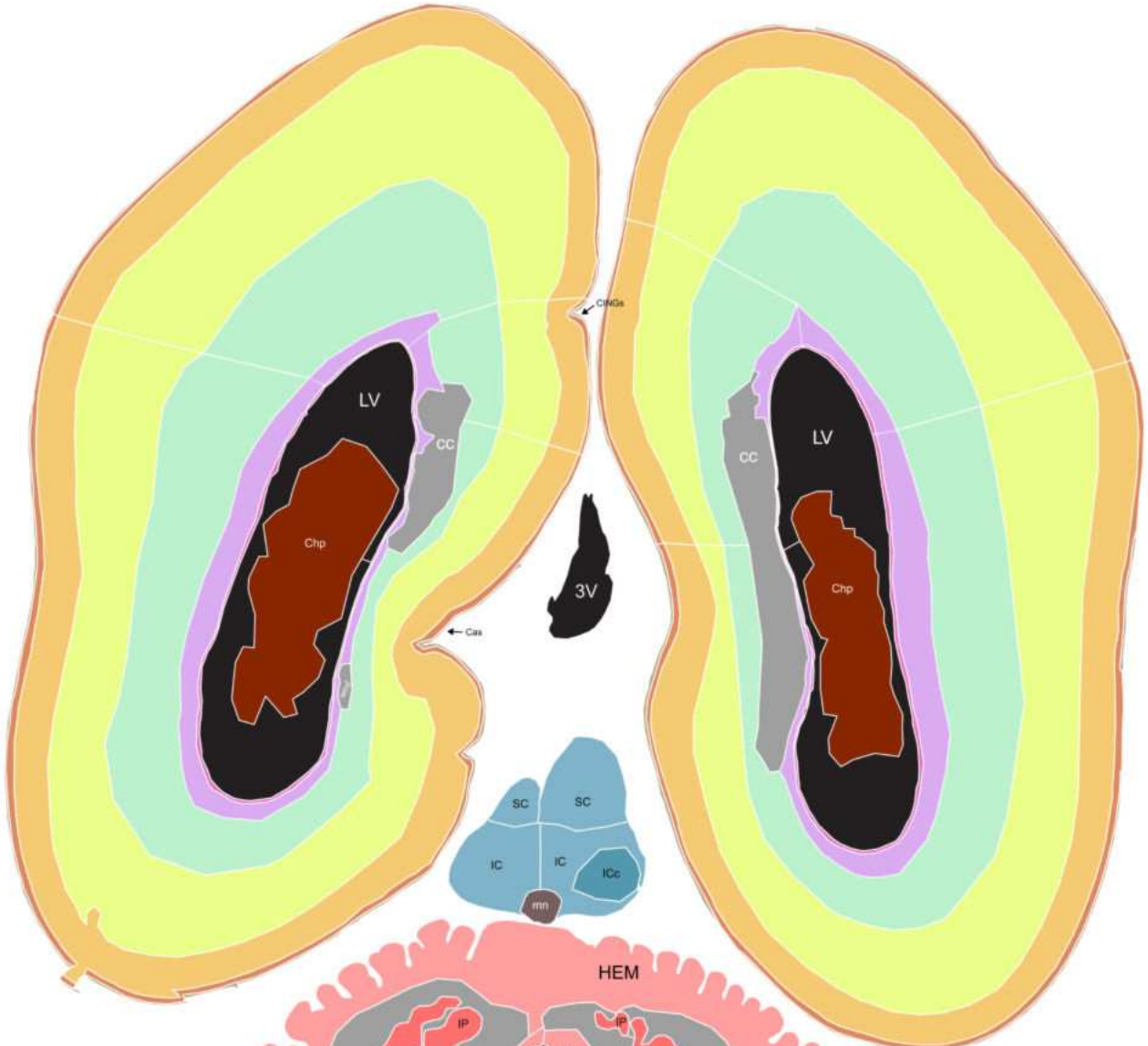
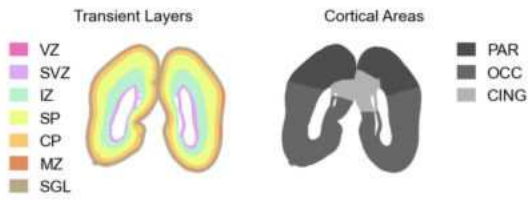


5 mm

Age: 22 GW



A-P Level: -10.98 mm



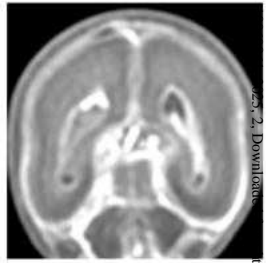
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AP: Area postrema
- COM: Commissural nucleus
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DH: Dorsal horn
- DN: Dentate nucleus
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IP: Interposed nucleus

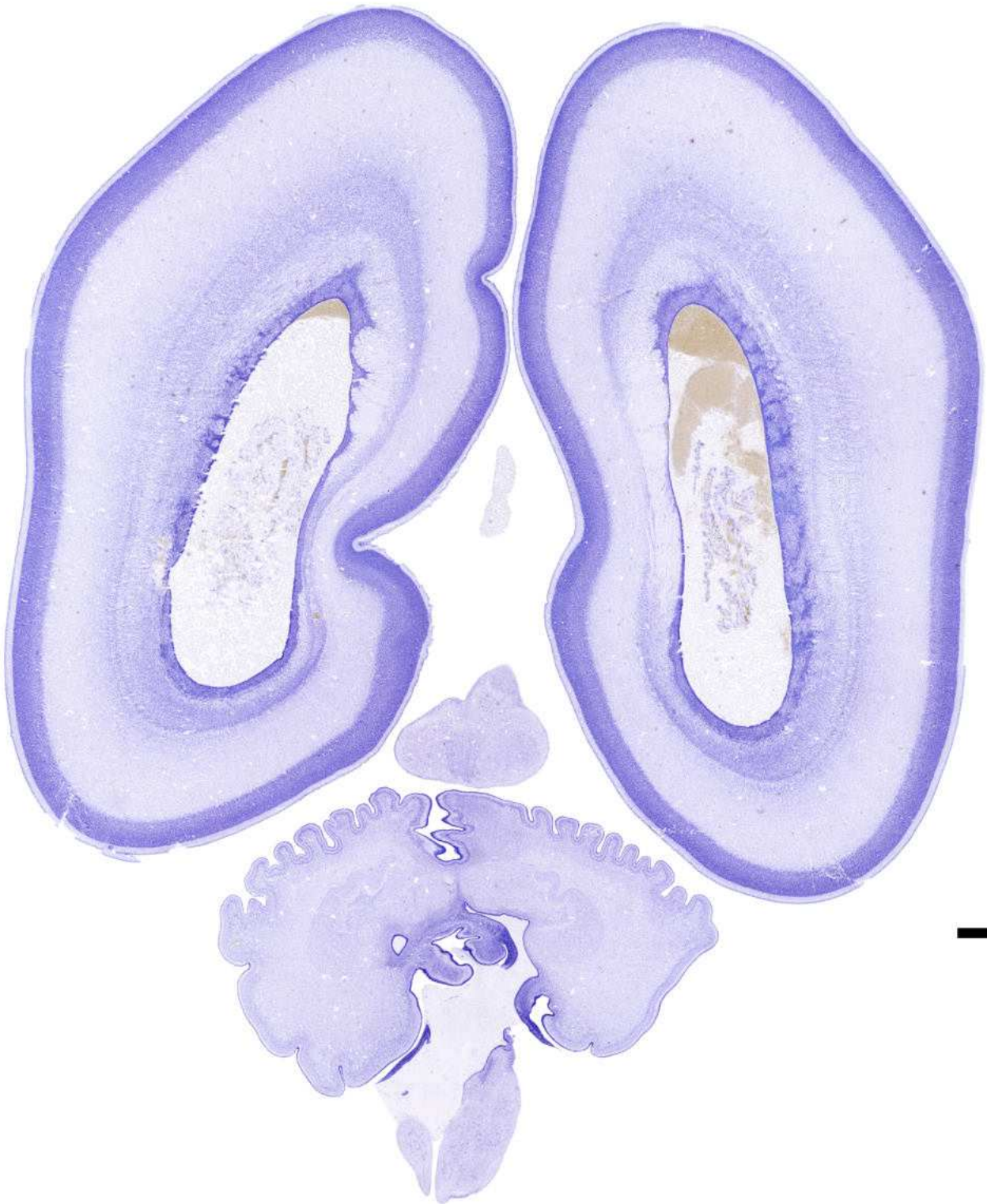
- LV: Lateral ventricle
- Ret-Med: Reticular formation, Medulla
- SC: Superior colliculus
- SOL: Solitary nucleus
- VNC: Vestibular nuclear complex
- cc: Corpus callosum
- corts: Corticospinal tract

- cpb: Cerebellar peduncles
- df: Dorsal funiculus
- meg: Medullary glioeptelium/ependyma
- mn: Mesencephalic neuroepithelium
- pcbn: Precerebellar neuroepithelium
- rhn: Rhombencephalic neuroepithelium
- wmf: White matter fibers
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus

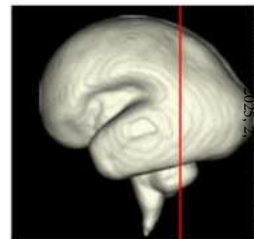
Age: 22 GW



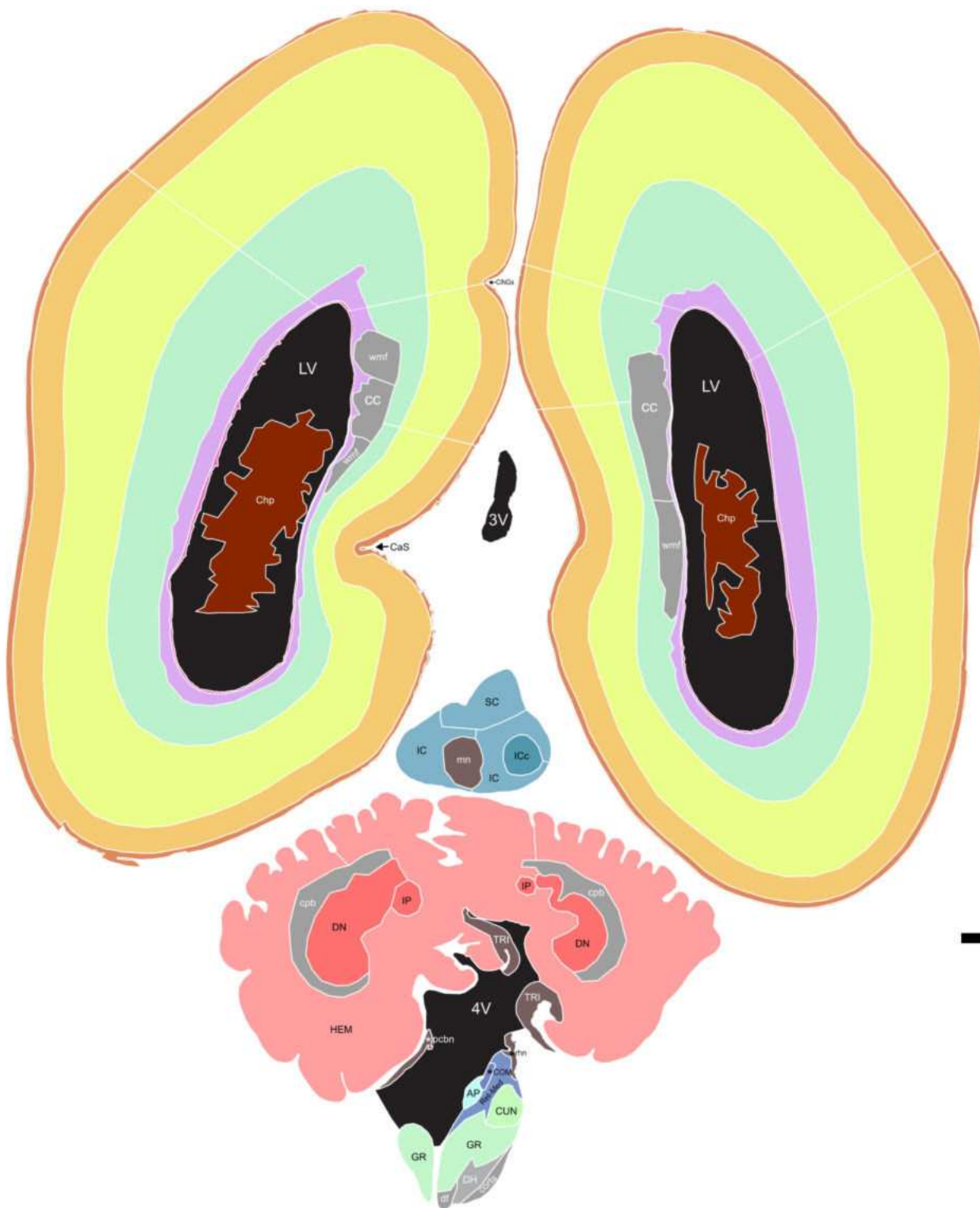
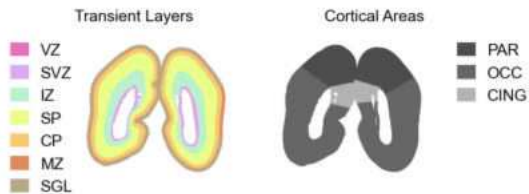
A-P Level: -11.4 mm



5 mm



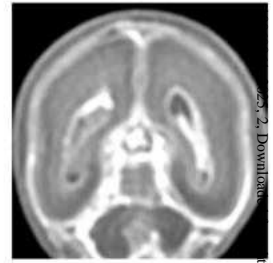
A-P Level: -11.4 mm



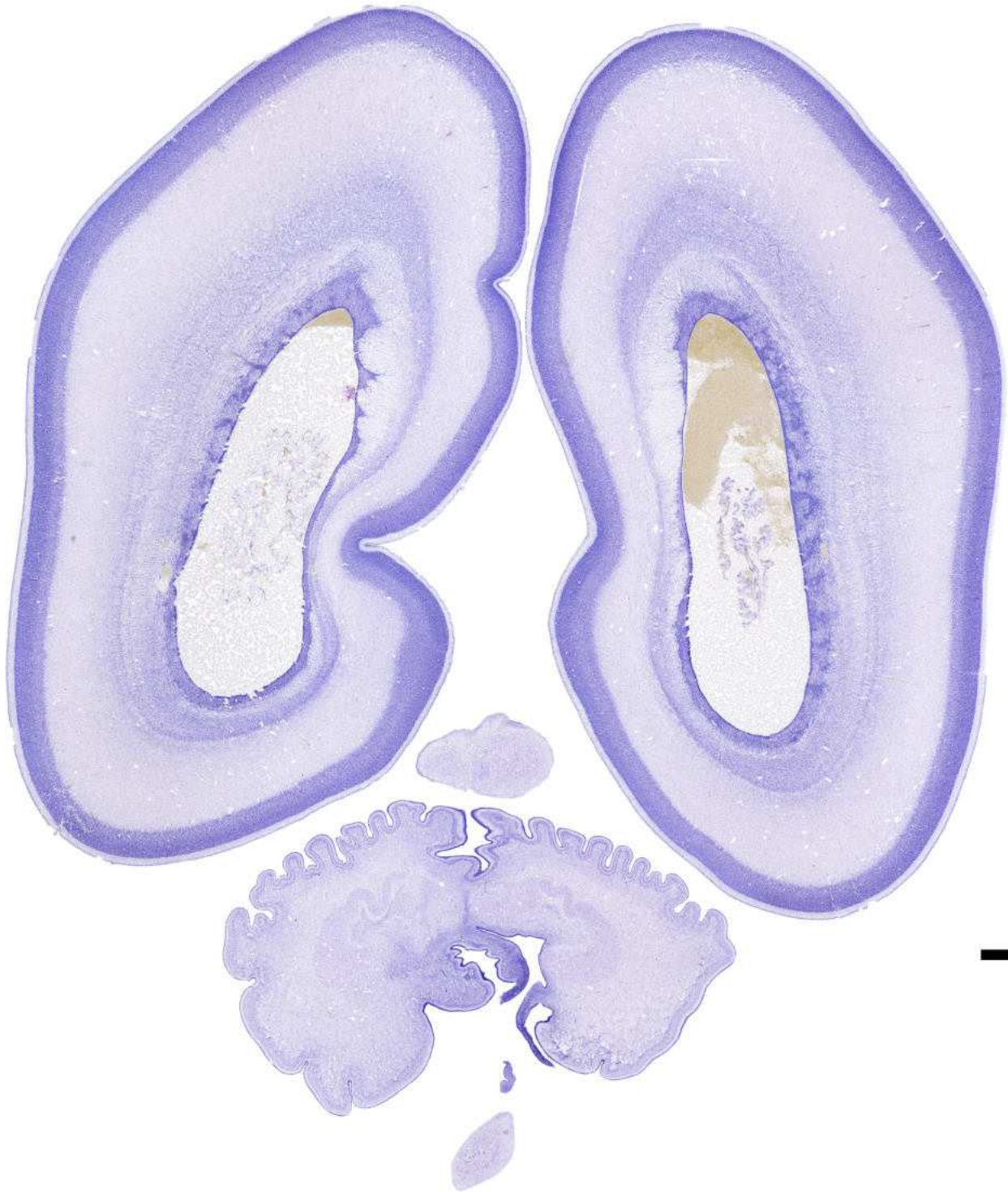
5 mm

- | | | | |
|---|--|--|--|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AP: Area postrema COM: Commissural nucleus CUN: Cuneate nucleus Chp: Choroid plexus DH: Dorsal horn DN: Dentate nucleus | <ul style="list-style-type: none"> GR: Gracile nucleus HEM: Cerebellar hemispheres IC: Inferior colliculus ICc: Inferior colliculus, central nucleus IP: Interposed nucleus LV: Lateral ventricle Ret-Med: Reticular formation, Medulla | <ul style="list-style-type: none"> SC: Superior colliculus TRI: Germinal trigone cc: Corpus callosum corts: Corticospinal tract cpb: Cerebellar peduncles df: Dorsal funiculus mn: Mesencephalic neuroepithelium pcbn: Precerebellar neuroepithelium | <ul style="list-style-type: none"> rhn: Rhombencephalic neuroepithelium wmf: White matter fibers → CINGs: Cingulate sulcus → CaS: Calcarine sulcus |
|---|--|--|--|

Age: 22 GW

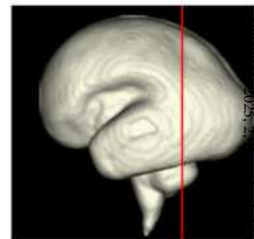


A-P Level: -11.82 mm

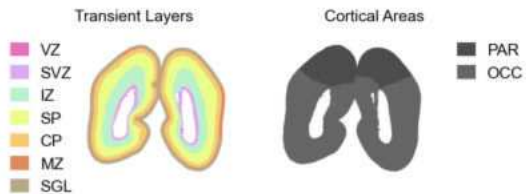


5 mm

Age: 22 GW



A-P Level: -11.82 mm

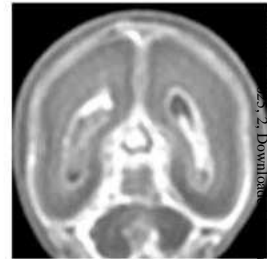


5 mm

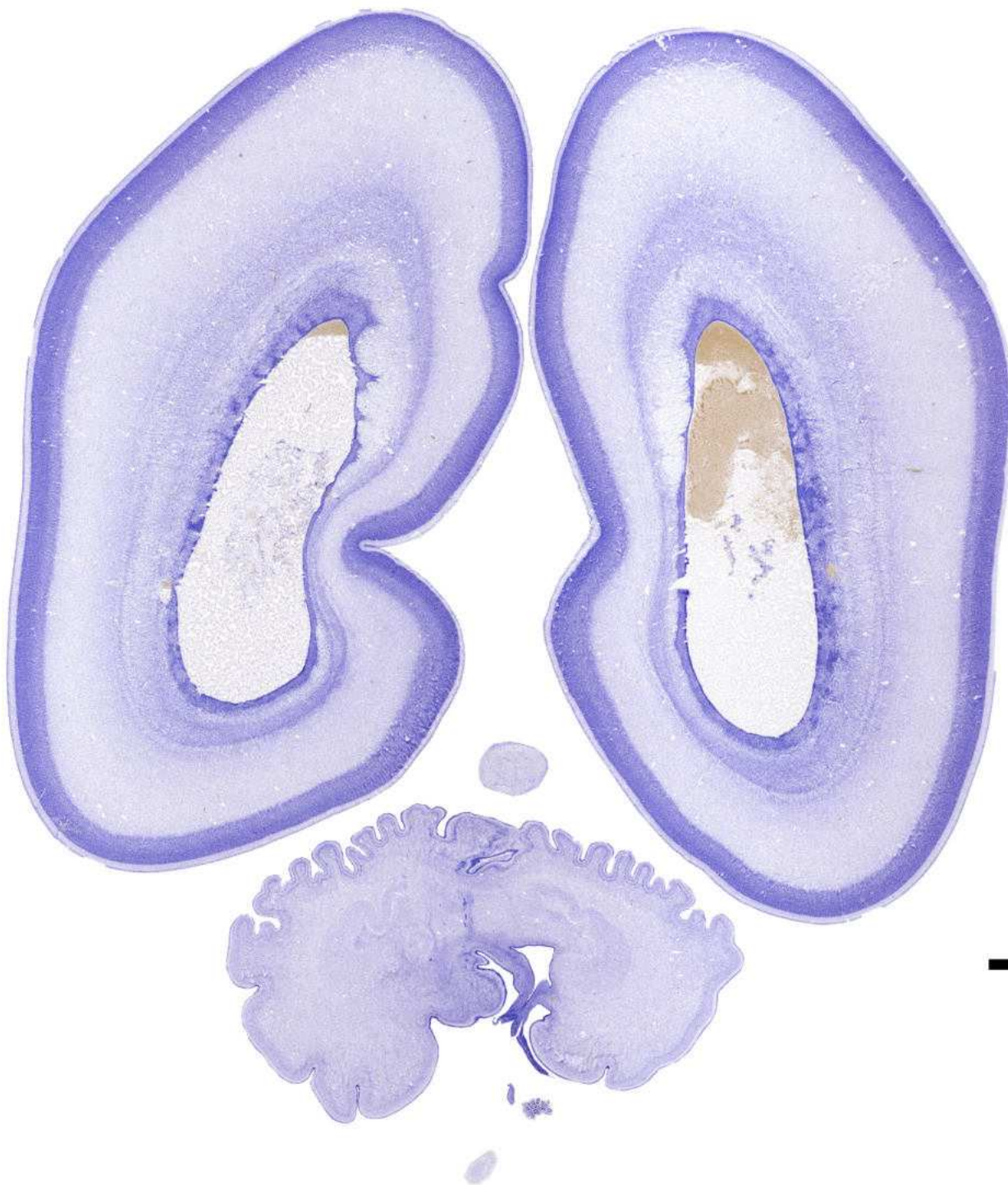
- Chp: Choroid plexus
- HEM: Cerebellar hemispheres
- TRI: Germinal trigone
- meg: Medullary gloioepithelium/ependyma
- DN: Dentate nucleus
- IC: Inferior colliculus
- cc: Corpus callosum
- wmf: White matter fibers
- GR: Gracile nucleus
- LV: Lateral ventricle
- cpb: Cerebellar peduncles
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

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Age: 22 GW

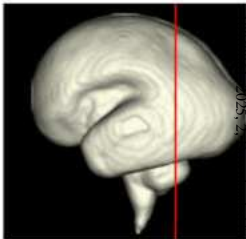


A-P Level: -12.18 mm

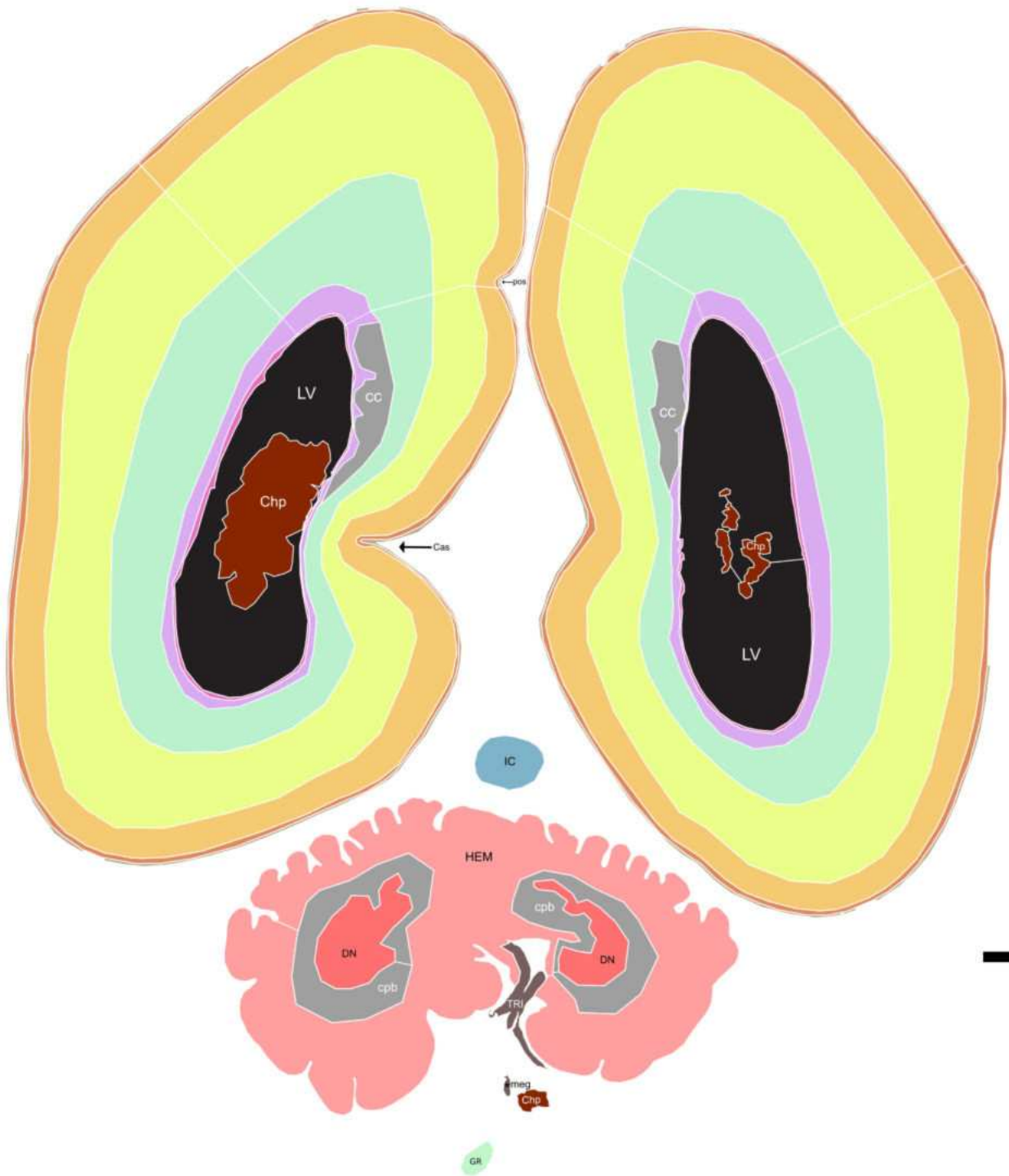
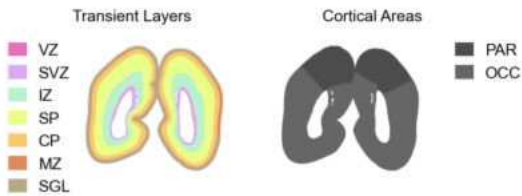


5 mm

Age: 22 GW

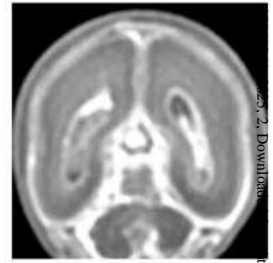


A-P Level: -12.18 mm



- Chp: Choroid plexus
- HEM: Cerebellar hemispheres
- TRI: Germinal trigone
- cpb: Cerebellar peduncles
- DN: Dentate nucleus
- IC: Inferior colliculus
- cc: Corpus callosum
- meg: Medullary gliopithelium/ependyma
- GR: Gracile nucleus
- LV: Lateral ventricle
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

Age: 22 GW

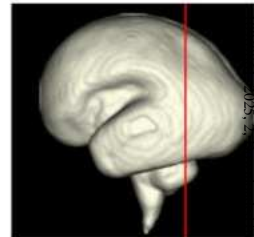


A-P Level: -12.54 mm

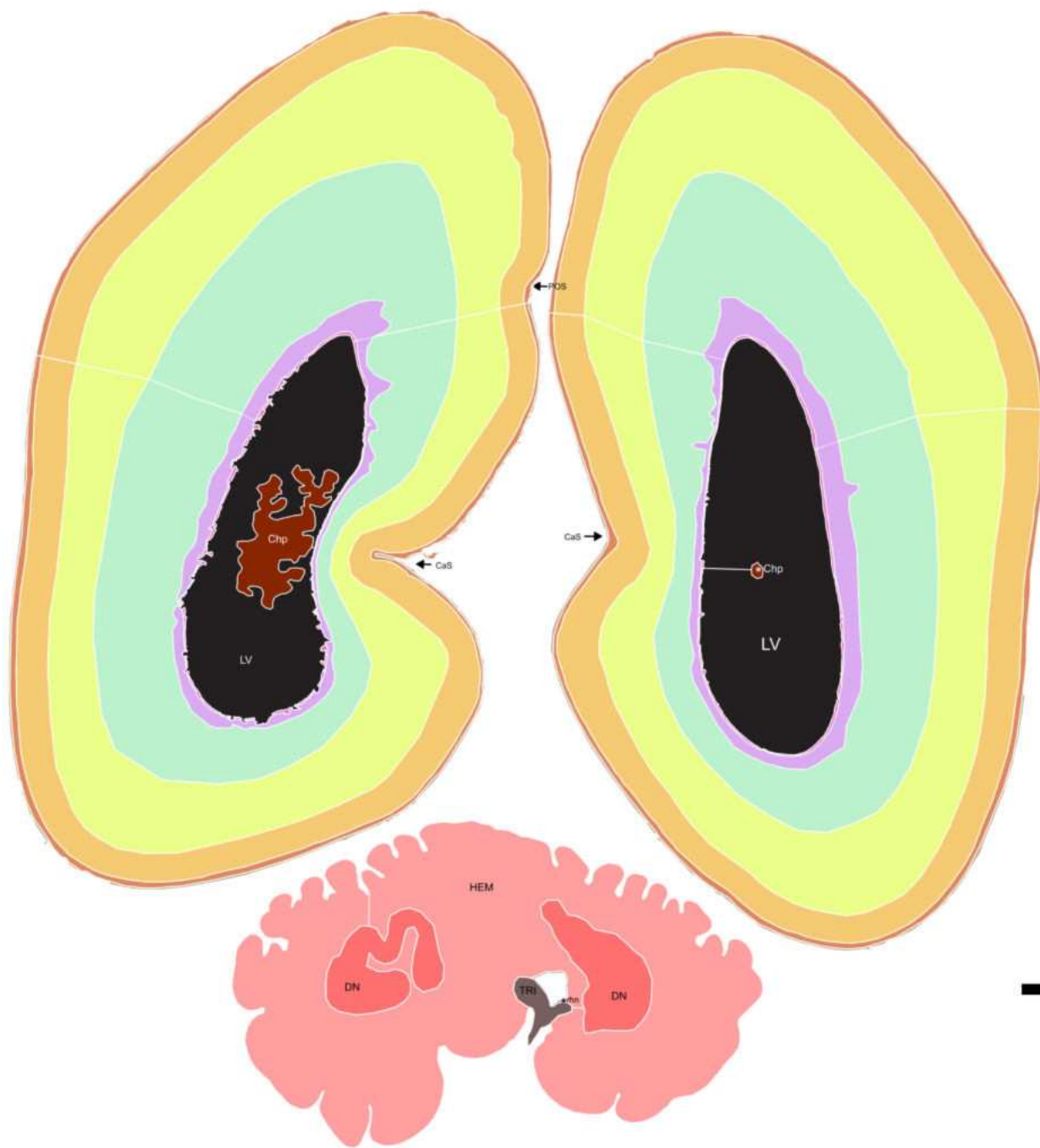
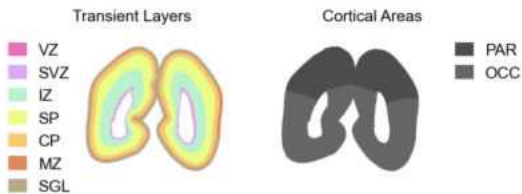


5 mm

Age: 22 GW

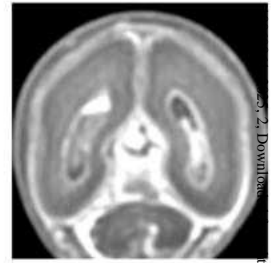


A-P Level: -12.54 mm

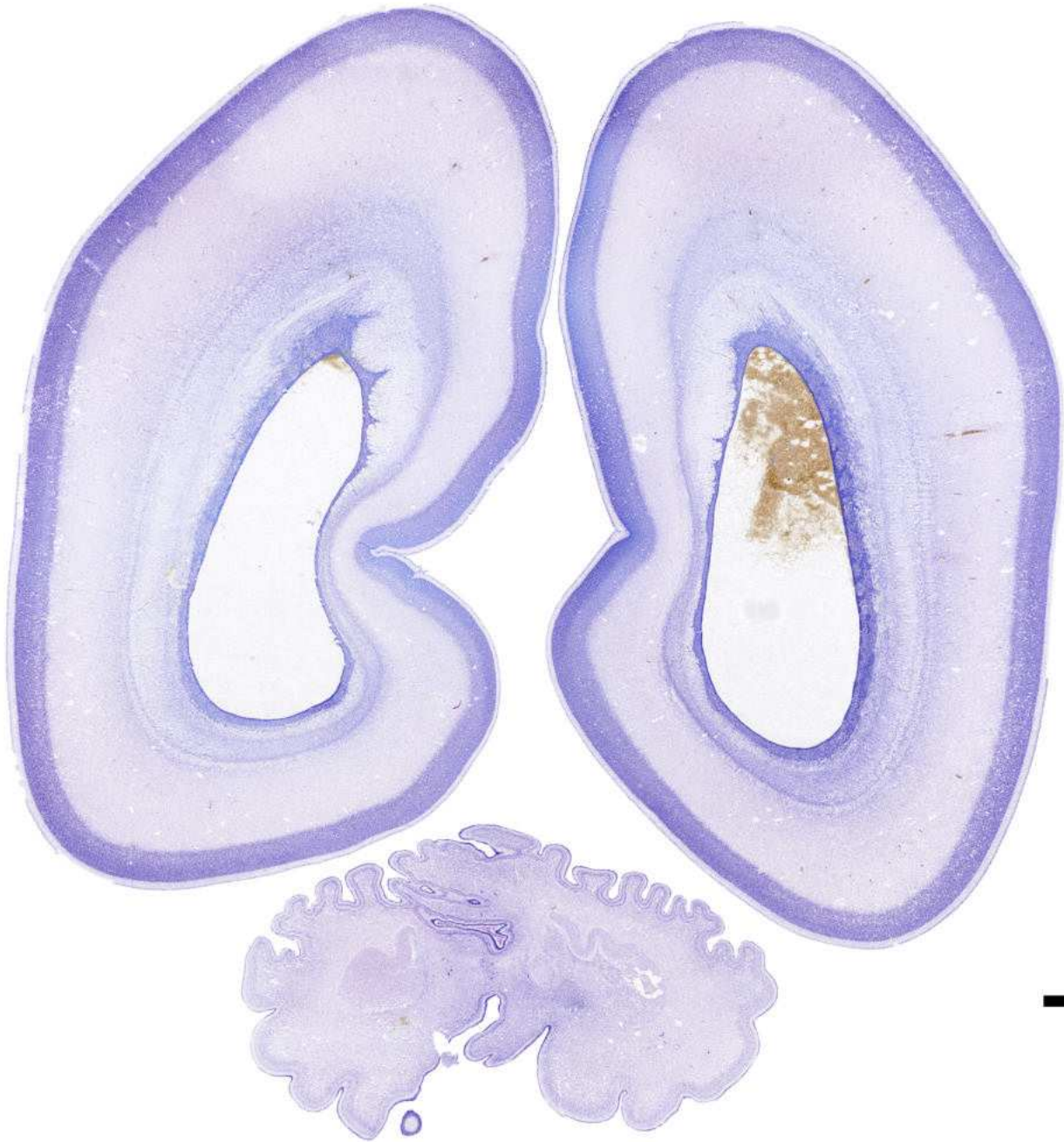


- Chp: Choroid plexus
- HEM: Cerebellar hemispheres
- TRI: Germinal trigone
- CaS: Calcarine sulcus
- DN: Dentate nucleus
- LV: Lateral ventricle
- rhn: Rhombencephalic neuroepithelium
- POS: Parieto-occipital sulcus

Age: 22 GW

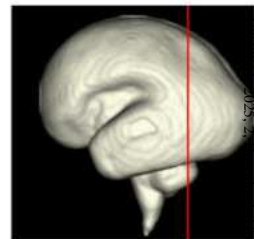


A-P Level: -13.2 mm

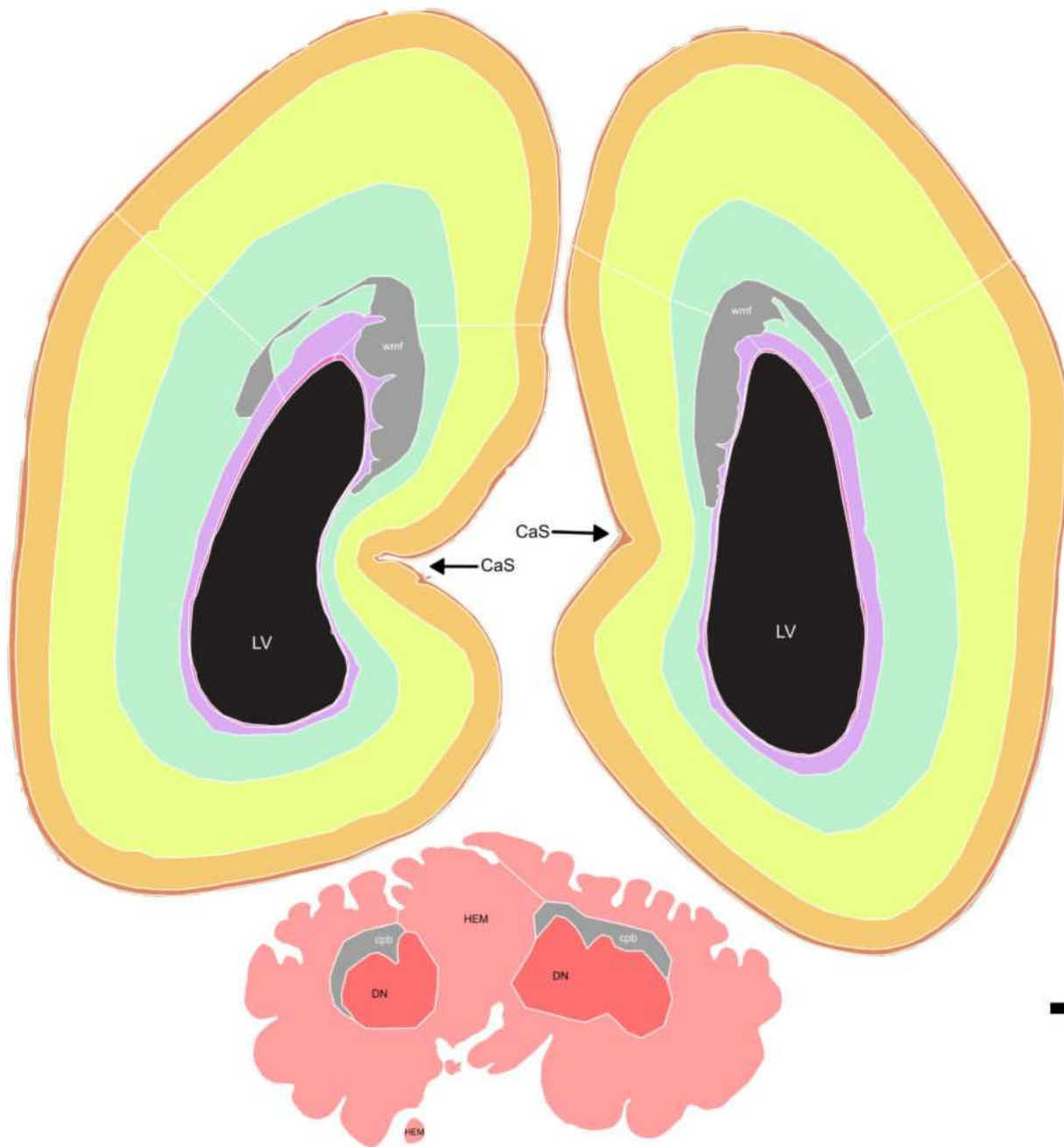
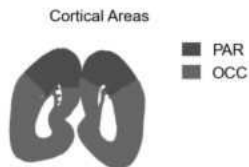
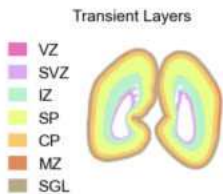


5 mm

Age: 22 GW



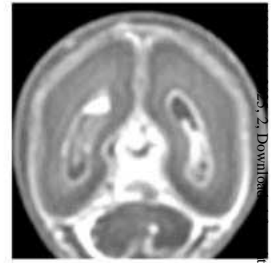
A-P Level: -13.2 mm



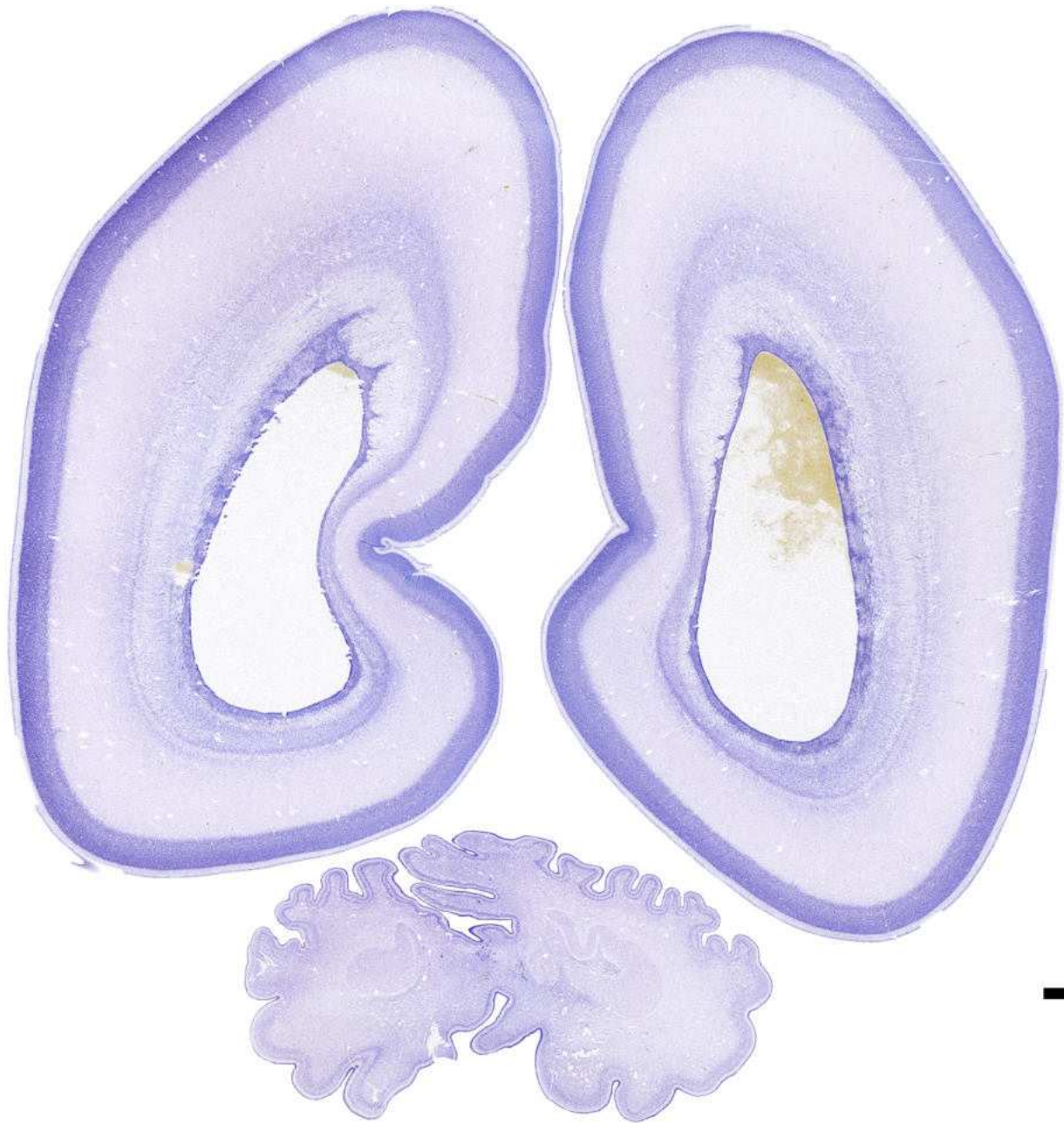
■ DN: Dentate nucleus
 ■ LV: Lateral ventricle
 ■ cpb: Cerebellar peduncles
 ■ wmf: White matter fibers
■ HEM: Cerebellar hemispheres
 → CaS: Calcarine sulcus

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Age: 22 GW

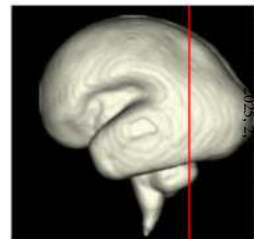


A-P Level: -13.56 mm

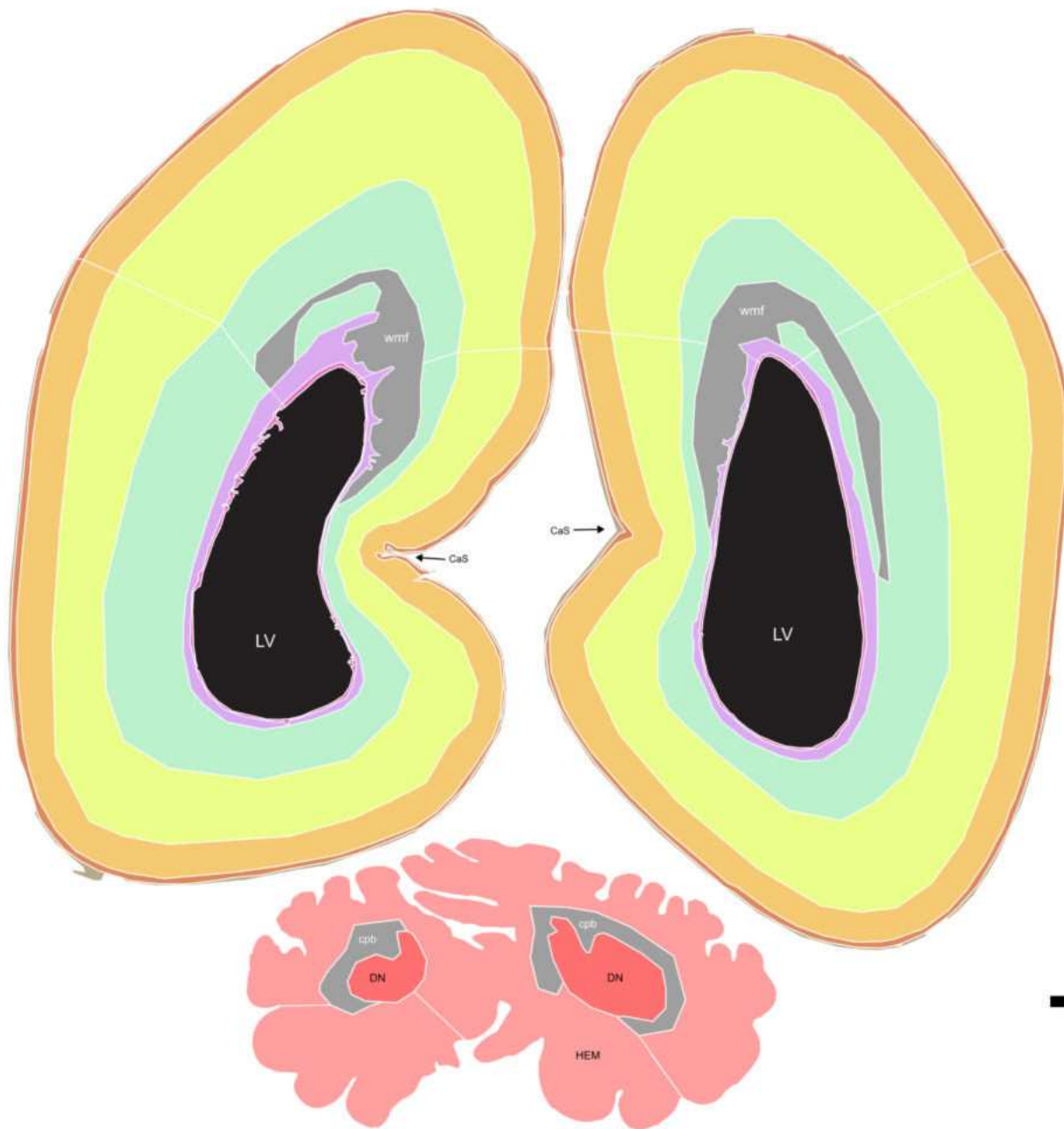
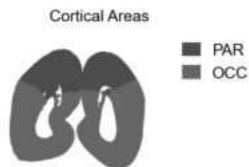
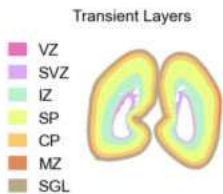


5 mm

Age: 22 GW



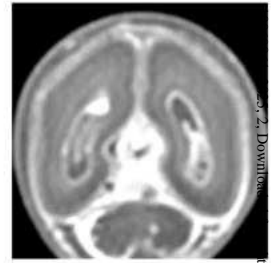
A-P Level: -13.56 mm



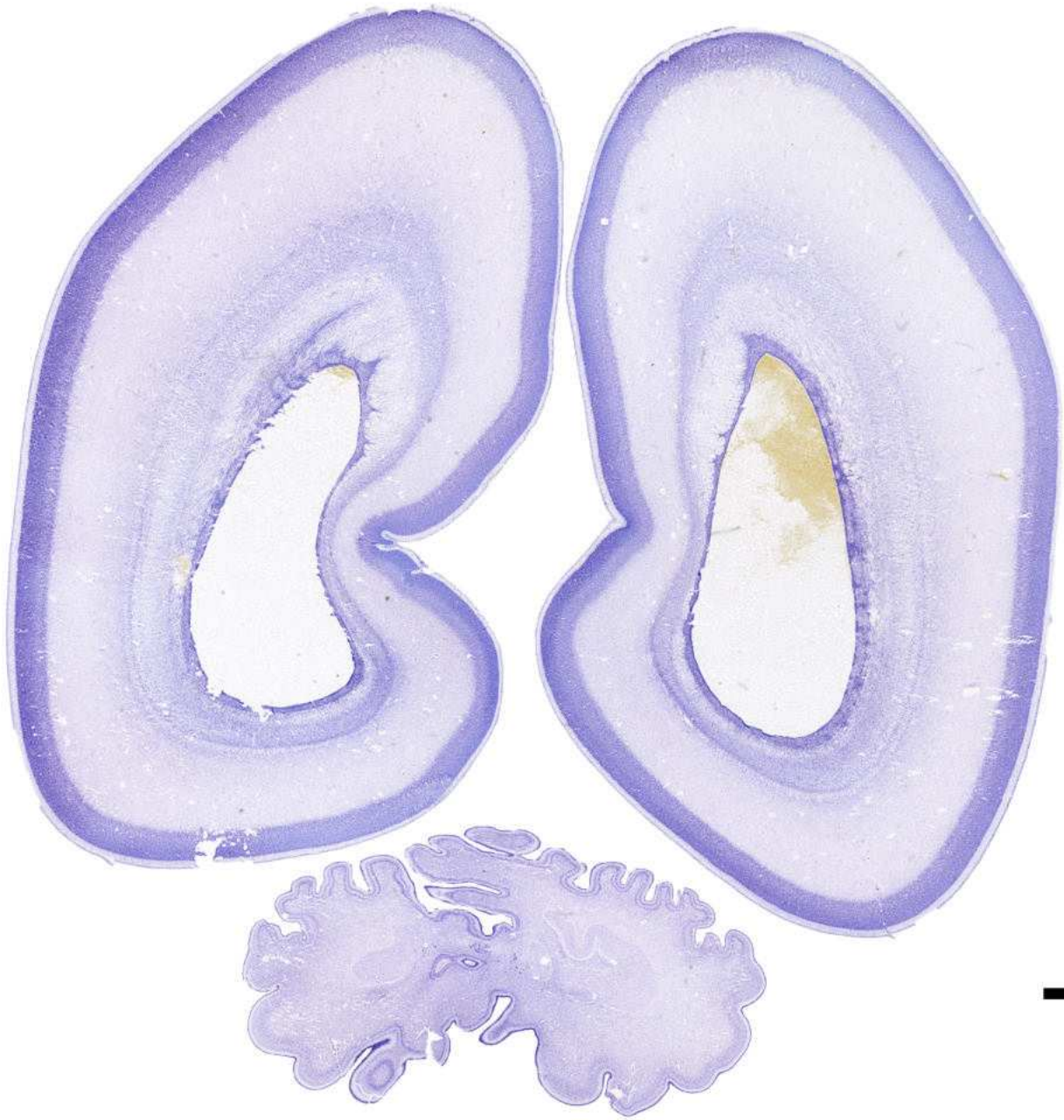
■ DN: Dentate nucleus
 ■ LV: Lateral ventricle
 ■ cpb: Cerebellar peduncles
 ■ wmf: White matter fibers
■ HEM: Cerebellar hemispheres
 → CaS: Calcarine sulcus

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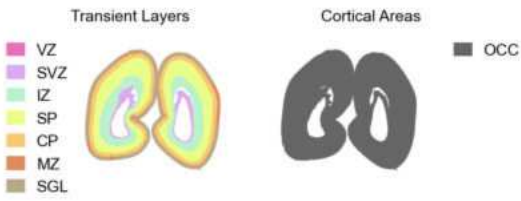
Age: 22 GW



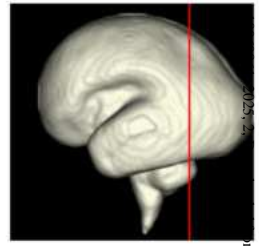
A-P Level: -13.86 mm



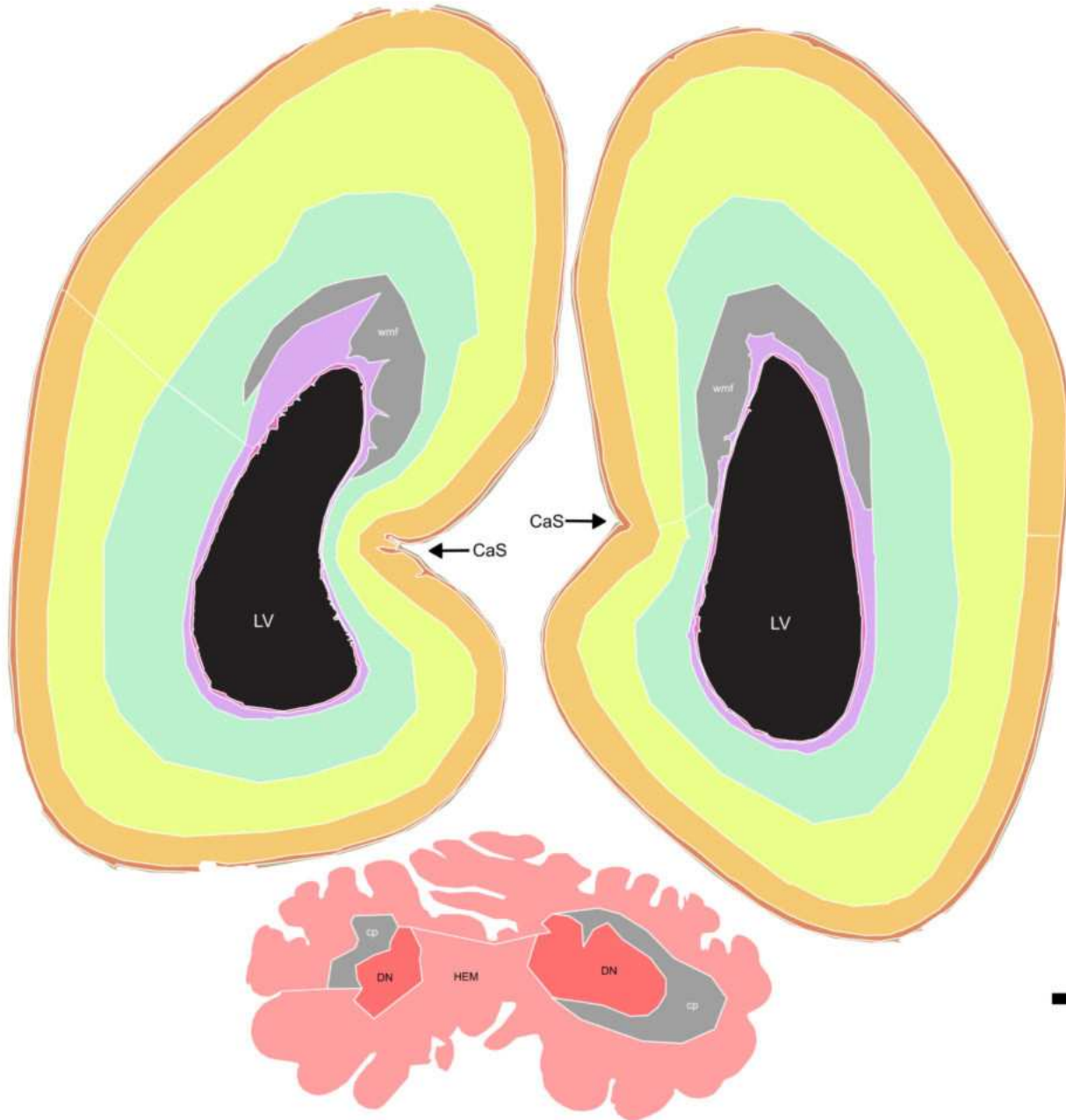
5 mm



Age: 22 GW



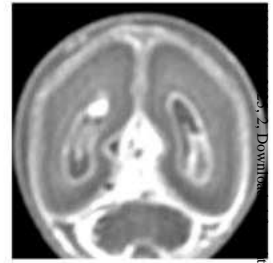
A-P Level: -13.86 mm



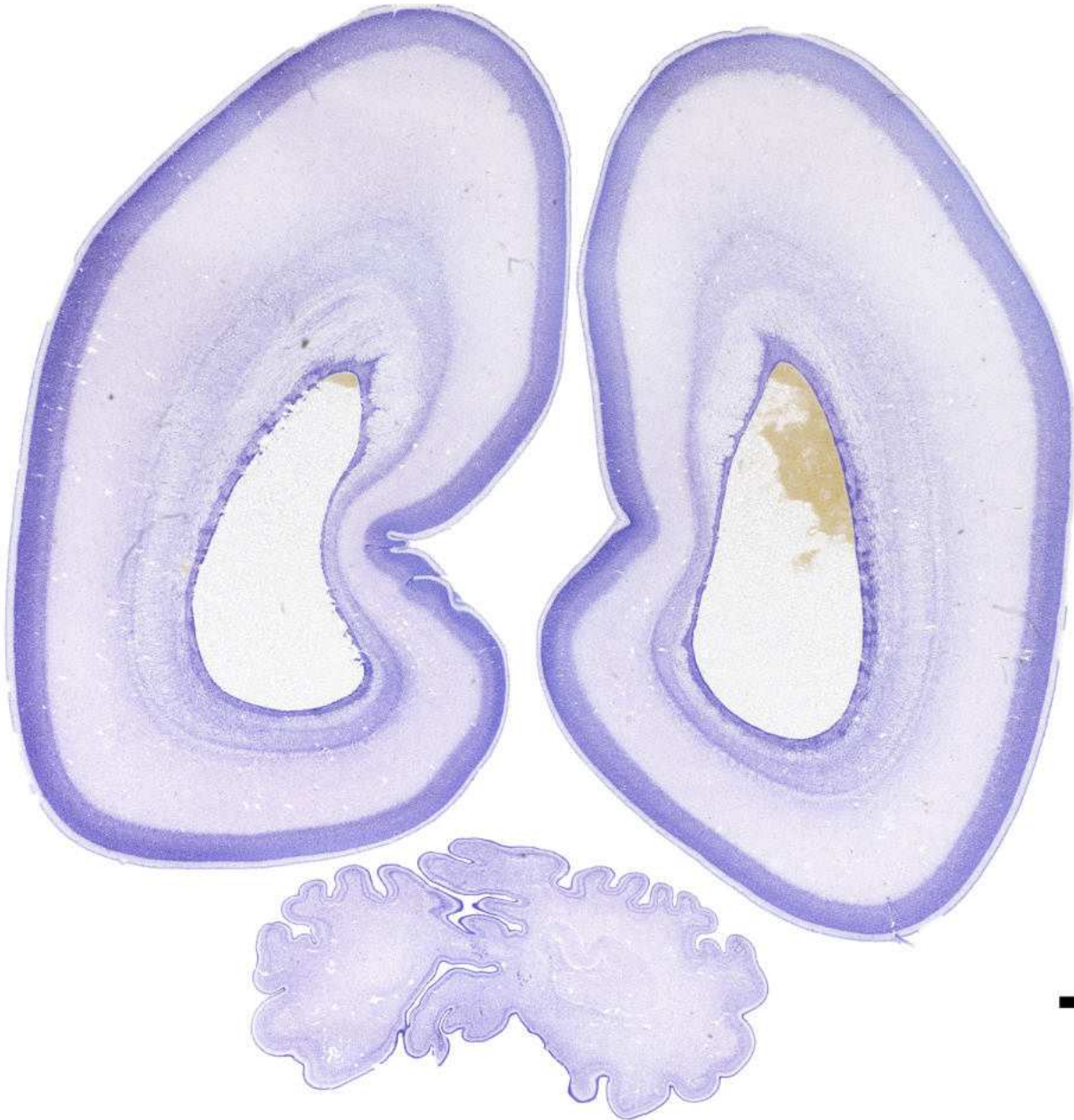
5 mm

- DN: Dentate nucleus
- LV: Lateral ventricle
- cp: Cerebral peduncle
- wmf: White matter fibers
- HEM: Cerebellar hemispheres
- CaS: Calcarine sulcus

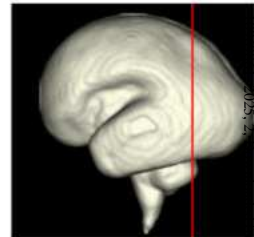
Age: 22 GW



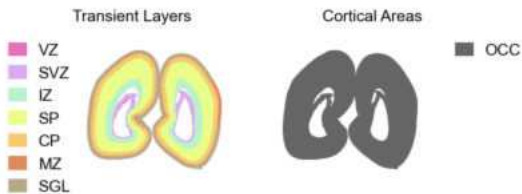
A-P Level: -14.28 mm



5 mm

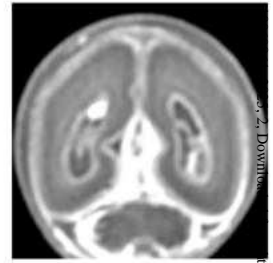


A-P Level: -14.28 mm

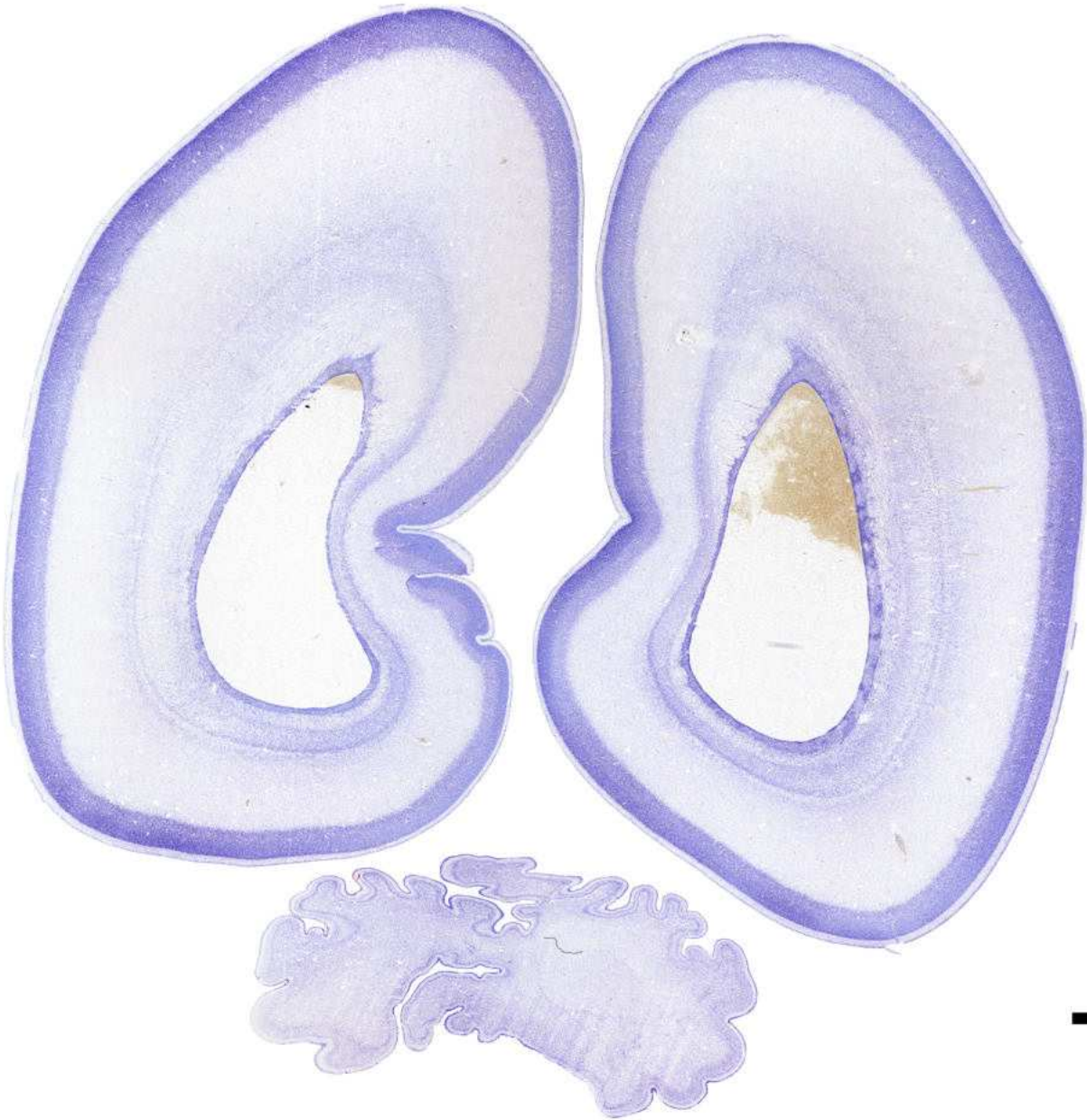


■ CBN: Cerebellar nuclei
 ■ LV: Lateral ventricle
 ■ cpb: Cerebellar peduncles
 ■ wmf: White matter fibers
■ HEM: Cerebellar hemispheres
 → CaS: Calcarine sulcus

Age: 22 GW

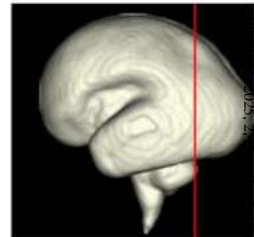


A-P Level: -14.88 mm

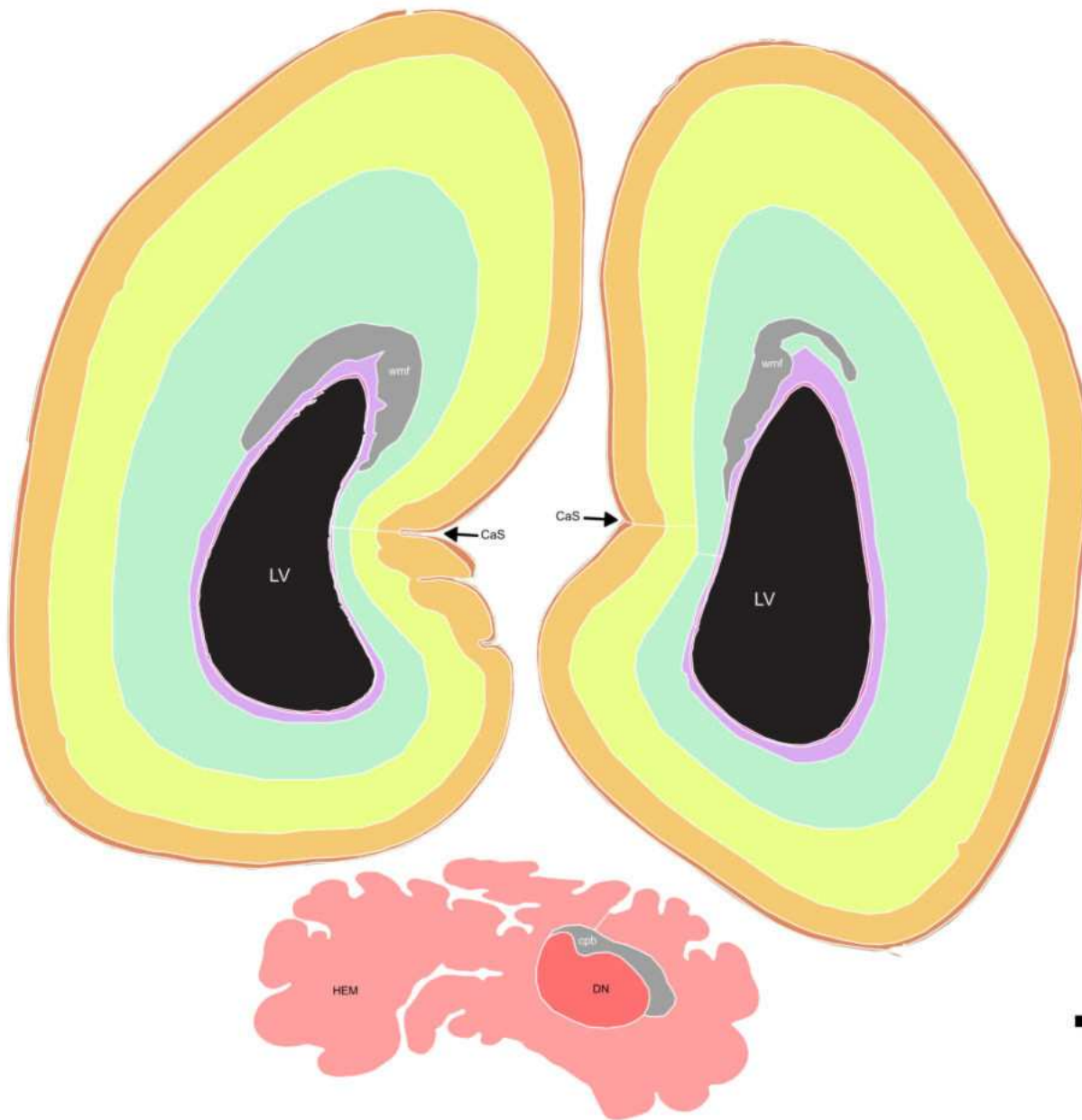
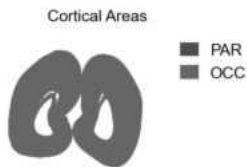
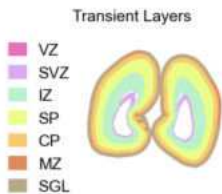


5 mm

Age: 22 GW



A-P Level: -14.88 mm



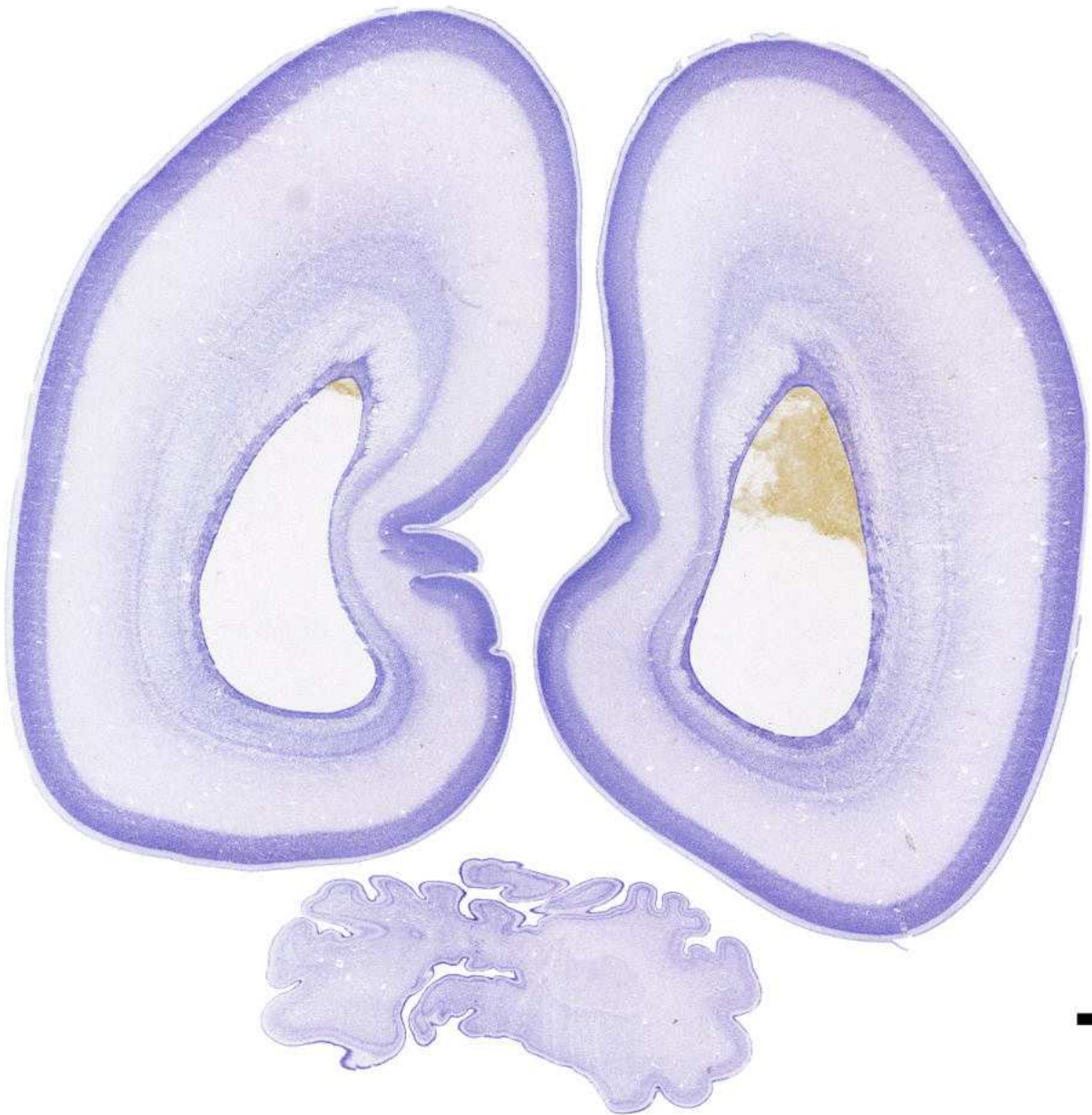
■ DN: Dentate nucleus
 ■ LV: Lateral ventricle
 ■ cpb: Cerebellar peduncles
 ■ wmf: White matter fibers
■ HEM: Cerebellar hemispheres
 → CaS: Calcarine sulcus

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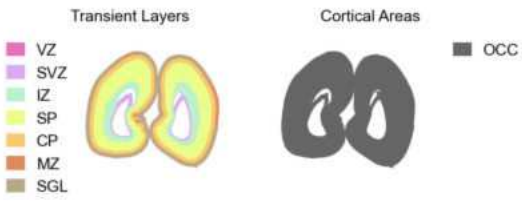
Age: 22 GW



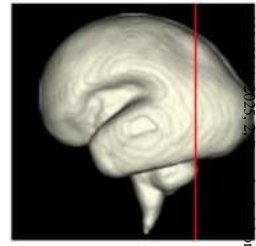
A-P Level: -15.12 mm



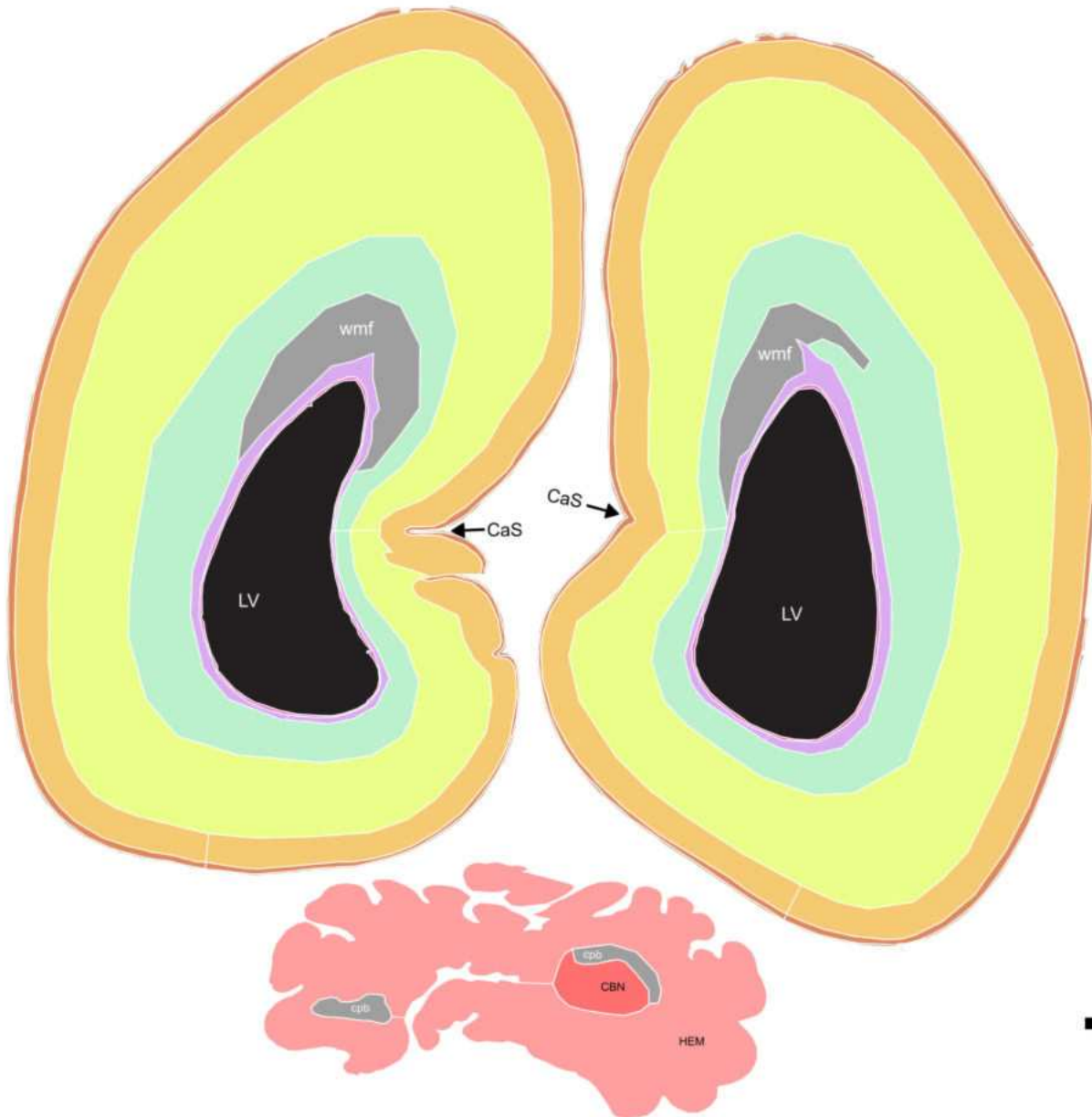
5 mm



Age: 22 GW



A-P Level: -15.12 mm



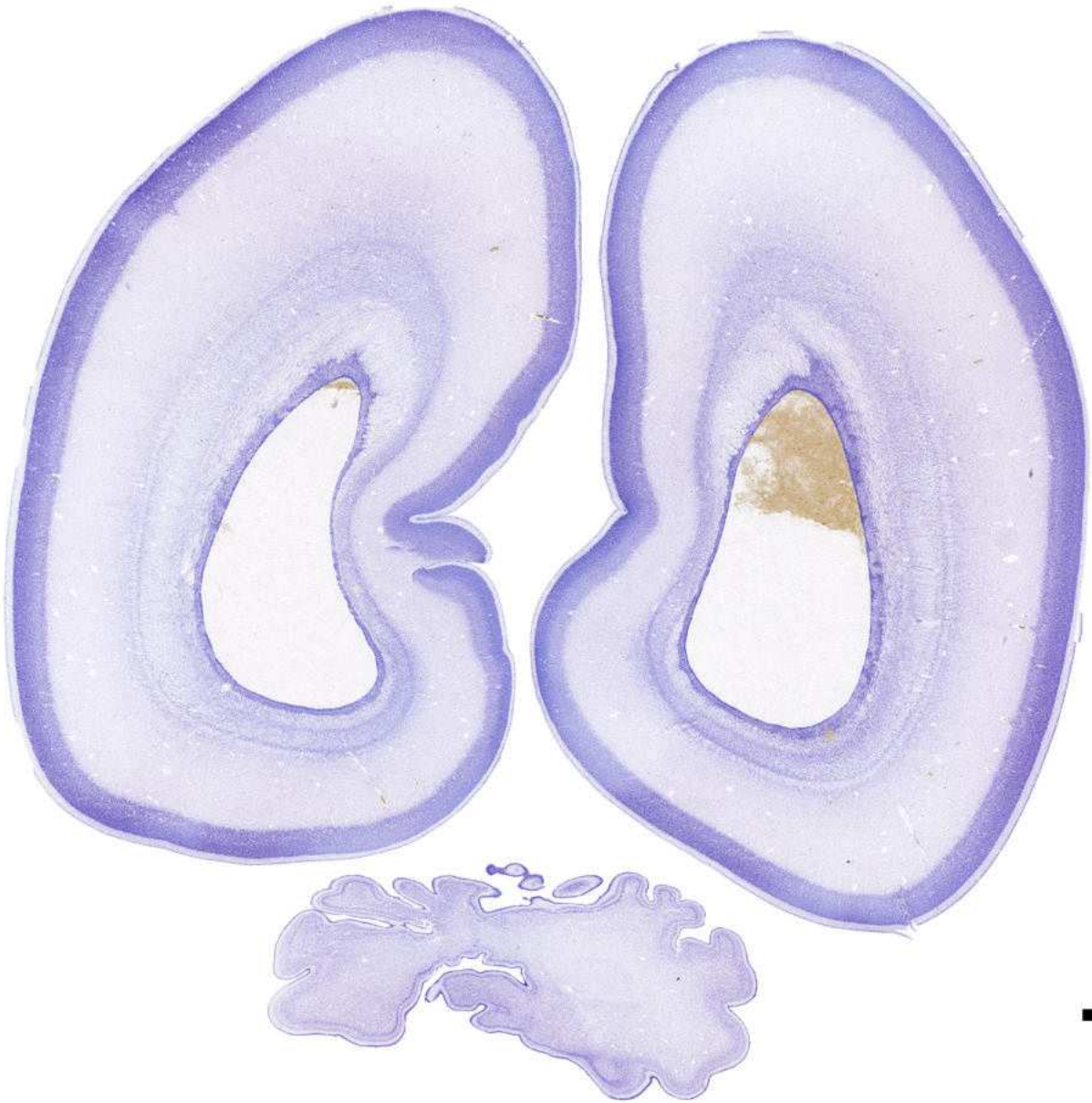
5 mm

- CBN: Cerebellar nuclei
- LV: Lateral ventricle
- cpb: Cerebellar peduncles
- wmf: White matter fibers
- HEM: Cerebellar hemispheres
- CaS: Calcarine sulcus

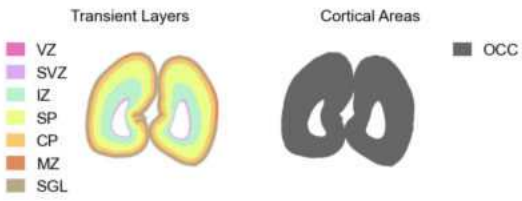
Age: 22 GW



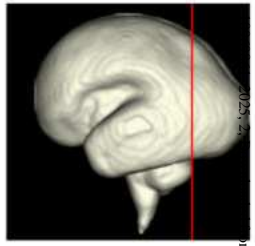
A-P Level: -15.42 mm



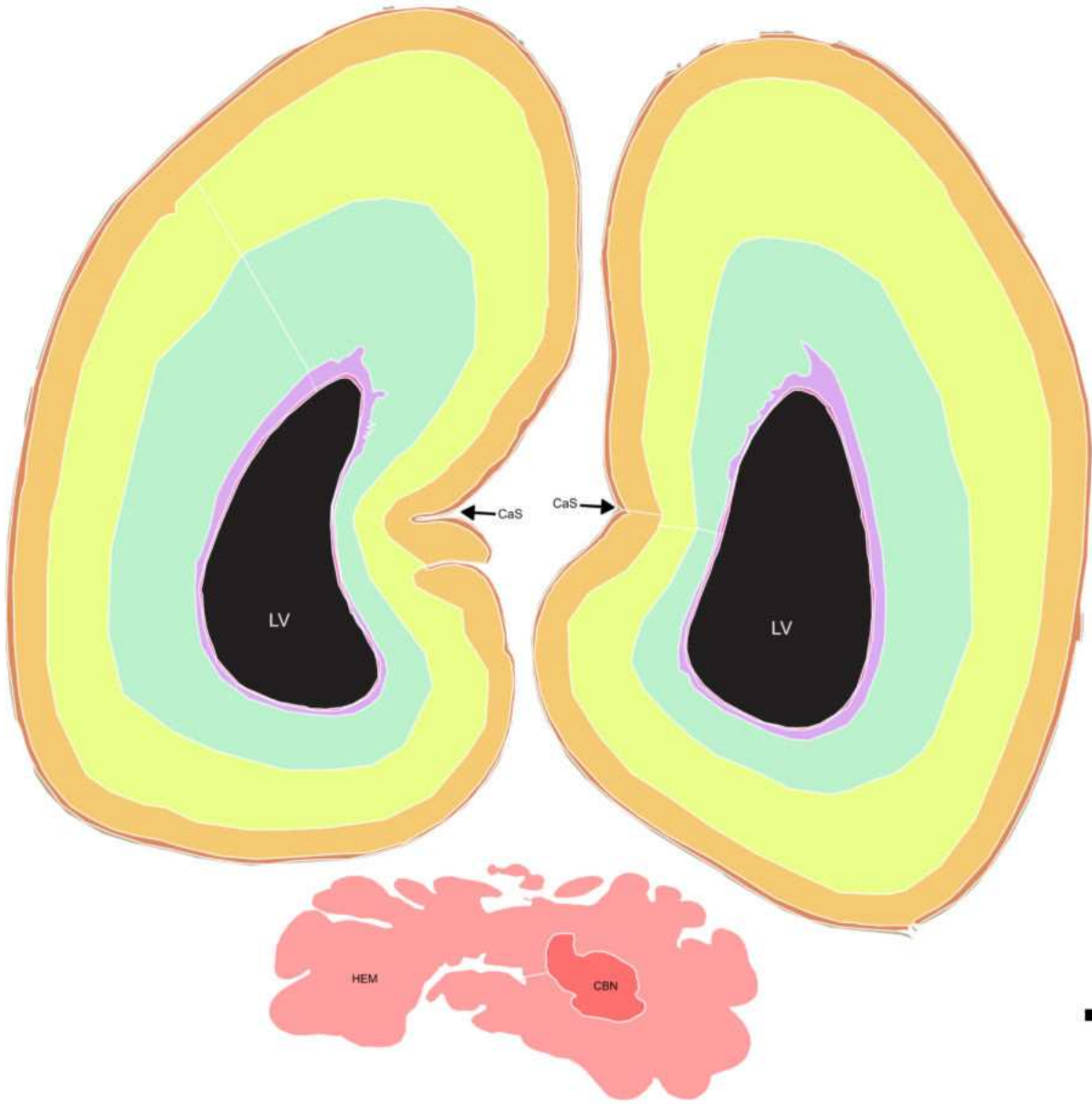
5 mm



Age: 22 GW



A-P Level: -15.42 mm

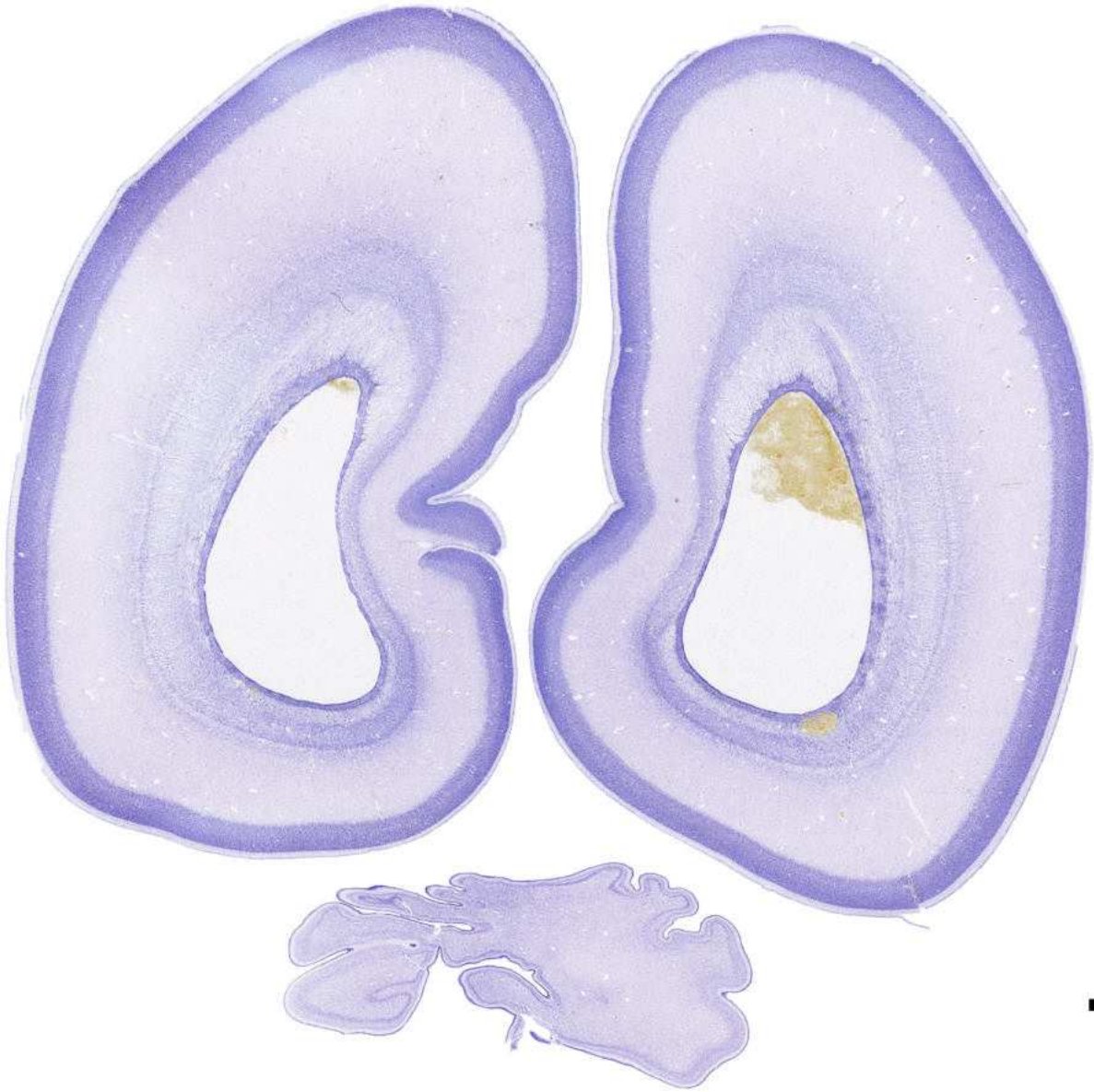


■ CBN: Cerebellar nuclei ■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle → CaS: Calcarine sulcus

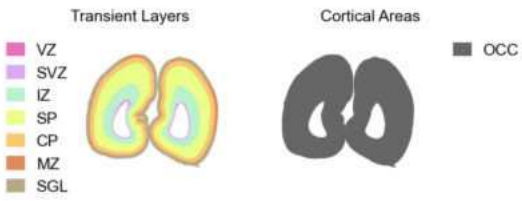
Age: 22 GW



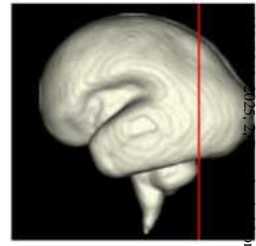
A-P Level: -15.84 mm



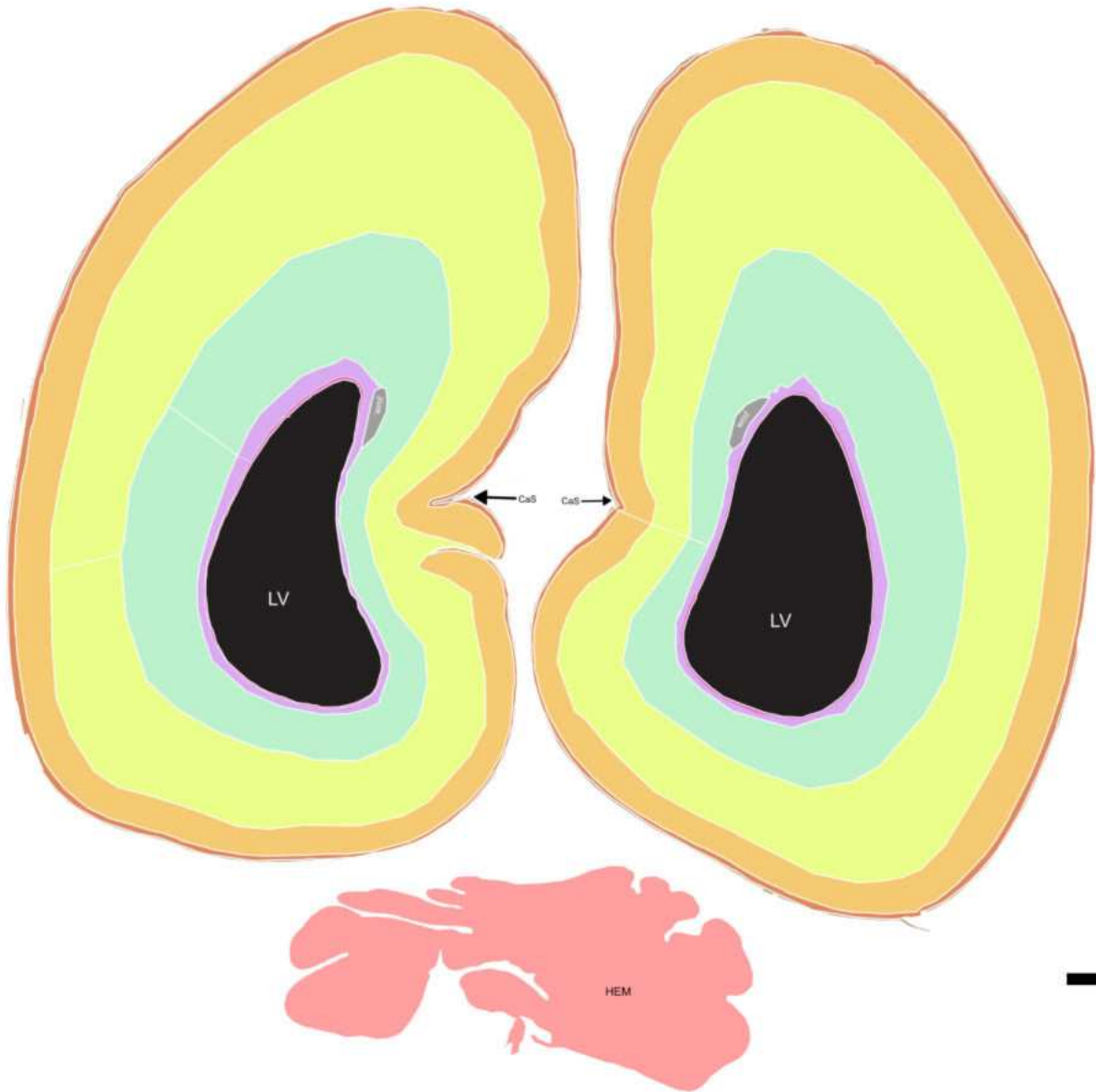
5 mm



Age: 22 GW



A-P Level: -15.84 mm

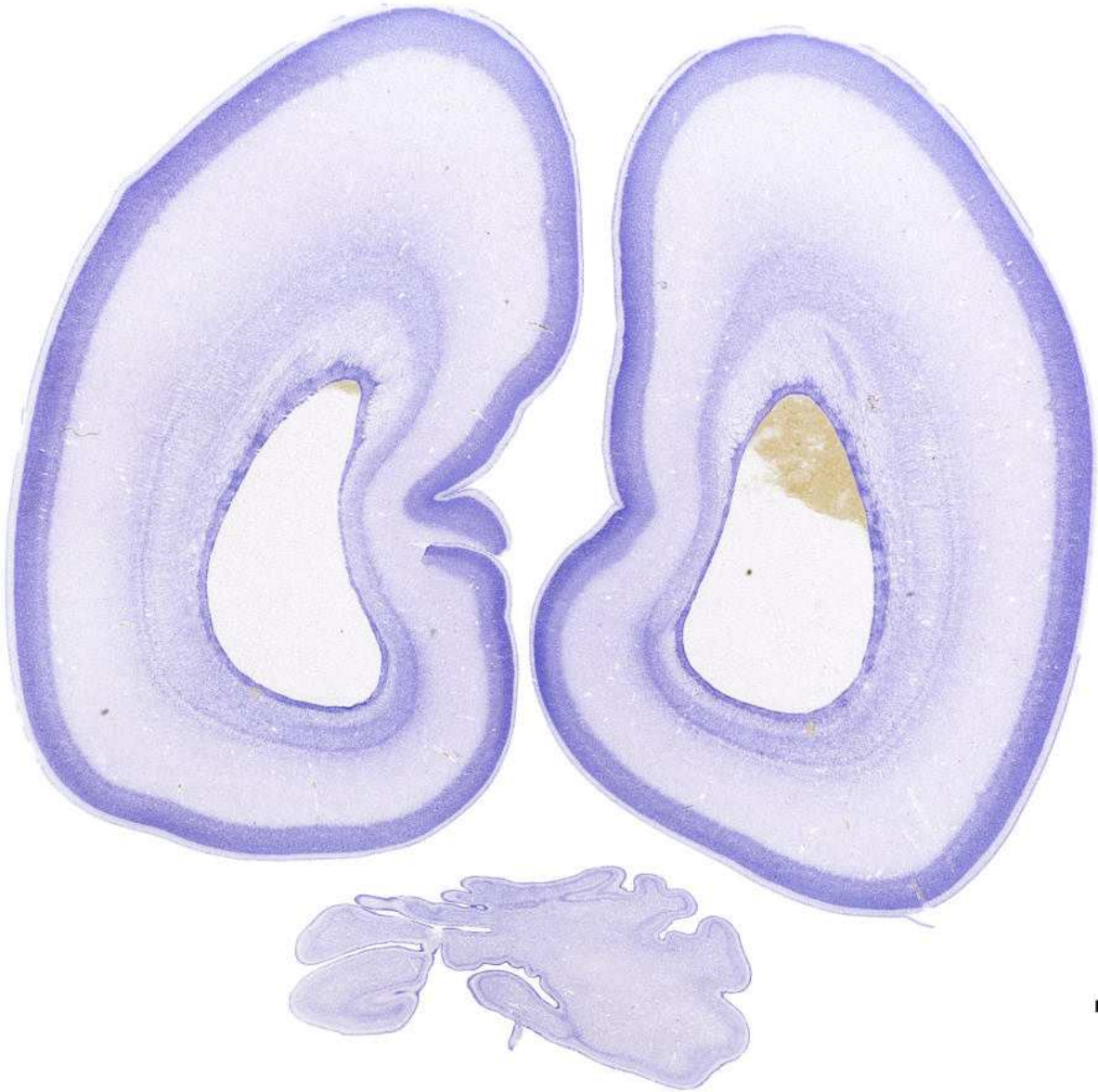


HEM: Cerebellar hemispheres LV: Lateral ventricle wmf: White matter fibers → CaS: Calcarine sulcus

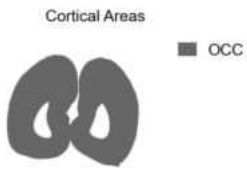
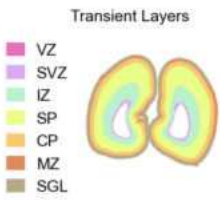
Age: 22 GW



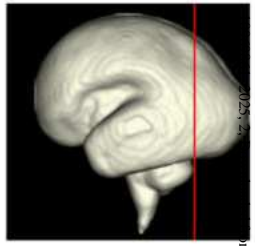
A-P Level: -16.02 mm



5 mm



Age: 22 GW



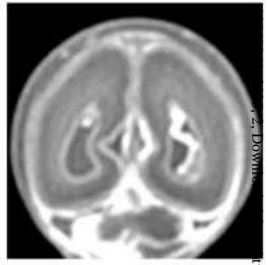
A-P Level: -16.02 mm



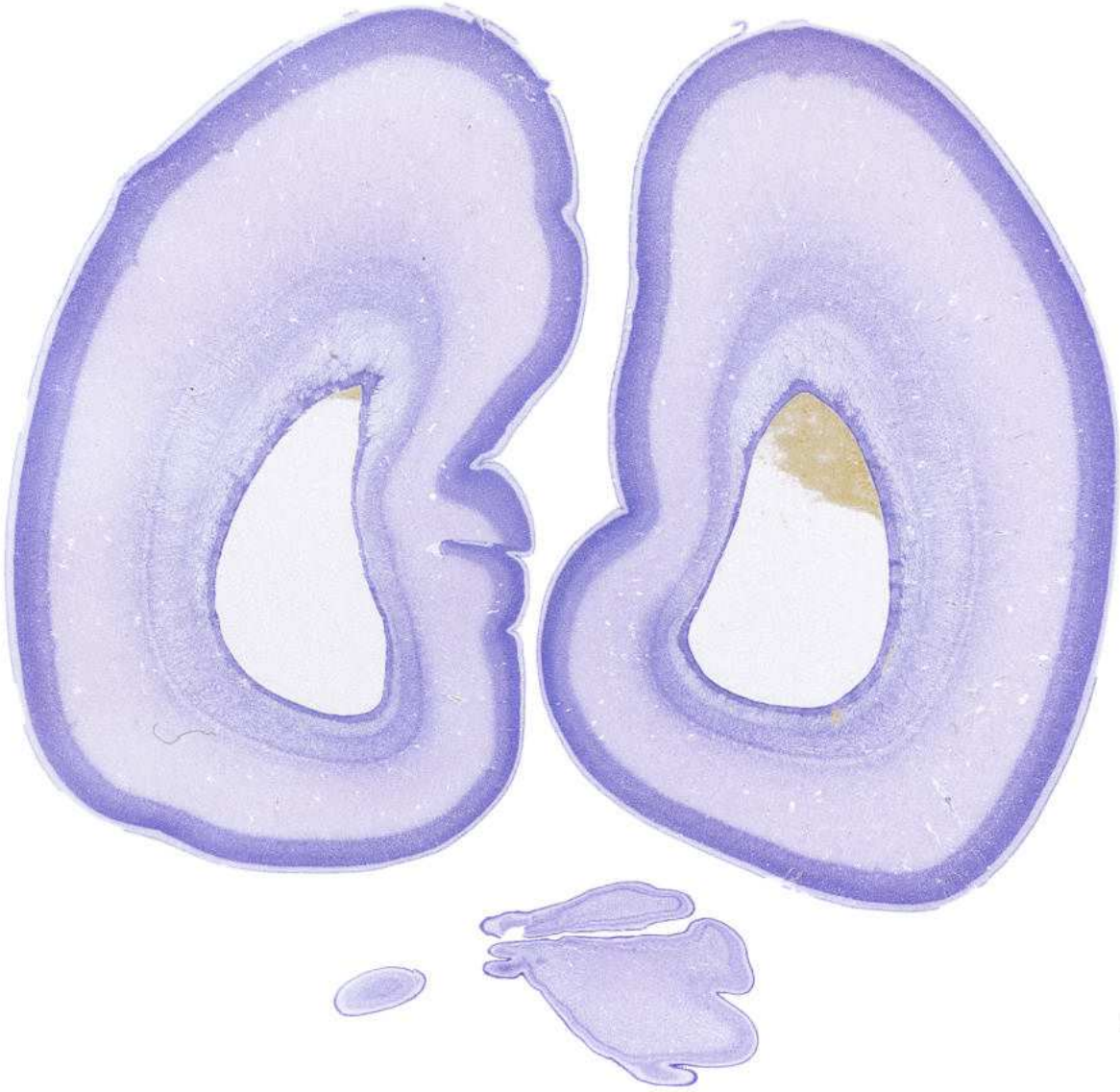
5 mm

HEM: Cerebellar hemispheres LV: Lateral ventricle wmf: White matter fibers CaS: Calcarine sulcus

Age: 22 GW



A-P Level: -16.8 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

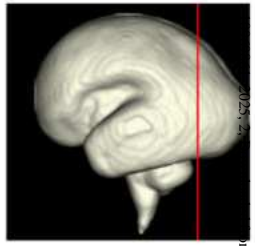


Cortical Areas

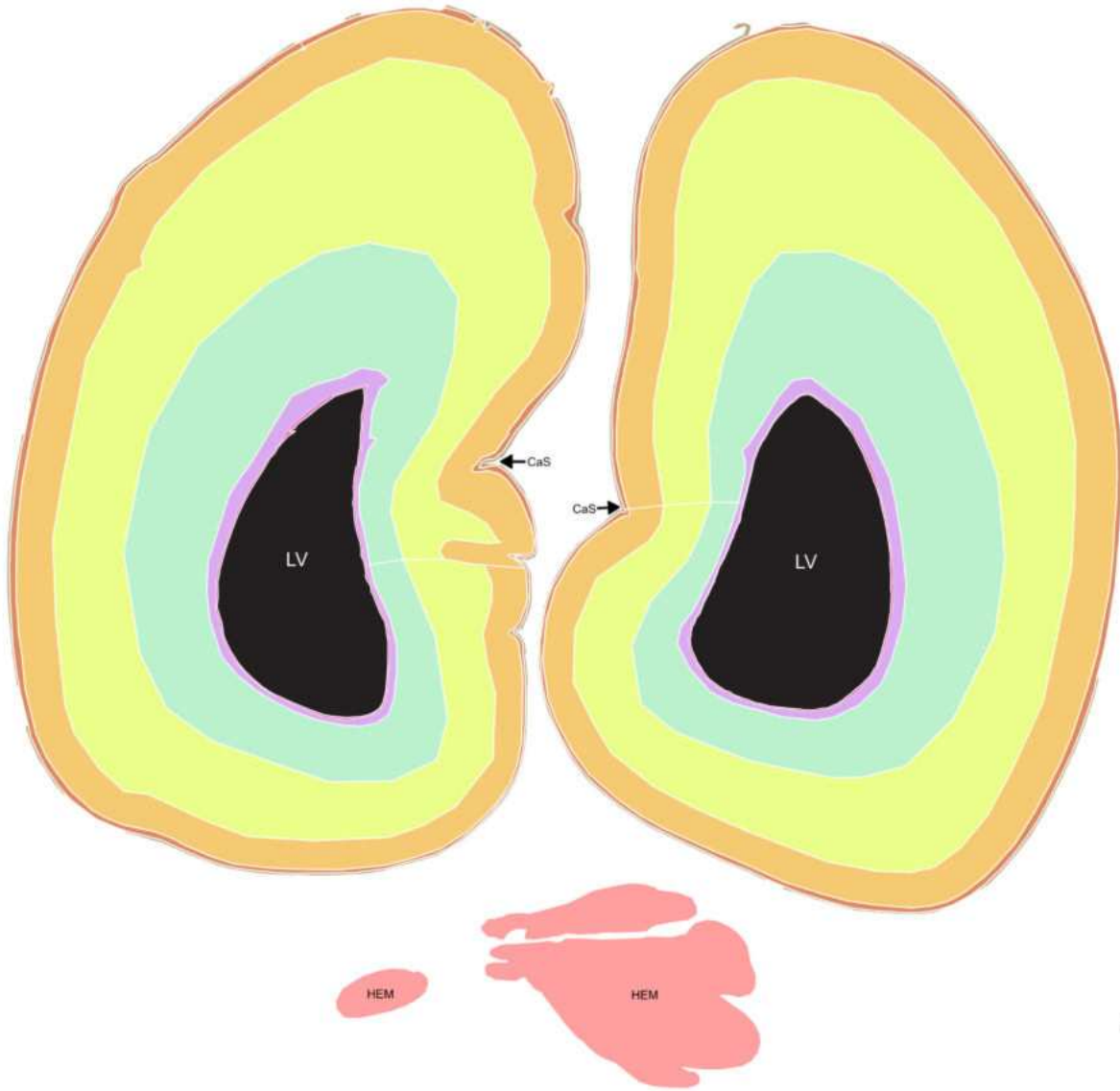


■ OCC

Age: 22 GW



A-P Level: -16.8 mm

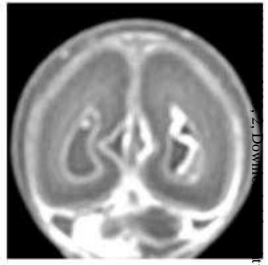


5 mm

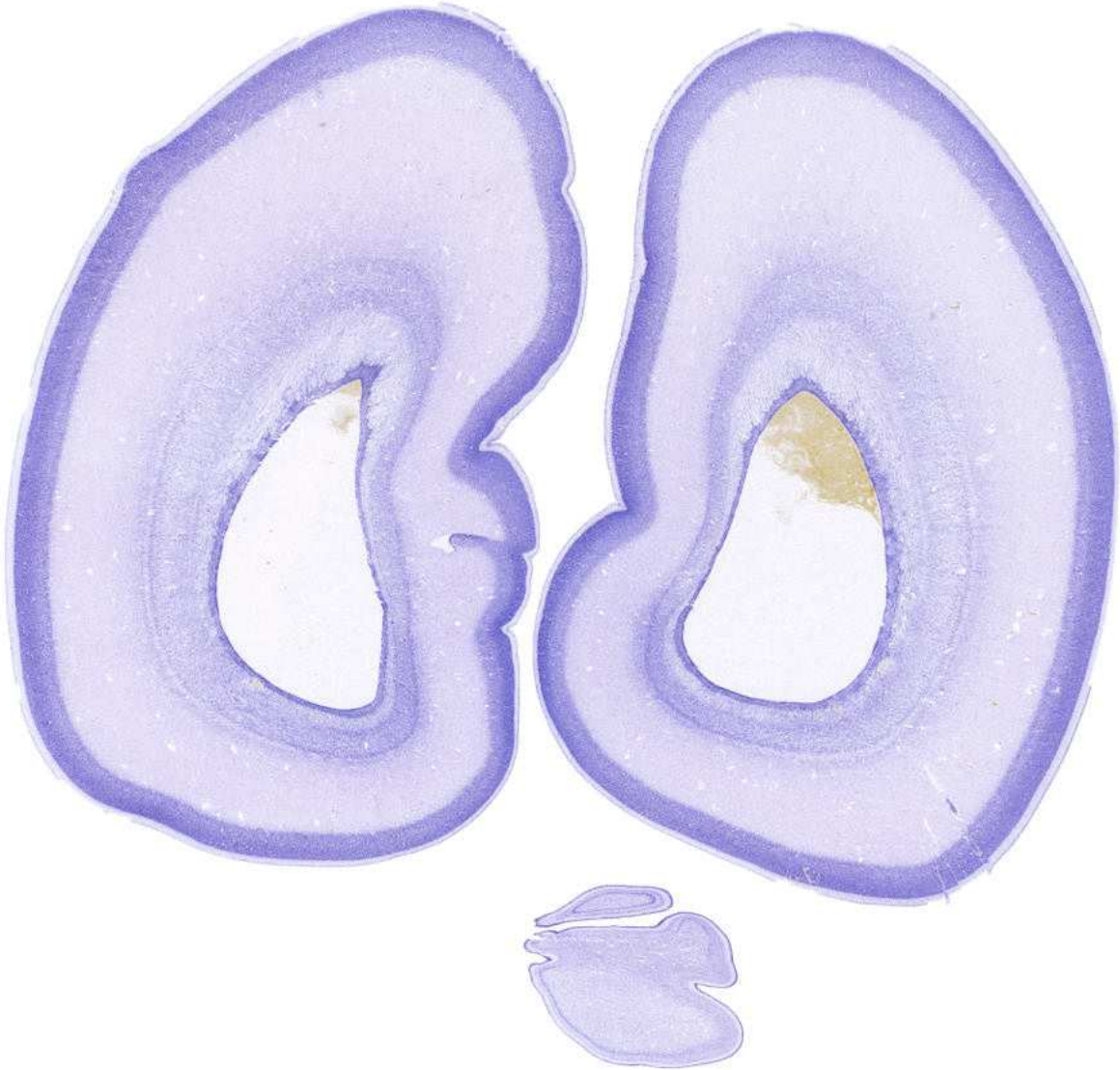
■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle → CaS: Calcarine sulcus

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Age: 22 GW



A-P Level: -17.16 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

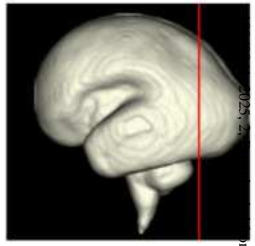


Cortical Areas

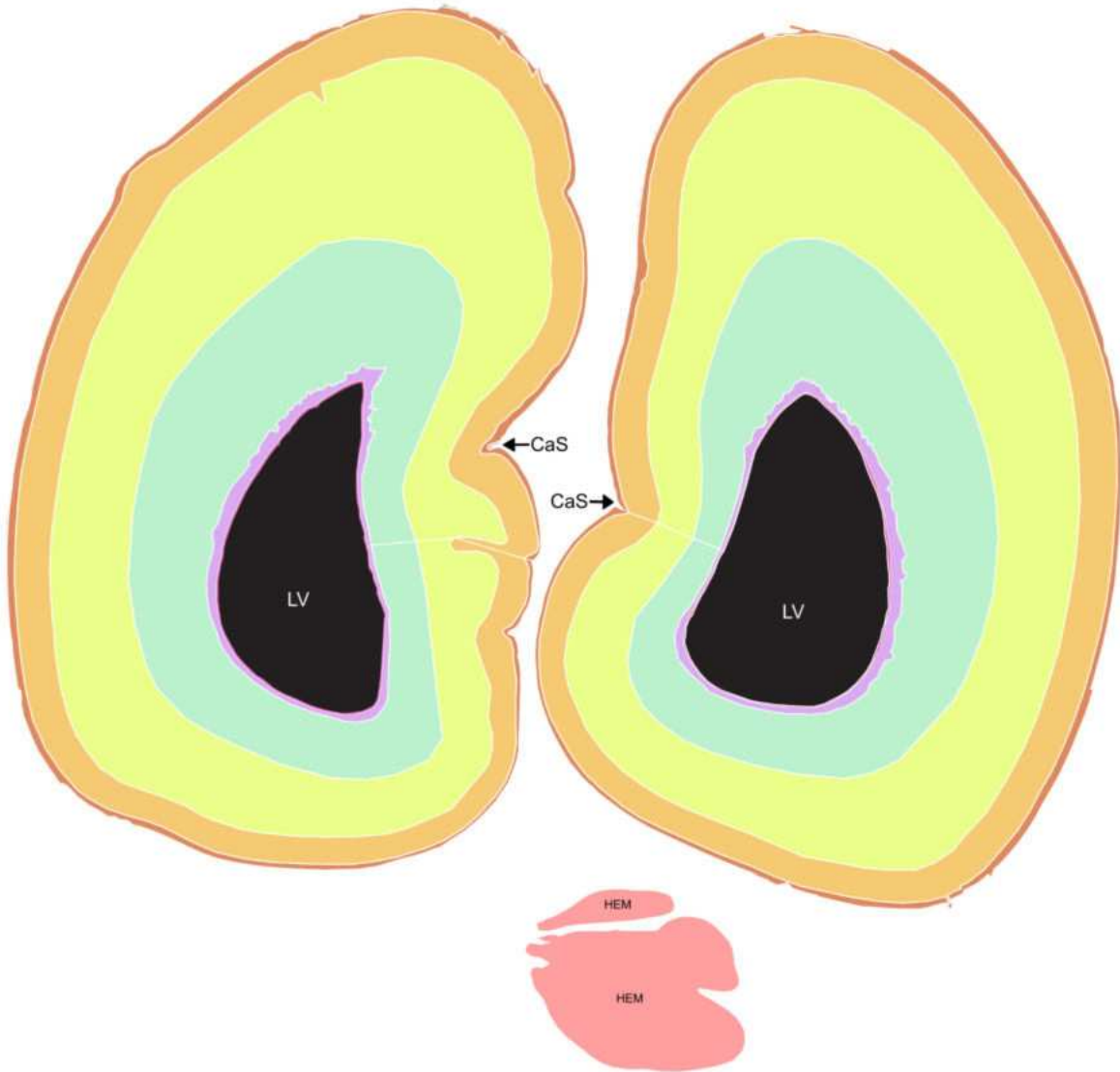


■ OCC

Age: 22 GW



A-P Level: -17.16 mm

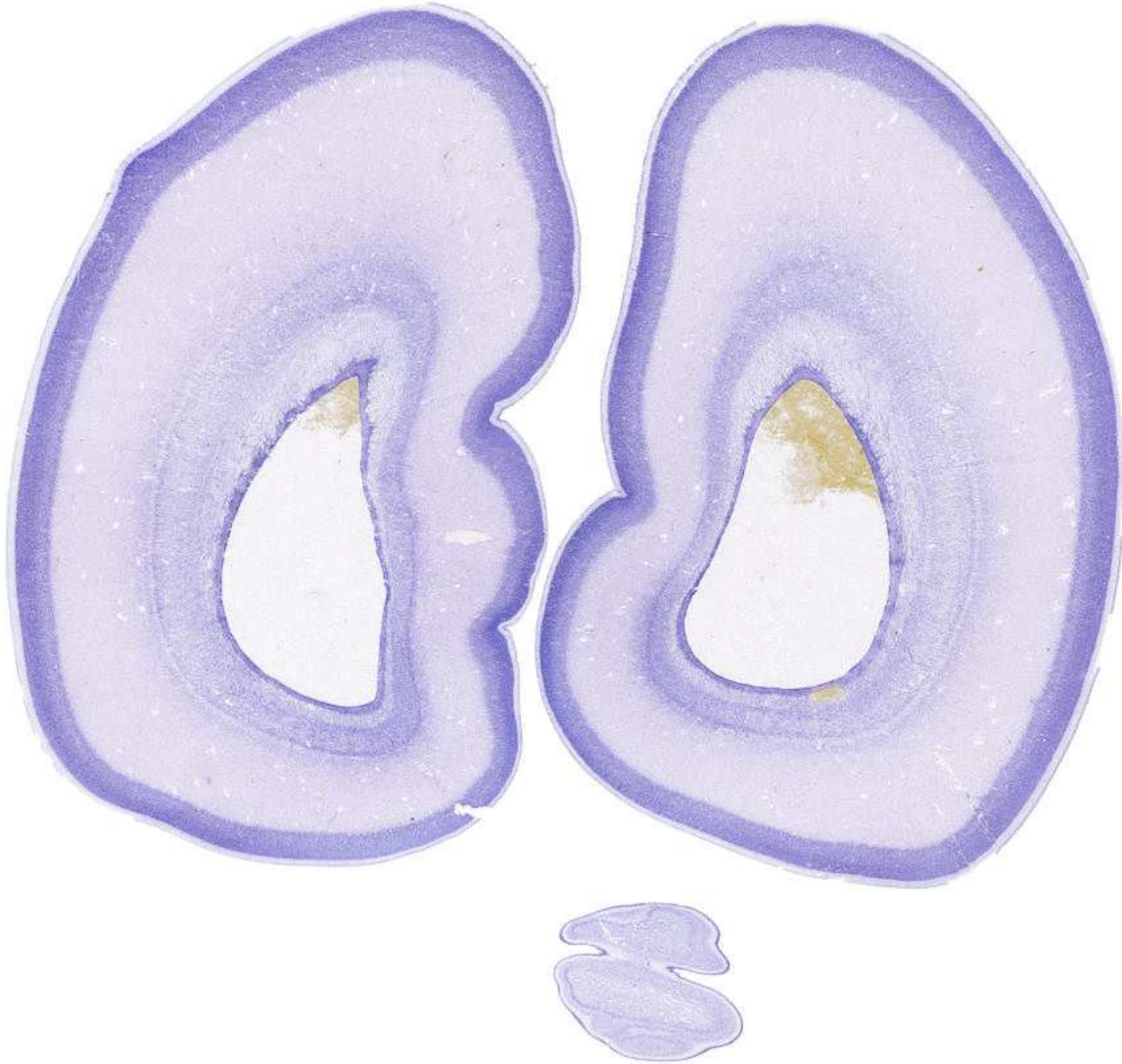


■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle → CaS: Calcarine sulcus

Age: 22 GW



A-P Level: -17.64 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

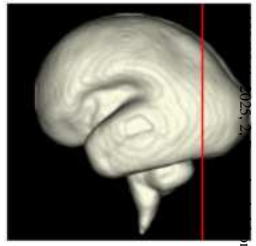


Cortical Areas



■ OCC

Age: 22 GW



A-P Level: -17.64 mm

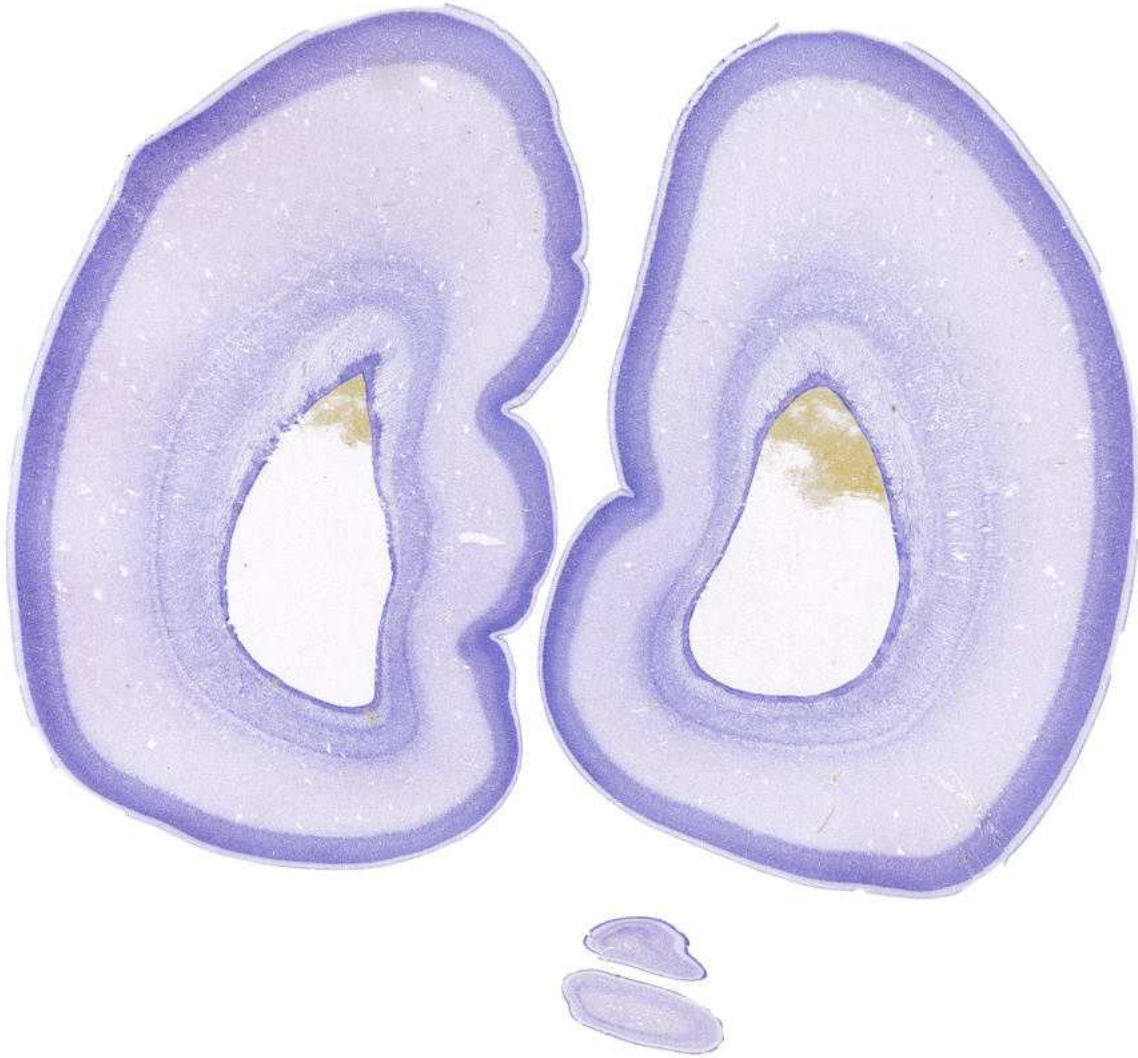


- HEM: Cerebellar hemispheres
- LV: Lateral ventricle
- CaS: Calcarine sulcus

Age: 22 GW



A-P Level: -18.12 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

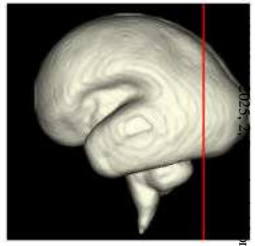


Cortical Areas



■ OCC

Age: 22 GW



A-P Level: -18.12 mm



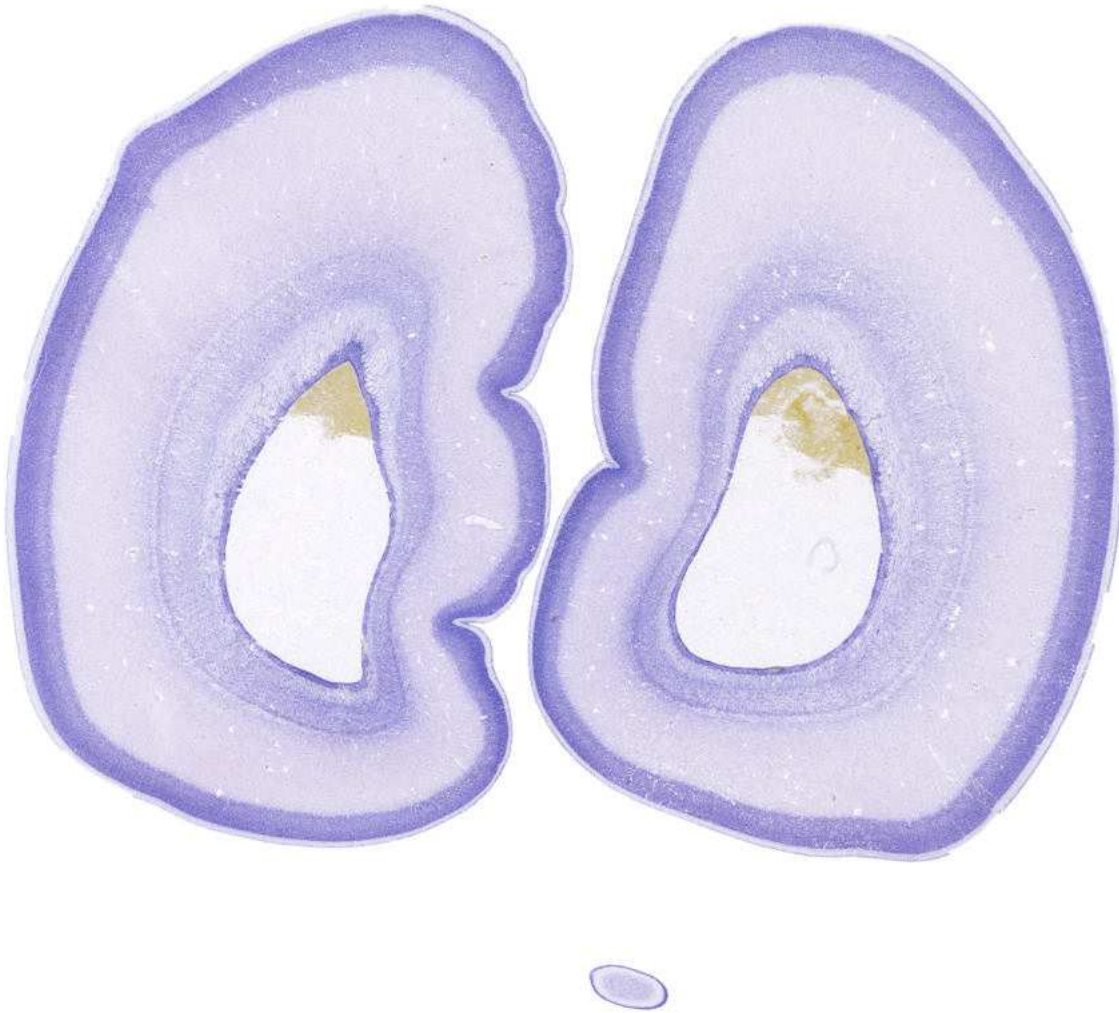
5 mm

■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -18.72 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

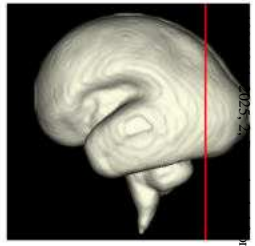


Cortical Areas



- OCC

Age: 22 GW



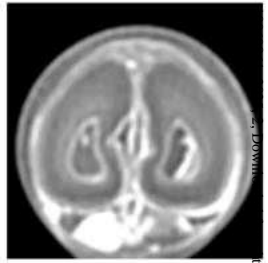
A-P Level: -18.72 mm



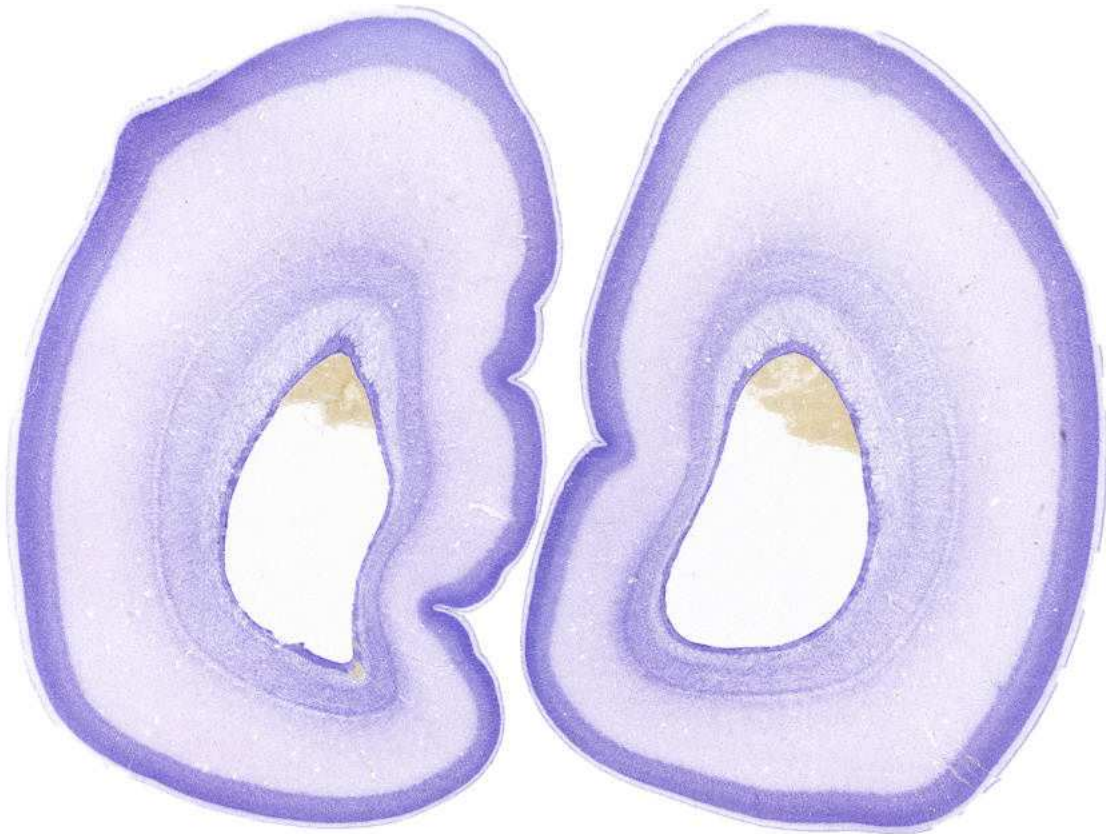
5 mm

■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle

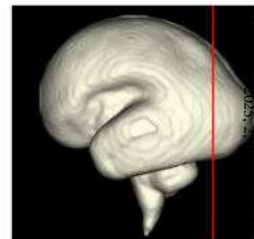
Age: 22 GW



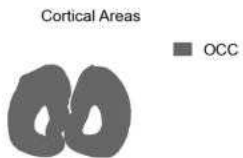
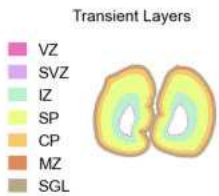
A-P Level: -19.26 mm



5 mm



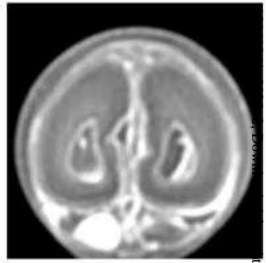
A-P Level: -19.26 mm



5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -19.62 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

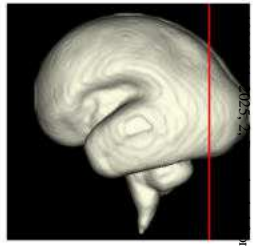


Cortical Areas



■ OCC

Age: 22 GW



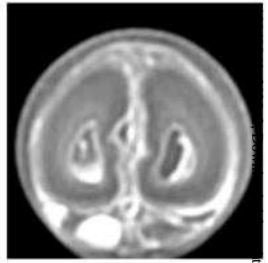
A-P Level: -19.62 mm



5 mm

■ LV: Lateral ventricle

Age: 22 GW

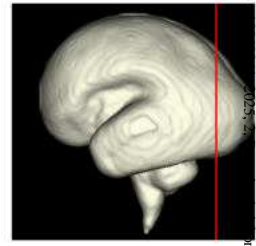


A-P Level: -19.98 mm



5 mm

Age: 22 GW



A-P Level: -19.98 mm

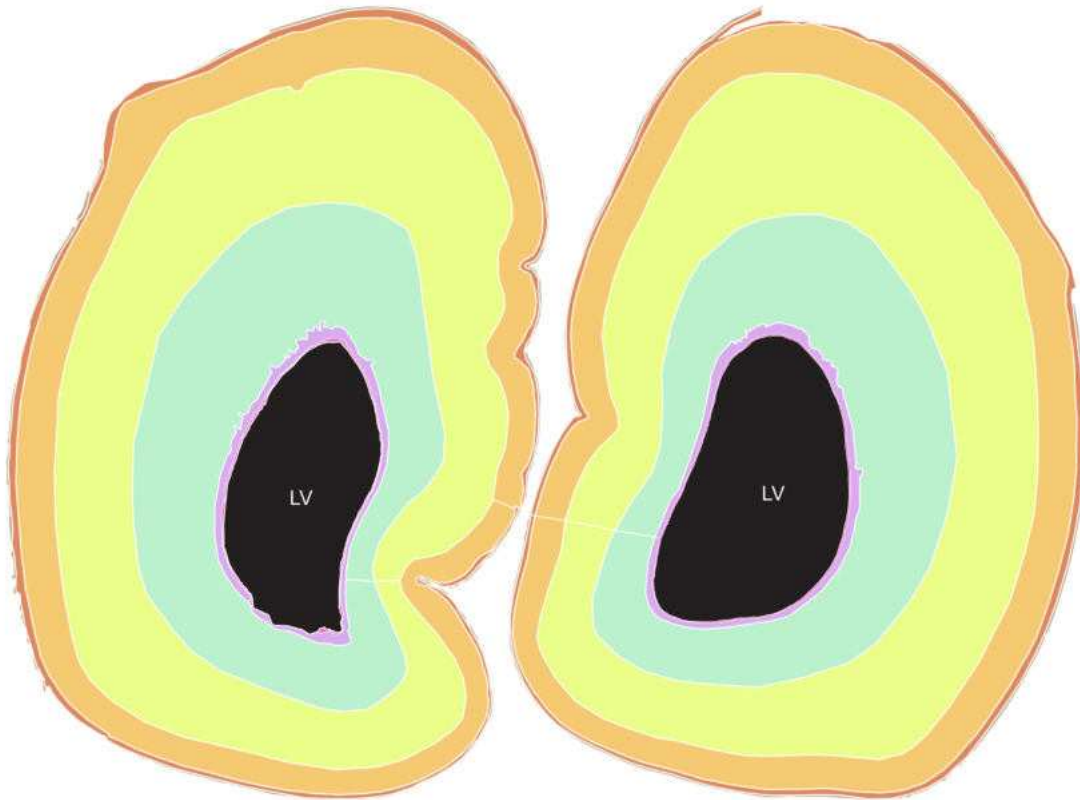
Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



Cortical Areas

OCC

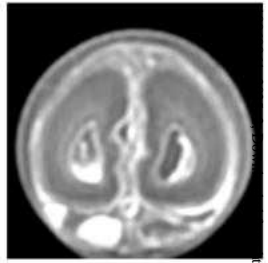


5 mm

■ LV: Lateral ventricle

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Age: 22 GW



A-P Level: -20.16 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

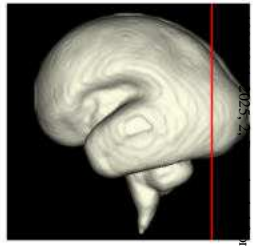


Cortical Areas

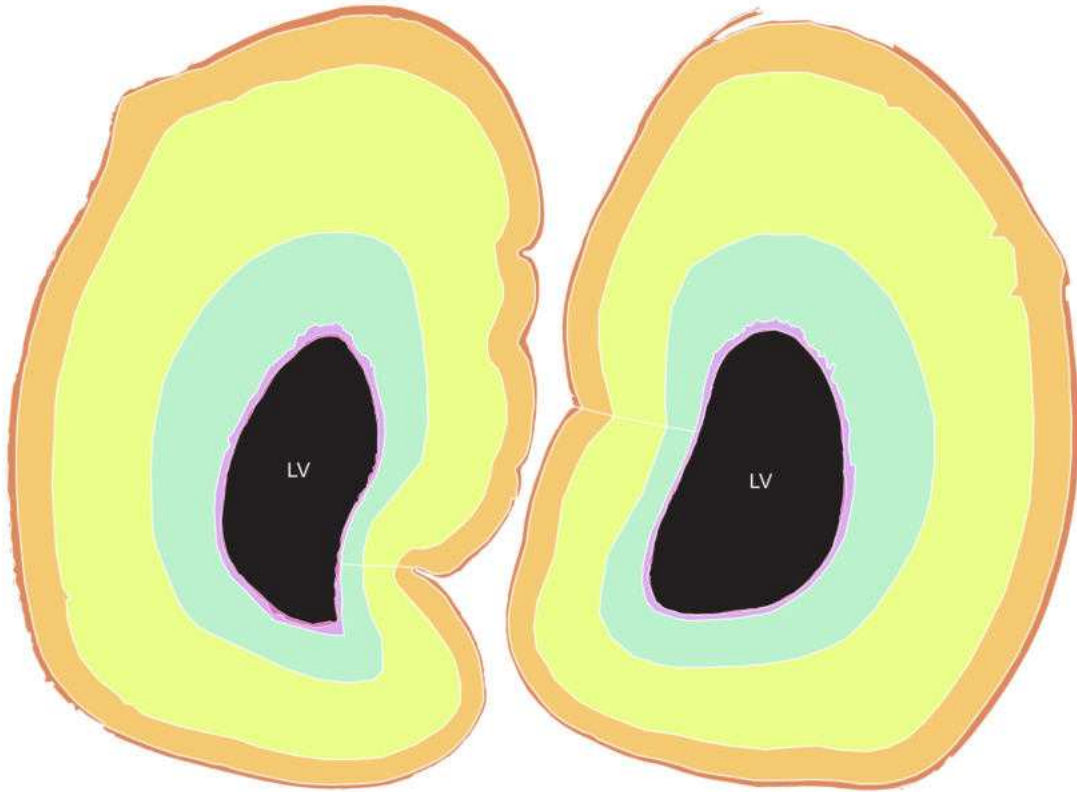
- OCC



Age: 22 GW



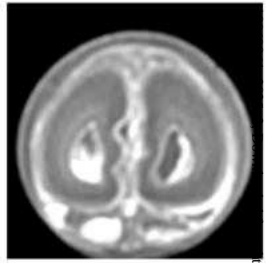
A-P Level: -20.16 mm



5 mm

■ LV: Lateral ventricle

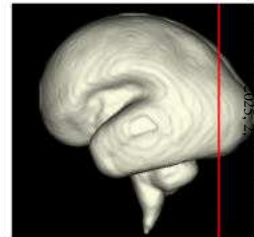
Age: 22 GW



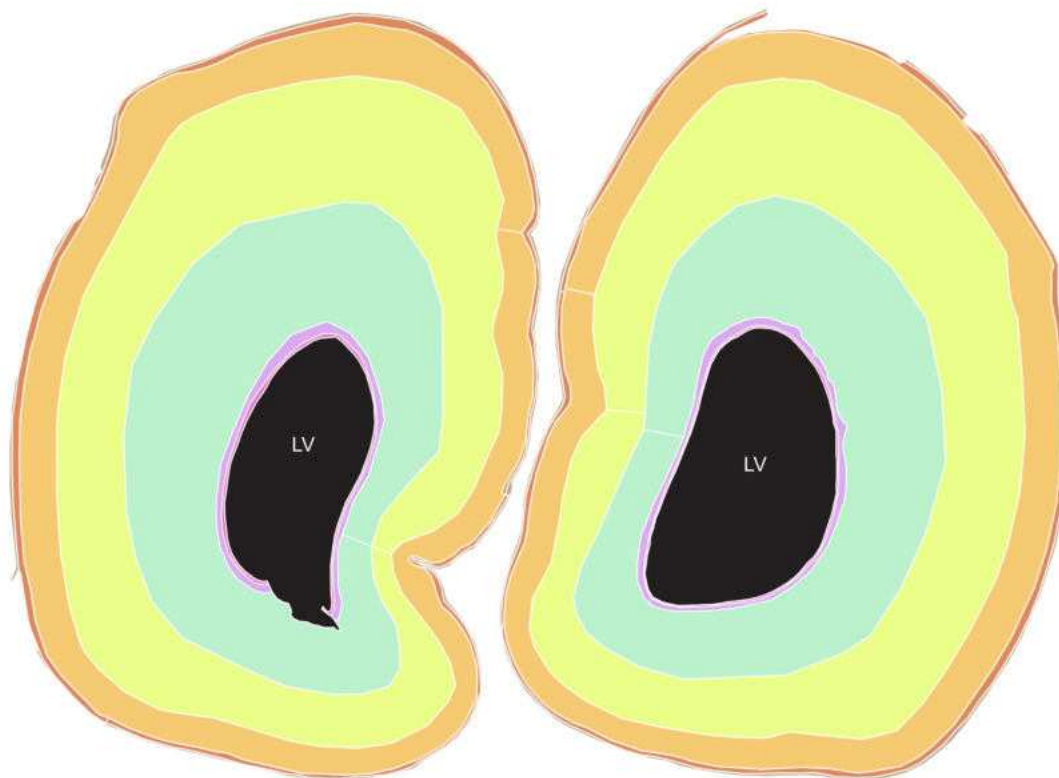
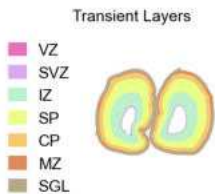
A-P Level: -20.58 mm



5 mm



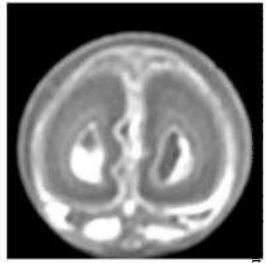
A-P Level: -20.58 mm



5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -20.82 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

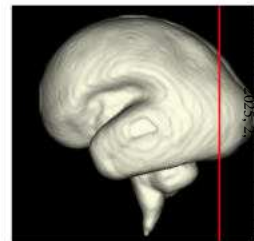


Cortical Areas

- OCC



Age: 22 GW



A-P Level: -20.82 mm

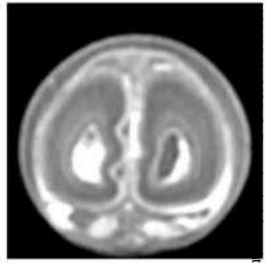


5 mm

■ LV: Lateral ventricle

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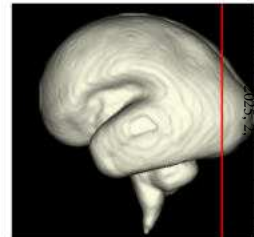
Age: 22 GW



A-P Level: -21.42 mm



5 mm



A-P Level: -21.42 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



Cortical Areas

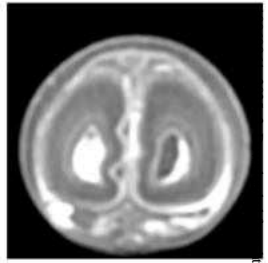
- OCC



5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -21.6 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

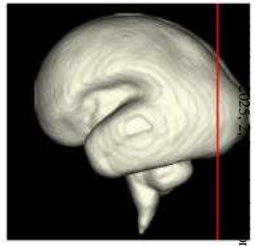


Cortical Areas

- OCC



Age: 22 GW



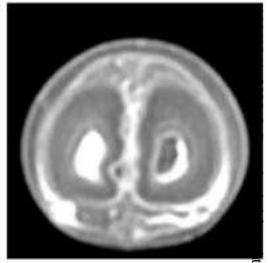
A-P Level: -21.6 mm



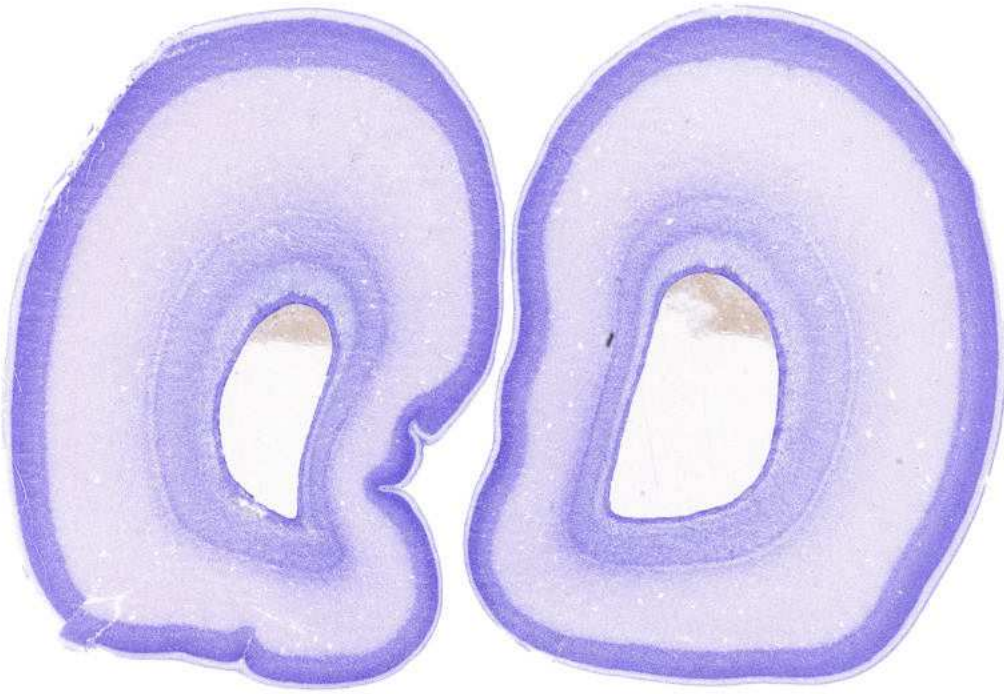
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -22.26 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

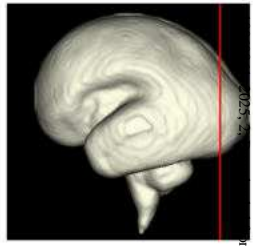


Cortical Areas

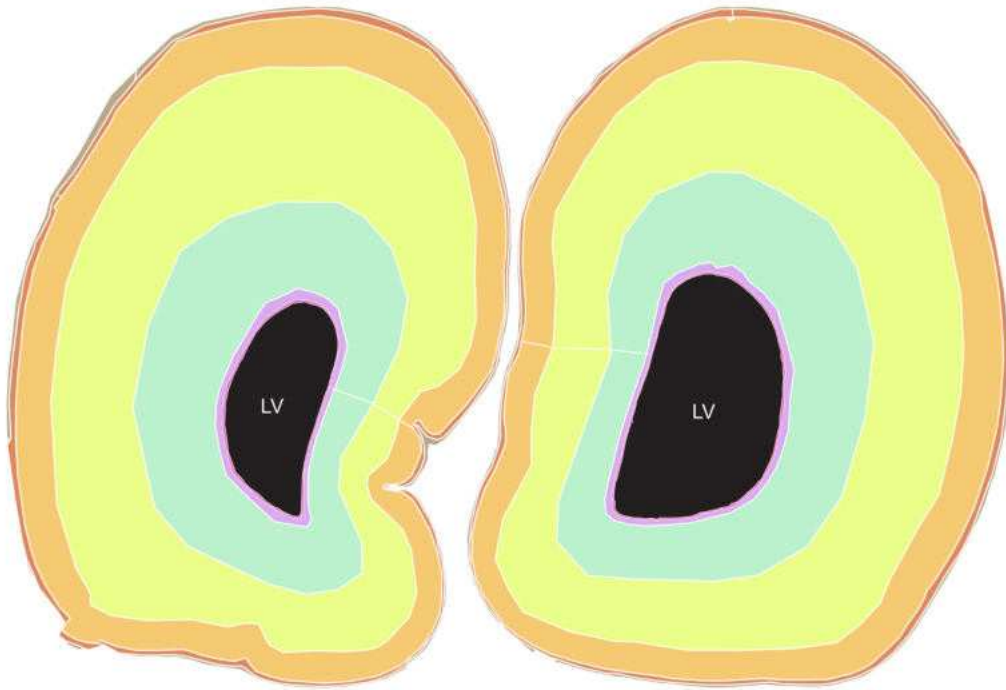
- OCC



Age: 22 GW



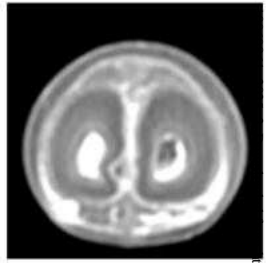
A-P Level: -22.26 mm



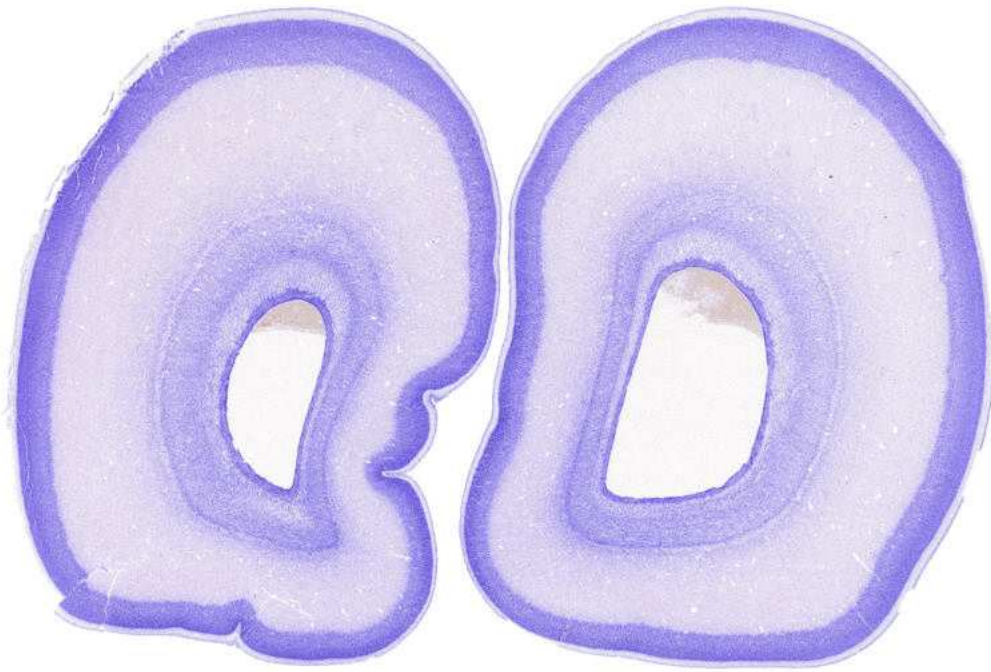
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -22.74 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

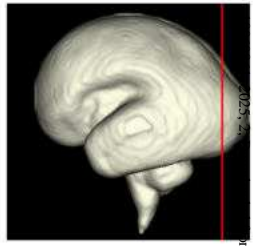


Cortical Areas

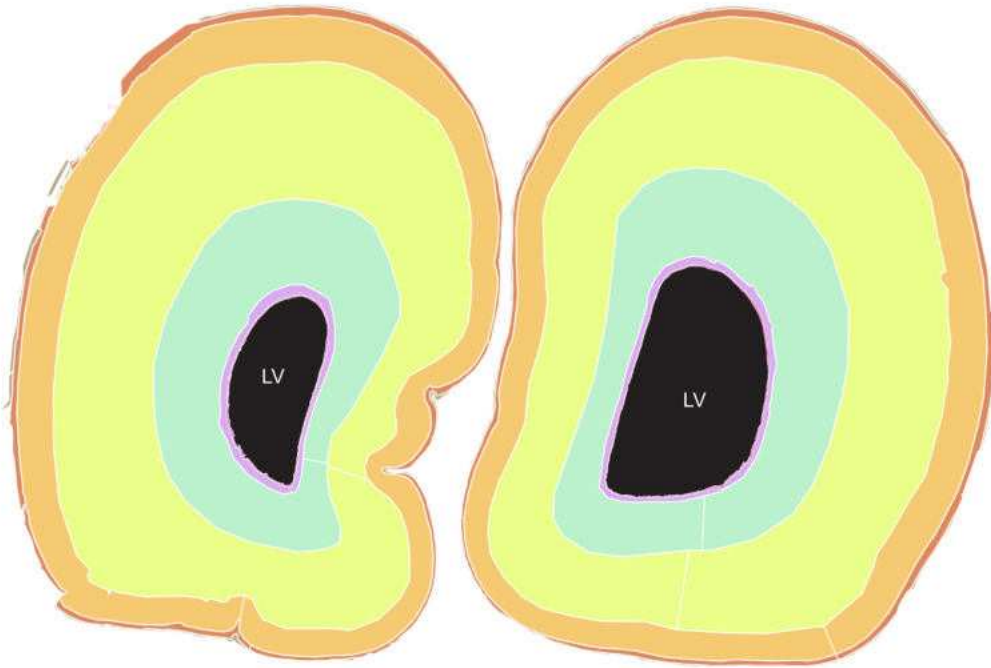
- OCC



Age: 22 GW



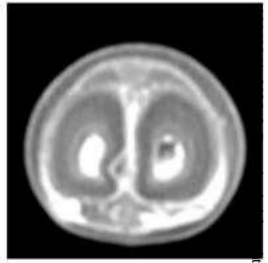
A-P Level: -22.74 mm



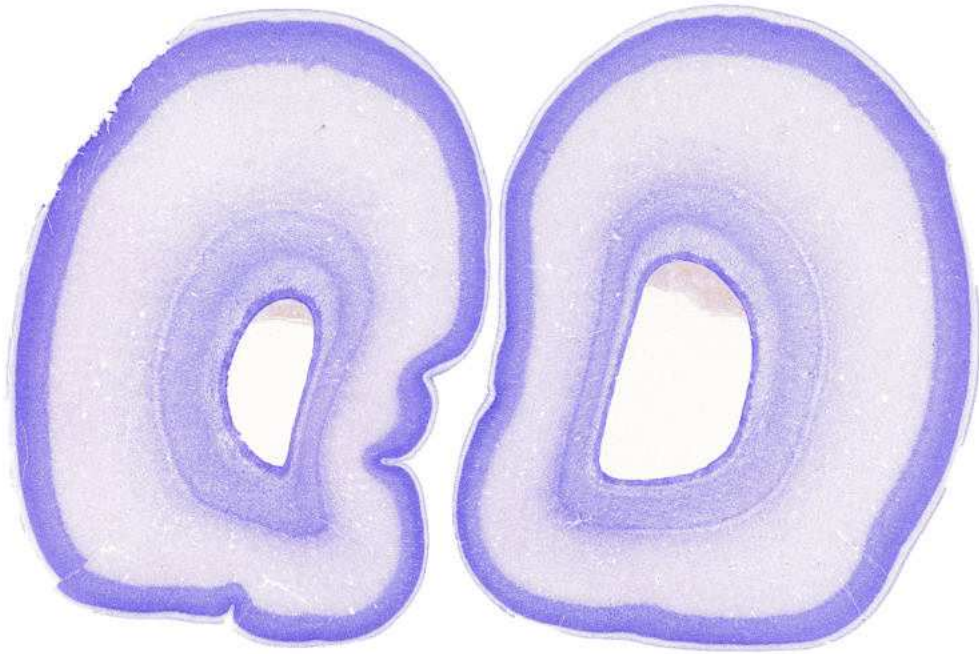
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -23.1 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

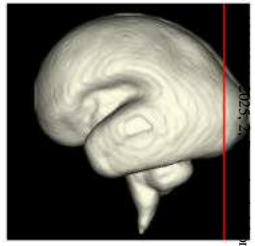


Cortical Areas

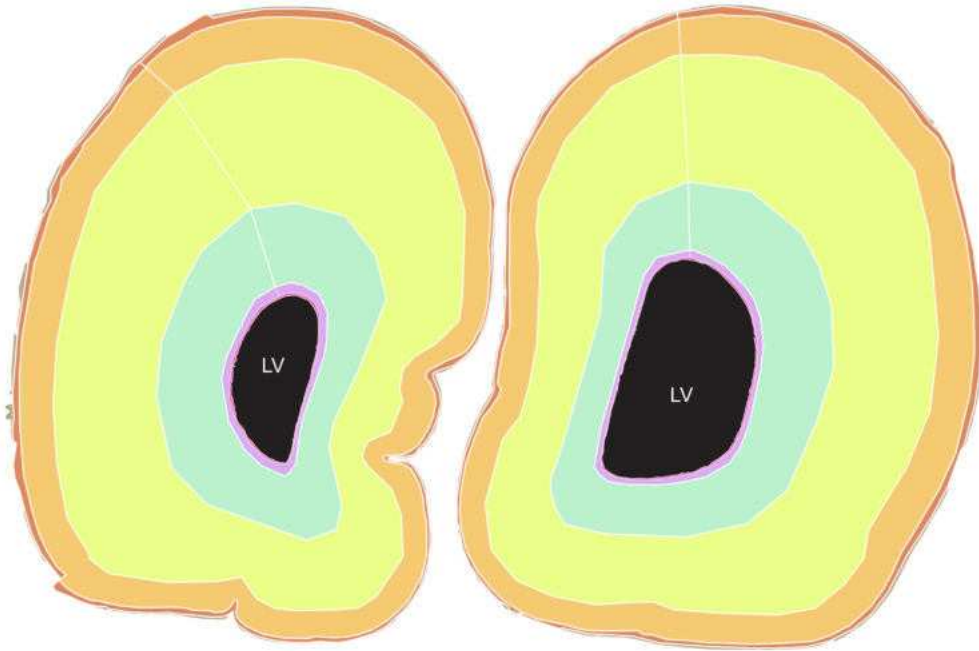
- OCC



Age: 22 GW



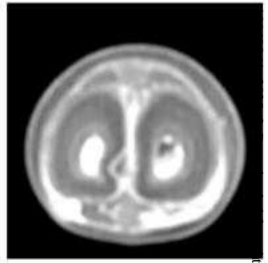
A-P Level: -23.1 mm



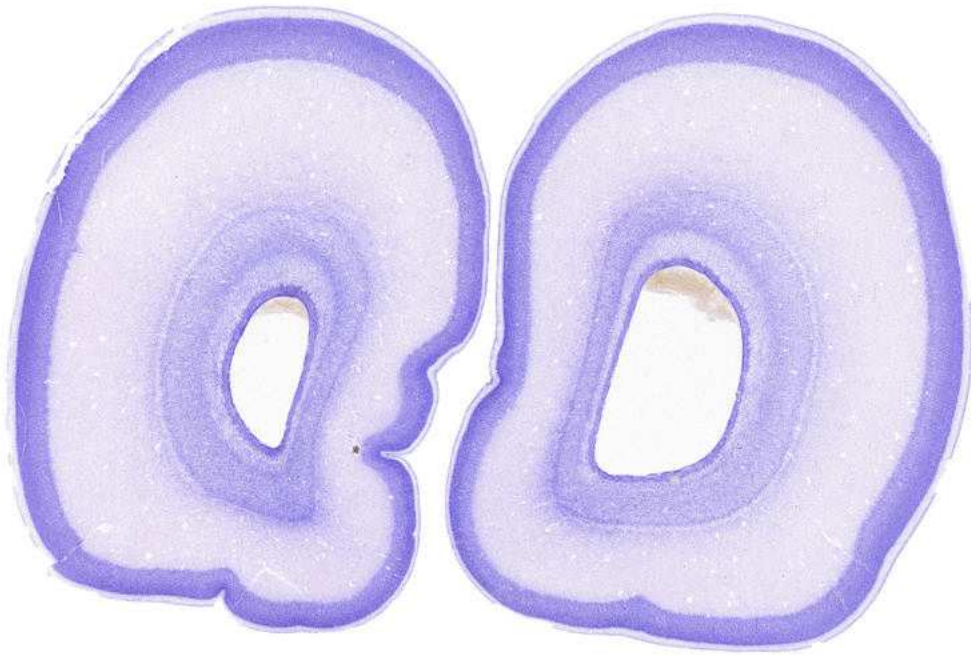
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -23.34 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

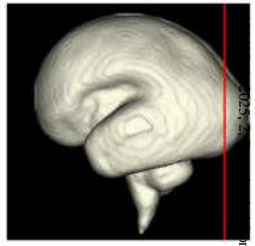


Cortical Areas

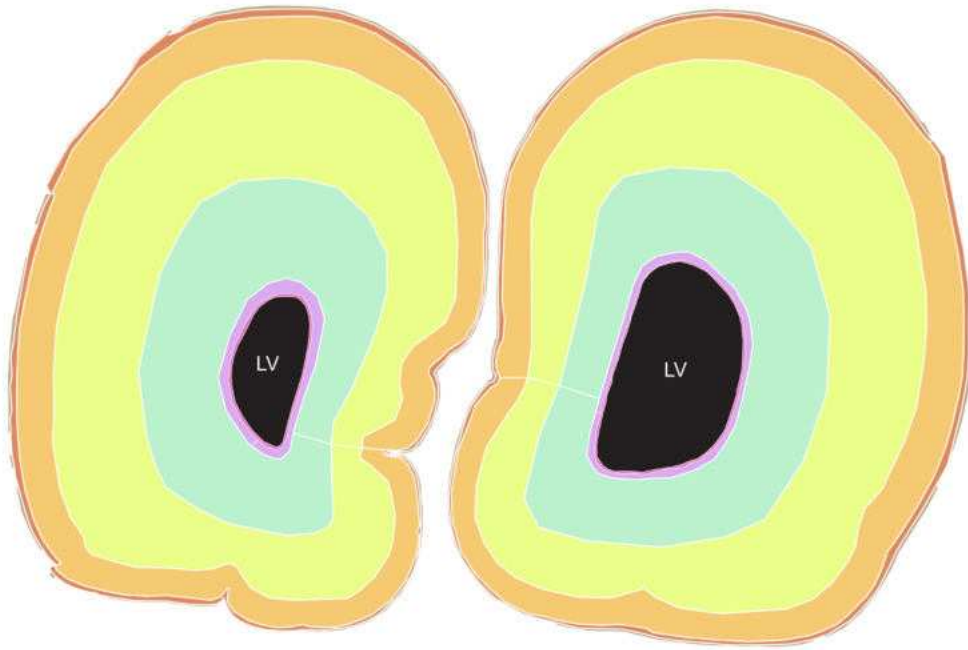
- OCC



Age: 22 GW



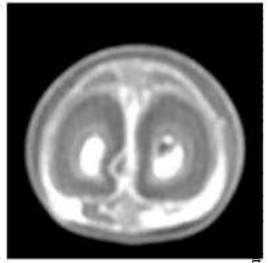
A-P Level: -23.34 mm



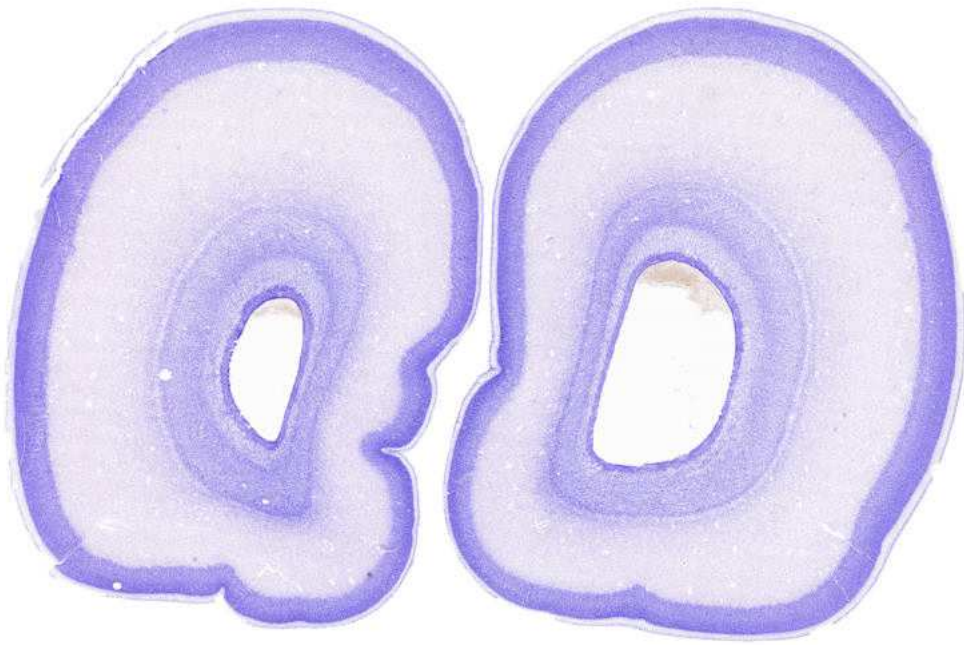
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -23.46 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

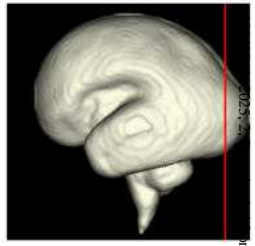


Cortical Areas

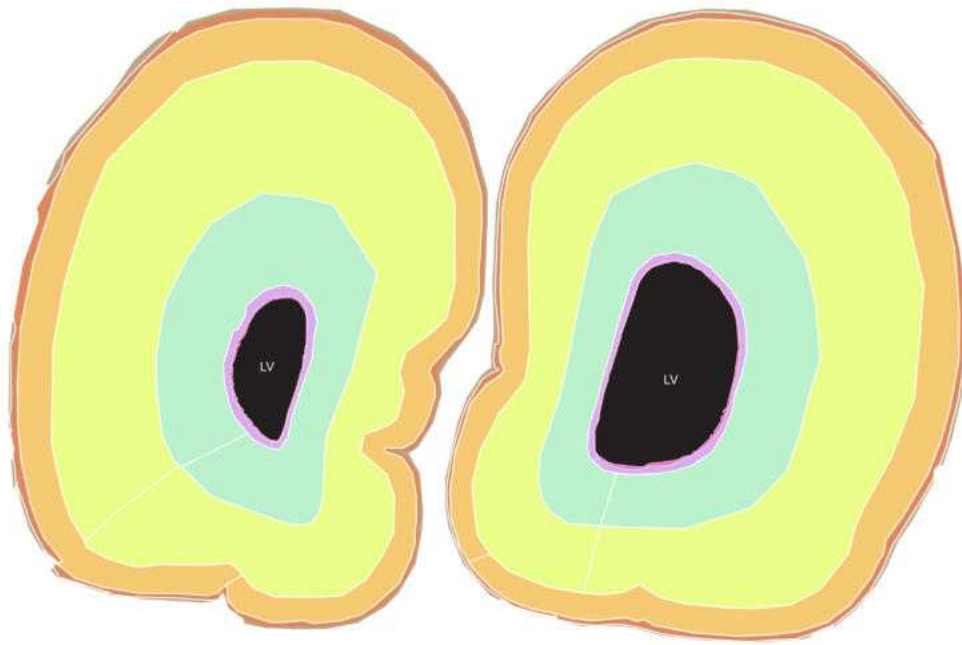
- OCC



Age: 22 GW



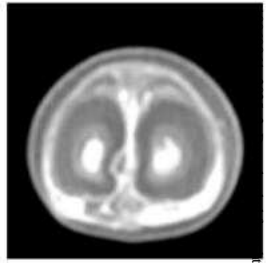
A-P Level: -23.46 mm



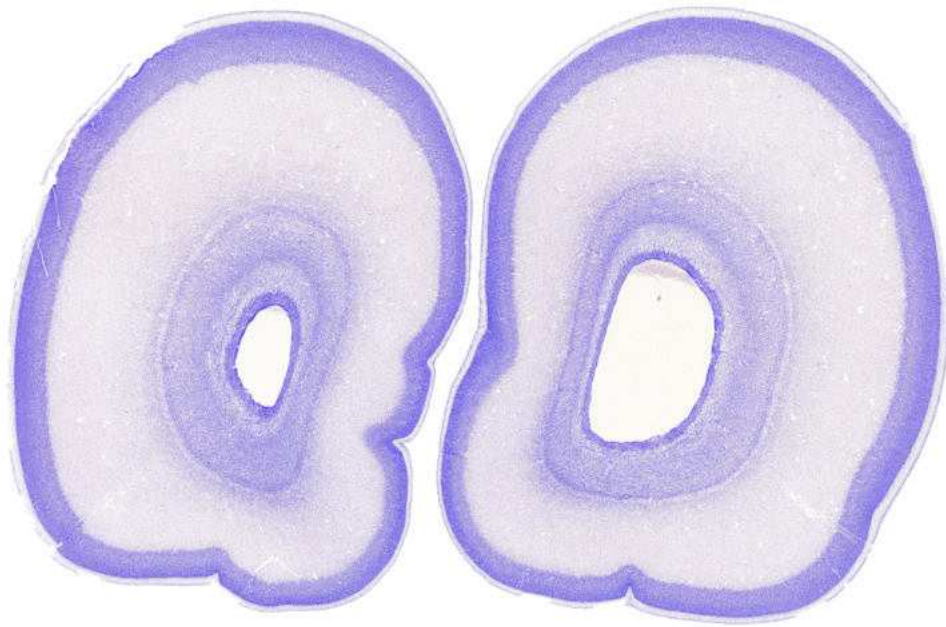
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -23.88 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

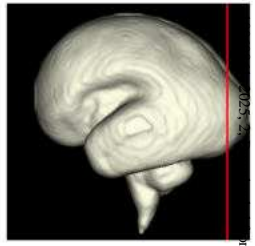


Cortical Areas

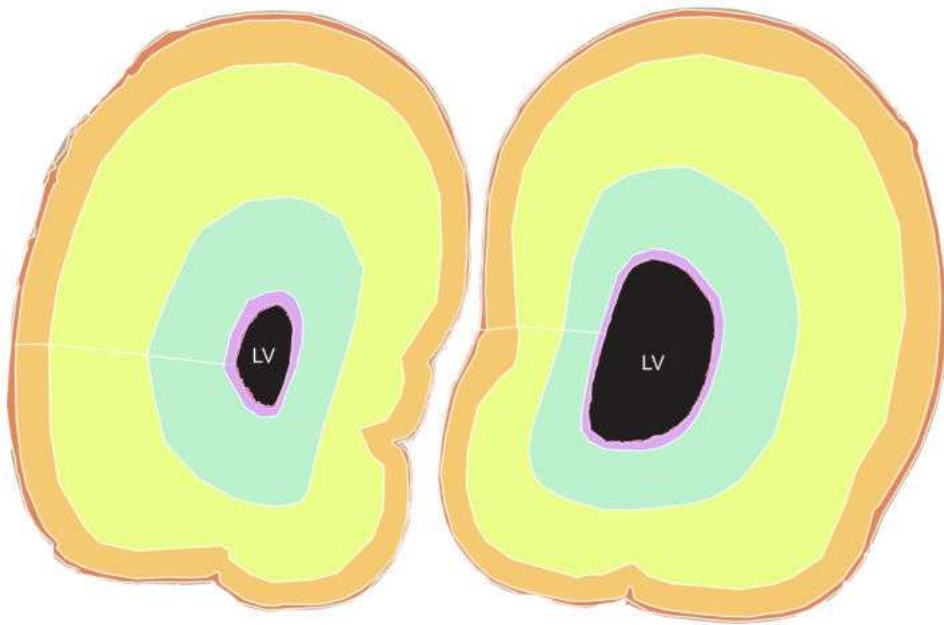
- OCC



Age: 22 GW



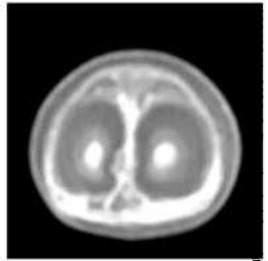
A-P Level: -23.88 mm



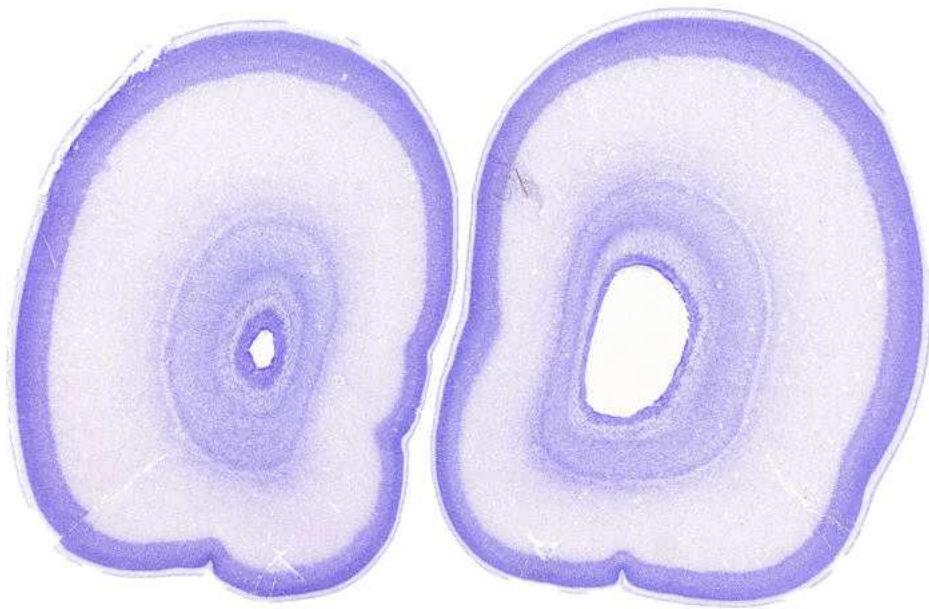
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -24.3 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

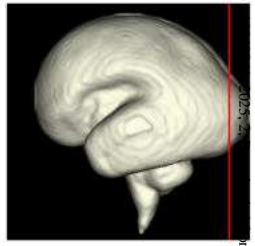


Cortical Areas

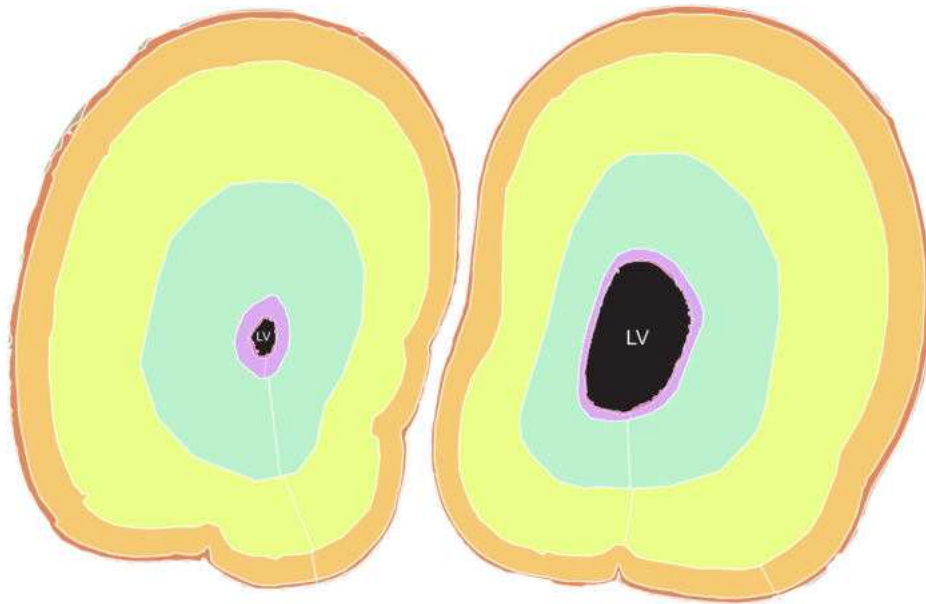
- OCC



Age: 22 GW



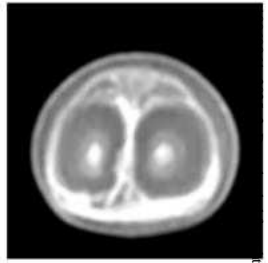
A-P Level: -24.3 mm



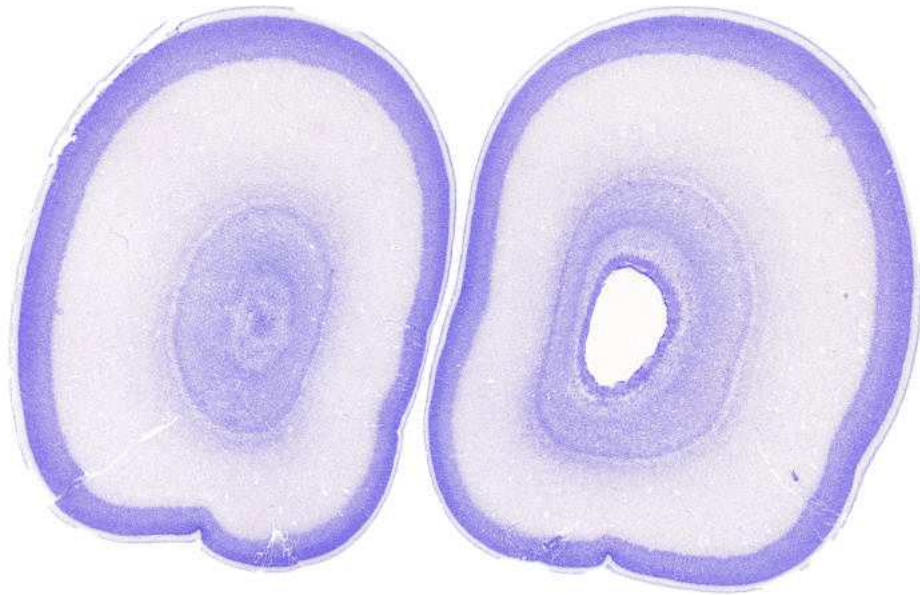
5 mm

■ LV: Lateral ventricle

Age: 22 GW



A-P Level: -24.66 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

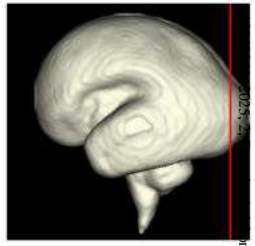


Cortical Areas

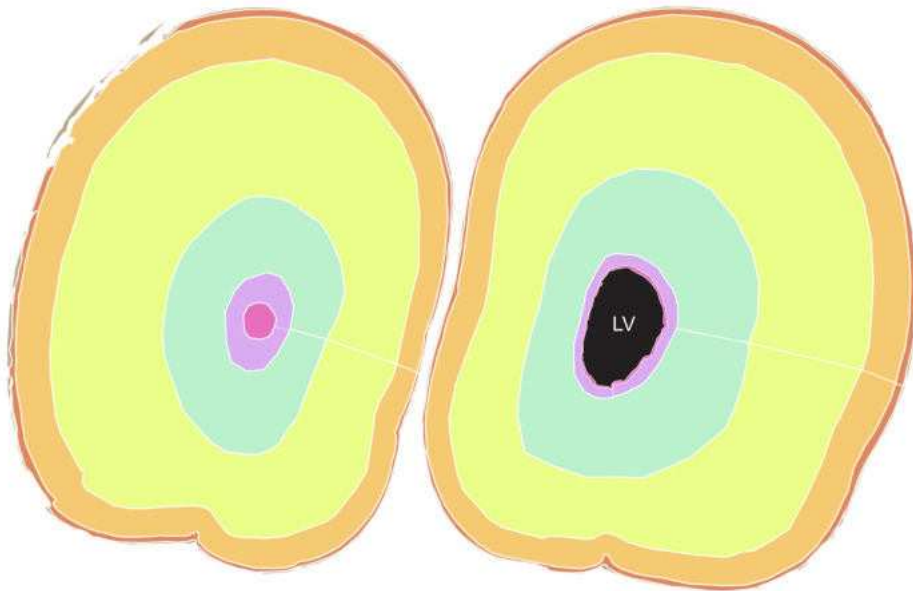
- OCC



Age: 22 GW



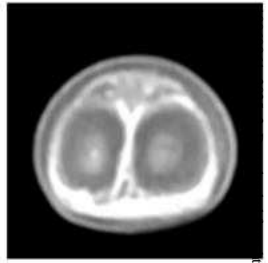
A-P Level: -24.66 mm



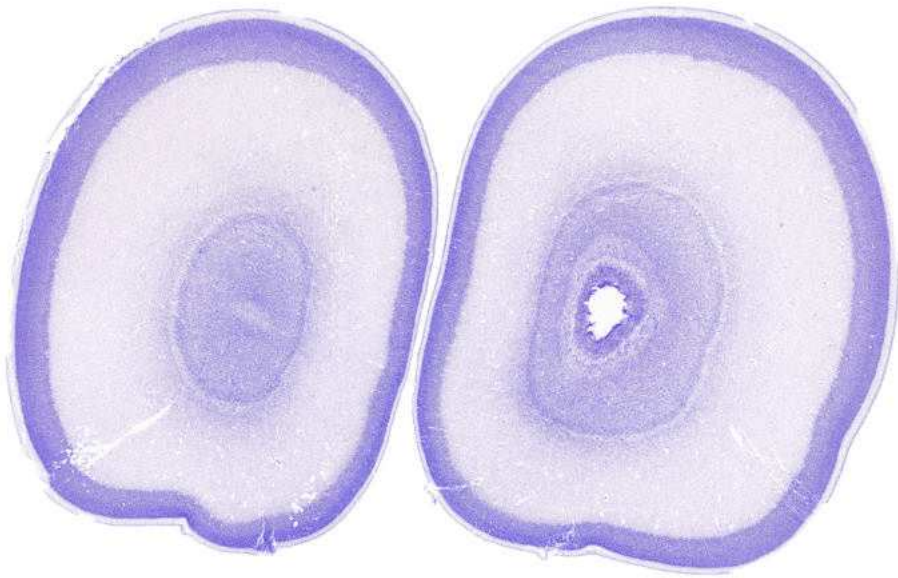
5 mm

■ LV: Lateral ventricle

Age: 22 GW



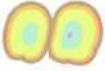
A-P Level: -25.2 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL

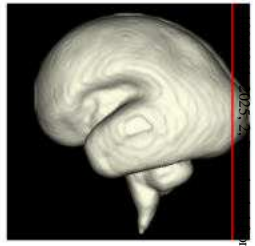


Cortical Areas

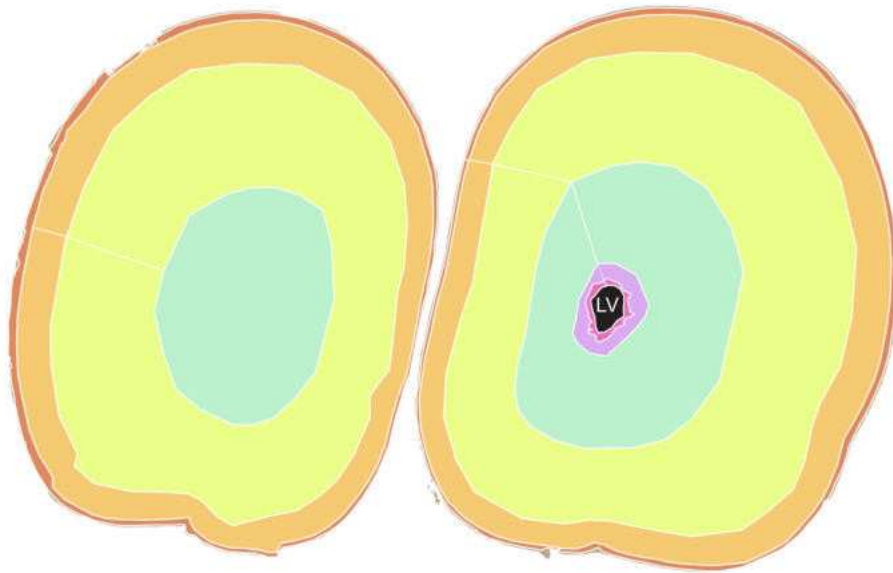
- OCC



Age: 22 GW



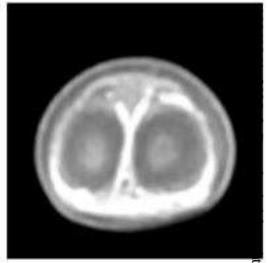
A-P Level: -25.2 mm



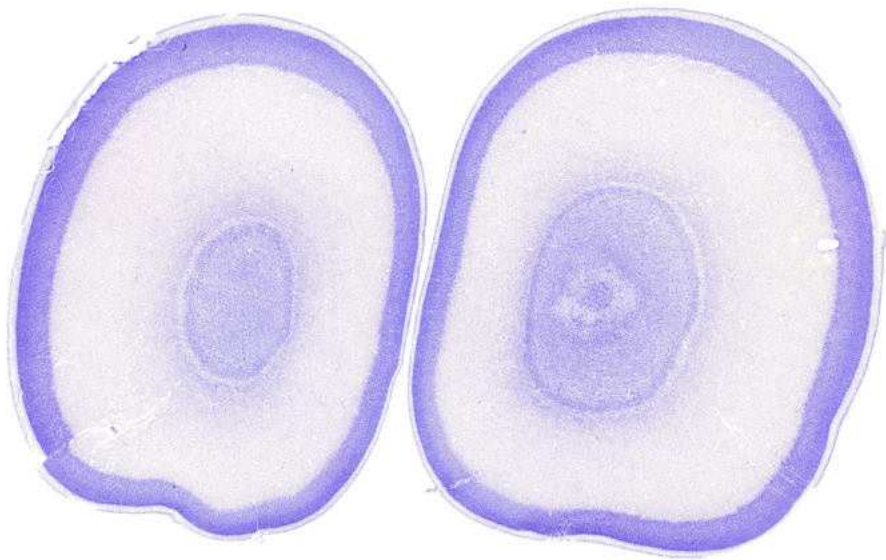
5 mm

■ LV: Lateral ventricle

Age: 22 GW



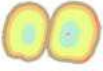
A-P Level: -25.44 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



Cortical Areas

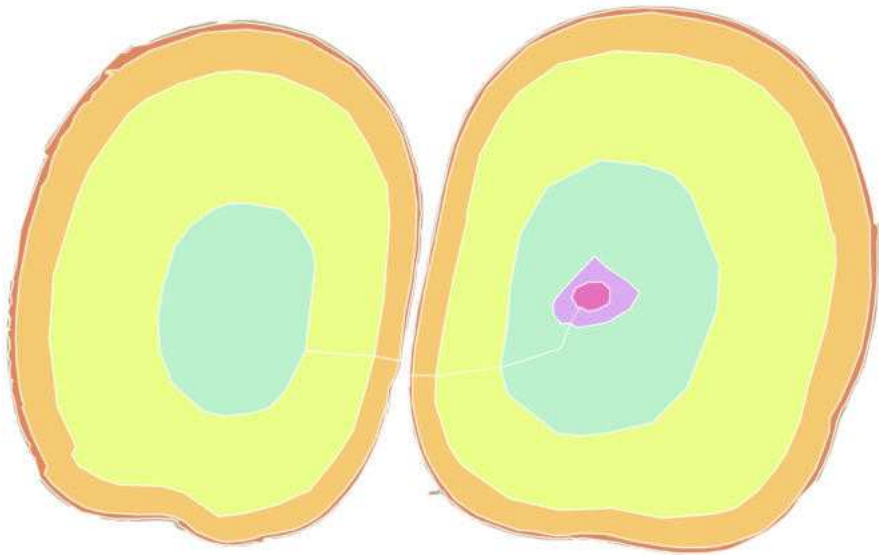
- OCC



Age: 22 GW

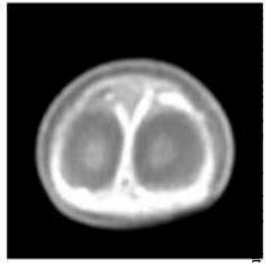


A-P Level: -25.44 mm

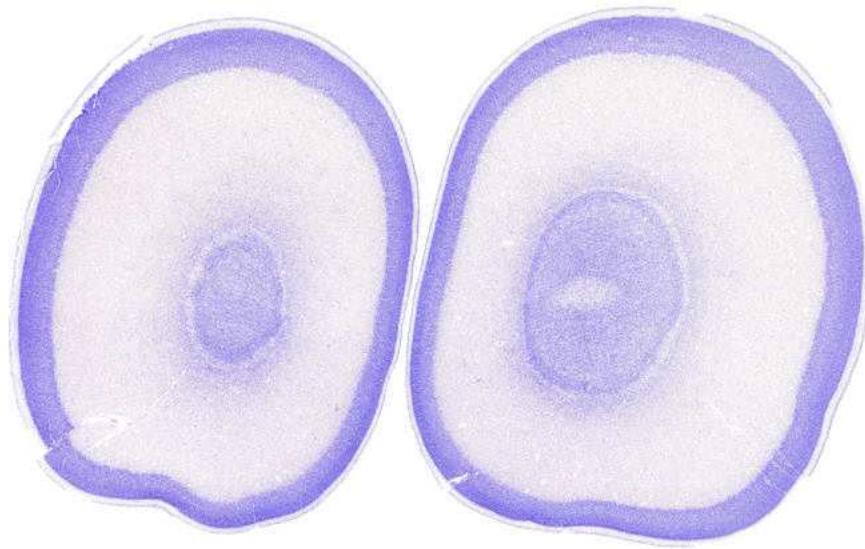


5 mm

Age: 22 GW



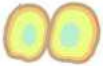
A-P Level: -25.68 mm



5 mm

Transient Layers

- IZ
- SP
- CP
- MZ
- SGL

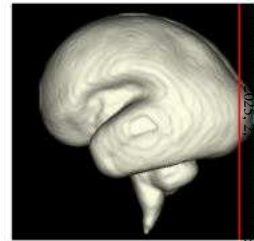


Cortical Areas

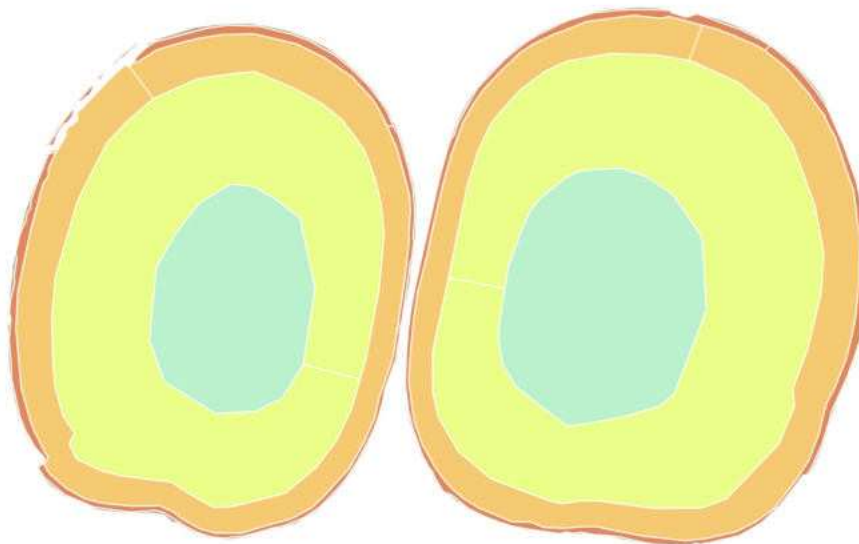
- OCC



Age: 22 GW

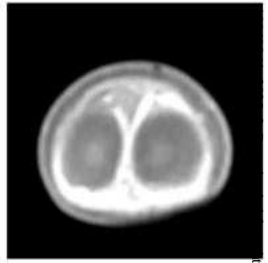


A-P Level: -25.68 mm

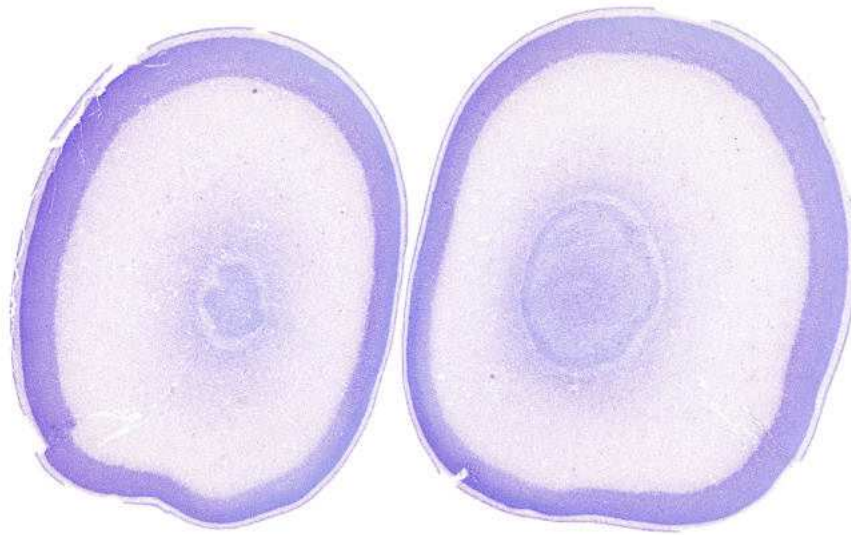


5 mm

Age: 22 GW

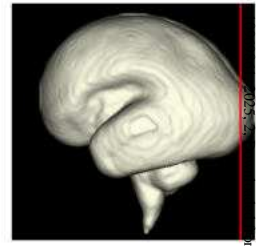
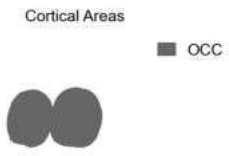
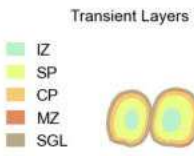


A-P Level: -25.98 mm

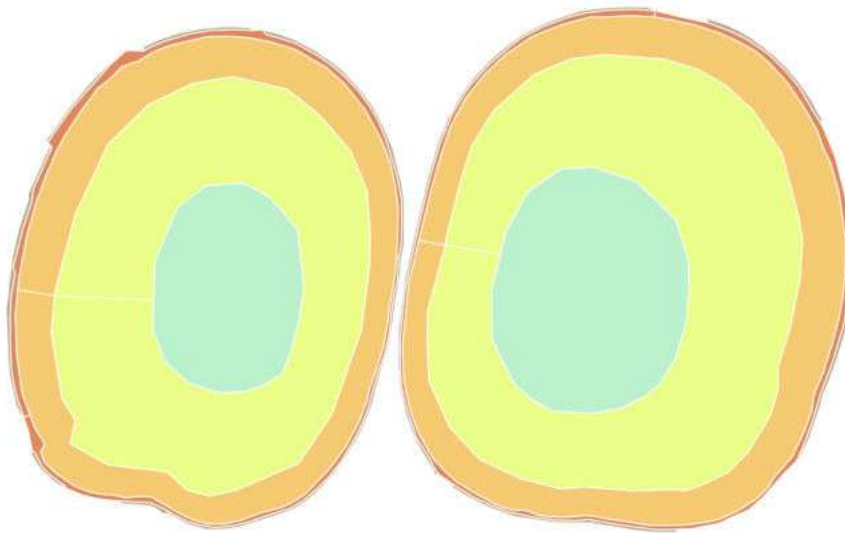


5 mm

Age: 22 GW

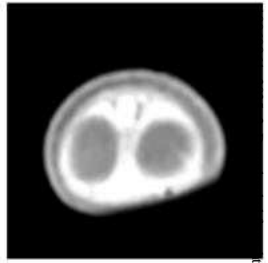


A-P Level: -25.98 mm

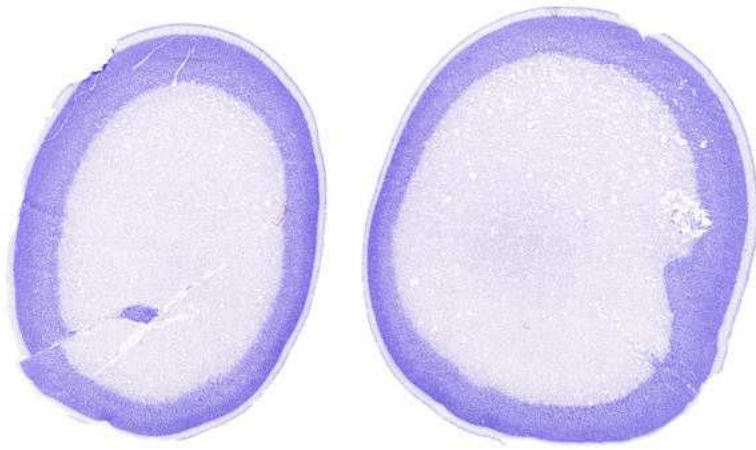


5 mm

Age: 22 GW

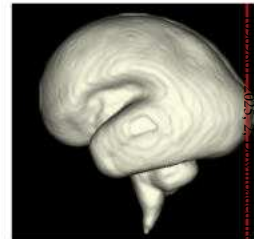
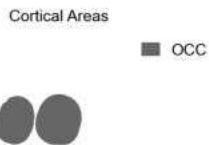
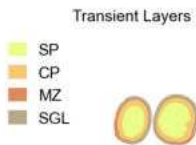


A-P Level: -27.42 mm

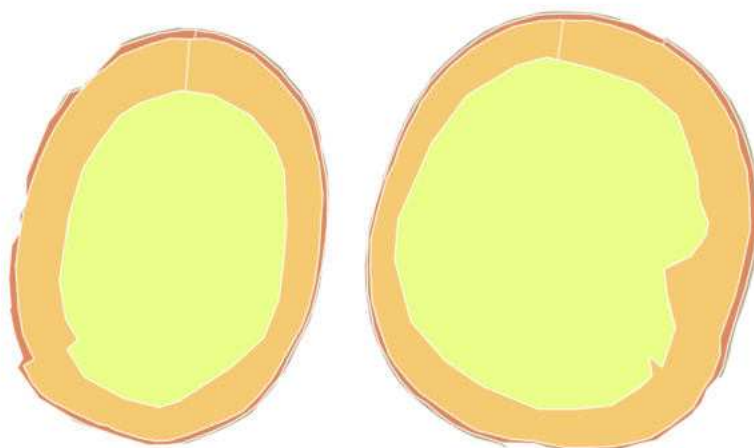


5 mm

Age: 22 GW



A-P Level: -27.42 mm

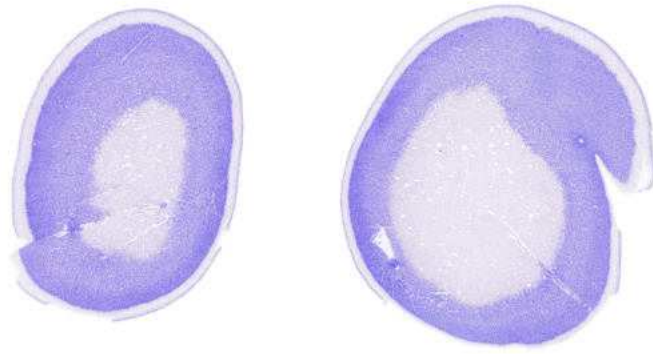


5 mm

Age: 22 GW

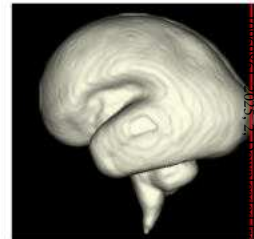


A-P Level: -28.62 mm

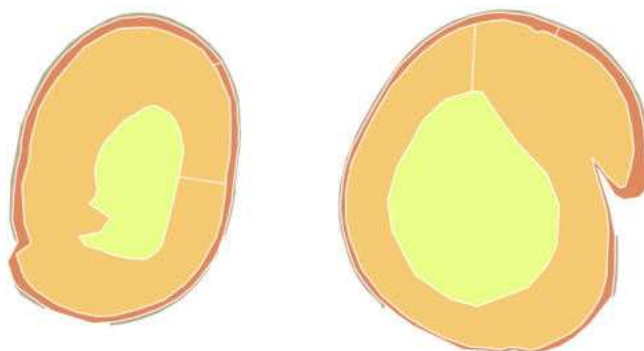


5 mm

Age: 22 GW

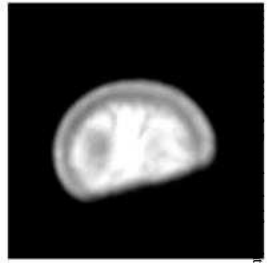


A-P Level: -28.62 mm

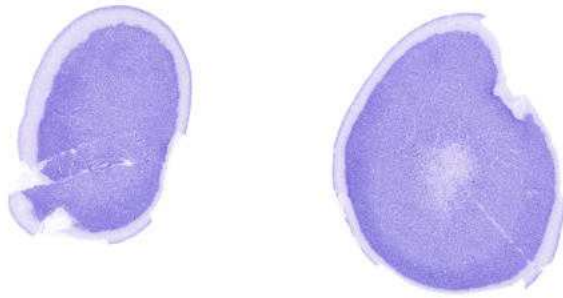


5 mm

Age: 22 GW



A-P Level: -29.16 mm

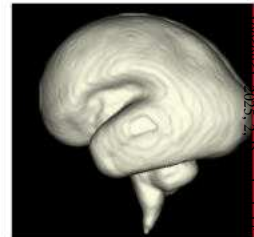


5 mm

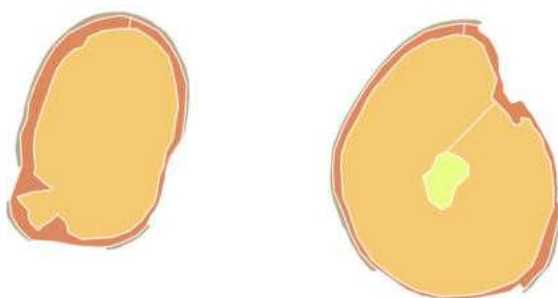
Age: 22 GW

Transient Layers
SP
CP
MZ
SGL

Cortical Areas
OCC

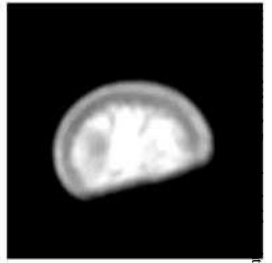


A-P Level: -29.16 mm

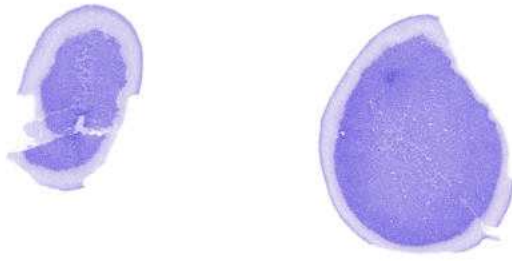


5 mm

Age: 22 GW



A-P Level: -29.4 mm



5 mm

Age: 22 GW

Transient Layers

- CP
- MZ
- SGL

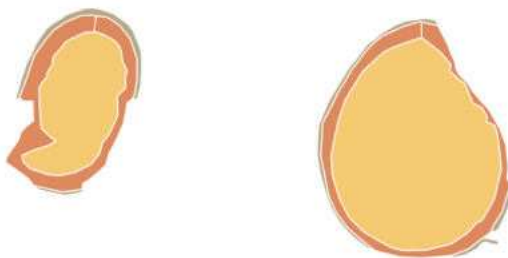


Cortical Areas

- OCC



A-P Level: -29.4 mm



5 mm

24 Gestational Week (GW)

Sagittal

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Age: 24 GW



L-R Level: 28.86 mm

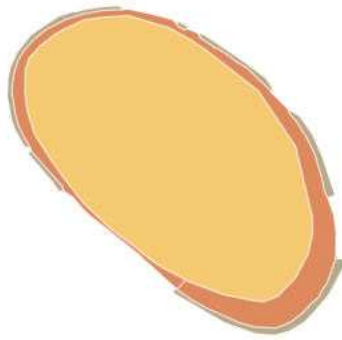


5 mm

Age: 24 GW



L-R Level: 28.86 mm

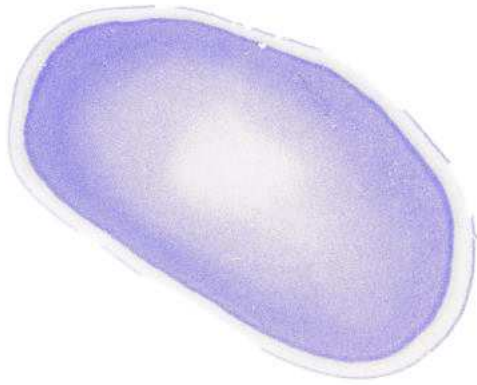


5 mm

Age: 24 GW



L-R Level: 28.02 mm

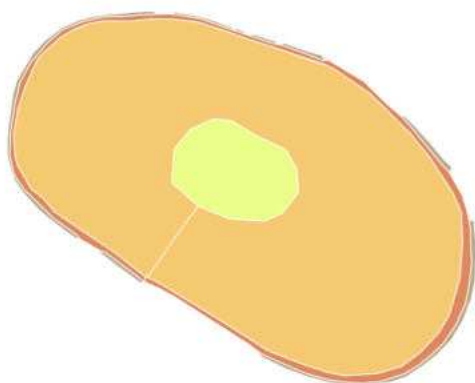


5 mm

Age: 24 GW



L-R Level: 28.02 mm

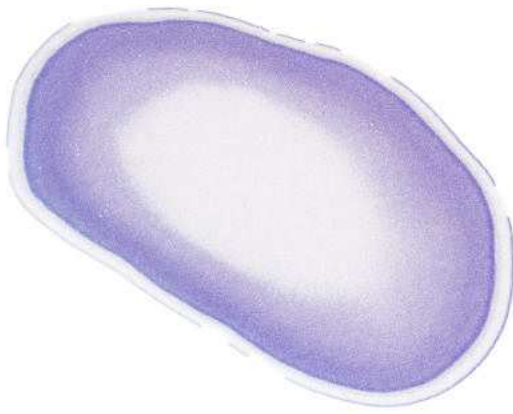


5 mm

Age: 24 GW

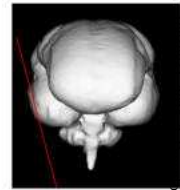


L-R Level: 27.6 mm



5 mm

Age: 24 GW



L-R Level: 27.6 mm

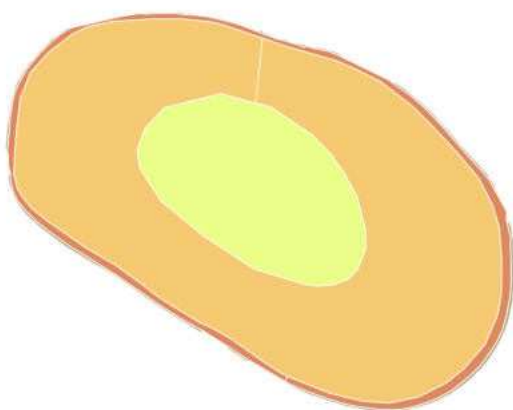
Transient Layers

- SP
- CP
- MZ
- SGL



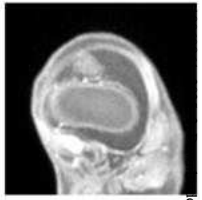
Cortical Areas

TEMP

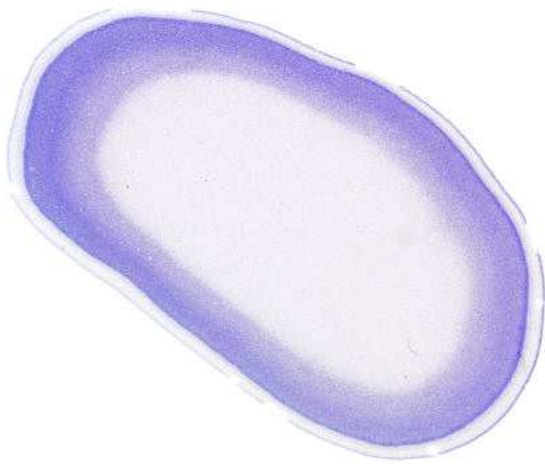


5 mm

Age: 24 GW

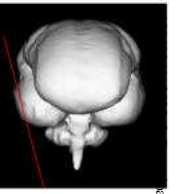


L-R Level: 27.12 mm

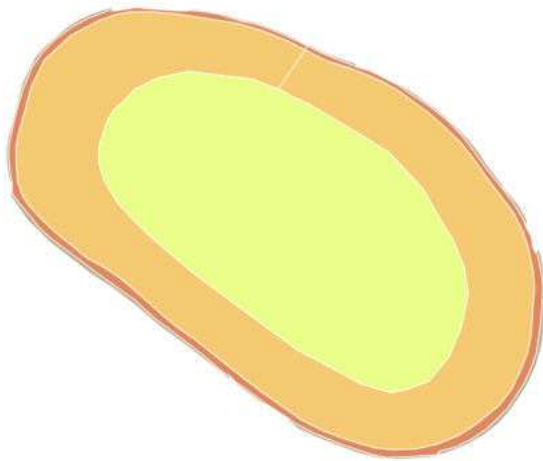


5 mm

Age: 24 GW



L-R Level: 27.12 mm

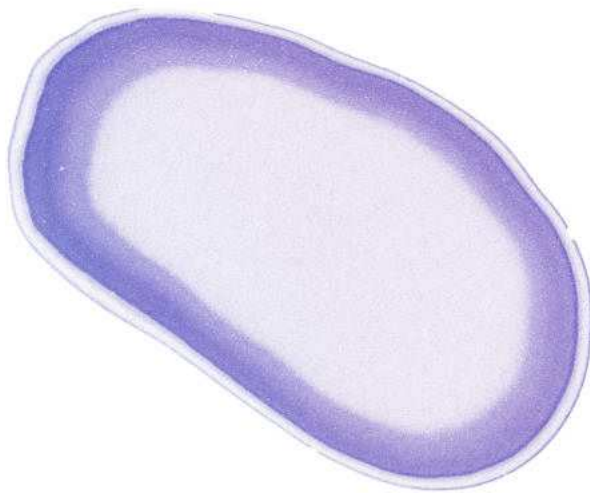


5 mm

Age: 24 GW

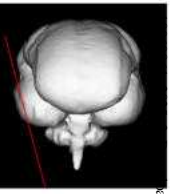


L-R Level: 26.46 mm

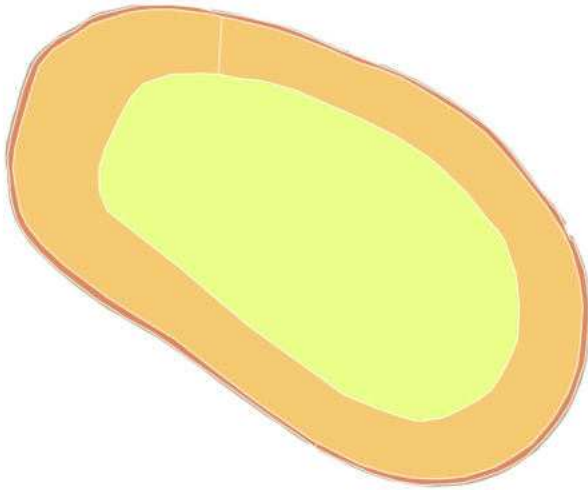
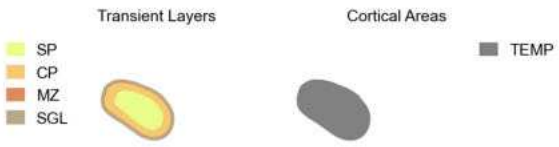


5 mm

Age: 24 GW



L-R Level: 26.46 mm

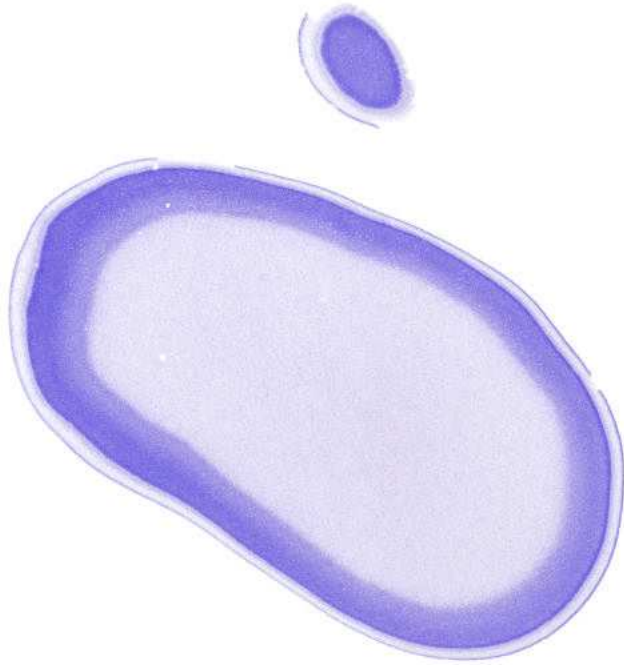


5 mm

Age: 24 GW

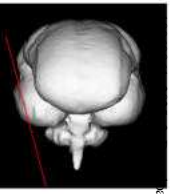


L-R Level: 26.04 mm

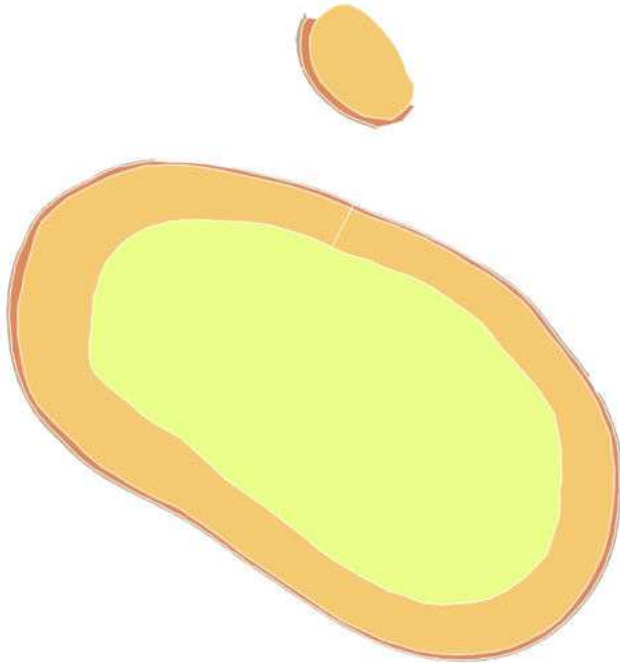


5 mm

Age: 24 GW

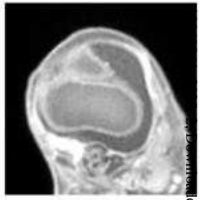


L-R Level: 26.04 mm

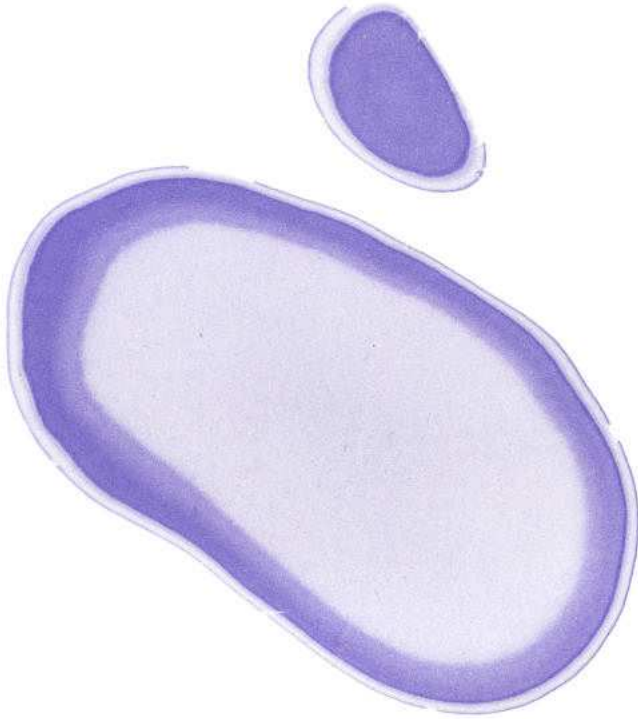


5 mm

Age: 24 GW



L-R Level: 25.56 mm

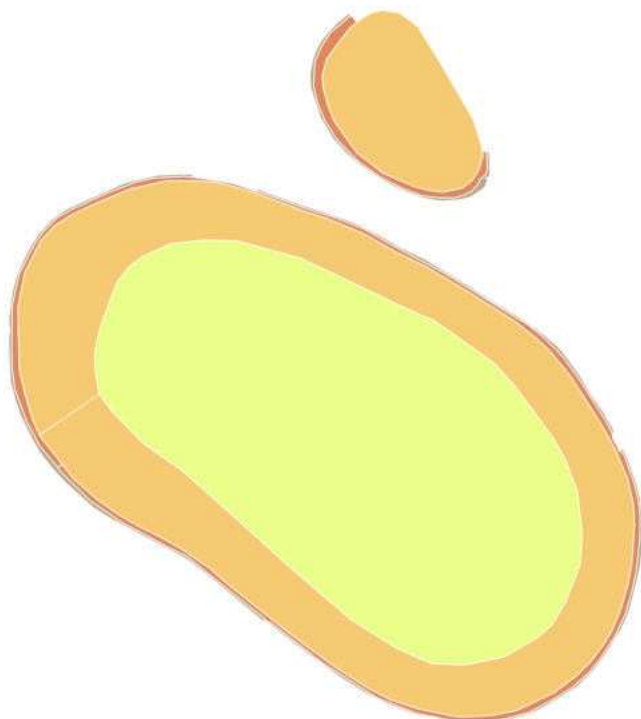


5 mm

Age: 24 GW



L-R Level: 25.56 mm

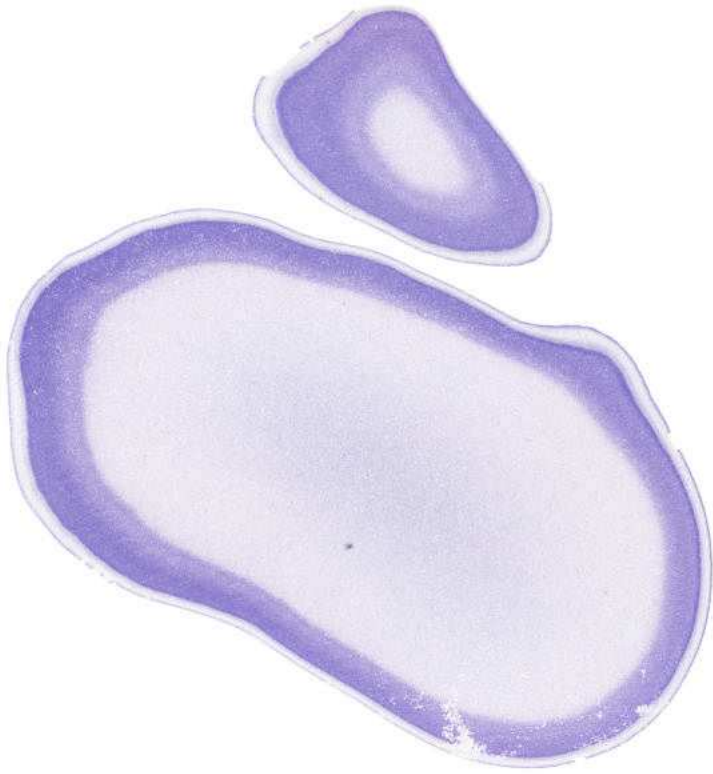


5 mm

Age: 24 GW

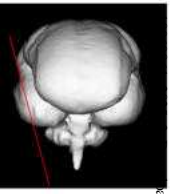


L-R Level: 24.6 mm

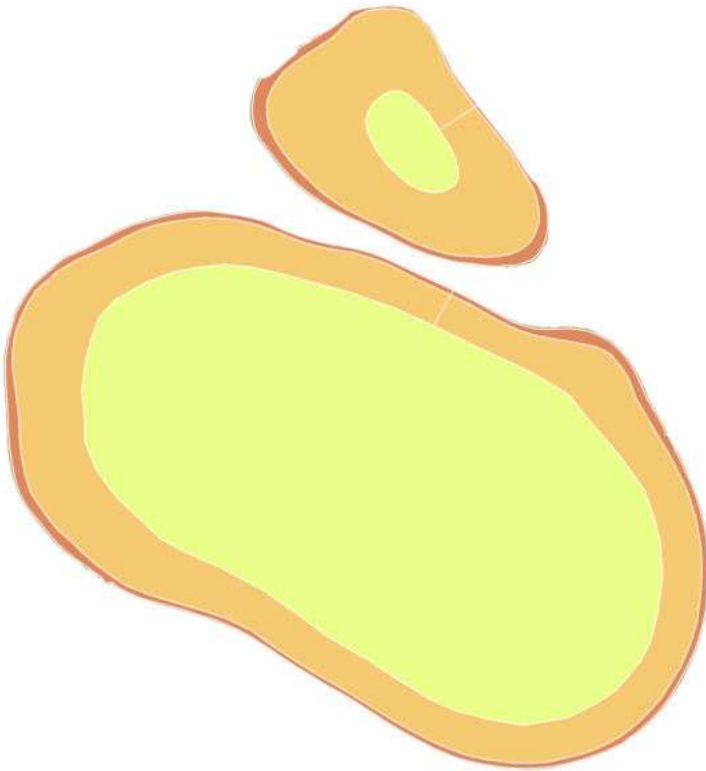
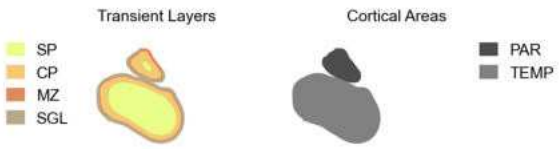


5 mm

Age: 24 GW



L-R Level: 24.6 mm

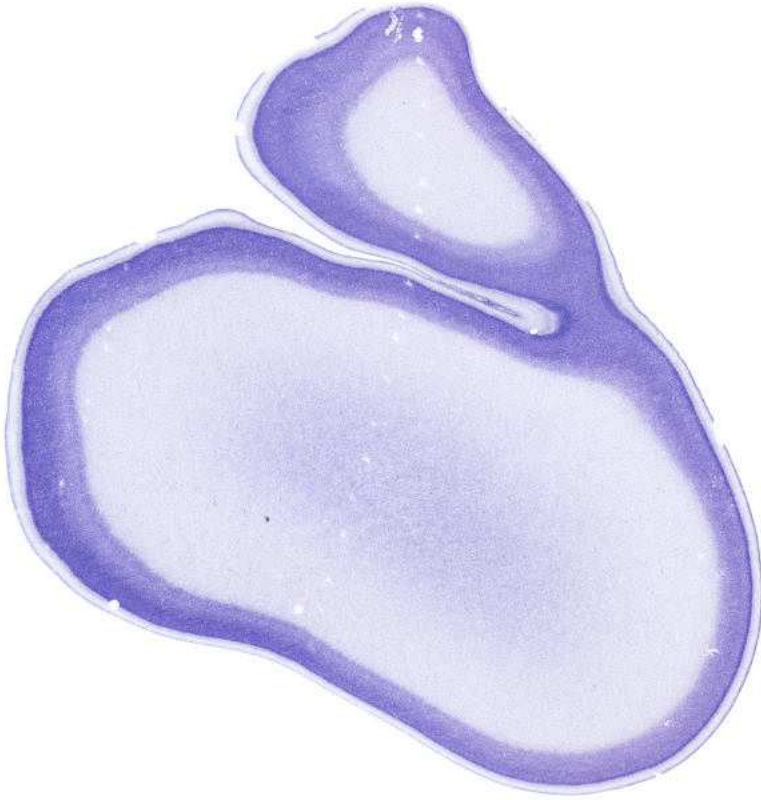


5 mm

Age: 24 GW

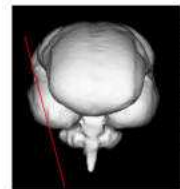


L-R Level: 23.82 mm

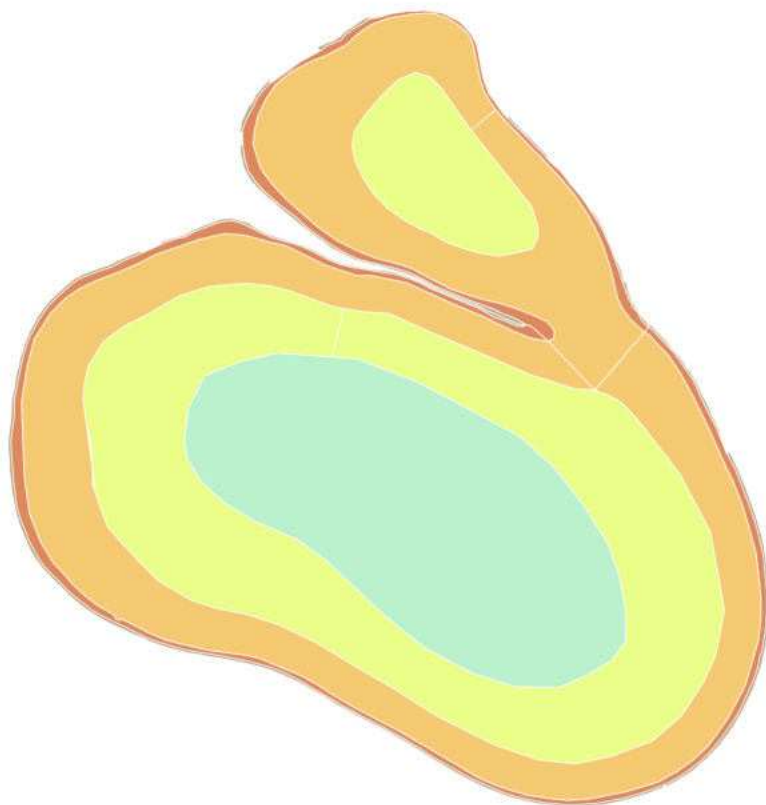
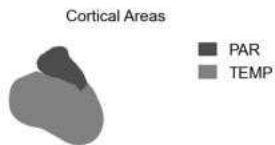
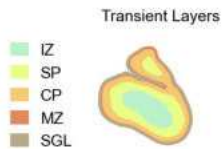


5 mm

Age: 24 GW



L-R Level: 23.82 mm

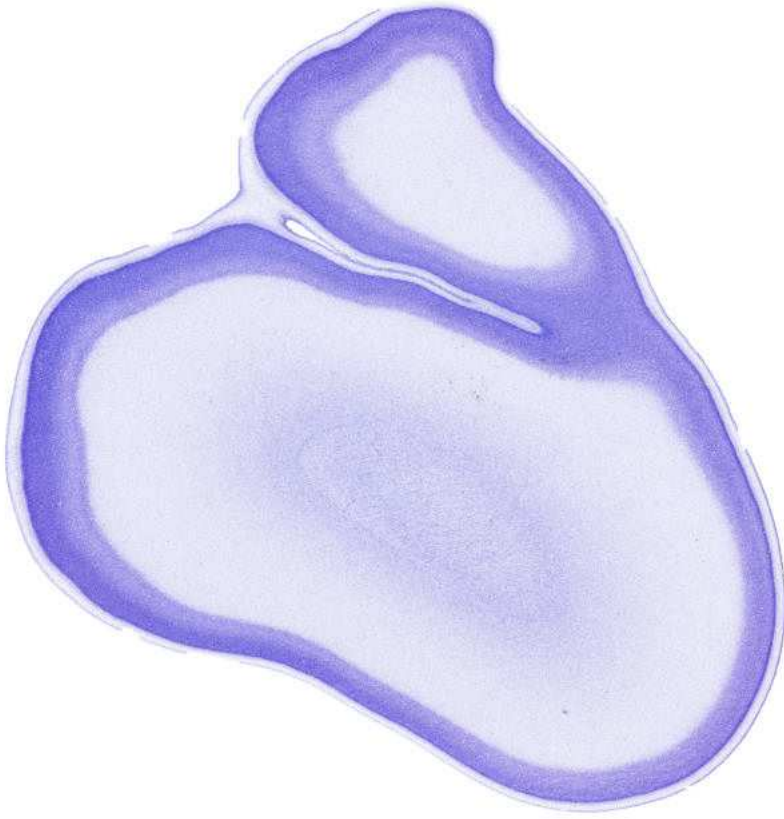


5 mm

Age: 24 GW

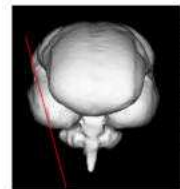


L-R Level: 23.46 mm

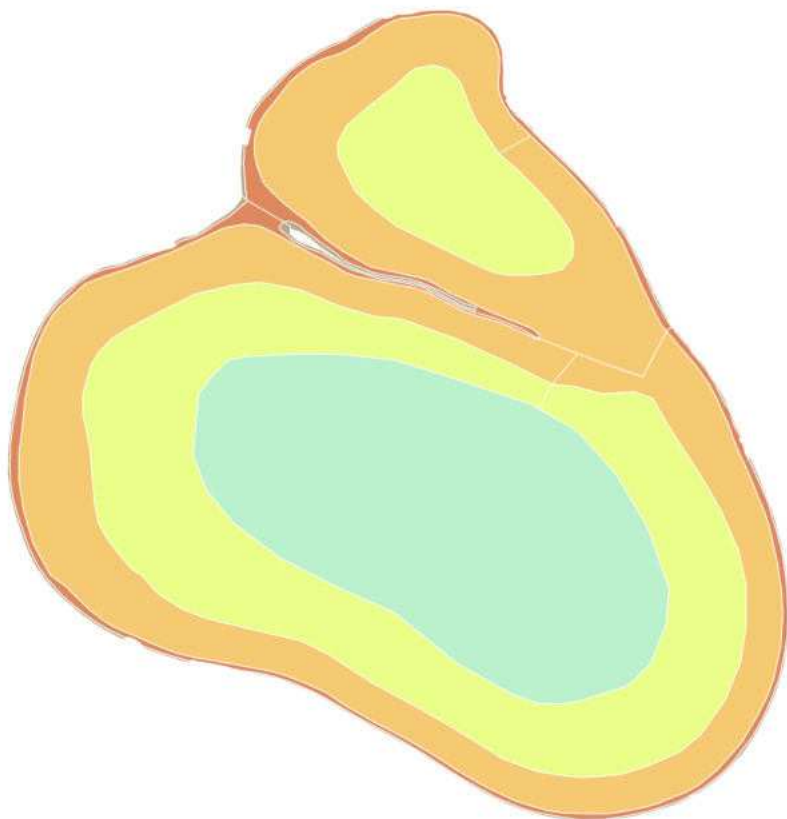
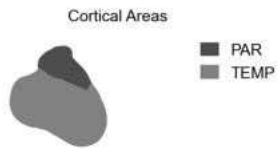
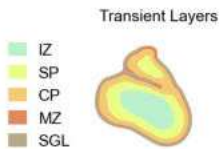


5 mm

Age: 24 GW



L-R Level: 23.46 mm



5 mm

Age: 24 GW

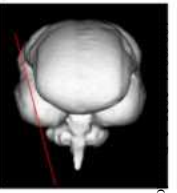


L-R Level: 22.14 mm

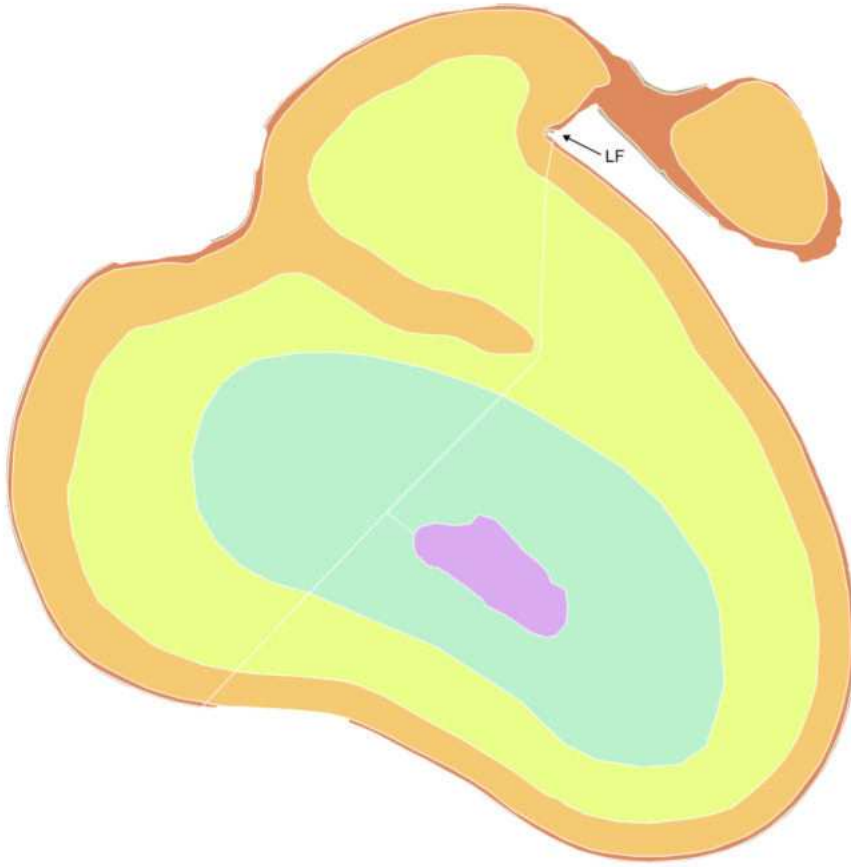
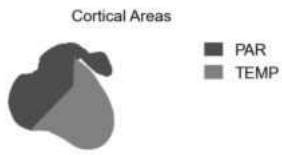
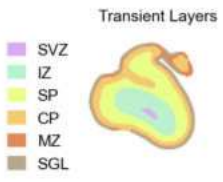


5 mm

Age: 24 GW



L-R Level: 22.14 mm



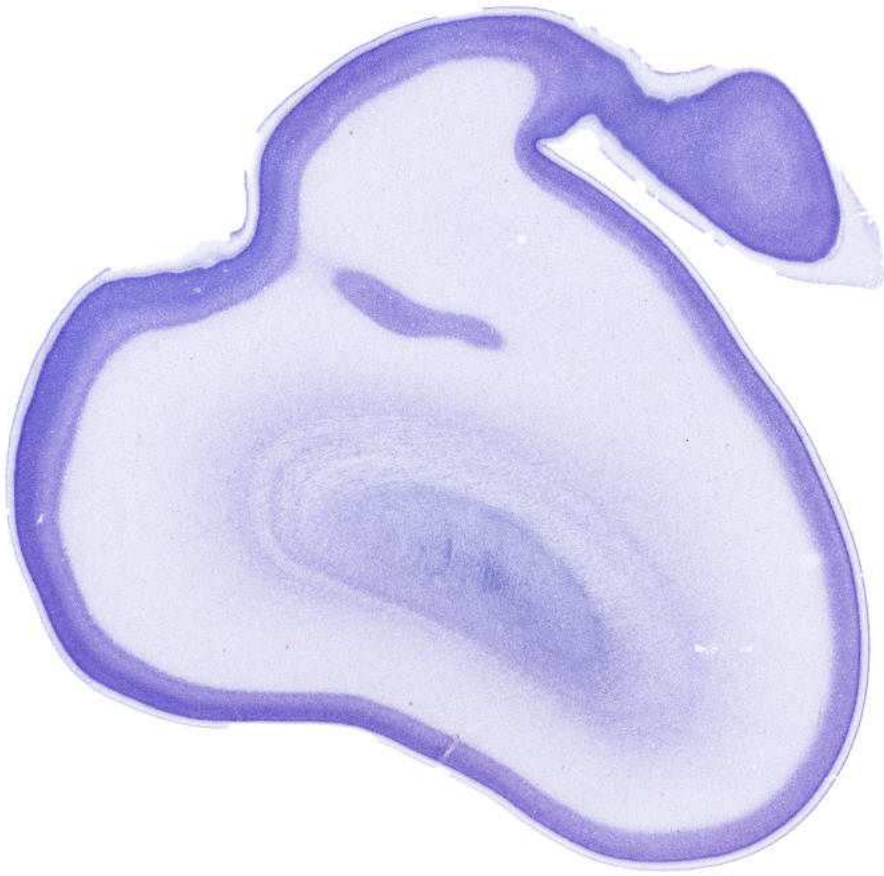
→ LA: Lateral nucleus [amygdala]

5 mm

Age: 24 GW

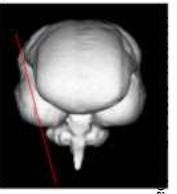


L-R Level: 21.78 mm

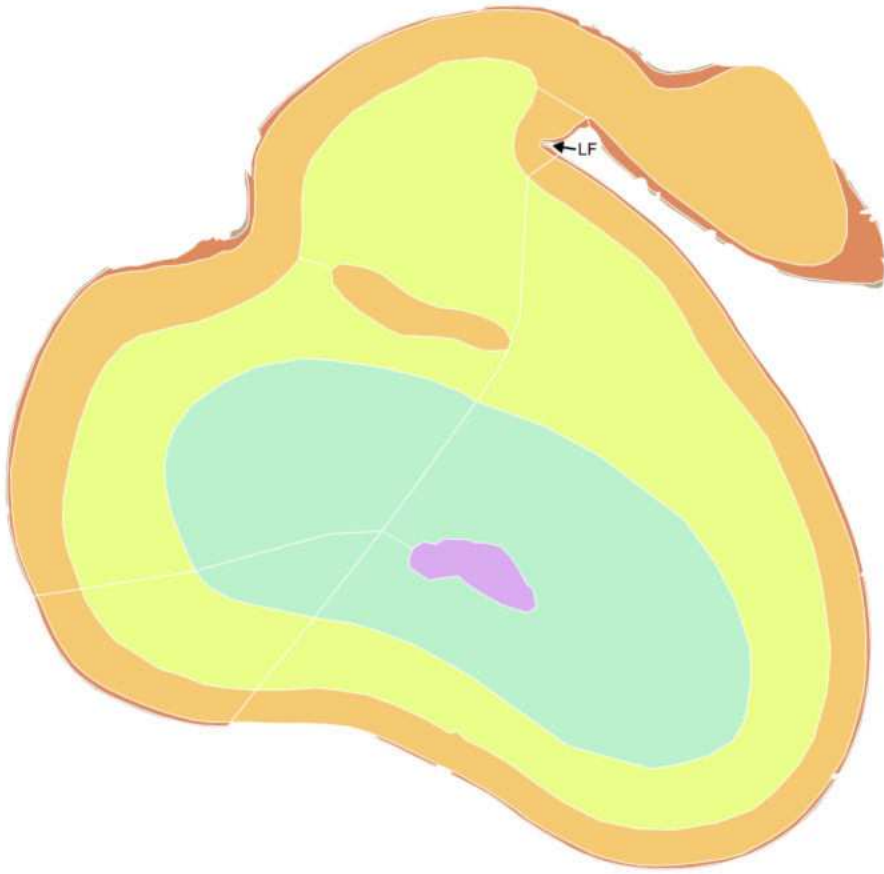
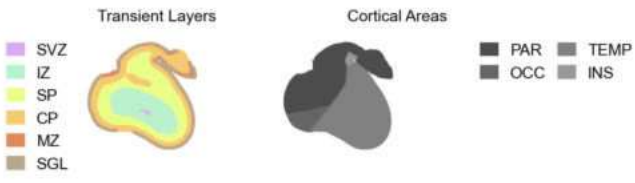


5 mm

Age: 24 GW



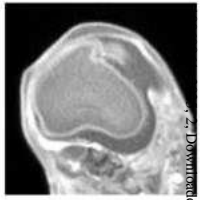
L-R Level: 21.78 mm



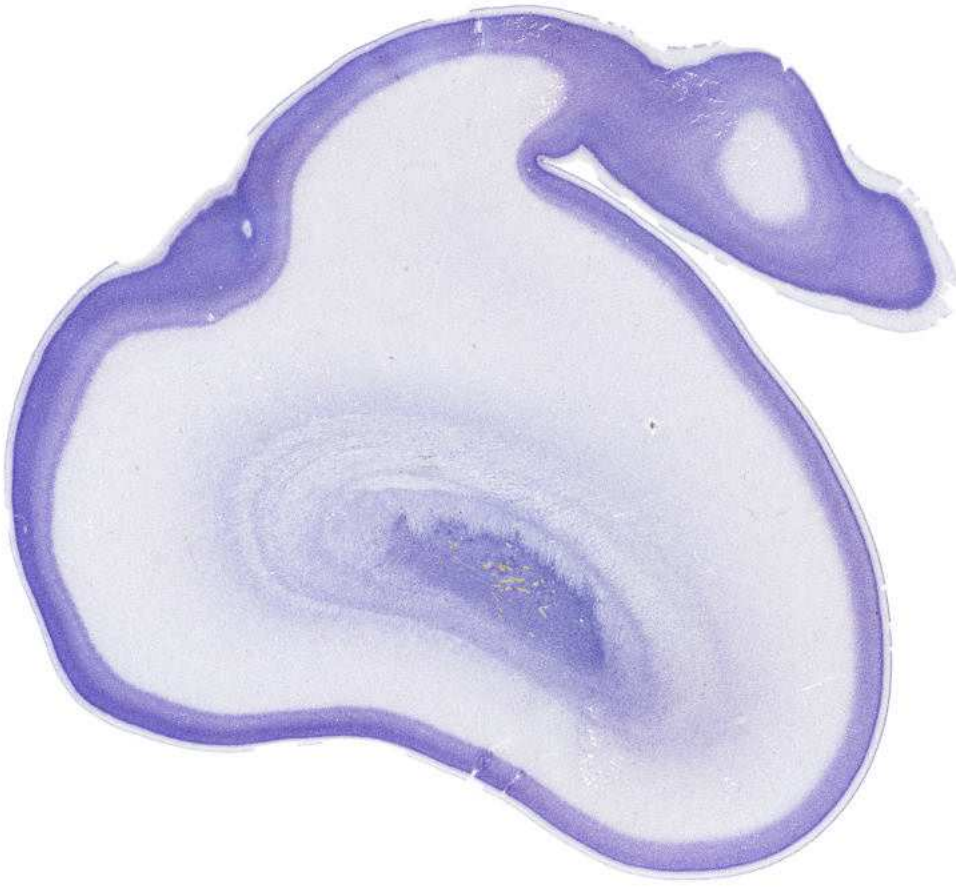
LF: Lateral Fissure

5 mm

Age: 24 GW

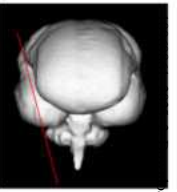


L-R Level: 21.18 mm

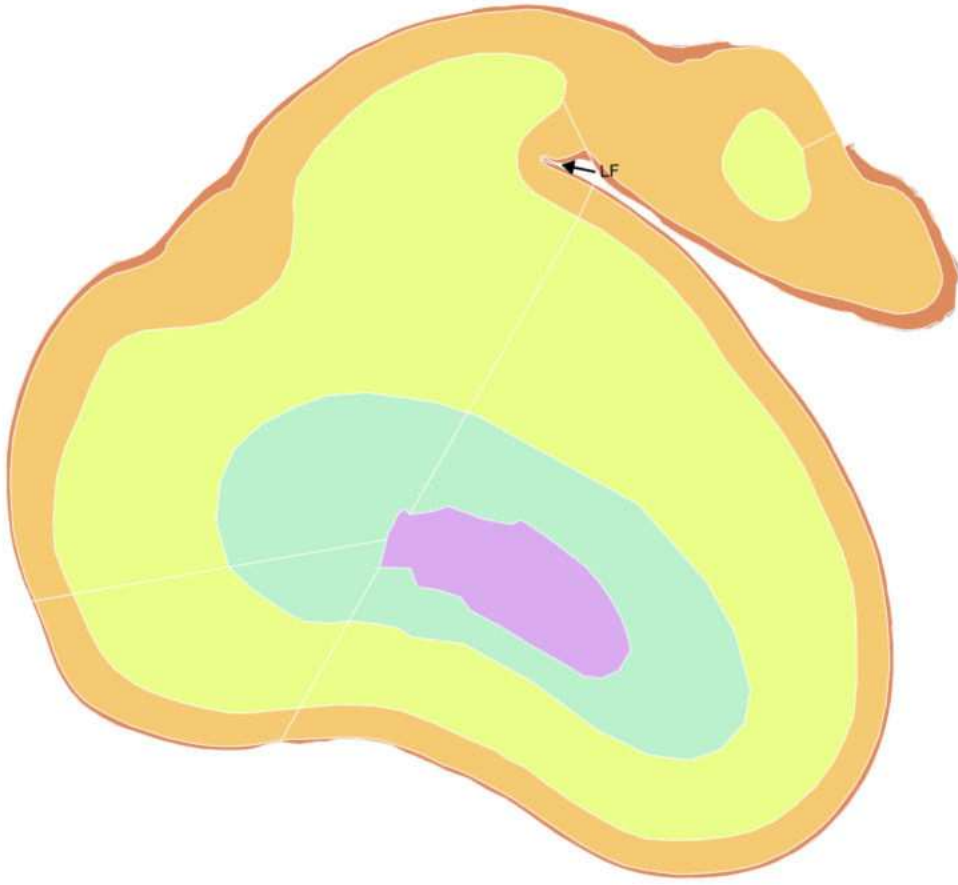
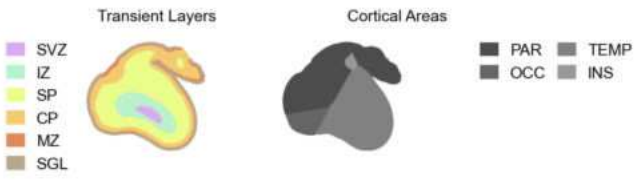


5 mm

Age: 24 GW



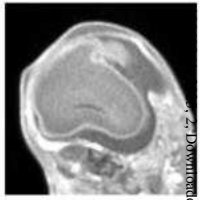
L-R Level: 21.18 mm



→ LF: Lateral fissure

5 mm

Age: 24 GW

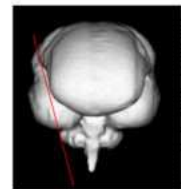


L-R Level: 20.28 mm

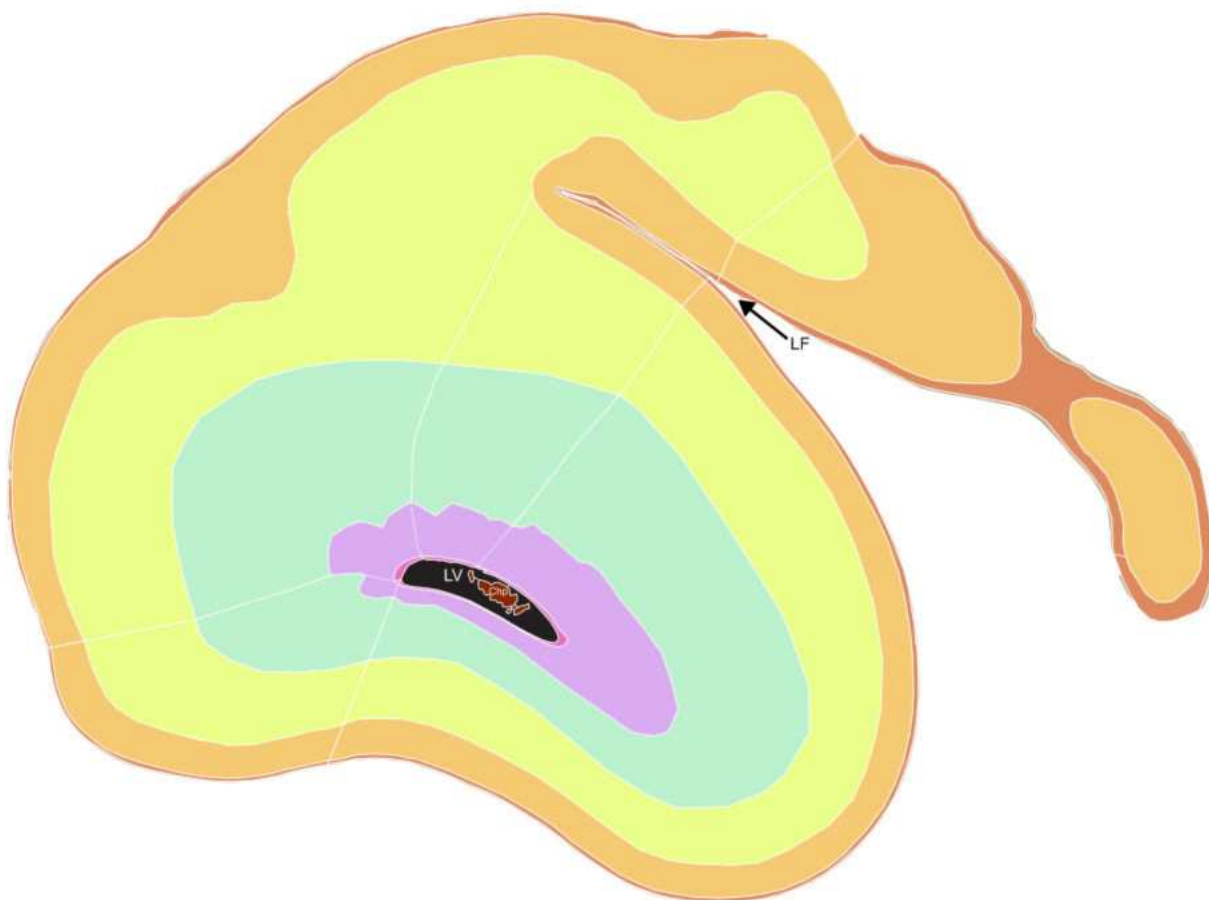
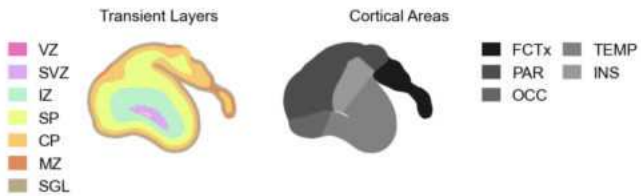


5 mm

Age: 24 GW



L-R Level: 20.28 mm



■ Chp: Choroid plexus ■ LV: Lateral ventricle → LF: Lateral fissure

5 mm

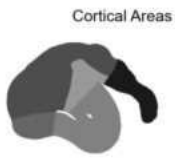
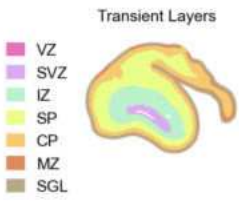
Age: 24 GW



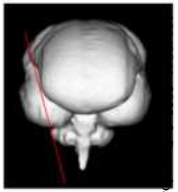
L-R Level: 20.04 mm



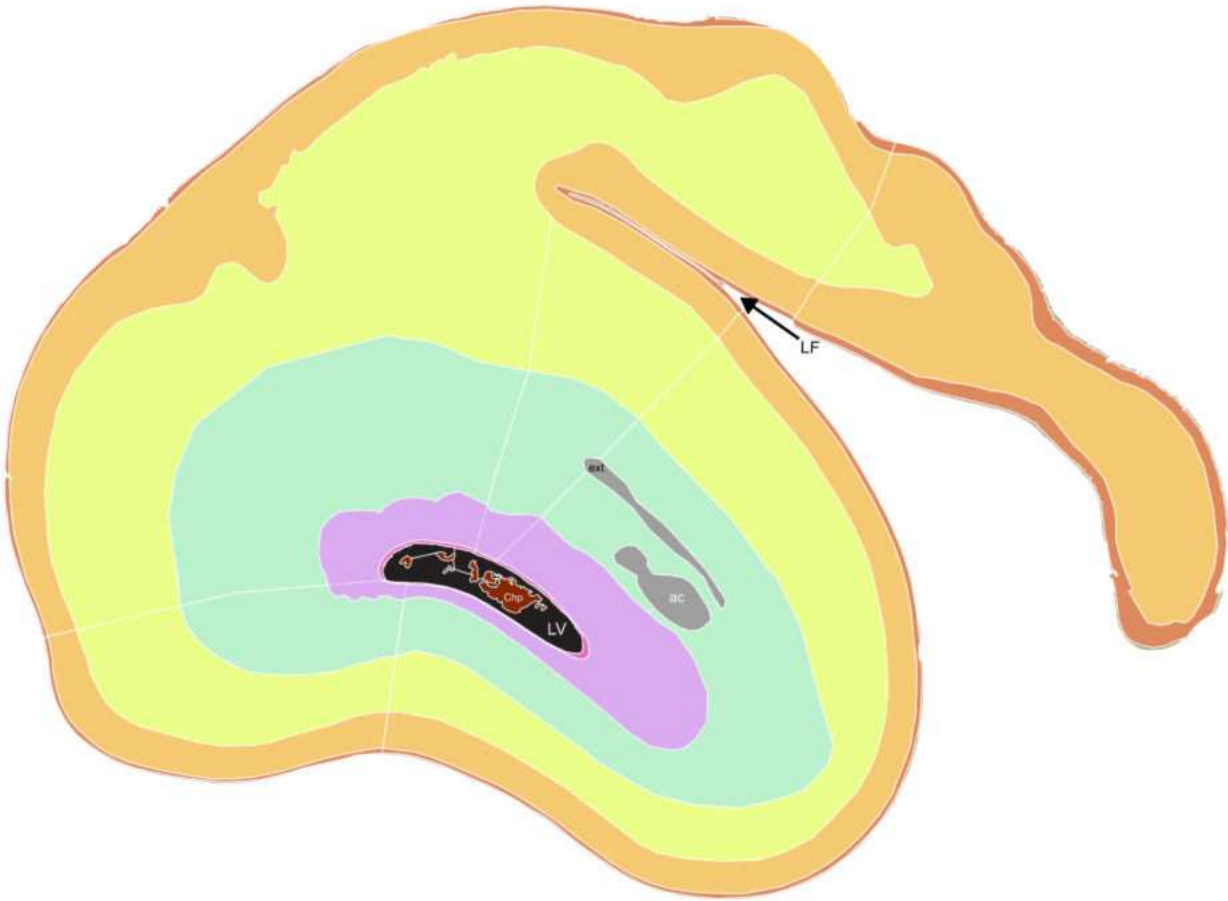
5 mm



Age: 24 GW



L-R Level: 20.04 mm



■ Chp: Choroid plexus
 ■ LV: Lateral ventricle
 ■ ac: Anterior commissure
 ■ ext: External capsule
 → LF: Lateral fissure

5 mm

Age: 24 GW

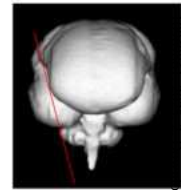


L-R Level: 19.86 mm

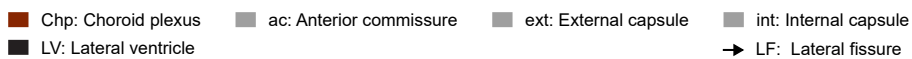
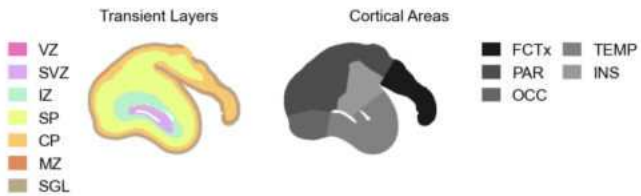


5 mm

Age: 24 GW



L-R Level: 19.86 mm



5 mm

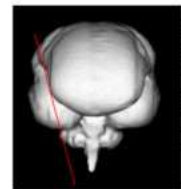
Age: 24 GW



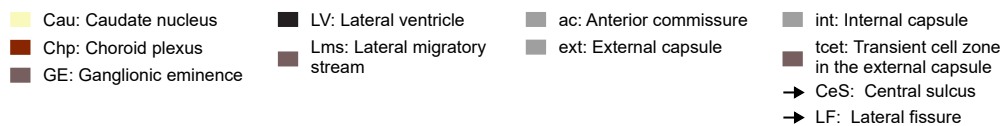
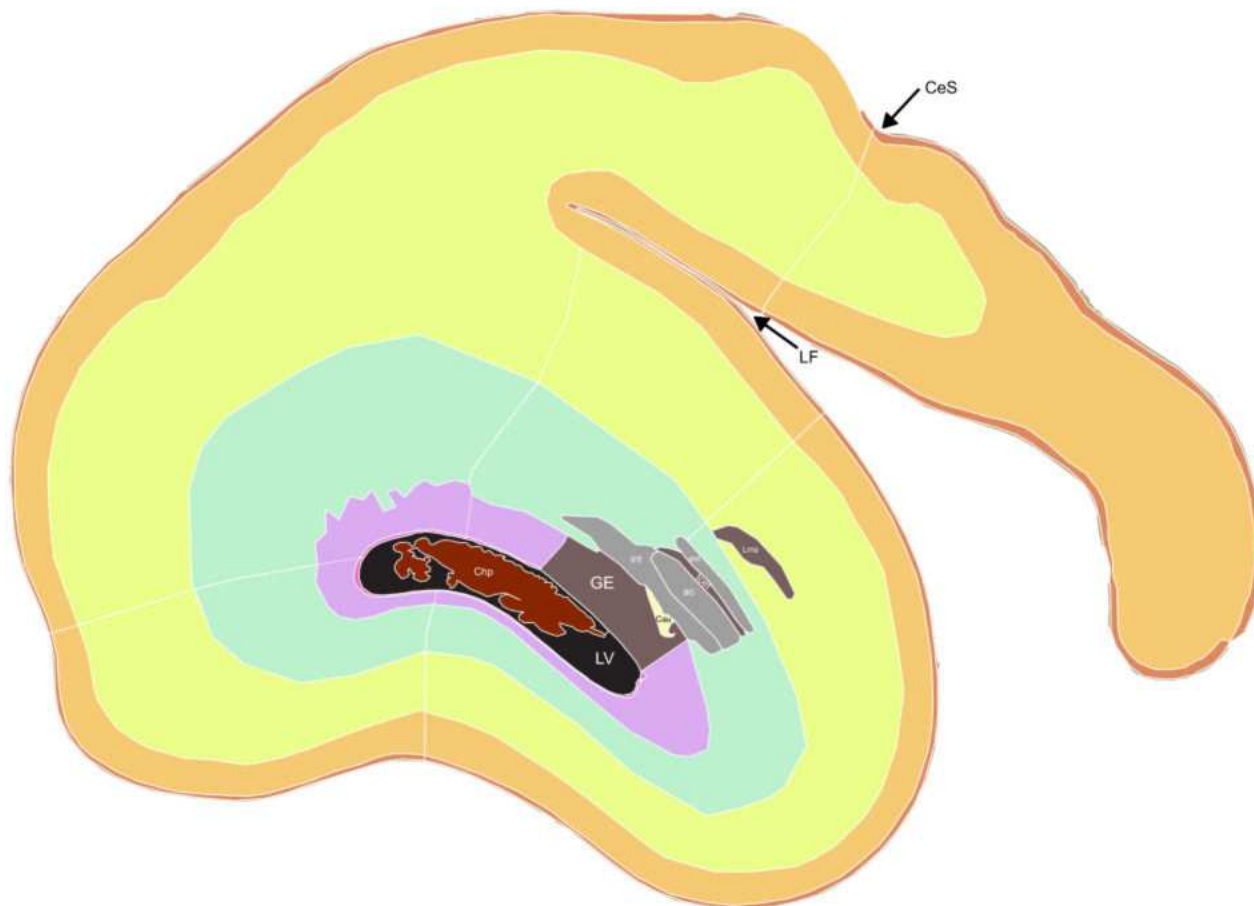
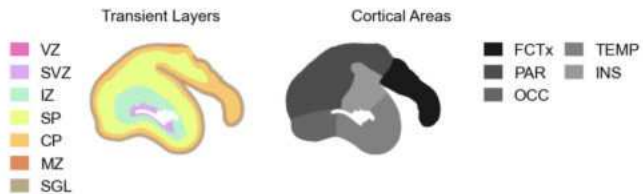
L-R Level: 19.56 mm



5 mm



L-R Level: 19.56 mm



5 mm

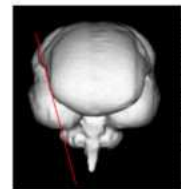
Age: 24 GW



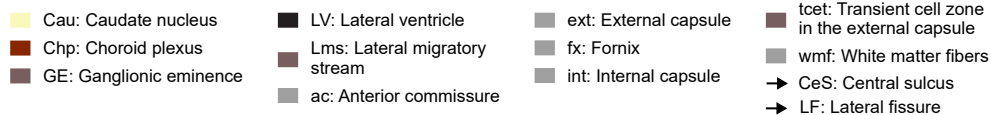
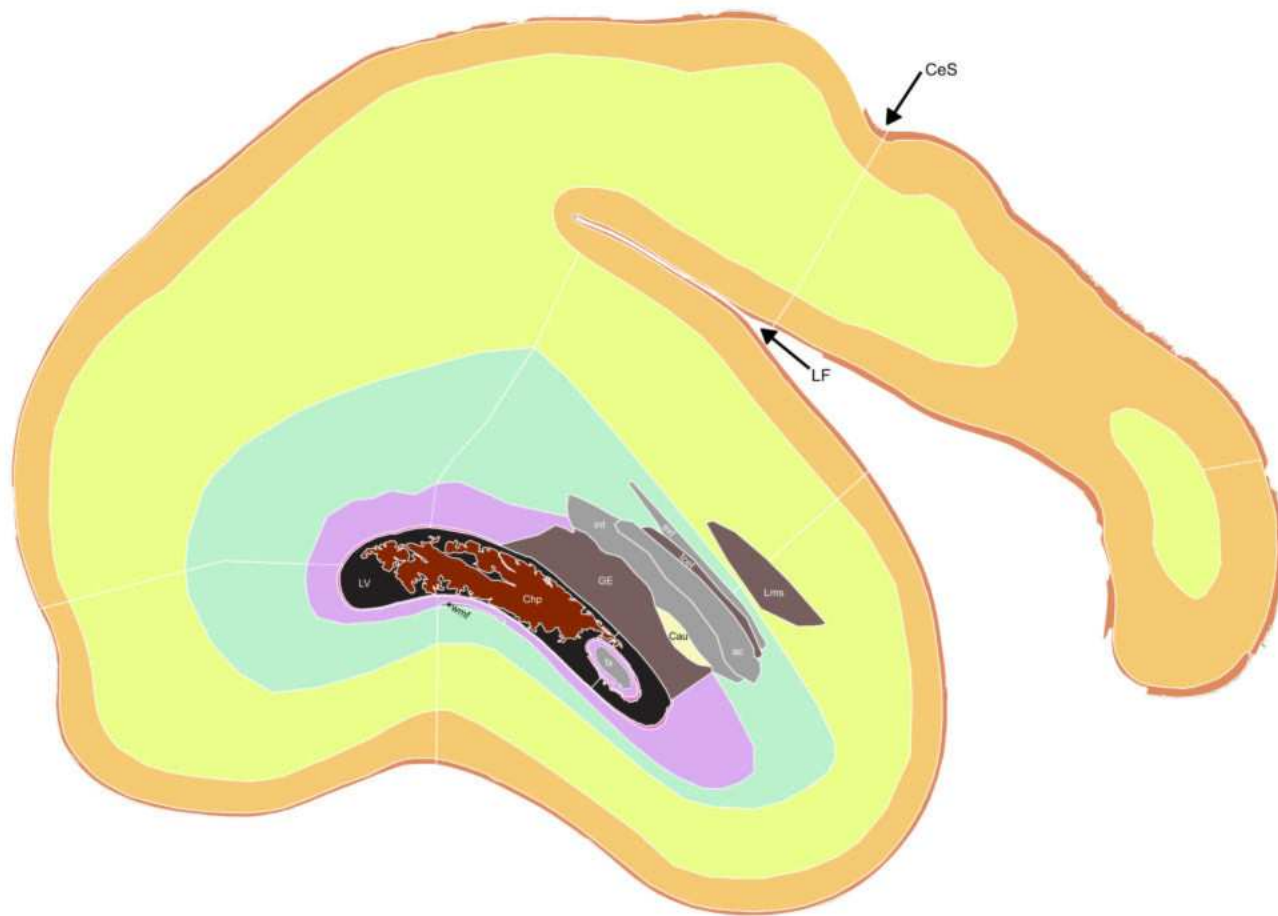
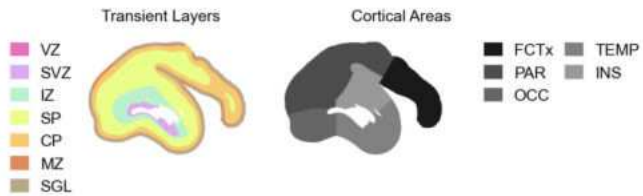
L-R Level: 19.14 mm



5 mm



L-R Level: 19.14 mm

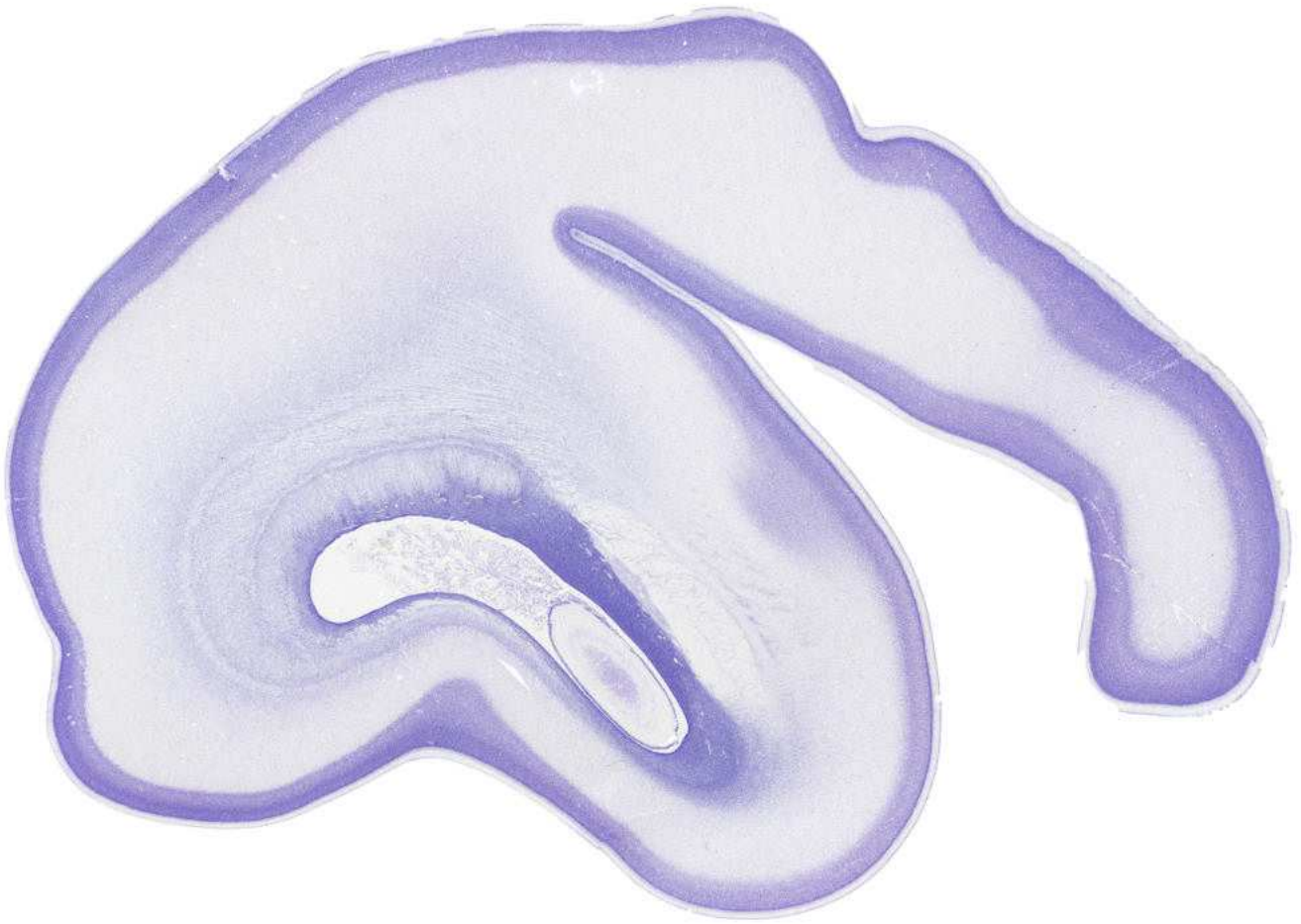


5 mm

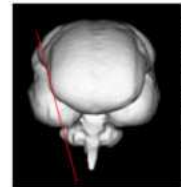
Age: 24 GW



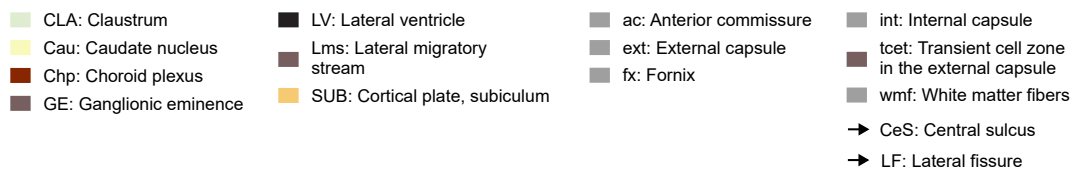
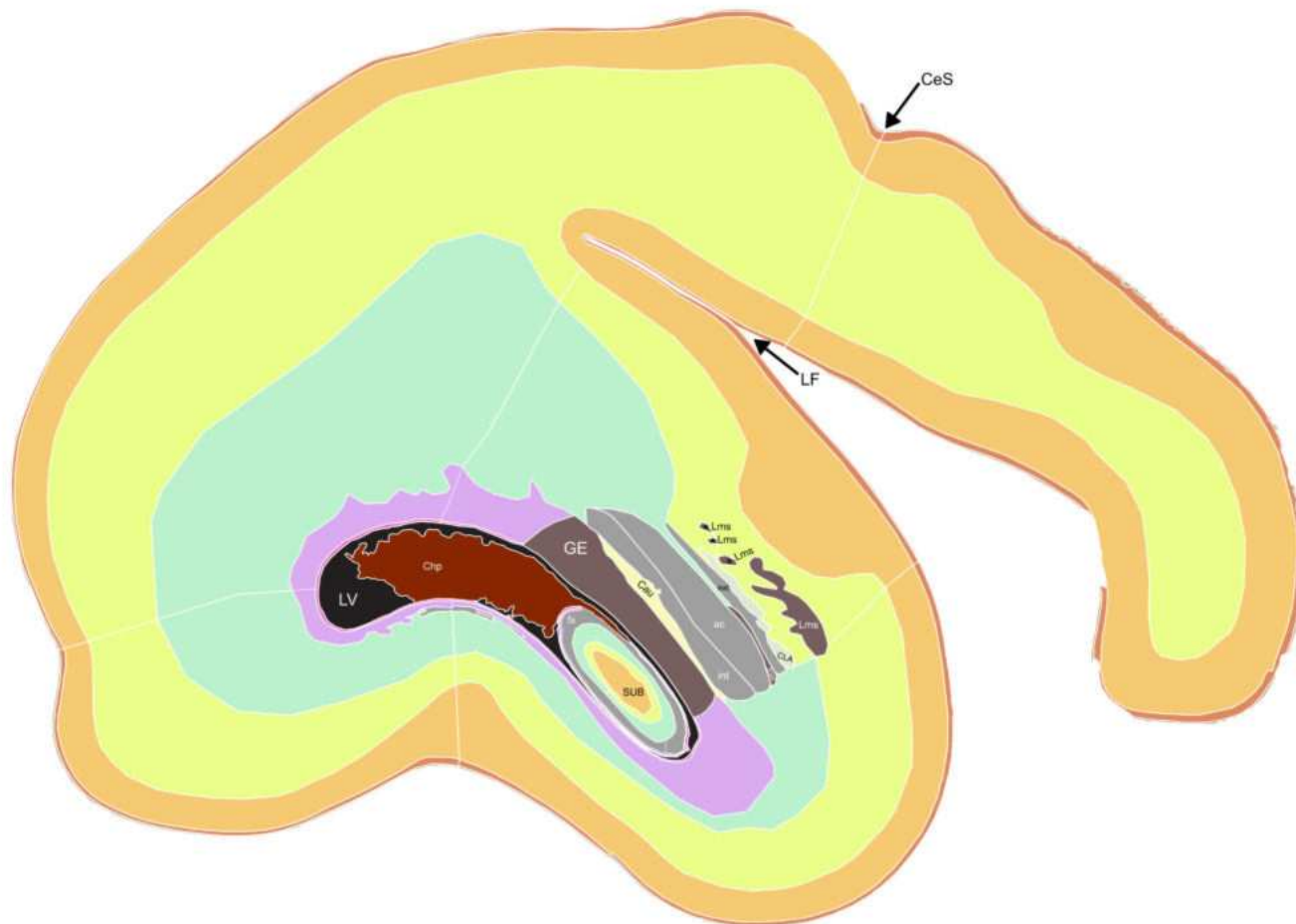
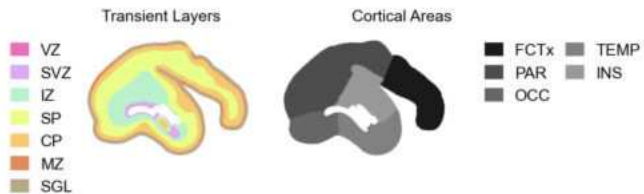
L-R Level: 18.54 mm



5 mm



L-R Level: 18.54 mm



5 mm

Age: 24 GW



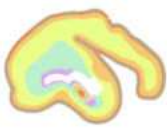
L-R Level: 18.3 mm



5 mm

Transient Layers

- VZ
- SVZ
- IZ
- SP
- CP
- MZ
- SGL



Cortical Areas

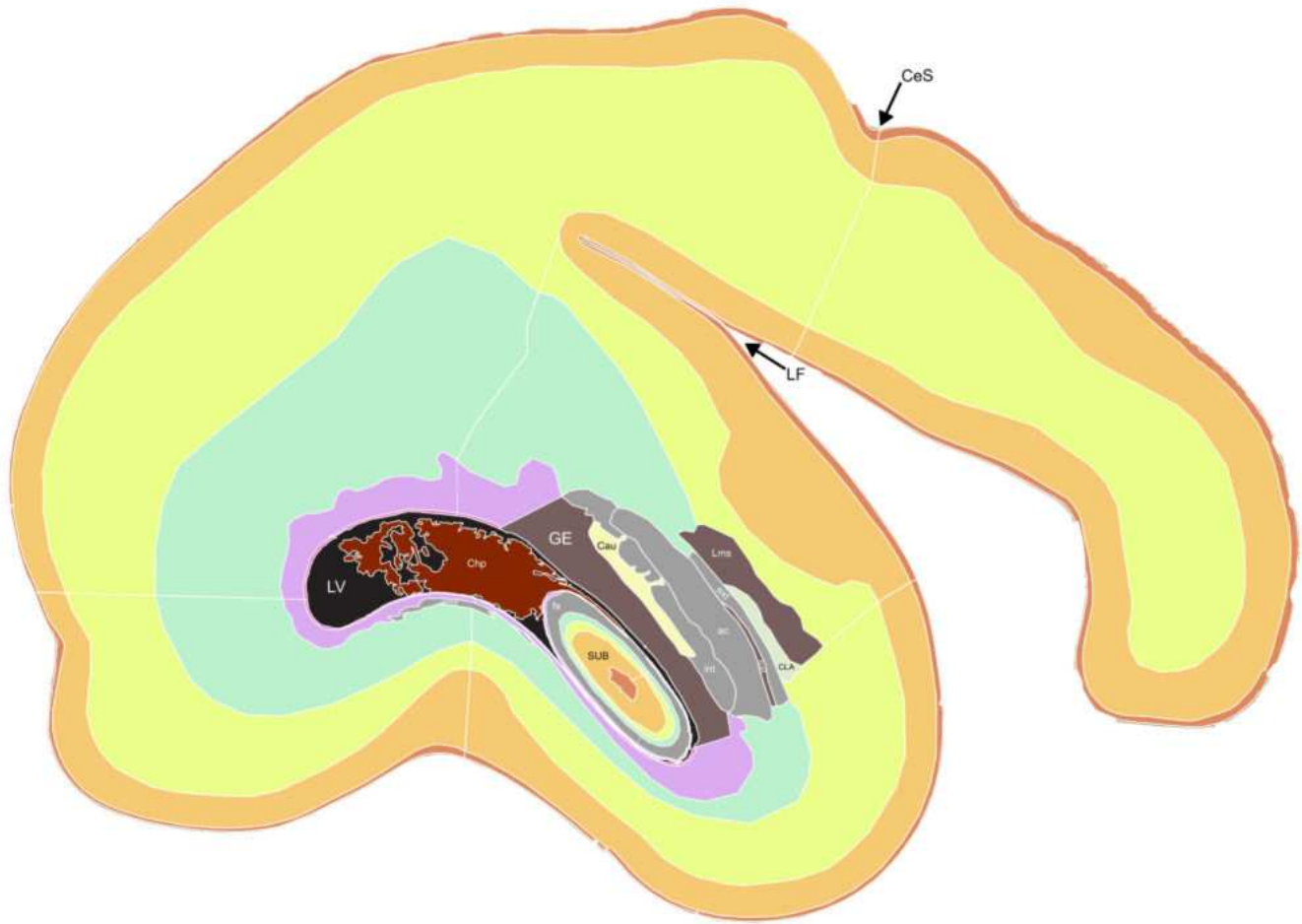
- FCTx
- PAR
- OCC
- TEMP
- INS



Age: 24 GW



L-R Level: 18.3 mm



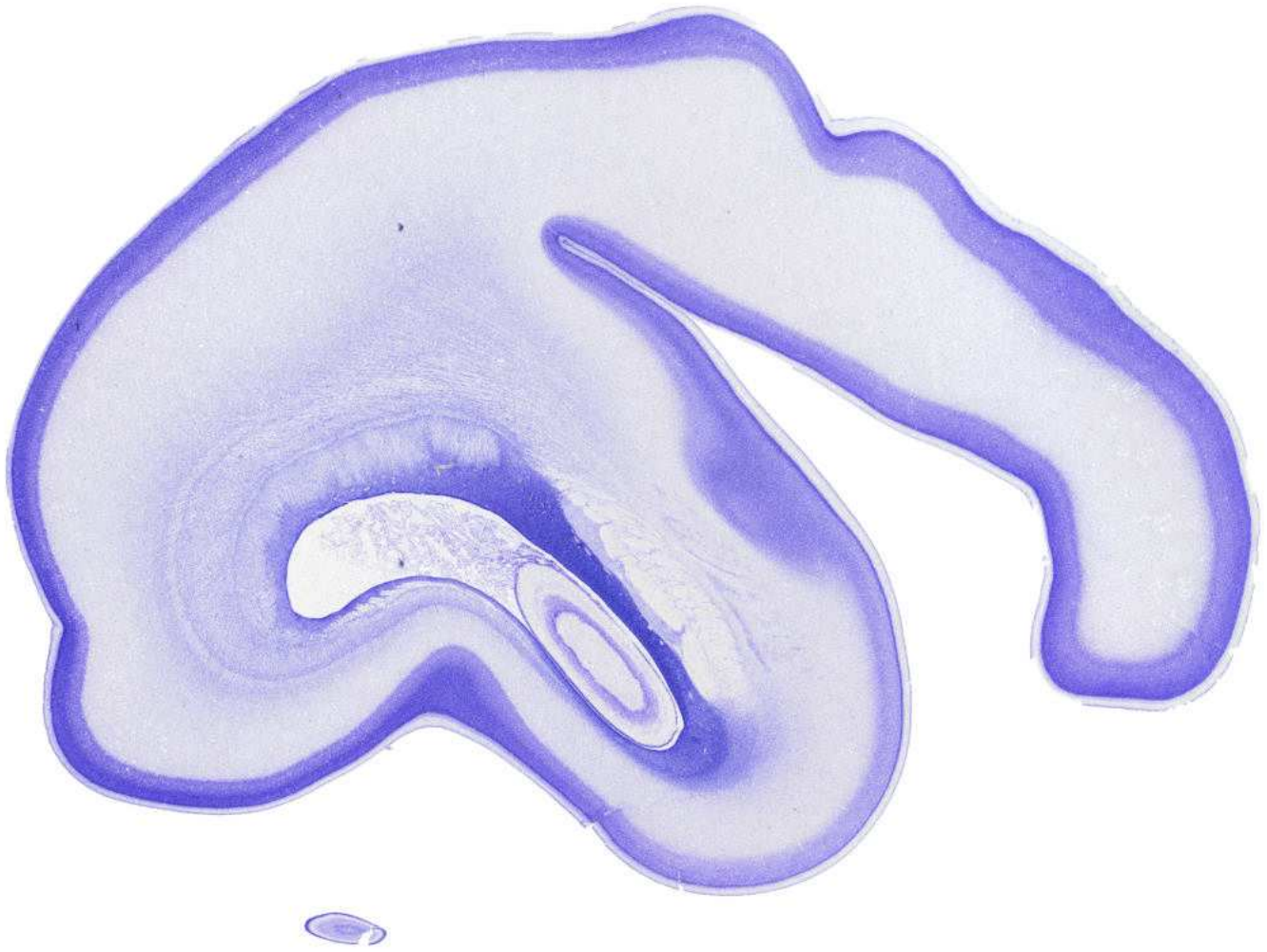
- | | | | |
|-------------------------|--------------------------------|-------------------------|---|
| CLA: Claustrum | LV: Lateral ventricle | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | Lms: Lateral migratory stream | ext: External capsule | wmf: White matter fibers |
| Chp: Choroid plexus | SUB: Cortical plate, subiculum | fx: Fornix | CeS: Central sulcus |
| GE: Ganglionic eminence | | int: Internal capsule | LF: Lateral fissure |

5 mm

Age: 24 GW

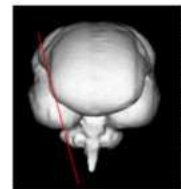


L-R Level: 18.0 mm

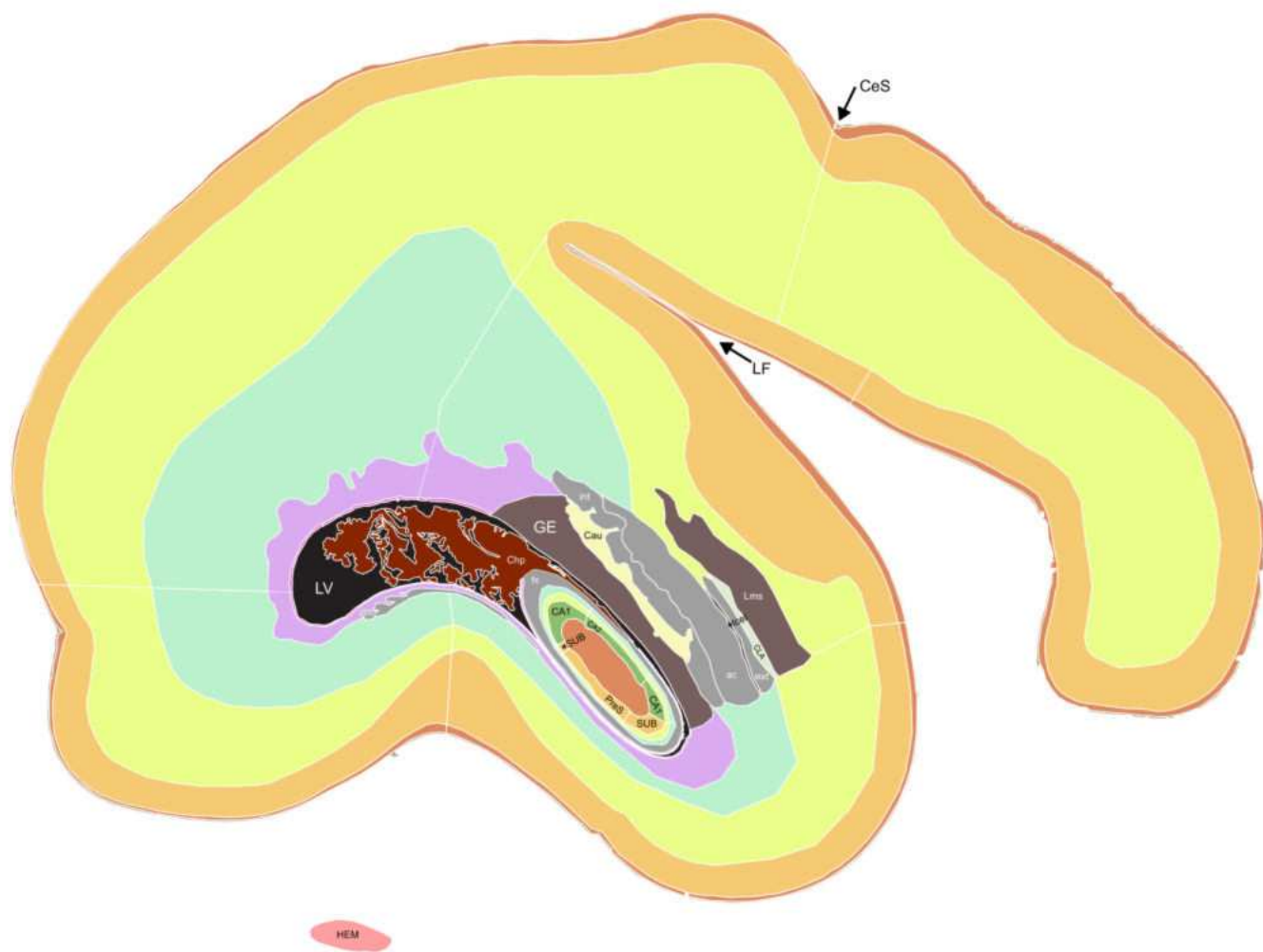
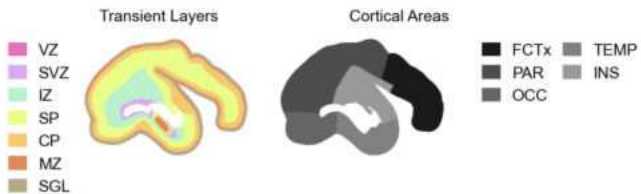


5 mm

Age: 24 GW



L-R Level: 18.0 mm



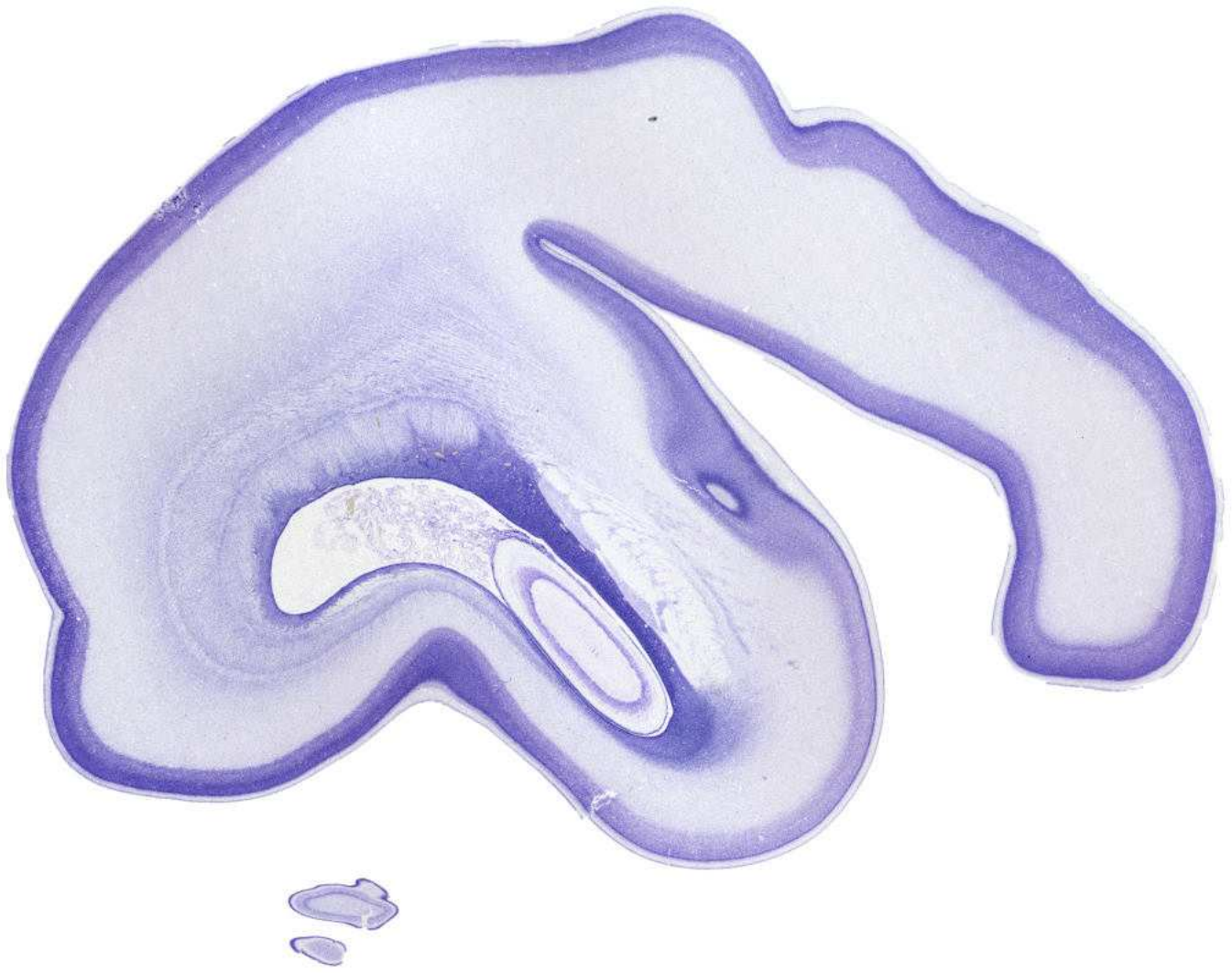
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|---|--|--|---|
| <ul style="list-style-type: none"> CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CLA: Claustrum Cau: Caudate nucleus Chp: Choroid plexus | <ul style="list-style-type: none"> GE: Ganglionic eminence HEM: Cerebellar hemispheres LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PreS: Cortical plate, presubiculum SUB: Cortical plate, subiculum ac: Anterior commissure ext: External capsule fx: Fornix | <ul style="list-style-type: none"> int: Internal capsule tct: Transient cell zone in the external capsule wmf: White matter fibers LF: Lateral fissure CeS: Central sulcus |
|---|--|--|---|

5 mm

Age: 24 GW

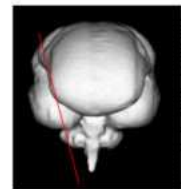


L-R Level: 17.64 mm

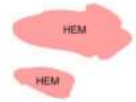
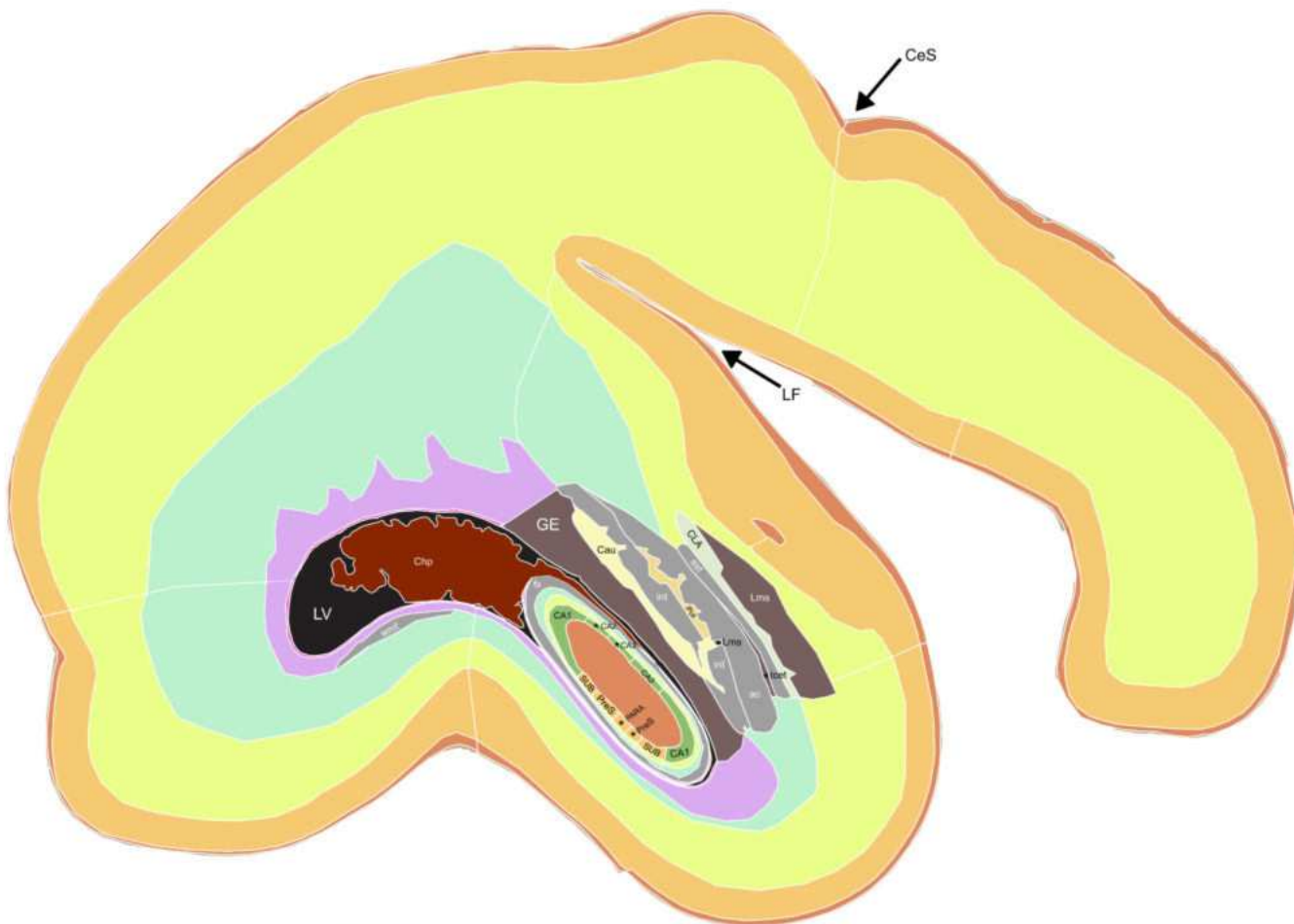
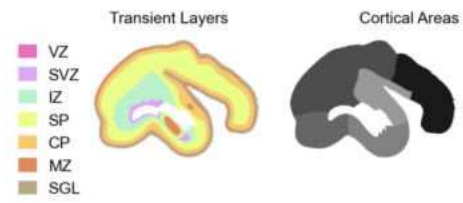


5 mm

Age: 24 GW



L-R Level: 17.64 mm



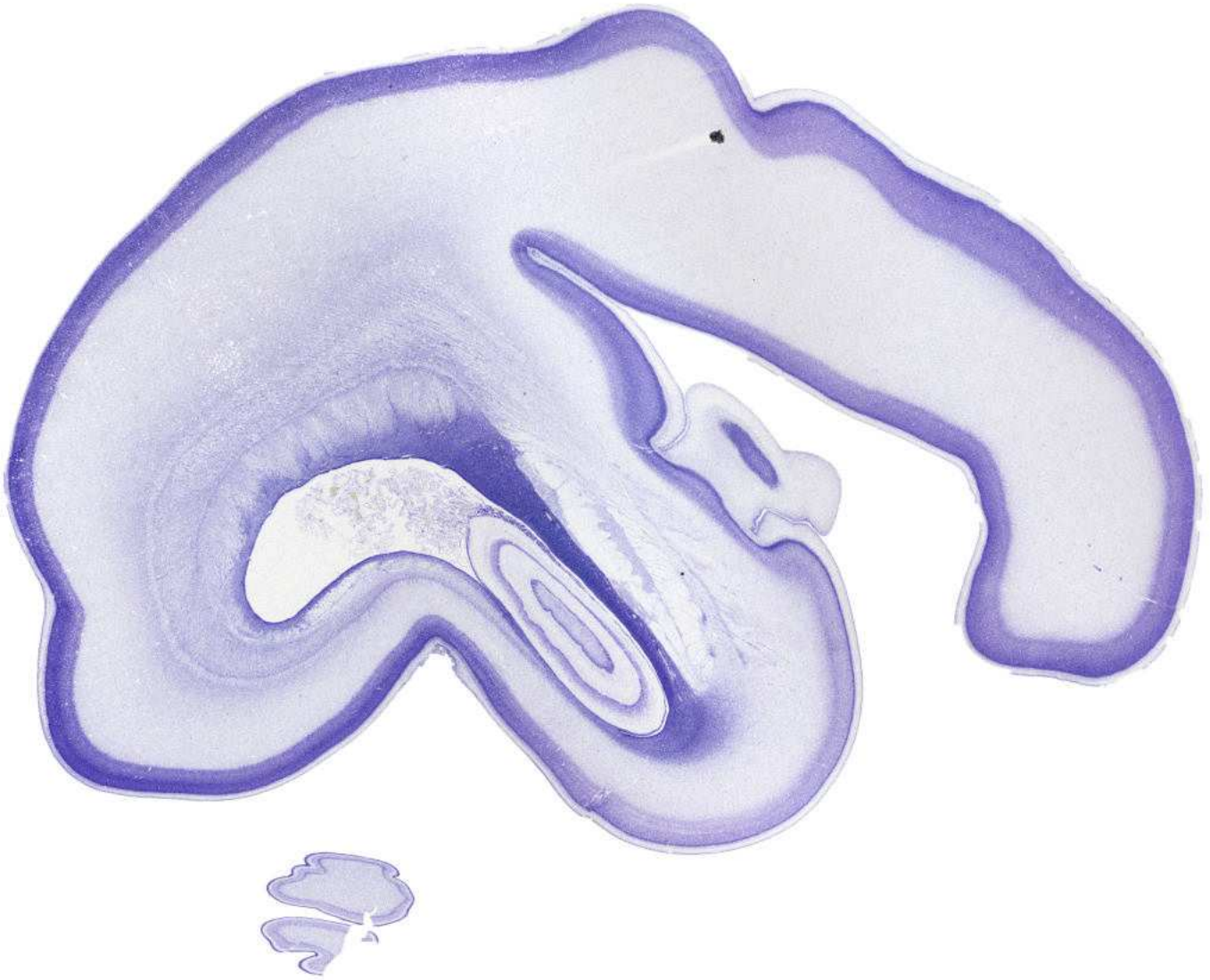
- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CLA: Claustrum ■ Cau: Caudate nucleus | <ul style="list-style-type: none"> ■ Chp: Choroid plexus ■ GE: Ganglionic eminence ■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream | <ul style="list-style-type: none"> ■ PARA: Cortical plate, parasubiculum ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ SUB: Cortical plate, subiculum ■ ac: Anterior commissure | <ul style="list-style-type: none"> ■ ext: External capsule ■ fx: Fornix ■ int: Internal capsule ■ toct: Transient cell zone in the external capsule ■ wmf: White matter fibers → CeS: Central sulcus → LF: Lateral fissure |
|--|---|--|---|

5 mm

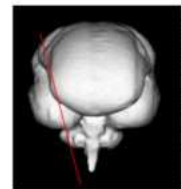
Age: 24 GW



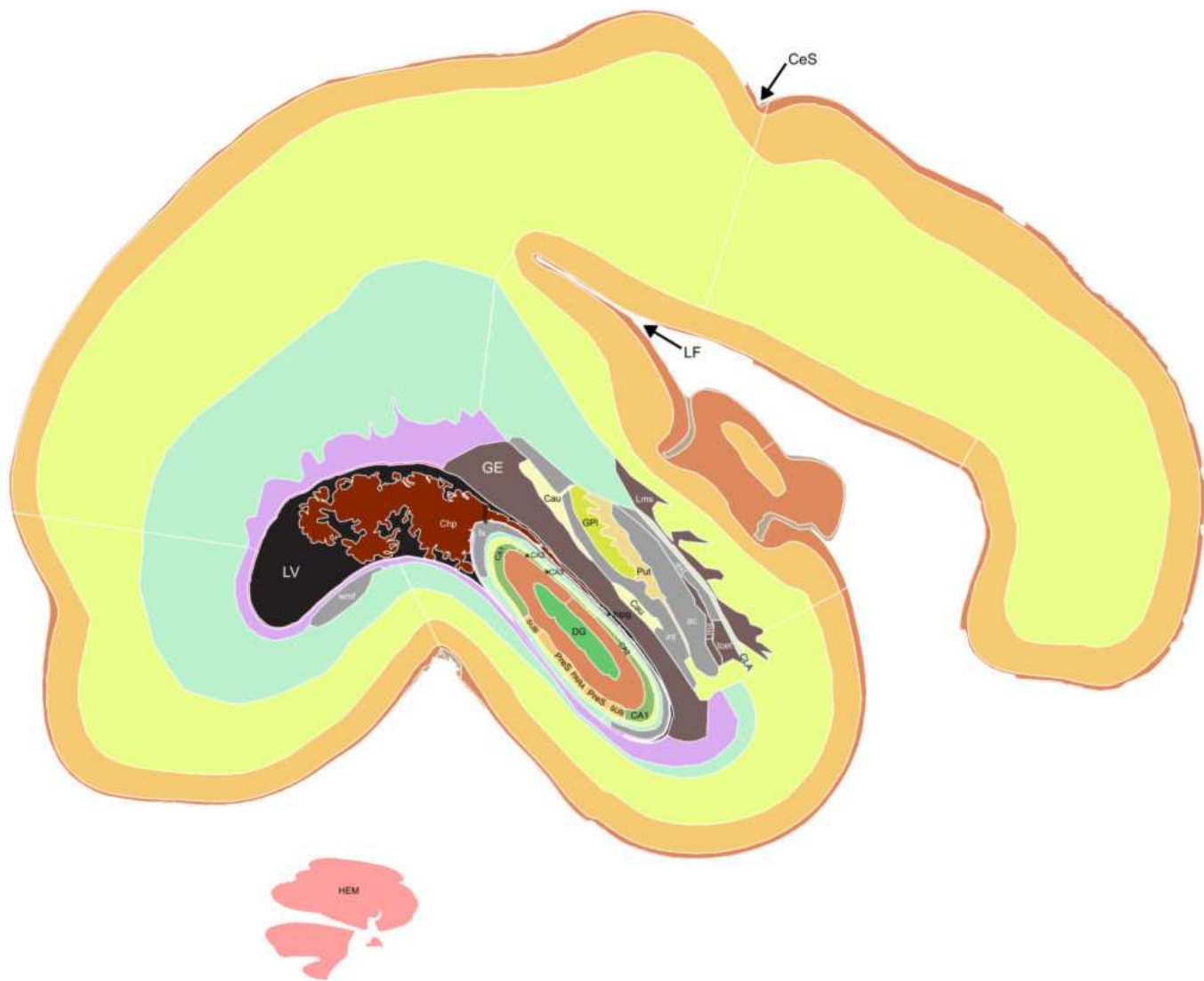
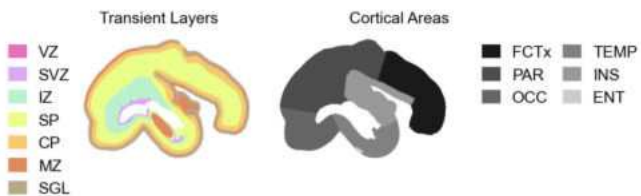
L-R Level: 17.16 mm



5 mm



L-R Level: 17.16 mm



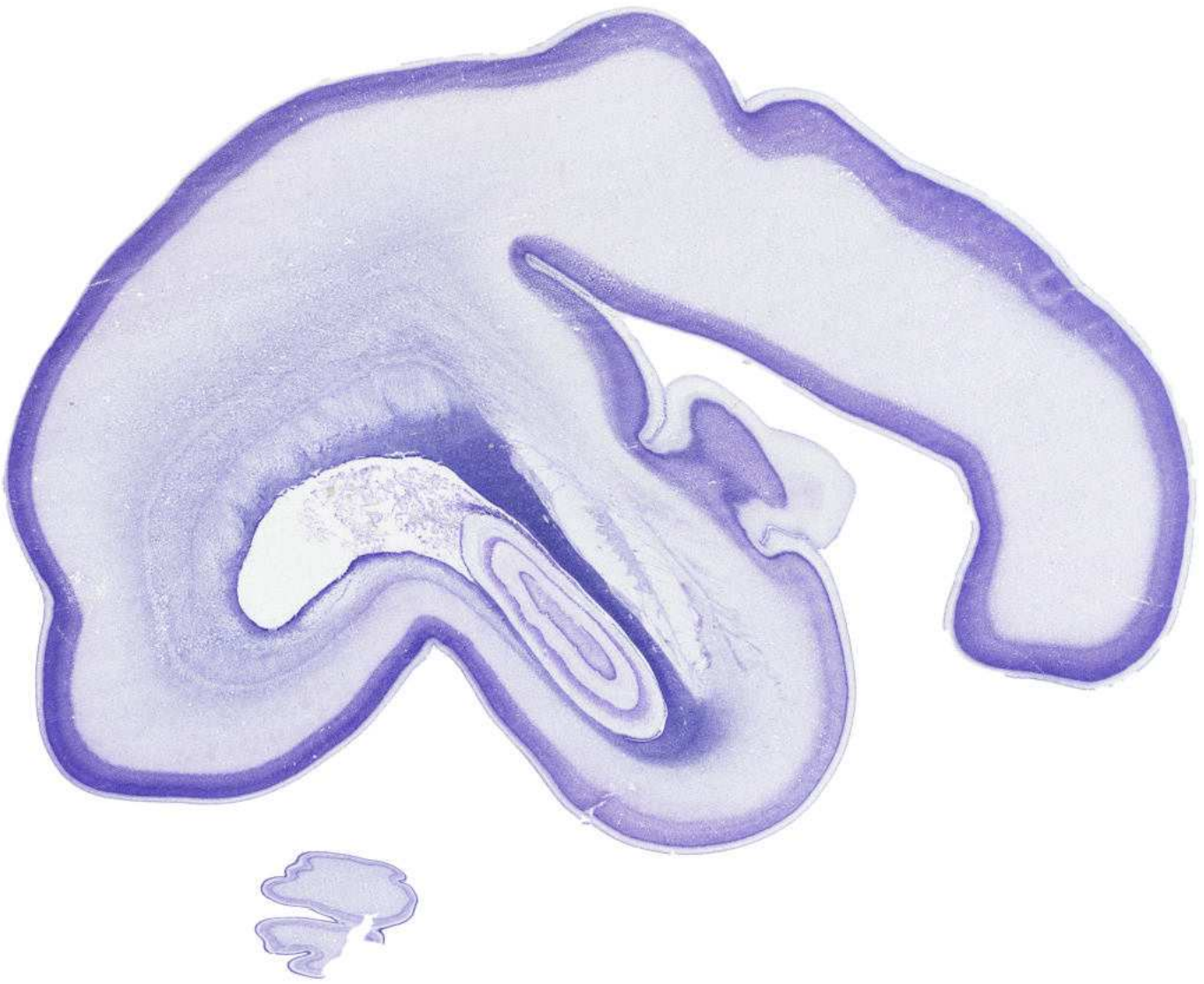
5 mm

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum Cau: Caudate nucleus Chp: Choroid plexus | <ul style="list-style-type: none"> DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PreS: Cortical plate, presubiculum Put: Putamen SUB: Cortical plate, subiculum ac: Anterior commissure ext: External capsule | <ul style="list-style-type: none"> fx: Fornix hipg: Hippocampal gloioepithelium/ependyma int: Internal capsule toct: Transient cell zone in the external capsule wmf: White matter fibers CeS: Central sulcus LF: Lateral fissure |
|---|---|---|--|

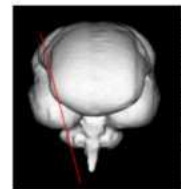
Age: 24 GW



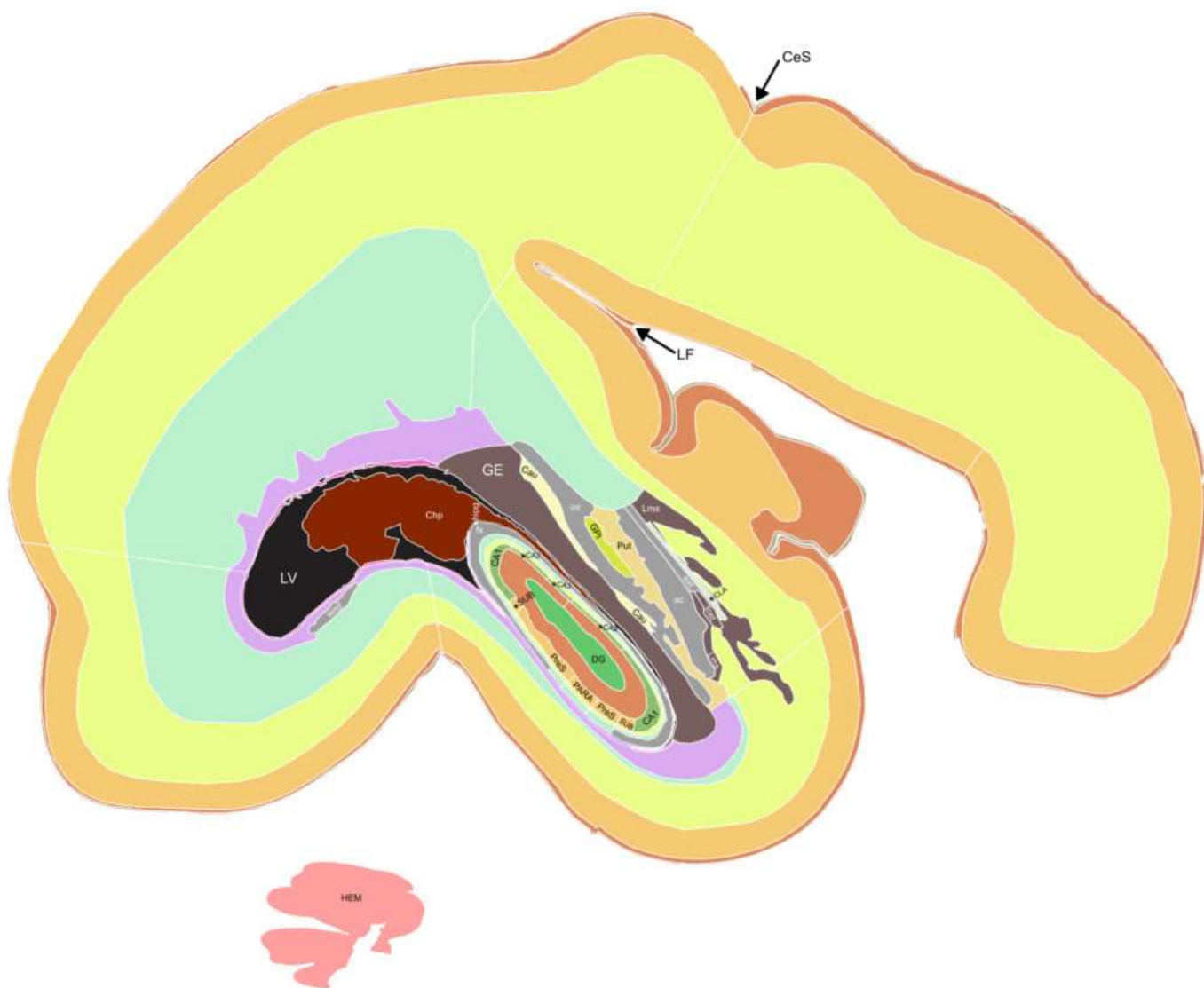
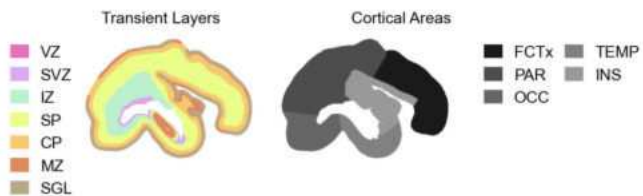
L-R Level: 16.98 mm



5 mm



L-R Level: 16.98 mm



- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CLA: Claustrum ■ Cau: Caudate nucleus ■ Chp: Choroid plexus | <ul style="list-style-type: none"> ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ HEM: Cerebellar hemispheres ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream | <ul style="list-style-type: none"> ■ PARA: Cortical plate, parasubiculum ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ SUB: Cortical plate, subiculum ■ ac: Anterior commissure ■ ext: External capsule | <ul style="list-style-type: none"> ■ fx: Fornix ■ hipg: Hippocampal gloioepithelium/ependyma ■ int: Internal capsule ■ toct: Transient cell zone in the external capsule ■ wmf: White matter fibers → LF: Lateral fissure → CeS: Central sulcus |
|---|---|---|--|

5 mm

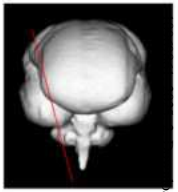
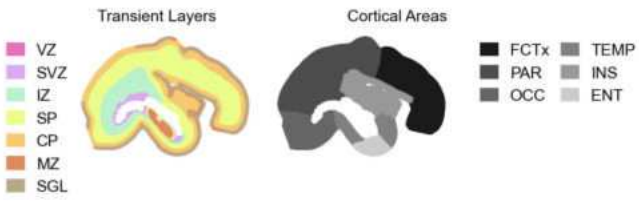
Age: 24 GW



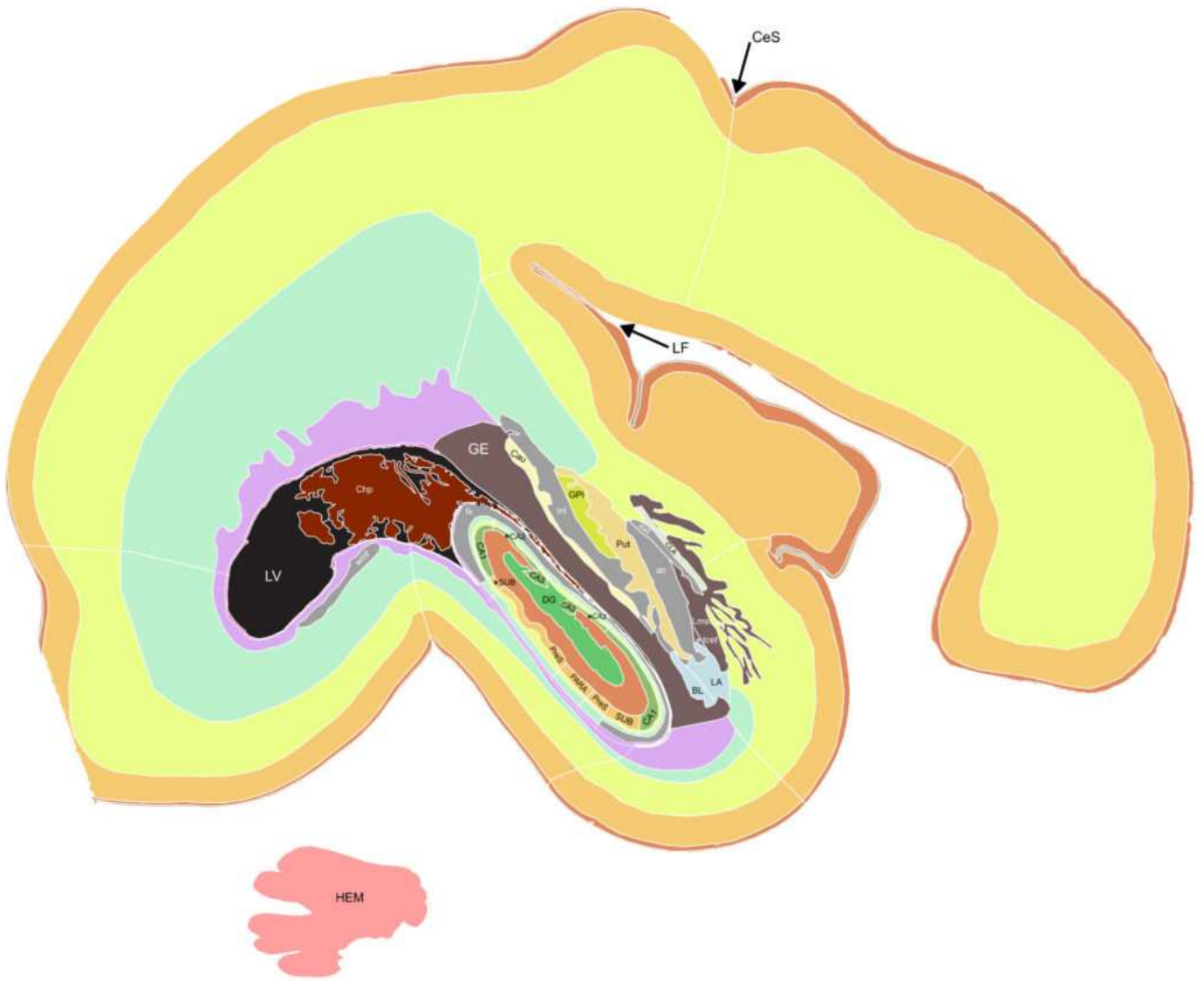
L-R Level: 16.56 mm



5 mm



L-R Level: 16.56 mm



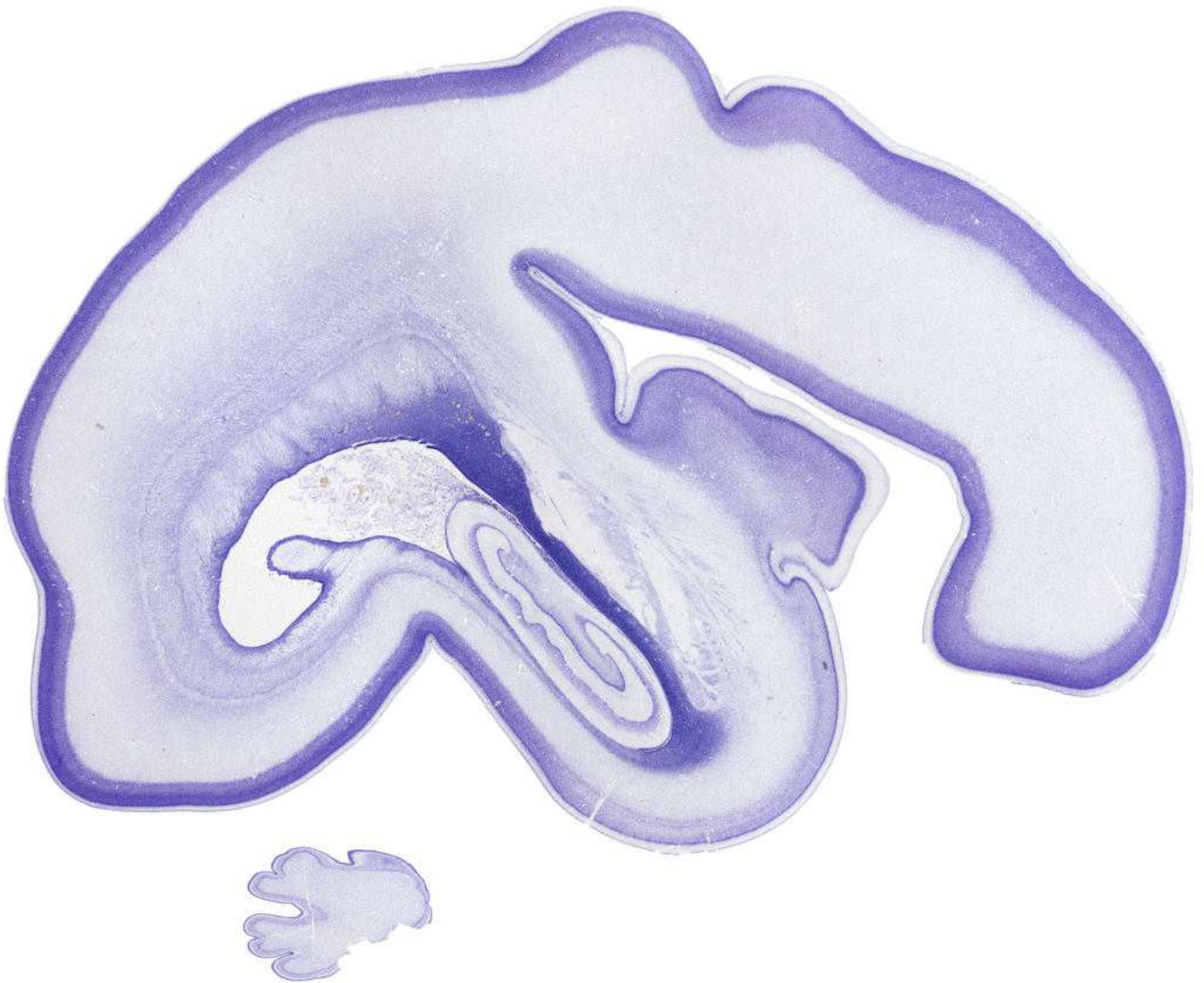
5 mm

- | | | | |
|--------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | Lms: Lateral migratory stream | ext: External capsule |
| CA1: CA1 field [hippocampus] | GE: Ganglionic eminence | PARA: Cortical plate, parasubiculum | fx: Fornix |
| CA2: CA2 field [hippocampus] | GPI: Globus pallidus lateral segment | PreS: Cortical plate, presubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA3: CA3 field [hippocampus] | Put: Putamen | SUB: Cortical plate, subiculum | int: Internal capsule |
| CLA: Claustrum | ac: Anterior commissure | | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | | | wmf: White matter fibers |
| LA: Lateral nucleus [amygdala] | | | → CeS: Central sulcus |
| LV: Lateral ventricle | | | → LF: Lateral fissure |

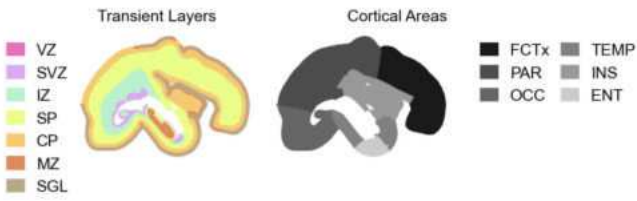
Age: 24 GW



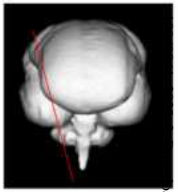
L-R Level: 16.32 mm



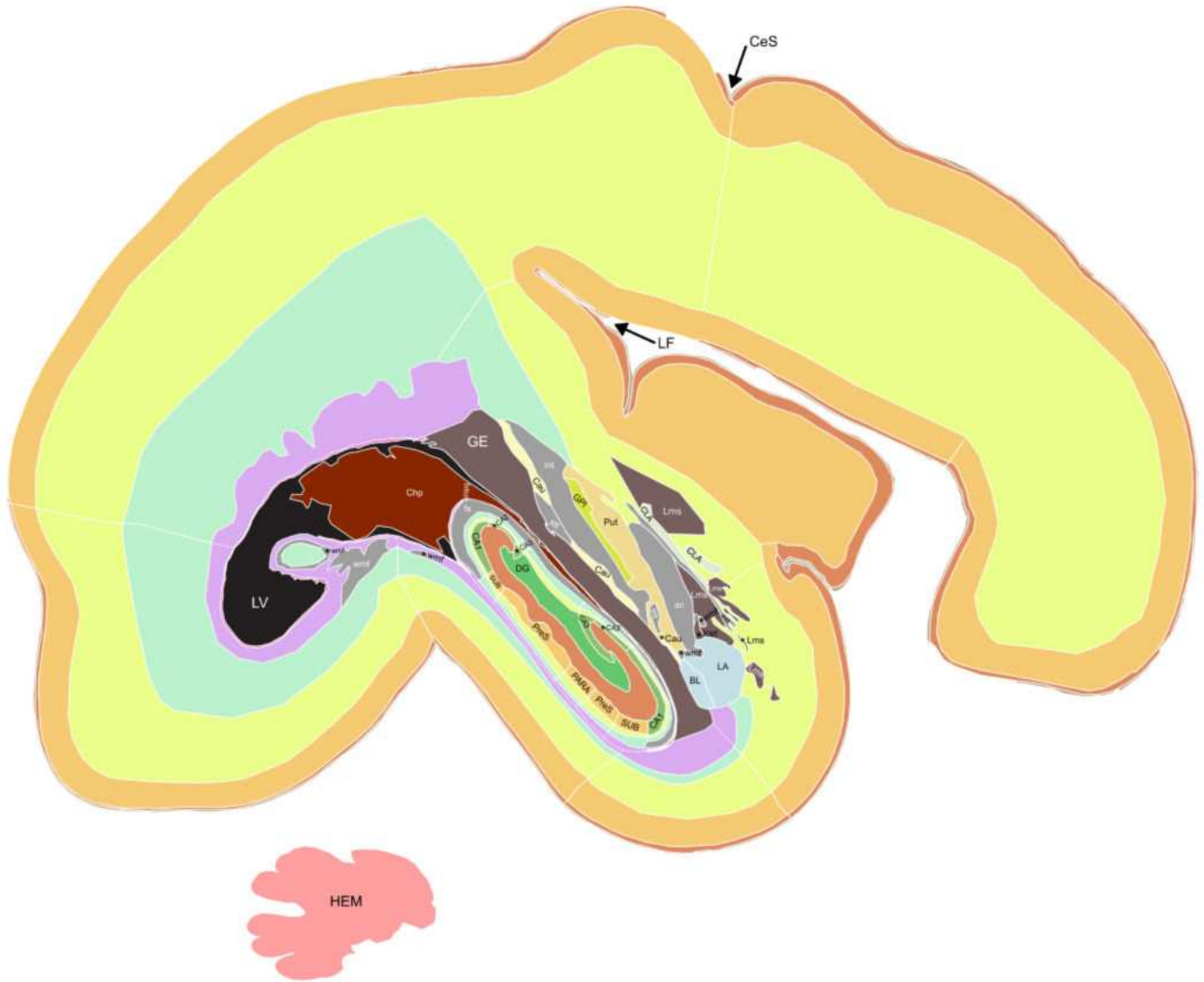
5 mm



Age: 24 GW



L-R Level: 16.32 mm



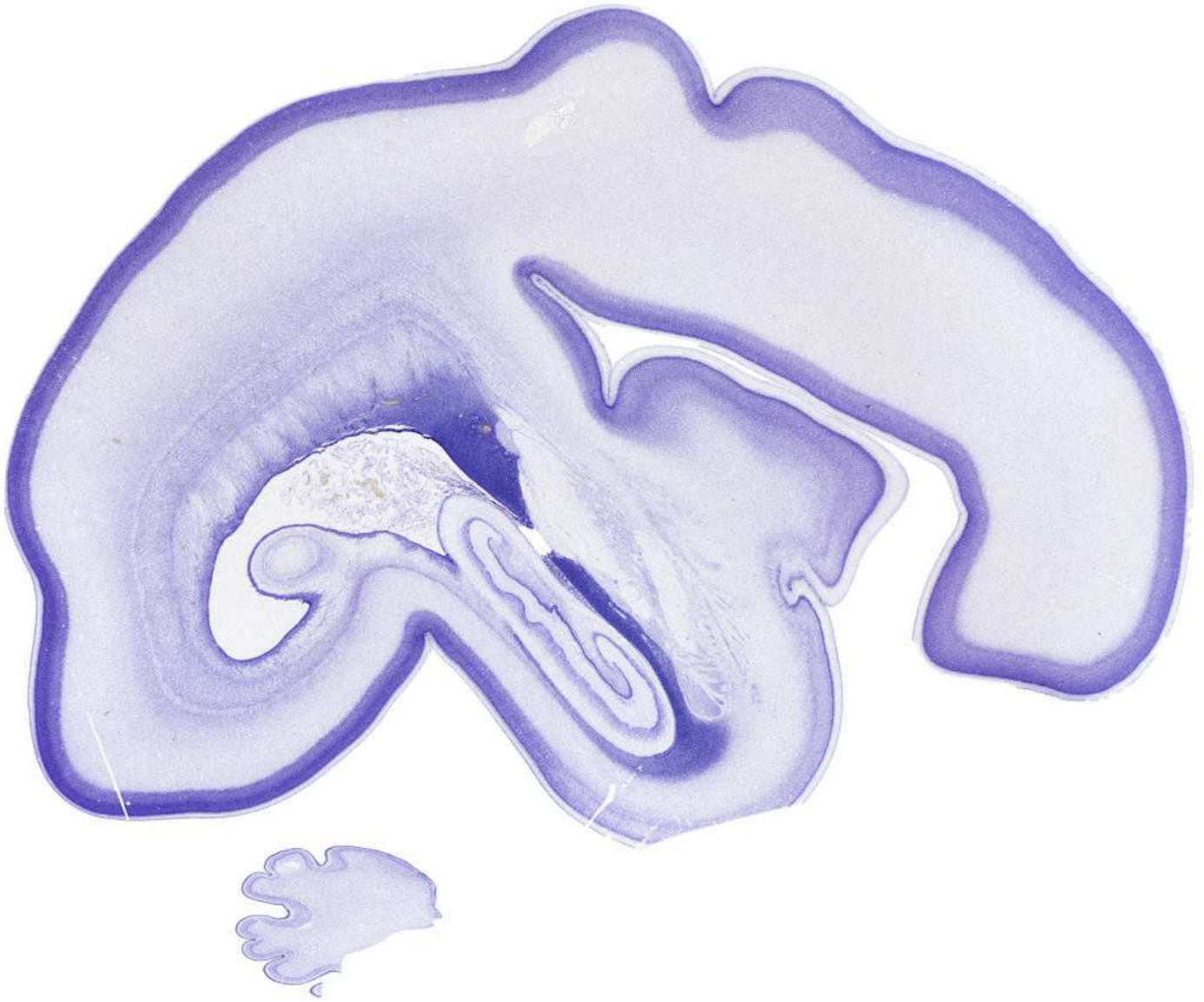
5 mm

- | | | | |
|------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | fx: Fornix |
| CA1: CA1 field [hippocampus] | GE: Ganglionic eminence | PreS: Cortical plate, presubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GPI: Globus pallidus lateral segment | Put: Putamen | int: Internal capsule |
| CA3: CA3 field [hippocampus] | HEM: Cerebellar hemispheres | SUB: Cortical plate, subiculum | stt: Stria terminalis |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ext: External capsule | wmf: White matter fibers |
| Chp: Choroid plexus | Lms: Lateral migratory stream | | → CeS: Central sulcus |
| | | | → LF: Lateral fissure |

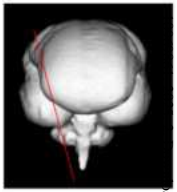
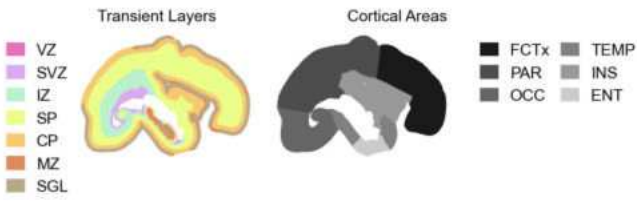
Age: 24 GW



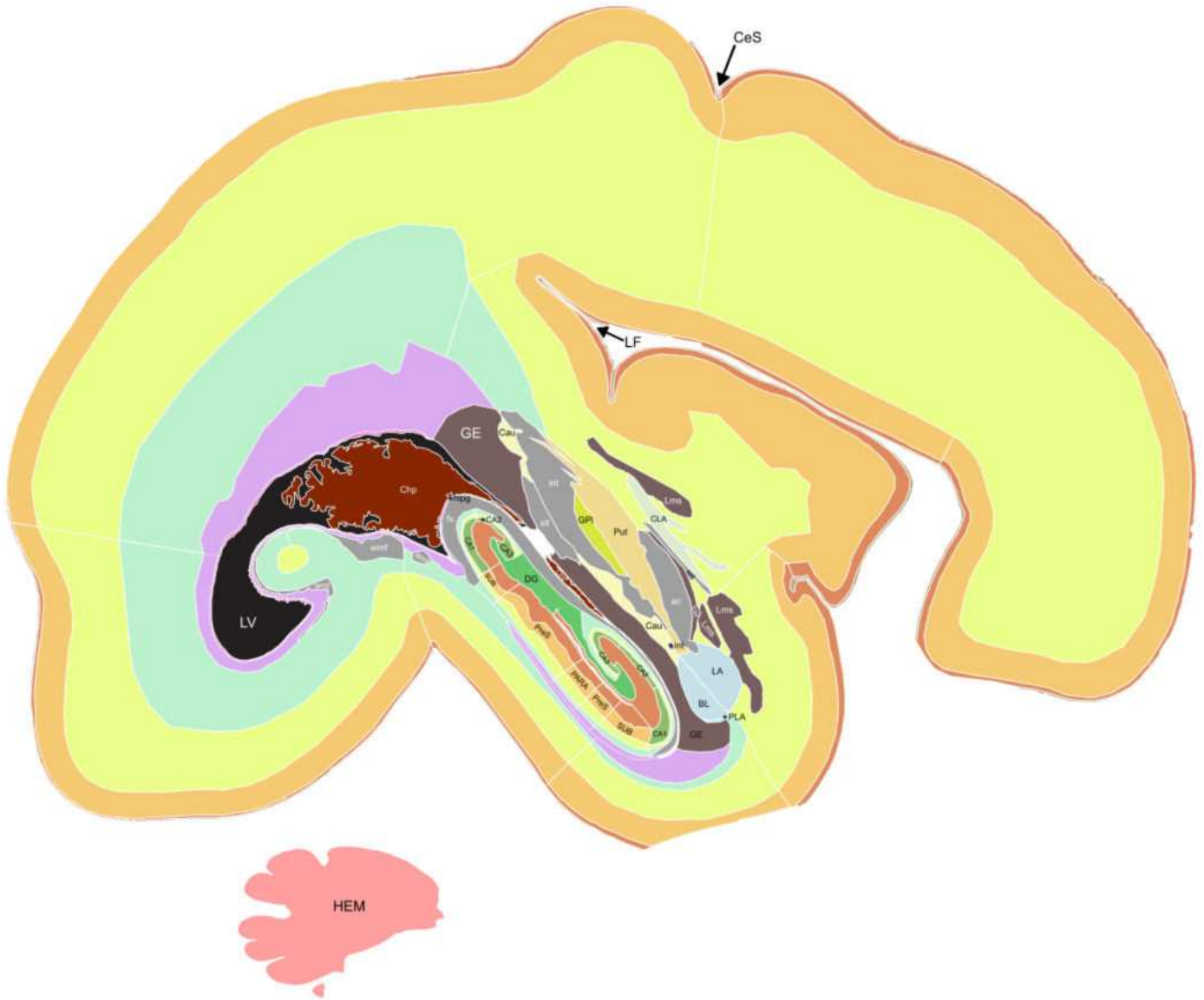
L-R Level: 15.9 mm



5 mm



L-R Level: 15.9 mm



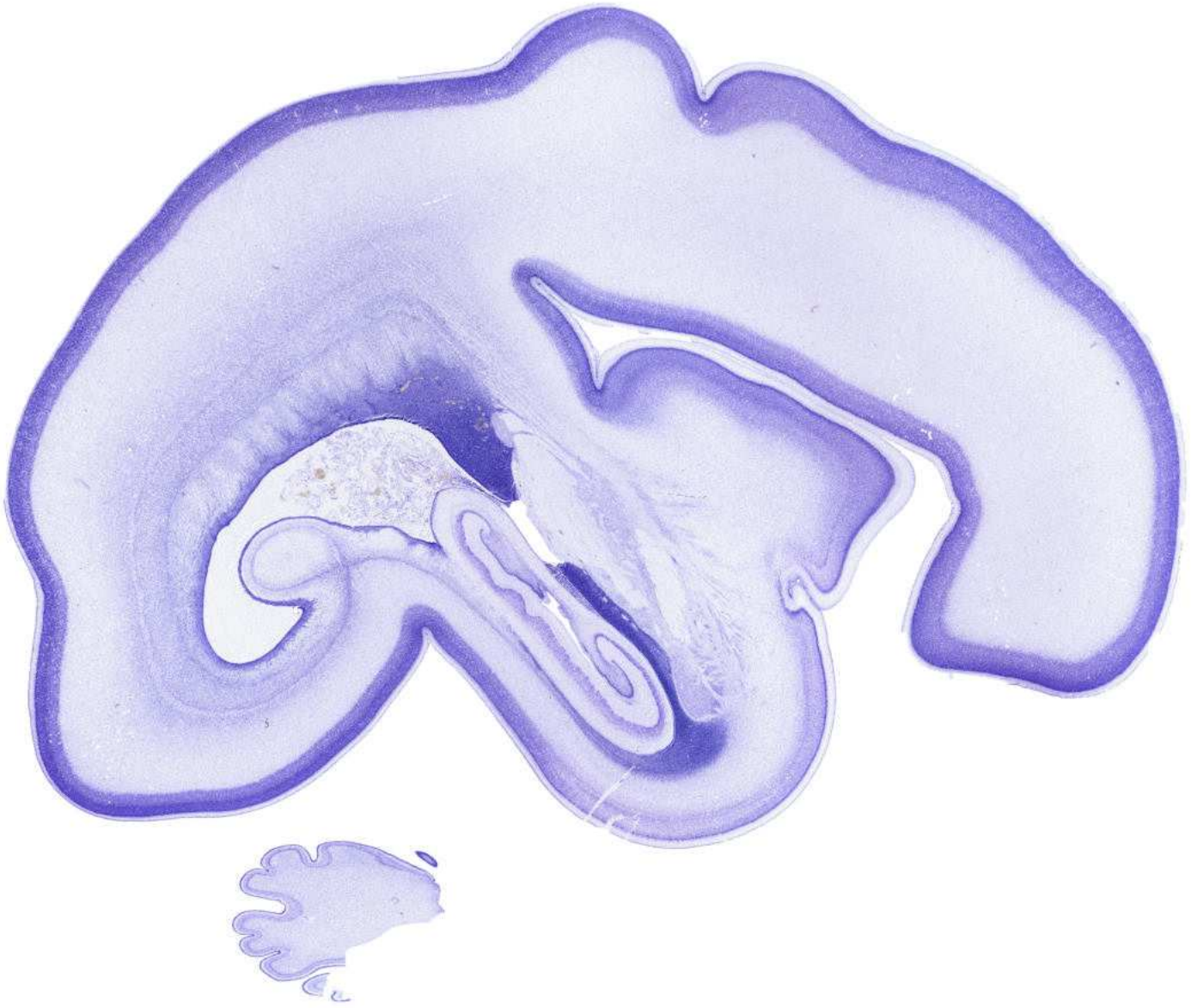
5 mm

- | | | | |
|------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | fx: Fornix |
| CA1: CA1 field [hippocampus] | GE: Ganglionic eminence | PLA: Paralaminar nucleus [amygdala] | hipg: Hippocampal glioepithelium/ependyma |
| CA2: CA2 field [hippocampus] | GPI: Globus pallidus lateral segment | PreS: Cortical plate, presubiculum | int: Internal capsule |
| CA3: CA3 field [hippocampus] | HEM: Cerebellar hemispheres | Put: Putamen | stt: Stria terminalis |
| CLA: Claustrum | LA: Lateral nucleus [amygdala] | SUB: Cortical plate, subiculum | tcet: Transient cell zone in the external capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | wmf: White matter fibers |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ext: External capsule | → CeS: Central sulcus |
| | | | → LF: Lateral fissure |

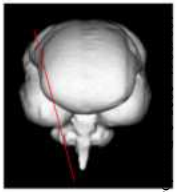
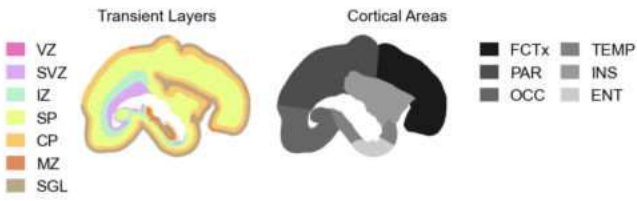
Age: 24 GW



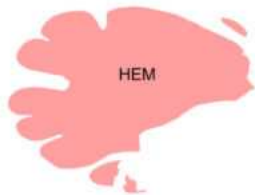
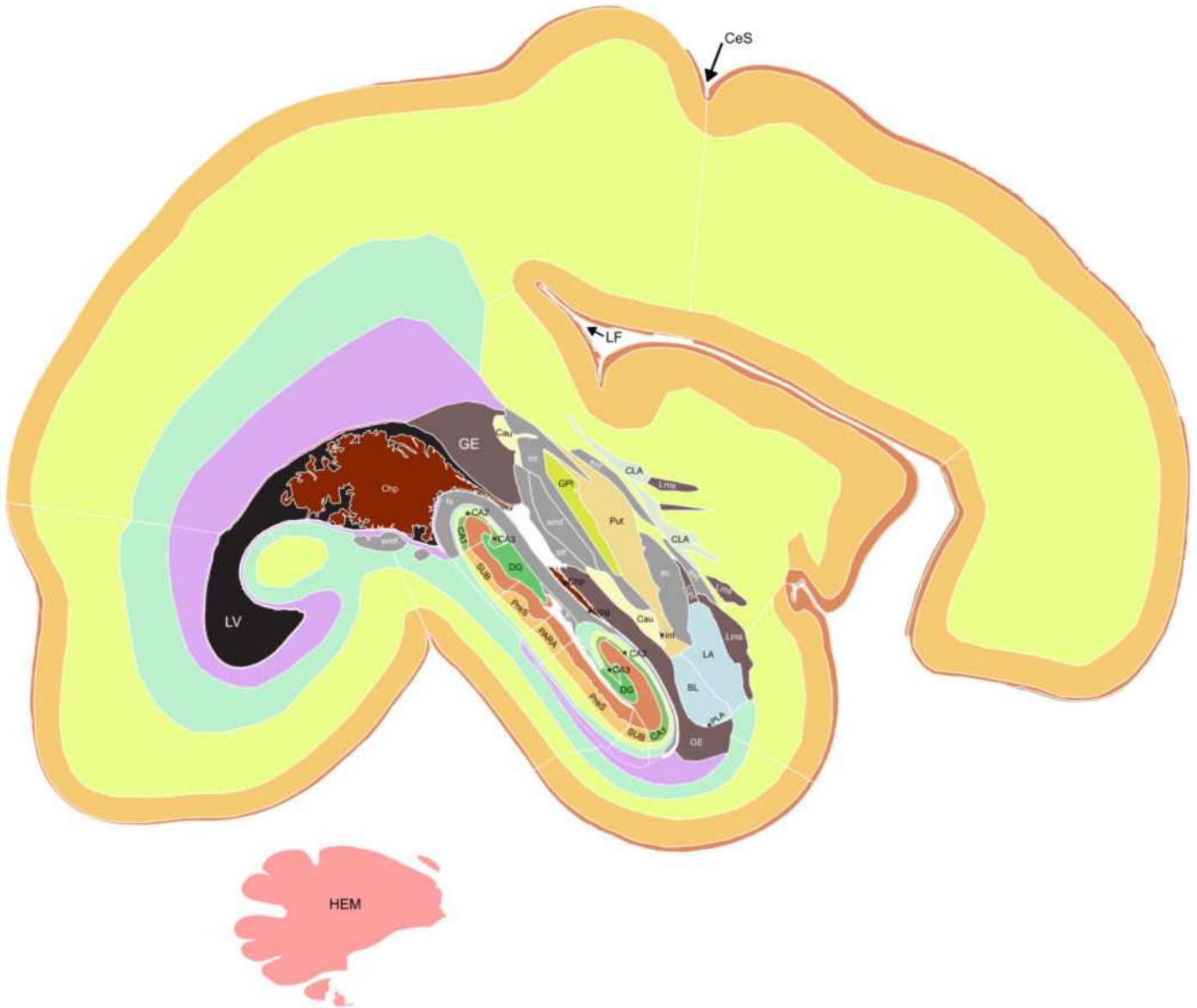
L-R Level: 15.66 mm



5 mm



L-R Level: 15.66 mm



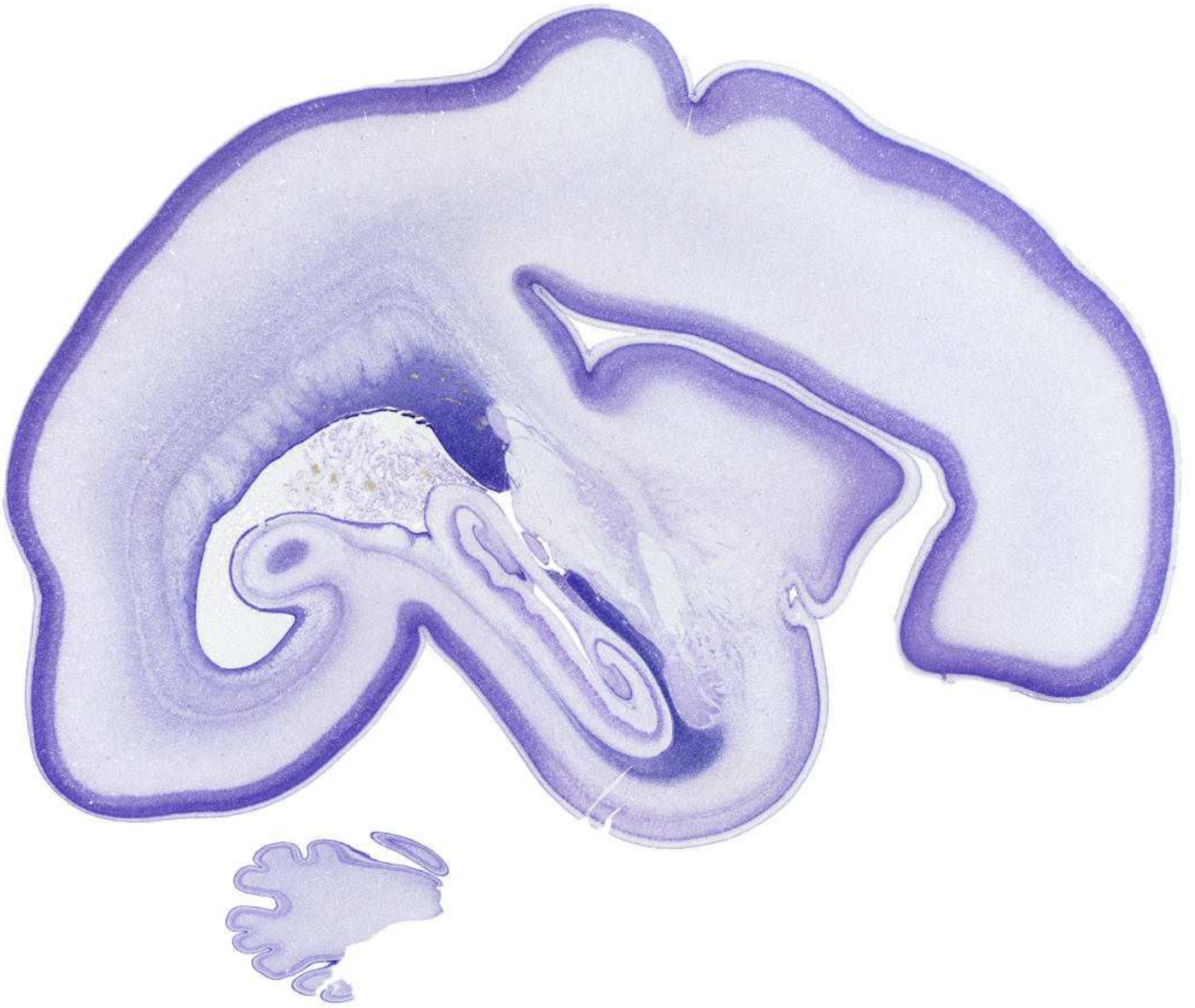
5 mm

- | | | | |
|------------------------------|--------------------------------------|-------------------------------------|---|
| BL: Basal nucleus [amygdala] | DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | fi: Fimbria |
| CA1: CA1 field [hippocampus] | GE: Ganglionic eminence | PLA: Paralaminar nucleus [amygdala] | fx: Fornix |
| CA2: CA2 field [hippocampus] | GPI: Globus pallidus lateral segment | PreS: Cortical plate, presubiculum | hipg: Hippocampal glioepithelium/ependyma |
| CA3: CA3 field [hippocampus] | CLA: Claustrum | Put: Putamen | int: Internal capsule |
| Cau: Caudate nucleus | LV: Lateral ventricle | SUB: Cortical plate, subiculum | stt: Stria terminalis |
| Chp: Choroid plexus | Lms: Lateral migratory stream | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| | | ext: External capsule | wmf: White matter fibers |
| | | | → LF: Lateral fissure |

Age: 24 GW

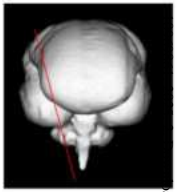
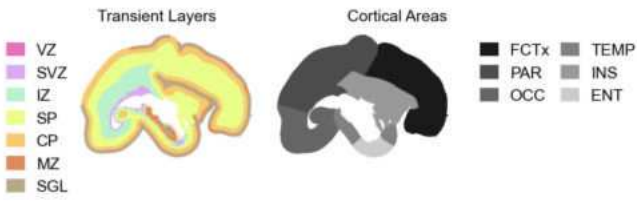


L-R Level: 15.36 mm



5 mm

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L-R Level: 15.36 mm



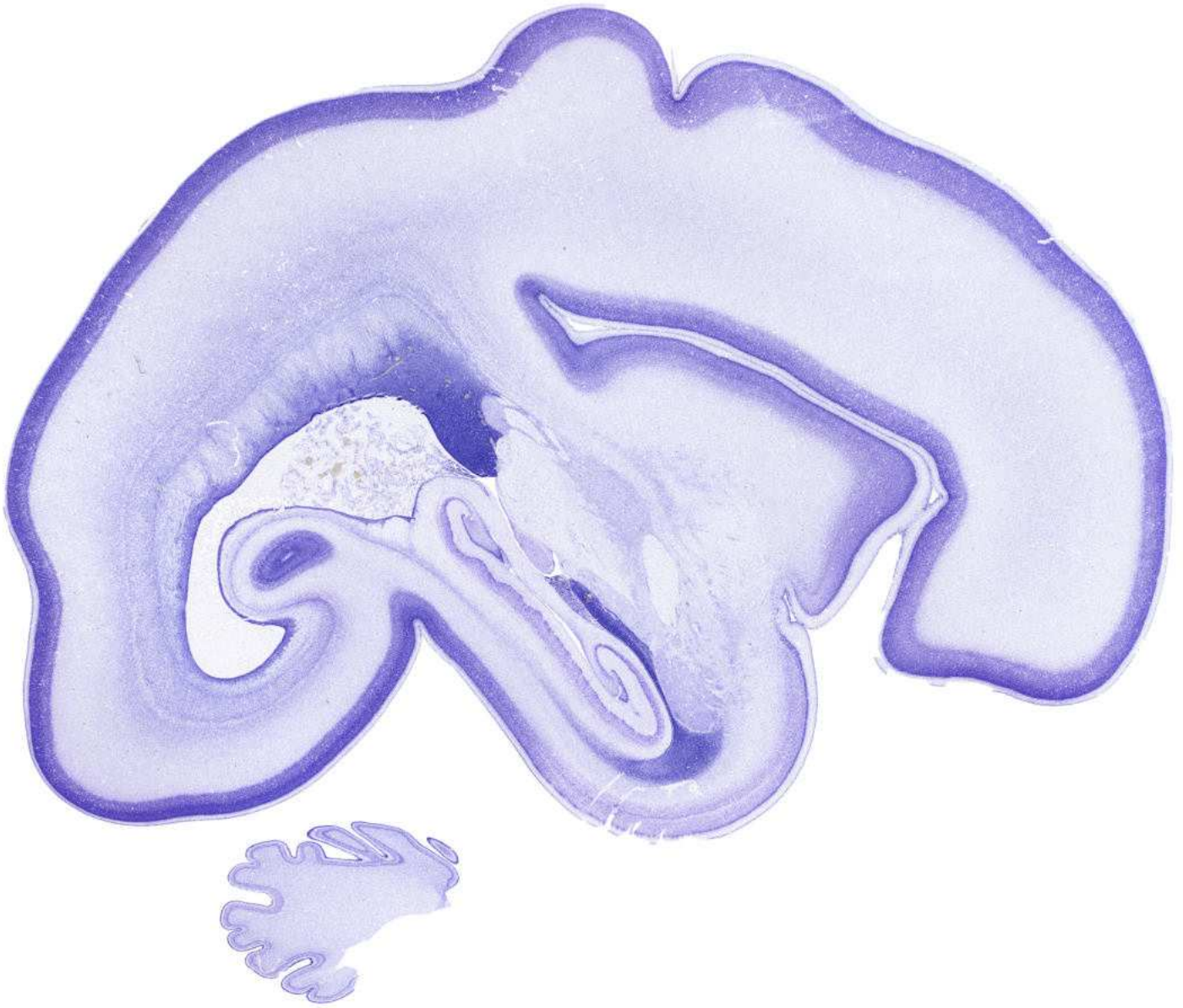
5 mm

- | | | | |
|------------------------------|--------------------------------------|---|---|
| BL: Basal nucleus [amygdala] | GE: Ganglionic eminence | PLA: Paralamina nucleus [amygdala] | ext: External capsule |
| CA1: CA1 field [hippocampus] | GPI: Globus pallidus lateral segment | PreS: Cortical plate, presubiculum | fx: Fornix |
| CA2: CA2 field [hippocampus] | HEM: Cerebellar hemispheres | Put: Putamen | hipg: Hippocampal globoepithelium/ependyma |
| CA3: CA3 field [hippocampus] | LA: Lateral nucleus [amygdala] | RT: Reticular nucleus [thalamus] | int: Internal capsule |
| CLA: Claustrum | LGN: Lateral geniculate nucleus | SUB: Cortical plate, subiculum | stt: Stria terminalis |
| Cau: Caudate nucleus | LV: Lateral ventricle | ac: Anterior commissure | tcet: Transient cell zone in the external capsule |
| Chp: Choroid plexus | Lms: Lateral migratory stream | dne: Diencephalic neuroepithelium | wmf: White matter fibers |
| DG: Dentate gyrus | PARA: Cortical plate, parasubiculum | emlth: External medullary lamina [thalamus] | CeS: Central sulcus |
| | | | LF: Lateral fissure |

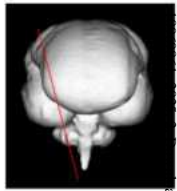
Age: 24 GW



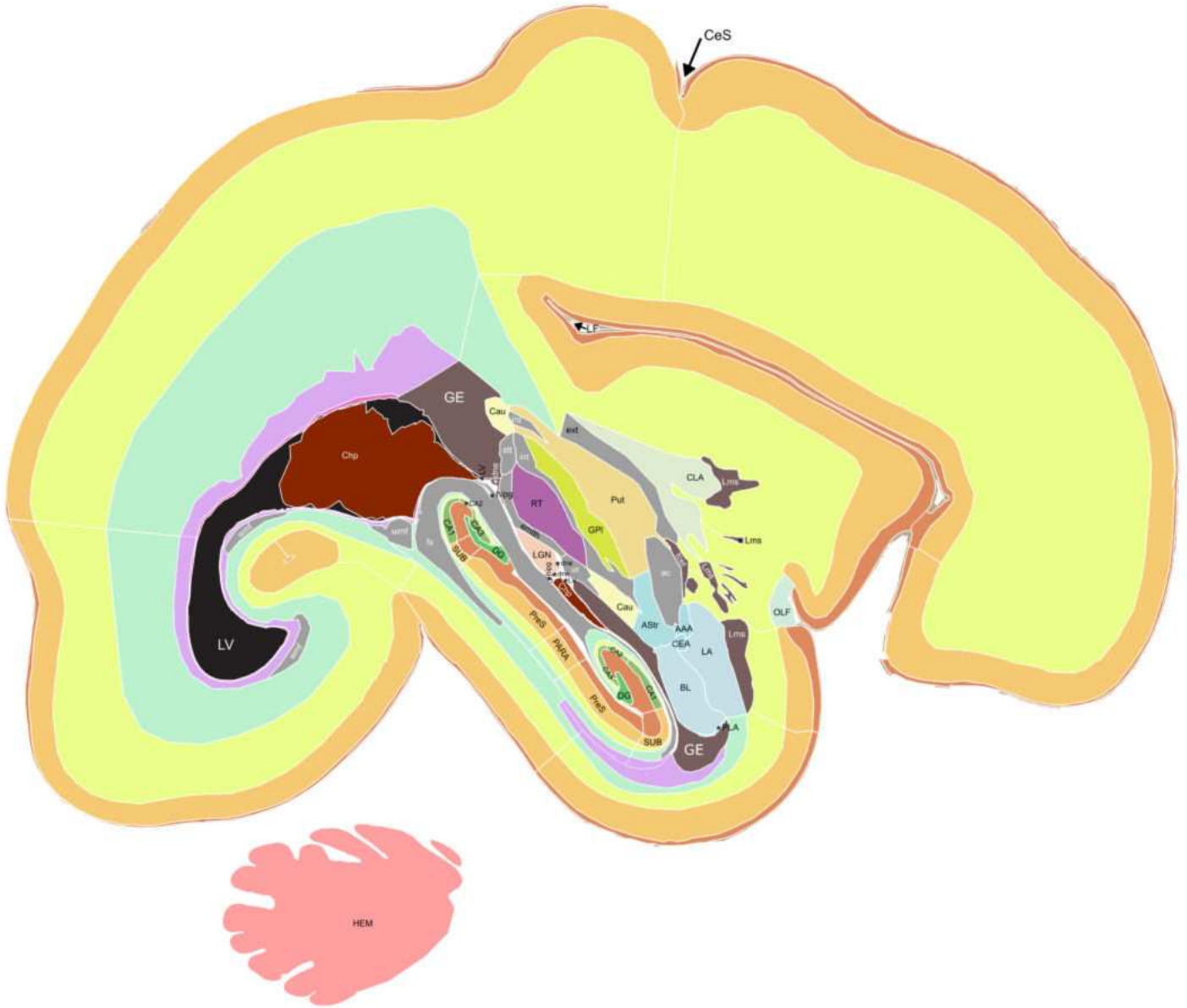
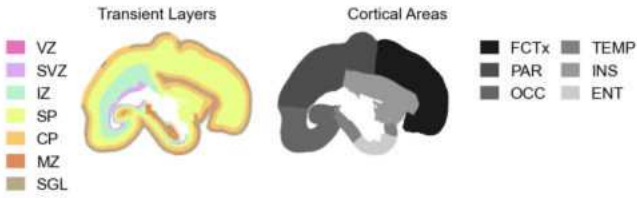
L-R Level: 14.82 mm



5 mm



L-R Level: 14.82 mm



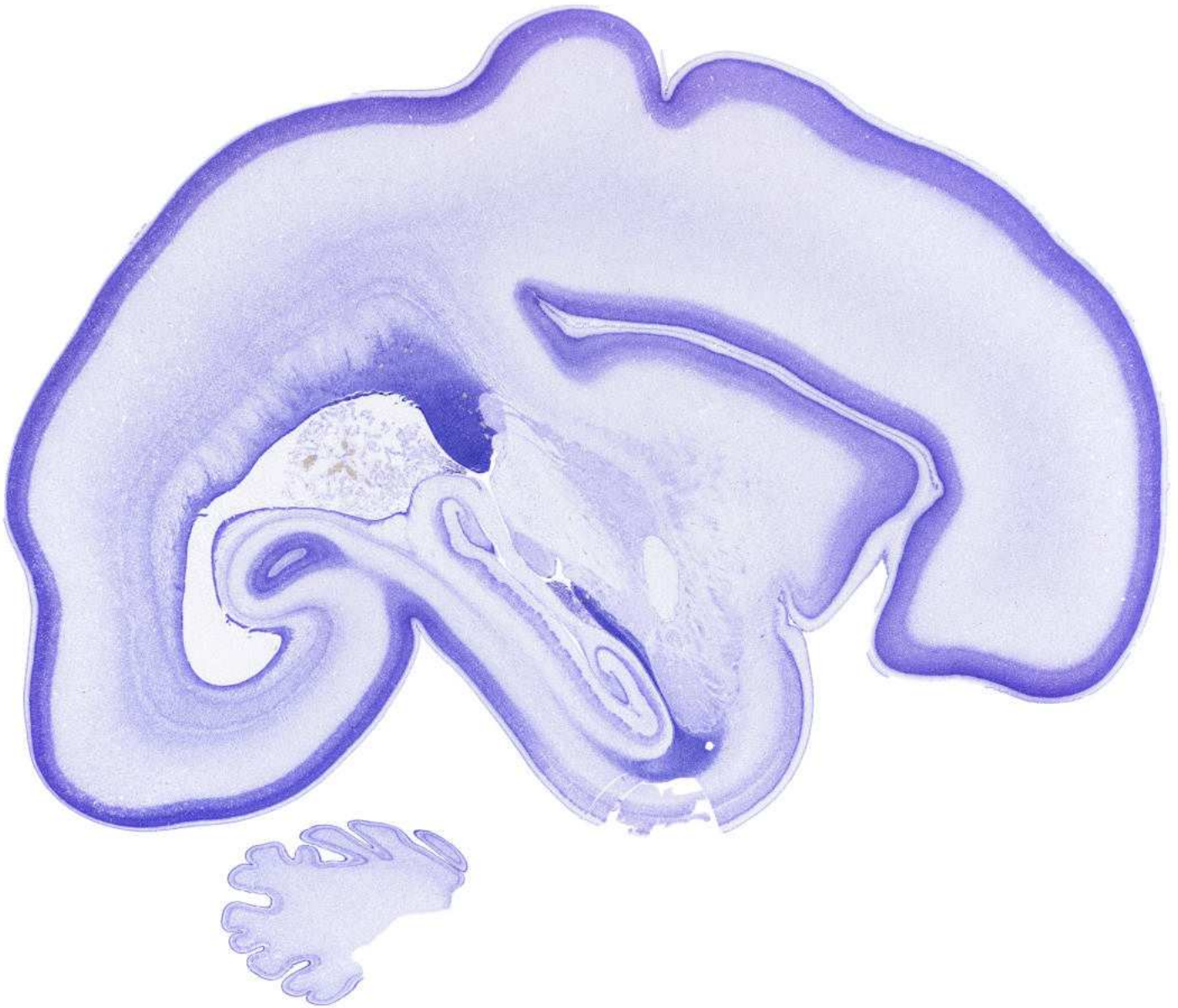
- | | | | |
|---|---|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Clausstrum Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium | <ul style="list-style-type: none"> emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloepithelium/ependyma int: Internal capsule st: Stria terminalis tct: Transient cell zone in the external capsule wmf: White matter fibers CeS: Central sulcus LF: Lateral fissure |
|---|---|--|---|

5 mm

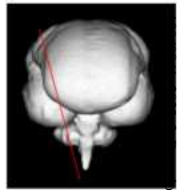
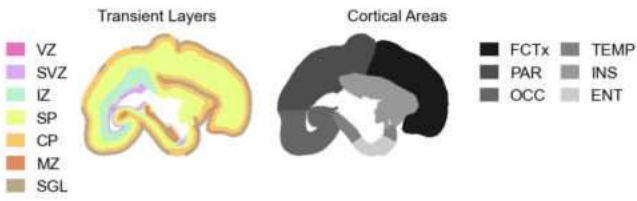
Age: 24 GW



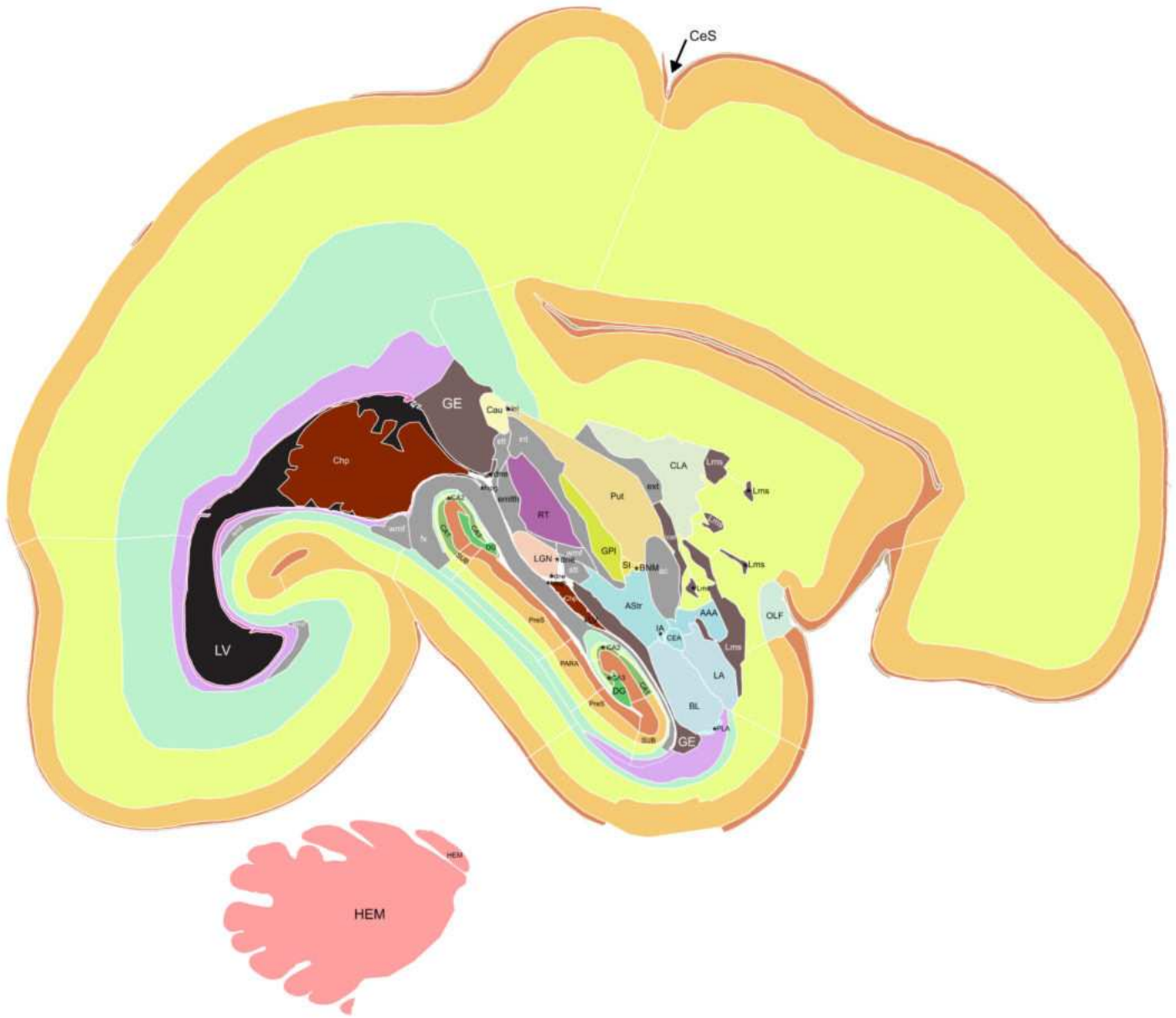
L-R Level: 14.58 mm



5 mm



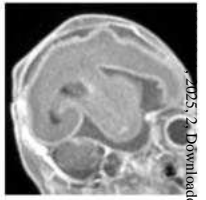
L-R Level: 14.58 mm



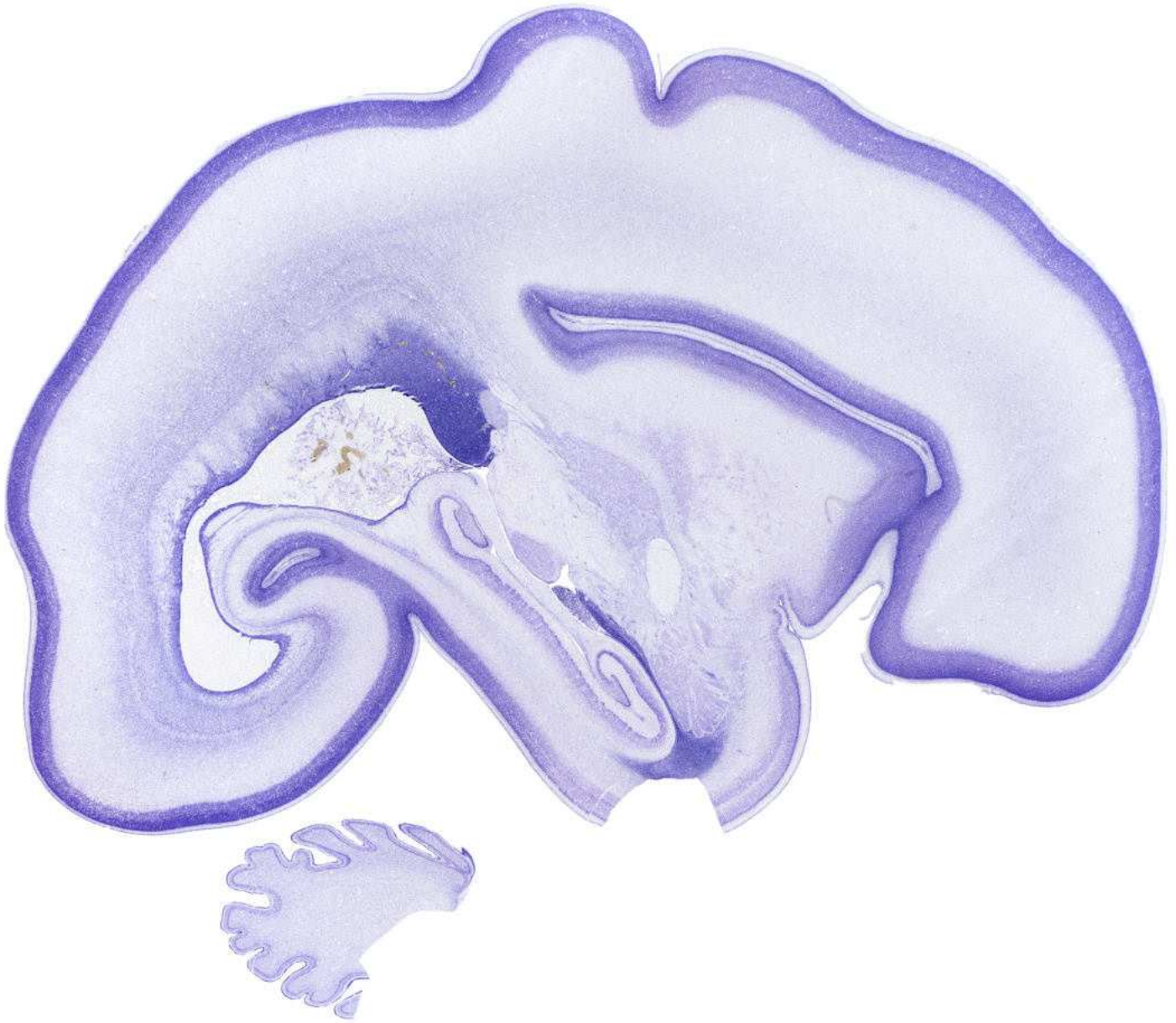
5 mm

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|---|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloioepithelium/ependyma int: Internal capsule st: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CeS: Central sulcus |
|---|---|---|--|

Age: 24 GW

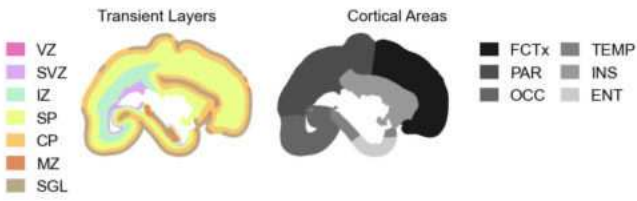


L-R Level: 14.28 mm

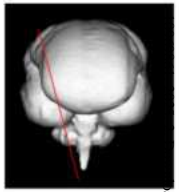


5 mm

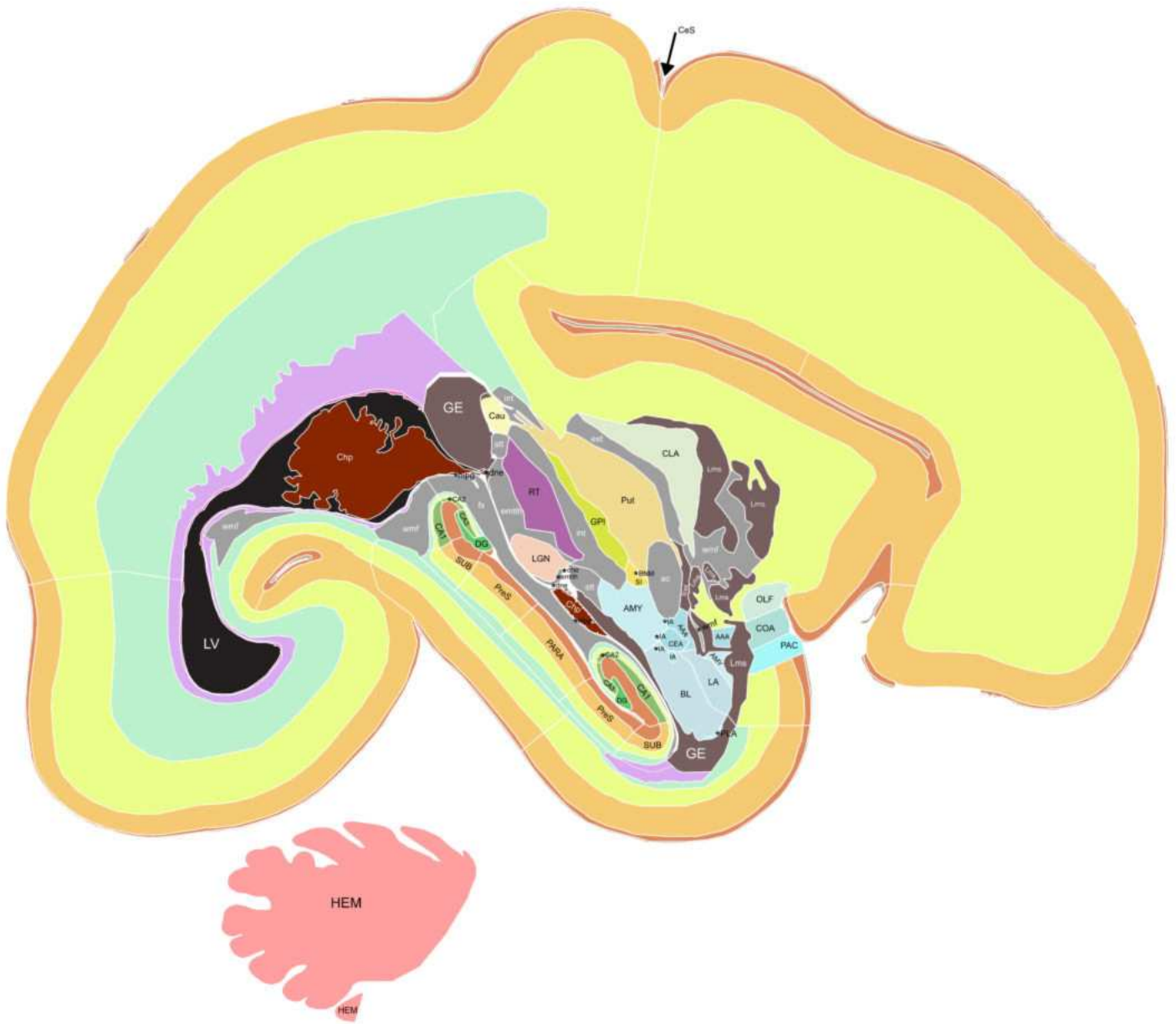
2025, 2, Downloaded from <https://onlinelibrary.wiley.com/doi/10.1002/ene.70006> by Test, Wiley Online Library on [06/02/2025]. See the Terms and Conditions (<https://onlinelibrary.wiley.com/terms-and-conditions>) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License



Age: 24 GW



L-R Level: 14.28 mm



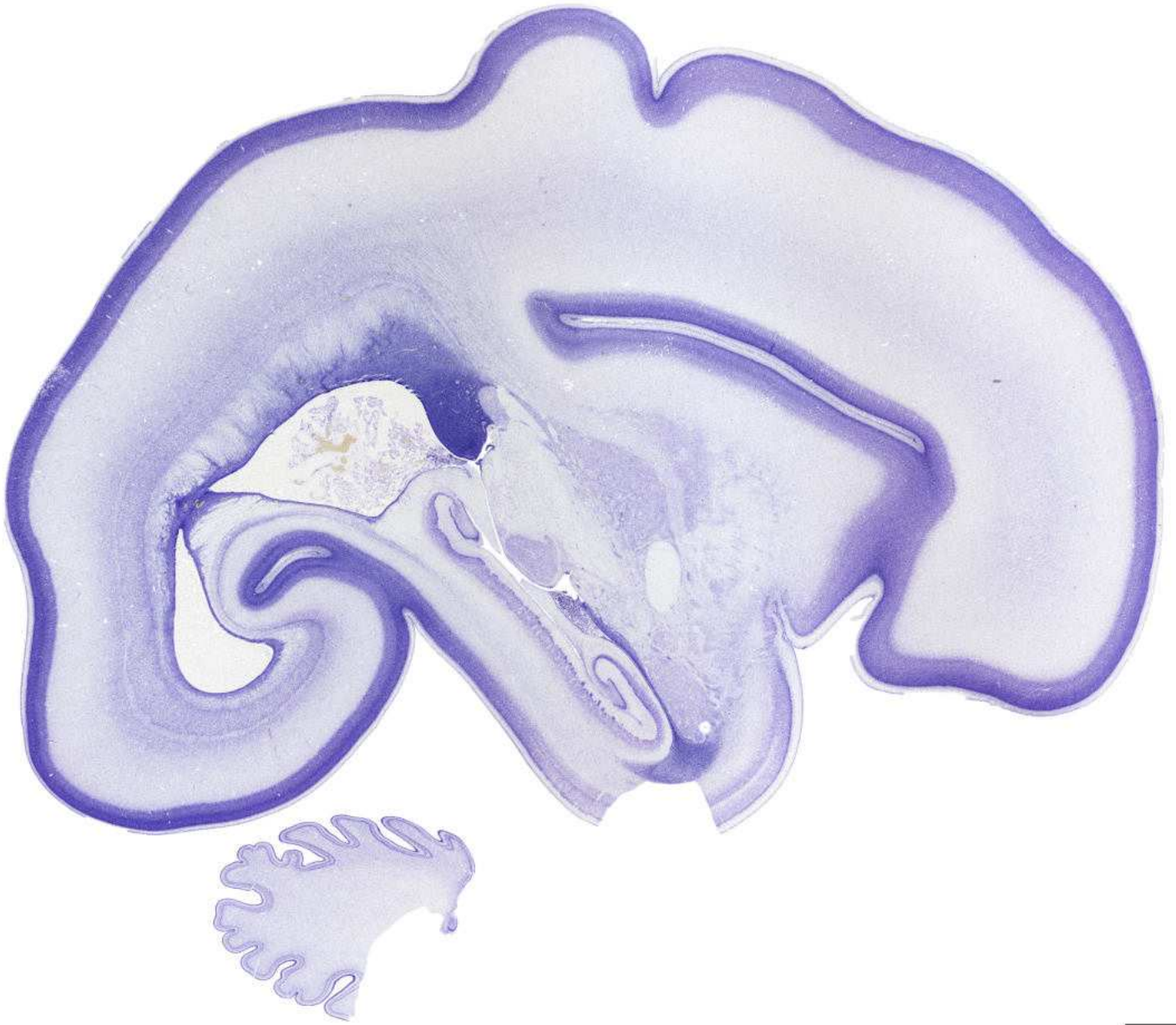
5 mm

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|--|---|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis toet: Transient cell zone in the external capsule wmf: White matter fibers → CeS: Central sulcus |
|--|---|---|---|

Age: 24 GW

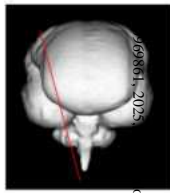


L-R Level: 13.98 mm

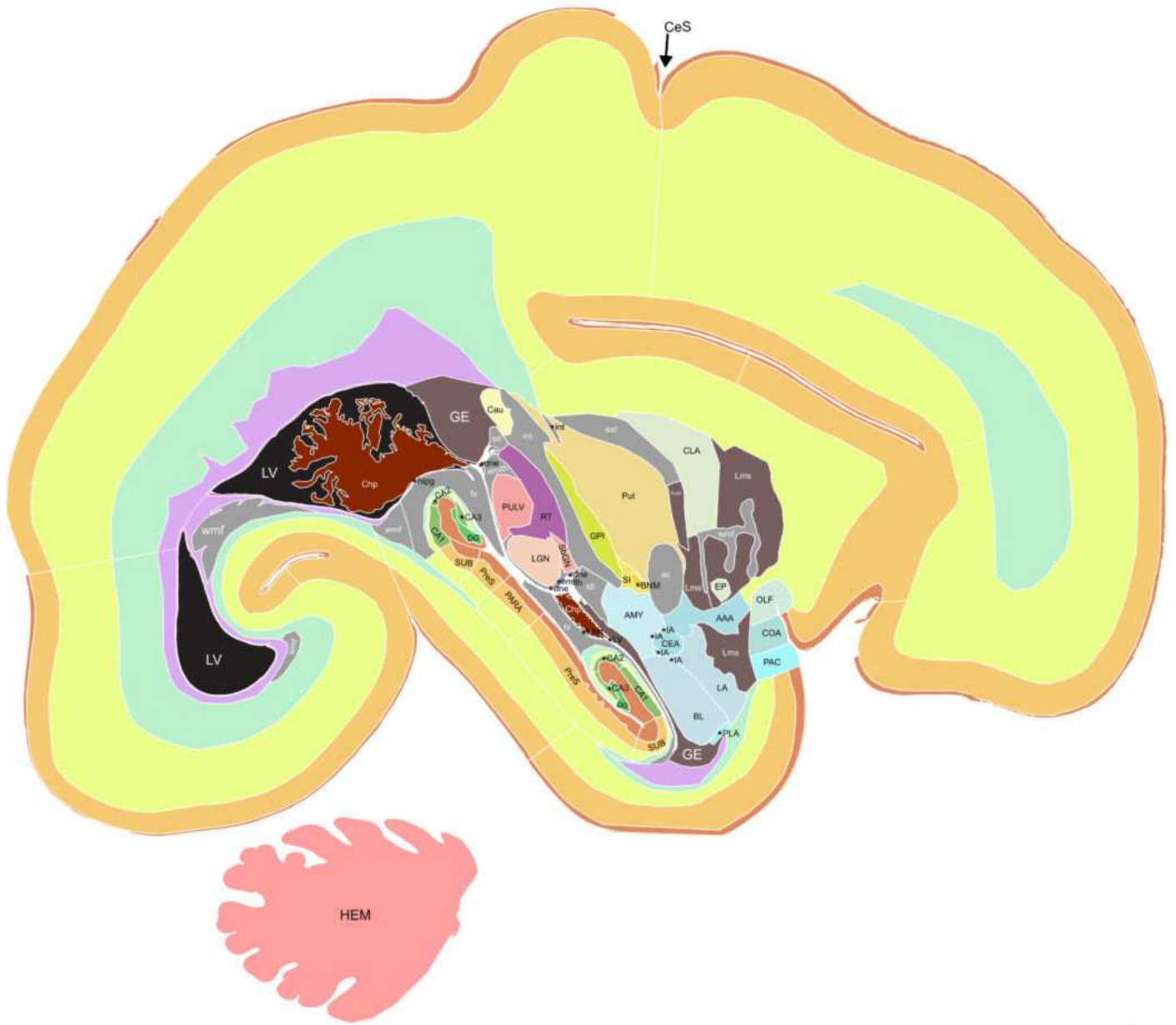
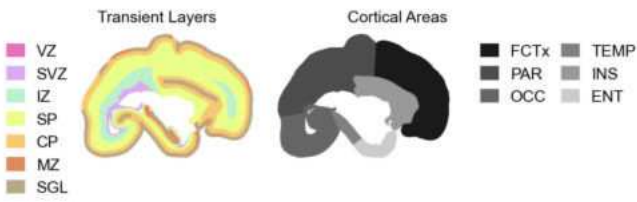


5 mm

Age: 24 GW



L-R Level: 13.98 mm



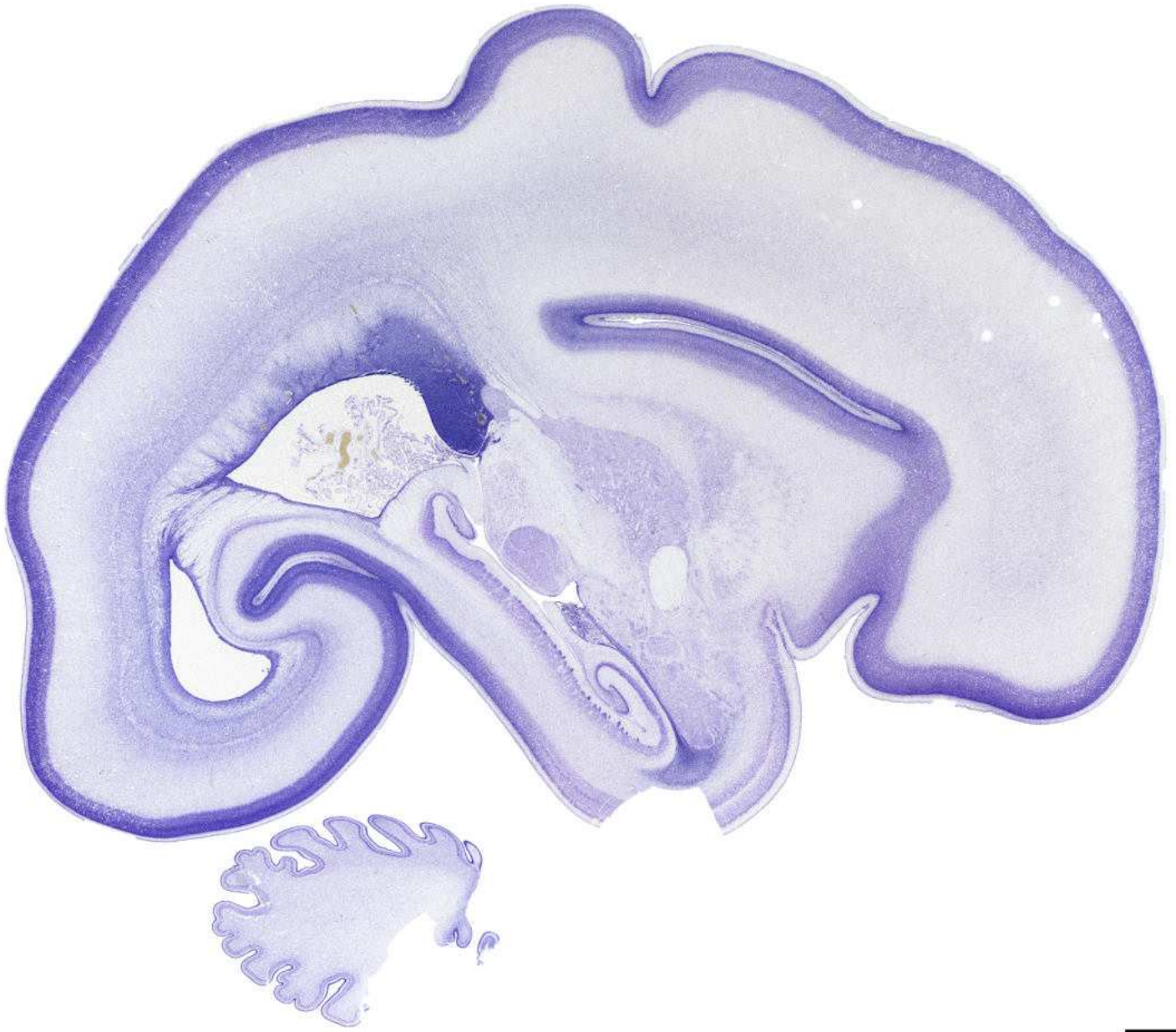
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|--|---|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus | <ul style="list-style-type: none"> ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers CeS: Central sulcus |
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5 mm

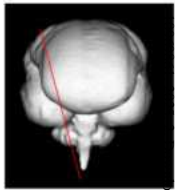
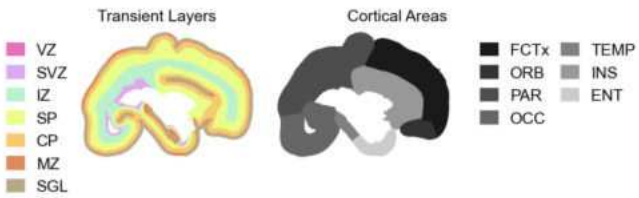
Age: 24 GW



L-R Level: 13.5 mm



5 mm



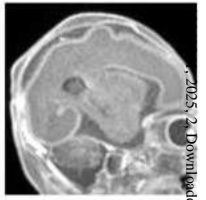
L-R Level: 13.5 mm



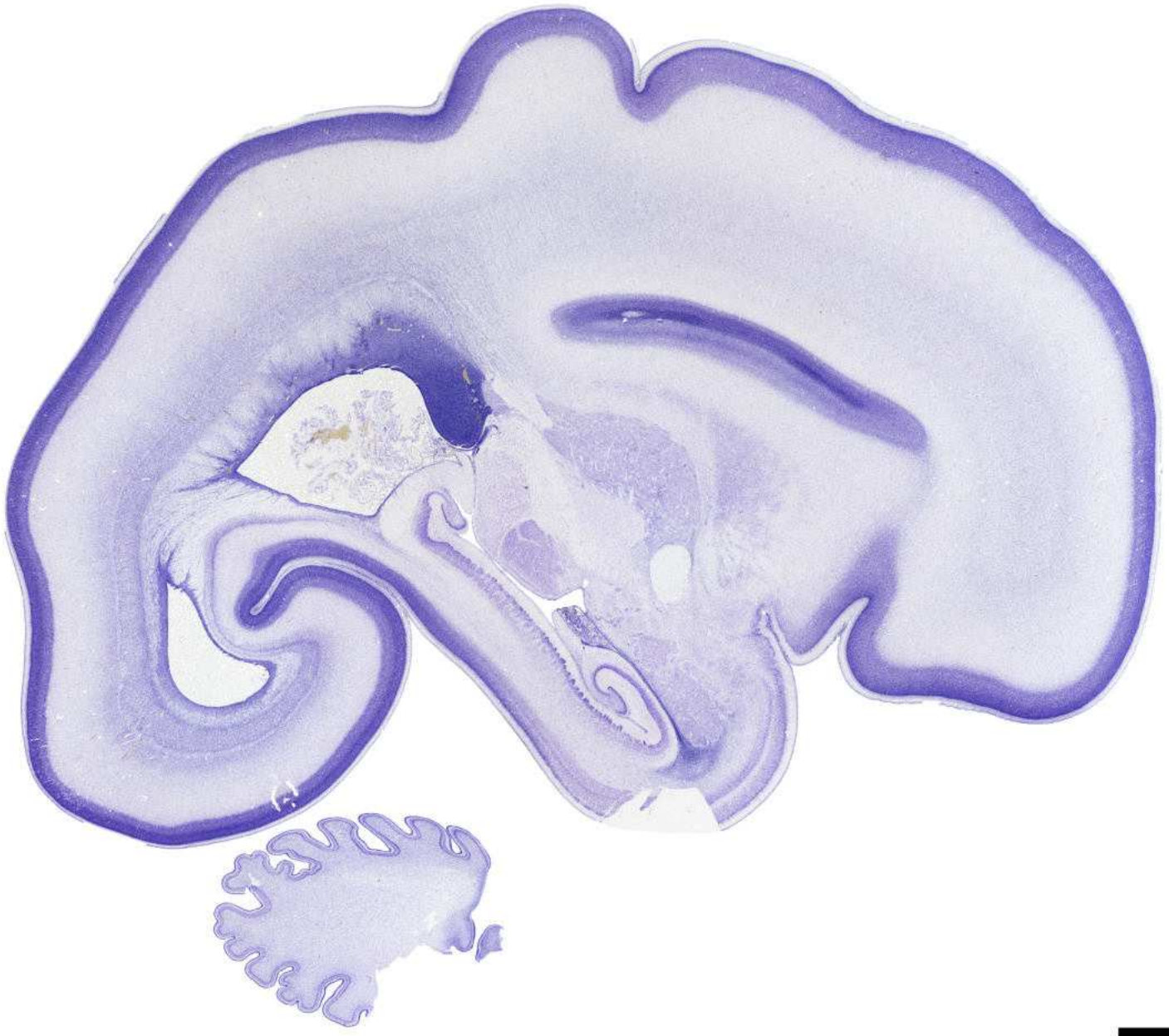
5 mm

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|---|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule str-g: Strionuclear glioepithelium stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers → CeS: Central sulcus |
|---|---|---|--|

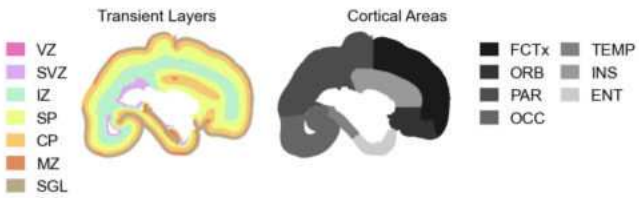
Age: 24 GW



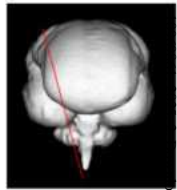
L-R Level: 13.14 mm



5 mm



Age: 24 GW



L-R Level: 13.14 mm



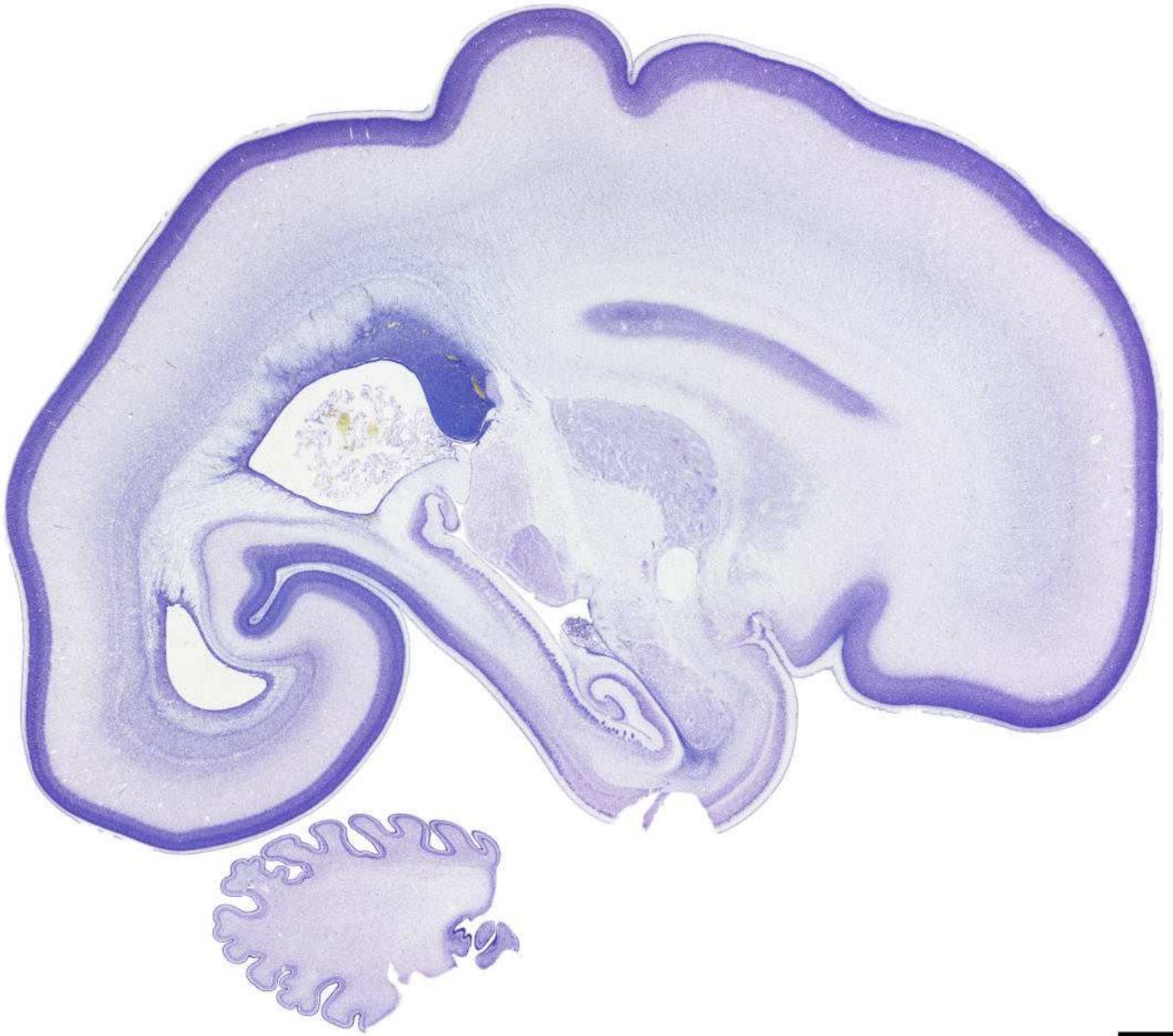
5 mm

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|--|--|--|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLd: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLvl: Basal nucleus [amygdala], ventrolateral part BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream Ms-g: Migratory stream, general NAC: Nucleus accumbens PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> SbGN: Subgeniulate nucleus ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis toct: Transient cell zone in the external capsule wmf: White matter fibers CeS: Central sulcus |
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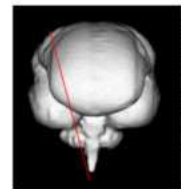
Age: 24 GW



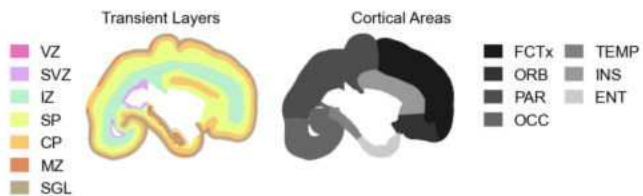
L-R Level: 12.66 mm



5 mm



L-R Level: 12.66 mm



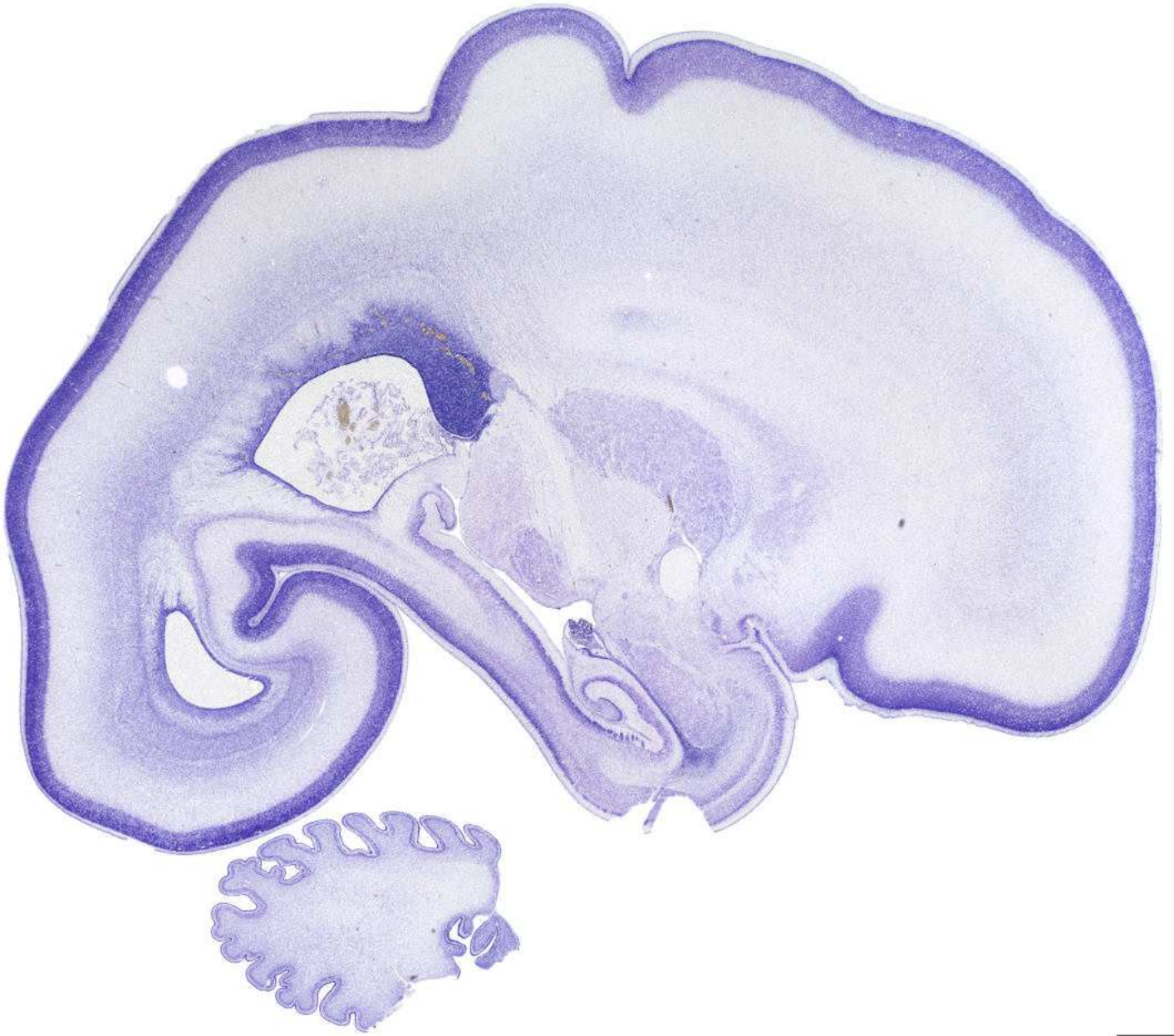
5 mm

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|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLd: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLv: Basal nucleus [amygdala], ventrolateral part BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general NAC: Nucleus accumbens PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus TRI: Germinal trigone ac: Anterior commissure cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers | <ul style="list-style-type: none"> CeS: Central sulcus |
|---|---|

Age: 24 GW



L-R Level: 12.42 mm

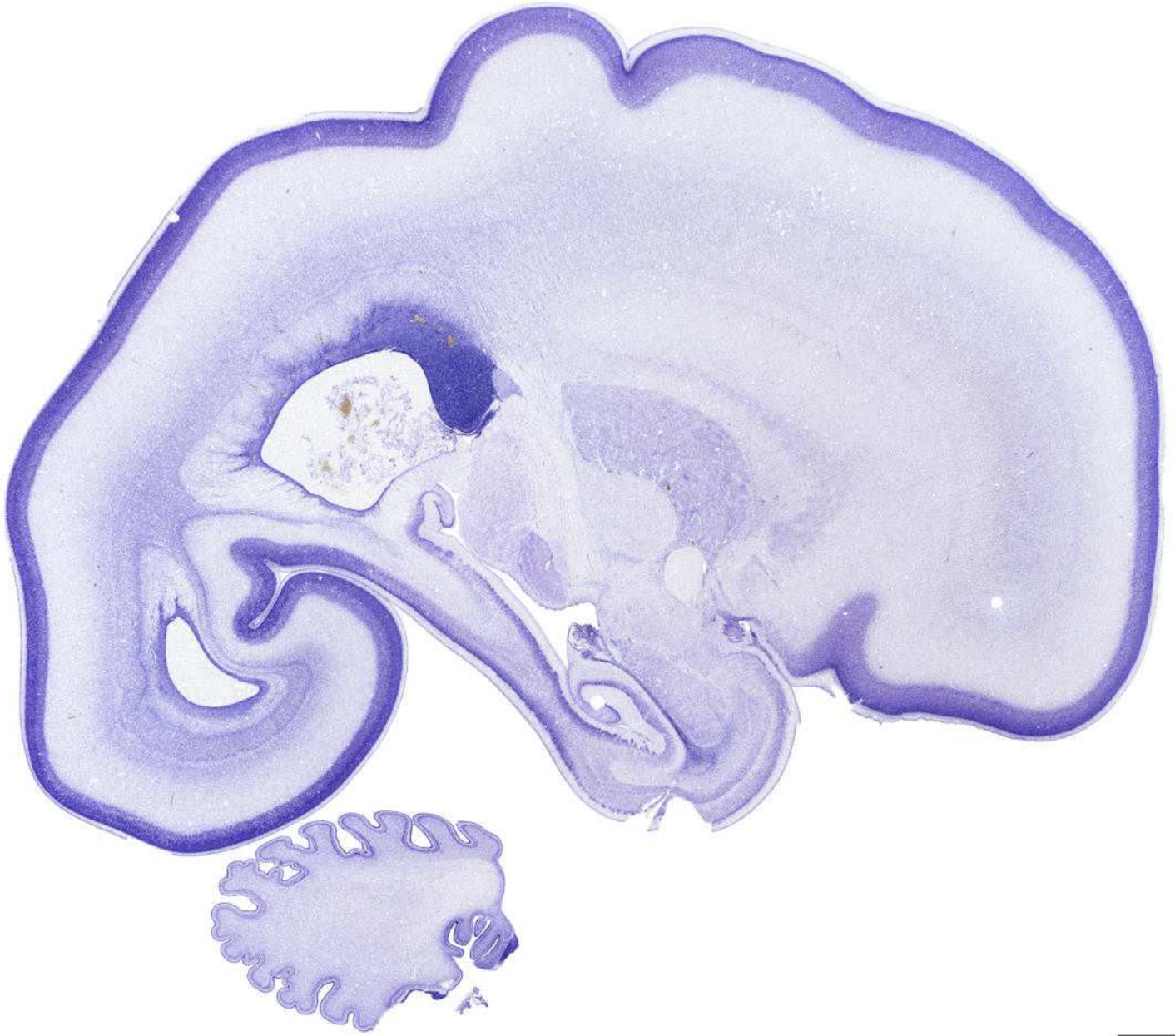


5 mm

Age: 24 GW



L-R Level: 12.12 mm

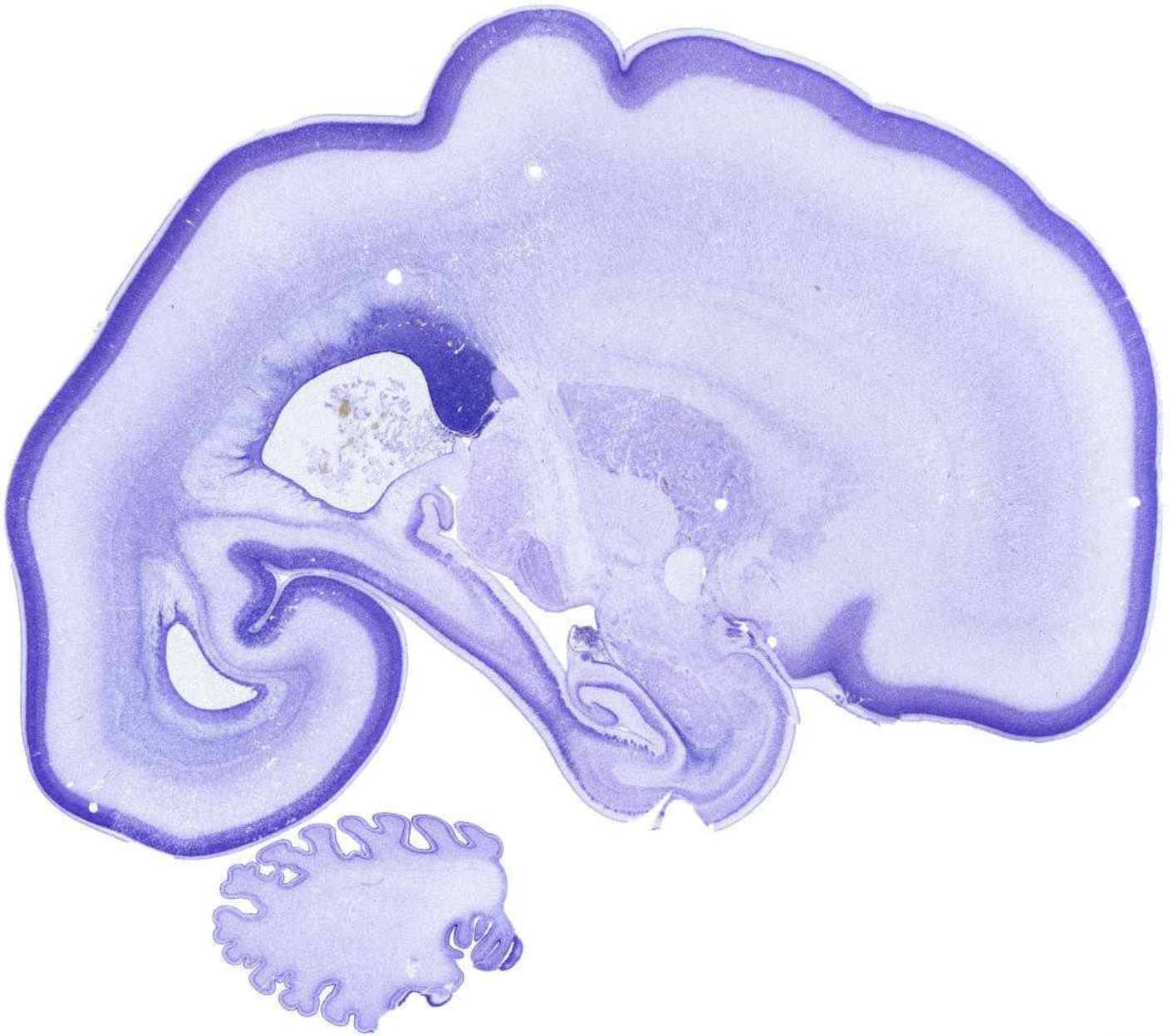


5 mm

Age: 24 GW

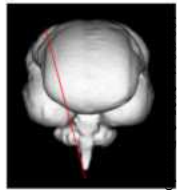
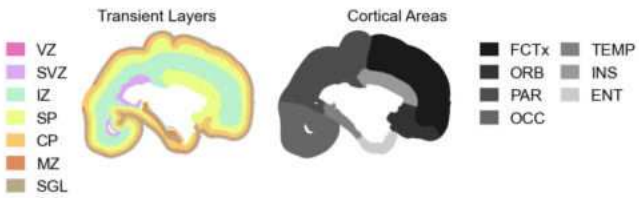


L-R Level: 12.06 mm

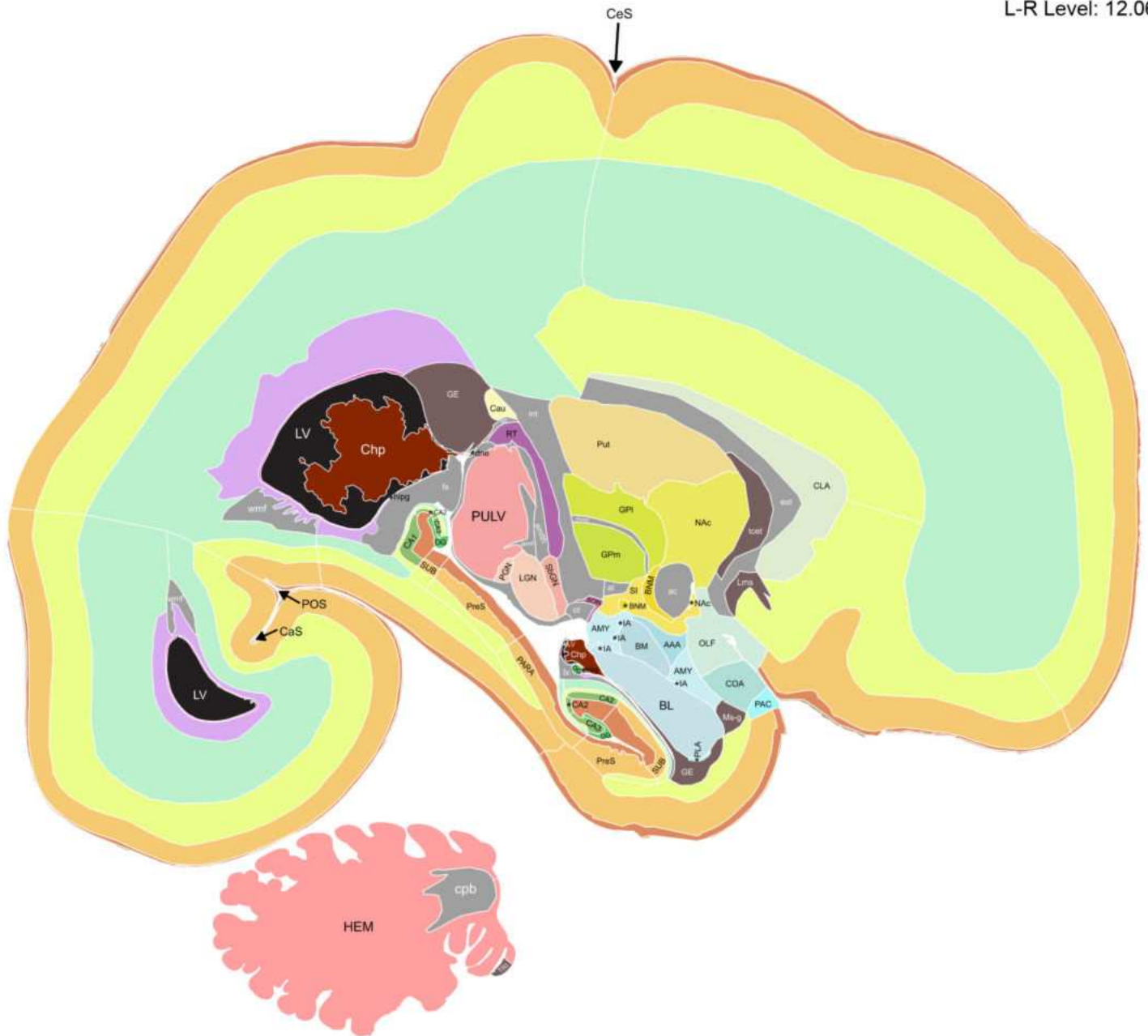


5 mm

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L-R Level: 12.06 mm



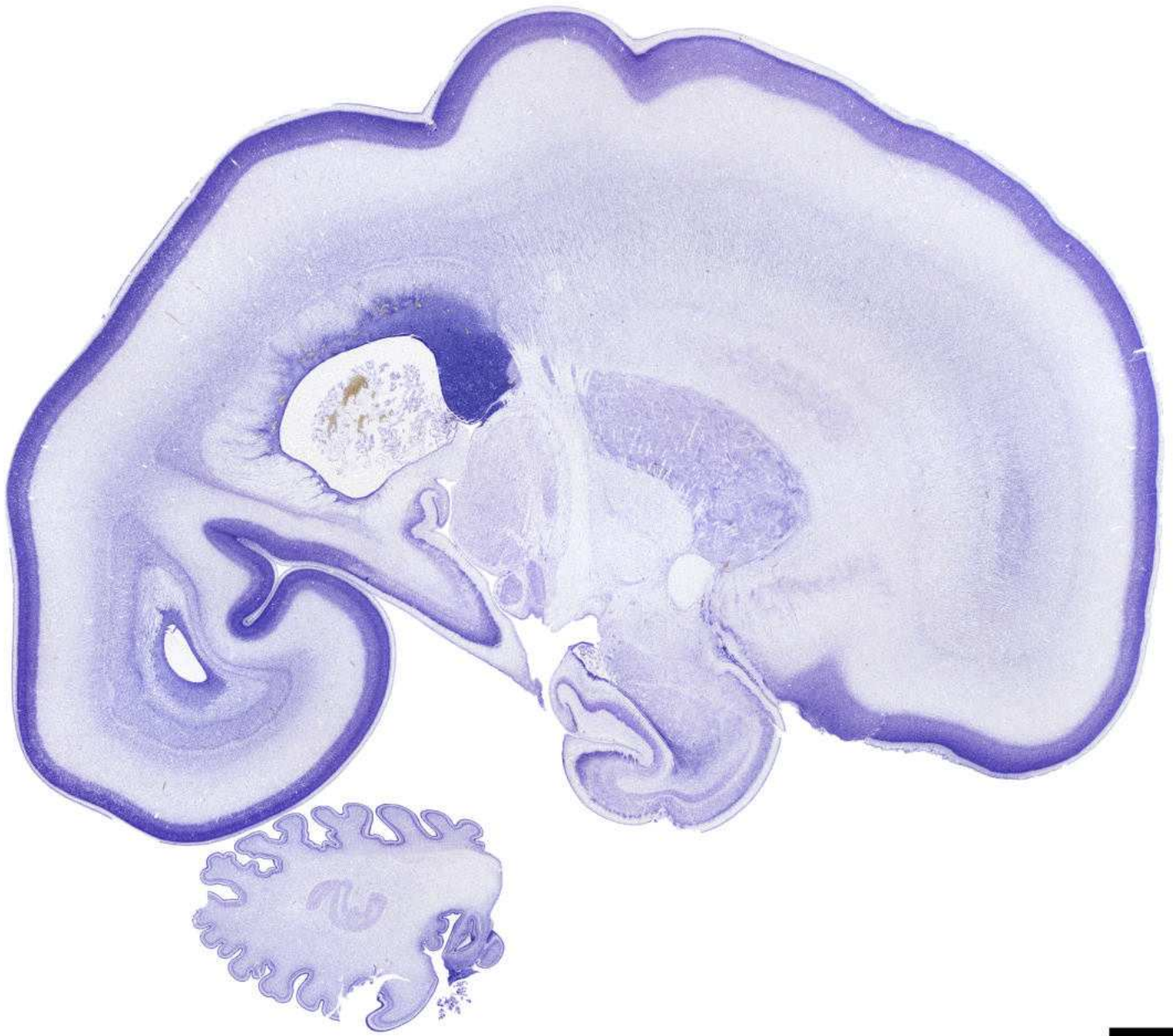
5 mm

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|--|---|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general NAC: Nucleus accumbens PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus | <ul style="list-style-type: none"> PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus TRI: Germinal trigone ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tctz: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|---|
- CaS: Calcarine sulcus
→ CeS: Central sulcus
→ POS: Parieto-occipital sulcus

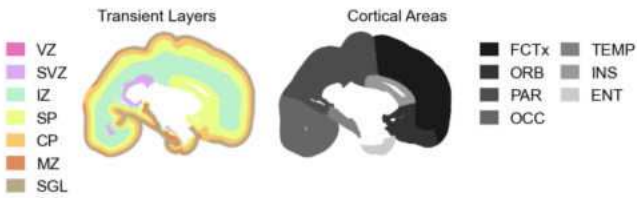
Age: 24 GW



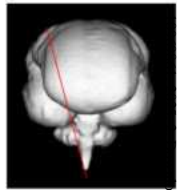
L-R Level: 11.4 mm



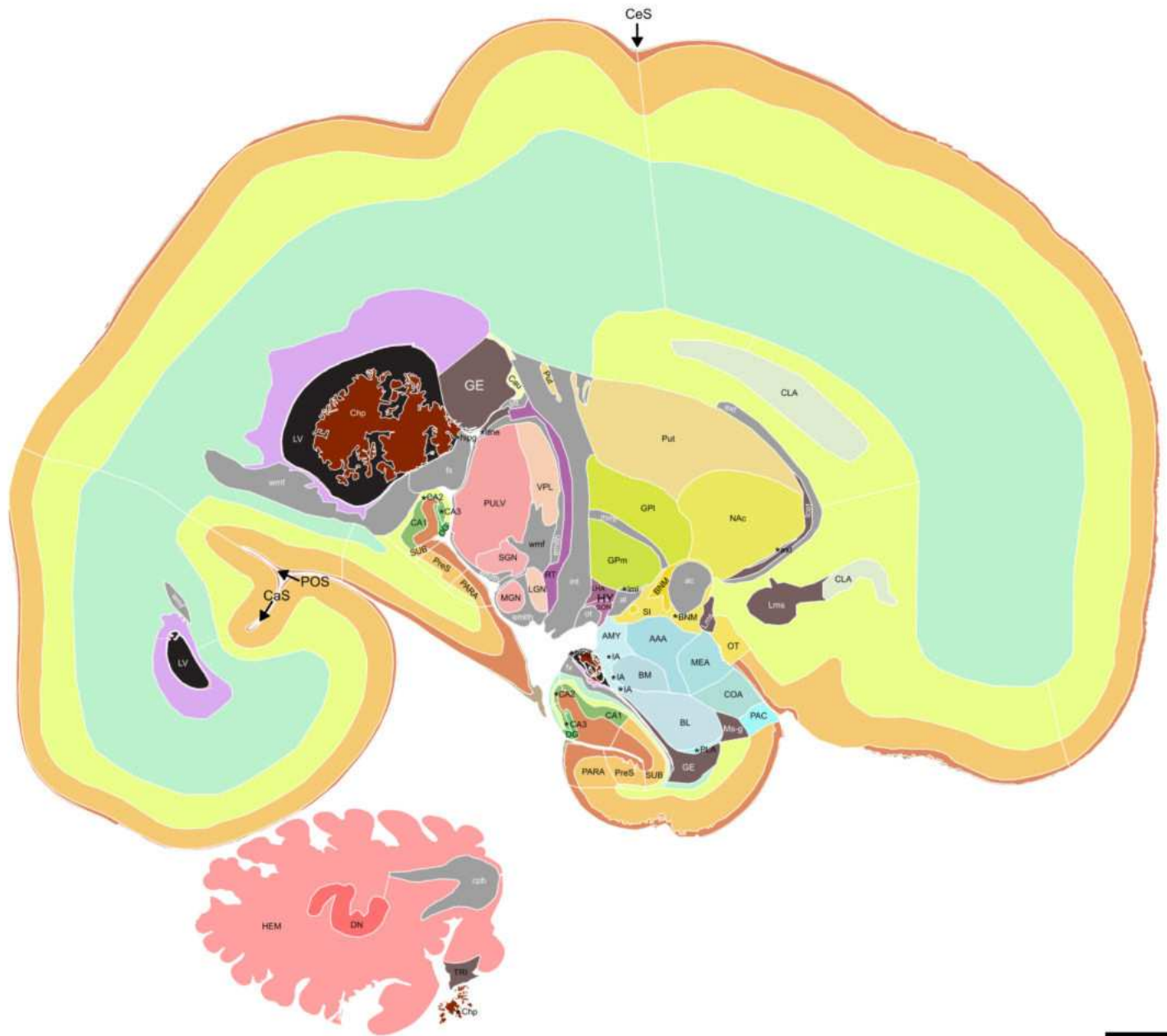
5 mm



Age: 24 GW



L-R Level: 11.4 mm



5 mm

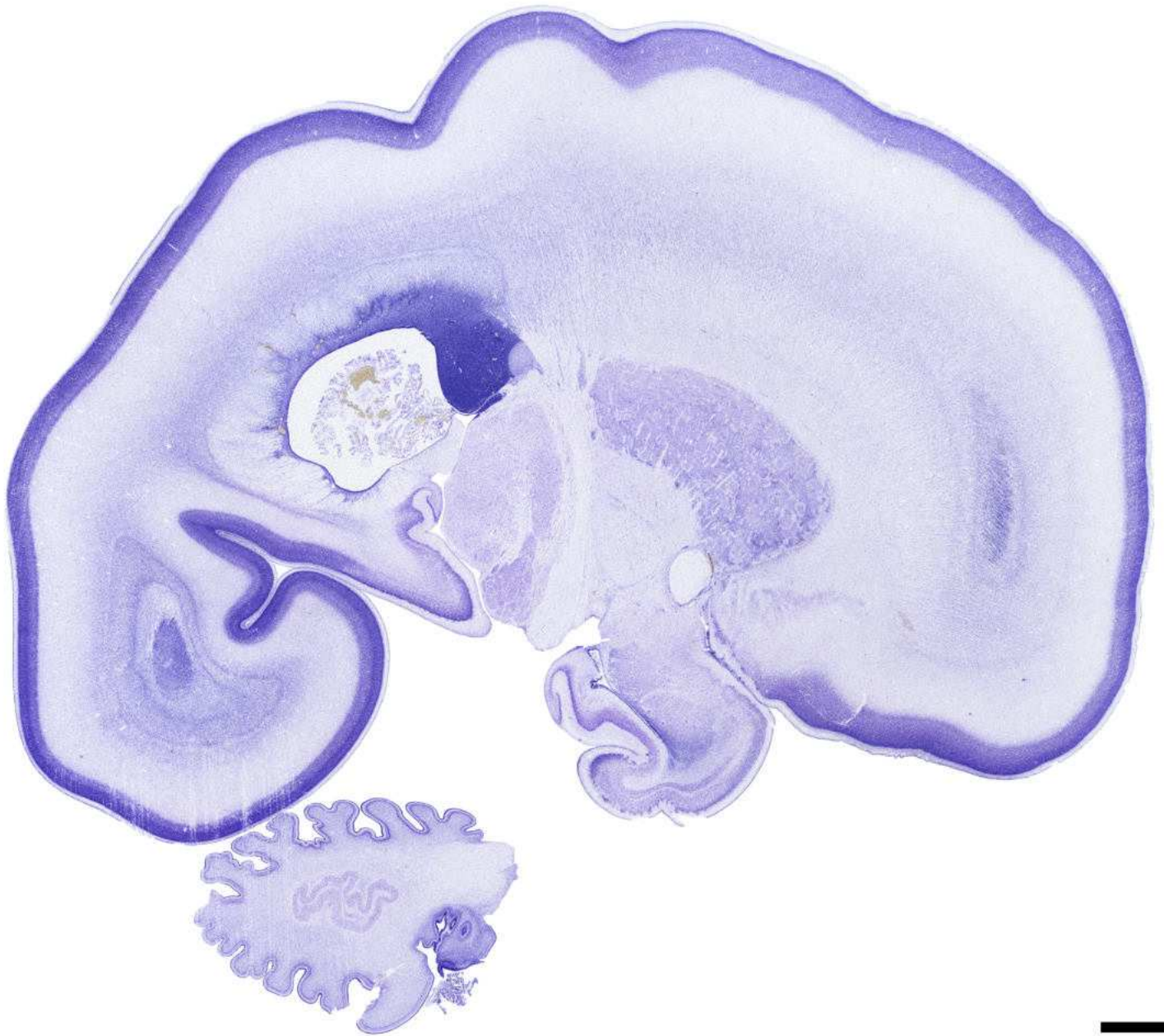
- | | | | |
|---|--|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LHA: Lateral hypothalamic area LV: Lateral ventricle Lms: Lateral migratory stream MGN: Medial geniculate nucleus Ms-g: Migratory stream, general NAC: Nucleus accumbens | <ul style="list-style-type: none"> OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> al: Ansa lenticularis cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers CaS: Calcarine sulcus CeS: Central sulcus POS: Parieto-occipital sulcus |
|---|--|--|--|

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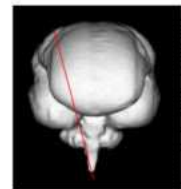
Age: 24 GW



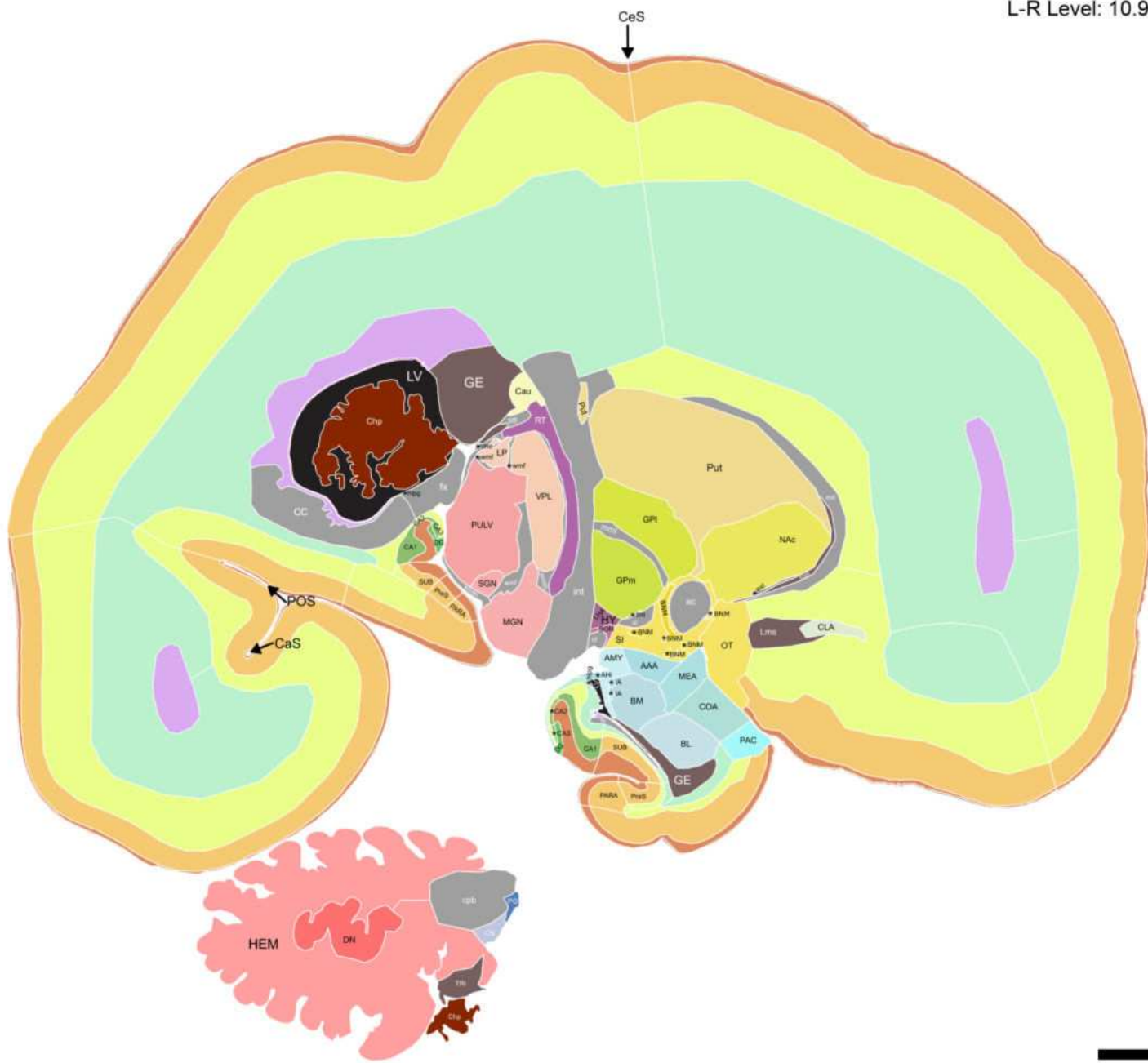
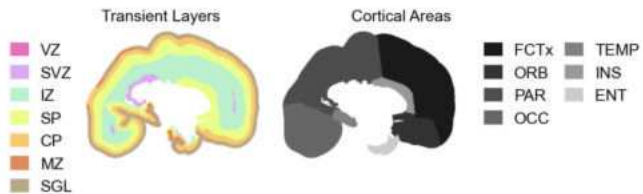
L-R Level: 10.92 mm



5 mm



L-R Level: 10.92 mm



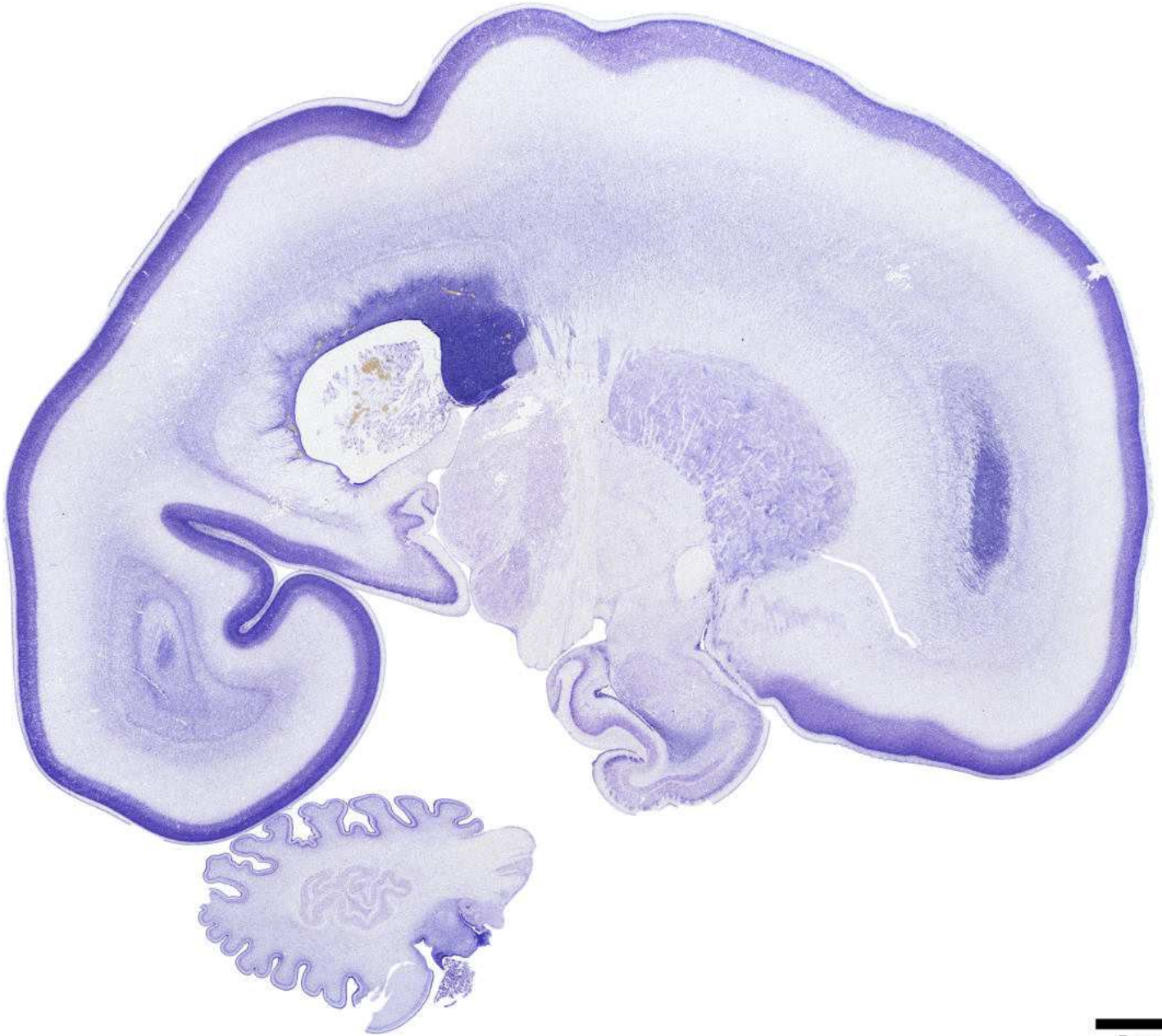
5 mm

- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus | <ul style="list-style-type: none"> DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus IA: Intercalated cell groups [amygdala] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure al: Ansa lenticularis | <ul style="list-style-type: none"> cc: Corpus callosum cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipp: Hippocampal glioepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers CaS: Calcarine sulcus CeS: Central sulcus POS: Parieto-occipital sulcus |
|---|---|--|--|

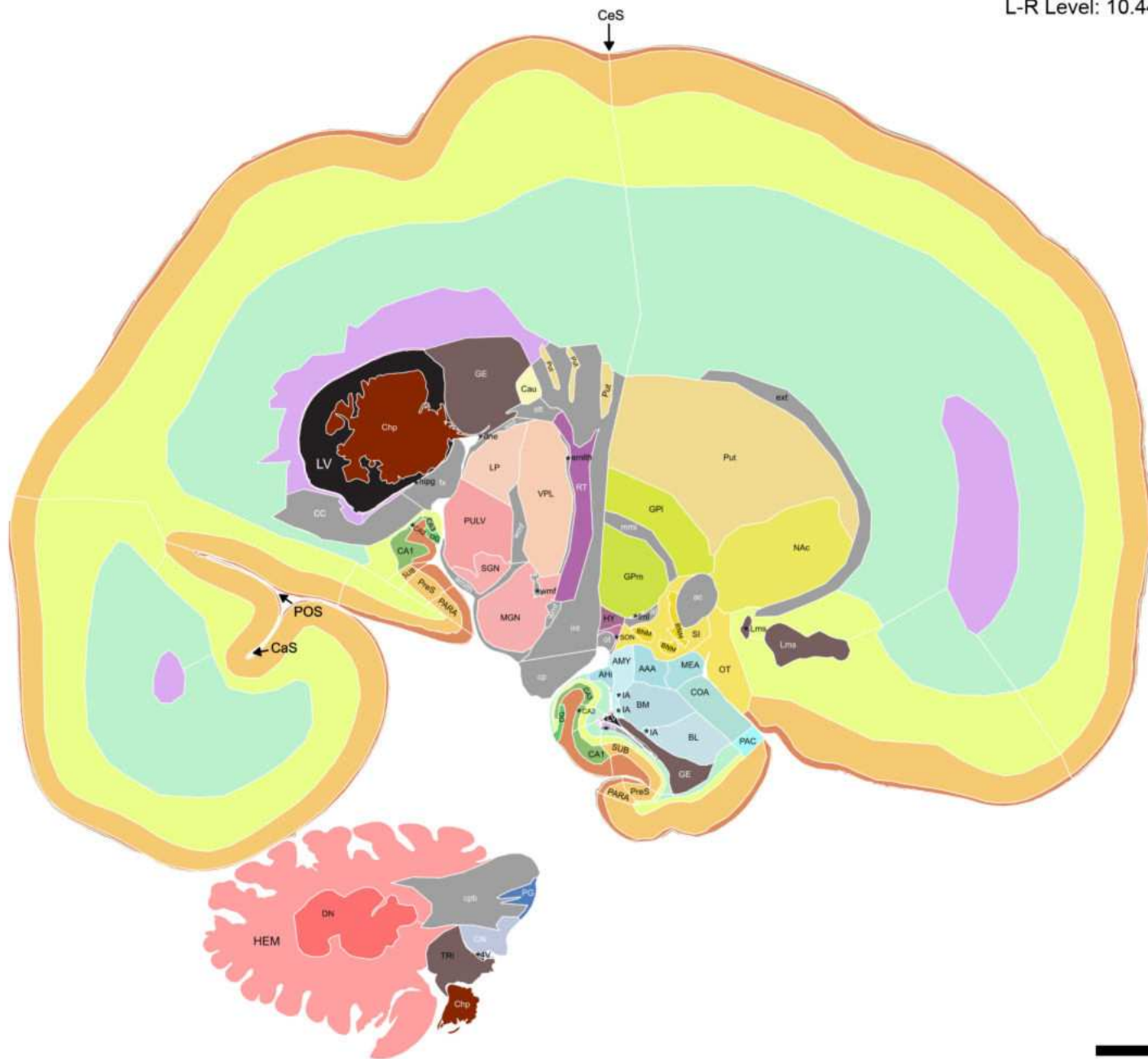
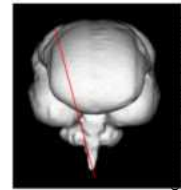
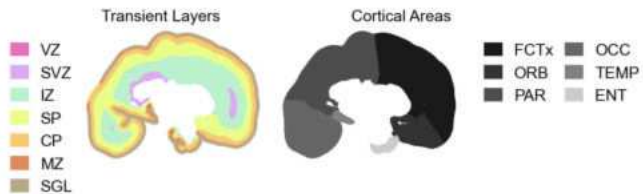
Age: 24 GW



L-R Level: 10.44 mm



5 mm



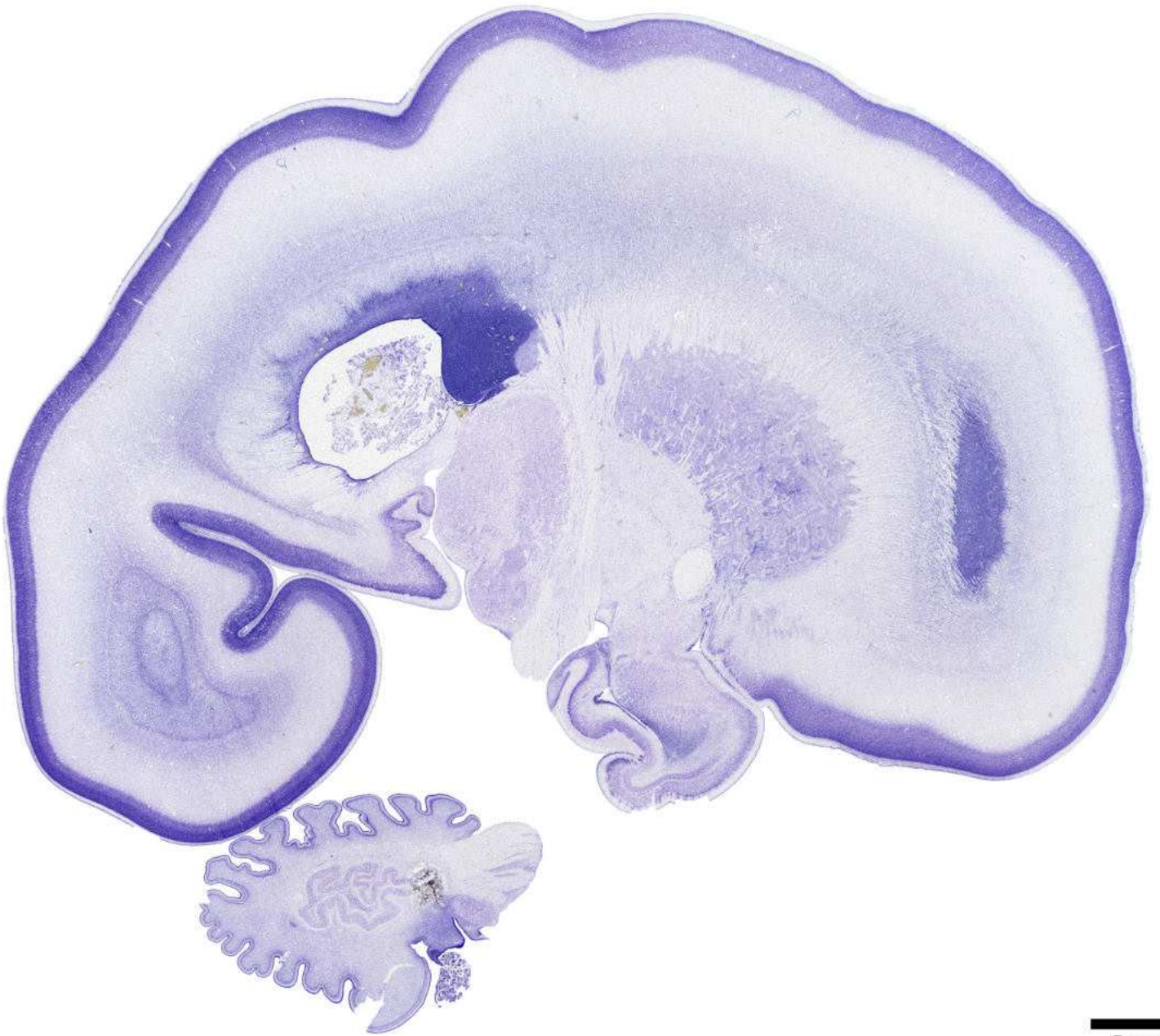
5 mm

- | | | | |
|---|---|--|---|
| <ul style="list-style-type: none"> ■ 4V: Fourth ventricle ■ AAA: Anterior amygdaloid area ■ AHi: Amygdalo-hippocampal area ■ AMY: Amygdala ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CN: Cochlear nuclei ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus | <ul style="list-style-type: none"> ■ DN: Dentate nucleus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPm: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IA: Intercalated cell groups [amygdala] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream ■ MEA: Medial nucleus [amygdala] ■ MGN: Medial geniculate nucleus ■ NAc: Nucleus accumbens ■ OT: Olfactory tubercle | <ul style="list-style-type: none"> ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] ■ SGN: Suprageniculate nucleus ■ SI: Substantia innominata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ TRI: Germinal trigone ■ VPL: Ventral posterolateral nucleus [thalamus] ■ ac: Anterior commissure ■ al: Ansa lenticularis | <ul style="list-style-type: none"> ■ cc: Corpus callosum ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fx: Fornix ■ hipp: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ lml: Lateral medullary lamina ■ mml: Medial medullary lamina ■ ot: Optic tract ■ stt: Stria terminalis ■ wmf: White matter fibers |
|---|---|--|---|

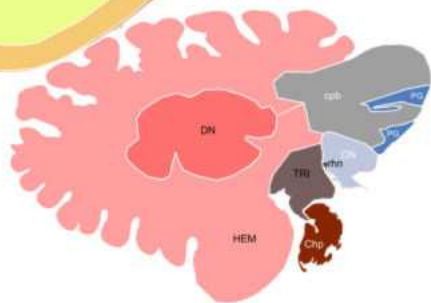
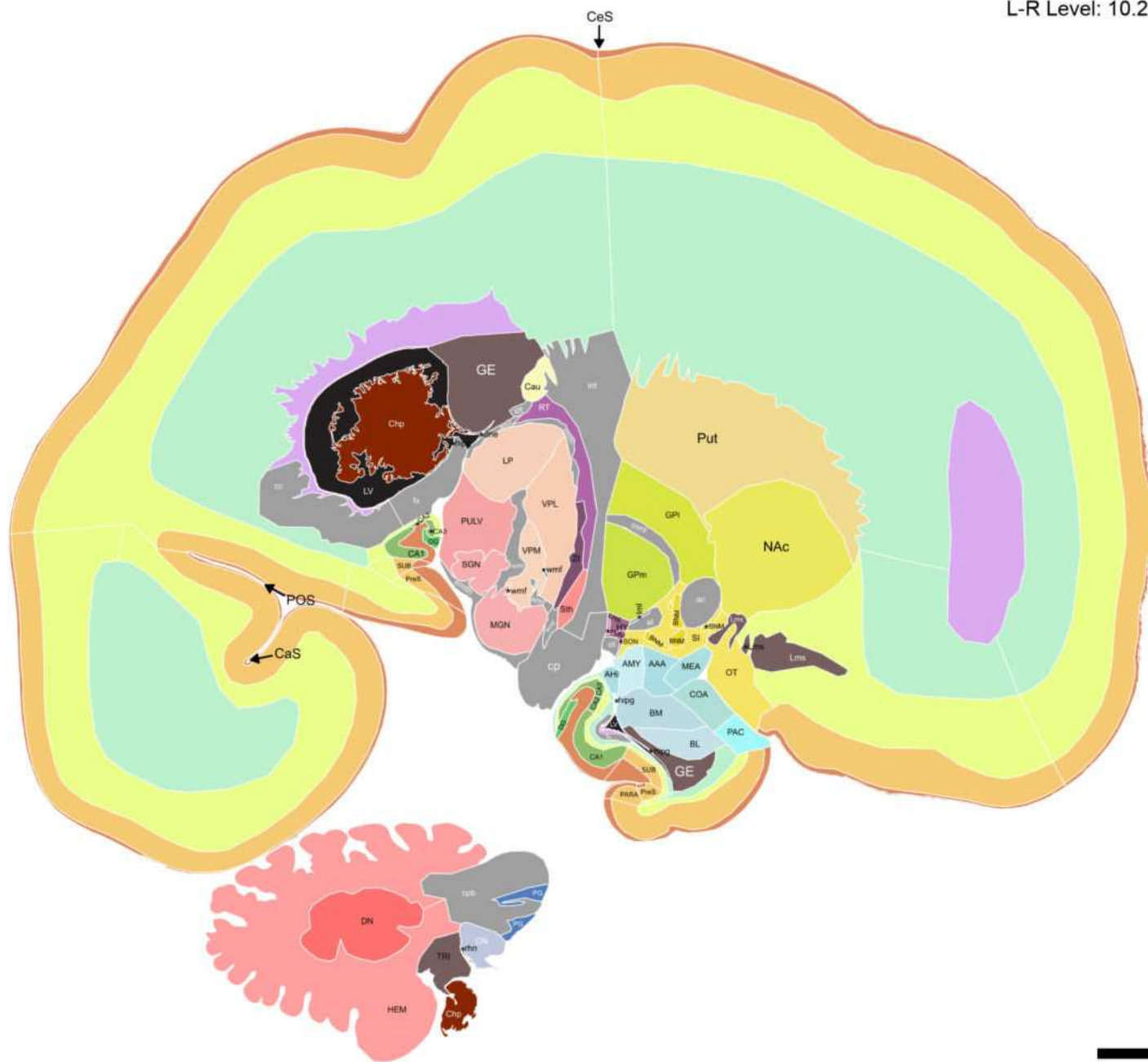
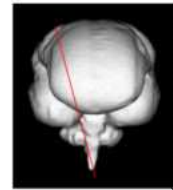
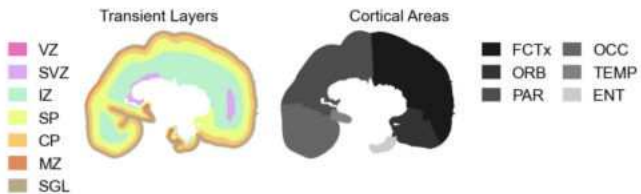
Age: 24 GW



L-R Level: 10.2 mm



5 mm



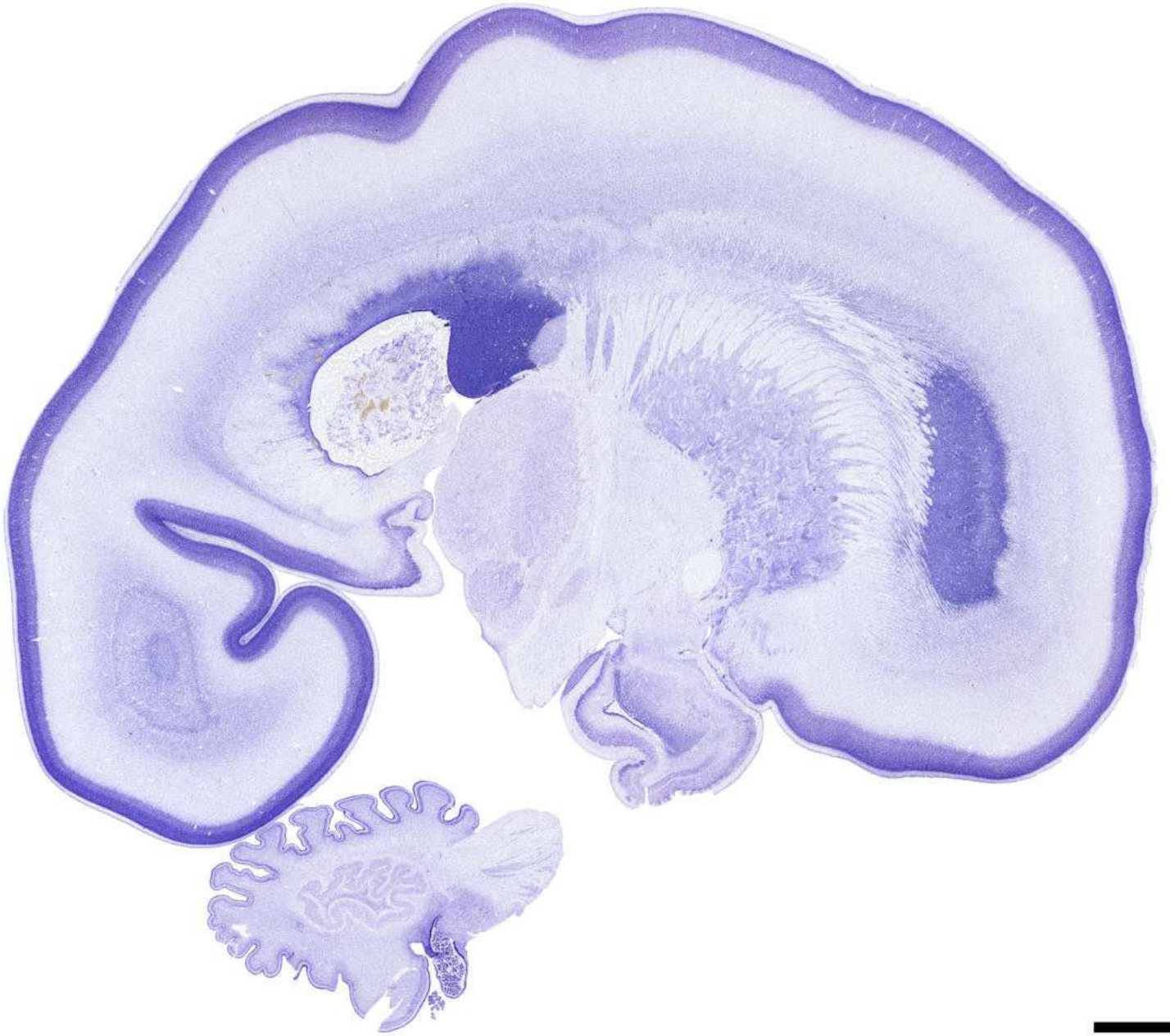
5 mm

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area AMY: Amygdala BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PG: Pontine gray | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure | <ul style="list-style-type: none"> al: Ansa lenticularis cc: Corpus callosum cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioeptihelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract rh: Rhombencephalic neuroepithelium stt: Stria terminalis wmf: White matter fibers |
|--|---|---|--|
- CaS: Calcarine sulcus
 → CeS: Central sulcus
 → POS: Parieto-occipital sulcus

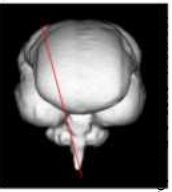
Age: 24 GW



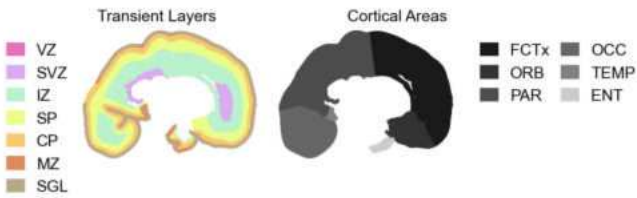
L-R Level: 9.9 mm



5 mm



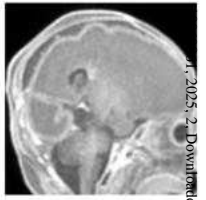
L-R Level: 9.9 mm



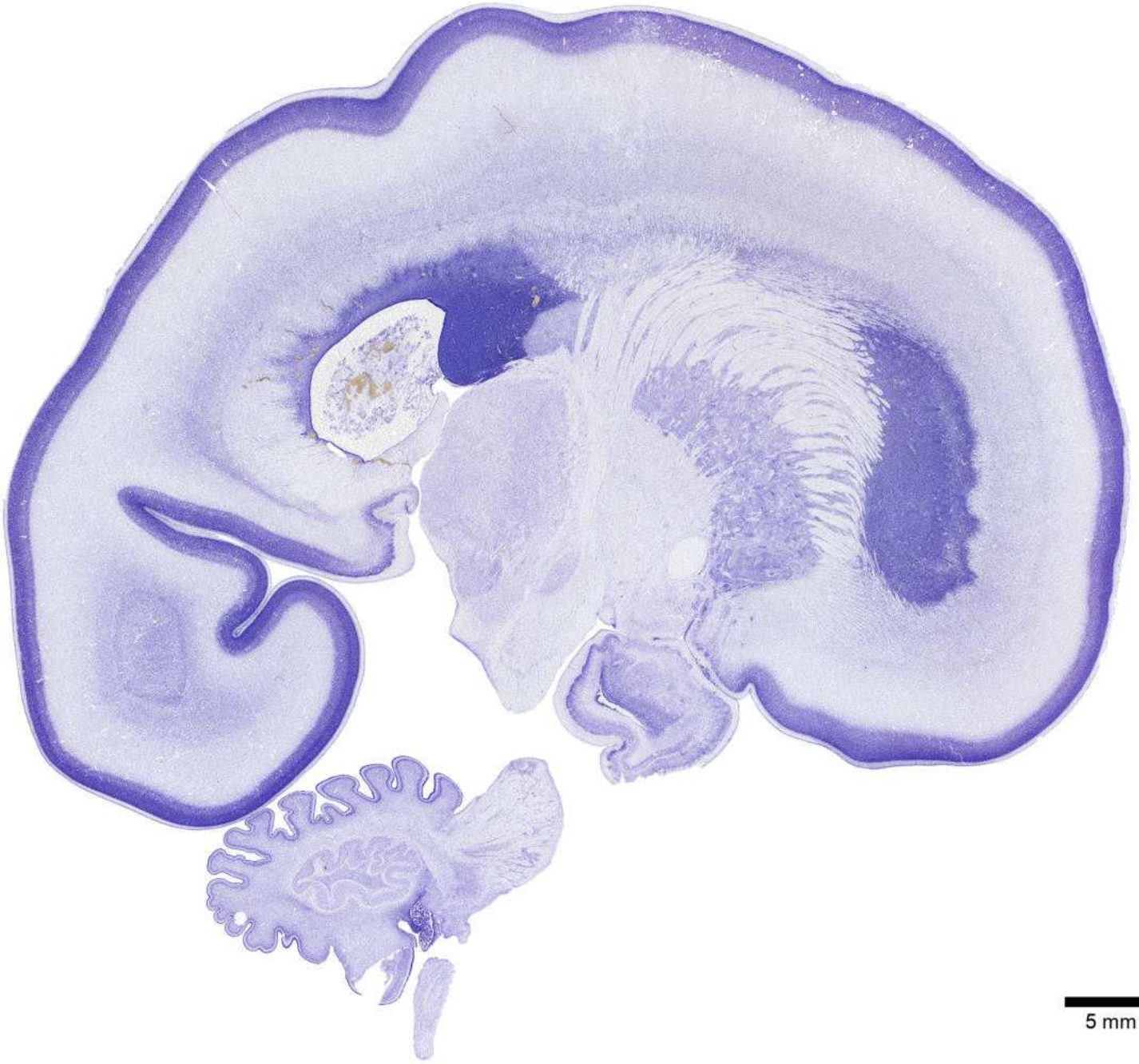
5 mm

- | | | | |
|---|--|---|---|
| <ul style="list-style-type: none"> ■ 4V: Fourth ventricle ■ AAA: Anterior amygdaloid area ■ AH: Amygdalo-hippocampal area ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CN: Cochlear nuclei ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DN: Dentate nucleus ■ GE: Ganglionic eminence | <ul style="list-style-type: none"> ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream ■ MEA: Medial nucleus [amygdala] ■ MGN: Medial geniculate nucleus ■ NAc: Nucleus accumbens ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum | <ul style="list-style-type: none"> ■ Put: Putamen ■ RT: Reticular nucleus [thalamus] ■ SGN: Suprageniculate nucleus ■ SI: Substantia innominata ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TMM: Tuberomammillary nucleus ■ TRI: Germinal trigone ■ VL: Ventral lateral nucleus [thalamus] ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ cc: Corpus callosum | <ul style="list-style-type: none"> ■ cor: Corona radiata ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlh: External medullary lamina [thalamus] ■ fx: Fornix ■ hipp: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ lml: Lateral medullary lamina ■ mml: Medial medullary lamina ■ ot: Optic tract ■ pcbn: Precerebellar neuroepithelium ■ rhn: Rhombencephalic neuroepithelium ■ st: Stria terminalis ■ wmf: White matter fibers → CaS: Calcarine sulcus → POS: Parieto-occipital sulcus |
|---|--|---|---|

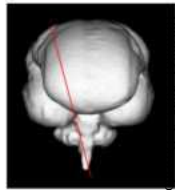
Age: 24 GW



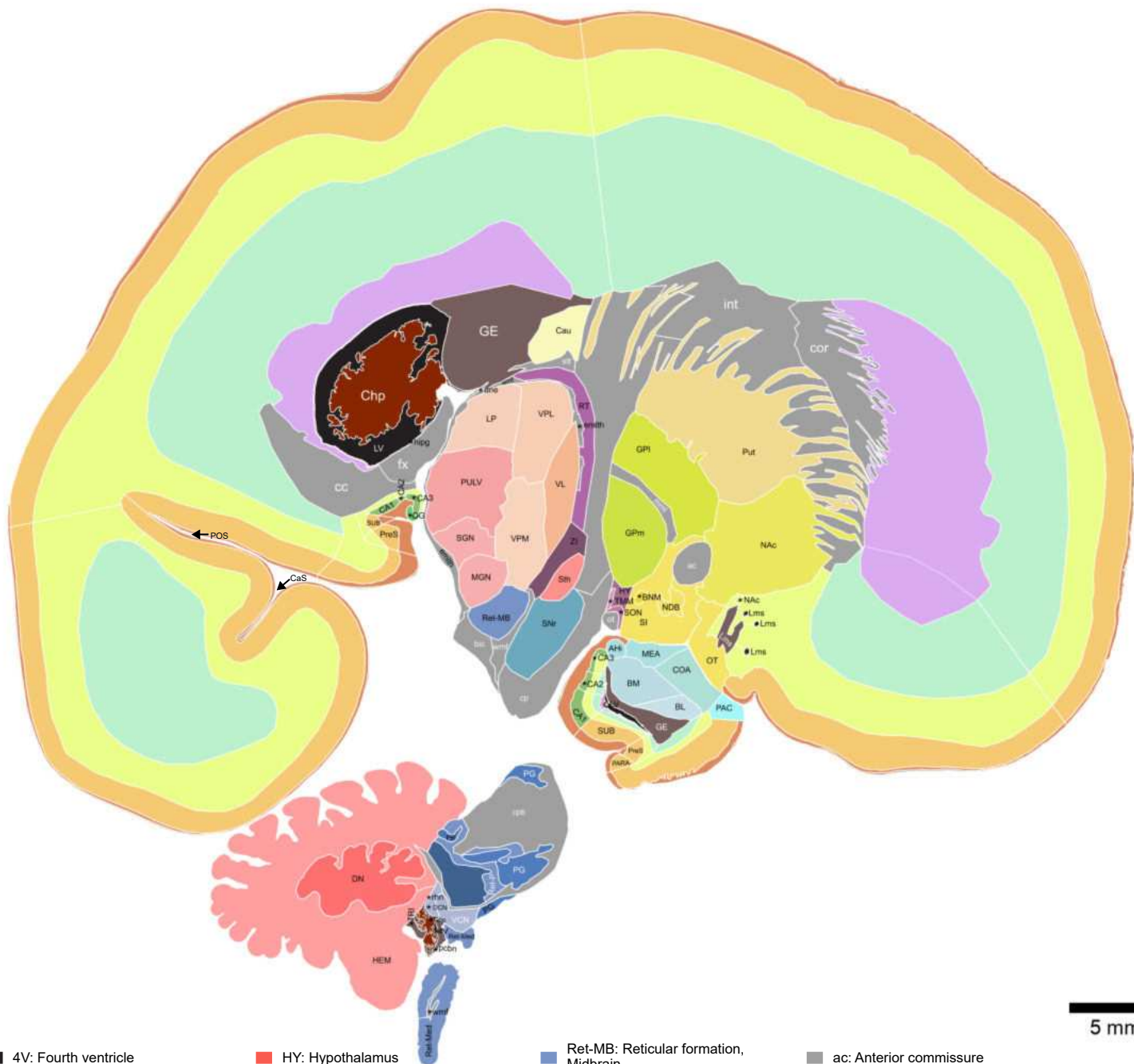
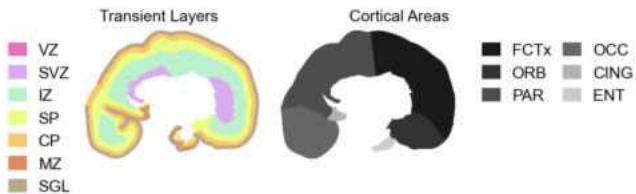
L-R Level: 9.48 mm



5 mm



L-R Level: 9.48 mm



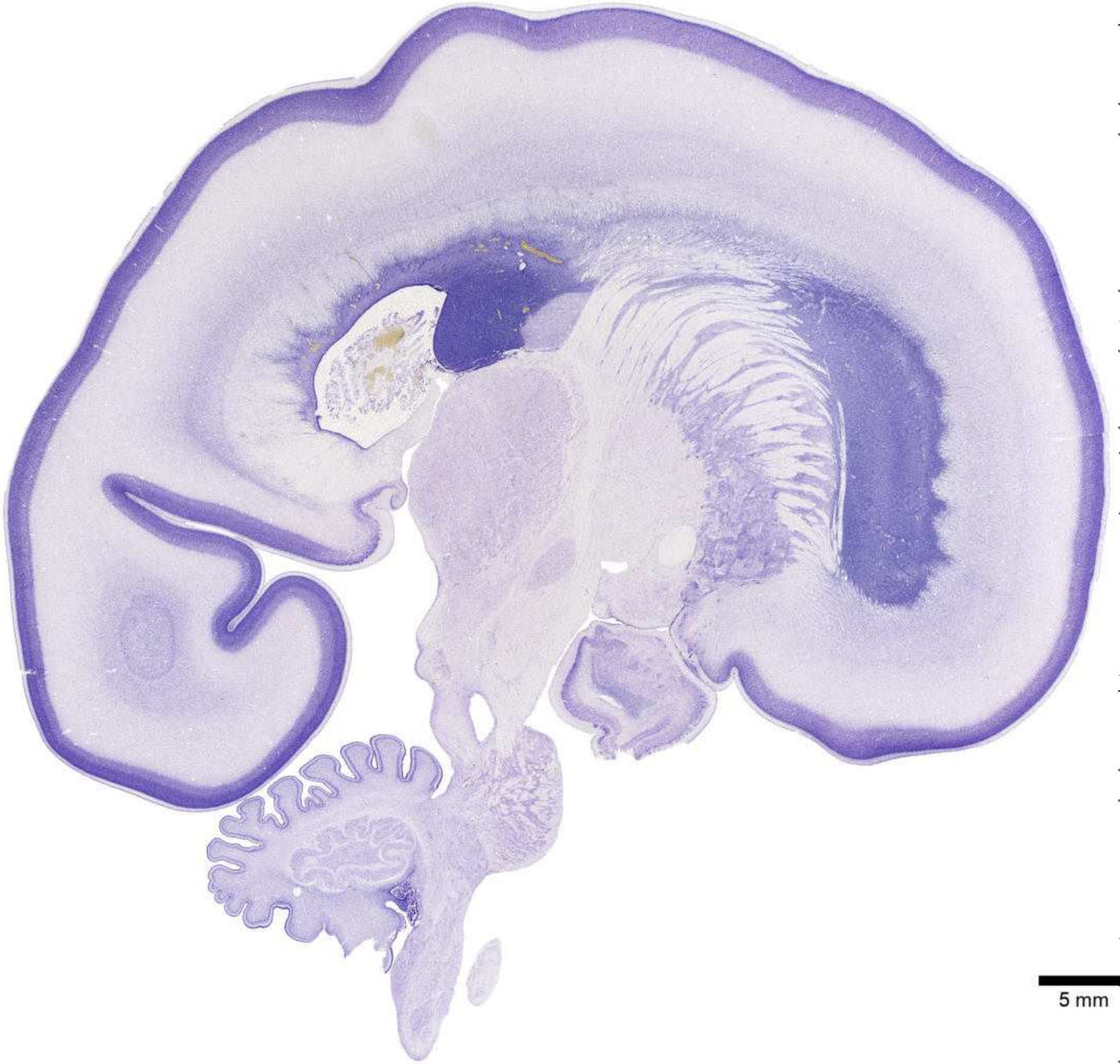
5 mm

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> 4V: Fourth ventricle AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DCN: Dorsal cochlear nucleus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> HY: Hypothalamus LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NDB: Nucleus of the diagonal band OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PB: Parabrachial nucleus PG: Pontine gray PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] | <ul style="list-style-type: none"> Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SGN: Suprageniculate nucleus SI: Substantia innominata SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SPV: Spinal nucleus of the trigeminal SUB: Cortical plate, subiculum StH: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone VCN: Ventral cochlear nucleus VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta | <ul style="list-style-type: none"> ac: Anterior commissure bic: Brachium of the inferior colliculus cc: Corpus callosum cor: Corona radiata cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule mmI: Medial medullary lamina ot: Optic tract pcbn: Precerebellar neuroepithelium rhn: Rhombencephalic neuroepithelium stt: Stria terminalis wmf: White matter fibers |
|--|---|---|--|
- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

Age: 24 GW



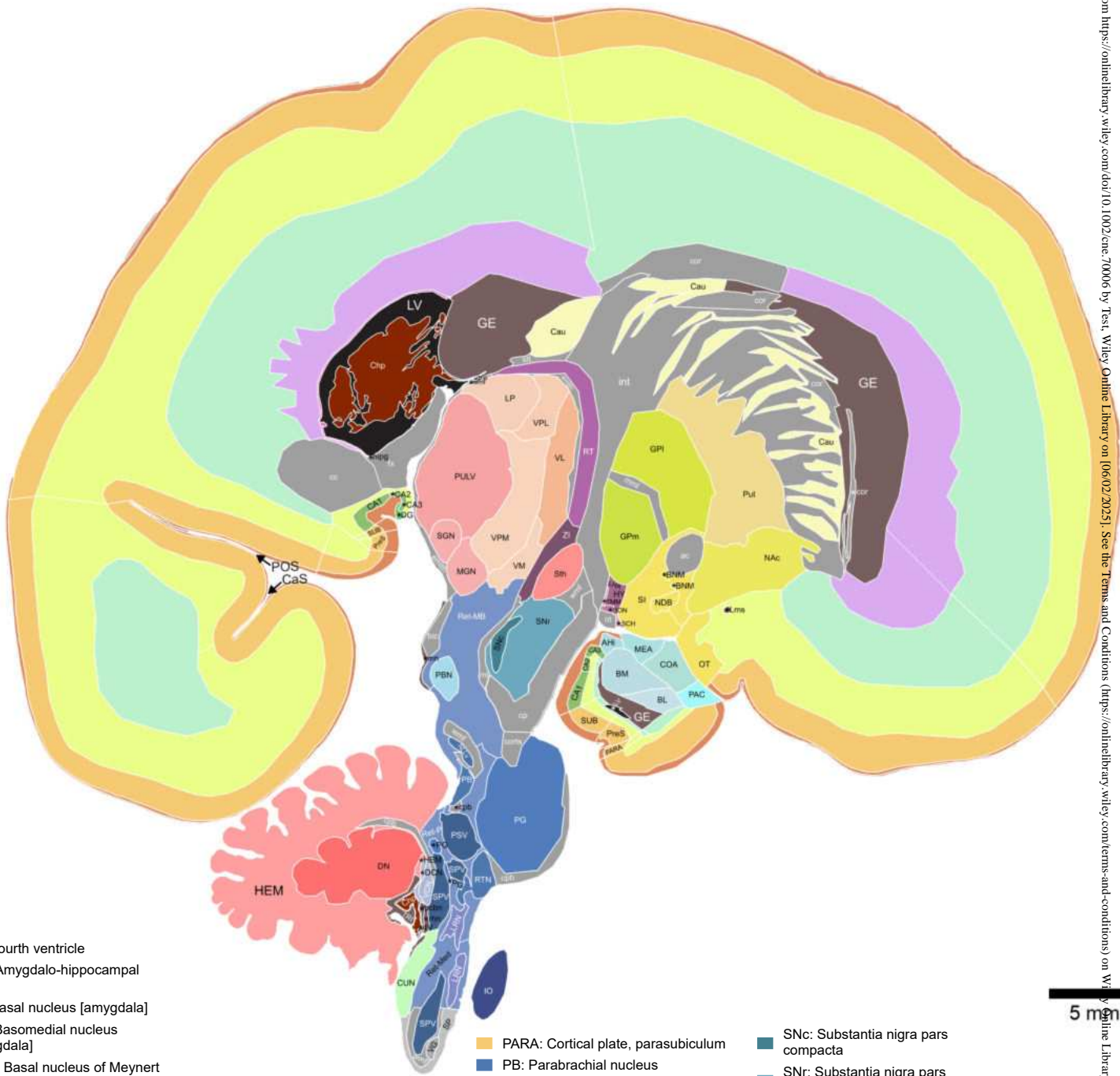
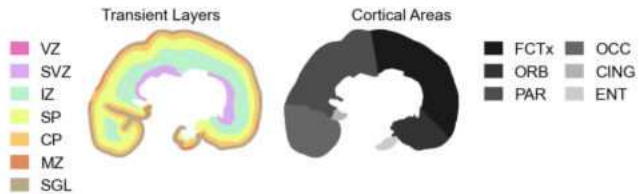
L-R Level: 9.0 mm



5 mm



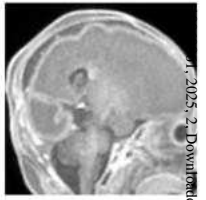
L-R Level: 9.0 mm



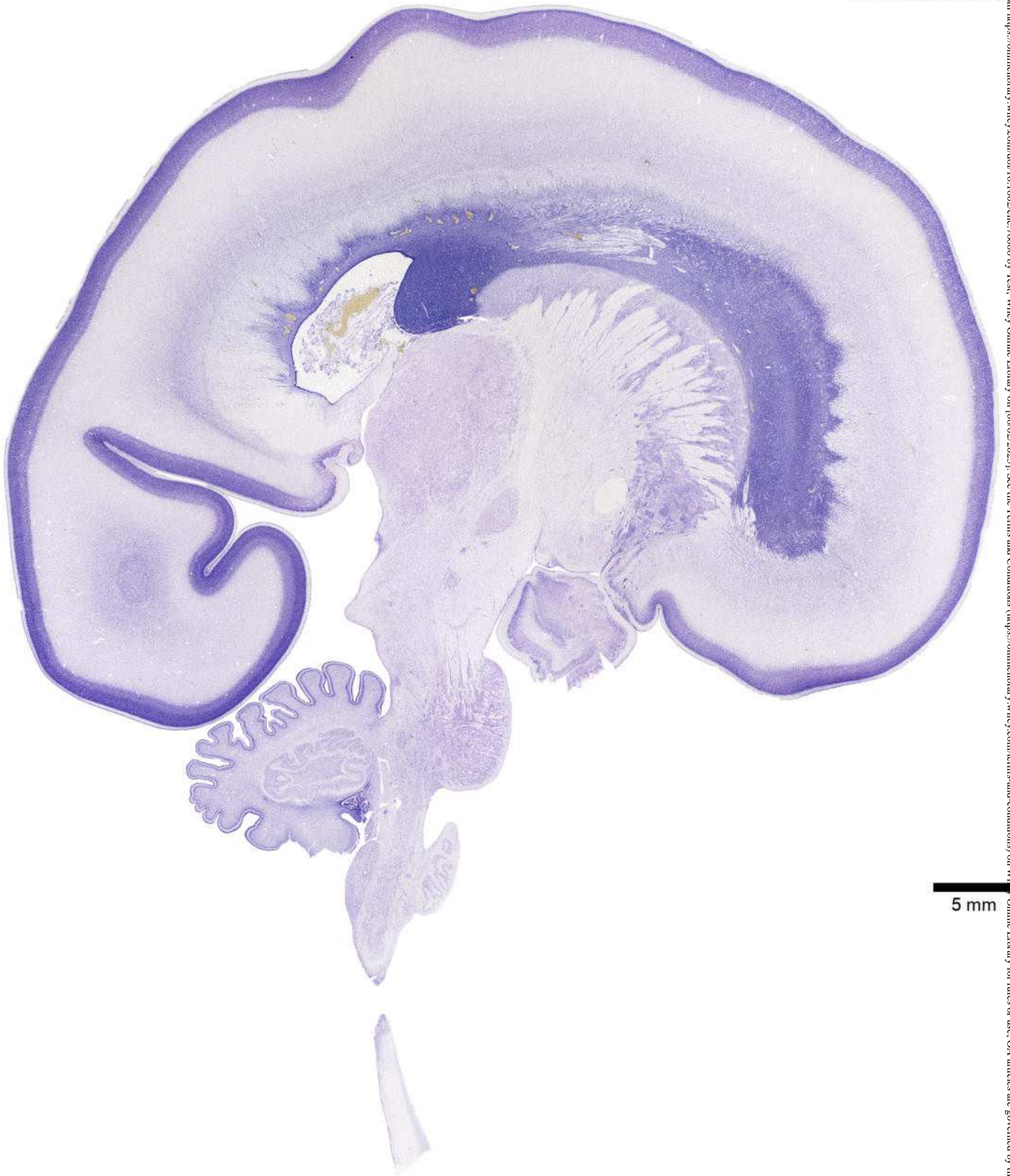
- 4V: Fourth ventricle
- AHi: Amygdalo-hippocampal area
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- COA: Cortical nucleus [amygdala]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DCN: Dorsal cochlear nucleus
- DG: Dentate gyrus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IO: Inferior olive
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- Lms: Lateral migratory stream
- MEA: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NLLv: Nucleus of the lateral lemniscus, ventral
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SGN: Suprageniculate nucleus
- SI: Substantia innominata
- SNC: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SON: Supraoptic nucleus [hypothalamus]
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberoammillary nucleus
- TRI: Germinal trigone
- VCN: Ventral cochlear nucleus
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

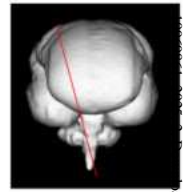
Age: 24 GW



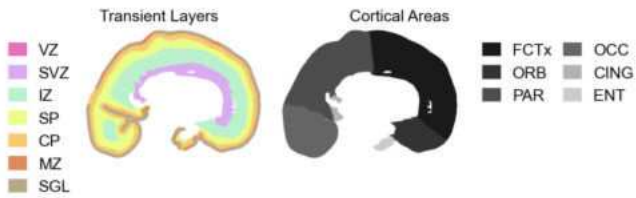
L-R Level: 8.64 mm



5 mm



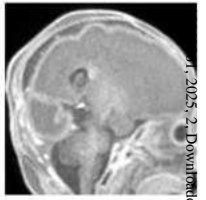
L-R Level: 8.64 mm



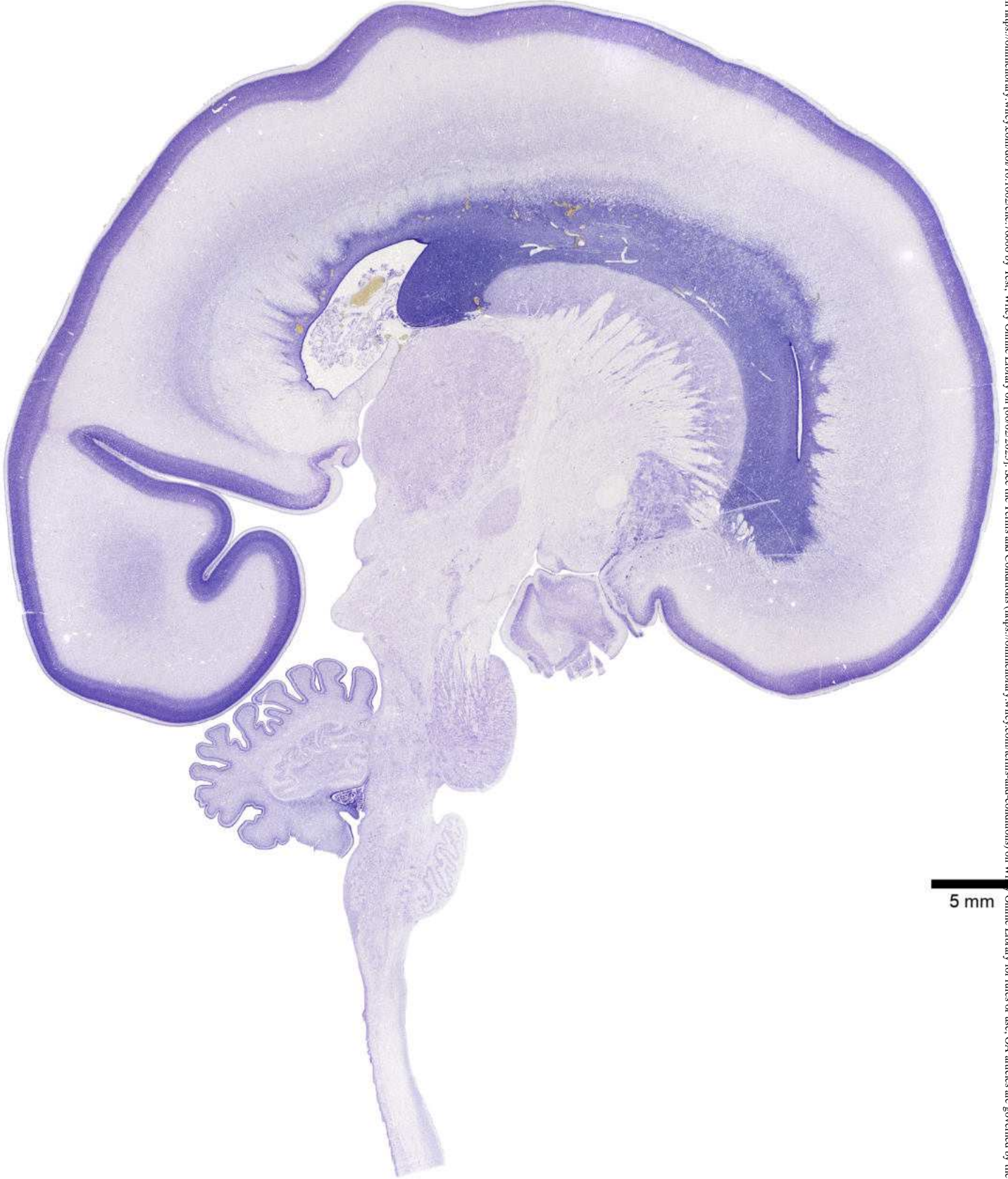
- 4V: Fourth ventricle
- AHi: Amygdalo-hippocampal area
- AMB: Nucleus ambiguus
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- COA: Cortical nucleus [amygdala]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DCN: Dorsal cochlear nucleus
- DG: Dentate gyrus
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IO: Inferior olive
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MEA: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NLLd: Nucleus of the lateral lemniscus, dorsal
- NLLv: Nucleus of the lateral lemniscus, ventral
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- Put: Putamen
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SGN: Suprageniculate nucleus
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SON: Supraoptic nucleus [hypothalamus]
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRI: Germinal trigone
- VCN: Ventral cochlear nucleus
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- Vn: Trigeminal motor nucleus
- ZI: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

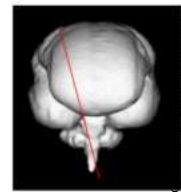
Age: 24 GW



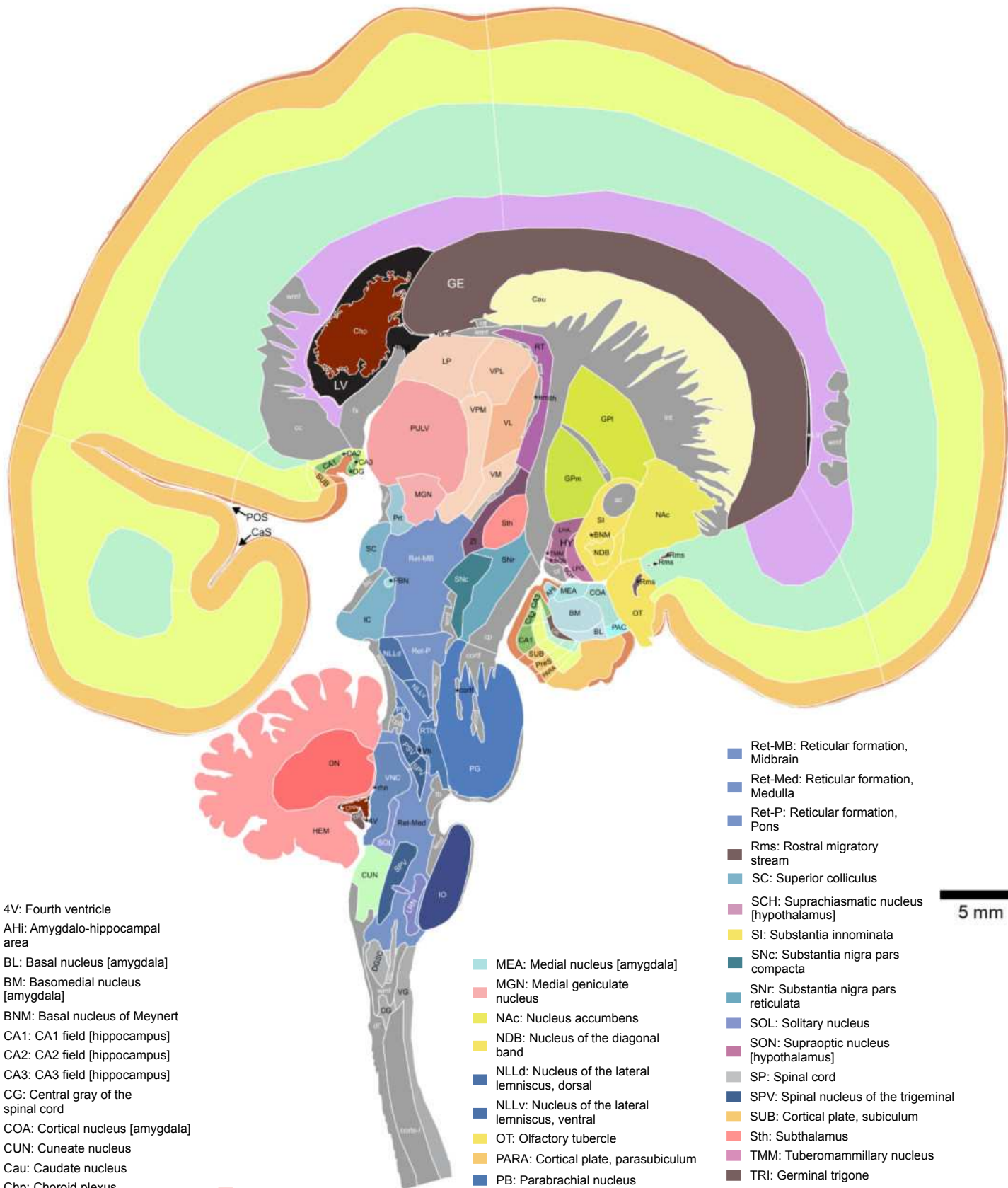
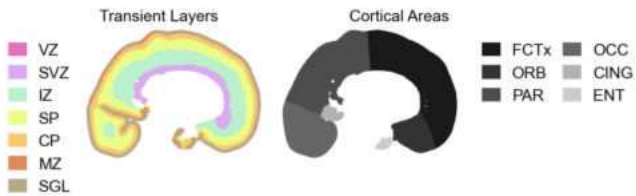
L-R Level: 8.28 mm



5 mm



L-R Level: 8.28 mm



- 4V: Fourth ventricle
- AHi: Amygdalo-hippocampal area
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CG: Central gray of the spinal cord
- COA: Cortical nucleus [amygdala]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPi: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres

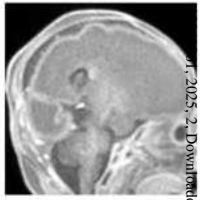
- HY: Hypothalamus
- IC: Inferior colliculus
- IO: Inferior olive
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle

- MEA: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NLLd: Nucleus of the lateral lemniscus, dorsal
- NLLv: Nucleus of the lateral lemniscus, ventral
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PSV: Principal sensory nucleus of the trigeminal
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus

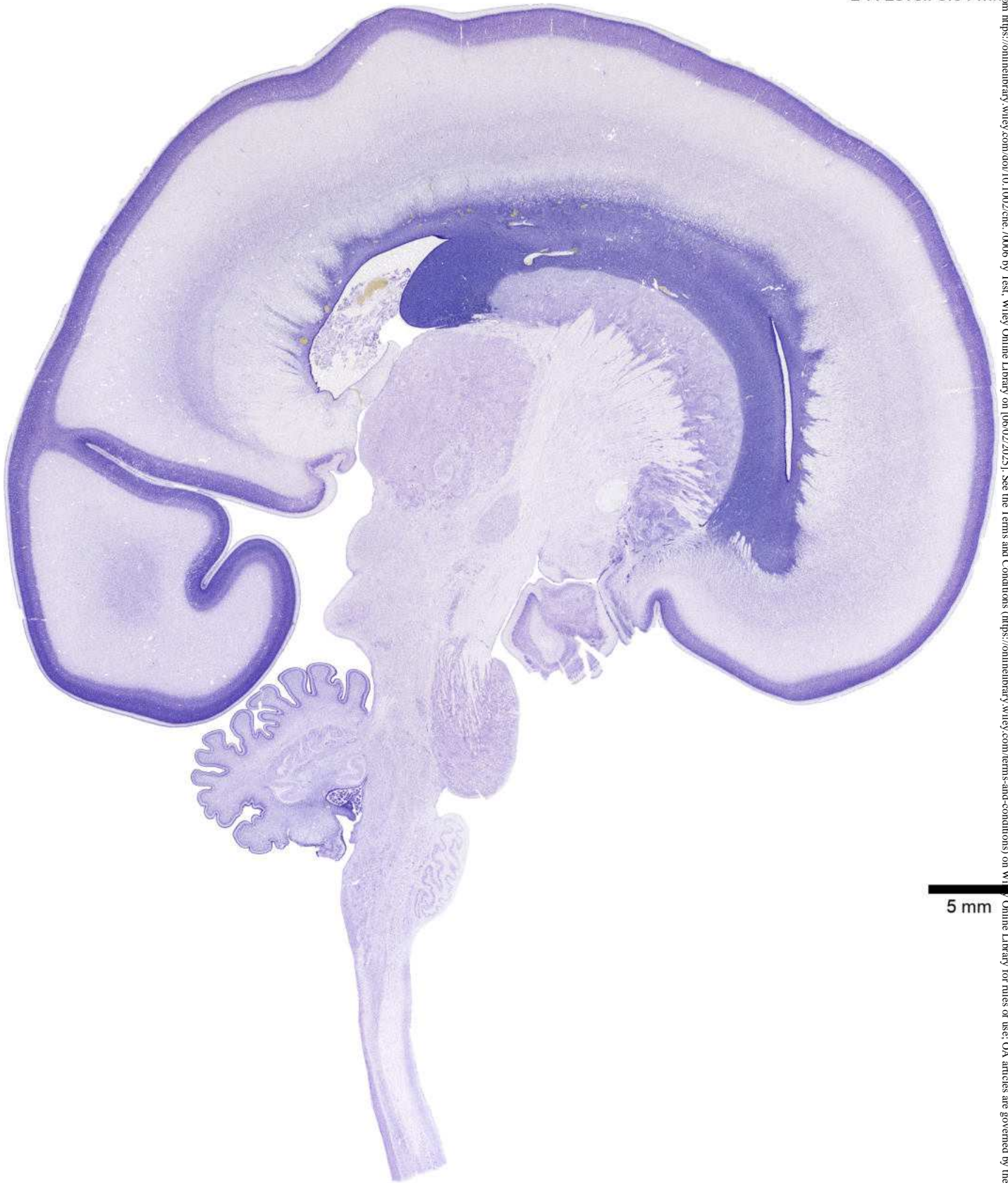
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNC: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SOL: Solitary nucleus
- SON: Supraoptic nucleus [hypothalamus]
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRI: Germinal trigone
- VG: Ventral gray of the spinal cord
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VNC: Vestibular nuclear complex
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- Vn: Trigeminal motor nucleus
- ZI: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

Age: 24 GW

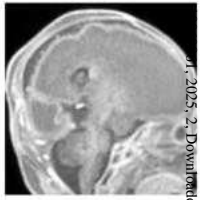


L-R Level: 8.04 mm



5 mm

Age: 24 GW



L-R Level: 7.92 mm



5 mm

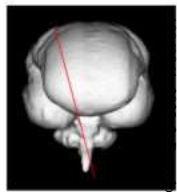
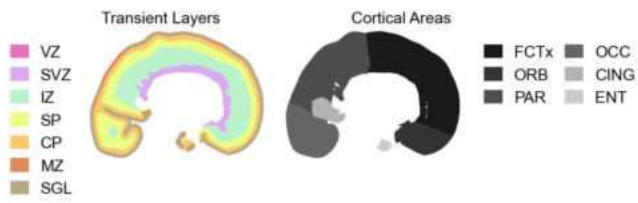
Age: 24 GW



L-R Level: 7.8 mm



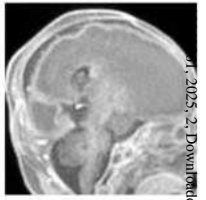
5 mm



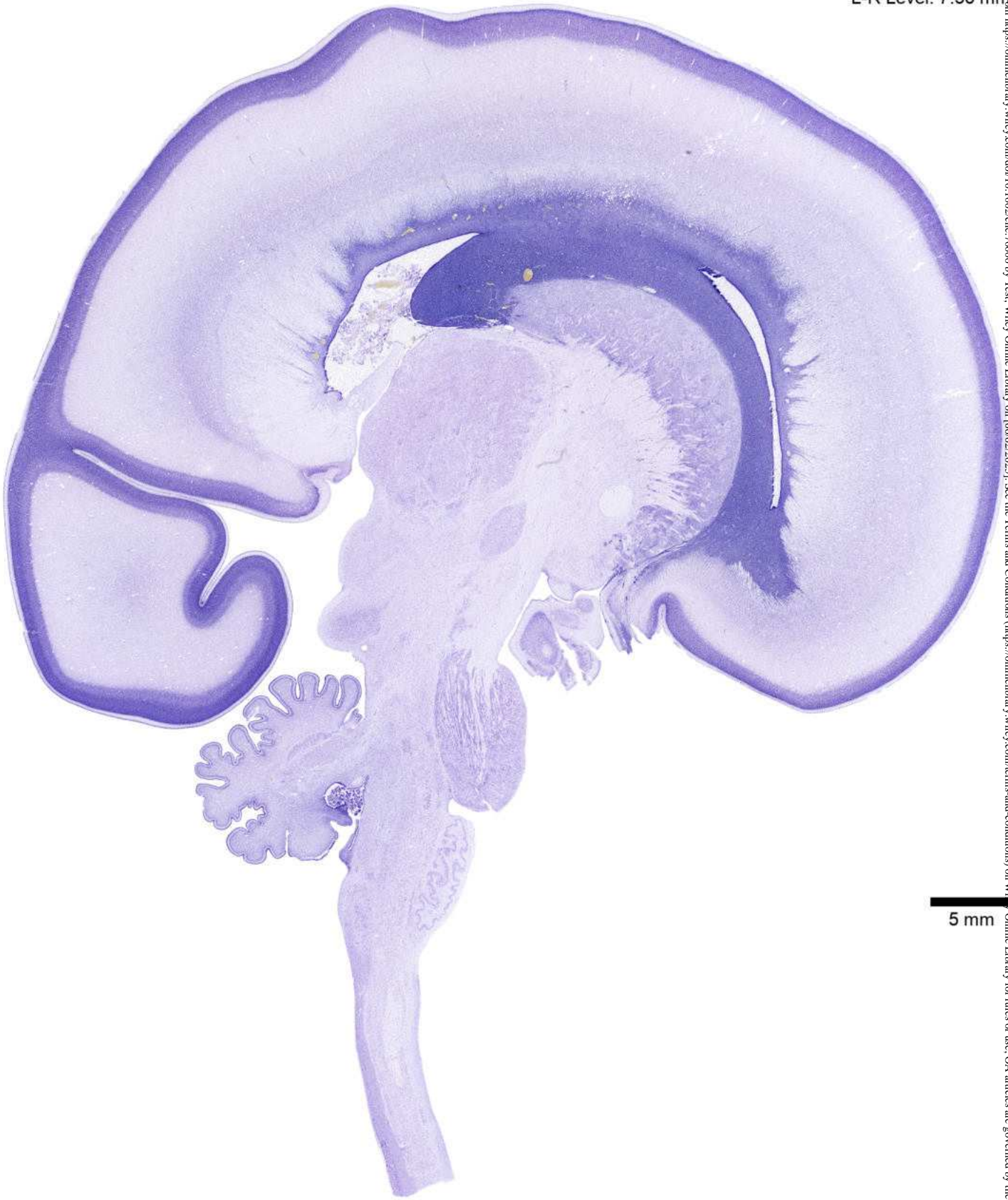
- AHi: Amygdalo-hippocampal area
- APT: Anterior pretecal nucleus
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- COA: Cortical nucleus [amygdala]
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MEA: Medial nucleus [amygdala]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PG: Pontine gray
- IO: Inferior olive
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrosubular area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SO: Superior olive
- SOL: Solitary nucleus
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRI: Germinal trigone
- VA: Ventral anterior nucleus [thalamus]
- VG: Ventral gray of the spinal cord
- VIn: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VNC: Vestibular nuclear complex
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- Vn: Trigeminal motor nucleus
- XIn: Accessory nucleus
- ZI: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

Age: 24 GW

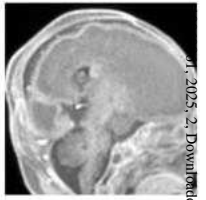


L-R Level: 7.56 mm

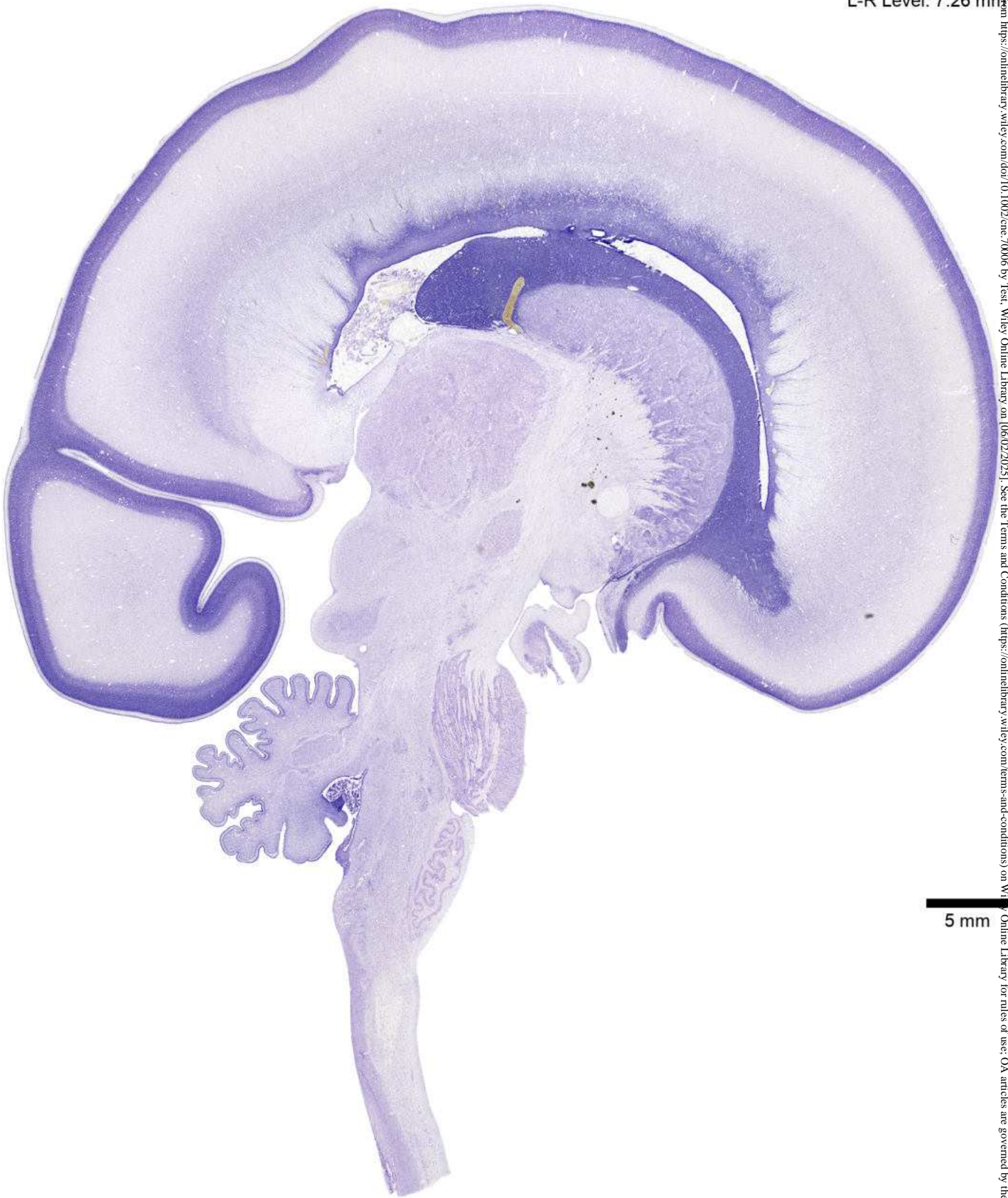


5 mm

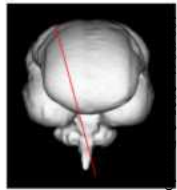
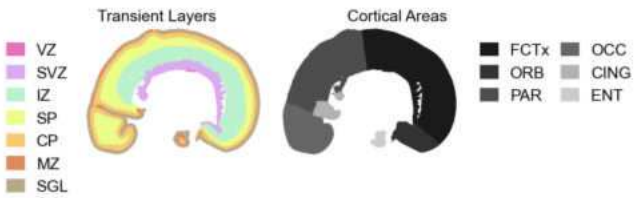
Age: 24 GW



L-R Level: 7.26 mm



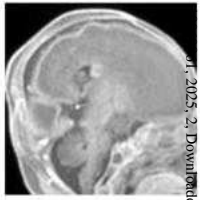
5 mm



- 4V: Fourth ventricle
- AMB: Nucleus ambiguus
- APT: Anterior pretecal nucleus
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GPi: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IH: Intermediate gray of the spinal cord
- IO: Inferior olive
- IP: Interposed nucleus
- IV: Trochlear nerve
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NOT: Nucleus of the optic tract
- OPT: Olivary pretecal nucleus
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PPT: Posterior pretecal nucleus
- Prt: Pretectum
- PULV: Pulvinar nucleus [thalamus]
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SO: Superior olive
- SOL: Solitary nucleus
- SP: Spinal cord
- SPV: Spinal nucleus of the trigeminal
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VII: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VNC: Vestibular nuclear complex
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- Vn: Trigeminal motor nucleus
- Xln: Accessory nucleus
- Zl: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

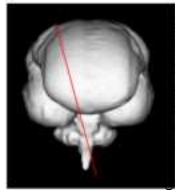
Age: 24 GW



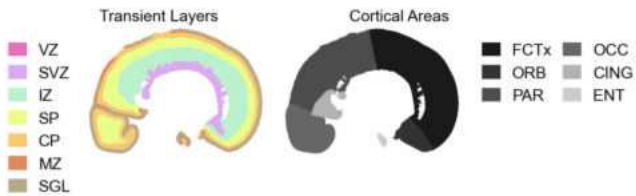
L-R Level: 7.02 mm



5 mm



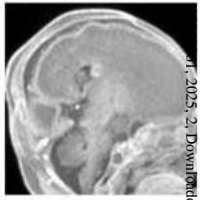
L-R Level: 7.02 mm



- 4V: Fourth ventricle
- APT: Anterior pretectal nucleus
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DGSC: Dorsal gray of the spinal cord
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IH: Intermediate gray of the spinal cord
- IO: Inferior olive
- IP: Interposed nucleus
- IV: Trochlear nerve
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OPT: Olivary pretectal nucleus
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMV: Ventral premammillary nucleus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SNr: Substantia nigra pars reticulata
- SO: Superior olive
- SOL: Solitary nucleus
- SP: Spinal cord
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VII: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VNC: Vestibular nuclear complex
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- Vn: Trigeminal motor nucleus
- Xln: Accessory nucleus
- ZI: Zona incerta
- Zl: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

5 mm

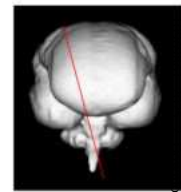
Age: 24 GW



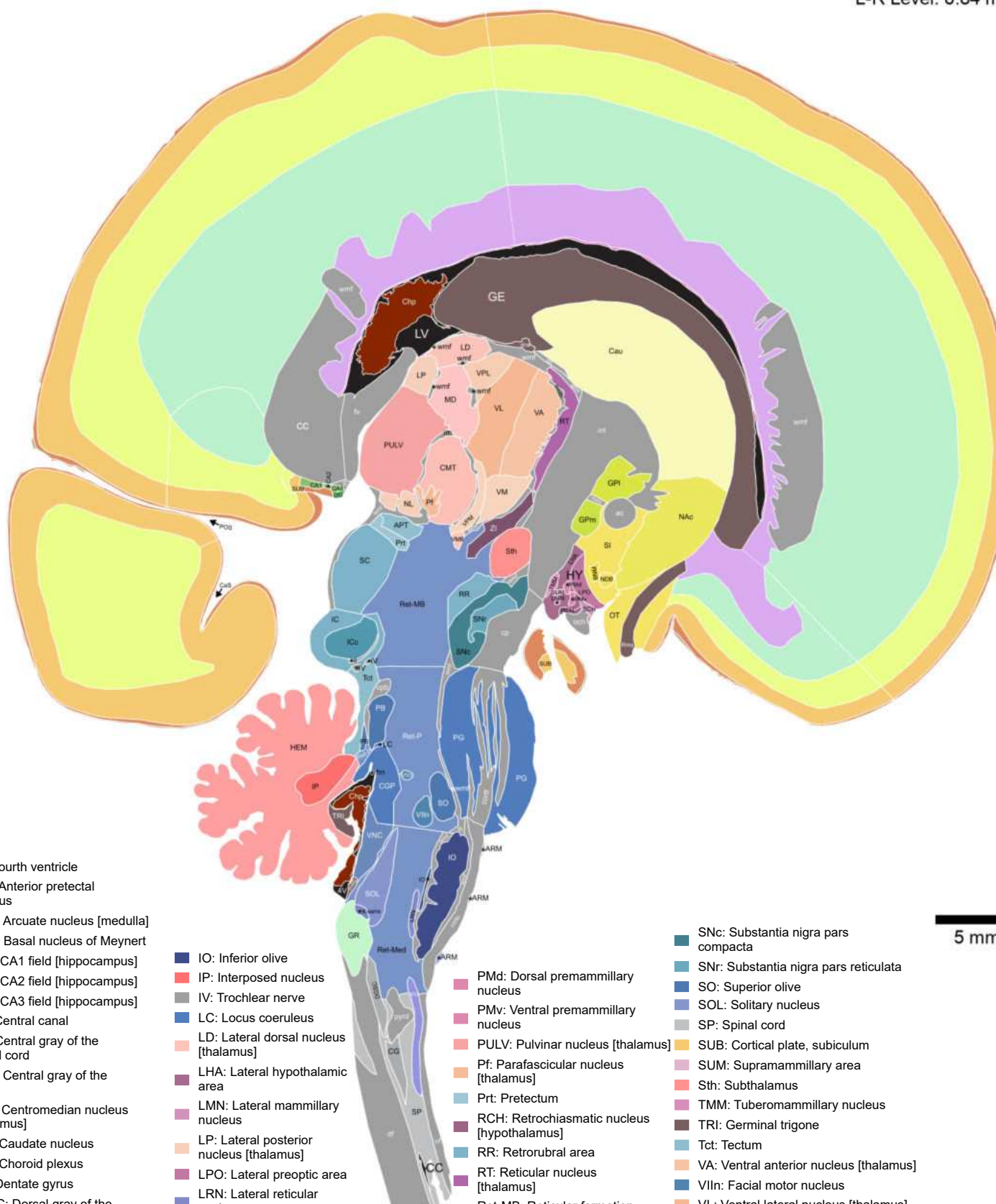
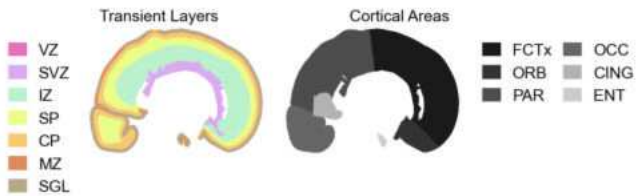
L-R Level: 6.84 mm



5 mm



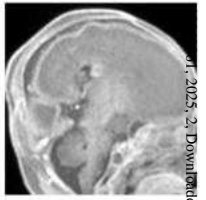
L-R Level: 6.84 mm



- 4V: Fourth ventricle
 - APT: Anterior pretecal nucleus
 - ARM: Arcuate nucleus [medulla]
 - BNM: Basal nucleus of Meynert
 - CA1: CA1 field [hippocampus]
 - CA2: CA2 field [hippocampus]
 - CA3: CA3 field [hippocampus]
 - CC: Central canal
 - CG: Central gray of the spinal cord
 - CGP: Central gray of the pons
 - CMT: Centromedian nucleus [thalamus]
 - Cau: Caudate nucleus
 - Chp: Choroid plexus
 - DG: Dentate gyrus
 - DGSC: Dorsal gray of the spinal cord
 - GE: Ganglionic eminence
 - GPI: Globus pallidus lateral segment
 - GPM: Globus pallidus medial segment
 - GR: Gracile nucleus
 - HEM: Cerebellar hemispheres
 - HY: Hypothalamus
 - IC: Inferior colliculus
 - ICc: Inferior colliculus, central nucleus
 - IO: Inferior olive
 - IP: Interposed nucleus
 - IV: Trochlear nerve
 - LC: Locus coeruleus
 - LD: Lateral dorsal nucleus [thalamus]
 - LHA: Lateral hypothalamic area
 - LMN: Lateral mammillary nucleus
 - LP: Lateral posterior nucleus [thalamus]
 - LPO: Lateral preoptic area
 - LRN: Lateral reticular nucleus
 - LV: Lateral ventricle
 - MD: Medial dorsal nucleus [thalamus]
 - NAC: Nucleus accumbens
 - NDB: Nucleus of the diagonal band
 - NL: Nucleus limitans [thalamus]
 - OT: Olfactory tubercle
 - PB: Parabrachial nucleus
 - PG: Pontine gray
 - PMD: Dorsal premammillary nucleus
 - PMv: Ventral premammillary nucleus
 - PULV: Pulvinar nucleus [thalamus]
 - Pf: Parafascicular nucleus [thalamus]
 - Prt: Pretectum
 - RR: Retrorubral area
 - RT: Reticular nucleus [thalamus]
 - Ret-MB: Reticular formation, Midbrain
 - Ret-Med: Reticular formation, Medulla
 - Ret-P: Reticular formation, Pons
 - Rms: Rostral migratory stream
 - SC: Superior colliculus
 - SCH: Suprachiasmatic nucleus [hypothalamus]
 - SI: Substantia innominata
 - SNc: Substantia nigra pars compacta
 - SNr: Substantia nigra pars reticulata
 - SO: Superior olive
 - SOL: Solitary nucleus
 - SP: Spinal cord
 - SUB: Cortical plate, subiculum
 - SUM: Supramammillary area
 - StH: Subthalamus
 - TMB: Tuberomammillary nucleus
 - TRC: Germinal trigone
 - Tct: Tectum
 - VA: Ventral anterior nucleus [thalamus]
 - VIn: Facial motor nucleus
 - VL: Ventral lateral nucleus [thalamus]
 - VM: Ventral medial nucleus [thalamus]
 - VMB: Ventral medial basal nucleus [thalamus]
 - VNC: Vestibular nuclear complex
 - VPL: Ventral posterolateral nucleus [thalamus]
 - VPM: Ventral posteromedial nucleus [thalamus]
 - X-sens: Dorsal sensory nucleus X
 - XIn: Accessory nucleus
 - ZI: Zona incerta
- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

5 mm

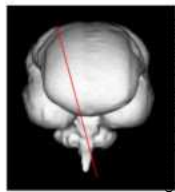
Age: 24 GW



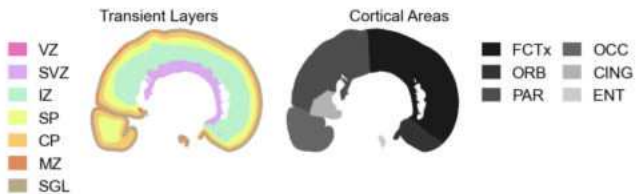
L-R Level: 6.66 mm



5 mm



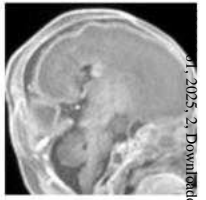
L-R Level: 6.66 mm



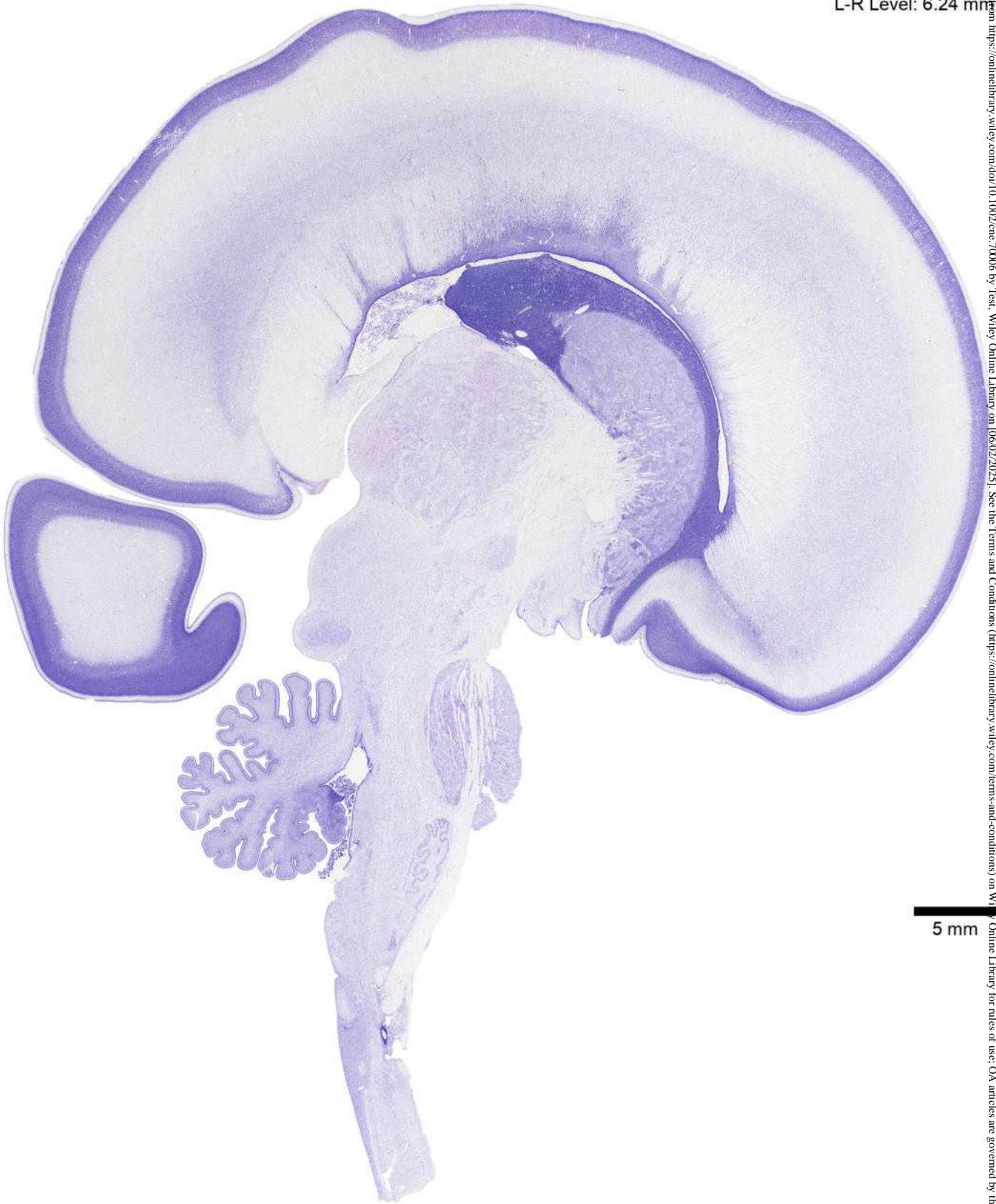
- 4V: Fourth ventricle
- AP: Area postrema
- APT: Anterior pretecal nucleus
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CC: Central canal
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DMH: Dorsomedial nucleus [hypothalamus]
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- IV: Trochlear nerve
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMD: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- SO: Superior olive
- SOL: Solitary nucleus
- SOL: Solitary nucleus
- SP: Spinal cord
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- Sth: Subthalamus
- TMM: Tubermammillary nucleus
- TRI: Germinal trigone
- Tot: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VII: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VPM: Ventral posteromedial nucleus [thalamus]
- Xln: Accessory nucleus
- ZI: Zona incerta
- CaS: Calcarine sulcus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNC: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata

5 mm

Age: 24 GW

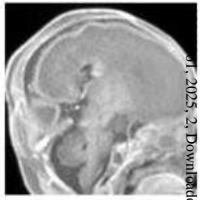


L-R Level: 6.24 mm

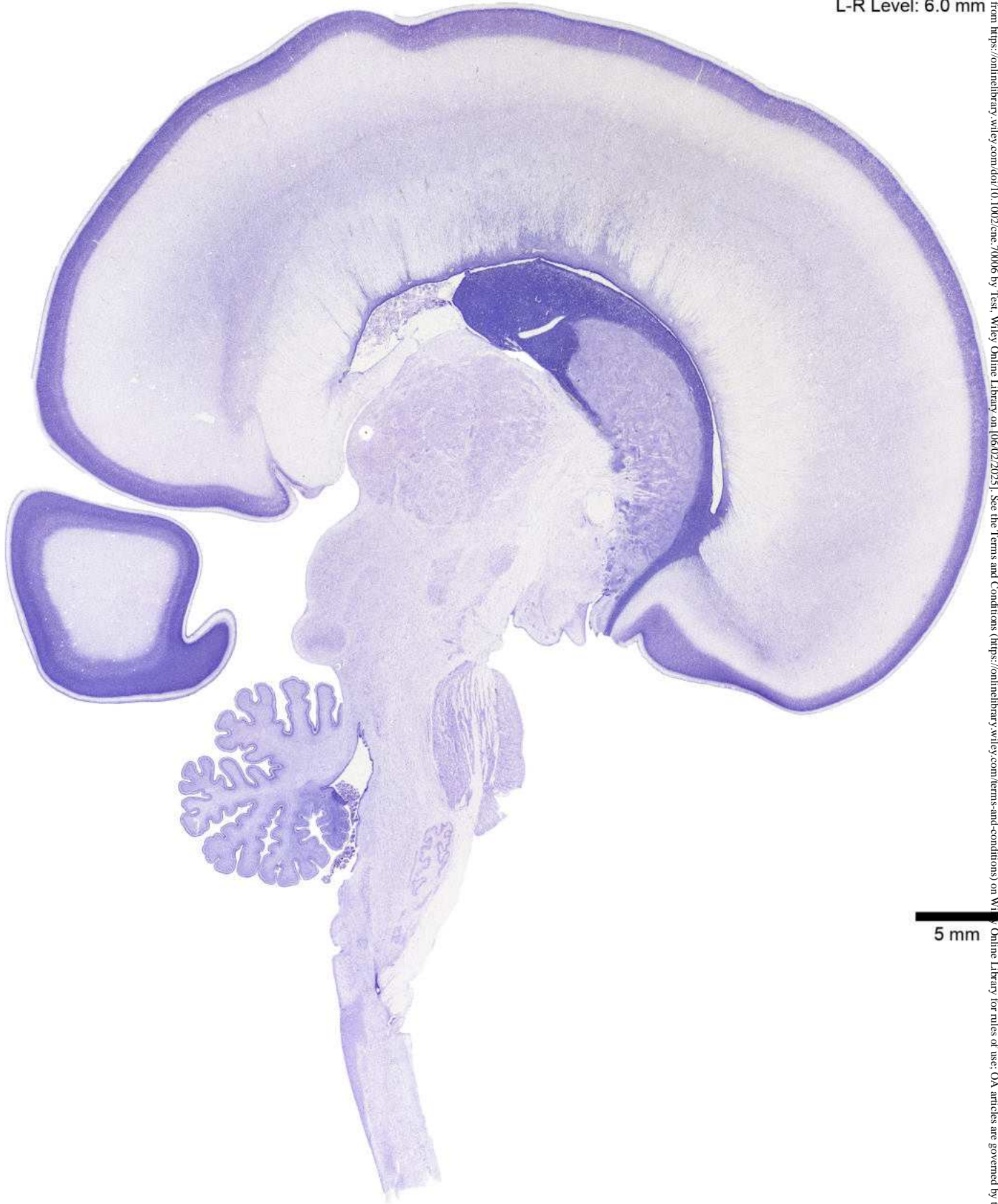


5 mm

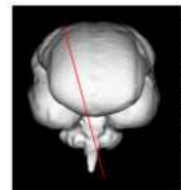
Age: 24 GW



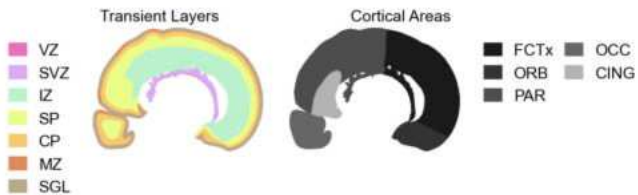
L-R Level: 6.0 mm



5 mm



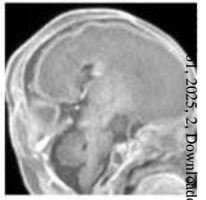
L-R Level: 6.0 mm



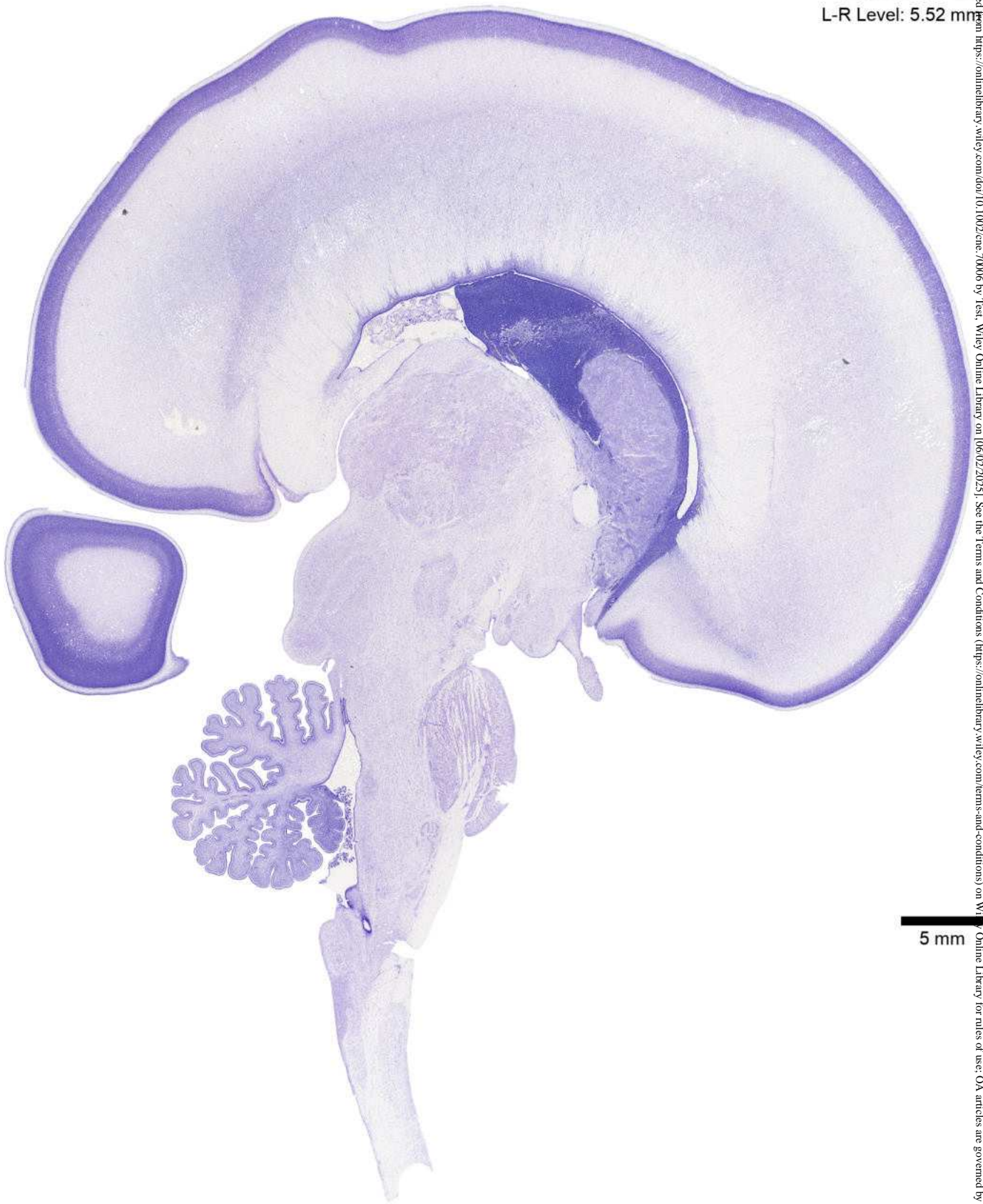
- 4V: Fourth ventricle
- AP: Area postrema
- APT: Anterior pretecal nucleus
- ARM: Arcuate nucleus [medulla]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- CC: Central canal
- CG: Central gray of the spinal cord
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- DMH: Dorsomedial nucleus [hypothalamus]
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GPM: Globus pallidus medial segment
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IO: Inferior olive
- IV: Trochlear nerve
- LC: Locus coeruleus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LP: Lateral posterior nucleus [thalamus]
- LPO: Lateral preoptic area
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- PAG: Periaqueductal gray
- PG: Pontine gray
- PMD: Dorsal premammillary nucleus
- PMV: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PULV: Pulvinar nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RR: Retrorubral area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SNC: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SOL: Solitary nucleus
- SP: Spinal cord
- SUB: Cortical plate, subiculum
- SUM: Supramammillary area
- Sth: Subthalamus
- TMM: Tubermammillary nucleus
- TRI: Germinal trigone
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VIn: Facial motor nucleus
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus
- ZI: Zona incerta
- CaS: Calcarine sulcus

5 mm

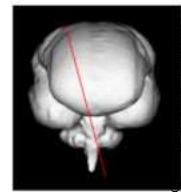
Age: 24 GW



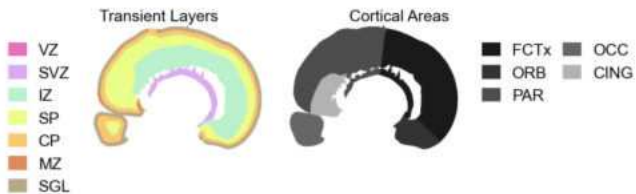
L-R Level: 5.52 mm



5 mm



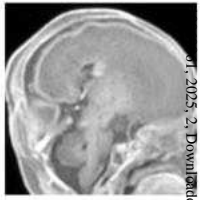
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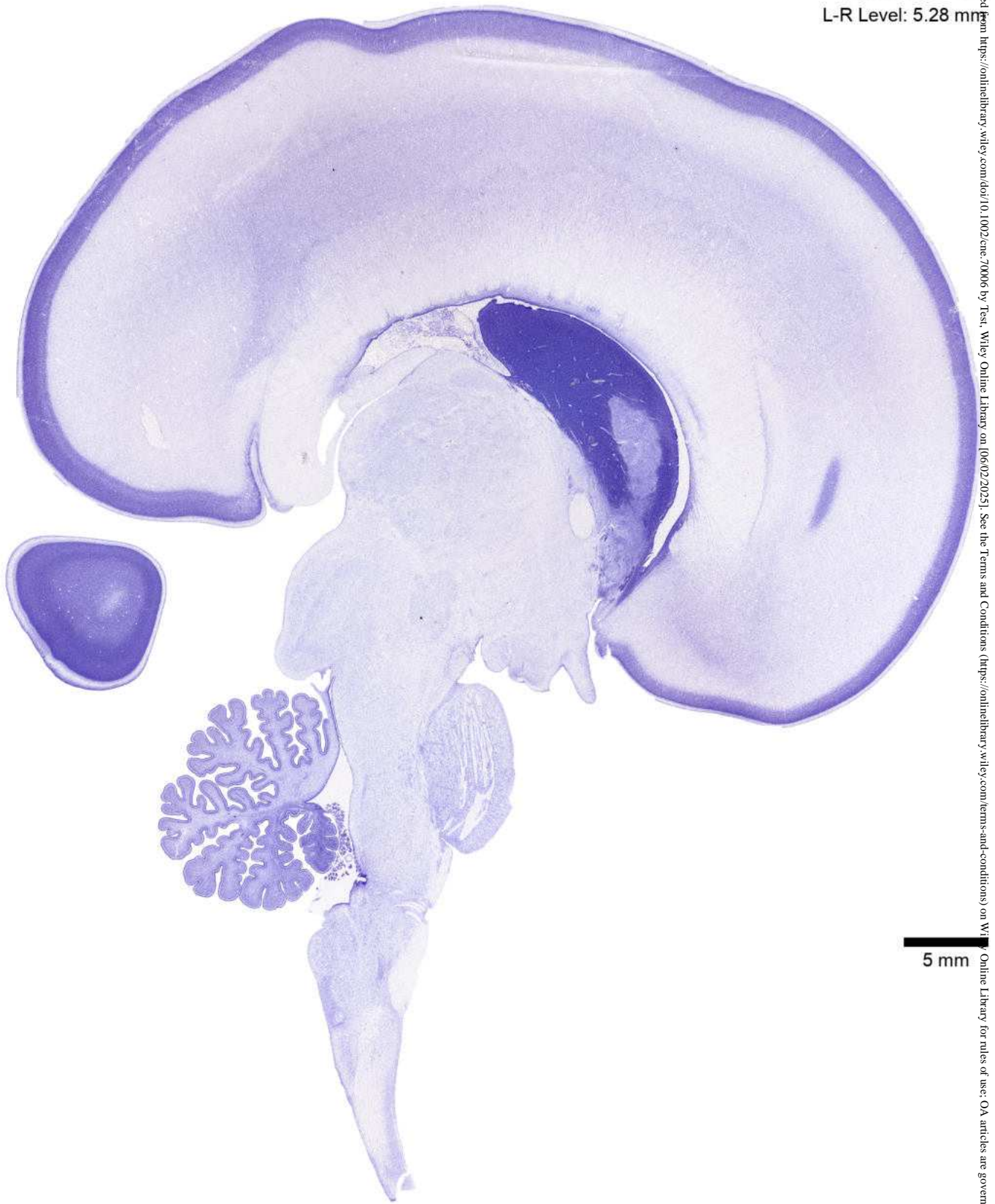
5 mm

- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus AP: Area postrema AV: Anteroventral nucleus [thalamus] BNM: Basal nucleus of Meynert BST: Bed nucleus of the stria terminalis CC: Central canal CMT: Centromedian nucleus [thalamus] COM: Commissural nucleus Cau: Caudate nucleus Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DMH: Dorsomedial nucleus [hypothalamus] FF: Field of Forel FN: Fastigial nucleus GE: Ganglionic eminence GR: Gracile nucleus HEM: Cerebellar hemispheres HY: Hypothalamus | <ul style="list-style-type: none"> IC: Inferior colliculus ICc: Inferior colliculus, central nucleus INM: Intercalated nucleus [medulla] IO: Inferior olive LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LMN: Lateral mammillary nucleus LPO: Lateral preoptic area LTN: Lateral tuberal nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] NR: Nucleus of Roller OT: Olfactory tubercle PAG: Periaqueductal gray PG: Pontine gray | <ul style="list-style-type: none"> PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PRP: Nucleus prepositus PULV: Pulvinar nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] RR: Retrobulbar area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus | <ul style="list-style-type: none"> SCH: Suprachiasmatic nucleus [hypothalamus] SI: Substantia innominata SNC: Substantia nigra pars compacta SOL: Solitary nucleus SP: Spinal cord SUM: Supramammillary area TMM: Tuberoammammillary nucleus TRI: Germinal trigone Tct: Tectum VA: Ventral anterior nucleus [thalamus] VIn: Abducens nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VPM: Ventral posteromedial nucleus [thalamus] XIIIn: Hypoglossal nucleus XIIn: Accessory nucleus ZI: Zona incerta |
|---|---|--|--|

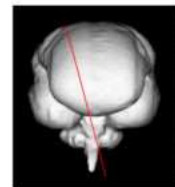
Age: 24 GW



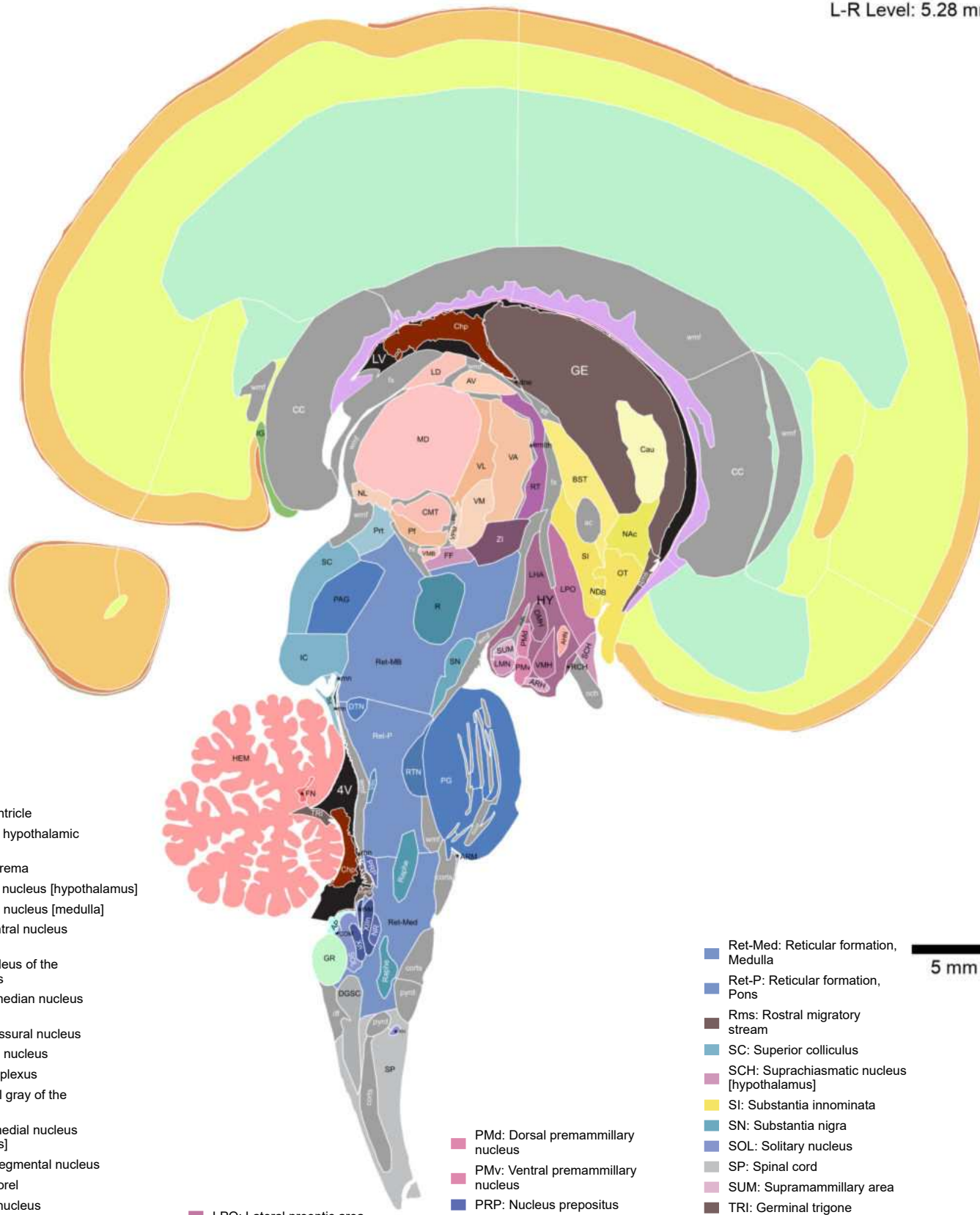
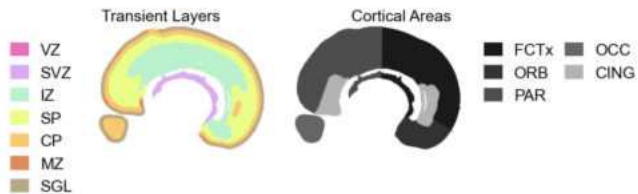
L-R Level: 5.28 mm



5 mm



L-R Level: 5.28 mm

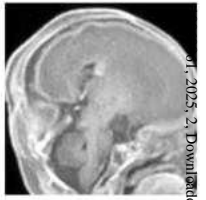


- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CMT: Centromedian nucleus [thalamus]
- COM: Commissural nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- INM: Intercalated nucleus [medulla]
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NR: Nucleus of Roller
- PAG: Periaqueductal gray
- PG: Pontine gray

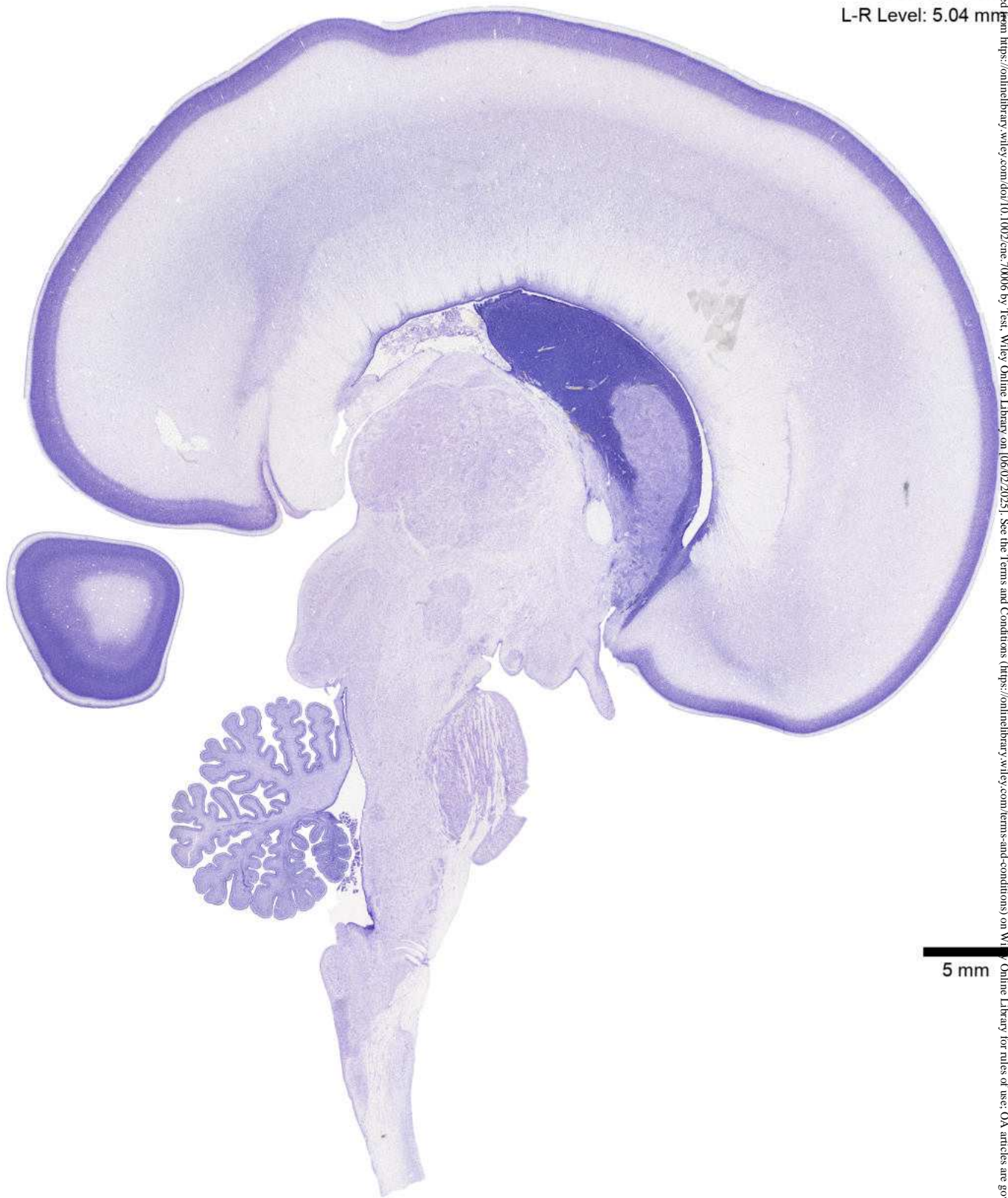
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SN: Substantia nigra
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VIIIn: Facial motor nucleus
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- XIIIn: Hypoglossal nucleus
- XIIn: Accessory nucleus
- Xn: Dorsal motor nucleus
- ZI: Zona incerta
- PmD: Dorsal premammillary nucleus
- PmV: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain

5 mm

Age: 24 GW

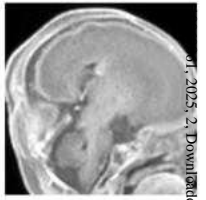


L-R Level: 5.04 mm

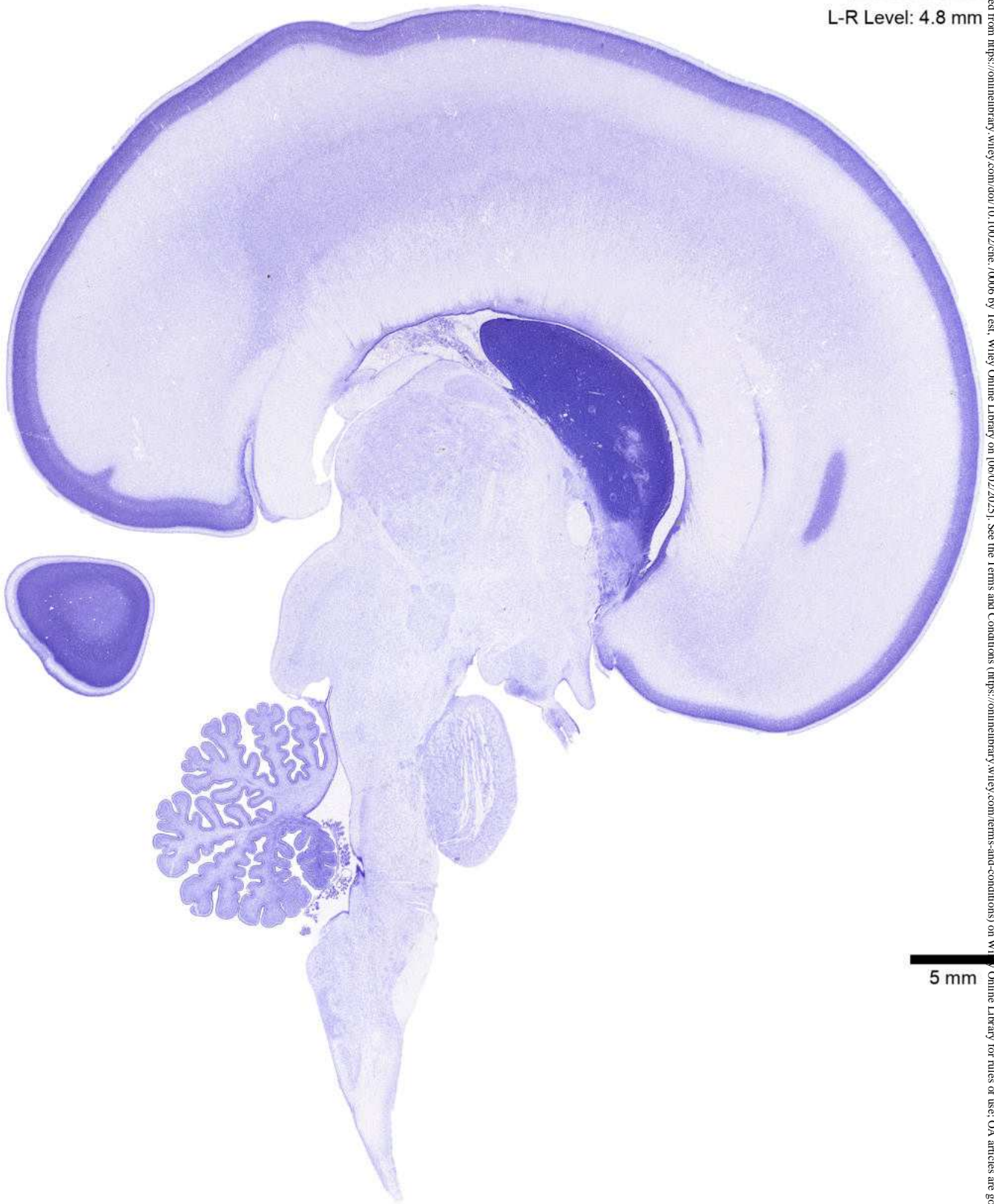


5 mm

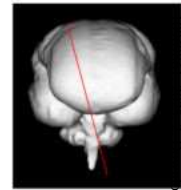
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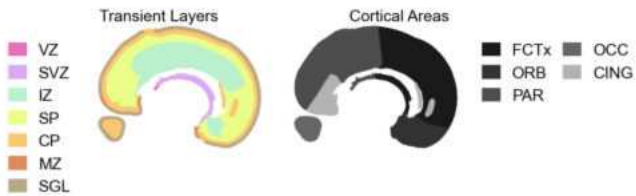
L-R Level: 4.8 mm



5 mm



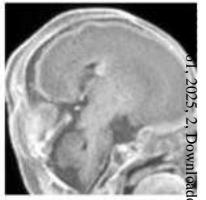
L-R Level: 4.8 mm



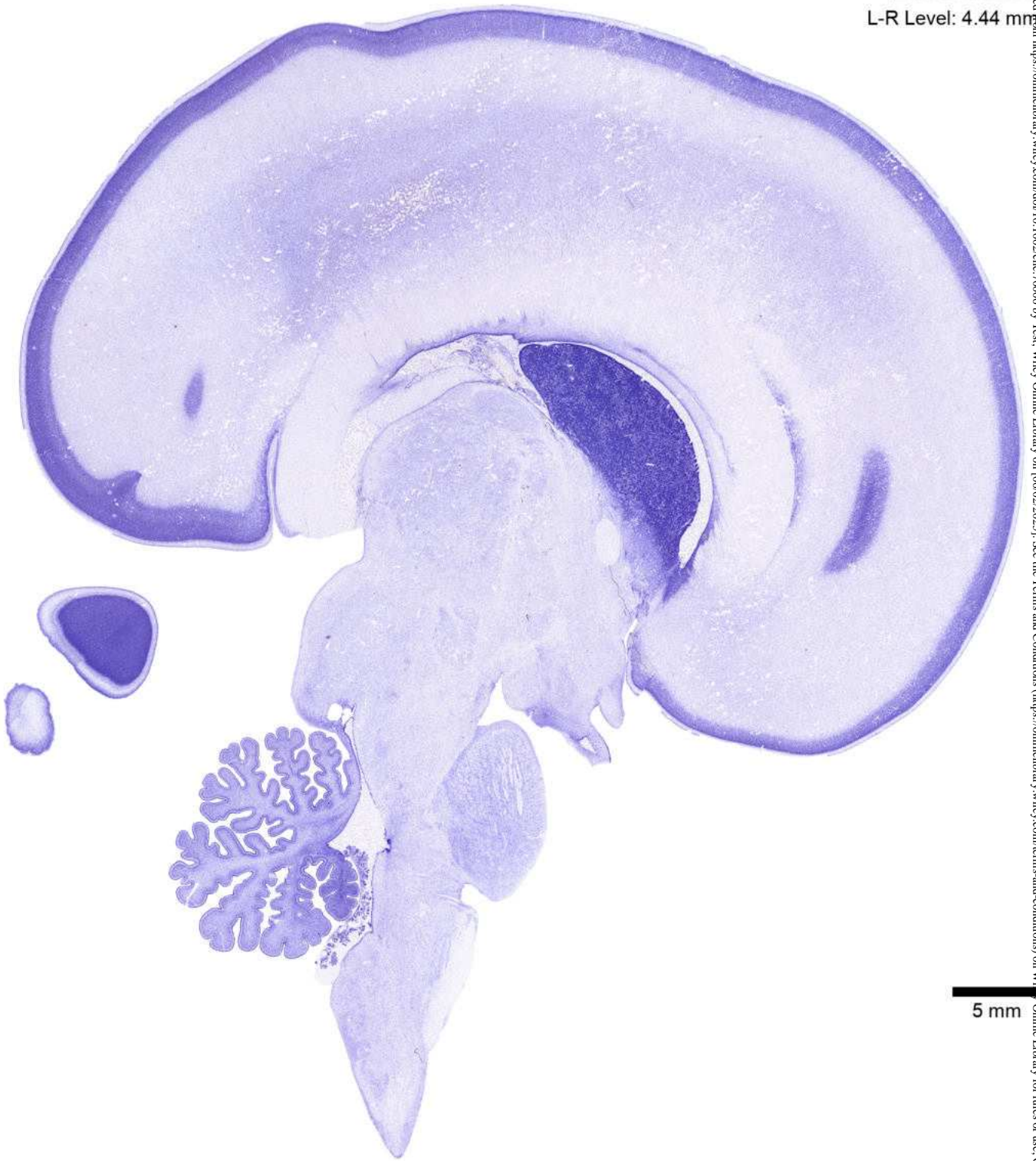
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- BST: Bed nucleus of the stria terminalis
- CGP: Central gray of the pons
- CMT: Centromedian nucleus [thalamus]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- GR: Gracile nucleus
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IG: Induseum griseum
- INM: Intercalated nucleus [medulla]
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- ME: Median eminence
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- MPT: Medial pretecal nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- Pf: Parafascicular nucleus [thalamus]
- Pit: Pituitary gland
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- VTA: Ventral tegmental area
- XIIIn: Hypoglossal nucleus
- XIn: Accessory nucleus
- Xn: Dorsal motor nucleus
- ZI: Zona incerta

5 mm

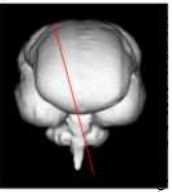
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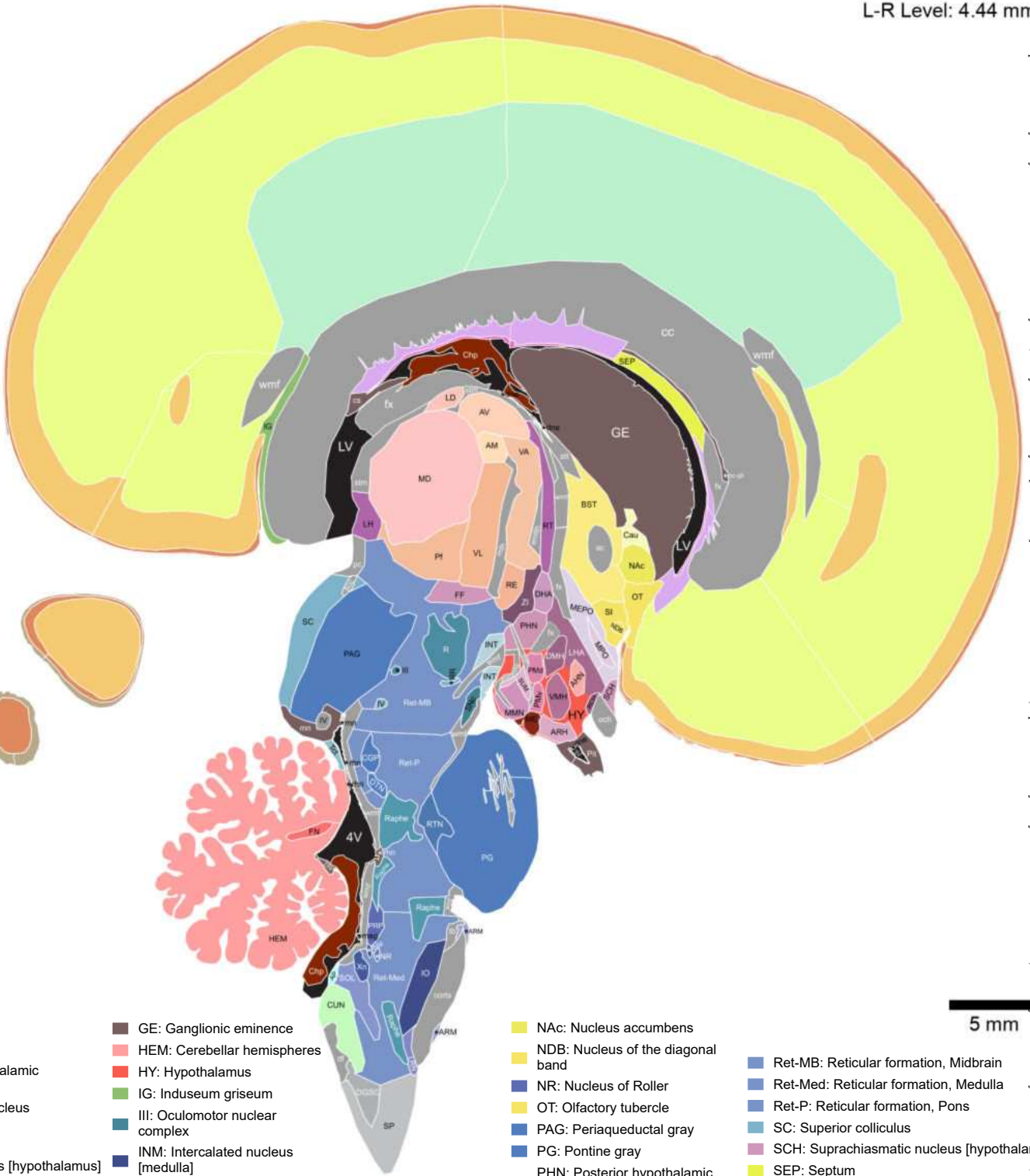
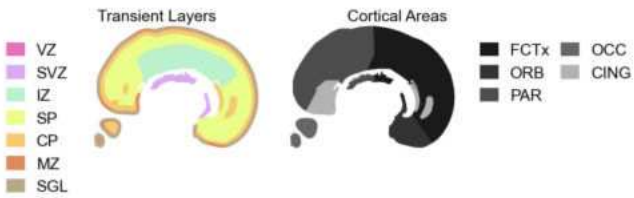
L-R Level: 4.44 mm



5 mm



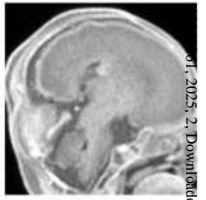
L-R Level: 4.44 mm



5 mm

- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus AM: Anteromedial nucleus [thalamus] AP: Area postrema ARH: Arcuate nucleus [hypothalamus] ARM: Arcuate nucleus [medulla] AV: Anteroventral nucleus [thalamus] BST: Bed nucleus of the stria terminalis CGP: Central gray of the pons CUN: Cuneate nucleus Cau: Caudate nucleus Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DTN: Dorsal tegmental nucleus FF: Field of Forel FN: Fastigial nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence HEM: Cerebellar hemispheres HY: Hypothalamus IG: Induseum griseum III: Oculomotor nuclear complex INM: Intercalated nucleus [medulla] INT: Interpeduncular nucleus IO: Inferior olive IV: Trochlear nucleus LD: Lateral dorsal nucleus [thalamus] LH: Lateral habenula LHA: Lateral hypothalamic area LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] ME: Median eminence MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus | <ul style="list-style-type: none"> NAc: Nucleus accumbens NDB: Nucleus of the diagonal band NR: Nucleus of Roller OT: Olfactory tubercle PAG: Periaqueductal gray PG: Pontine gray PHN: Posterior hypothalamic nucleus PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PRP: Nucleus prepositus Pf: Parafascicular nucleus [thalamus] Pit: Pituitary gland R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RR: Retrorubral area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Raphe: Raphe nuclei | <ul style="list-style-type: none"> Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SI: Substantia innominata SNC: Substantia nigra pars compacta SOL: Solitary nucleus SP: Spinal cord SUM: Supramammillary area TRI: Germinal trigone Tct: Tectum VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] Xn: Dorsal motor nucleus ZI: Zona incerta |
|--|--|--|---|

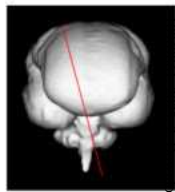
Age: 24 GW



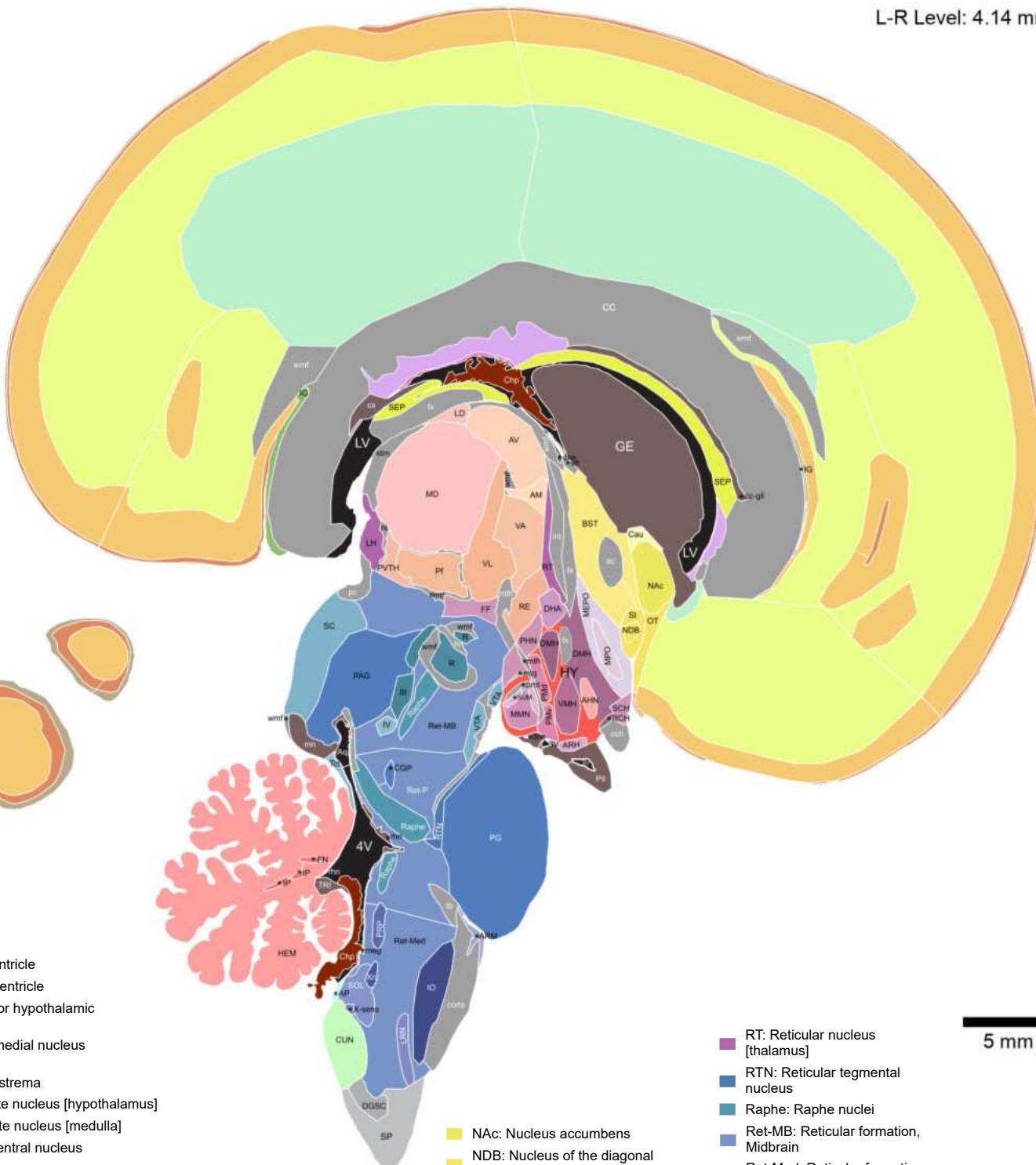
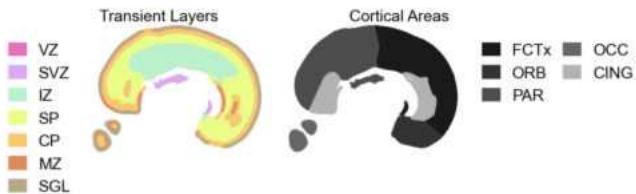
L-R Level: 4.14 mm



5 mm



L-R Level: 4.14 mm



- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- AM: Anteromedial nucleus [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BST: Bed nucleus of the stria terminalis
- CGP: Central gray of the pons
- CUN: Cuneate nucleus
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus

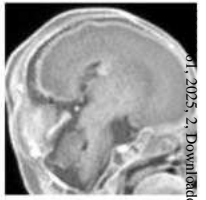
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- IO: Inferior olive
- IP: Interposed nucleus
- IV: Trochlear nucleus
- LD: Lateral dorsal nucleus [thalamus]
- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus

- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRP: Nucleus prepositus
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus
- Pit: Pituitary gland
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens

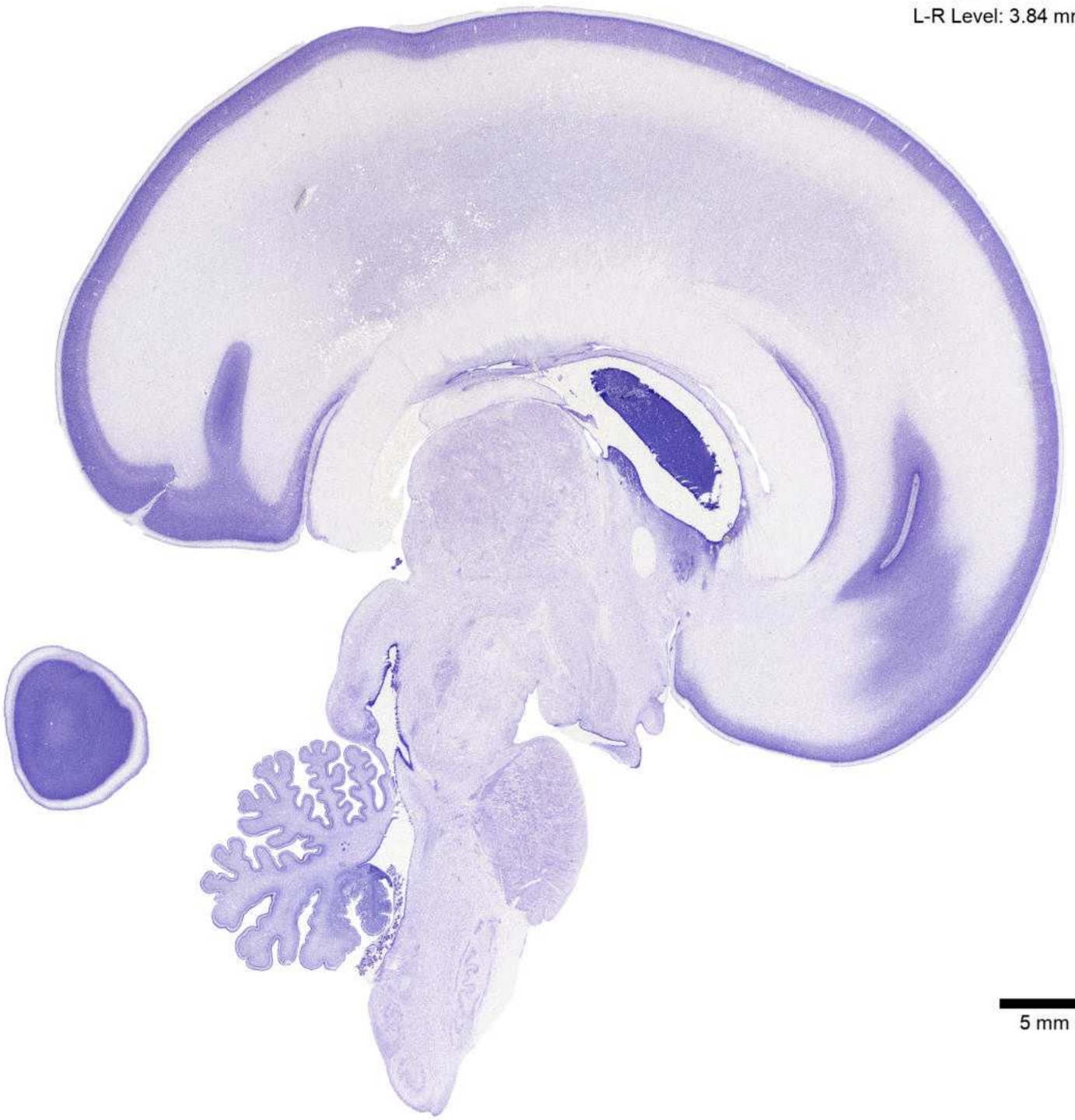
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SI: Substantia innominata
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- X-sens: Dorsal sensory nucleus X
- Xn: Dorsal motor nucleus

5 mm

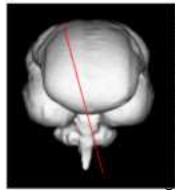
Age: 24 GW



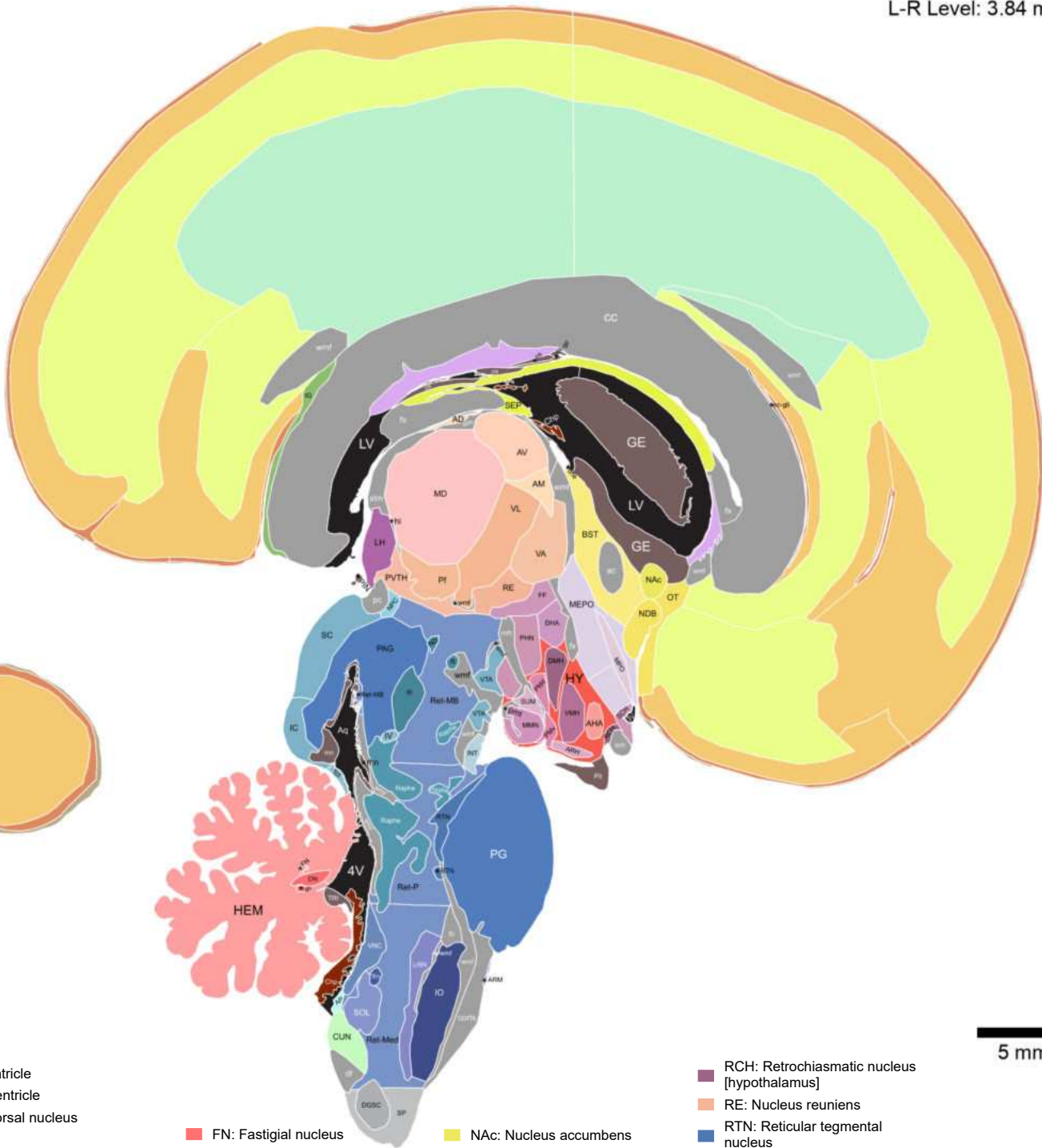
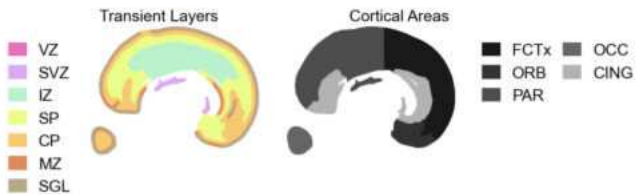
L-R Level: 3.84 mm



5 mm



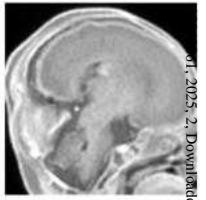
L-R Level: 3.84 mm



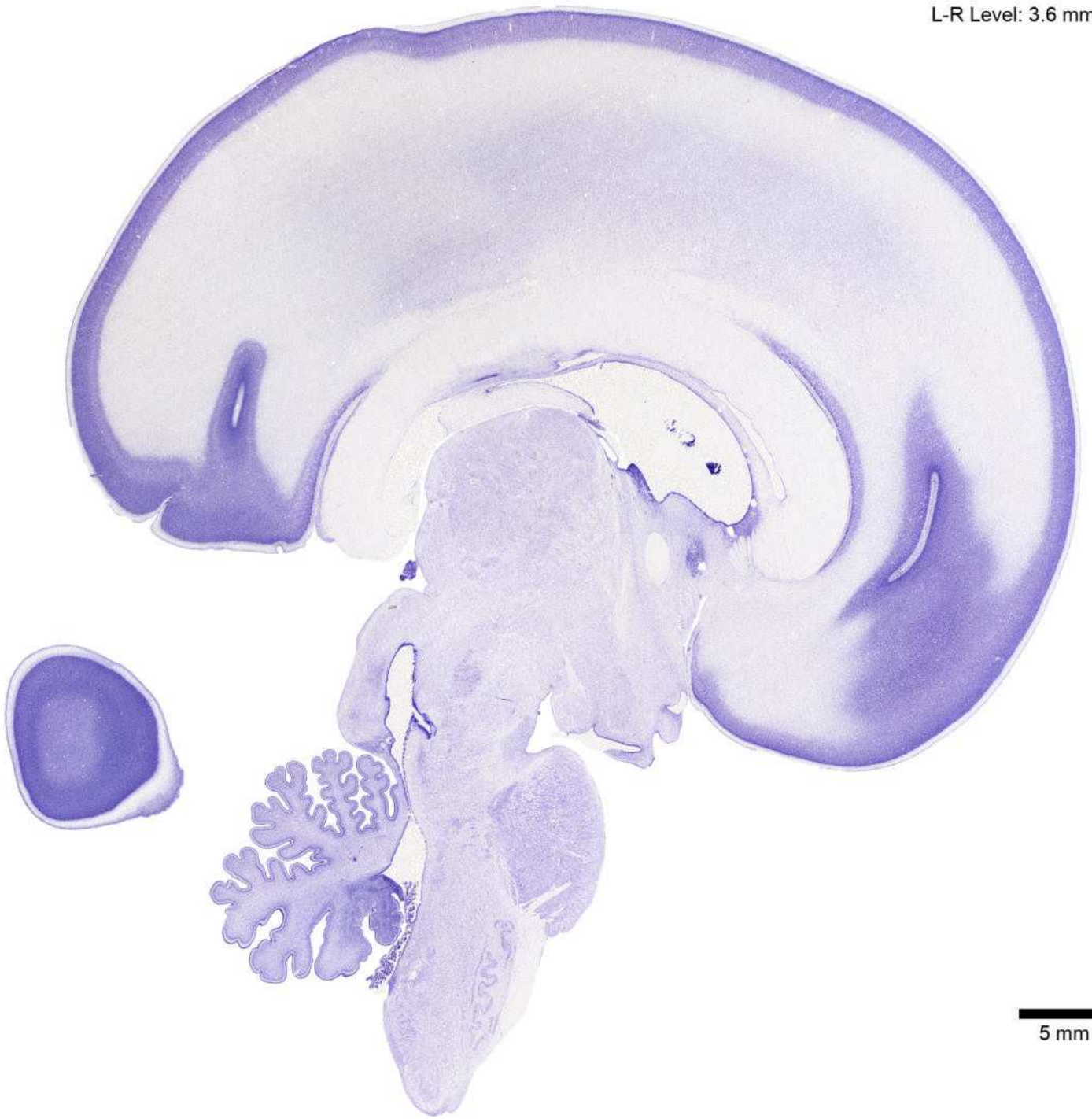
5 mm

- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHA: Anterior hypothalamic area
- AM: Anteromedial nucleus [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BST: Bed nucleus of the stria terminalis
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DN: Dentate nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IP: Interposed nucleus
- IV: Trochlear nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NAC: Nucleus accumbens
- ND: Nucleus of Darkschewitsch
- NDB: Nucleus of the diagonal band
- NPC: Nucleus of the posterior commissure
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Pit: Pituitary gland
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
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- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- VTA: Ventral tegmental area
- Xn: Dorsal motor nucleus

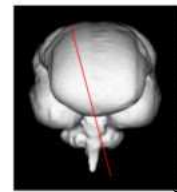
Age: 24 GW



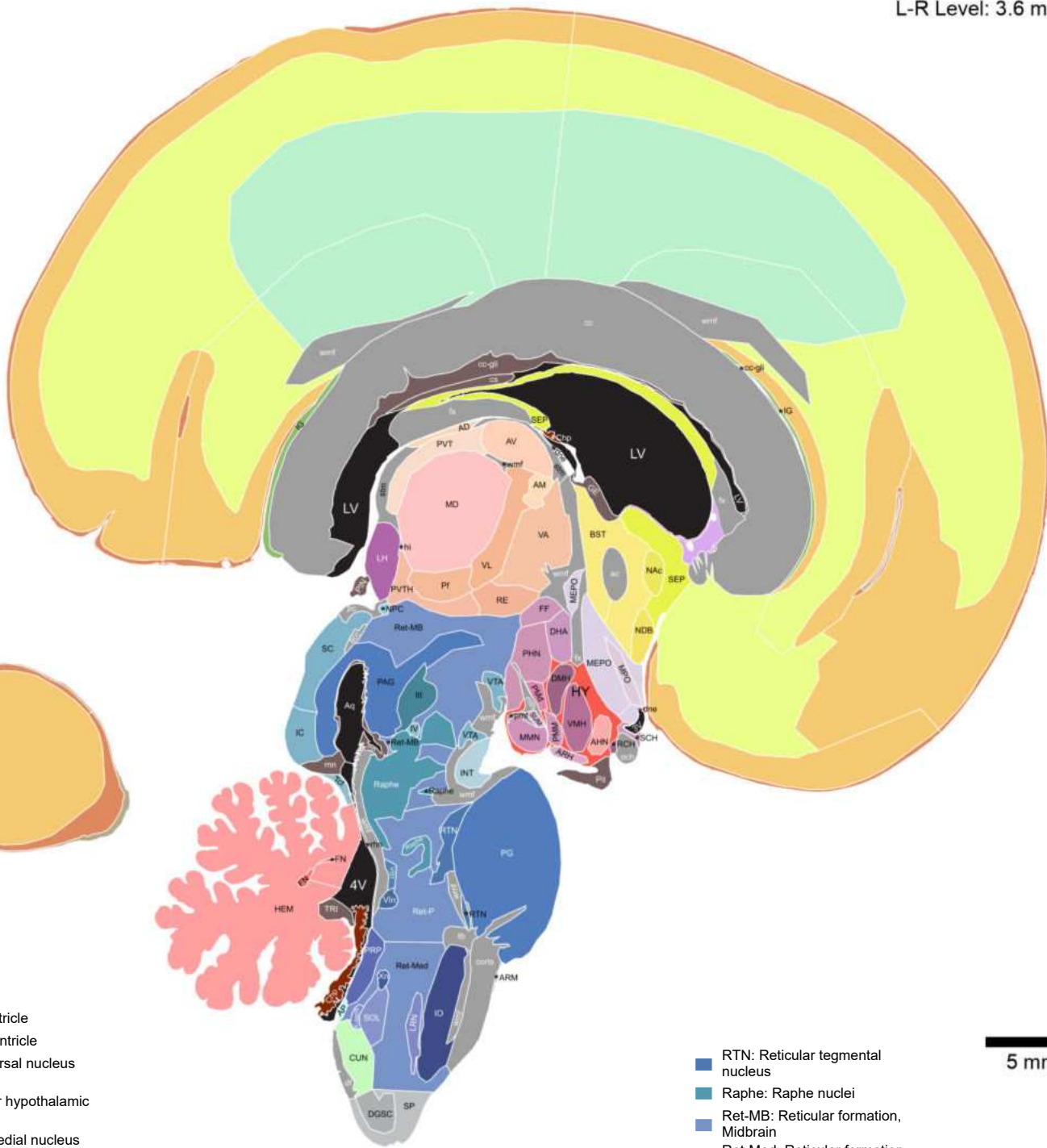
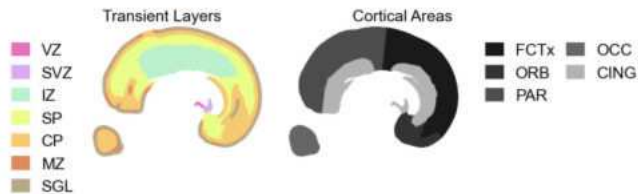
L-R Level: 3.6 mm



5 mm



L-R Level: 3.6 mm



- 3V: Third ventricle
- 4V: Fourth ventricle
- AD: Anterodorsal nucleus [thalamus]
- AHN: Anterior hypothalamic nucleus
- AM: Anteromedial nucleus [thalamus]
- AP: Area postrema
- ARH: Arcuate nucleus [hypothalamus]
- ARM: Arcuate nucleus [medulla]
- AV: Anteroventral nucleus [thalamus]
- Aq: Aqueduct
- BST: Bed nucleus of the stria terminalis
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DGSC: Dorsal gray of the spinal cord
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- MMN: Medial mammillary nucleus
- FF: Field of Forel
- FN: Fastigial nucleus
- GE: Ganglionic eminence
- HEM: Cerebellar hemispheres

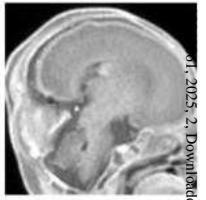
- HY: Hypothalamus
- IC: Inferior colliculus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- INT: Interpeduncular nucleus
- IO: Inferior olive
- IV: Trochlear nucleus
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band

- NPC: Nucleus of the posterior commissure
- PAG: Periaqueductal gray
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PIN: Pineal gland
- PMM: Premammillary area
- PMD: Dorsal premammillary nucleus
- PRP: Nucleus prepositus
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Pit: Pituitary gland
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens

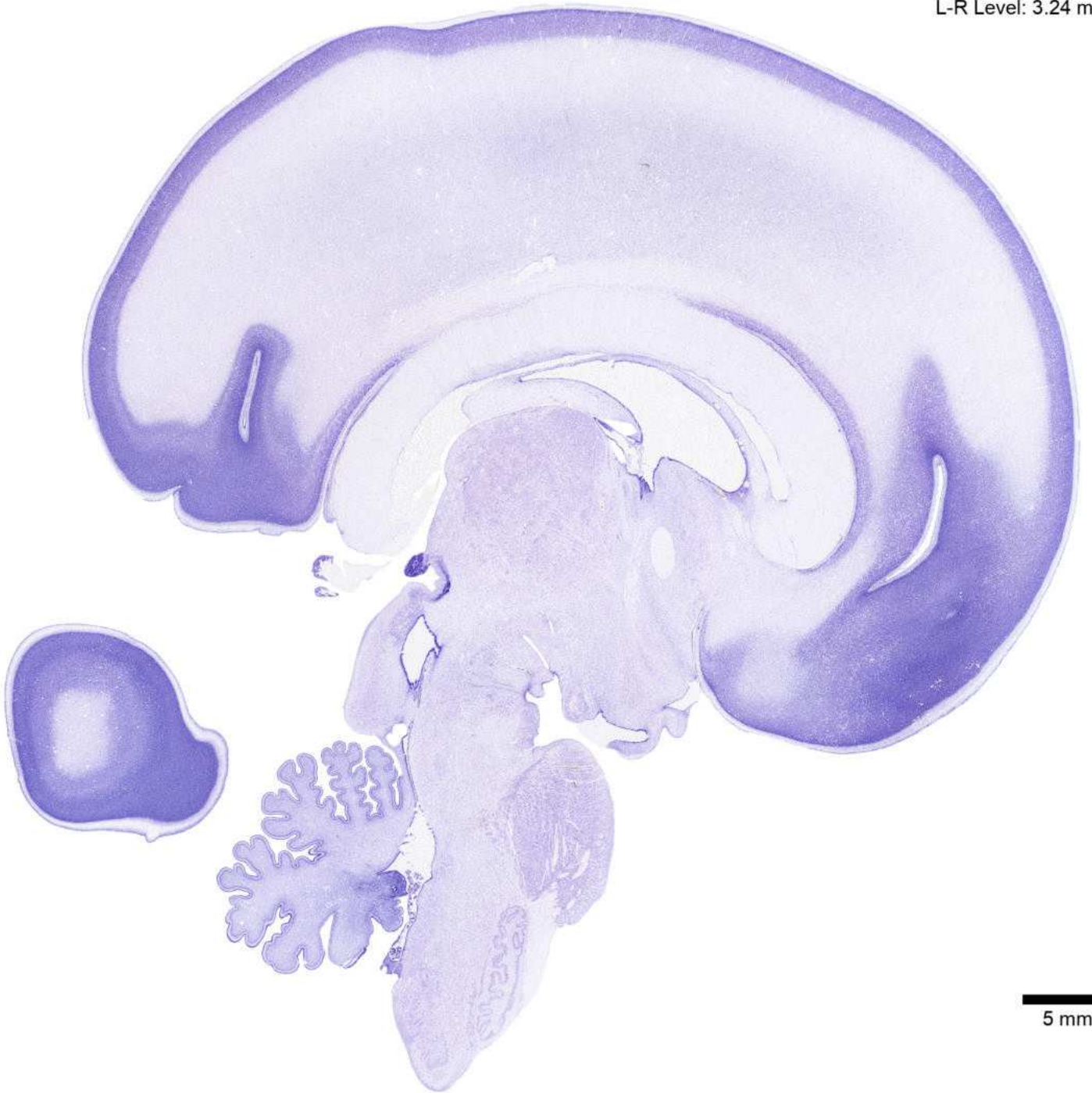
- RTN: Reticular tegmental nucleus
- Raphe: Raphe nuclei
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SOL: Solitary nucleus
- SP: Spinal cord
- SUM: Supramammillary area
- TRI: Germinal trigone
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VIIIn: Facial motor nucleus
- VIn: Abducens nucleus
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VTA: Ventral tegmental area
- X-sens: Dorsal sensory nucleus X
- Xn: Dorsal motor nucleus

5 mm

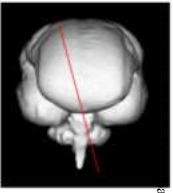
Age: 24 GW



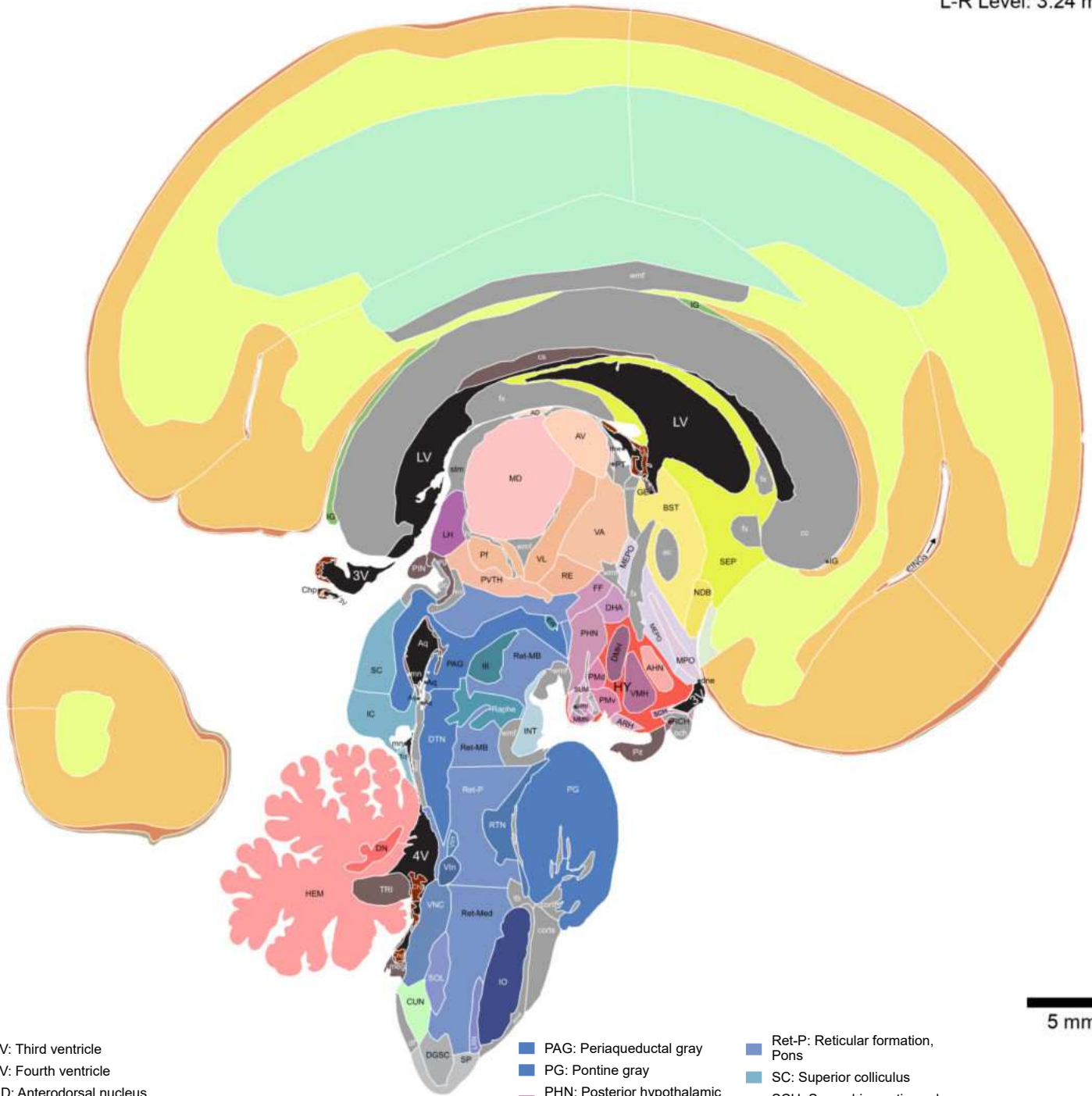
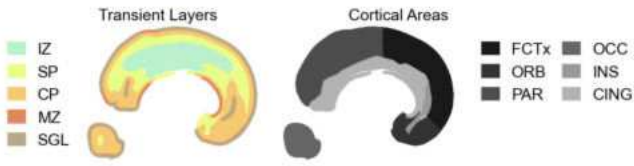
L-R Level: 3.24 mm



5 mm



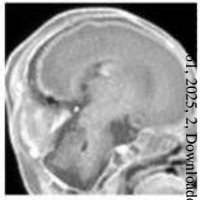
L-R Level: 3.24 mm



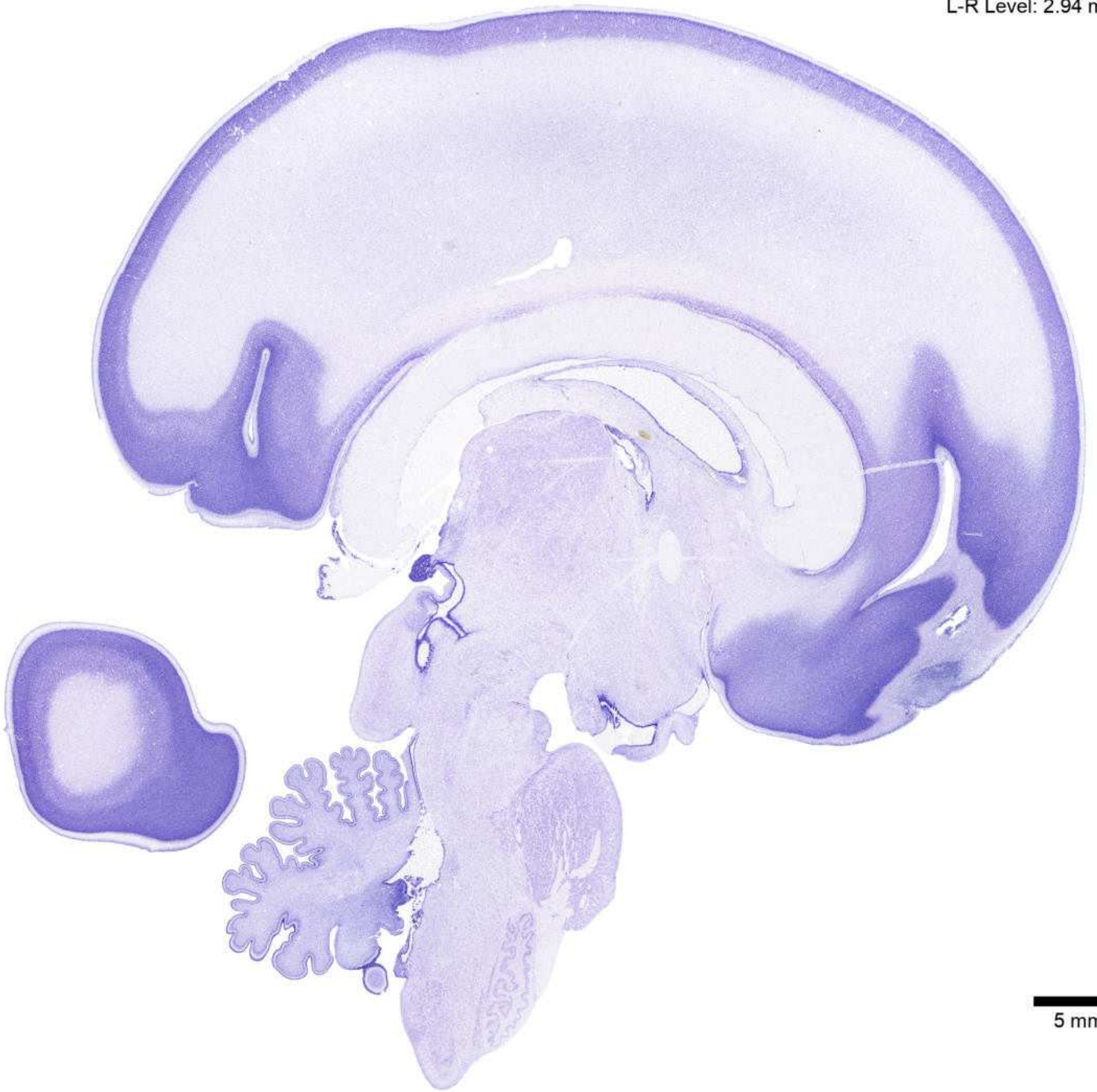
5 mm

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|--|--|---|--|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AD: Anterodorsal nucleus [thalamus] AHN: Anterior hypothalamic nucleus ARH: Arcuate nucleus [hypothalamus] AV: Anteroventral nucleus [thalamus] Aq: Aqueduct BST: Bed nucleus of the stria terminalis CUN: Cuneate nucleus Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DN: Dentate nucleus DTN: Dorsal tegmental nucleus EW: Edinger-Westphal nucleus FF: Field of Forel | <ul style="list-style-type: none"> GE: Ganglionic eminence HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus IG: Induseum griseum III: Oculomotor nuclear complex INT: Interpeduncular nucleus IO: Inferior olive LH: Lateral habenula LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band | <ul style="list-style-type: none"> PAG: Periaqueductal gray PG: Pontine gray PHN: Posterior hypothalamic nucleus PIN: Pineal gland PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PT: Paratenial nucleus [thalamus] PVTH: Periventricular complex [thalamus] Pf: Parafascicular nucleus [thalamus] Pit: Pituitary gland RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RTN: Reticular tegmental nucleus Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla | <ul style="list-style-type: none"> Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SOL: Solitary nucleus SP: Spinal cord SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VII: Facial motor nucleus VIn: Abducens nucleus VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex CINGs: Cingulate sulcus |
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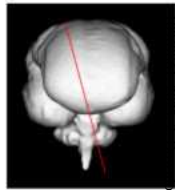
Age: 24 GW



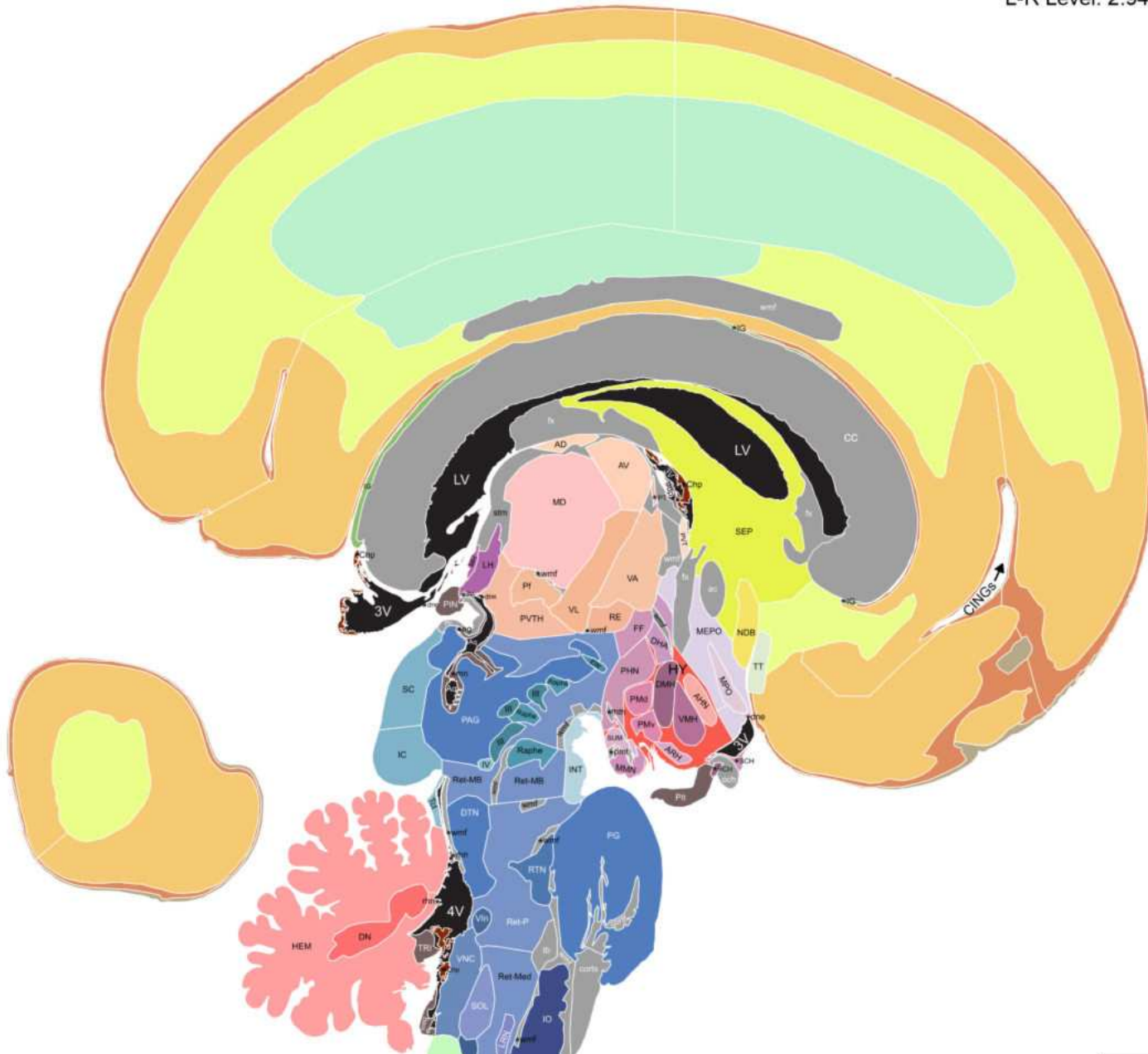
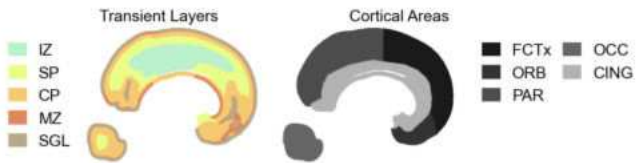
L-R Level: 2.94 mm



5 mm



L-R Level: 2.94 mm



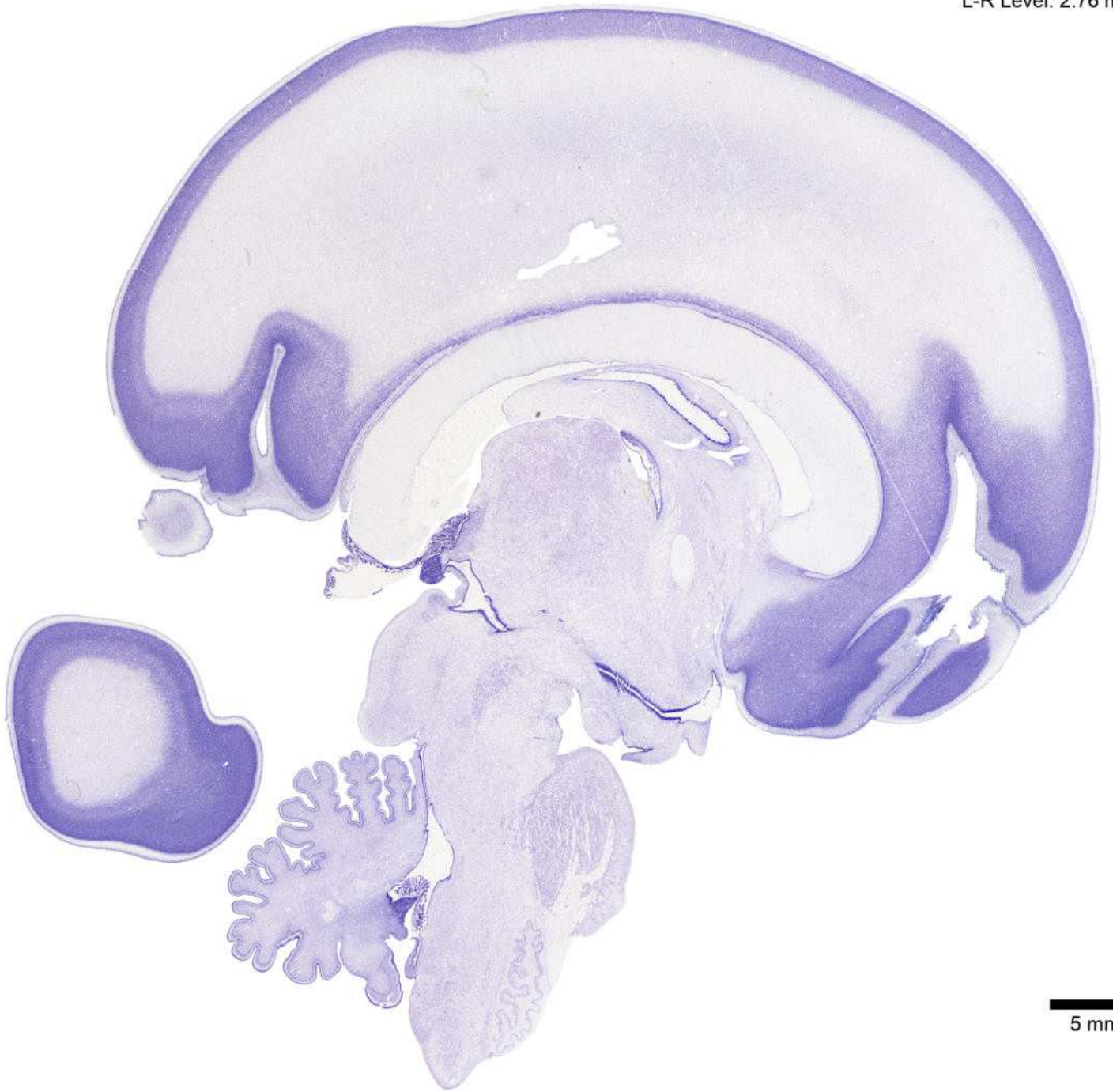
5 mm

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|--|--|--|--|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AD: Anterodorsal nucleus [thalamus] AH: Anterior hypothalamic nucleus ARH: Arcuate nucleus [hypothalamus] AV: Anteroventral nucleus [thalamus] Aq: Aqueduct CUN: Cuneate nucleus Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DN: Dentate nucleus DTN: Dorsal tegmental nucleus EW: Evinger-Westphal nucleus FF: Field of Forel HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> HY: Hypothalamus IC: Inferior colliculus IG: Induseum griseum III: Oculomotor nuclear complex INT: Interpeduncular nucleus IO: Inferior olive IV: Trochlear nucleus LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MH: Medial habenula MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band PAG: Periaqueductal gray PG: Pontine gray | <ul style="list-style-type: none"> PHN: Posterior hypothalamic nucleus PIN: Pineal gland PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PT: Paratenial nucleus [thalamus] PVT: Paraventricular nucleus [thalamus] PVTH: Periventricular complex [thalamus] Pf: Parafascicular nucleus [thalamus] Pit: Pituitary gland RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RTN: Reticular tegmental nucleus Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla | <ul style="list-style-type: none"> Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SOL: Solitary nucleus SP: Spinal cord SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VIn: Abducens nucleus VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex → CINGs: Cingulate sulcus |
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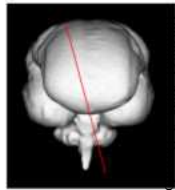
Age: 24 GW



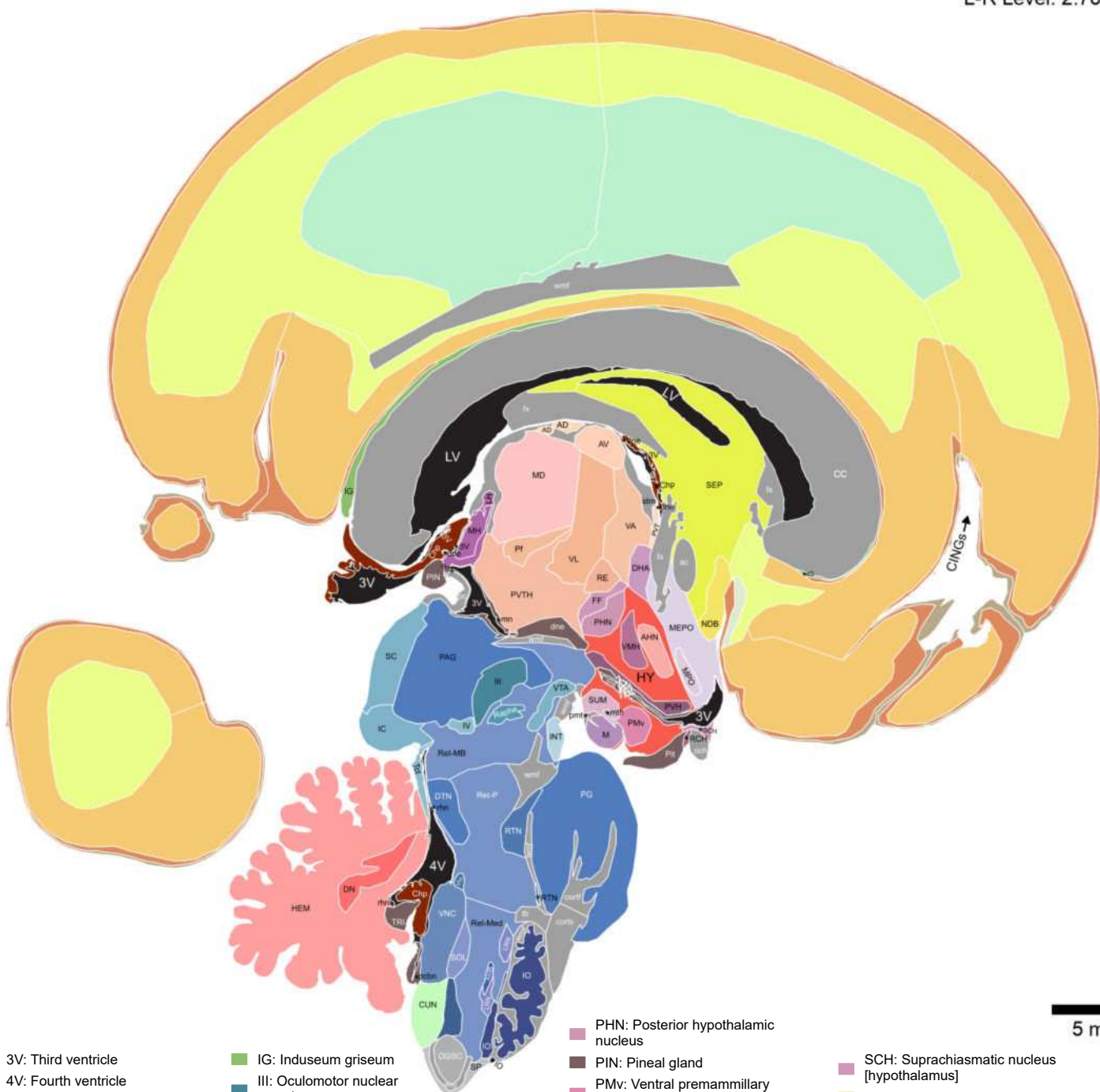
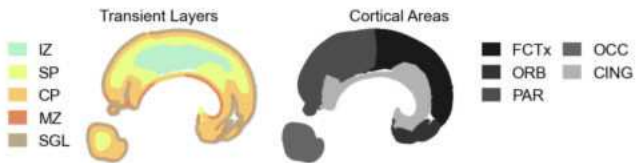
L-R Level: 2.76 mm



5 mm



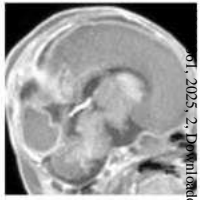
L-R Level: 2.76 mm



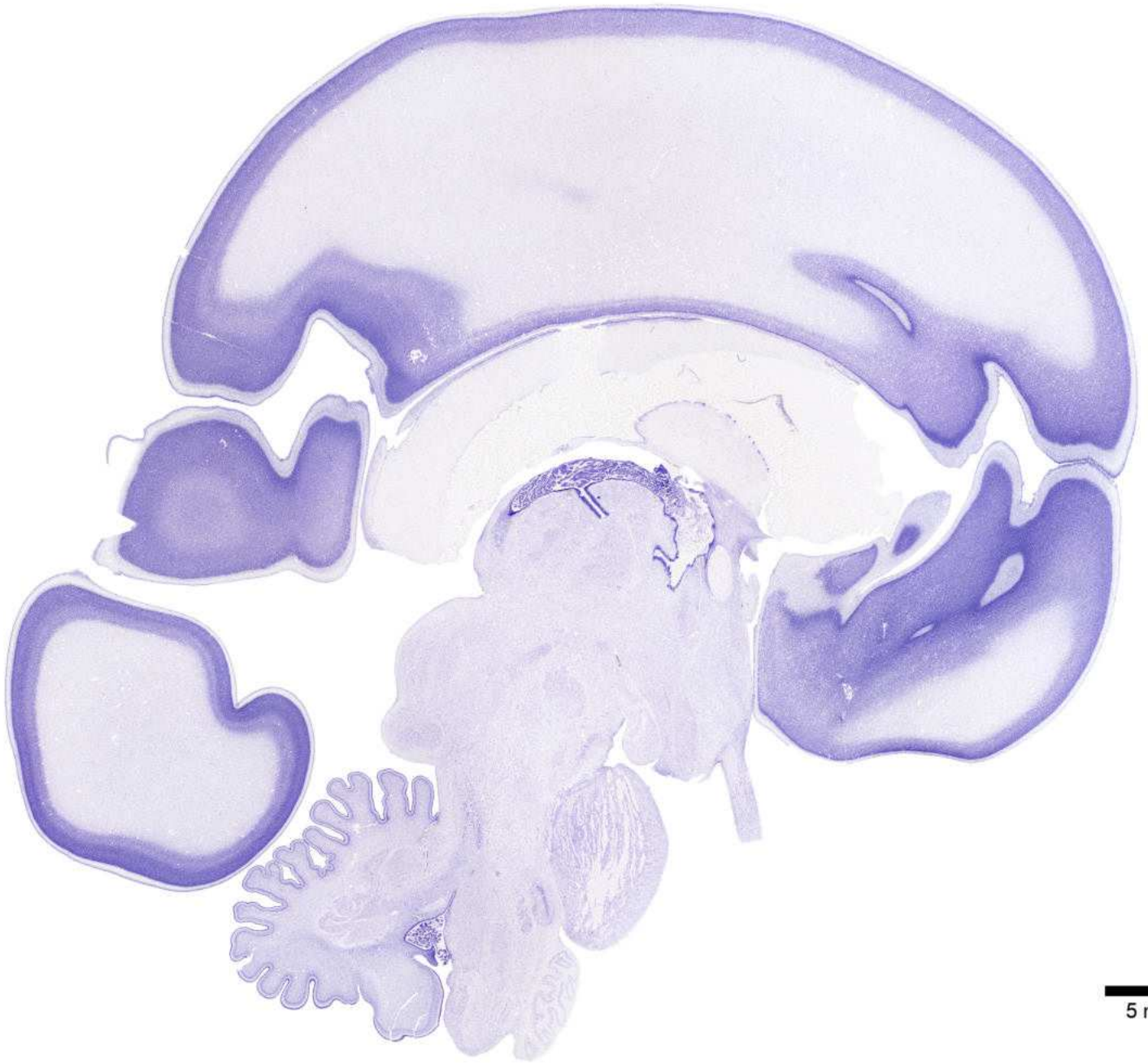
5 mm

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|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AD: Anterodorsal nucleus [thalamus] AHN: Anterior hypothalamic nucleus AMB: Nucleus ambiguus AV: Anteroventral nucleus [thalamus] CUN: Cuneate nucleus Chp: Choroid plexus DGSC: Dorsal gray of the spinal cord DHA: Dorsal hypothalamic area DN: Dentate nucleus DTN: Dorsal tegmental nucleus FF: Field of Forel HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus IG: Induseum griseum III: Oculomotor nuclear complex INT: Interpeduncular nucleus IO: Inferior olive IV: Trochlear nucleus LH: Lateral habenula LRN: Lateral reticular nucleus LV: Lateral ventricle M: Mammillary body MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MH: Medial habenula MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band PAG: Periaqueductal gray PG: Pontine gray PHN: Posterior hypothalamic nucleus PIN: Pineal gland PMv: Ventral premammillary nucleus PVH: Paraventricular nucleus [hypothalamus] PVT: Paraventricular nucleus [thalamus] PVTH: Periventricular complex [thalamus] Pf: Parafascicular nucleus [thalamus] Pit: Pituitary gland RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RTN: Reticular tegmental nucleus Raphe: Raphe nuclei Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SOL: Solitary nucleus [hypothalamus] SP: Spinal cord SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VIn: Abducens nucleus VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex VTA: Ventral tegmental area → CINGs: Cingulate sulcus |
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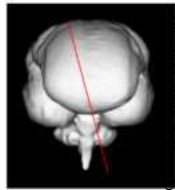
Age: 24 GW



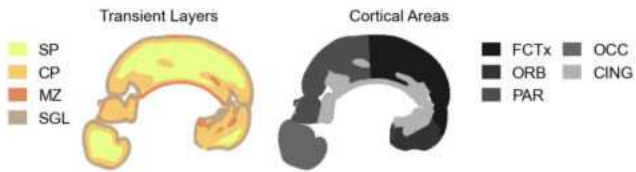
L-R Level: 1.68 mm



5 mm



L-R Level: 1.68 mm



5 mm

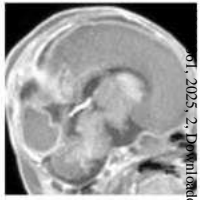
- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- ARH: Arcuate nucleus [hypothalamus]
- CGP: Central gray of the pons
- CUN: Cuneate nucleus
- Chp: Choroid plexus
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DN: Dentate nucleus
- DTN: Dorsal tegmental nucleus
- FF: Field of Forel
- H: Habenula
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus

- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- III: Oculomotor nuclear complex
- IO: Inferior olive
- LC: Locus coeruleus
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MH: Medial habenula
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- ND: Nucleus of Darkschewitsch
- NDB: Nucleus of the diagonal band
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus

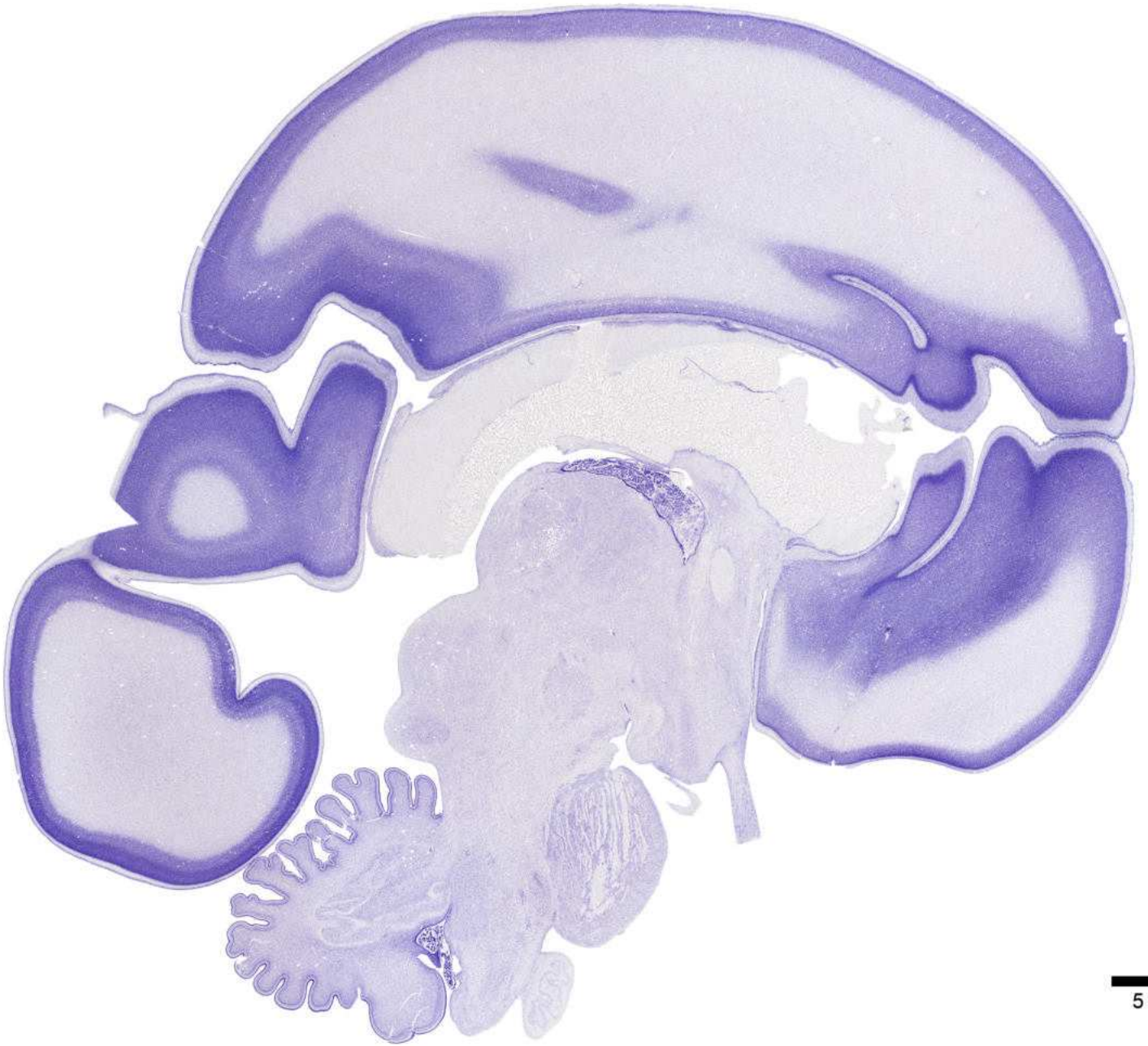
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMD: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PVT: Paraventricular nucleus [thalamus]
- PVTH: Periventricular complex [thalamus]
- Pit: Pituitary gland
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrorubral area
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-Med: Reticular formation, Medulla
- Ret-P: Reticular formation, Pons
- SC: Superior colliculus

- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum
- SNC: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SO: Superior olive
- SPV: Spinal nucleus of the trigeminal
- SUM: Supramammillary area
- TRI: Germinal trigone
- TT: Tenia tecta
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VIn: Facial motor nucleus
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- Vn: Trigeminal motor nucleus
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus

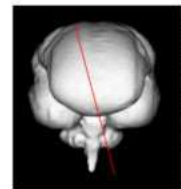
Age: 24 GW



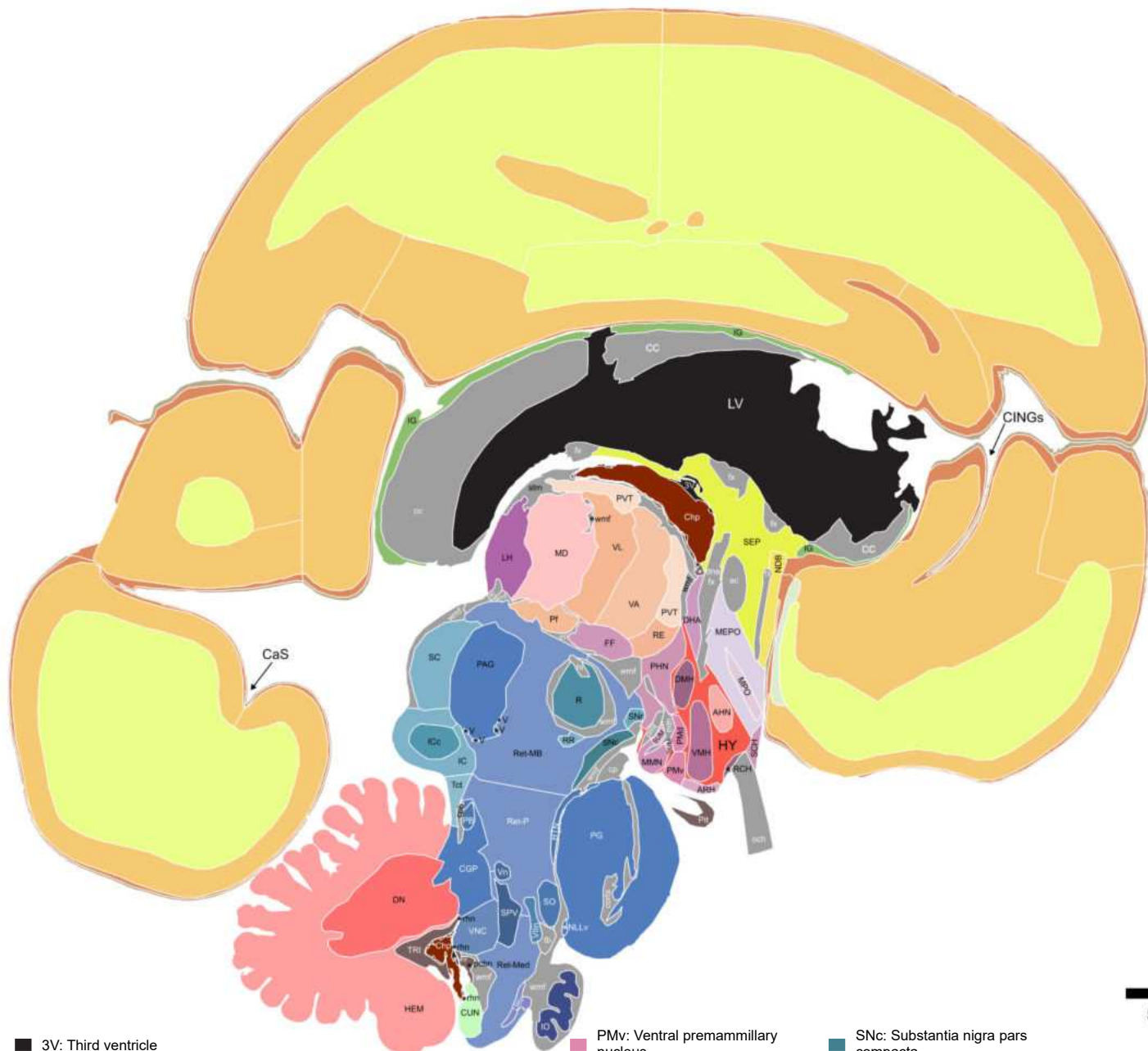
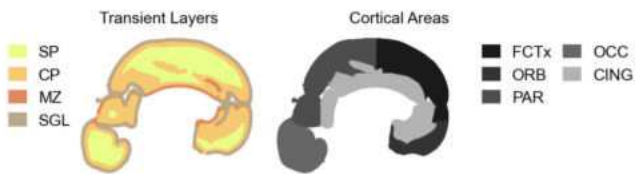
L-R Level: 1.32 mm



5 mm



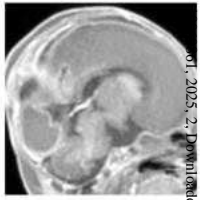
L-R Level: 1.32 mm



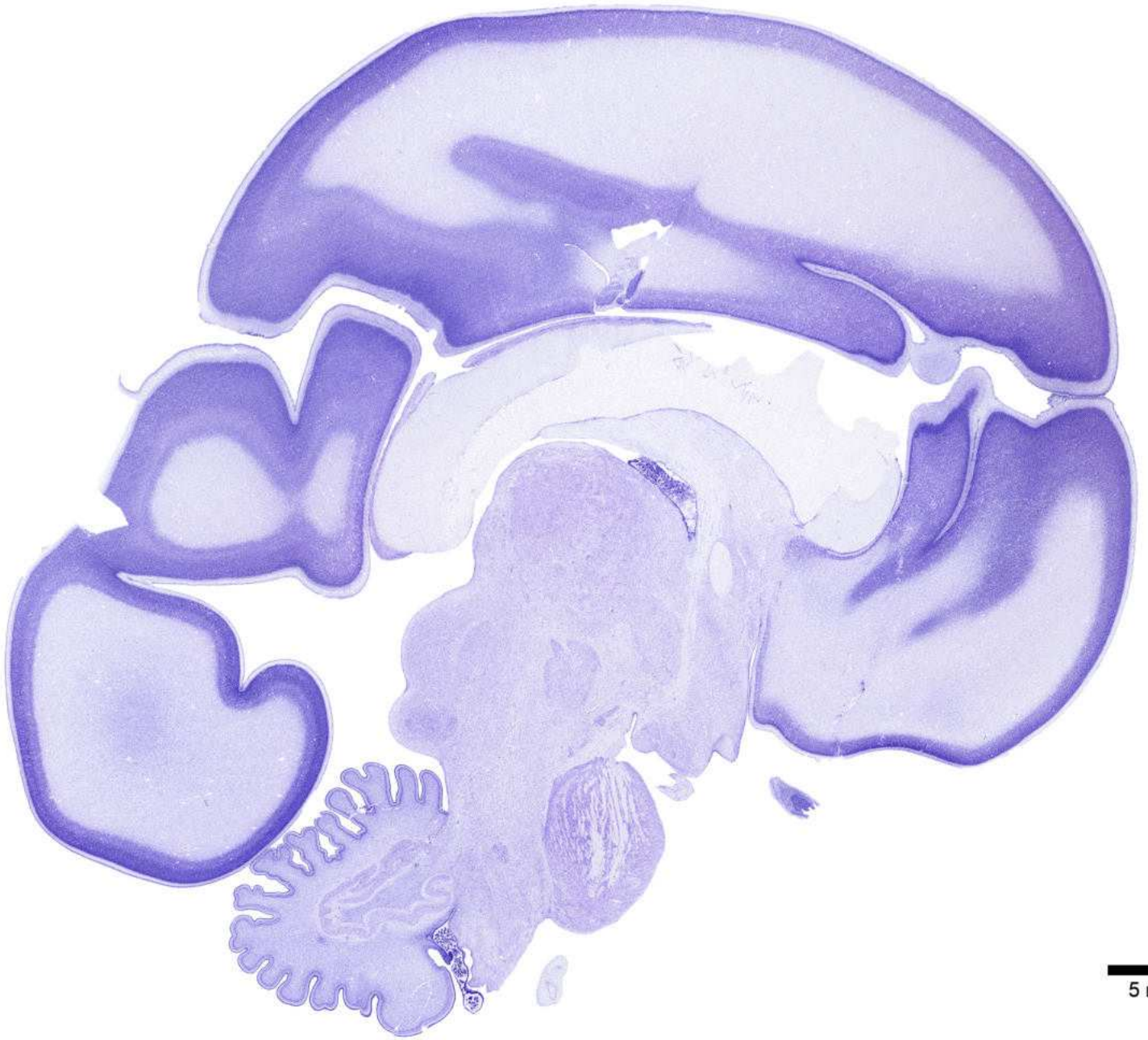
5 mm

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|---|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus ARH: Arcuate nucleus [hypothalamus] CGP: Central gray of the pons CUN: Cuneate nucleus Chp: Choroid plexus DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DN: Dentate nucleus FF: Field of Forel HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus IG: Induseum griseum IO: Inferior olive LH: Lateral habenula LRN: Lateral reticular nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band NLLv: Nucleus of the lateral lemniscus, ventral PAG: Periaqueductal gray PB: Parabrachial nucleus PG: Pontine gray PHN: Posterior hypothalamic nucleus PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus PVT: Paraventricular nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Pit: Pituitary gland R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RR: Retrorubral area Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons SC: Superior colliculus SNc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SO: Superior olive SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum V: Mesencephalic nucleus VA: Ventral anterior nucleus [thalamus] VIIIn: Facial motor nucleus VL: Ventral lateral nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VNC: Vestibular nuclear complex Vn: Trigeminal motor nucleus CaS: Calcarine sulcus CINGs: Cingulate sulcus |
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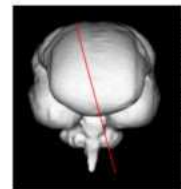
Age: 24 GW



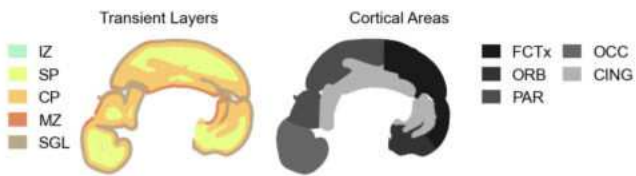
L-R Level: 0.96 mm



5 mm



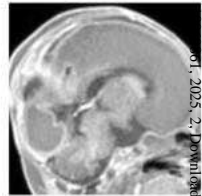
L-R Level: 0.96 mm



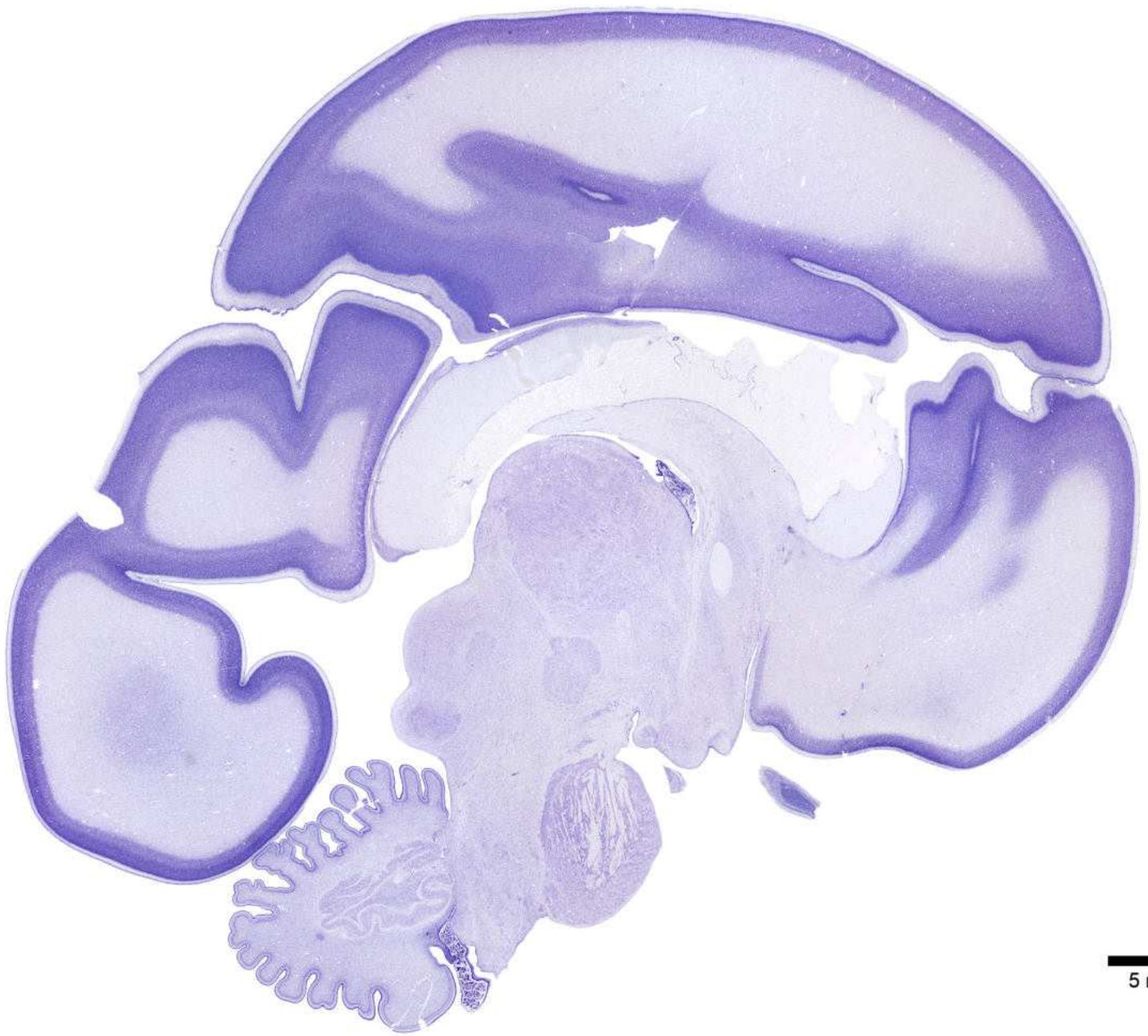
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- 4V: Fourth ventricle
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- APT: Anterior pretecal nucleus
- ARH: Arcuate nucleus [hypothalamus]
- CGP: Central gray of the pons
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DHA: Dorsal hypothalamic area
- DMH: Dorsomedial nucleus [hypothalamus]
- DN: Dentate nucleus
- FF: Field of Forel
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IC: Inferior colliculus
- ICc: Inferior colliculus, central nucleus
- IG: Induseum griseum
- IO: Inferior olive
- LH: Lateral habenula
- LRN: Lateral reticular nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MMN: Medial mammillary nucleus
- MPO: Medial preoptic nucleus
- MPT: Medial pretecal nucleus
- NDB: Nucleus of the diagonal band
- OPT: Olivary pretecal nucleus
- OT: Olfactory tubercle
- PAG: Periaqueductal gray
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Pit: Pituitary gland
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
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- SUM: Supramammillary area
- TRI: Germinal trigone
- TT: Tenia tecta
- Tct: Tectum
- V: Mesencephalic nucleus
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VMH: Ventromedial nucleus [hypothalamus]
- VNC: Vestibular nuclear complex
- Vn: Trigeminal motor nucleus
- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus
- POS: Parieto-occipital sulcus

5 mm

Age: 24 GW

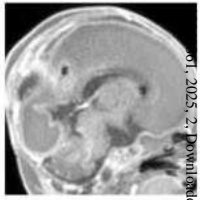


L-R Level: 0.72 mm

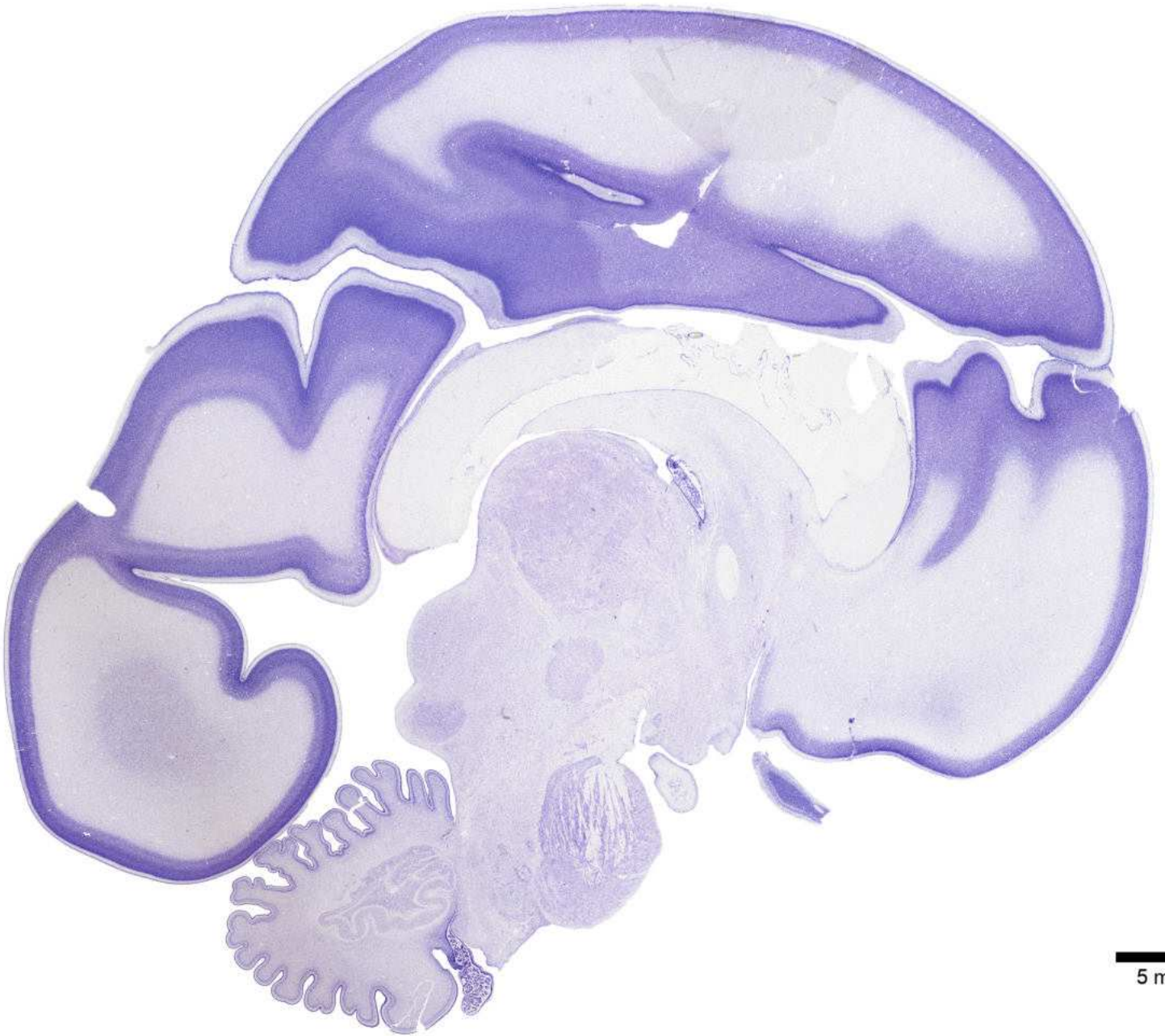


5 mm

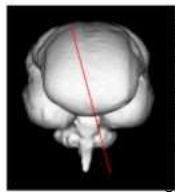
Age: 24 GW



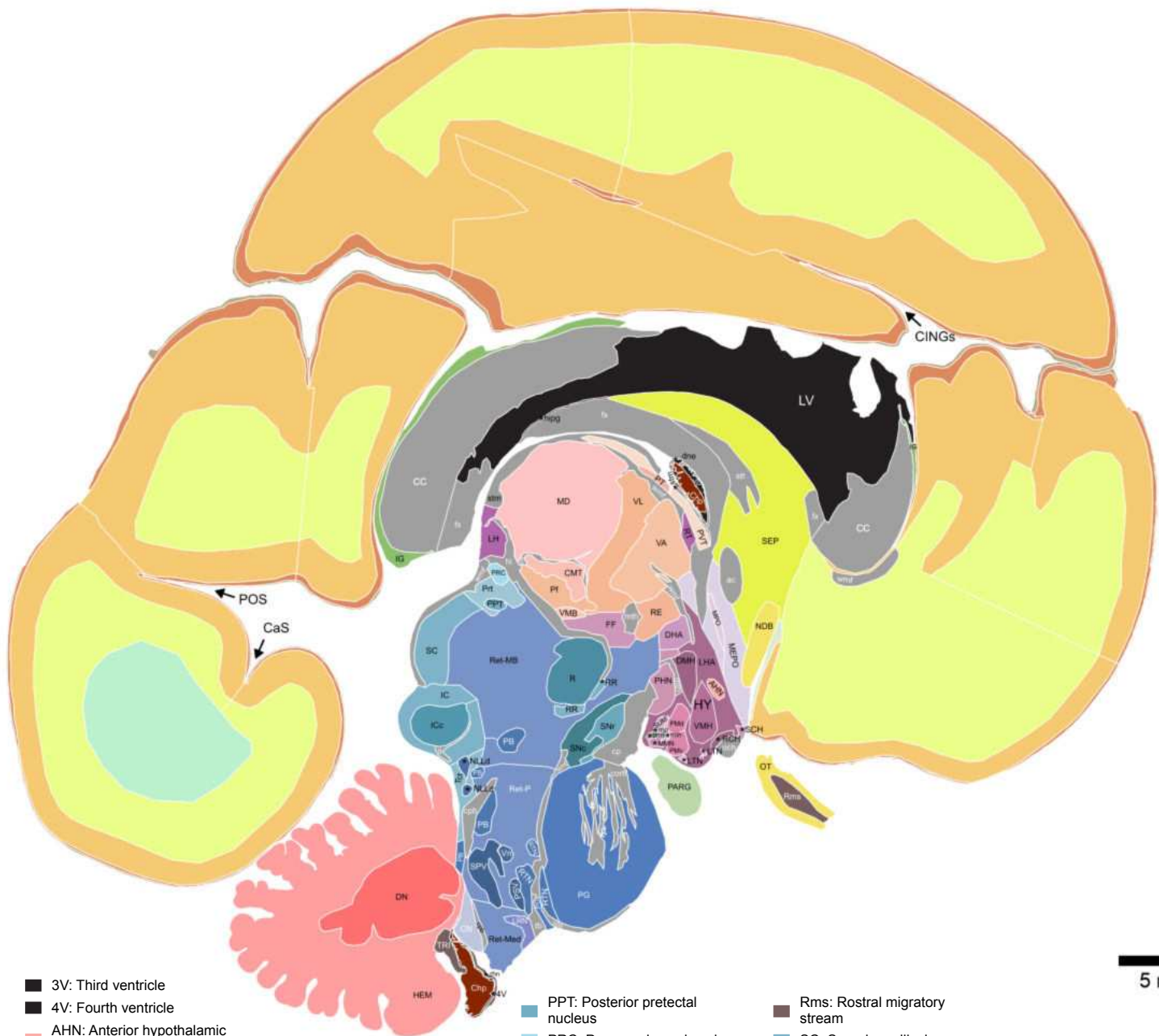
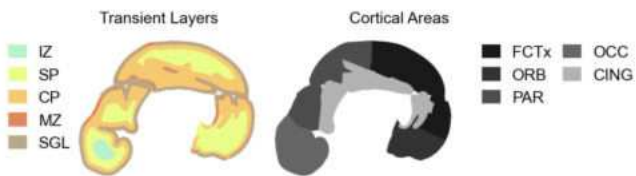
L-R Level: 0.48 mm



5 mm



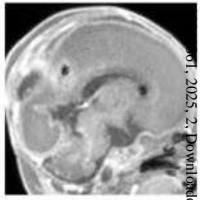
L-R Level: 0.48 mm



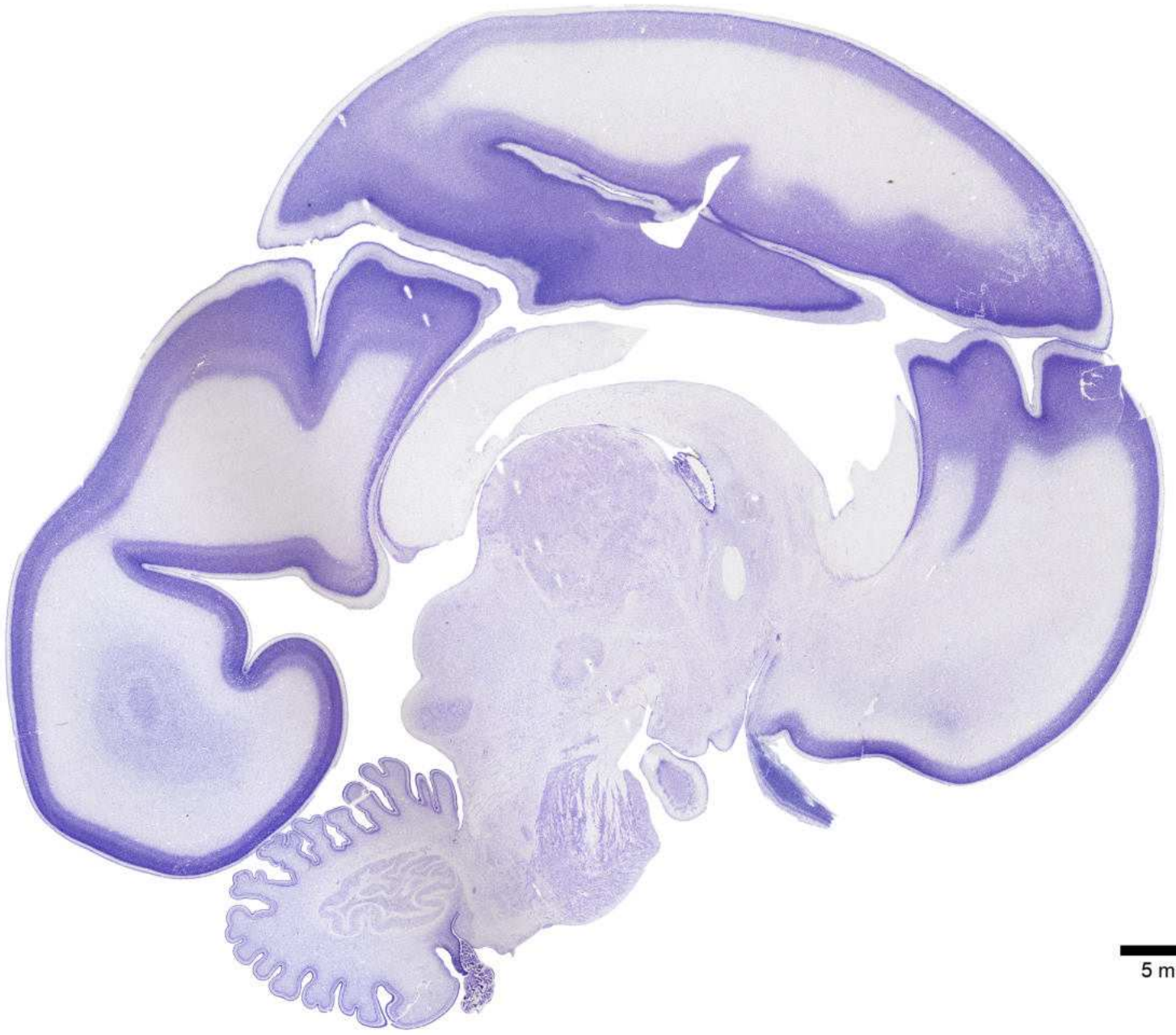
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|---|---|---|--|
| <ul style="list-style-type: none"> 3V: Third ventricle 4V: Fourth ventricle AHN: Anterior hypothalamic nucleus CMT: Centromedian nucleus [thalamus] CN: Cochlear nuclei Chp: Choroid plexus DHA: Dorsal hypothalamic area DMH: Dorsomedial nucleus [hypothalamus] DN: Dentate nucleus FF: Field of Forel HEM: Cerebellar hemispheres HY: Hypothalamus IC: Inferior colliculus ICc: Inferior colliculus, central nucleus IG: Induseum griseum LH: Lateral habenula LHA: Lateral hypothalamic area LRN: Lateral reticular nucleus | <ul style="list-style-type: none"> LTN: Lateral tuberal nucleus LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEPO: Medial preoptic area MMN: Medial mammillary nucleus MPO: Medial preoptic nucleus NDB: Nucleus of the diagonal band OT: Olfactory tubercle PARG: Parahippocampal gyrus PB: Parabrachial nucleus PG: Pontine gray PHN: Posterior hypothalamic nucleus PMd: Dorsal premammillary nucleus PMv: Ventral premammillary nucleus | <ul style="list-style-type: none"> PPT: Posterior pretectal nucleus PRC: Precommissural nucleus PSV: Principal sensory nucleus of the trigeminal PT: Paratenial nucleus [thalamus] PVT: Paraventricular nucleus [thalamus] Pf: Parafascicular nucleus [thalamus] Prt: Pretectum R: Red nucleus RCH: Retrochiasmatic nucleus [hypothalamus] RE: Nucleus reuniens RR: Retrorubral area RT: Reticular nucleus [thalamus] RTN: Reticular tegmental nucleus Ret-MB: Reticular formation, Midbrain Ret-Med: Reticular formation, Medulla Ret-P: Reticular formation, Pons | <ul style="list-style-type: none"> Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SNC: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SPV: Spinal nucleus of the trigeminal SUM: Supramammillary area TRI: Germinal trigone TT: Tenia tecta Tct: Tectum VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] Vn: Trigeminal motor nucleus |
|---|---|---|--|

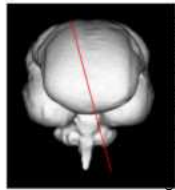
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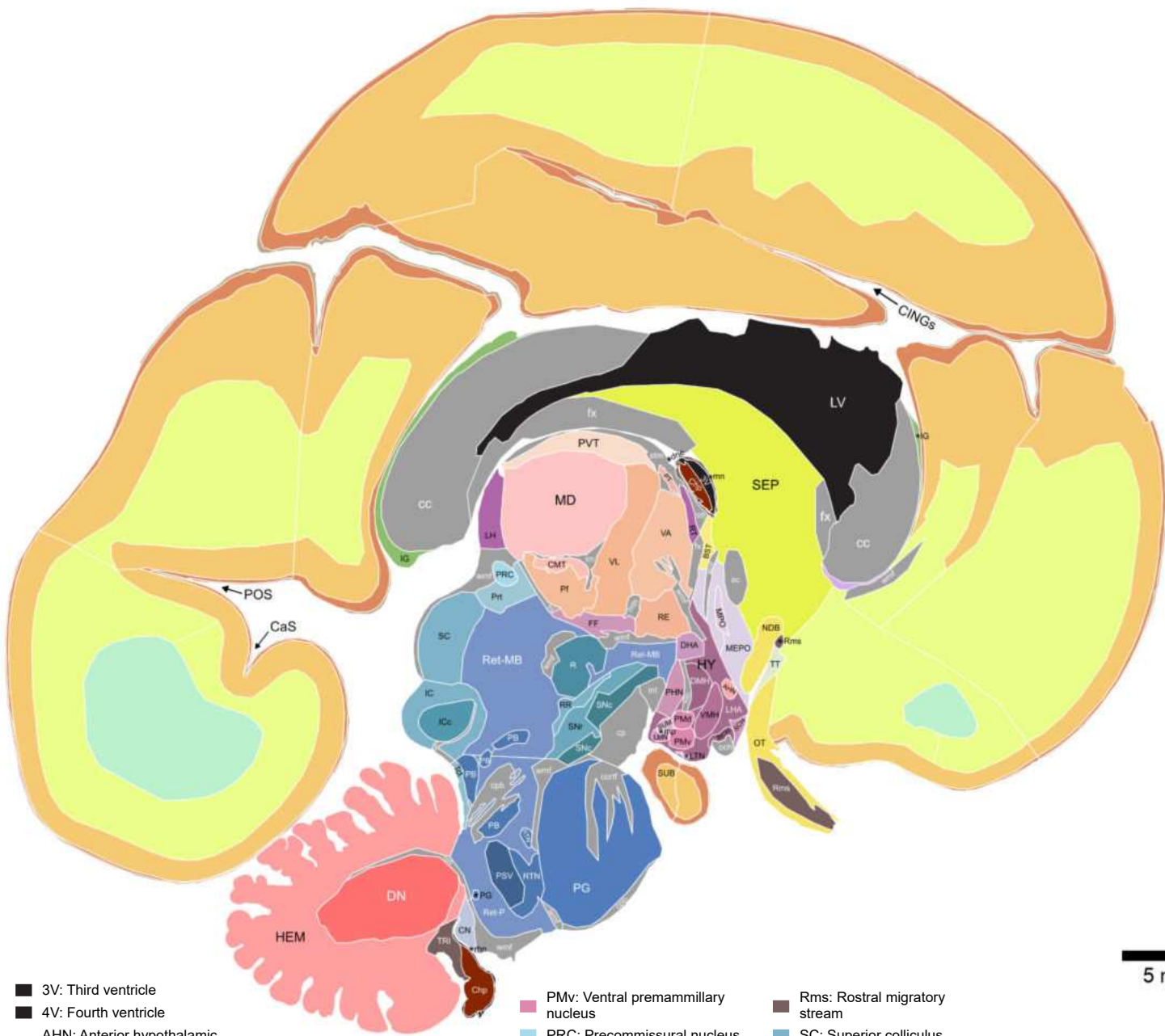
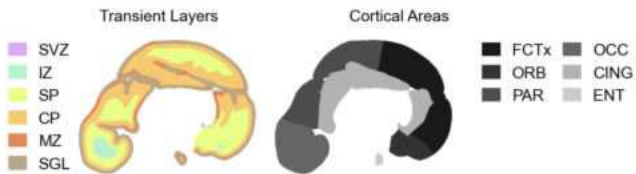
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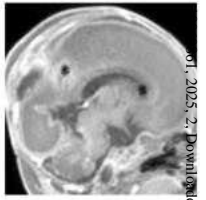
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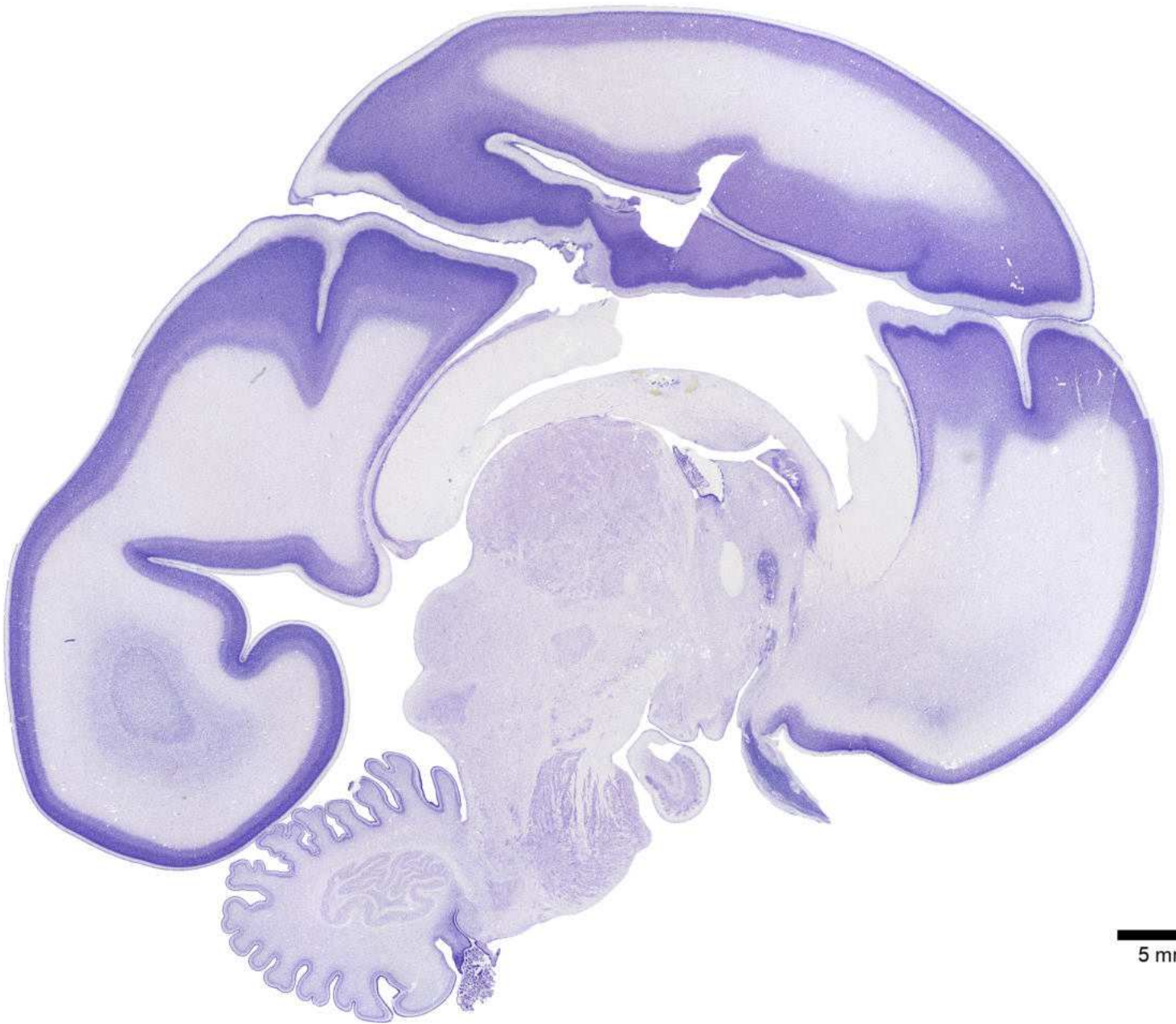
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- 3V: Third ventricle
- 4V: Fourth ventricle
- AHN: Anterior hypothalamic nucleus
- BST: Bed nucleus of the stria terminalis
- CMT: Centromedian nucleus [thalamus]
- CN: Cochlear nuclei
- Chp: Choroid plexus
- DHA: Dorsal hypothalamic area
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- IC: Inferior colliculus
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- LH: Lateral habenula
- LHA: Lateral hypothalamic area
- LMN: Lateral mammillary nucleus
- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- MPO: Medial preoptic nucleus
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PB: Parabrachial nucleus
- PG: Pontine gray
- PHN: Posterior hypothalamic nucleus
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PRC: Precommissural nucleus
- PSV: Principal sensory nucleus of the trigeminal
- PT: Paratenial nucleus [thalamus]
- PVT: Paraventricular nucleus [thalamus]
- Pf: Parafascicular nucleus [thalamus]
- Prt: Pretectum
- R: Red nucleus
- RCH: Retrochiasmatic nucleus [hypothalamus]
- RE: Nucleus reuniens
- RR: Retrosubthalamic area
- RT: Reticular nucleus [thalamus]
- RTN: Reticular tegmental nucleus
- Ret-MB: Reticular formation, Midbrain
- Ret-P: Reticular formation, Pons
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- CaS: Calcarine sulcus
- CINGs: Cingulate sulcus
- POS: Parieto-occipital sulcus

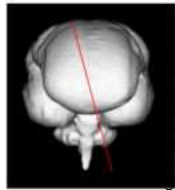
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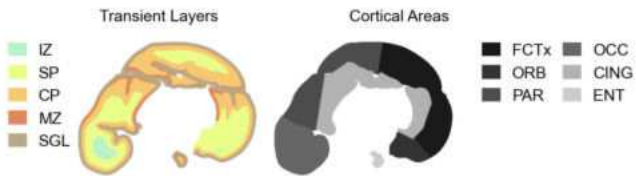
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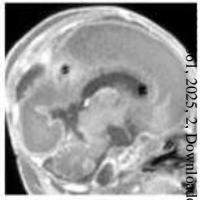
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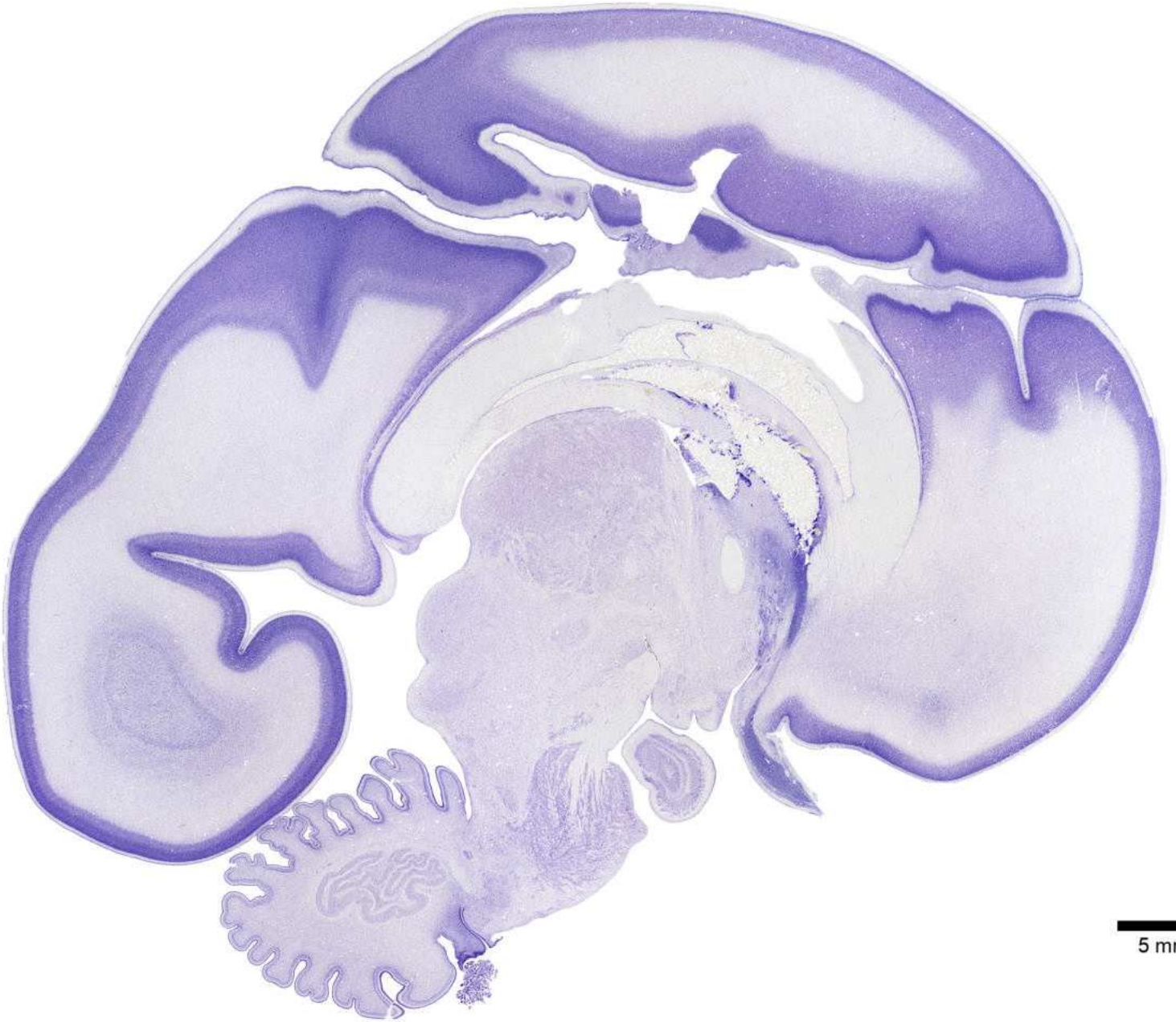
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ 4V: Fourth ventricle ■ AD: Anterodorsal nucleus [thalamus] ■ APT: Anterior pretecal nucleus ■ AV: Anteroventral nucleus [thalamus] ■ BST: Bed nucleus of the stria terminalis ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CMT: Centromedian nucleus [thalamus] ■ CN: Cochlear nuclei ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DHA: Dorsal hypothalamic area ■ DMH: Dorsomedial nucleus [hypothalamus] ■ DN: Dentate nucleus ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus | <ul style="list-style-type: none"> ■ IC: Inferior colliculus ■ ICC: Inferior colliculus, central nucleus ■ IG: Induseum griseum ■ LH: Lateral habenula ■ LHA: Lateral hypothalamic area ■ LMN: Lateral mammillary nucleus ■ LTN: Lateral tuberal nucleus ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEPO: Medial preoptic area ■ MPO: Medial preoptic nucleus ■ NAc: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ NLLv: Nucleus of the lateral lemniscus, ventral ■ OLFb: Olfactory bulb ■ OT: Olfactory tubercle | <ul style="list-style-type: none"> ■ PB: Parabrachial nucleus ■ PG: Pontine gray ■ PHN: Posterior hypothalamic nucleus ■ PMd: Dorsal premammillary nucleus ■ PMv: Ventral premammillary nucleus ■ PSV: Principal sensory nucleus of the trigeminal ■ PT: Paratenial nucleus [thalamus] ■ Pf: Parafascicular nucleus [thalamus] ■ Prt: Pretectum ■ R: Red nucleus ■ RCH: Retrochiasmatic nucleus [hypothalamus] ■ RE: Nucleus reuniens ■ RR: Retrorubral area ■ RT: Reticular nucleus [thalamus] ■ RTN: Reticular tegmental nucleus ■ Ret-MB: Reticular formation, Midbrain ■ Ret-P: Reticular formation, Pons | <ul style="list-style-type: none"> ■ Rms: Rostral migratory stream ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SEP: Septum ■ SNC: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SPV: Spinal nucleus of the trigeminal ■ SUB: Cortical plate, subiculum ■ SUM: Supramammillary area ■ Sth: Subthalamus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VMH: Ventromedial nucleus [hypothalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta → CaS: Calcarine sulcus → CINGs: Cingulate sulcus → POS: Parieto-occipital sulcus |
|---|---|--|--|

5 mm

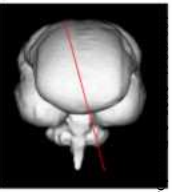
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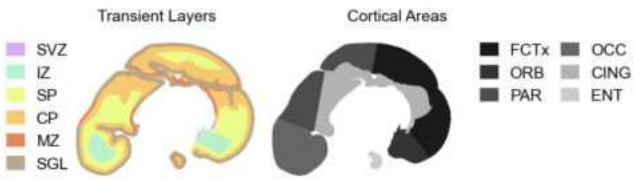
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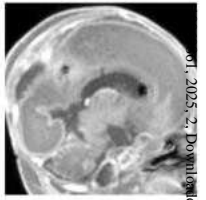
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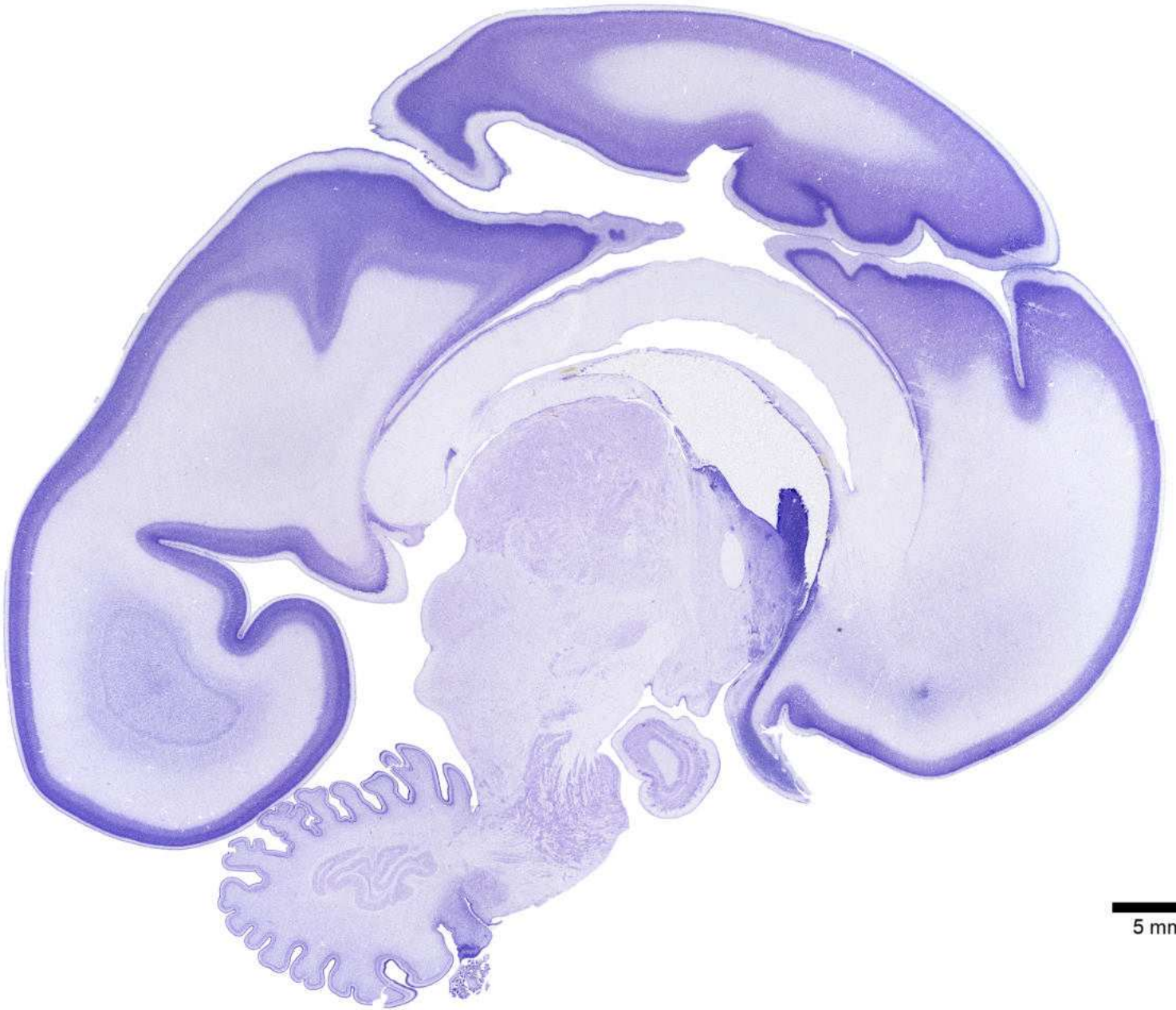
- 4V: Fourth ventricle
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- LTN: Lateral tuberal nucleus
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEPO: Medial preoptic area
- NAc: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- NL: Nucleus limitans [thalamus]
- NLLd: Nucleus of the lateral lemniscus, dorsal
- NLLv: Nucleus of the lateral lemniscus, ventral
- OLFb: Olfactory bulb
- OPT: Olivary pretectal nucleus
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PB: Parabrachial nucleus
- PG: Pontine gray
- PMd: Dorsal premammillary nucleus
- PMv: Ventral premammillary nucleus
- PSV: Principal sensory nucleus of the trigeminal
- PT: Paratenial nucleus [thalamus]
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5 mm

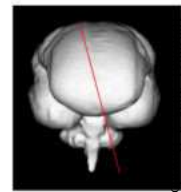
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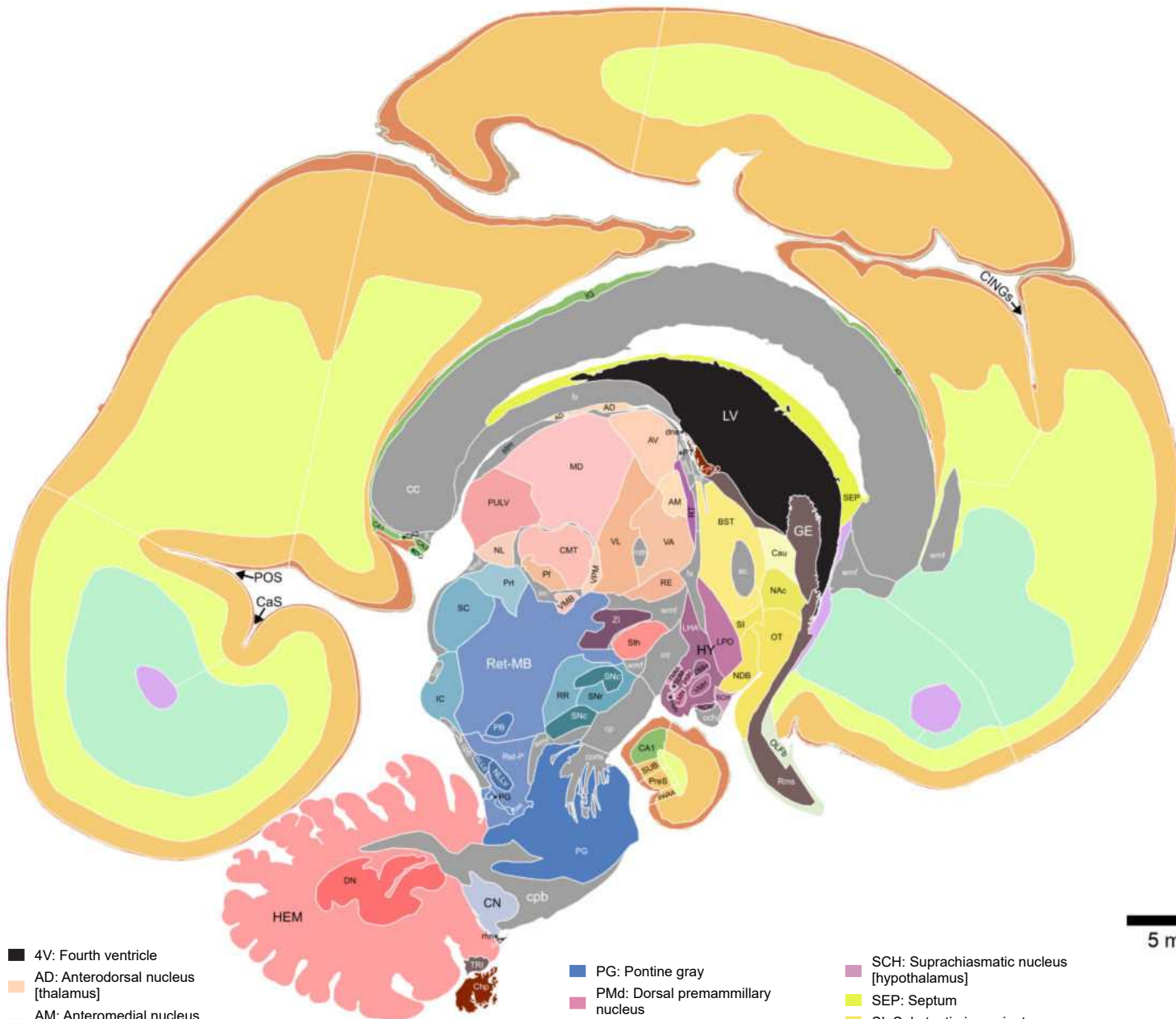
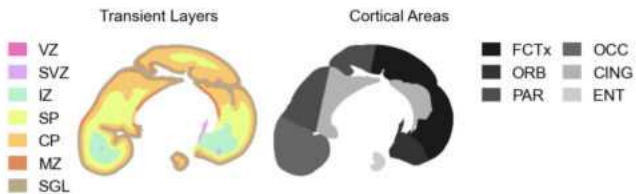
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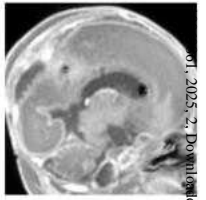
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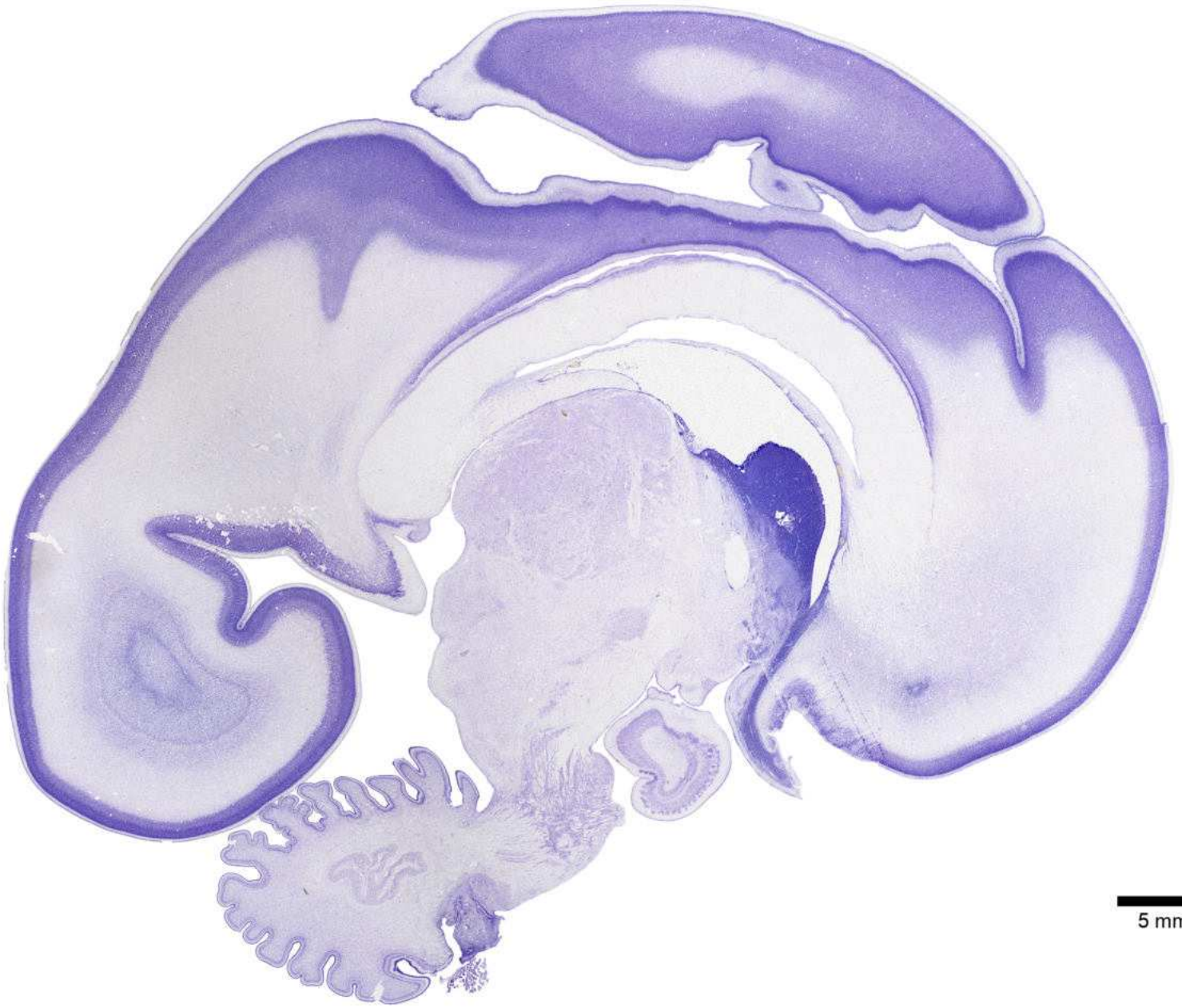
- | | |
|--|---|
| <ul style="list-style-type: none"> ■ 4V: Fourth ventricle ■ AD: Anterodorsal nucleus [thalamus] ■ AM: Anteromedial nucleus [thalamus] ■ AV: Anteroventral nucleus [thalamus] ■ BST: Bed nucleus of the stria terminalis ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CMT: Centromedian nucleus [thalamus] ■ CN: Cochlear nuclei ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ DMH: Dorsomedial nucleus [hypothalamus] ■ DN: Dentate nucleus ■ GE: Ganglionic eminence ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ IC: Inferior colliculus ■ IG: Induseum griseum ■ LHA: Lateral hypothalamic area ■ LMN: Lateral mammillary nucleus ■ LPO: Lateral preoptic area ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ NLLd: Nucleus of the lateral lemniscus, dorsal ■ NLLv: Nucleus of the lateral lemniscus, ventral ■ OLFb: Olfactory bulb ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PB: Parabrachial nucleus ■ PG: Pontine gray ■ PMd: Dorsal premammillary nucleus ■ PMv: Ventral premammillary nucleus ■ PT: Paratenial nucleus [thalamus] ■ PULV: Pulvinar nucleus [thalamus] ■ Pf: Parafascicular nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Prt: Pretectum ■ RCH: Retrochiasmatic nucleus [hypothalamus] ■ RE: Nucleus reuniens ■ RR: Retrorubral area ■ RT: Reticular nucleus [thalamus] ■ Ret-MB: Reticular formation, Midbrain ■ Ret-P: Reticular formation, Pons ■ Rms: Rostral migratory stream ■ SC: Superior colliculus ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SEP: Septum ■ SI: Substantia innominata ■ SNc: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SUB: Cortical plate, subiculum ■ SUM: Supramammillary area ■ Sth: Subthalamus ■ TMM: Tuberomammillary nucleus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VMB: Ventral medial basal nucleus [thalamus] ■ VMH: Ventromedial nucleus [hypothalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta | <ul style="list-style-type: none"> → CaS: Calcarine sulcus → CINGs: Cingulate sulcus → POS: Parieto-occipital sulcus |
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5 mm

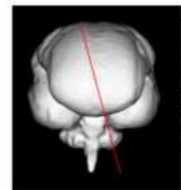
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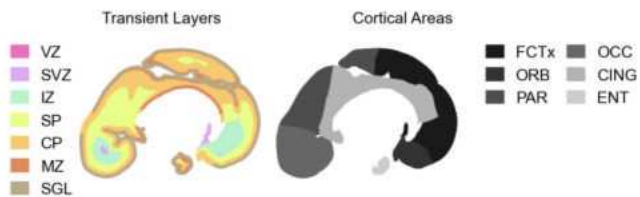
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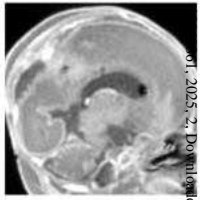
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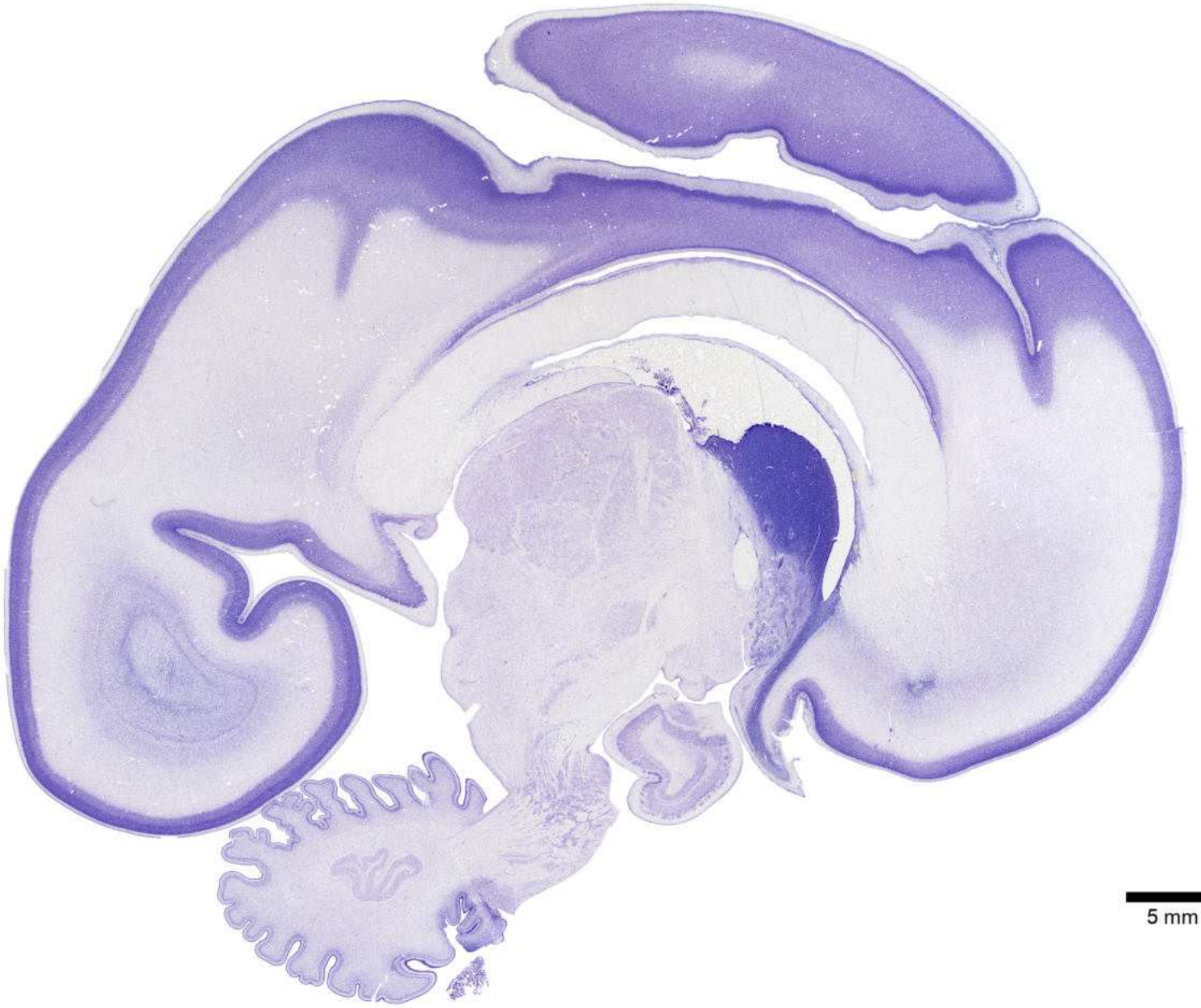
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5 mm

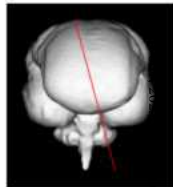
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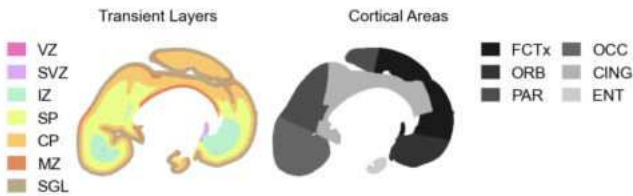
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5 mm



L-R Level: -1.32 mm

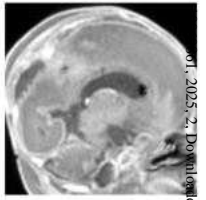


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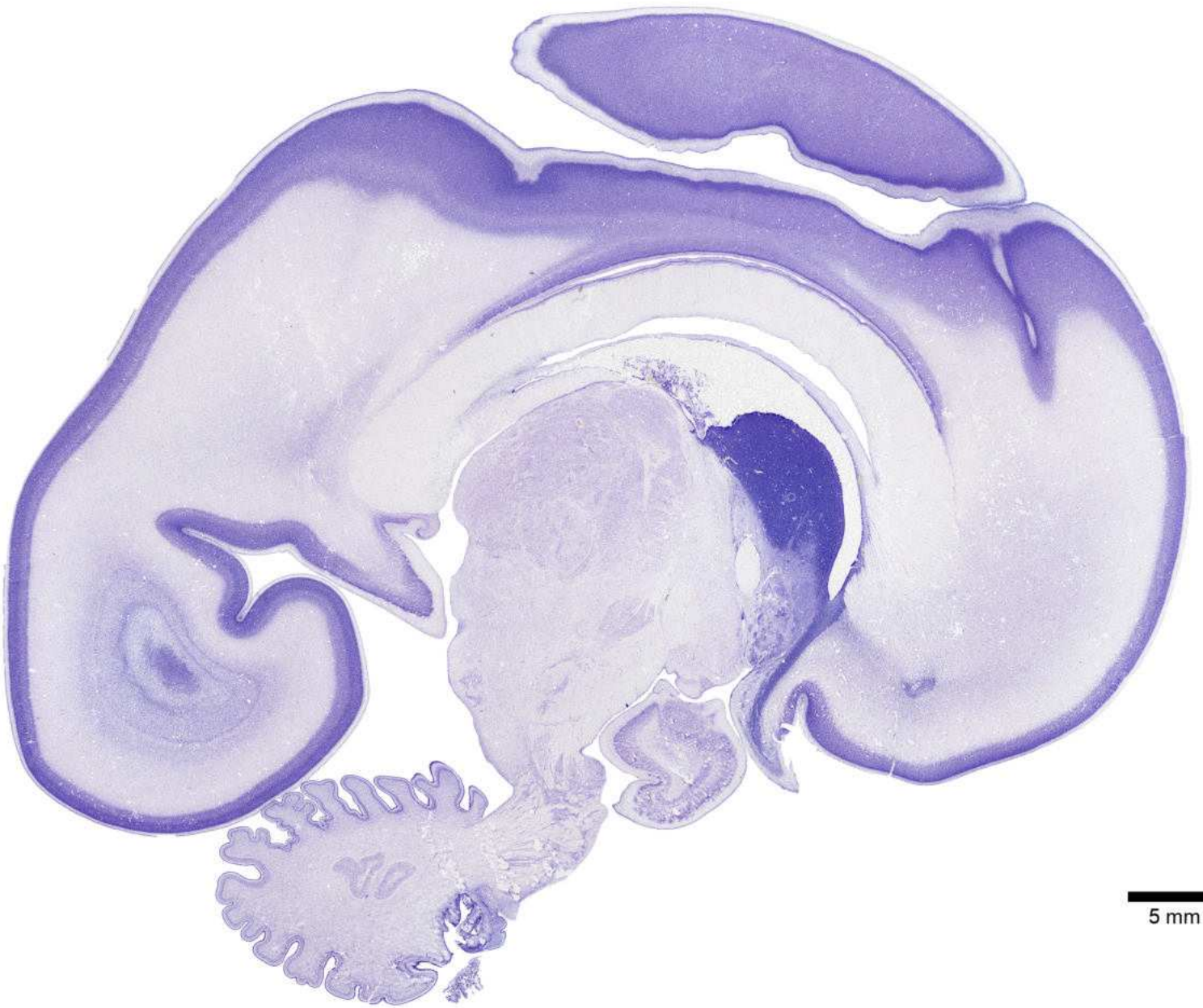
- | | | | |
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|---|---|---|--|

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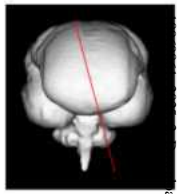
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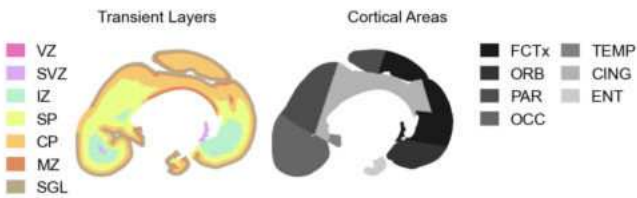
L-R Level: -1.5 mm



5 mm



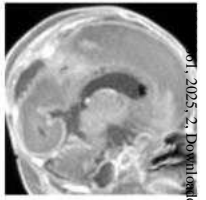
L-R Level: -1.5 mm



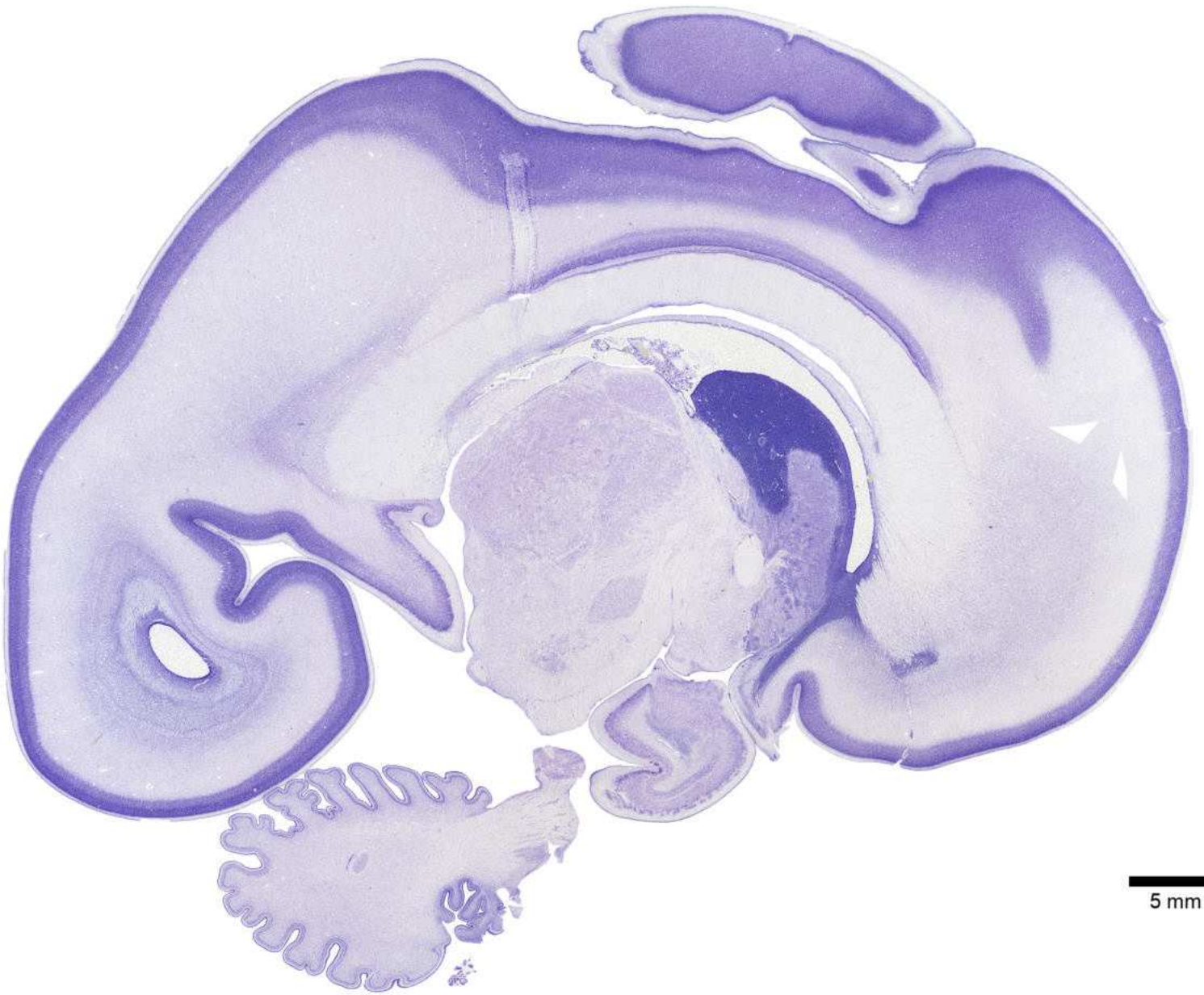
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- | | | | |
|---|--|---|---|
| <ul style="list-style-type: none"> AD: Anterodorsal nucleus [thalamus] AHi: Amygdalo-hippocampal area AV: Anteroventral nucleus [thalamus] BM: Basomedial nucleus [amygdala] BST: Bed nucleus of the stria terminalis CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CMT: Centromedian nucleus [thalamus] CN: Cochlear nuclei COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus DN: Dentate nucleus GE: Ganglionic eminence GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus | <ul style="list-style-type: none"> IG: Induseum griseum LHA: Lateral hypothalamic area LMN: Lateral mammillary nucleus LPO: Lateral preoptic area LV: Lateral ventricle MD: Medial dorsal nucleus [thalamus] MEA: Medial nucleus [amygdala] NAC: Nucleus accumbens NDB: Nucleus of the diagonal band NL: Nucleus limitans [thalamus] OLFb: Olfactory bulb OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PBN: Parabigeminal nucleus PG: Pontine gray PMd: Dorsal premammillary nucleus | <ul style="list-style-type: none"> PMv: Ventral premammillary nucleus PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Prt: Pretectum RR: Retrorubral area RT: Reticular nucleus [thalamus] Ret-MB: Reticular formation, Midbrain Ret-P: Reticular formation, Pons Rms: Rostral migratory stream SC: Superior colliculus SCH: Suprachiasmatic nucleus [hypothalamus] SEP: Septum SI: Substantia innominata | <ul style="list-style-type: none"> Snc: Substantia nigra pars compacta SNr: Substantia nigra pars reticulata SUB: Cortical plate, subiculum SUM: Supramammillary area Sth: Subthalamus TMM: Tuberomammillary nucleus TRI: Germinal trigone Tct: Tectum VA: Ventral anterior nucleus [thalamus] VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VMB: Ventral medial basal nucleus [thalamus] VMH: Ventromedial nucleus [hypothalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta |
|---|--|---|---|
- CaS: Calcarine sulcus
→ POS: Parieto-occipital sulcus

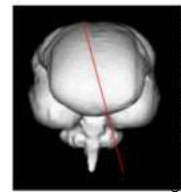
Age: 24 GW



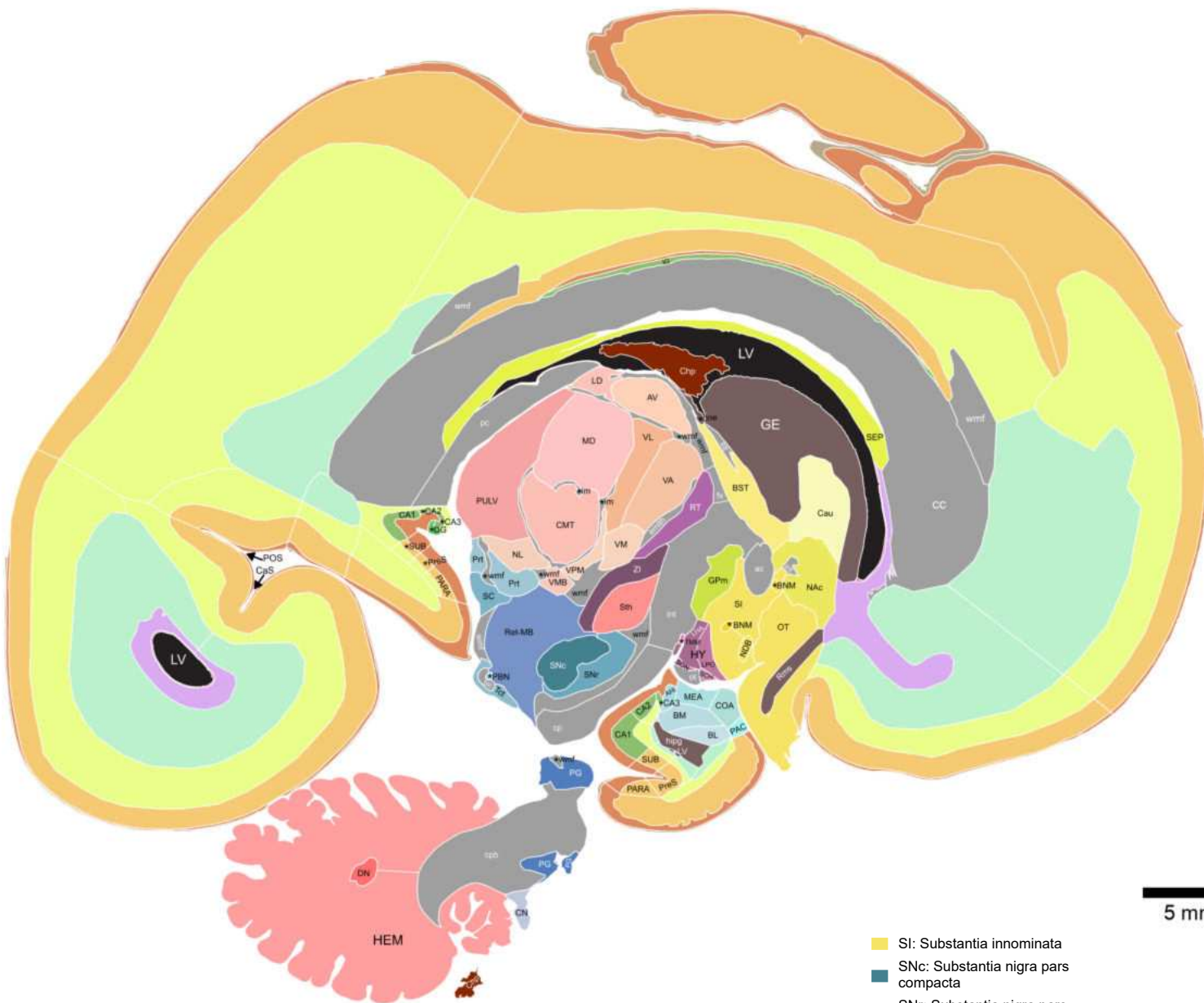
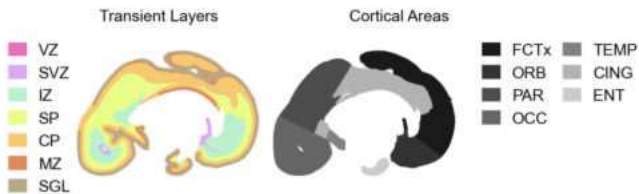
L-R Level: -1.98 mm



5 mm



L-R Level: -1.98 mm



5 mm

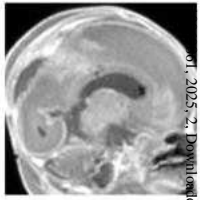
- AHi: Amygdalo-hippocampal area
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- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
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- CN: Cochlear nuclei
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus

- DN: Dentate nucleus
- GE: Ganglionic eminence
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- IG: Induseum griseum
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LPO: Lateral preoptic area
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MEA: Medial nucleus [amygdala]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band

- NL: Nucleus limitans [thalamus]
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PBN: Parabigeminal nucleus
- PG: Pontine gray
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- Prt: Pretectum
- RT: Reticular nucleus [thalamus]
- Ret-MB: Reticular formation, Midbrain
- Rms: Rostral migratory stream
- SC: Superior colliculus
- SCH: Suprachiasmatic nucleus [hypothalamus]
- SEP: Septum

- SI: Substantia innominata
- SNc: Substantia nigra pars compacta
- SNr: Substantia nigra pars reticulata
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberomammillary nucleus
- Tct: Tectum
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VMB: Ventral medial basal nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- CaS: Calcarine sulcus
- POS: Parieto-occipital sulcus

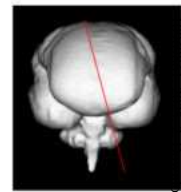
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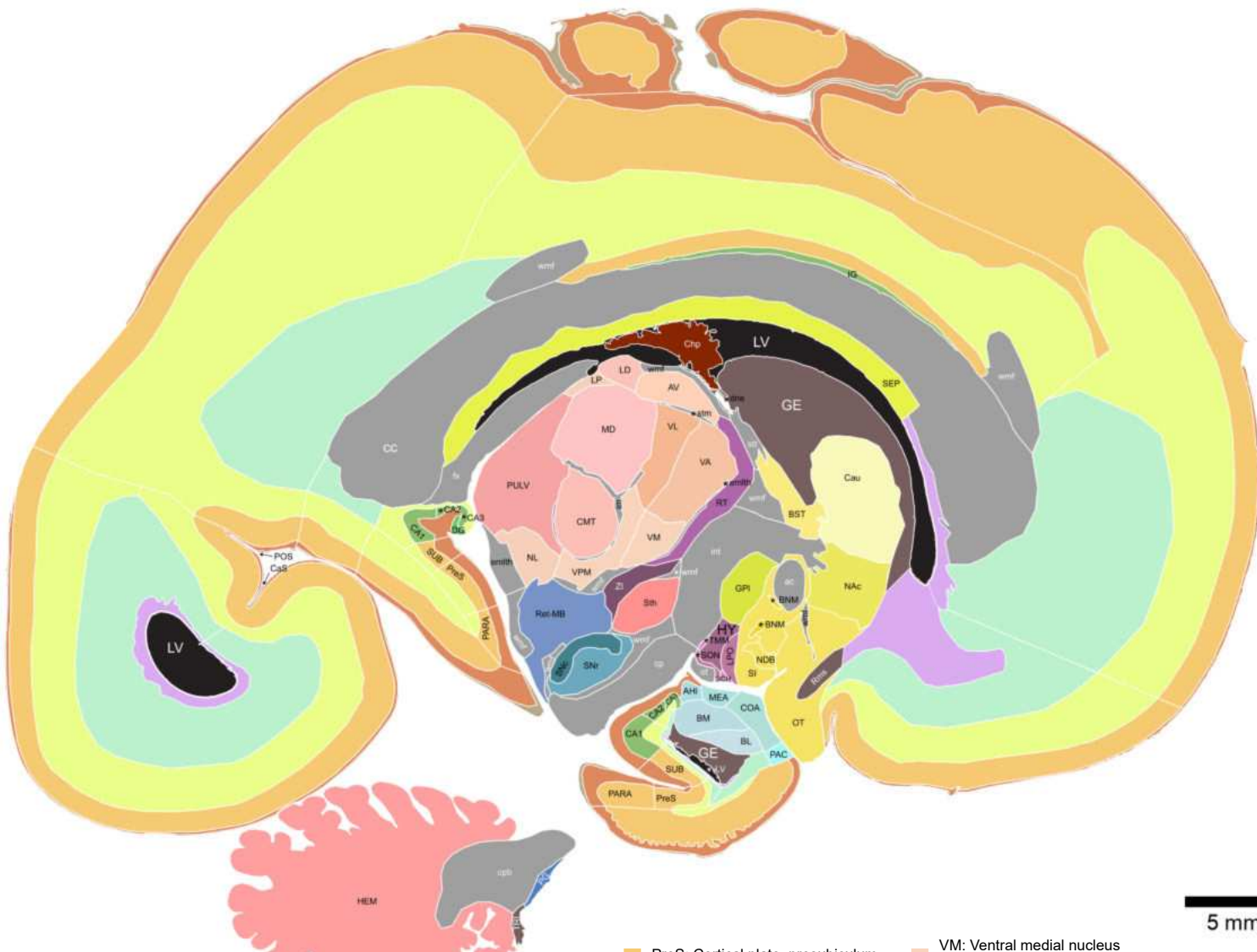
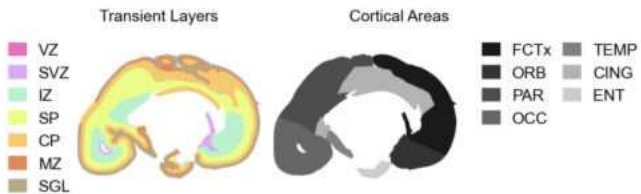
L-R Level: -2.52 mm



5 mm



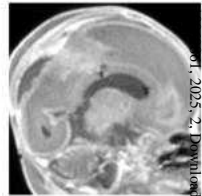
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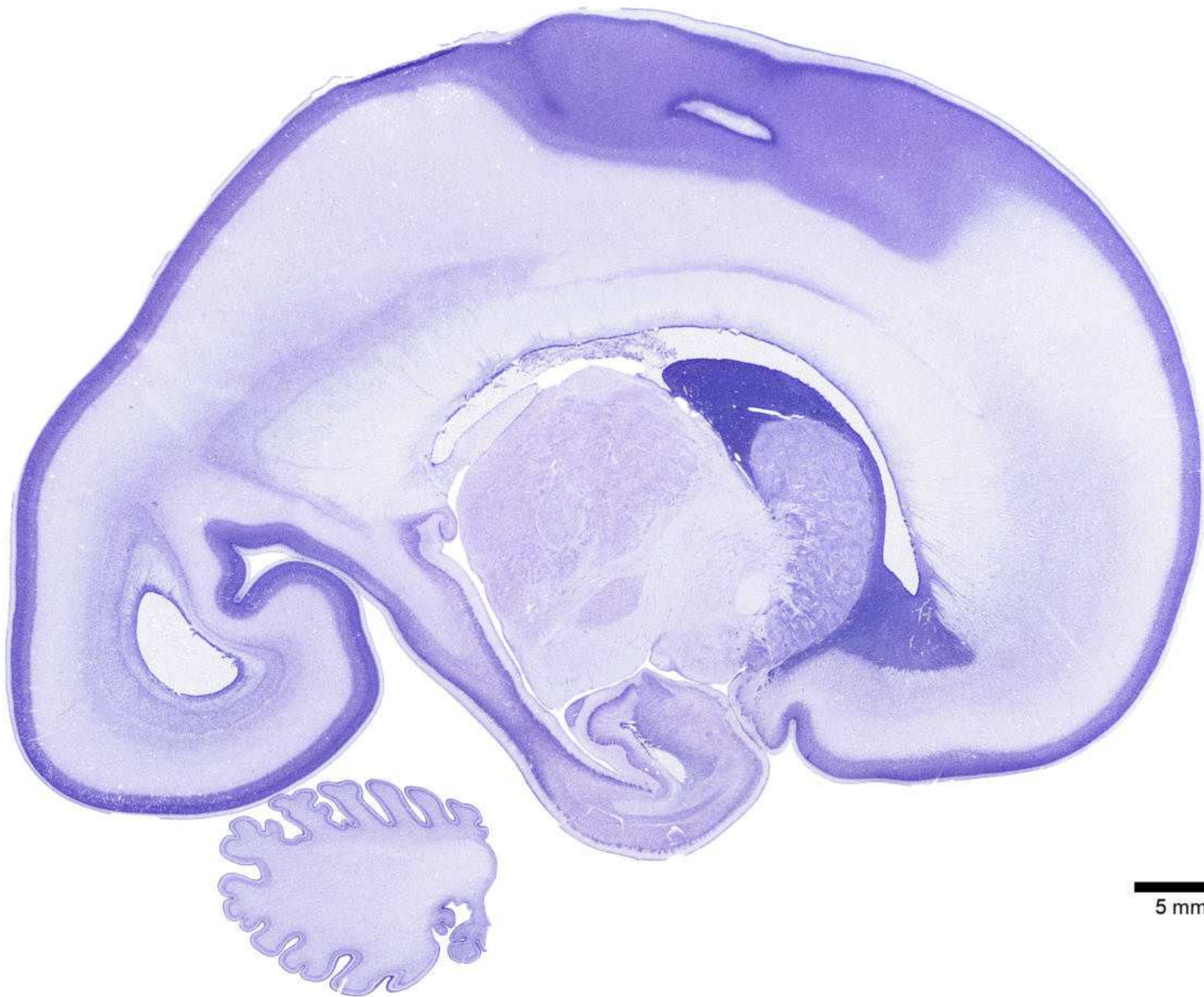
5 mm

- | | | | |
|--|--|--|--|
| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ AV: Anteroventral nucleus [thalamus] ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ BST: Bed nucleus of the stria terminalis ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CMT: Centromedian nucleus [thalamus] ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ HEM: Cerebellar hemispheres | <ul style="list-style-type: none"> ■ HY: Hypothalamus ■ IG: Induseum griseum ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LPO: Lateral preoptic area ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEA: Medial nucleus [amygdala] ■ NAc: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ NL: Nucleus limitans [thalamus] ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PG: Pontine gray ■ PULV: Pulvinar nucleus [thalamus] | <ul style="list-style-type: none"> ■ PreS: Cortical plate, presubiculum ■ RT: Reticular nucleus [thalamus] ■ Ret-MB: Reticular formation, Midbrain ■ Rms: Rostral migratory stream ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SEP: Septum ■ SI: Substantia innominata ■ SNc: Substantia nigra pars compacta ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TMM: Tuberomammillary nucleus ■ TRI: Germinal trigone ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] | <ul style="list-style-type: none"> ■ VM: Ventral medial nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ cc: Corpus callosum ■ cp: Cerebellar peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ fx: Fornix ■ im: Internal medullary lamina [thalamus] ■ int: Internal capsule ■ ot: Optic tract ■ stm: Stria medullaris ■ stt: Stria terminalis ■ wmf: White matter fibers → CaS: Calcarine sulcus → POS: Parieto-occipital sulcus |
|--|--|--|--|

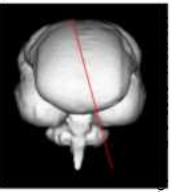
Age: 24 GW



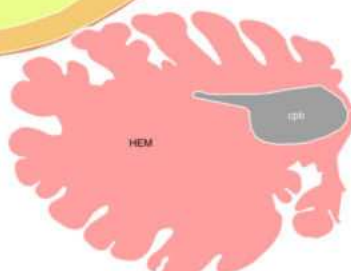
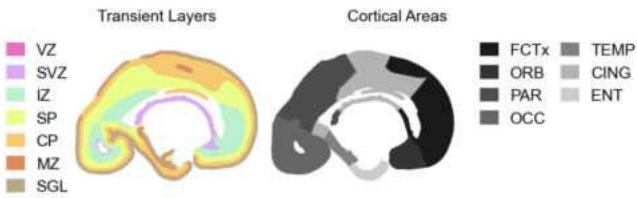
L-R Level: -3.06 mm



5 mm



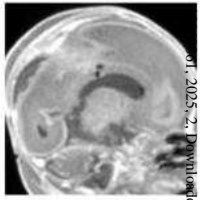
L-R Level: -3.06 mm



5 mm

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ AV: Anteroventral nucleus [thalamus] ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [thalamus] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CMT: Centromedian nucleus [thalamus] ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment | <ul style="list-style-type: none"> ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ LD: Lateral dorsal nucleus [thalamus] ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ MD: Medial dorsal nucleus [thalamus] ■ MEA: Medial nucleus [amygdala] ■ MGN: Medial geniculate nucleus ■ NAc: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PreS: Cortical plate, presubiculum ■ RT: Reticular nucleus [thalamus] | <ul style="list-style-type: none"> ■ Ret-MB: Reticular formation, Midbrain ■ Rms: Rostral migratory stream ■ SCH: Suprachiasmatic nucleus [hypothalamus] ■ SI: Substantia innominata ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] ■ ZI: Zona incerta ■ ac: Anterior commissure ■ al: Ansa lenticularis | <ul style="list-style-type: none"> ■ cc: Corpus callosum ■ cc-gli: Callosal gliopithelium ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ fx: Fornix ■ hipg: Hippocampal gliopithelium/ependyma ■ im: Internal medullary lamina [thalamus] ■ int: Internal capsule ■ ml: Medial lemniscus ■ mml: Medial medullary lamina ■ ot: Optic tract ■ st: Stria terminalis ■ wmf: White matter fibers → CaS: Calcarine sulcus → POS: Parieto-occipital sulcus |
|--|---|--|---|

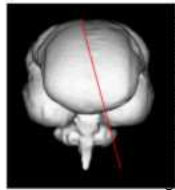
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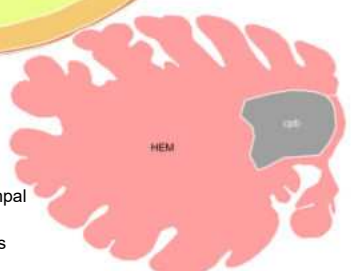
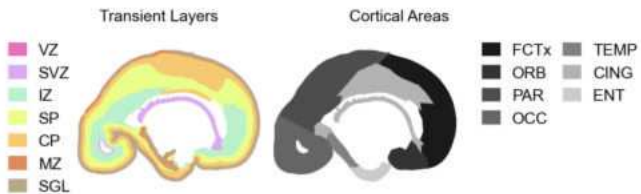
L-R Level: -3.3 mm



5 mm



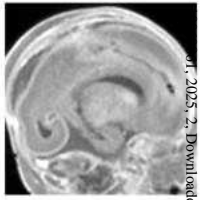
L-R Level: -3.3 mm



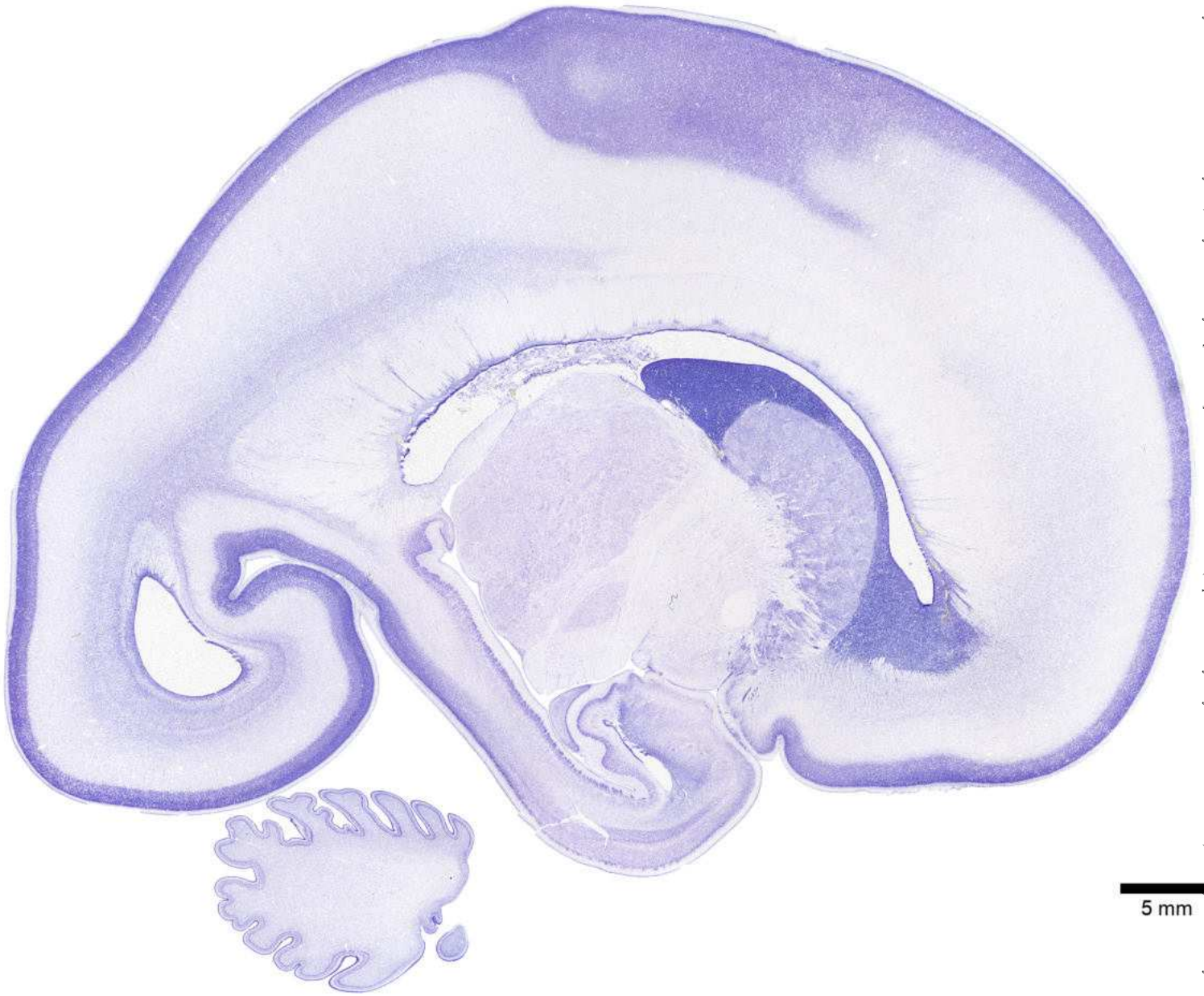
5 mm

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- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPm: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- MD: Medial dorsal nucleus [thalamus]
- MGN: Medial geniculate nucleus
- MEA: Medial nucleus [amygdala]
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
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- RT: Reticular nucleus [thalamus]
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- SCH: Suprachiasmatic nucleus [hypothalamus]
- SI: Substantia innominata
- SN: Substantia nigra
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- Sth: Subthalamus
- TMM: Tuberosomammillary nucleus
- VA: Ventral anterior nucleus [thalamus]
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- VM: Ventral medial nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- al: Ansa lenticularis
- cc: Corpus callosum
- cc-gli: Callosal glioeptithelium
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- emlth: External medullary lamina [thalamus]
- fx: Fornix
- im: Internal medullary lamina [thalamus]
- int: Internal capsule
- ml: Medial lemniscus
- mml: Medial medullary lamina
- ot: Optic tract
- st: Stria terminalis
- wmf: White matter fibers
- CaS: Calcarine sulcus

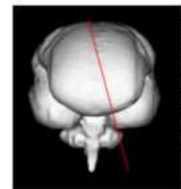
Age: 24 GW



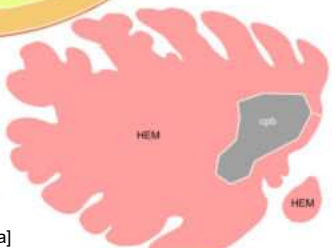
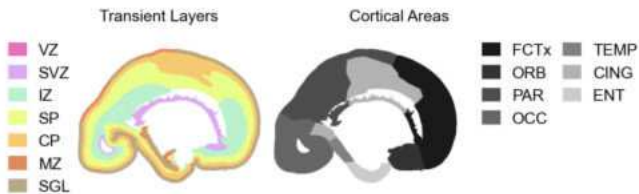
L-R Level: -3.78 mm



5 mm



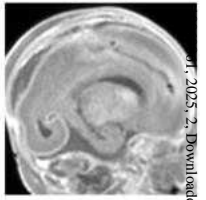
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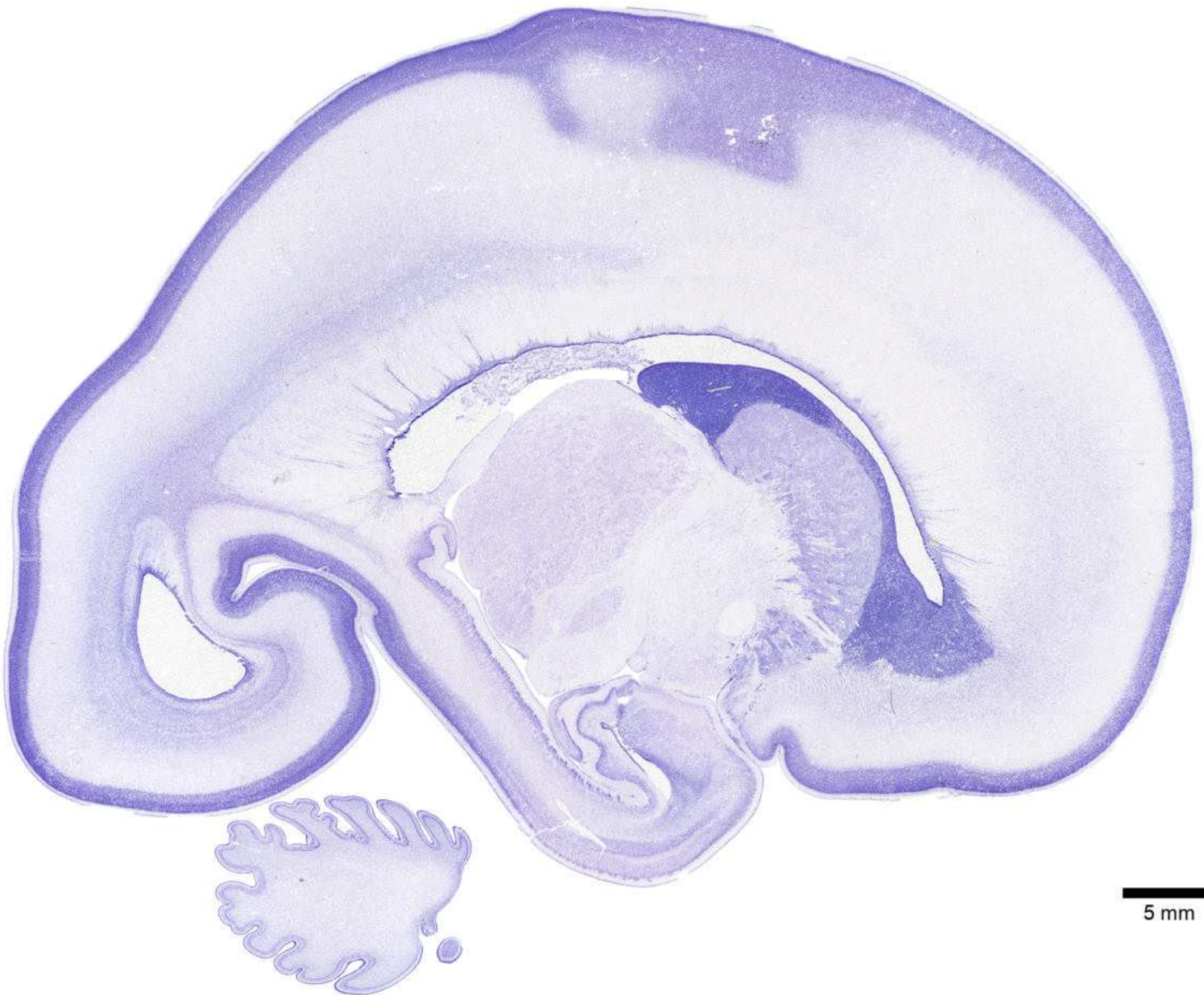
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- VM: Ventral medial nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
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- al: Ansa lenticularis
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- stt: Stria terminalis
- wmf: White matter fibers
- CaS: Calcarine sulcus

5 mm

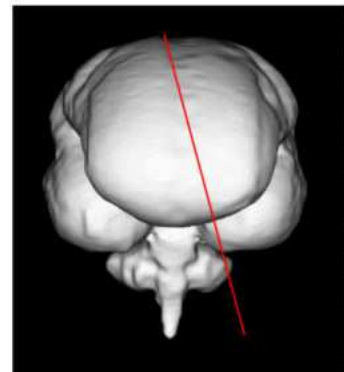
Age: 24 GW



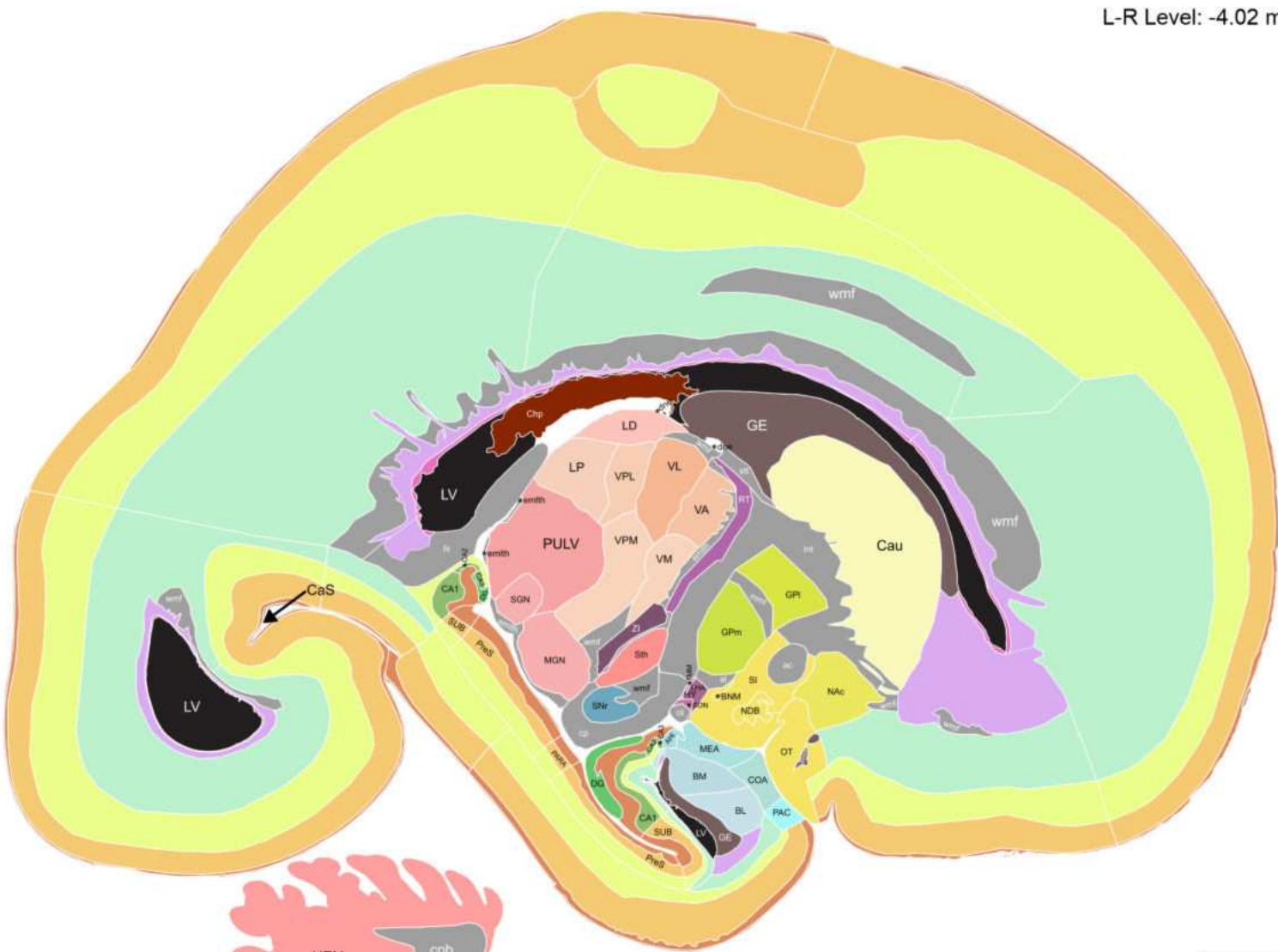
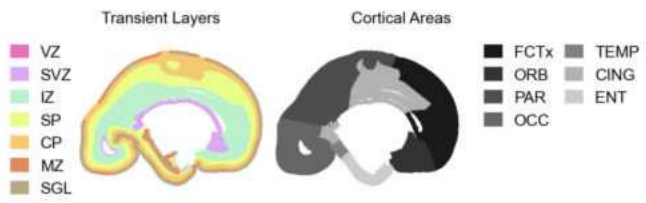
L-R Level: -4.02 mm



5 mm



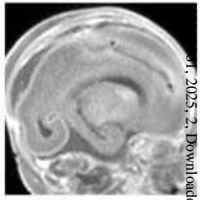
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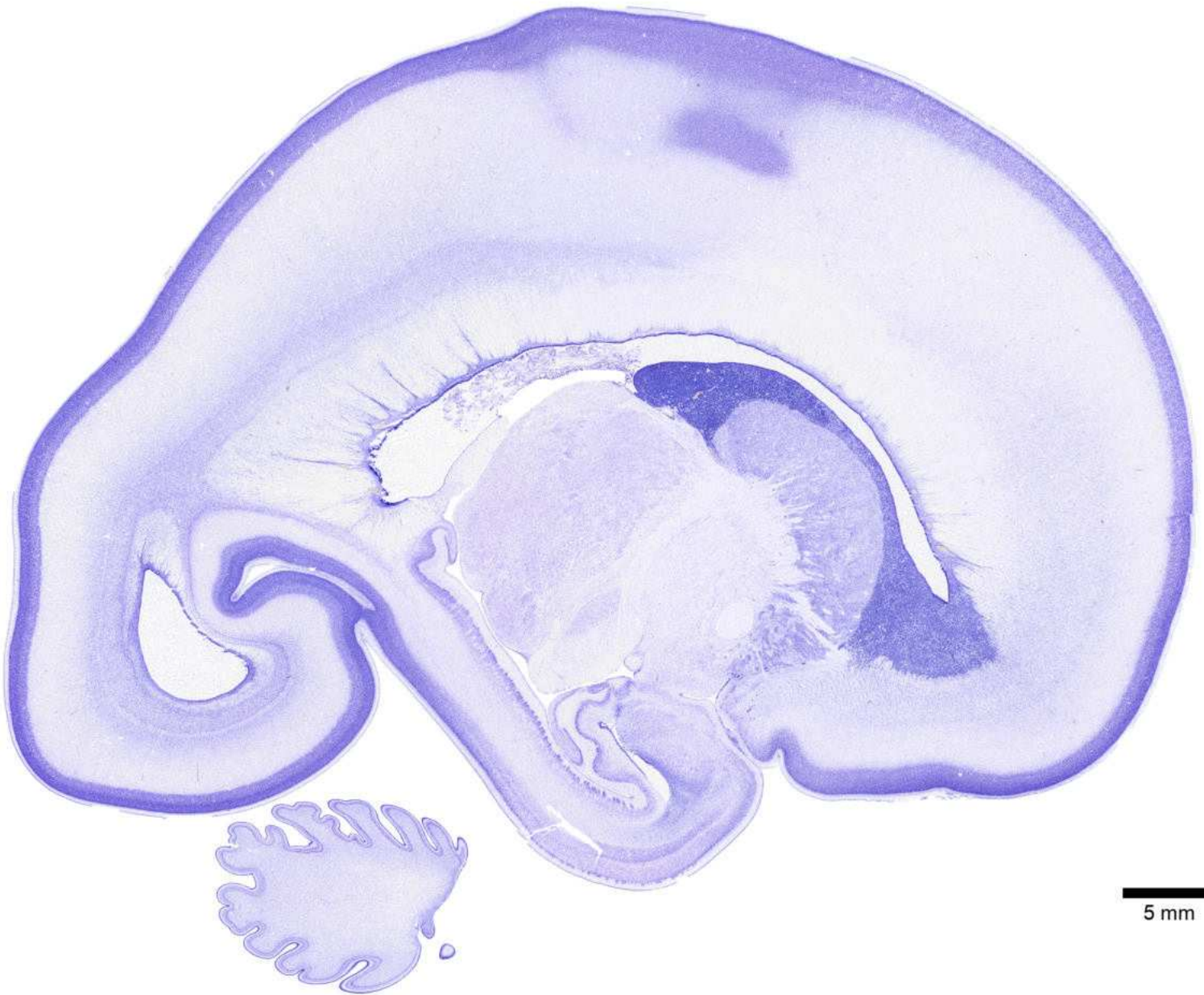
5 mm

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> ■ AHi: Amygdalo-hippocampal area ■ BL: Basal nucleus [amygdala] ■ BM: Basomedial nucleus [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPM: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ HY: Hypothalamus ■ LD: Lateral dorsal nucleus [thalamus] | <ul style="list-style-type: none"> ■ LHA: Lateral hypothalamic area ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ MEA: Medial nucleus [amygdala] ■ MGN: Medial geniculate nucleus ■ NAC: Nucleus accumbens ■ NDB: Nucleus of the diagonal band ■ OT: Olfactory tubercle ■ PARA: Cortical plate, parasubiculum ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum | <ul style="list-style-type: none"> ■ RT: Reticular nucleus [thalamus] ■ Rms: Rostral migratory stream ■ SGN: Suprageniculate nucleus ■ SI: Substantia innominata ■ SNr: Substantia nigra pars reticulata ■ SON: Supraoptic nucleus [hypothalamus] ■ SUB: Cortical plate, subiculum ■ Sth: Subthalamus ■ TMM: Tuberosomammillary nucleus ■ VA: Ventral anterior nucleus [thalamus] ■ VL: Ventral lateral nucleus [thalamus] ■ VM: Ventral medial nucleus [thalamus] ■ VPL: Ventral posterolateral nucleus [thalamus] ■ VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ■ ZI: Zona incerta ■ ac: Anterior commissure ■ al: Ansa lenticularis ■ cp: Cerebral peduncle ■ cpb: Cerebellar peduncles ■ dne: Diencephalic neuroepithelium ■ emlh: External medullary lamina [thalamus] ■ fx: Fornix ■ int: Internal capsule ■ mml: Medial medullary lamina ■ ot: Optic tract ■ stt: Stria terminalis ■ wmf: White matter fibers → CaS: Calcarine sulcus |
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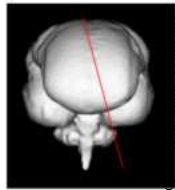
Age: 24 GW



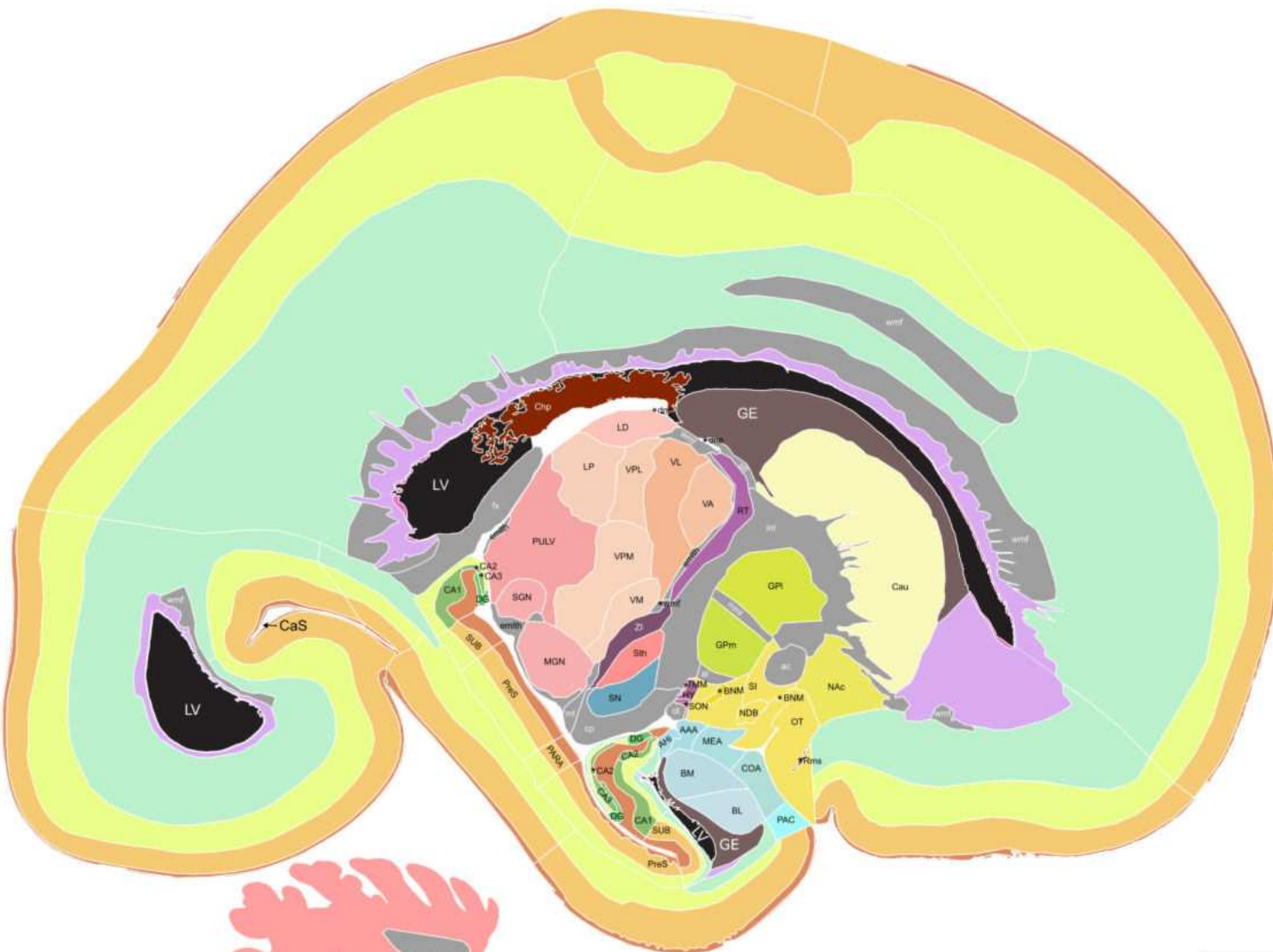
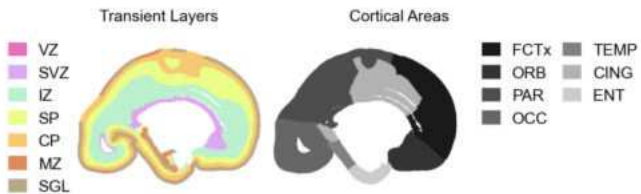
L-R Level: -4.2 mm



5 mm



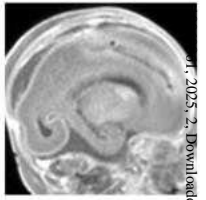
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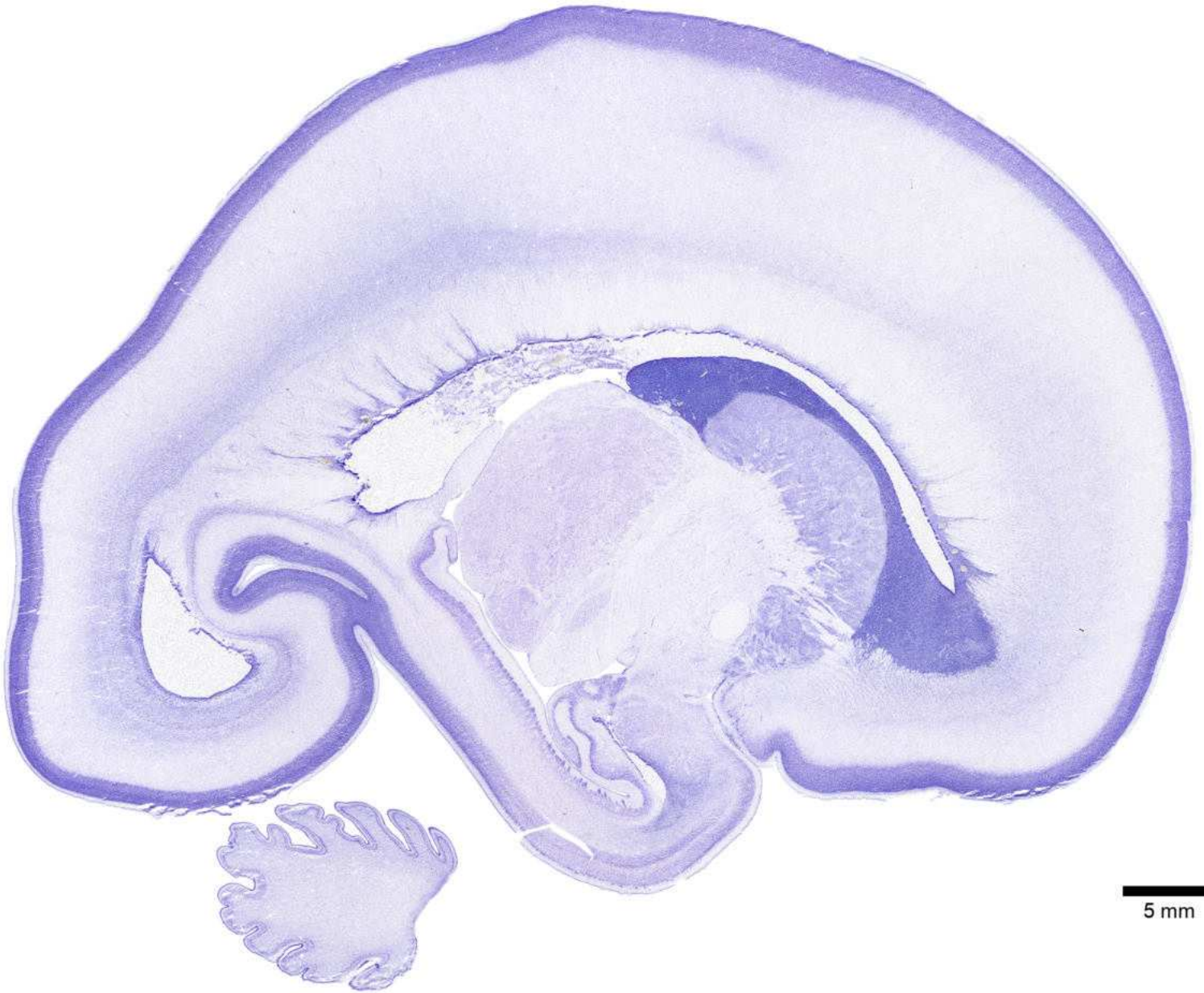
5 mm

- AAA: Anterior amygdaloid area
- AHi: Amygdalo-hippocampal area
- BL: Basal nucleus [amygdala]
- BM: Basomedial nucleus [amygdala]
- BNM: Basal nucleus of Meynert
- CA1: CA1 field [hippocampus]
- CA2: CA2 field [hippocampus]
- CA3: CA3 field [hippocampus]
- COA: Cortical nucleus [amygdala]
- Cau: Caudate nucleus
- Chp: Choroid plexus
- DG: Dentate gyrus
- GE: Ganglionic eminence
- GPI: Globus pallidus lateral segment
- GPM: Globus pallidus medial segment
- HEM: Cerebellar hemispheres
- HY: Hypothalamus
- LD: Lateral dorsal nucleus [thalamus]
- LHA: Lateral hypothalamic area
- LP: Lateral posterior nucleus [thalamus]
- LV: Lateral ventricle
- ME: Medial nucleus [amygdala]
- MGN: Medial geniculate nucleus
- NAC: Nucleus accumbens
- NDB: Nucleus of the diagonal band
- OT: Olfactory tubercle
- PARA: Cortical plate, parasubiculum
- PULV: Pulvinar nucleus [thalamus]
- PreS: Cortical plate, presubiculum
- RT: Reticular nucleus [thalamus]
- Rms: Rostral migratory stream
- SGN: Suprageniculate nucleus
- SI: Substantia innominata
- SN: Substantia nigra
- SON: Supraoptic nucleus [hypothalamus]
- SUB: Cortical plate, subiculum
- St: Subthalamus
- TMM: Tubero-mammillary nucleus
- VA: Ventral anterior nucleus [thalamus]
- VL: Ventral lateral nucleus [thalamus]
- VM: Ventral medial nucleus [thalamus]
- VPL: Ventral posterolateral nucleus [thalamus]
- VPM: Ventral posteromedial nucleus [thalamus]
- ZI: Zona incerta
- ac: Anterior commissure
- al: Ansa lenticularis
- cp: Cerebral peduncle
- cpb: Cerebellar peduncles
- dne: Diencephalic neuroepithelium
- emlh: External medullary lamina [thalamus]
- fx: Fornix
- int: Internal capsule
- ml: Medial lemniscus
- mm: Medial medullary lamina
- ot: Optic tract
- st: Stria terminalis
- wmf: White matter fibers
- CaS: Calcarine sulcus

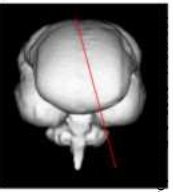
Age: 24 GW



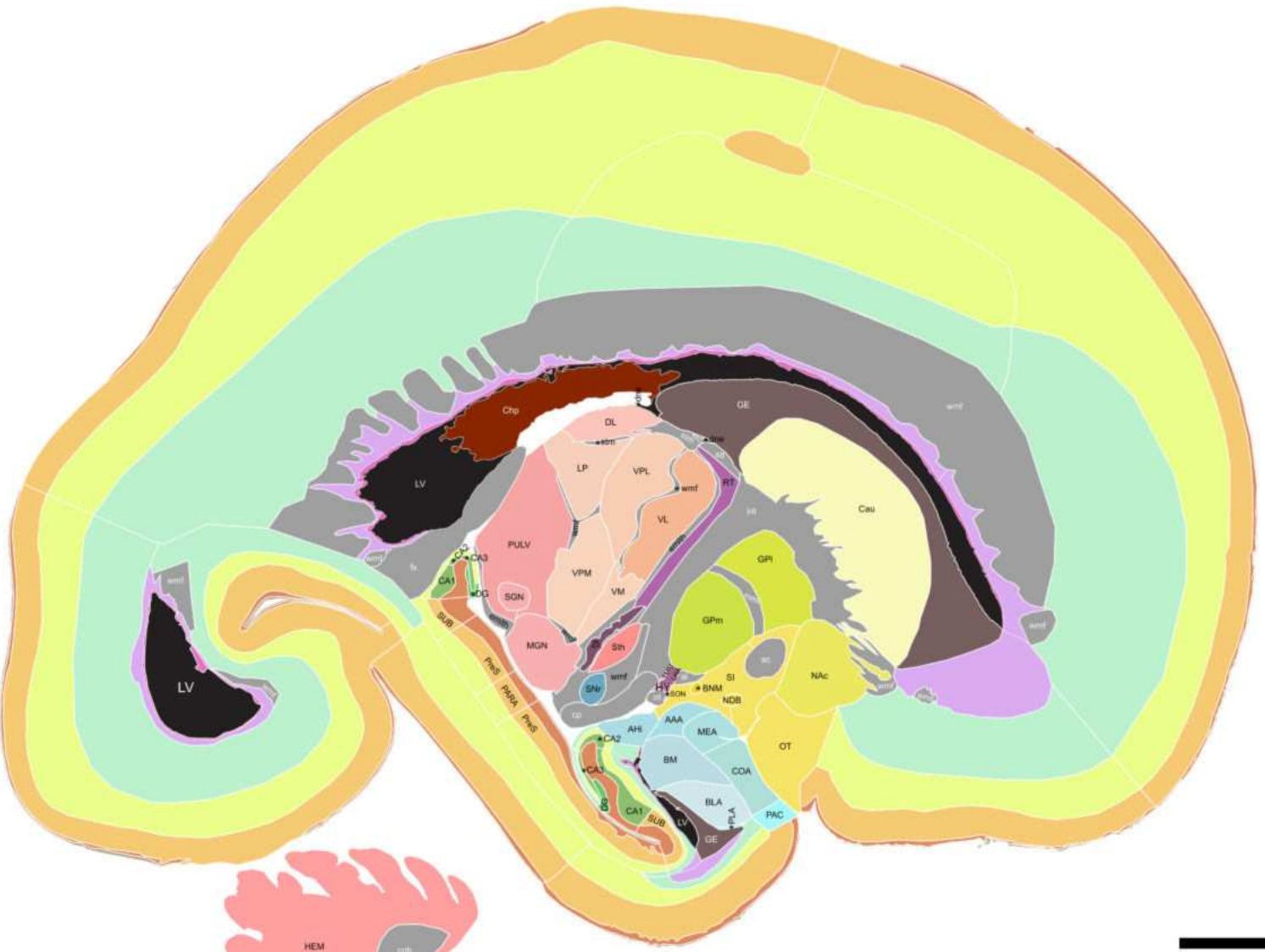
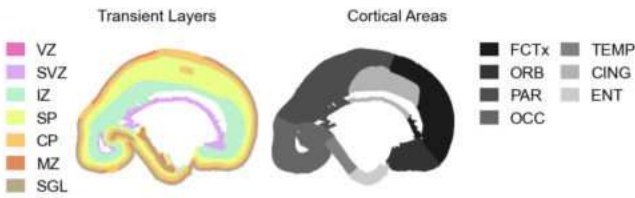
L-R Level: -4.44 mm



5 mm



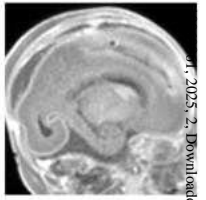
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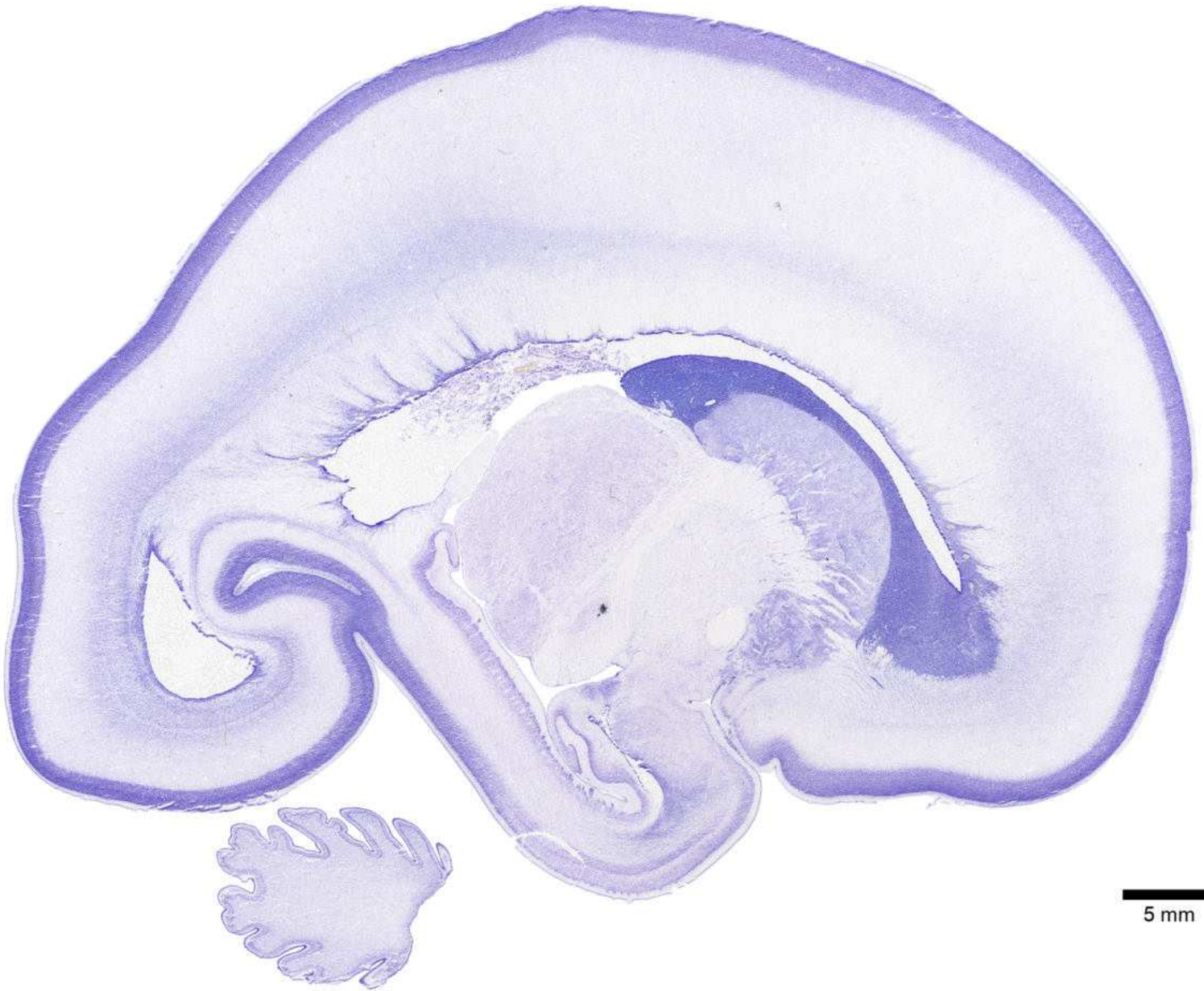
5 mm

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|---|--|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area | <ul style="list-style-type: none"> LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NDB: Nucleus of the diagonal band OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] | <ul style="list-style-type: none"> PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SNR: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] | <ul style="list-style-type: none"> ZI: Zona incerta ac: Anterior commissure al: Ansa lenticularis cp: Cerebral peduncle cpb: Cerebellar peduncles dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix int: Internal capsule mm: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers |
|---|--|--|--|

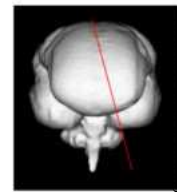
Age: 24 GW



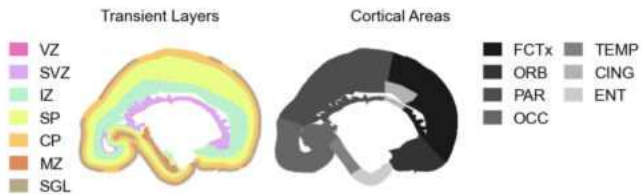
L-R Level: -4.8 mm



5 mm



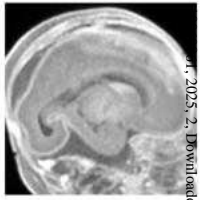
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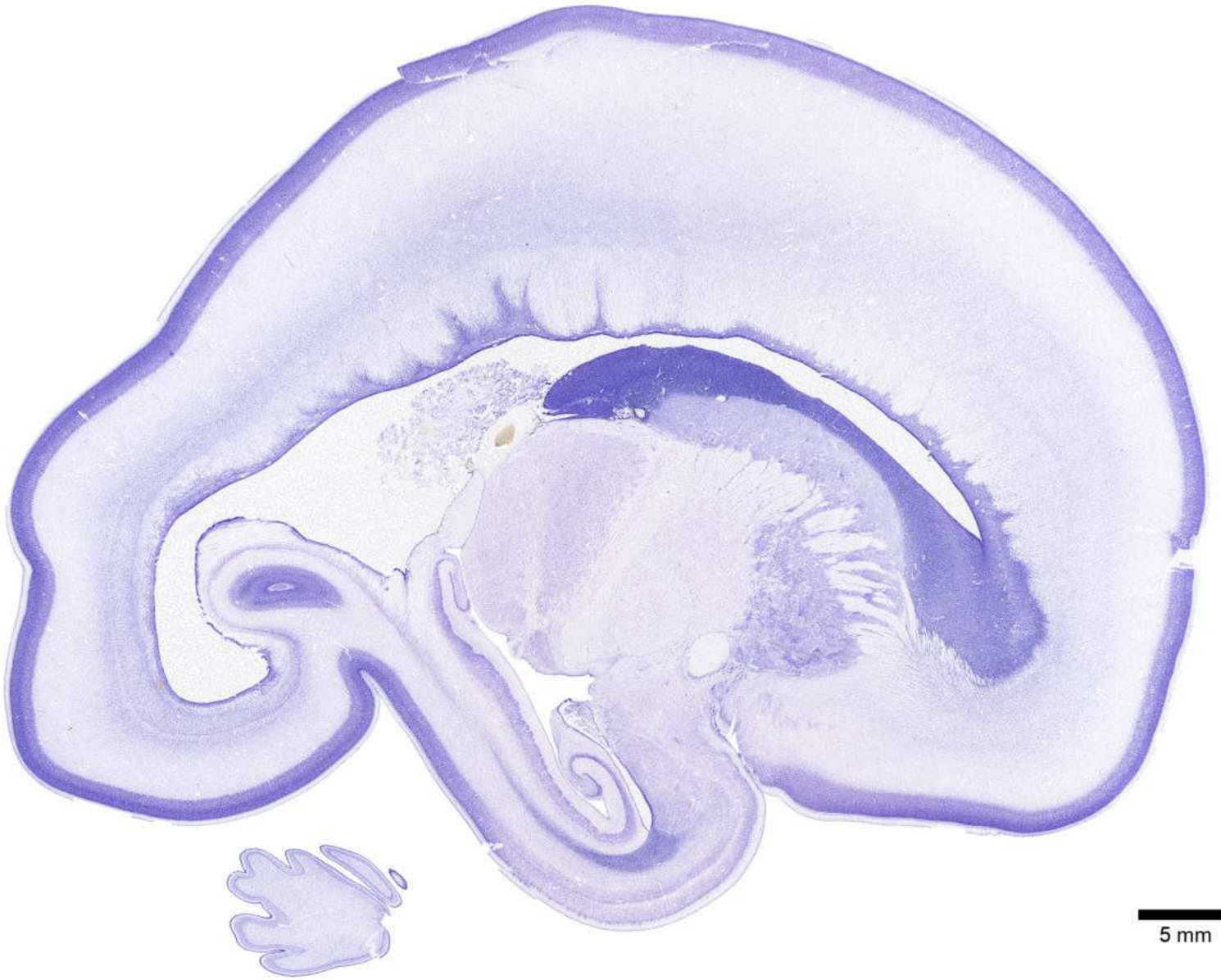
5 mm

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|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AHi: Amygdalo-hippocampal area BL: Basal nucleus [amygdala] BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres HY: Hypothalamus LD: Lateral dorsal nucleus [thalamus] LHA: Lateral hypothalamic area LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens NDB: Nucleus of the diagonal band OT: Olfactory tubercle PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SNr: Substantia nigra pars reticulata SNr: Substantia nigra pars reticulata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum Sth: Subthalamus TMM: Tuberomammillary nucleus VL: Ventral lateral nucleus [thalamus] VM: Ventral medial nucleus [thalamus] VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ZI: Zona incerta ac: Anterior commissure al: Ansa lenticularis cp: Cerebral peduncle dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipp: Hippocampal glioeepithelium/ependyma int: Internal capsule mm: Medial medullary lamina ot: Optic tract stt: Stria terminalis wmf: White matter fibers |
|---|

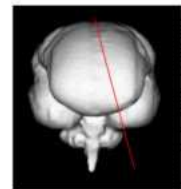
Age: 24 GW



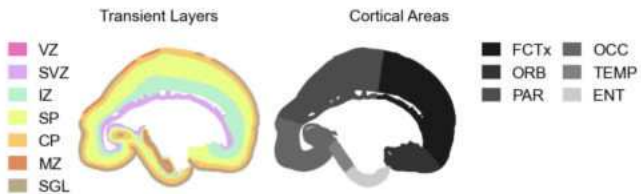
L-R Level: -6.0 mm



5 mm



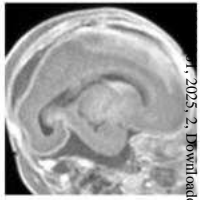
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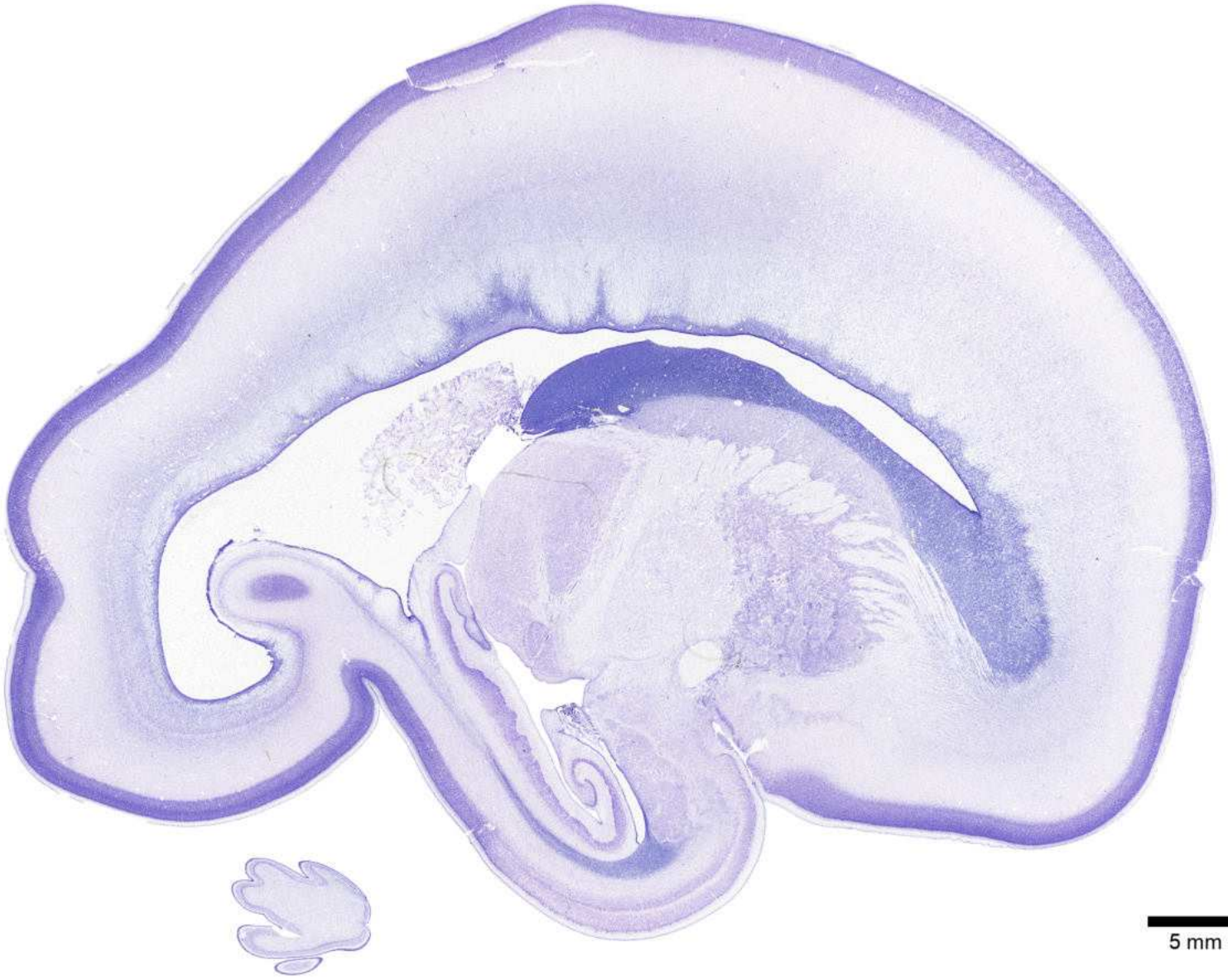
5 mm

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|--|--|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLdl: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLvl: Basal nucleus [amygdala], ventrolateral part BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus | <ul style="list-style-type: none"> DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream MEA: Medial nucleus [amygdala] MGN: Medial geniculate nucleus NAC: Nucleus accumbens | <ul style="list-style-type: none"> PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SGN: Suprageniculate nucleus SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum VPL: Ventral posterolateral nucleus [thalamus] VPM: Ventral posteromedial nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> cp: Cerebral peduncle dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioneuroepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mml: Medial medullary lamina ot: Optic tract st: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
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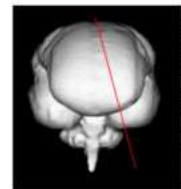
Age: 24 GW



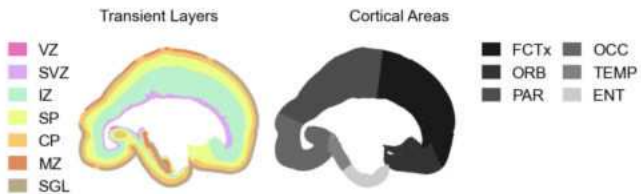
L-R Level: -6.48 mm



5 mm



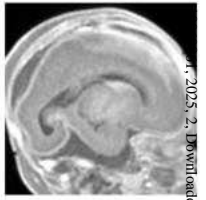
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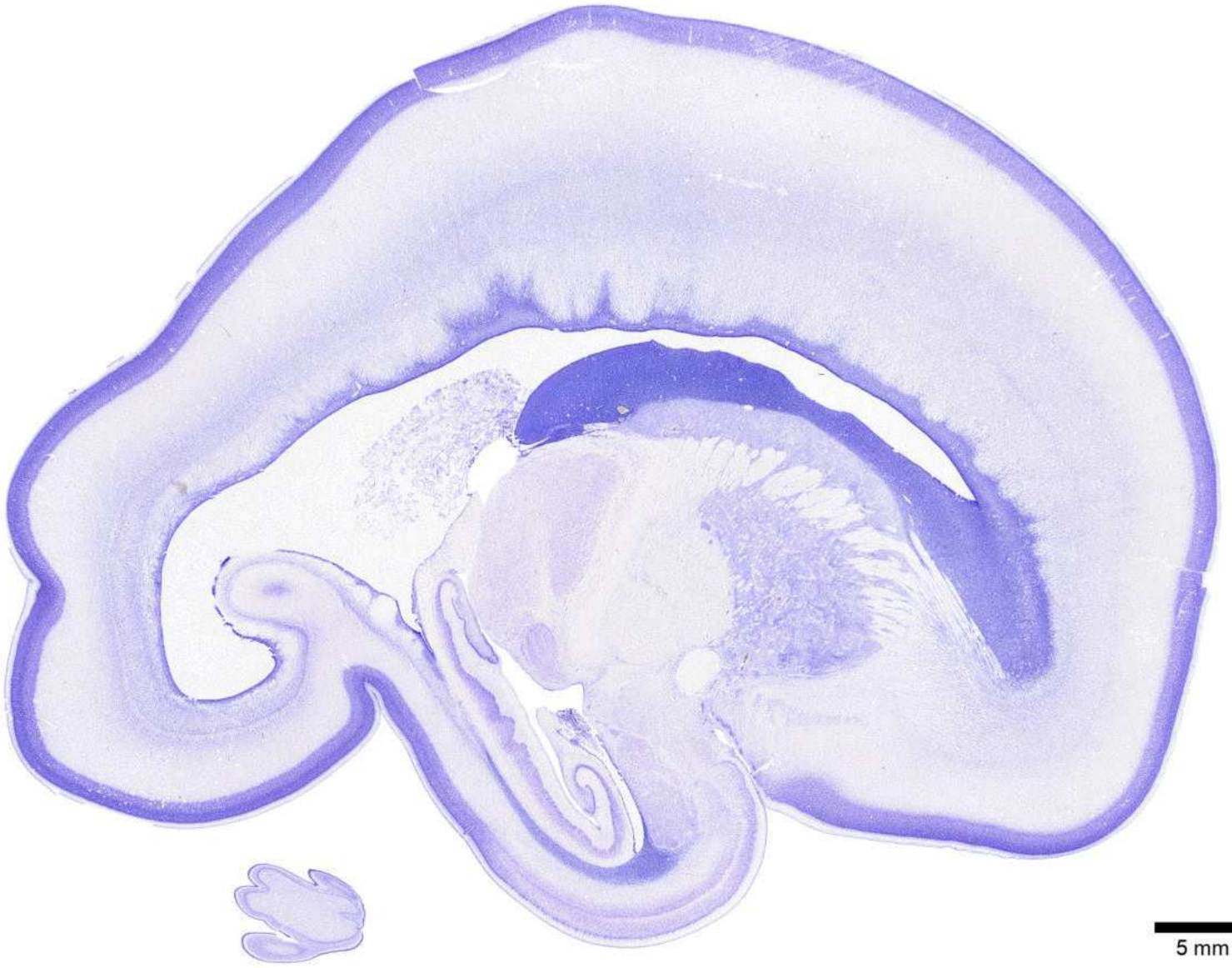
5 mm

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|---|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLd: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLv: Basal nucleus [amygdala], ventrolateral part BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream PARA: Cortical plate, parasubiculum PGN: Pregeniculate nucleus | <ul style="list-style-type: none"> PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] fx: Fornix hipg: Hippocampal gloepithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mm: Medial medullary lamina ot: Optic tract stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|---|---|---|--|

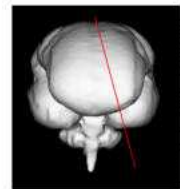
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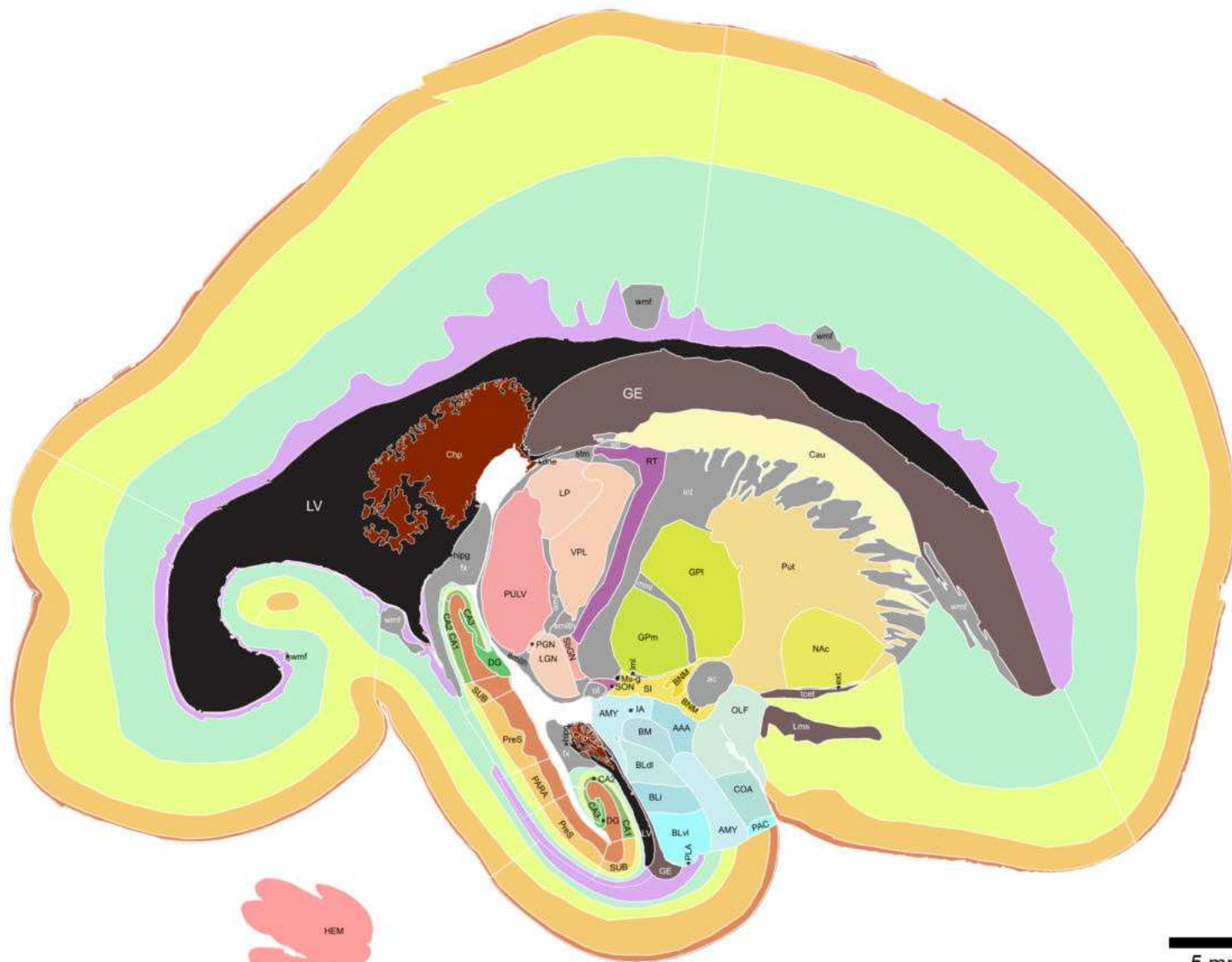
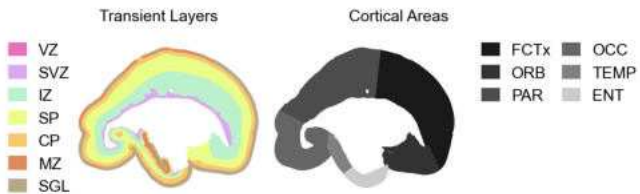
L-R Level: -6.72 mm



5 mm



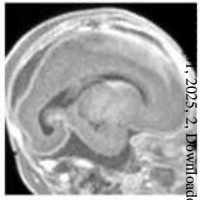
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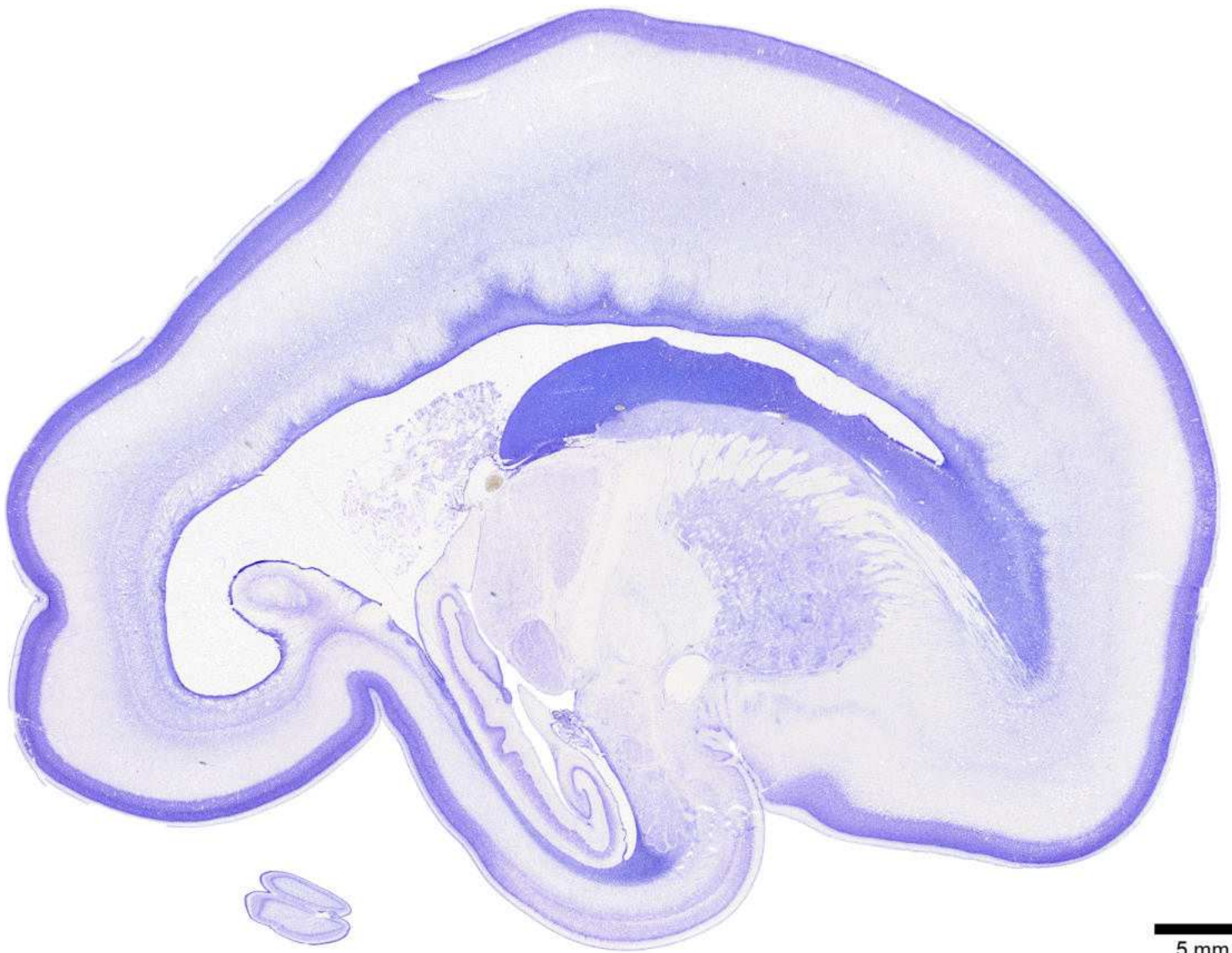
5 mm

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|--|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala BLdL: Basal nucleus [amygdala], dorsolateral part BLi: Basal nucleus [amygdala], intermediate part BLvL: Basal nucleus [amygdala], ventrolateral part BM: Basomedial nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus | <ul style="list-style-type: none"> DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment HEM: Cerebellar hemispheres IA: Intercalated cell groups [amygdala] LGN: Lateral geniculate nucleus LP: Lateral posterior nucleus [thalamus] LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general NAC: Nucleus accumbens PARA: Cortical plate, parasubiculum | <ul style="list-style-type: none"> PGN: Pregeniculate nucleus PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SON: Supraoptic nucleus [hypothalamus] SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gloeopithelium/ependyma int: Internal capsule lml: Lateral medullary lamina mmL: Medial medullary lamina ot: Optic tract stt: Stria terminalis tct: Transient cell zone in the external capsule wmf: White matter fibers |
|--|--|---|--|

Age: 24 GW

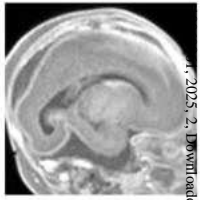


L-R Level: -7.2 mm

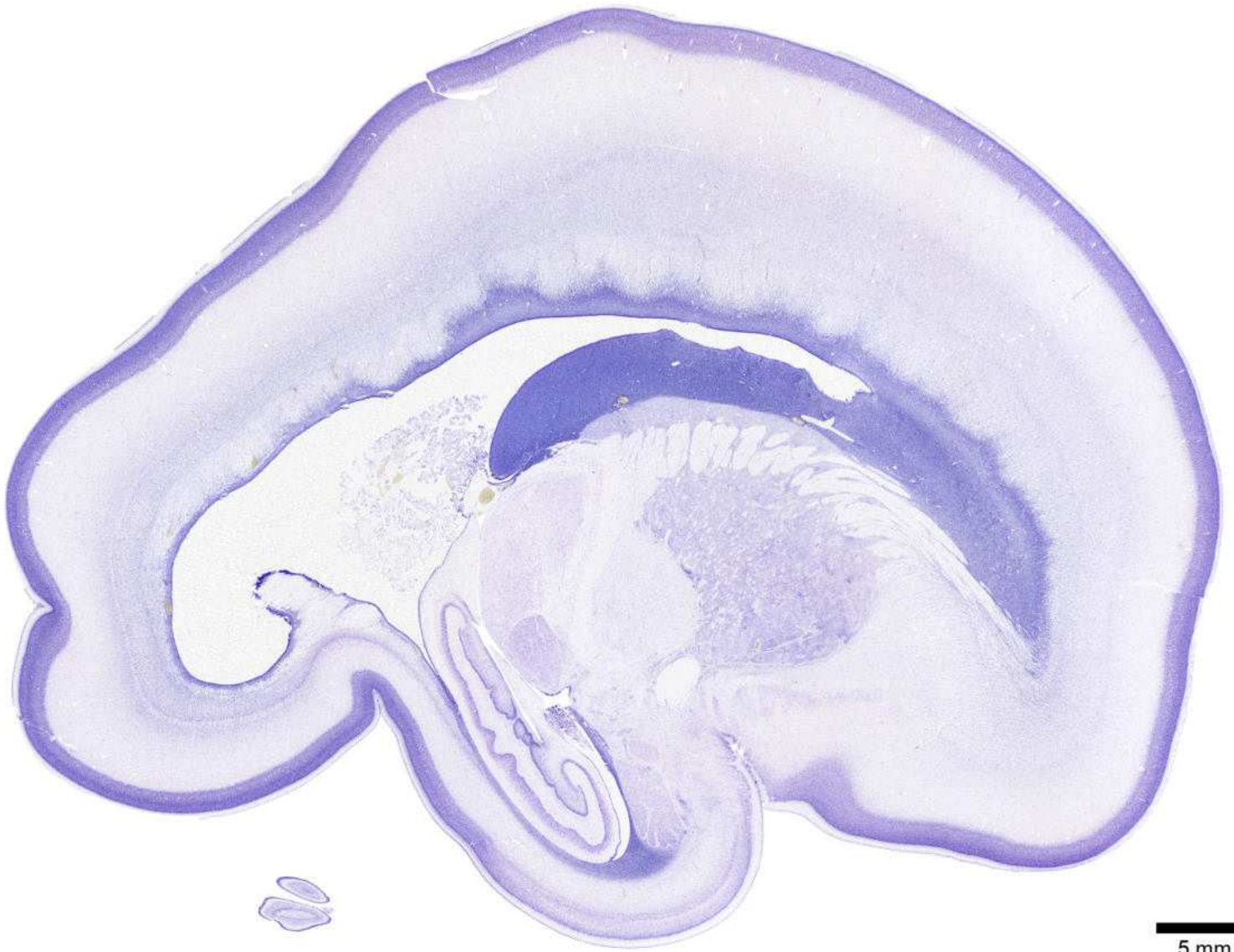


5 mm

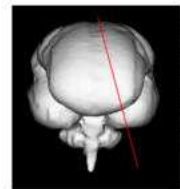
Age: 24 GW



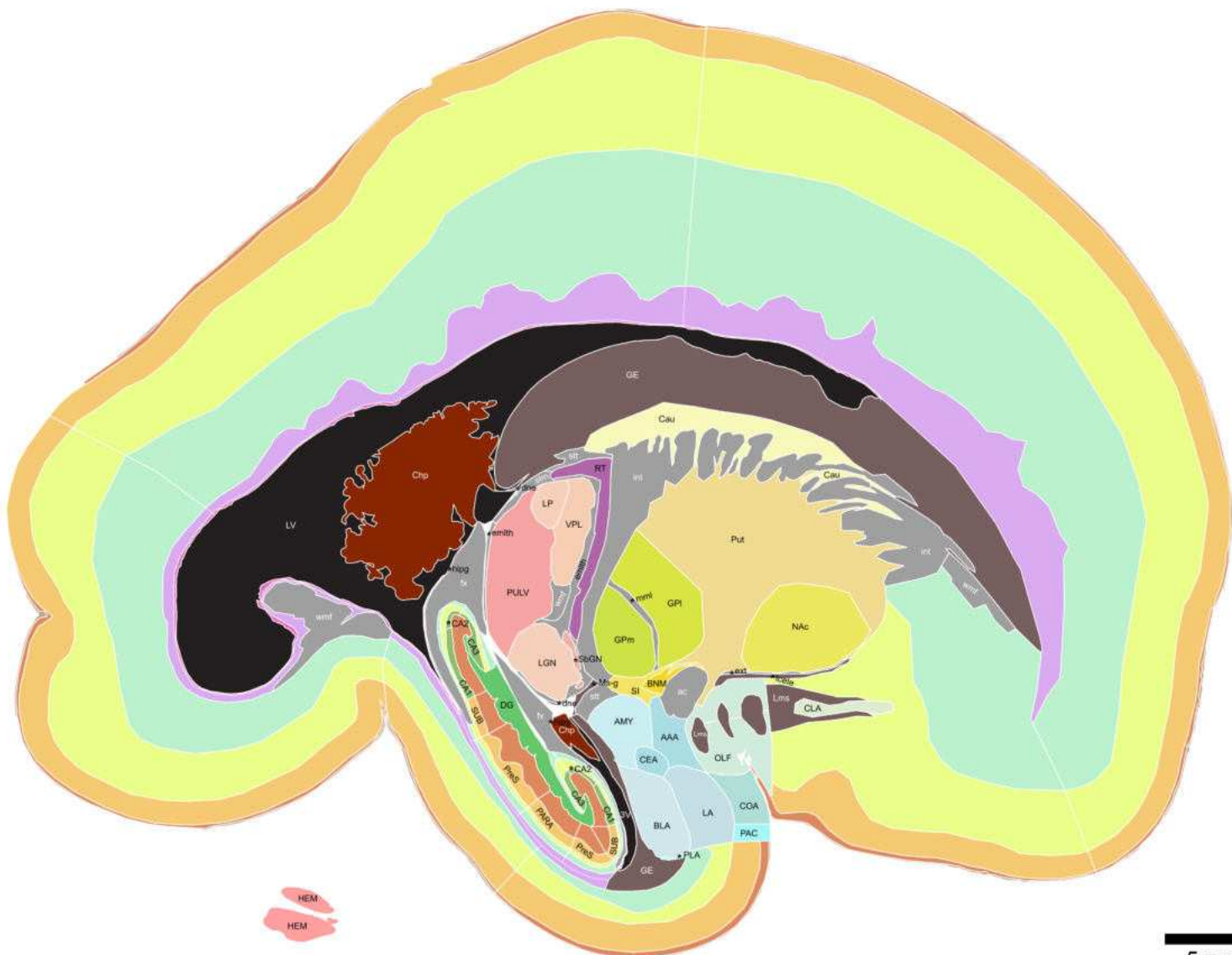
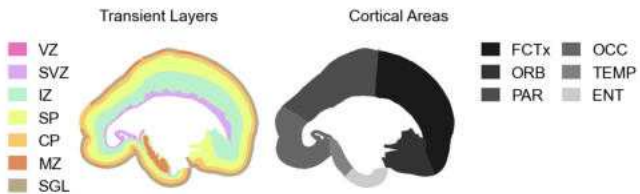
L-R Level: -7.62 mm



5 mm



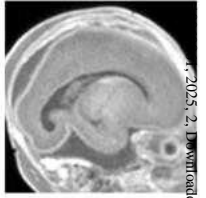
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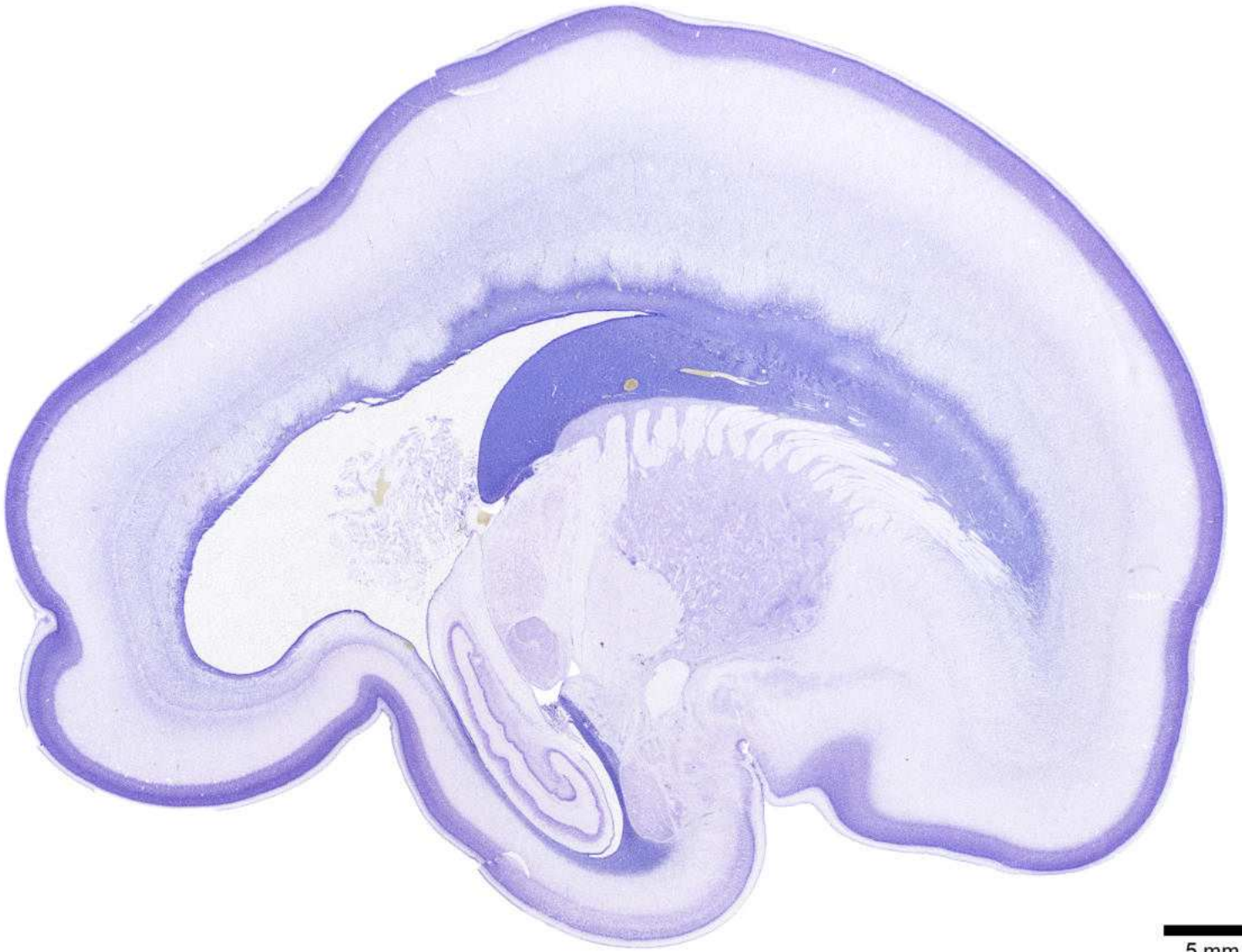
5 mm

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|--|---|---|---|
| <ul style="list-style-type: none"> ■ 3V: Third ventricle ■ AAA: Anterior amygdaloid area ■ AMY: Amygdala ■ BLA: Basolateral complex [amygdala] ■ BNM: Basal nucleus of Meynert ■ CA1: CA1 field [hippocampus] ■ CA2: CA2 field [hippocampus] ■ CA3: CA3 field [hippocampus] ■ CEA: Central nucleus [amygdala] ■ CLA: Claustrum ■ COA: Cortical nucleus [amygdala] ■ Cau: Caudate nucleus | <ul style="list-style-type: none"> ■ Chp: Choroid plexus ■ DG: Dentate gyrus ■ GE: Ganglionic eminence ■ GPI: Globus pallidus lateral segment ■ GPm: Globus pallidus medial segment ■ HEM: Cerebellar hemispheres ■ LA: Lateral nucleus [amygdala] ■ LGN: Lateral geniculate nucleus ■ LP: Lateral posterior nucleus [thalamus] ■ LV: Lateral ventricle ■ Lms: Lateral migratory stream ■ Ms-g: Migratory stream, general | <ul style="list-style-type: none"> ■ NAC: Nucleus accumbens ■ PARA: Cortical plate, parasubiculum ■ PLA: Paralaminar nucleus [amygdala] ■ PULV: Pulvinar nucleus [thalamus] ■ PreS: Cortical plate, presubiculum ■ Put: Putamen ■ SI: Substantia innominata ■ SUB: Cortical plate, subiculum ■ SbGN: Subgeniculate nucleus ■ VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ■ ac: Anterior commissure ■ dne: Diencephalic neuroepithelium ■ emlth: External medullary lamina [thalamus] ■ ext: External capsule ■ fx: Fornix ■ hipg: Hippocampal glioepithelium/ependyma ■ int: Internal capsule ■ mm: Medial medullary lamina ■ stt: Stria terminalis ■ tcete: Transient cell zone in the extreme capsule ■ wmf: White matter fibers |
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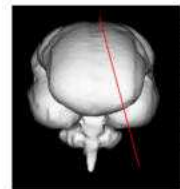
Age: 24 GW



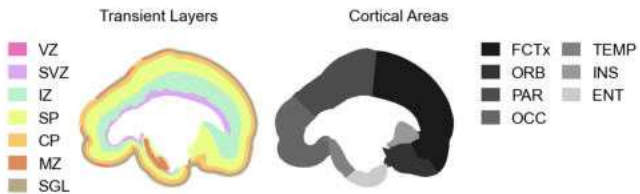
L-R Level: -8.16 mm



5 mm



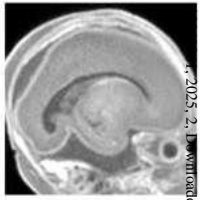
L-R Level: -8.16 mm



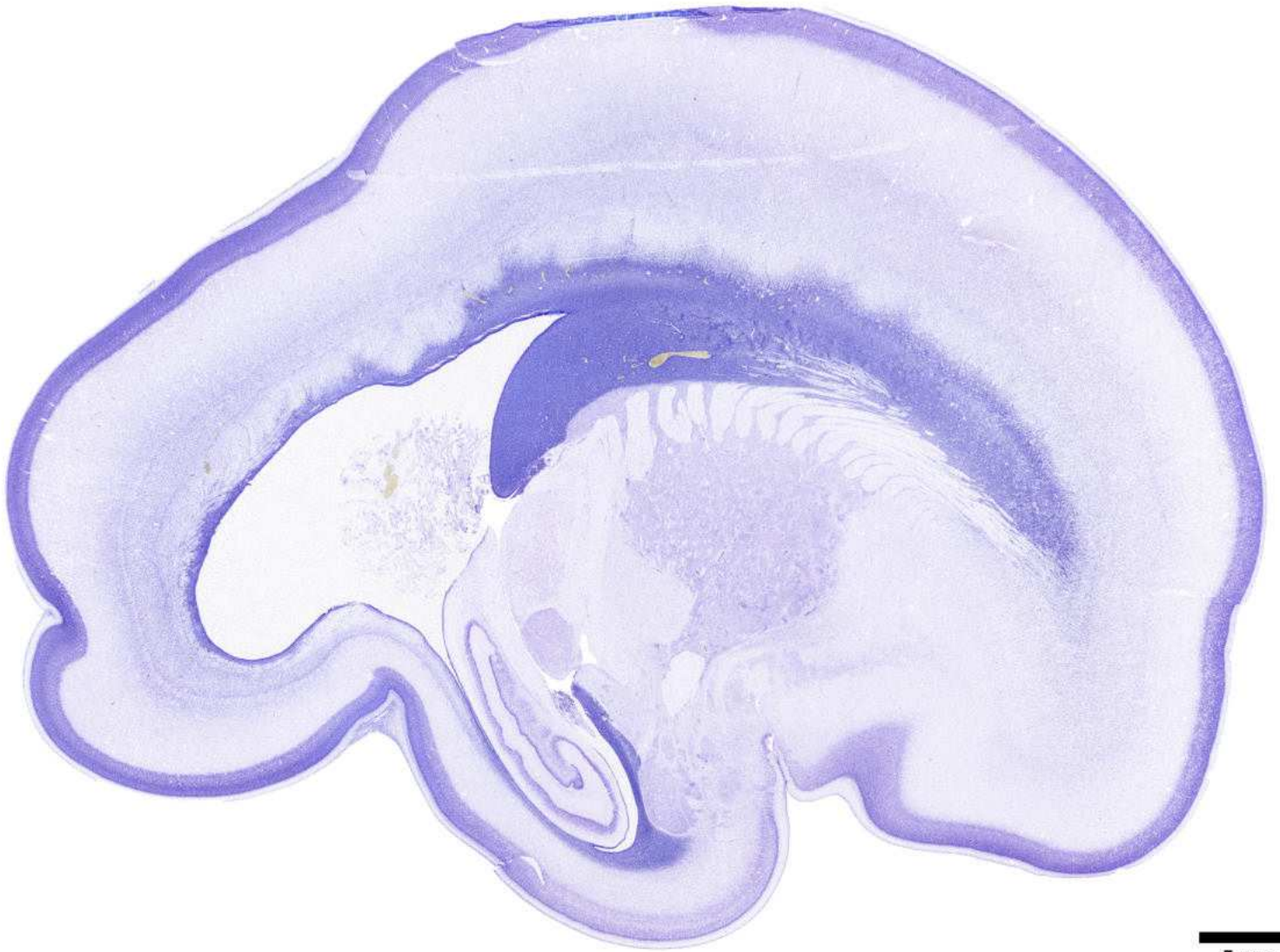
5 mm

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|--|---|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] Cau: Caudate nucleus | <ul style="list-style-type: none"> Chp: Choroid plexus DG: Dentate gyrus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPM: Globus pallidus medial segment IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream Ms-g: Migratory stream, general | <ul style="list-style-type: none"> NAc: Nucleus accumbens PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus VPL: Ventral posterolateral nucleus [thalamus] | <ul style="list-style-type: none"> ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule str-g: Strionuclear glioepithelium stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|--|

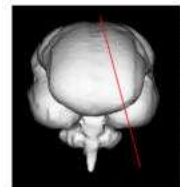
Age: 24 GW



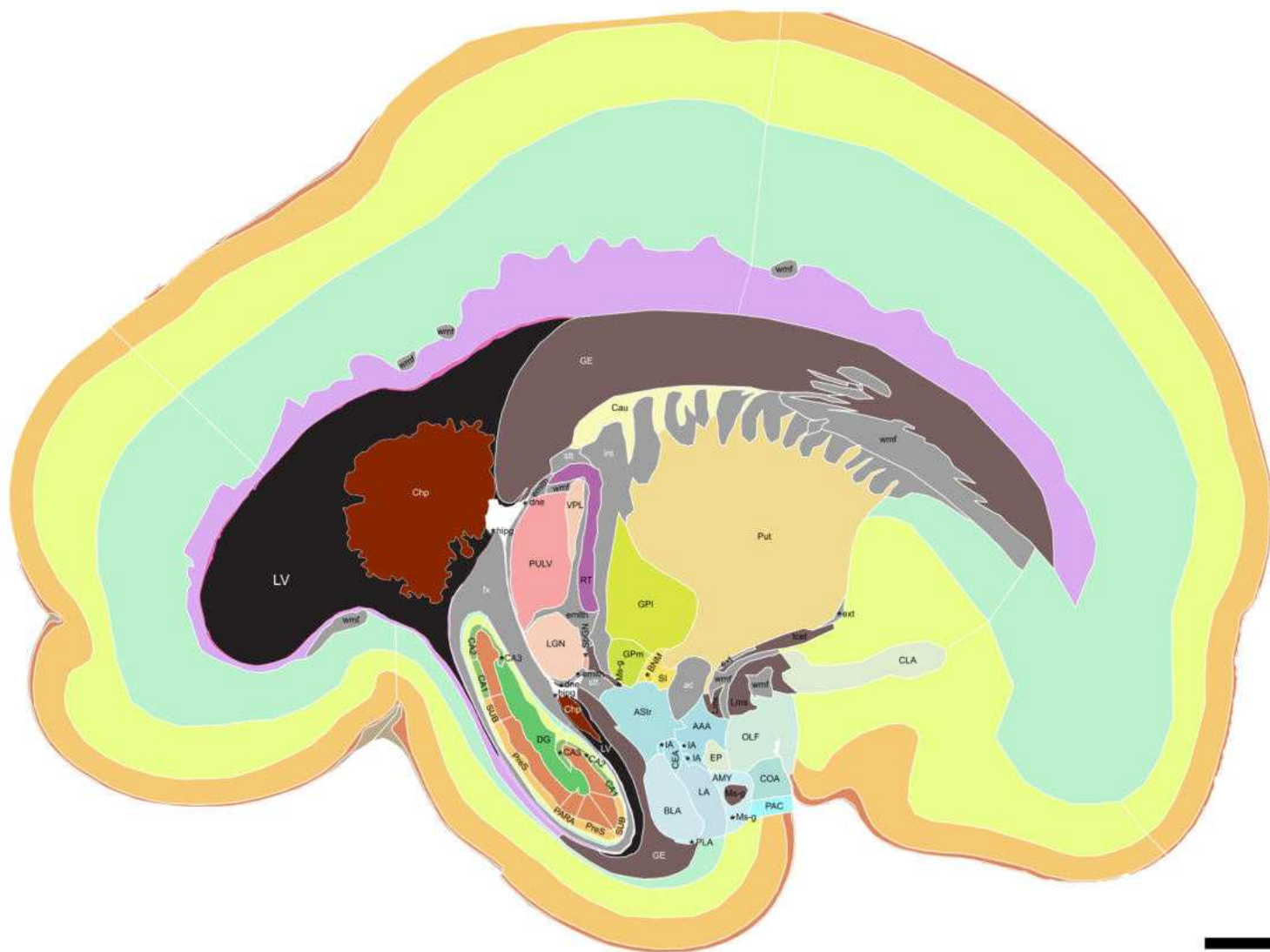
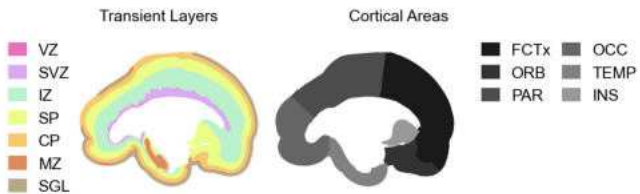
L-R Level: -8.52 mm



5 mm



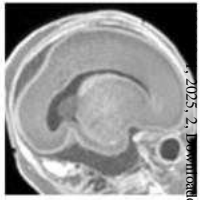
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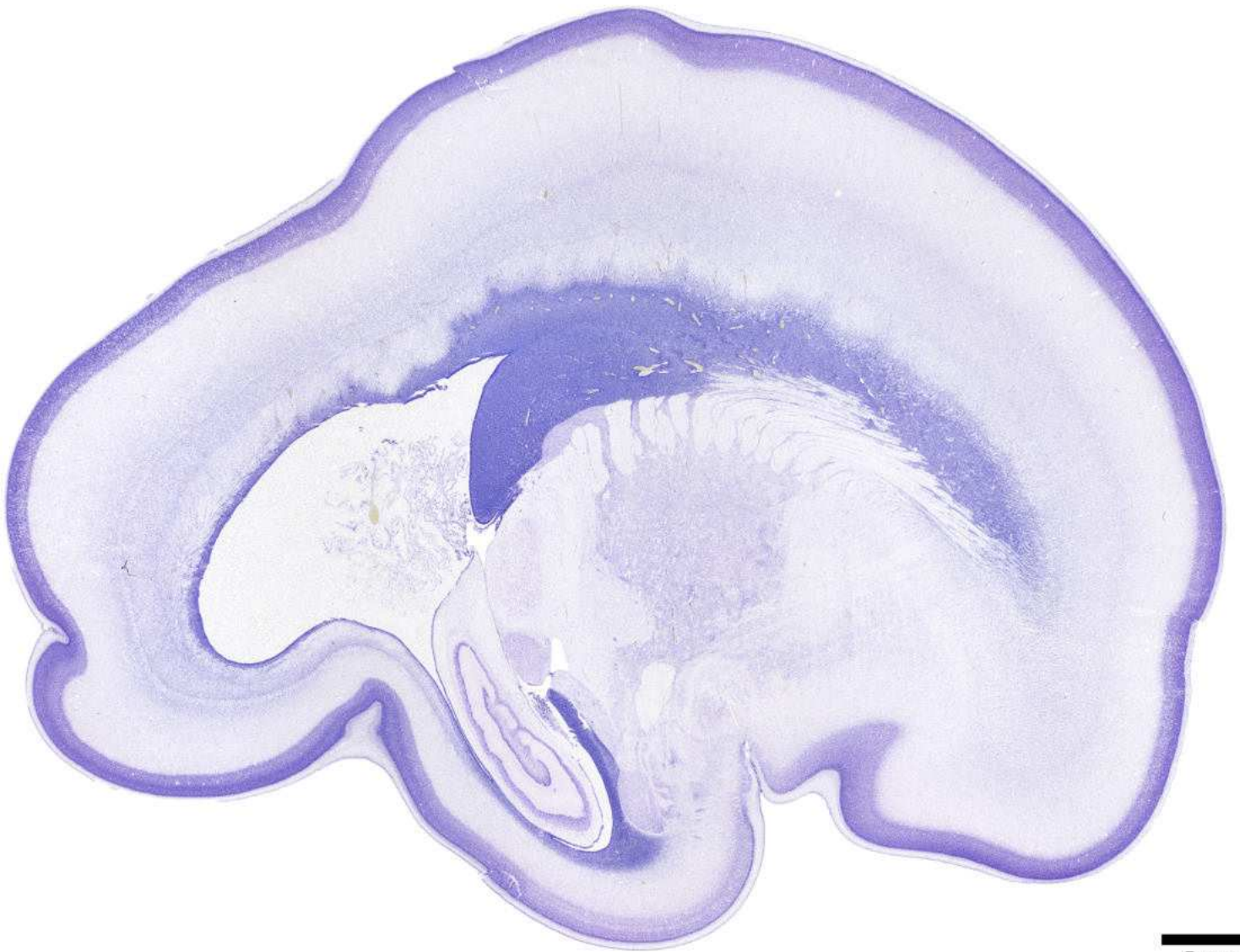
5 mm

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|--|---|---|---|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment IA: Intercalated cell groups [amygdala] LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum SbGN: Subgeniculate nucleus | <ul style="list-style-type: none"> VPL: Ventral posterolateral nucleus [thalamus] ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeptithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|---|---|

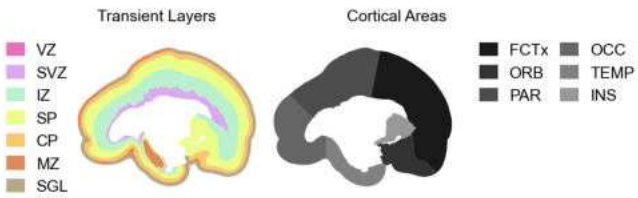
Age: 24 GW



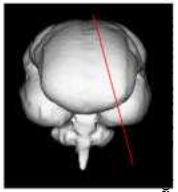
L-R Level: -8.82 mm



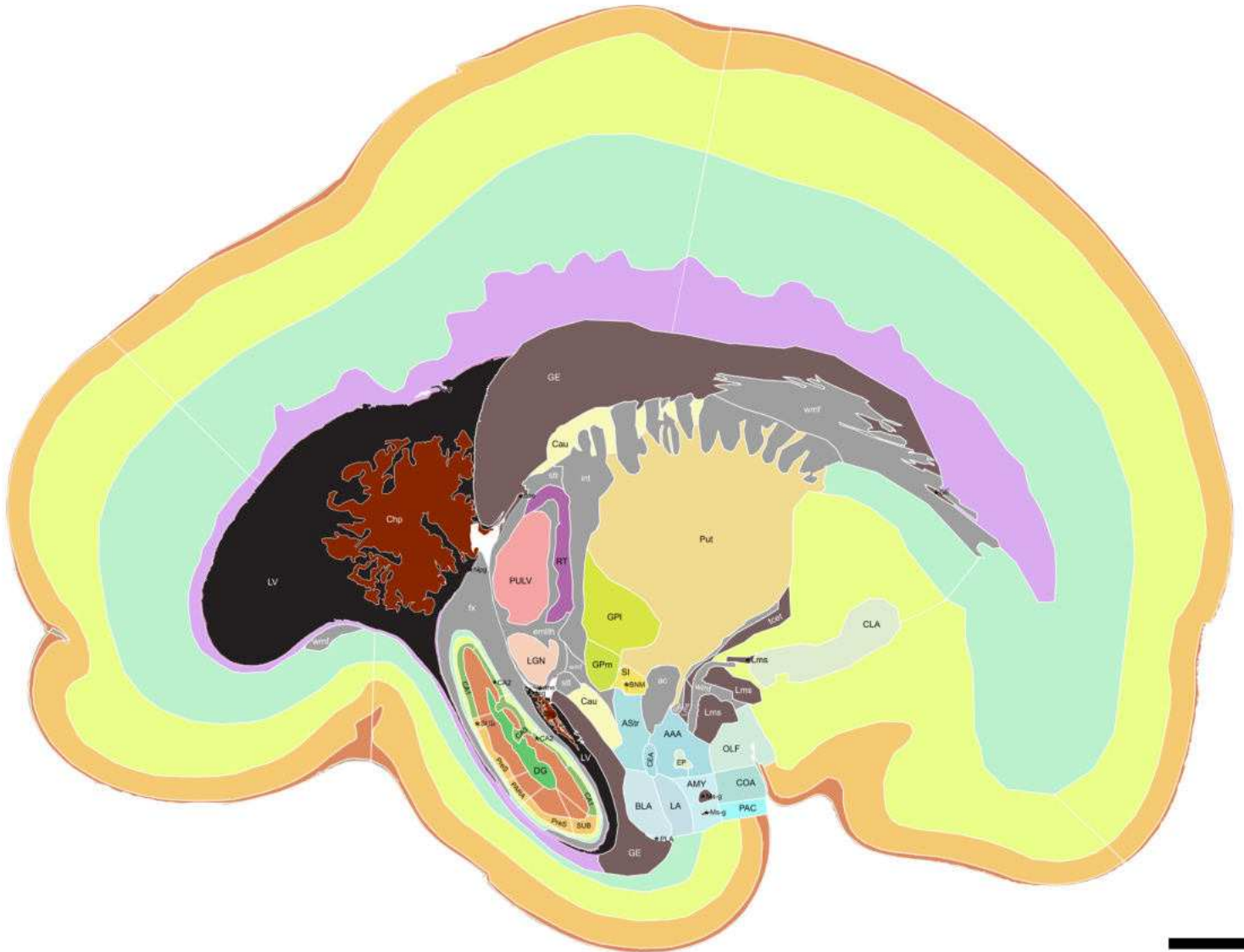
5 mm



Age: 24 GW



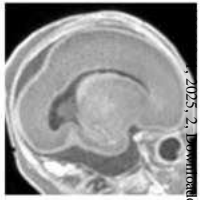
L-R Level: -8.82 mm



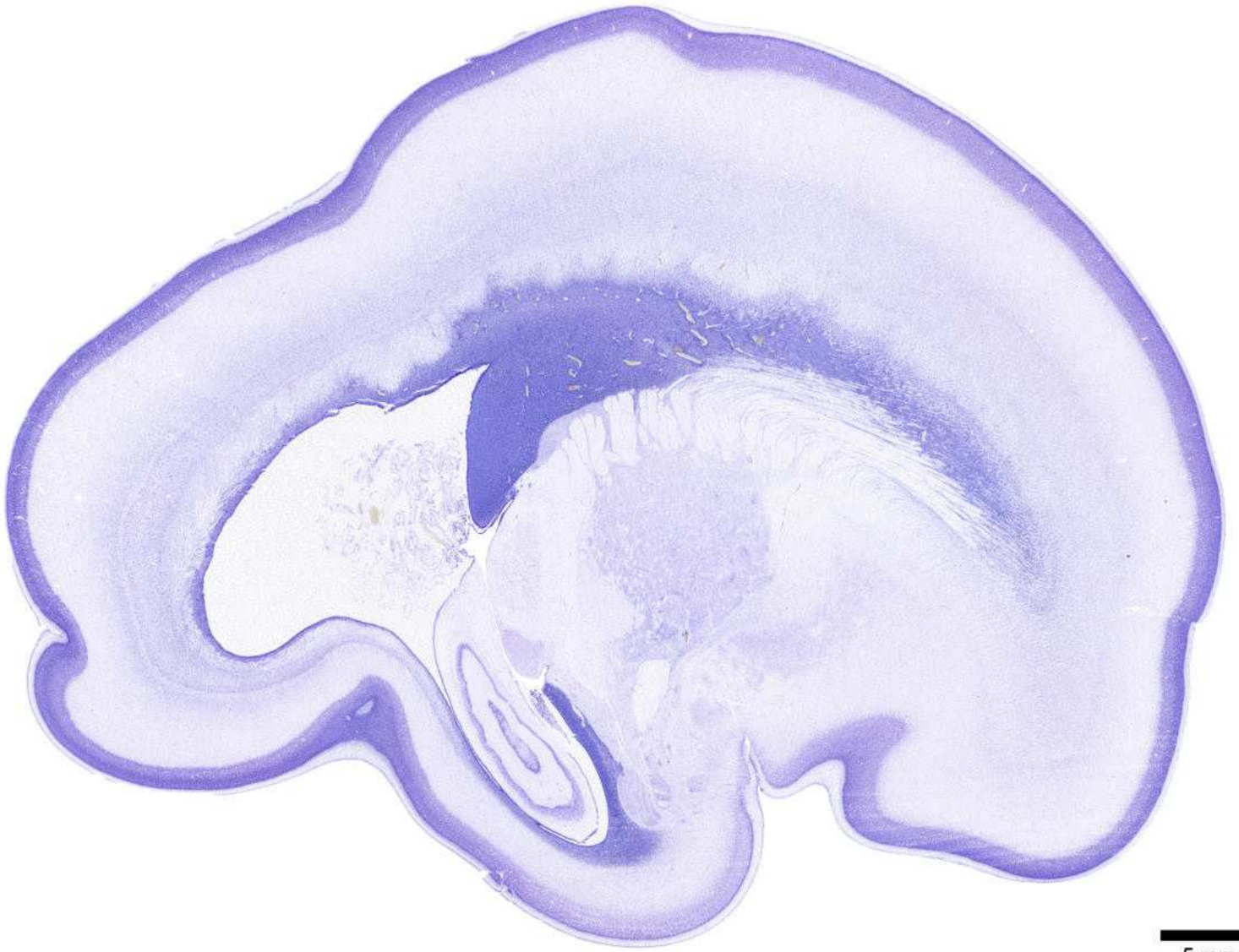
5 mm

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|--|--|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|--|--|--|

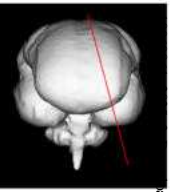
Age: 24 GW



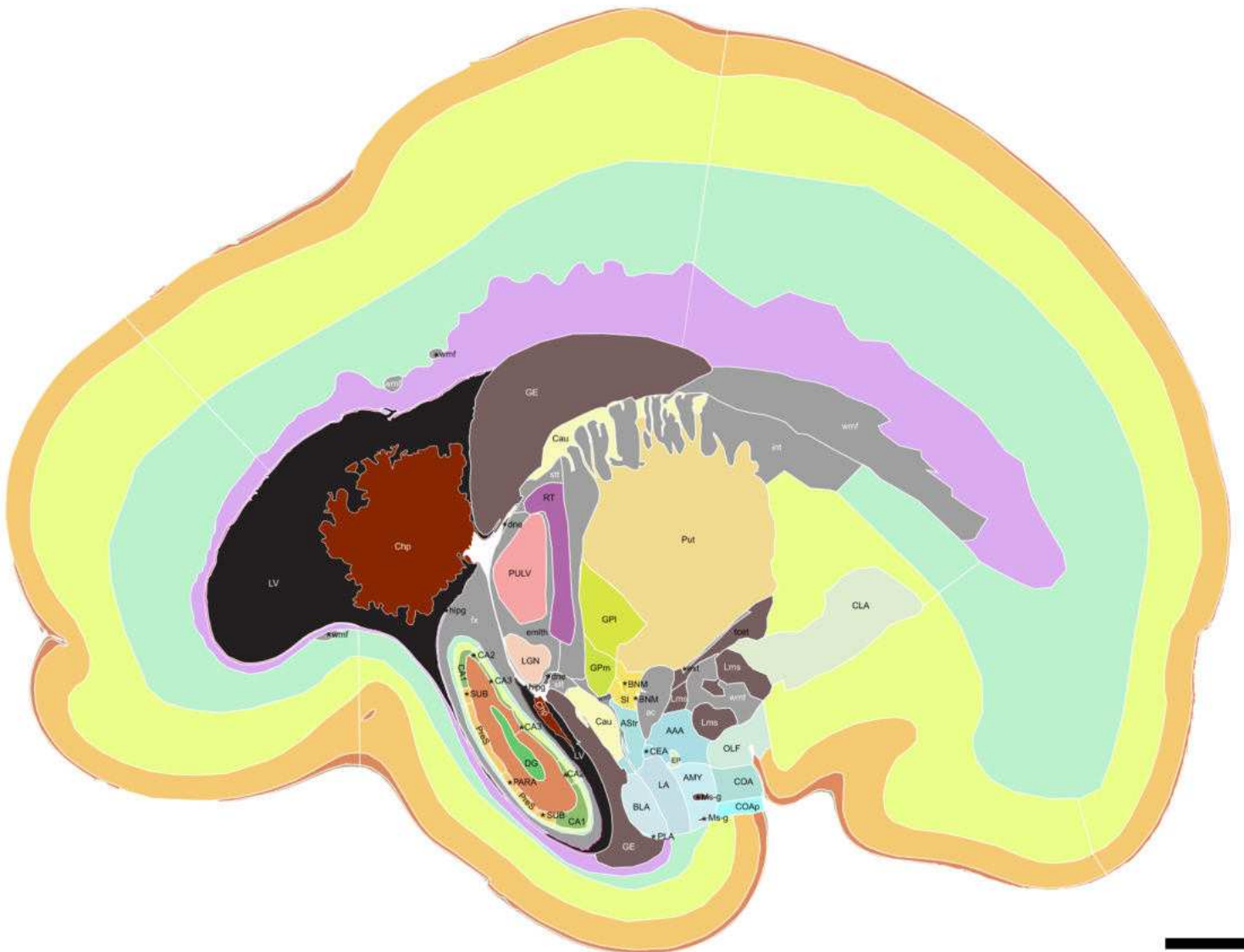
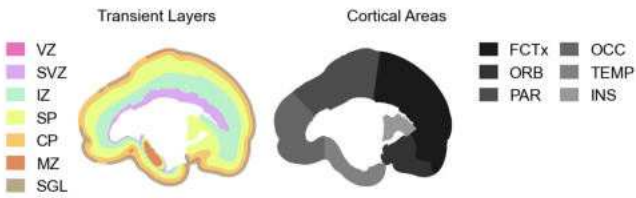
L-R Level: -9.0 mm



5 mm



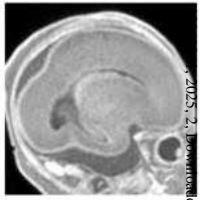
L-R Level: -9.0 mm



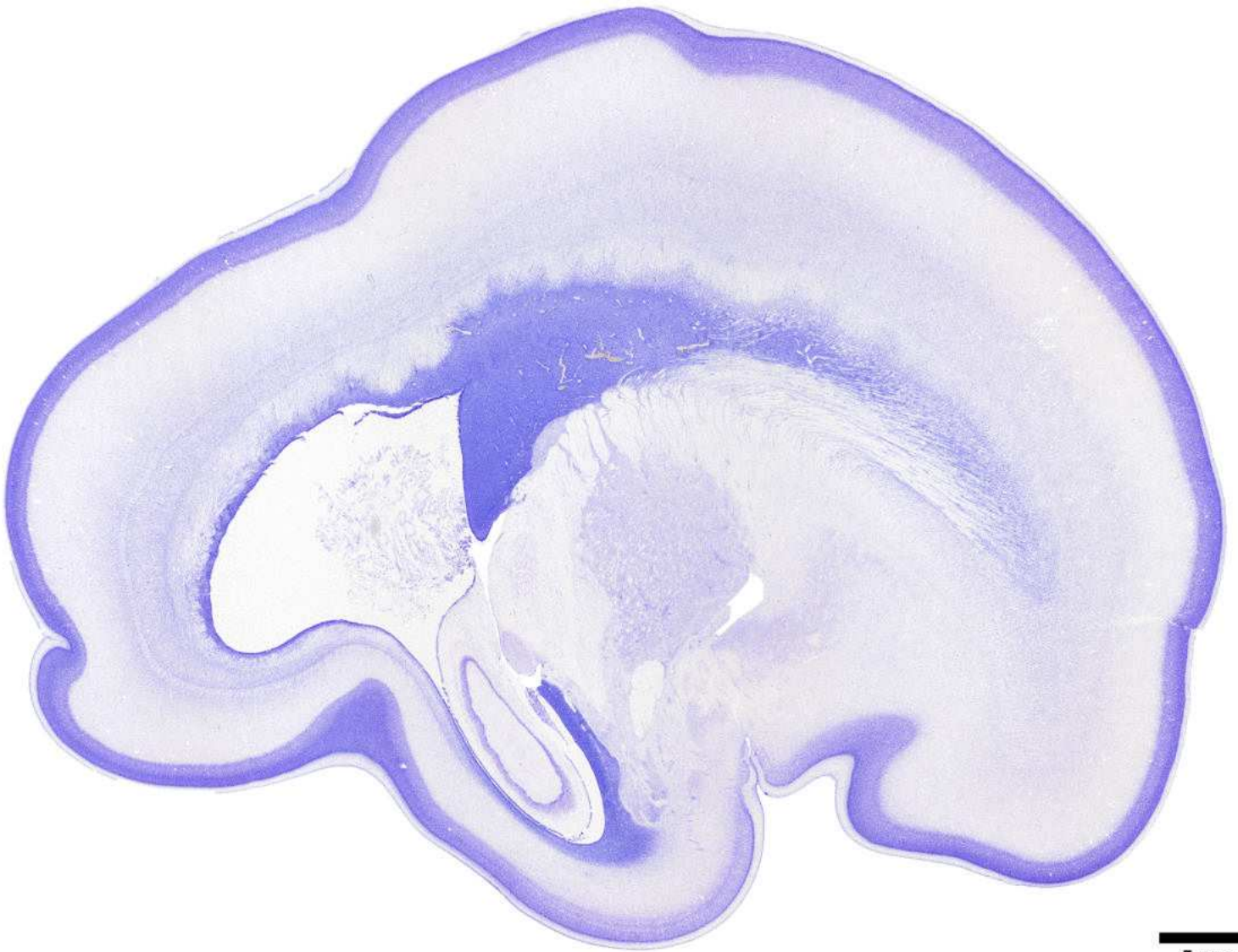
5 mm

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|--|---|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CEA: Central nucleus [amygdala] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> COAp: Cortical nucleus [amygdala], posterior part Cau: Caudate nucleus Chp: Choroid plexus DG: Dentate gyrus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment GPm: Globus pallidus medial segment LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream Ms-g: Migratory stream, general PARA: Cortical plate, parasubiculum PLA: Paralaminar nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum | <ul style="list-style-type: none"> ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioeptithelium/ependyma int: Internal capsule st: Stria terminalis toet: Transient cell zone in the external capsule wmf: White matter fibers |
|--|---|--|--|

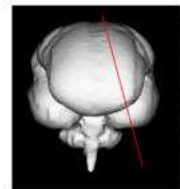
Age: 24 GW



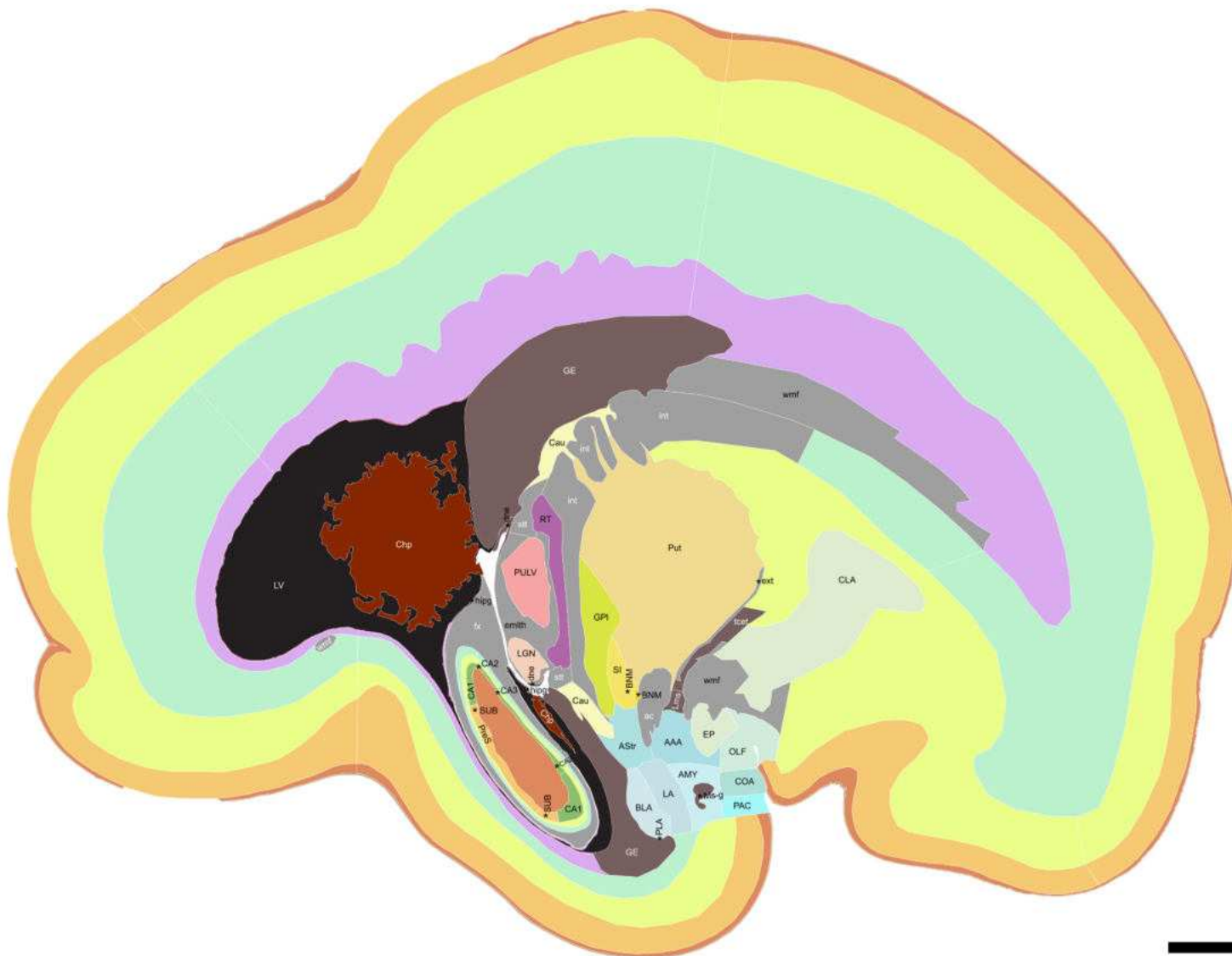
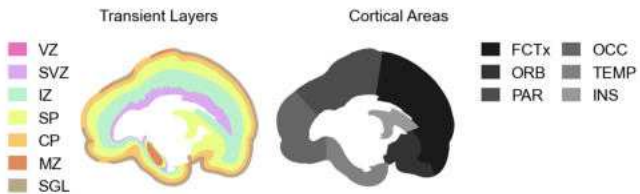
L-R Level: -9.24 mm



5 mm



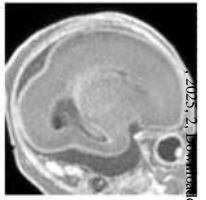
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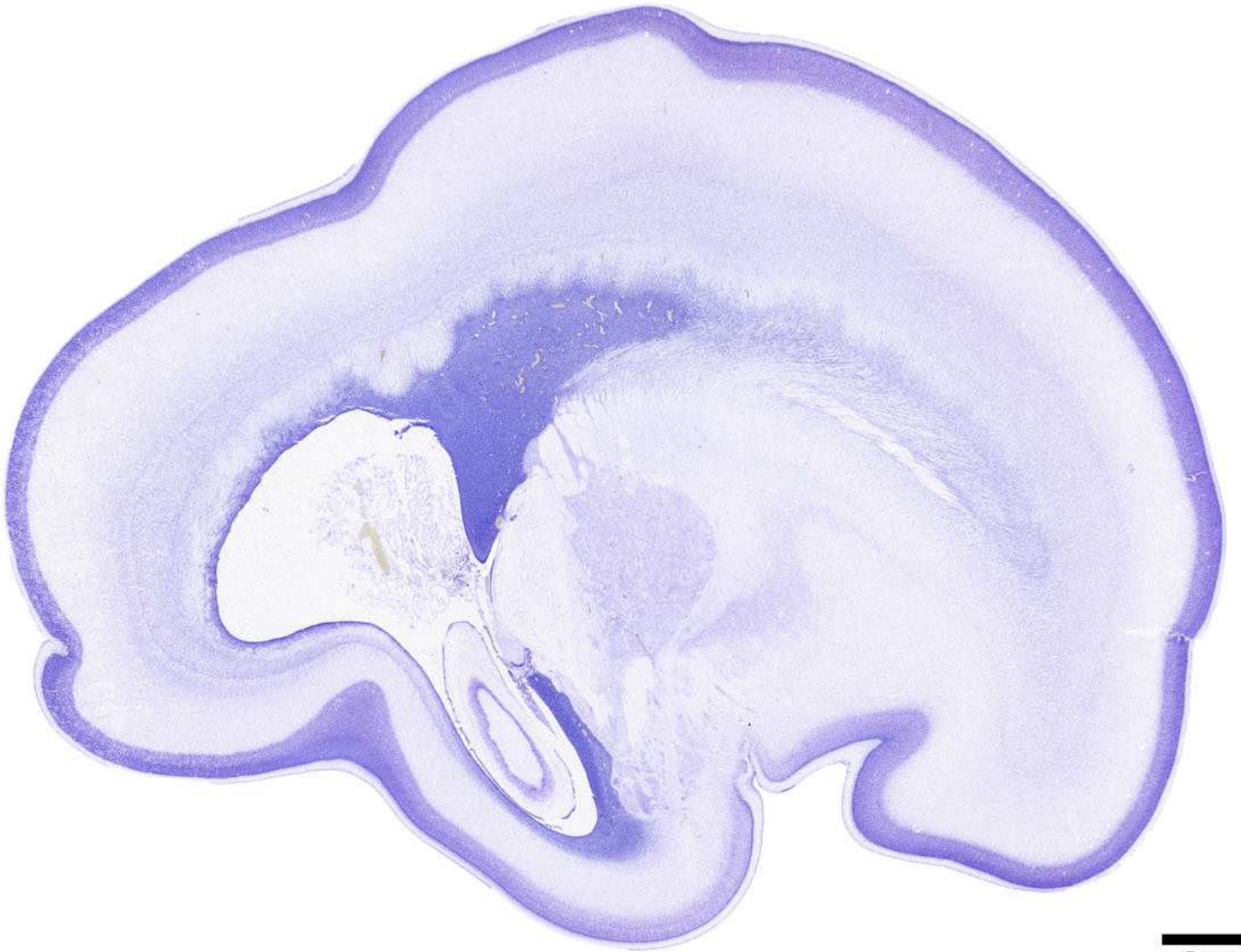
5 mm

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|---|---|--|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum COA: Cortical nucleus [amygdala] | <ul style="list-style-type: none"> Cau: Caudate nucleus Chp: Choroid plexus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle Lms: Lateral migratory stream | <ul style="list-style-type: none"> Ms-g: Migratory stream, general PLA: Paralamina nucleus [amygdala] PULV: Pulvinar nucleus [thalamus] PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum ac: Anterior commissure | <ul style="list-style-type: none"> dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal gliopithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|---|---|--|--|

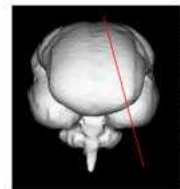
Age: 24 GW



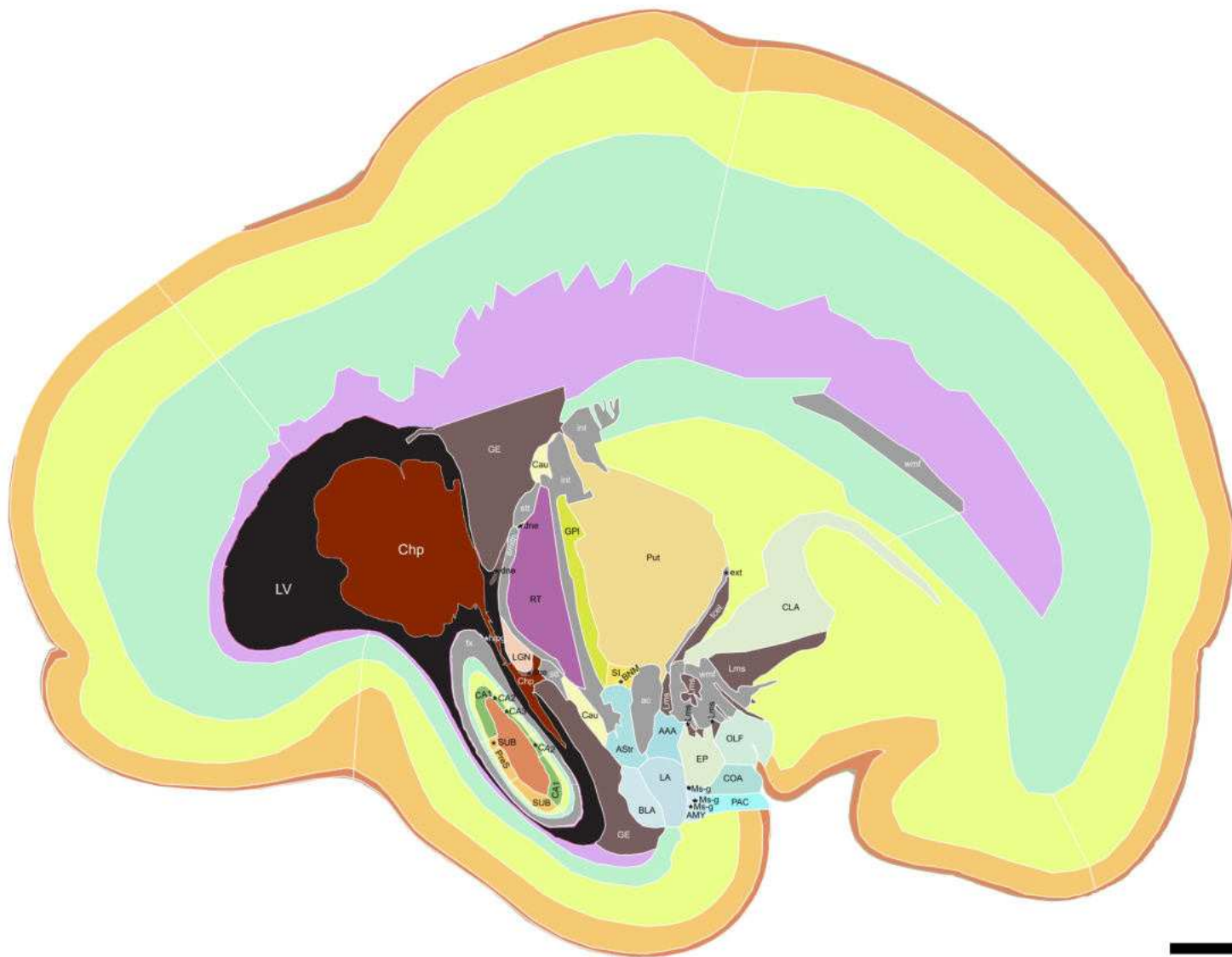
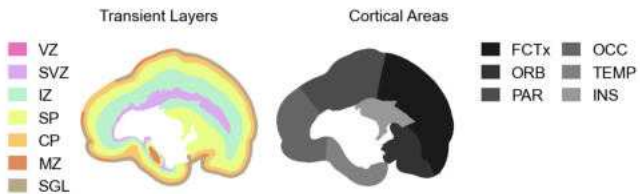
L-R Level: -9.66 mm



5 mm



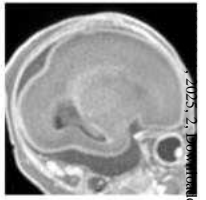
L-R Level: -9.66 mm



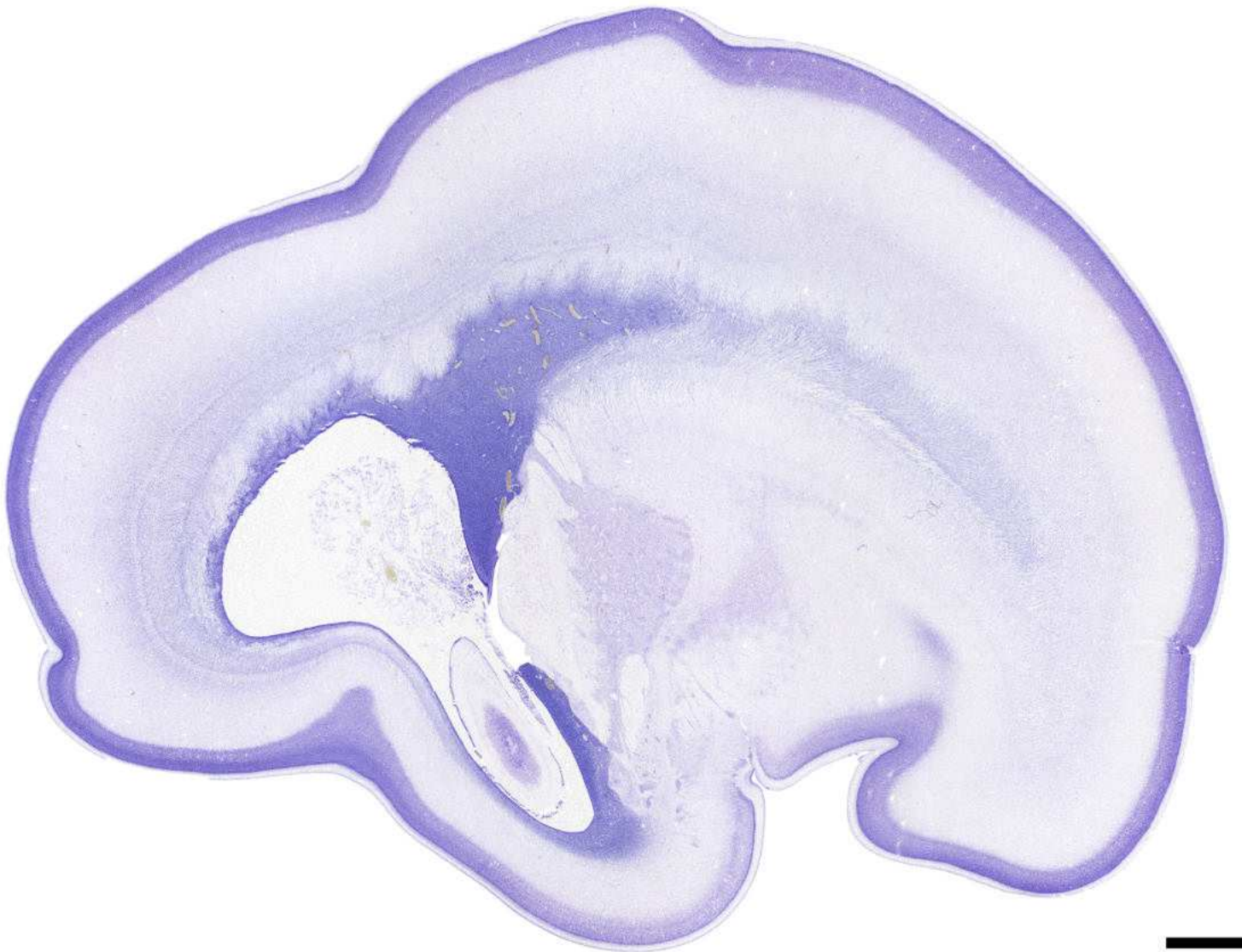
5 mm

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|---|--|---|--|
| <ul style="list-style-type: none"> AAA: Anterior amygdaloid area AMY: Amygdala AStr: Amygdalo-striatal area BL: Basal nucleus [amygdala] BNM: Basal nucleus of Meynert CA1: CA1 field [hippocampus] CA2: CA2 field [hippocampus] CA3: CA3 field [hippocampus] CLA: Claustrum | <ul style="list-style-type: none"> COA: Cortical nucleus [amygdala] Cau: Caudate nucleus Chp: Choroid plexus EP: Endopiriform nucleus GE: Ganglionic eminence GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LGN: Lateral geniculate nucleus LV: Lateral ventricle | <ul style="list-style-type: none"> Lms: Lateral migratory stream Ms-g: Migratory stream, general PreS: Cortical plate, presubiculum Put: Putamen RT: Reticular nucleus [thalamus] SI: Substantia innominata SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium | <ul style="list-style-type: none"> emlth: External medullary lamina [thalamus] ext: External capsule fx: Fornix hipg: Hippocampal glioepithelium/ependyma int: Internal capsule stt: Stria terminalis tect: Transient cell zone in the external capsule wmf: White matter fibers |
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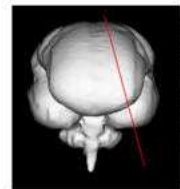
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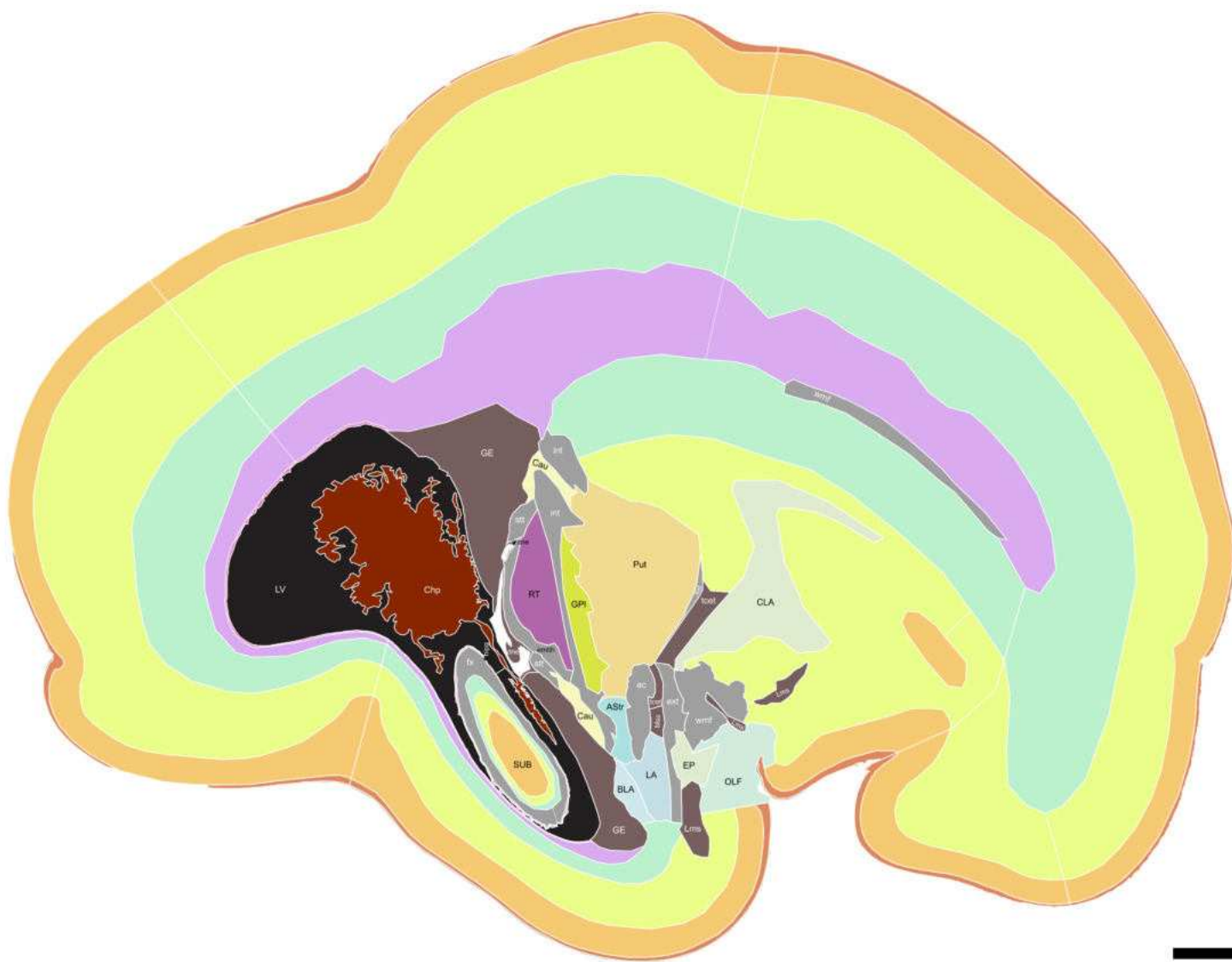
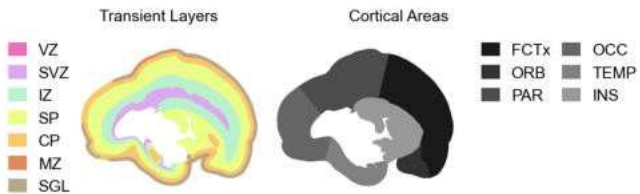
L-R Level: -9.96 mm



5 mm



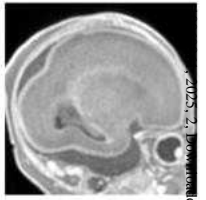
L-R Level: -9.96 mm



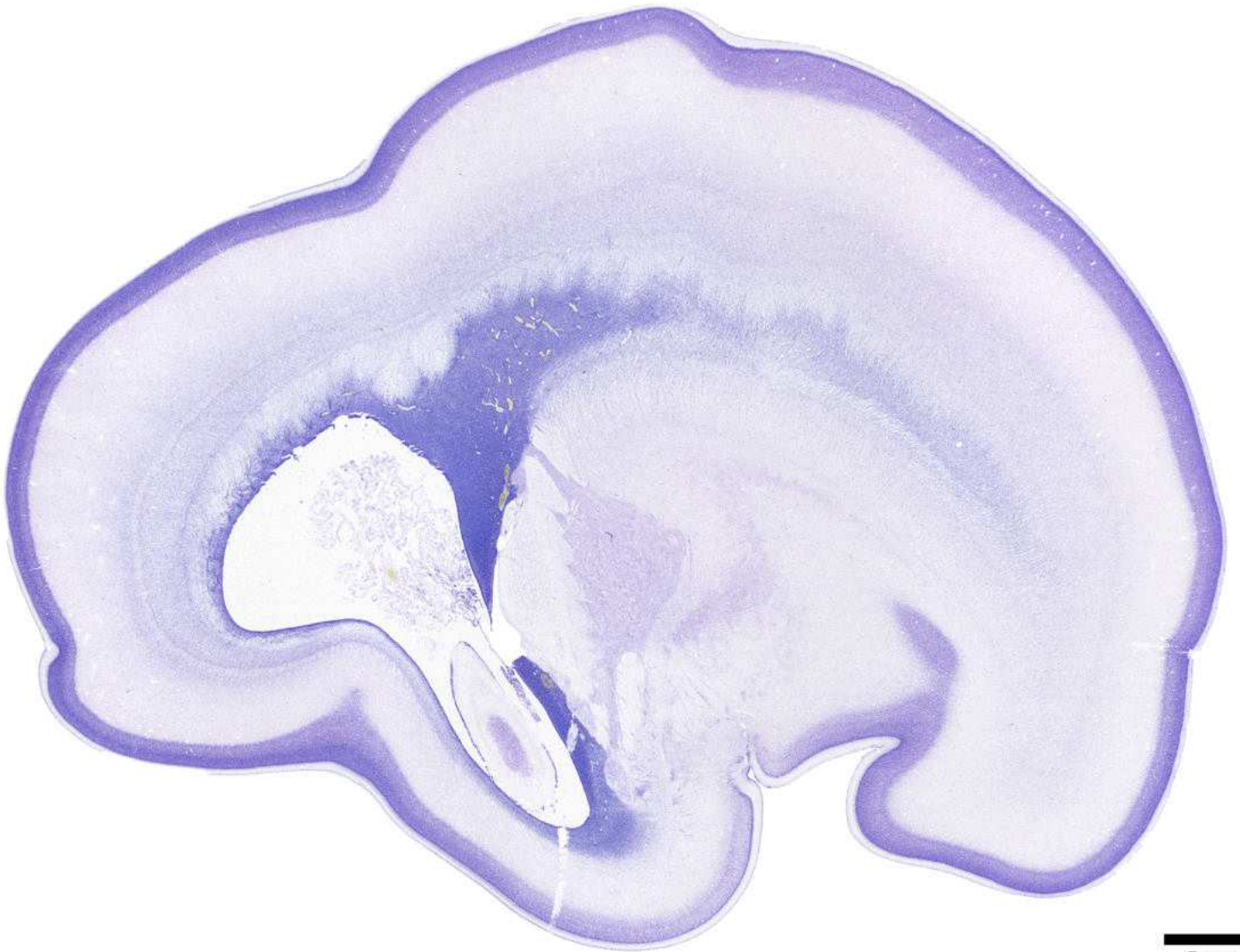
5 mm

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|---|--|--|---|
| <ul style="list-style-type: none"> ASr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CLA: Claustrum Cau: Caudate nucleus Chp: Choroid plexus EP: Endopiriform nucleus GE: Ganglionic eminence | <ul style="list-style-type: none"> GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LV: Lateral ventricle Lms: Lateral migratory stream Mss: Migratory streams Put: Putamen | <ul style="list-style-type: none"> RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule | <ul style="list-style-type: none"> fx: Fornix hipg: Hippocampal glioeepithelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|---|--|--|---|

Age: 24 GW

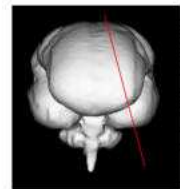


L-R Level: -10.08 mm

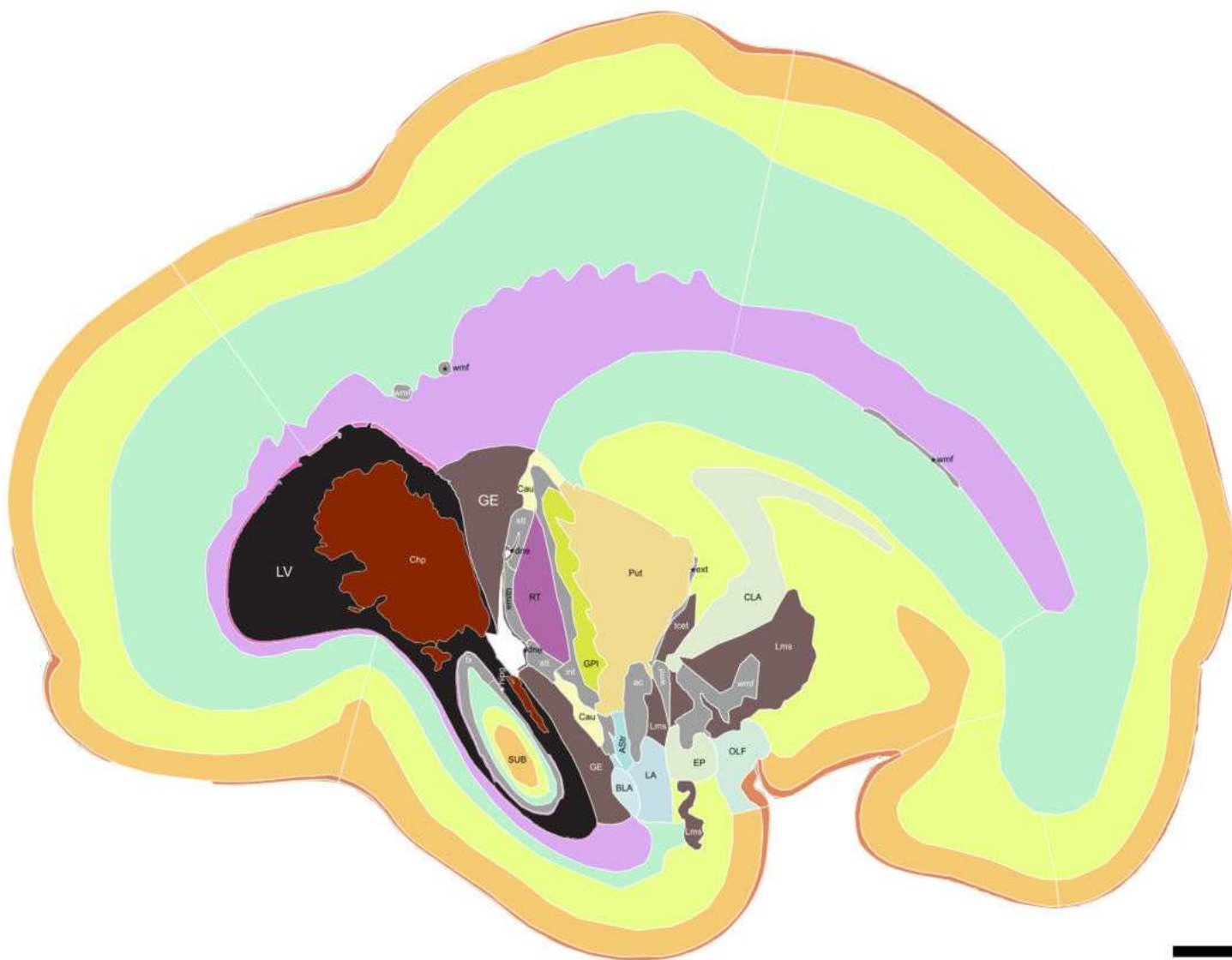
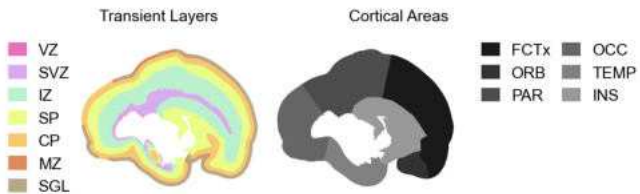


5 mm

Age: 24 GW



L-R Level: -10.08 mm

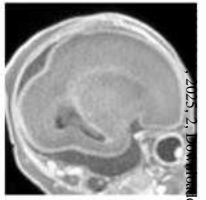


5 mm

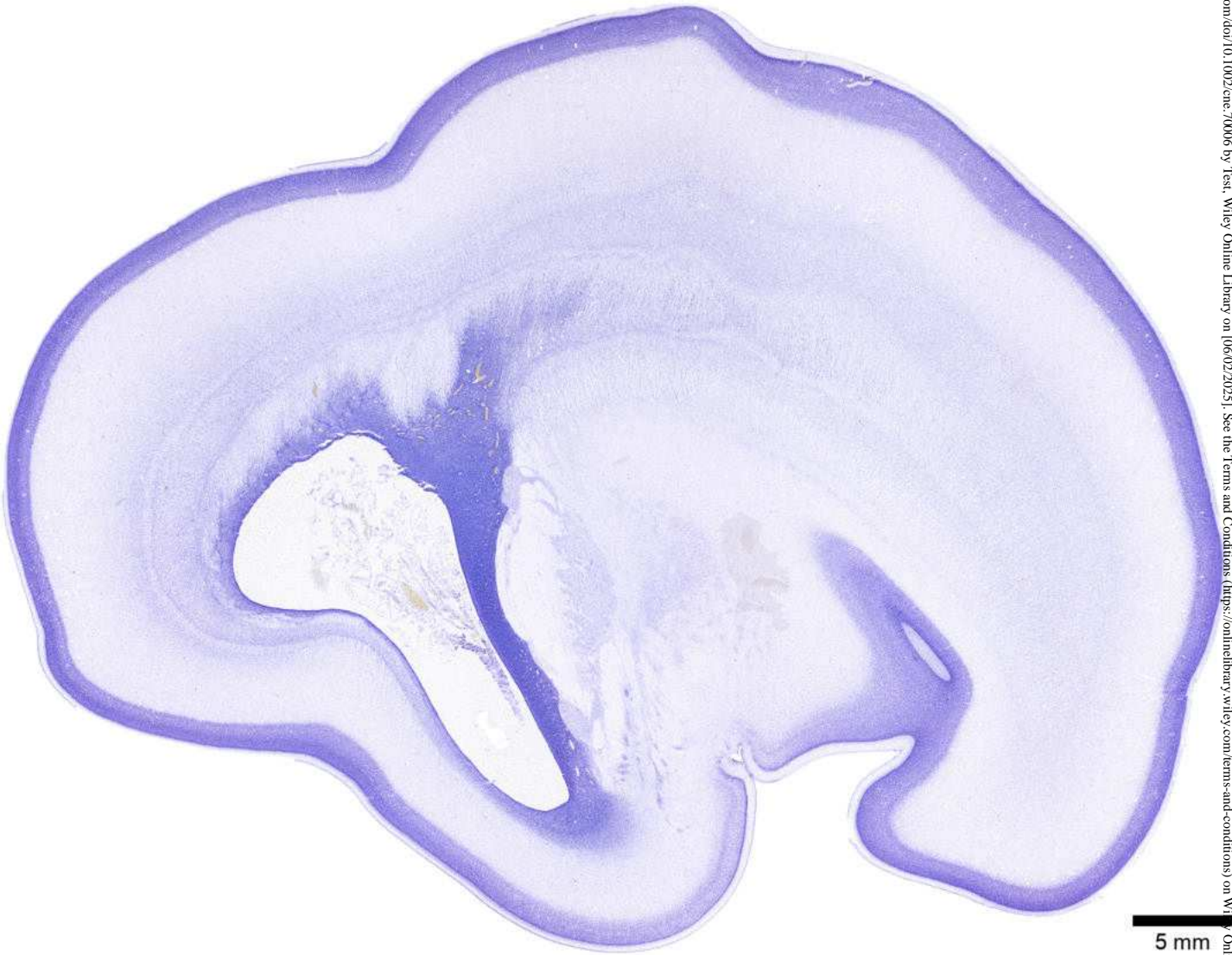
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> Astr: Amygdalo-striatal area BL: Basal nucleus [amygdala] CLA: Claustrum Cau: Caudate nucleus Chp: Choroid plexus EP: Endopiriform nucleus | <ul style="list-style-type: none"> GE: Ganglionic eminence GPI: Globus pallidus lateral segment LA: Lateral nucleus [amygdala] LV: Lateral ventricle Lms: Lateral migratory stream Put: Putamen | <ul style="list-style-type: none"> RT: Reticular nucleus [thalamus] SUB: Cortical plate, subiculum ac: Anterior commissure dne: Diencephalic neuroepithelium emlth: External medullary lamina [thalamus] ext: External capsule | <ul style="list-style-type: none"> fx: Fornix hipp: Hippocampal glioeptelium/ependyma int: Internal capsule stt: Stria terminalis tcet: Transient cell zone in the external capsule wmf: White matter fibers |
|---|---|--|--|

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Age: 24 GW

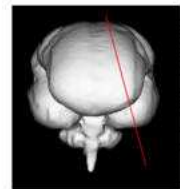


L-R Level: -10.5 mm

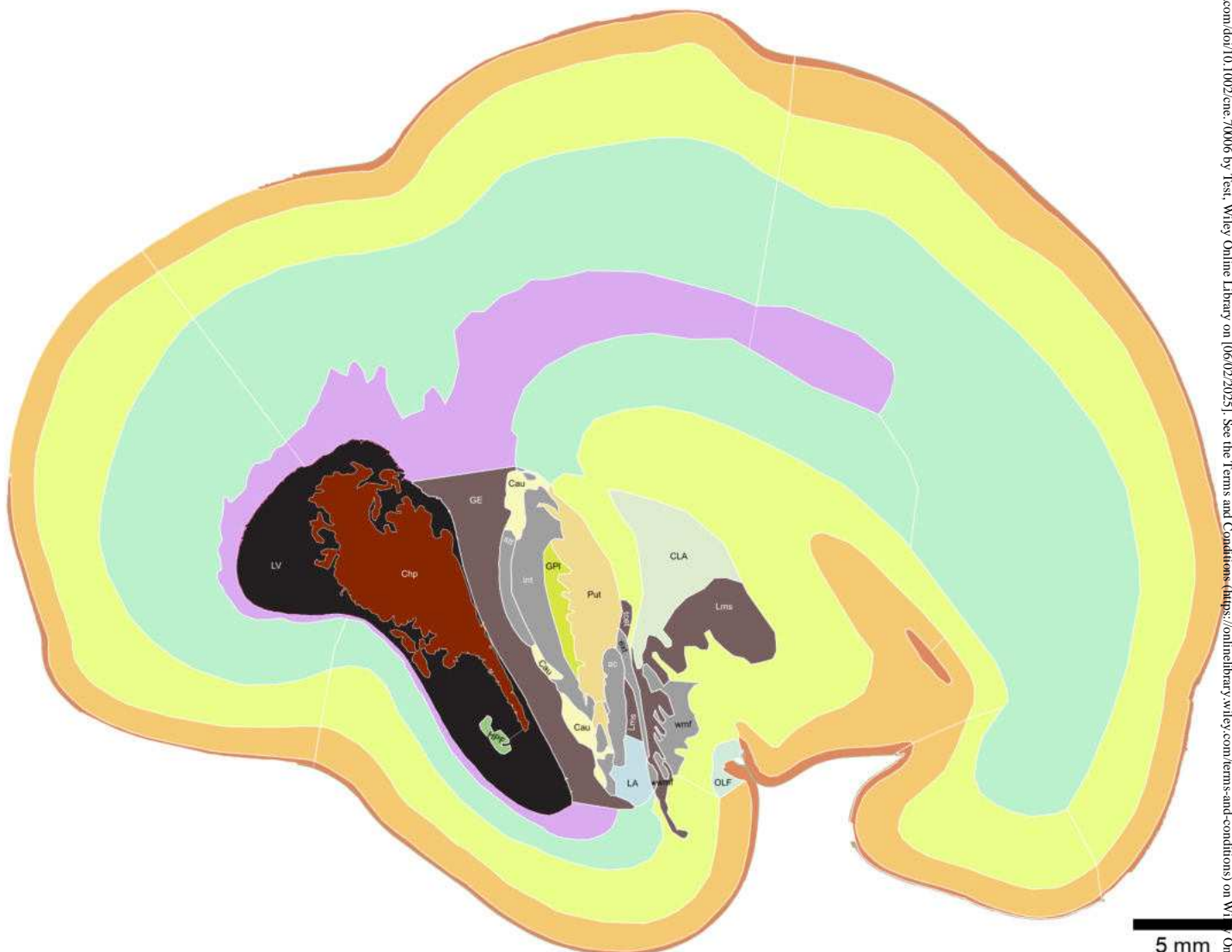
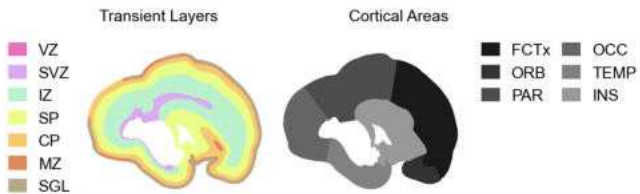


5 mm

Age: 24 GW



L-R Level: -10.5 mm

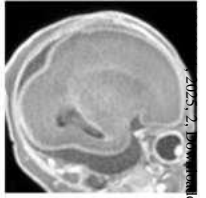


5 mm

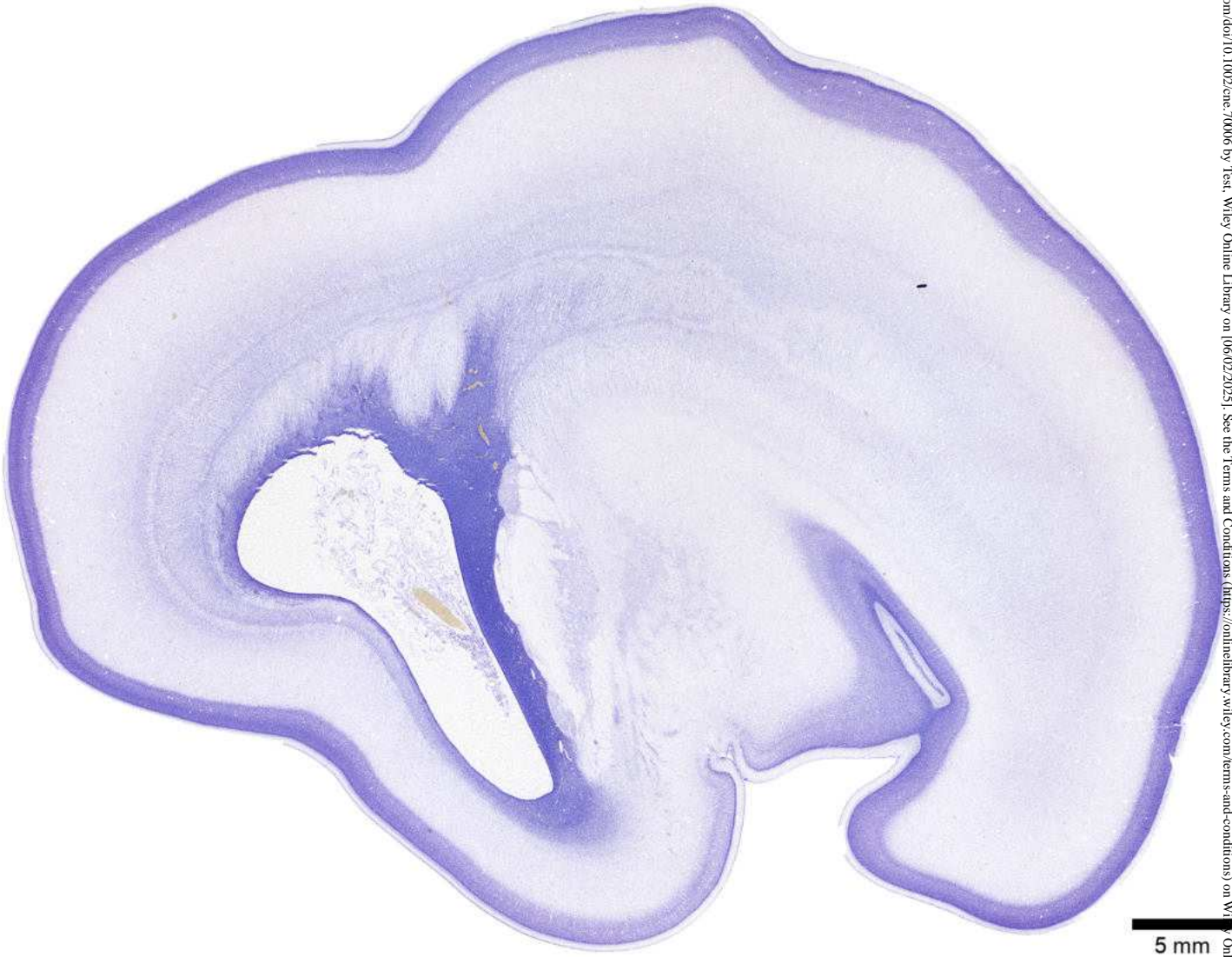
- | | | | |
|-------------------------|--------------------------------------|-------------------------------|---|
| CLA: Claustrum | GPI: Globus pallidus lateral segment | Lms: Lateral migratory stream | int: Internal capsule |
| Cau: Caudate nucleus | HPF: Hippocampal formation | Put: Putamen | stt: Stria terminalis |
| Chp: Choroid plexus | LA: Lateral nucleus [amygdala] | ac: Anterior commissure | toet: Transient cell zone in the external capsule |
| GE: Ganglionic eminence | LV: Lateral ventricle | ext: External capsule | wmf: White matter fibers |

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Age: 24 GW

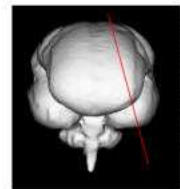


L-R Level: -11.34 mm

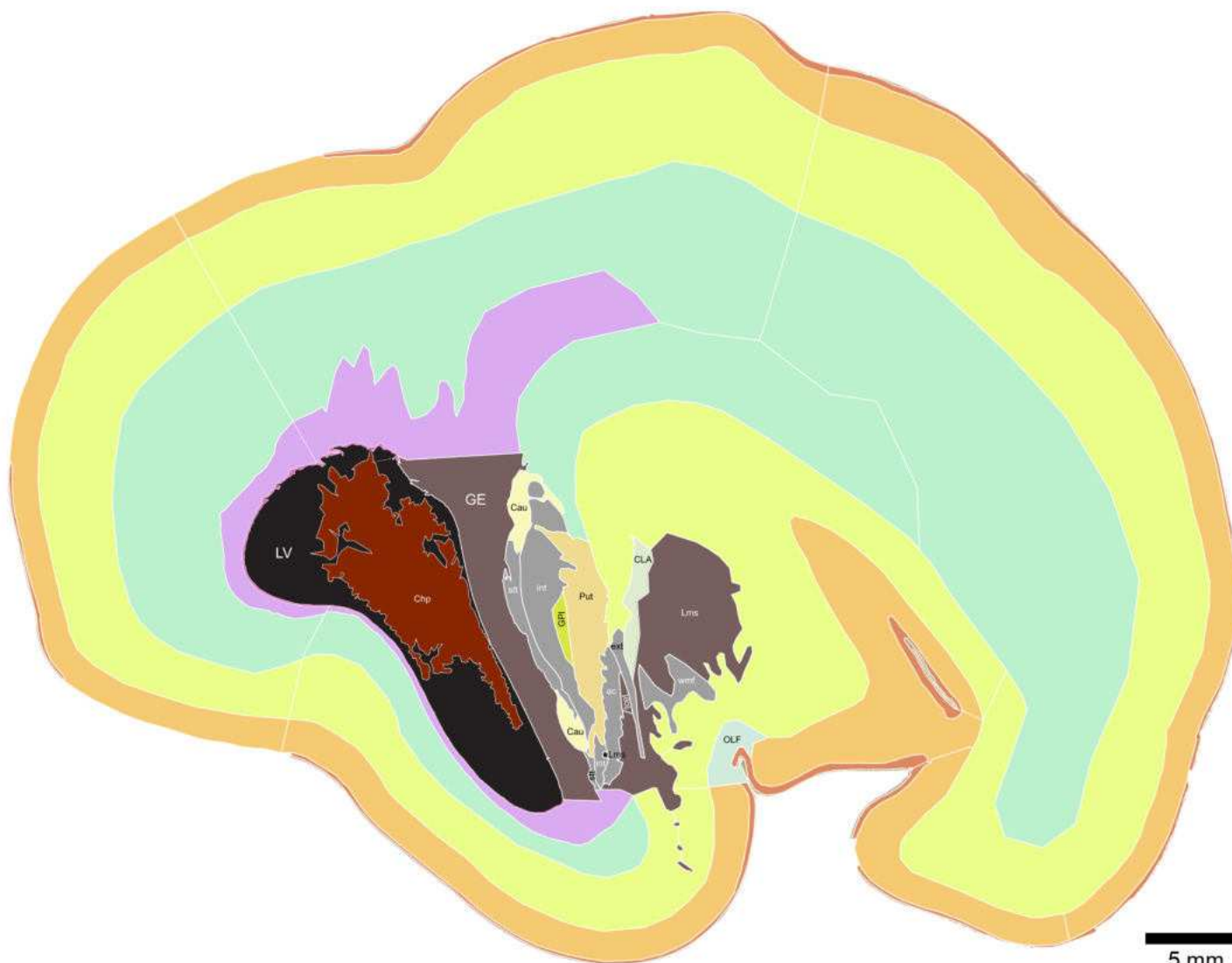
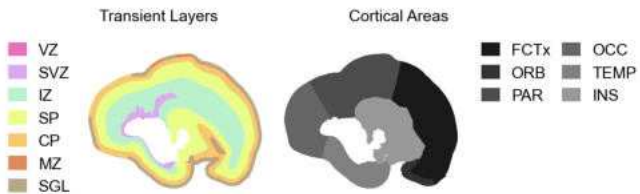


5 mm

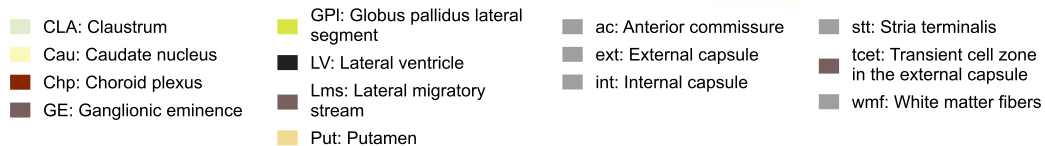
Age: 24 GW



L-R Level: -11.34 mm

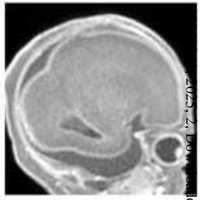


5 mm

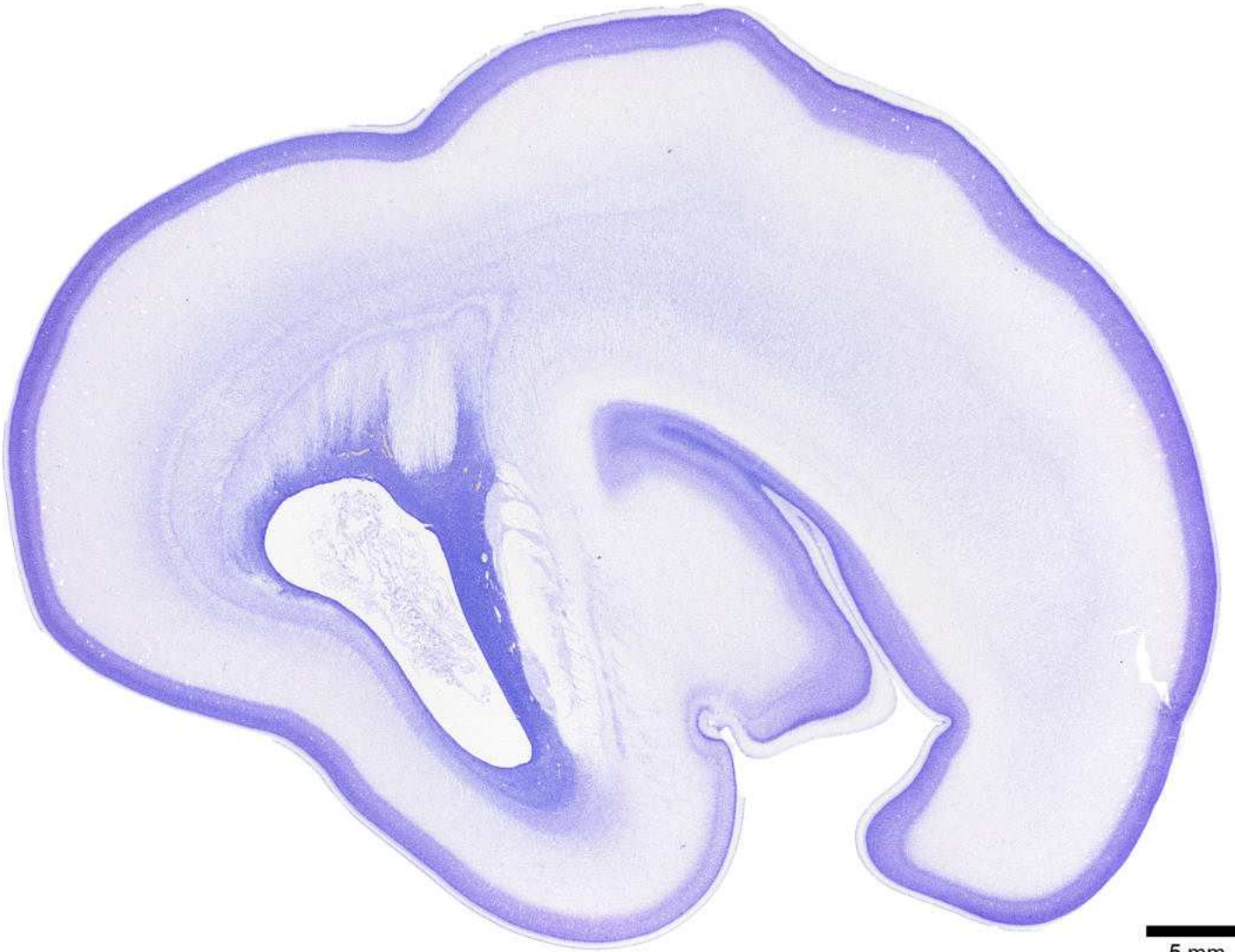


<https://onlinelibrary.wiley.com/doi/10.1002/ene.70006> by Test, Wiley Online Library on [06/02/2025]. See the Terms and Conditions (<https://onlinelibrary.wiley.com/terms-and-conditions>) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Age: 24 GW

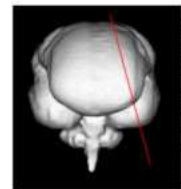


L-R Level: -11.7 mm

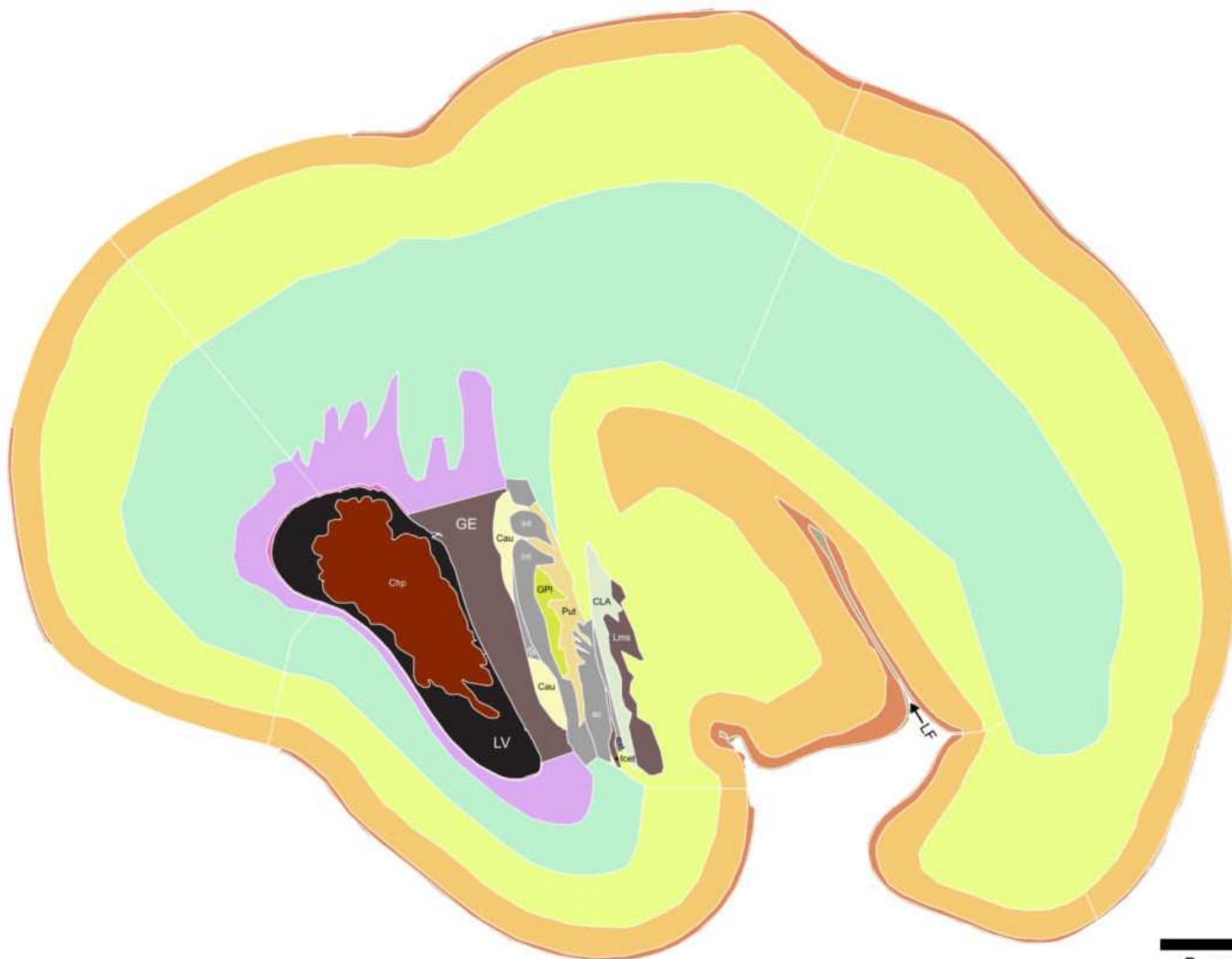
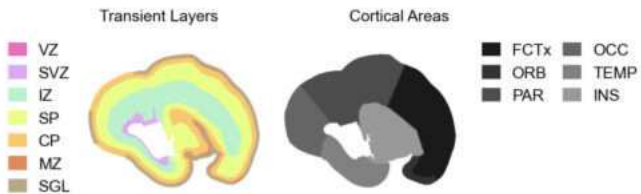


5 mm

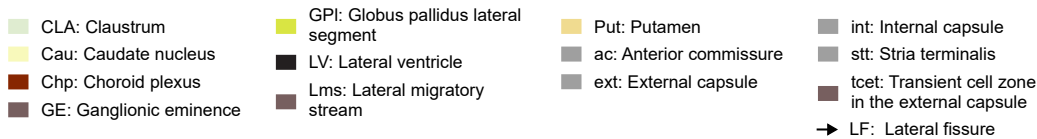
Age: 24 GW



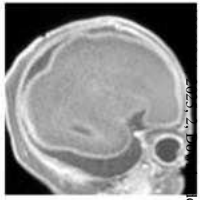
L-R Level: -11.7 mm



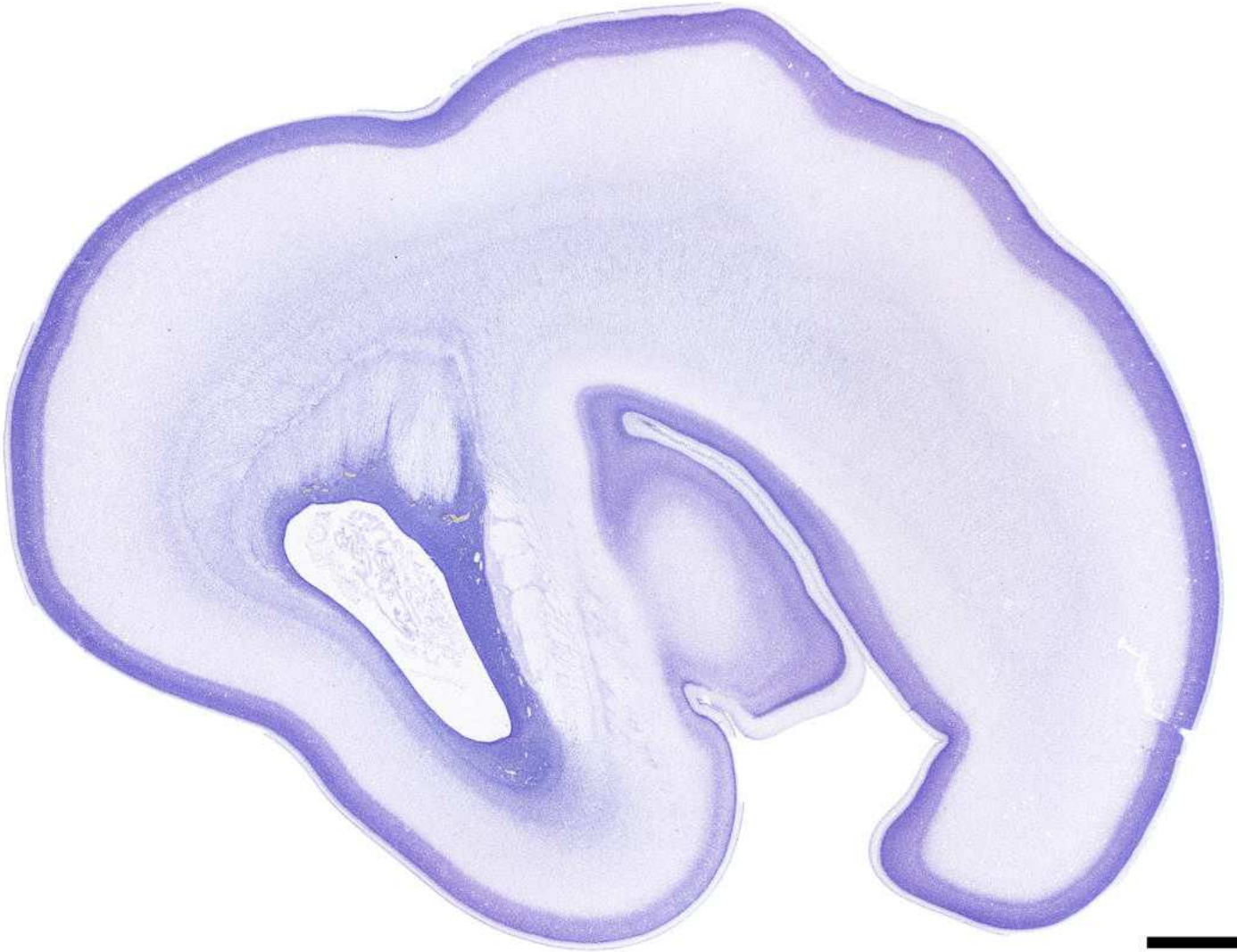
5 mm



Age: 24 GW

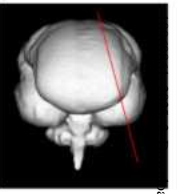


L-R Level: -12.3 mm

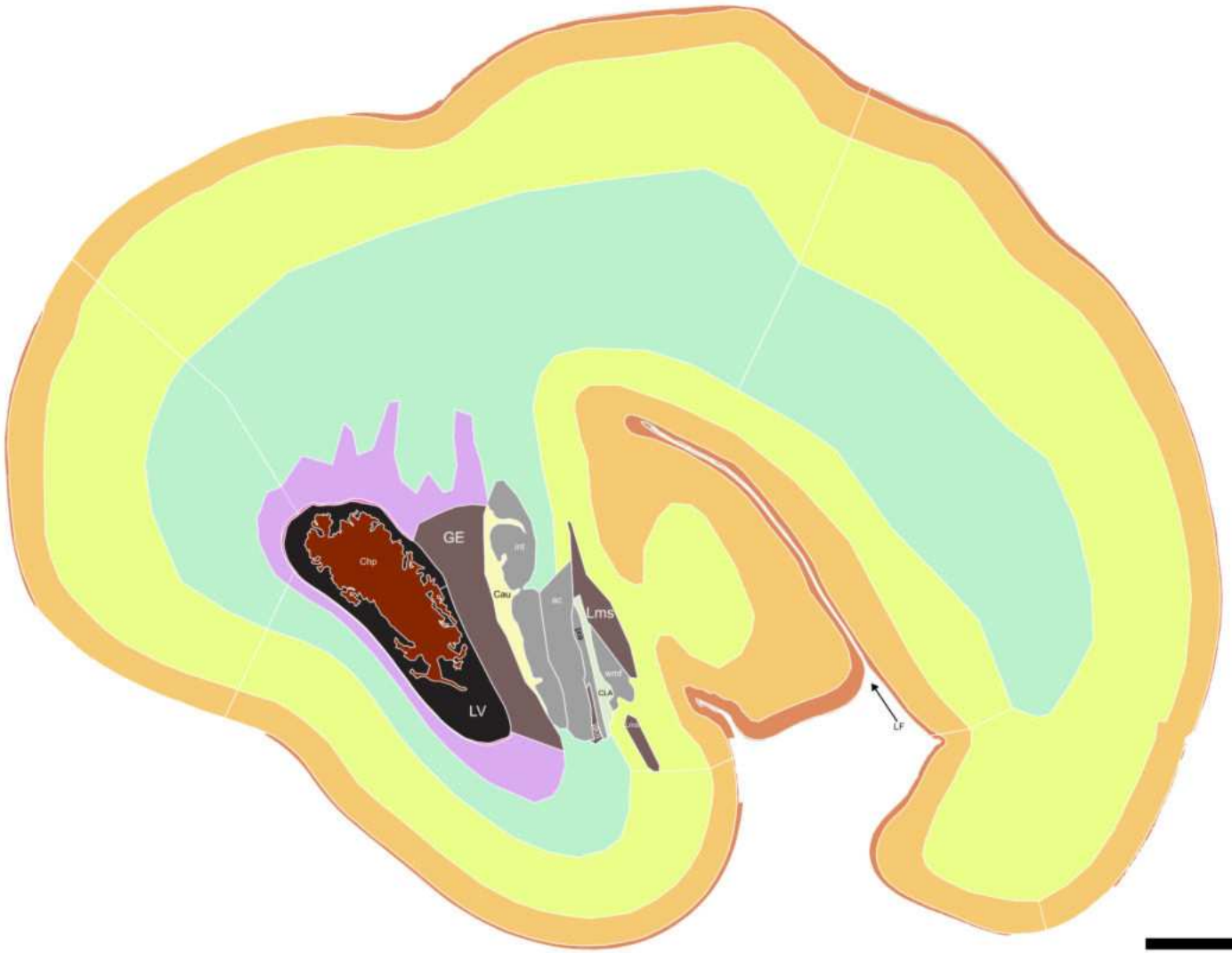
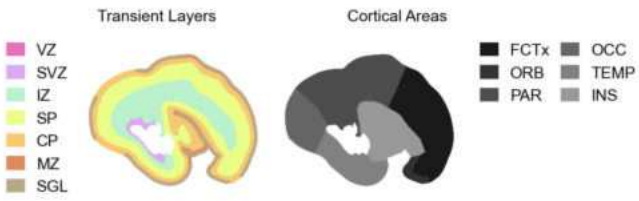


5 mm

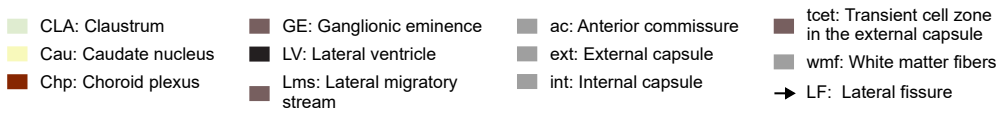
Age: 24 GW



L-R Level: -12.3 mm



5 mm



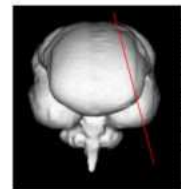
Age: 24 GW



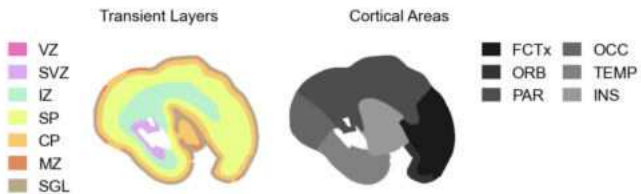
L-R Level: -13.02 mm



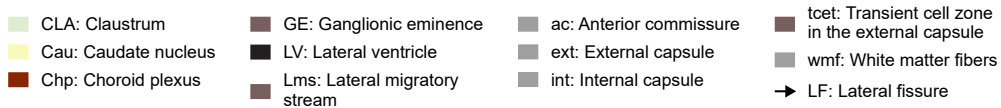
5 mm



L-R Level: -13.02 mm



5 mm



Age: 24 GW

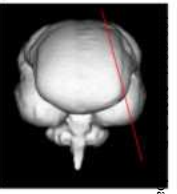


L-R Level: -13.8 mm

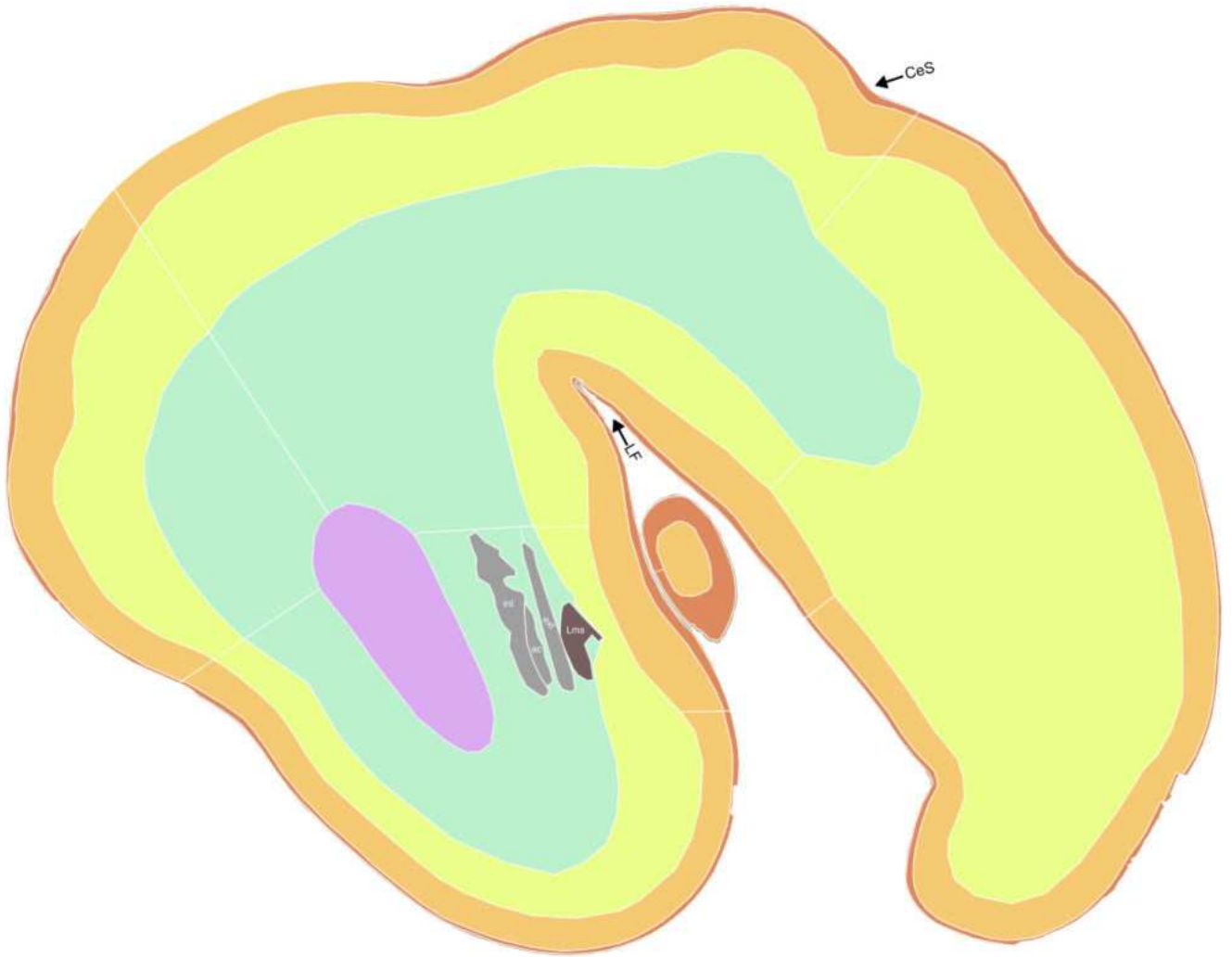
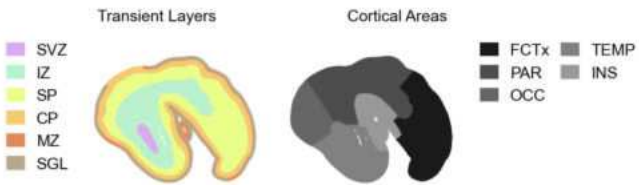


5 mm

Age: 24 GW



L-R Level: -13.8 mm



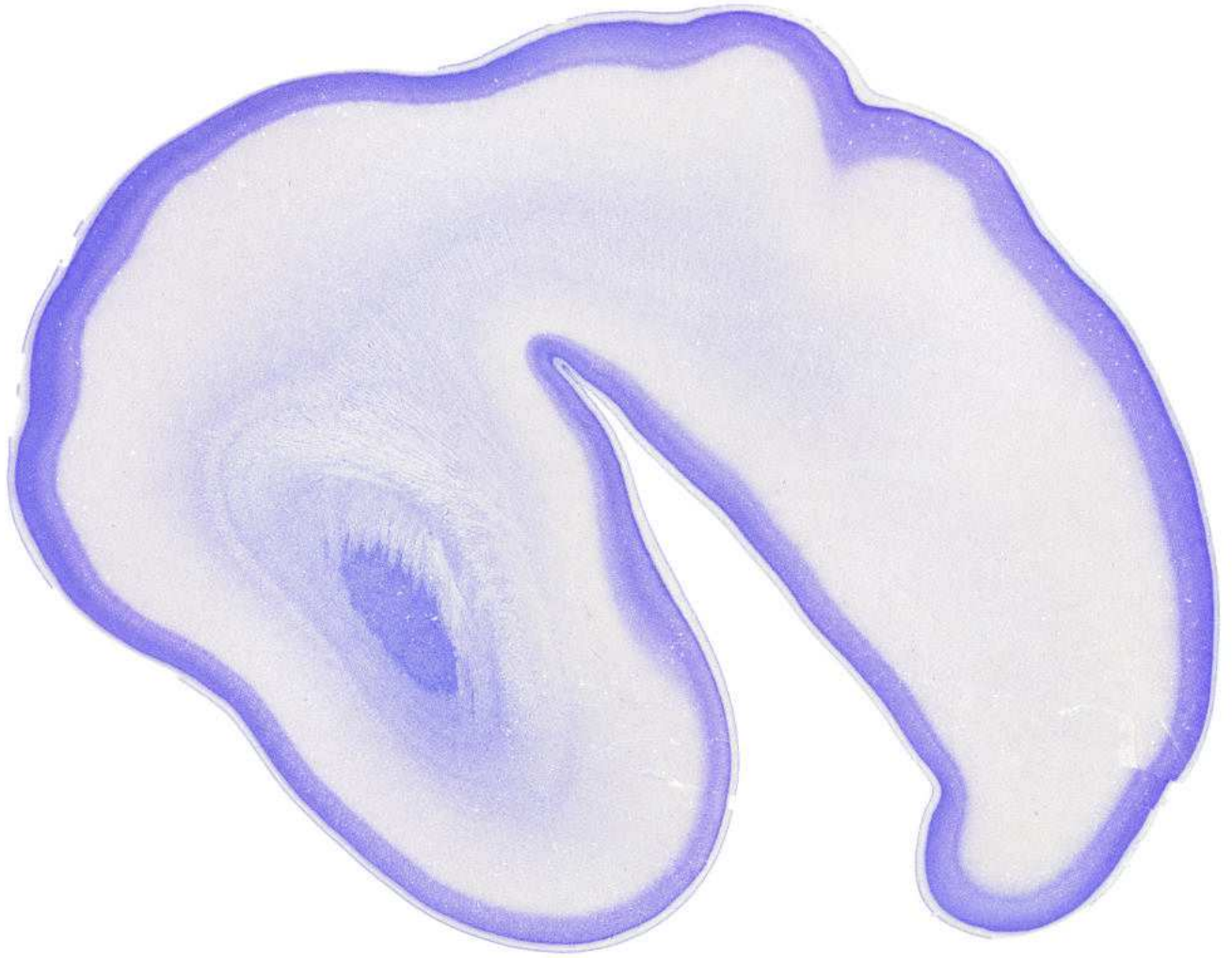
■ Lms: Lateral migratory stream ■ ac: Anterior commissure ■ ext: External capsule ■ int: Internal capsule
 → LF: Lateral fissure
 → CeS: Central sulcus

5 mm

Age: 24 GW

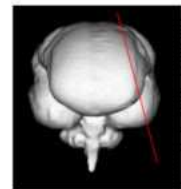


L-R Level: -14.28 mm

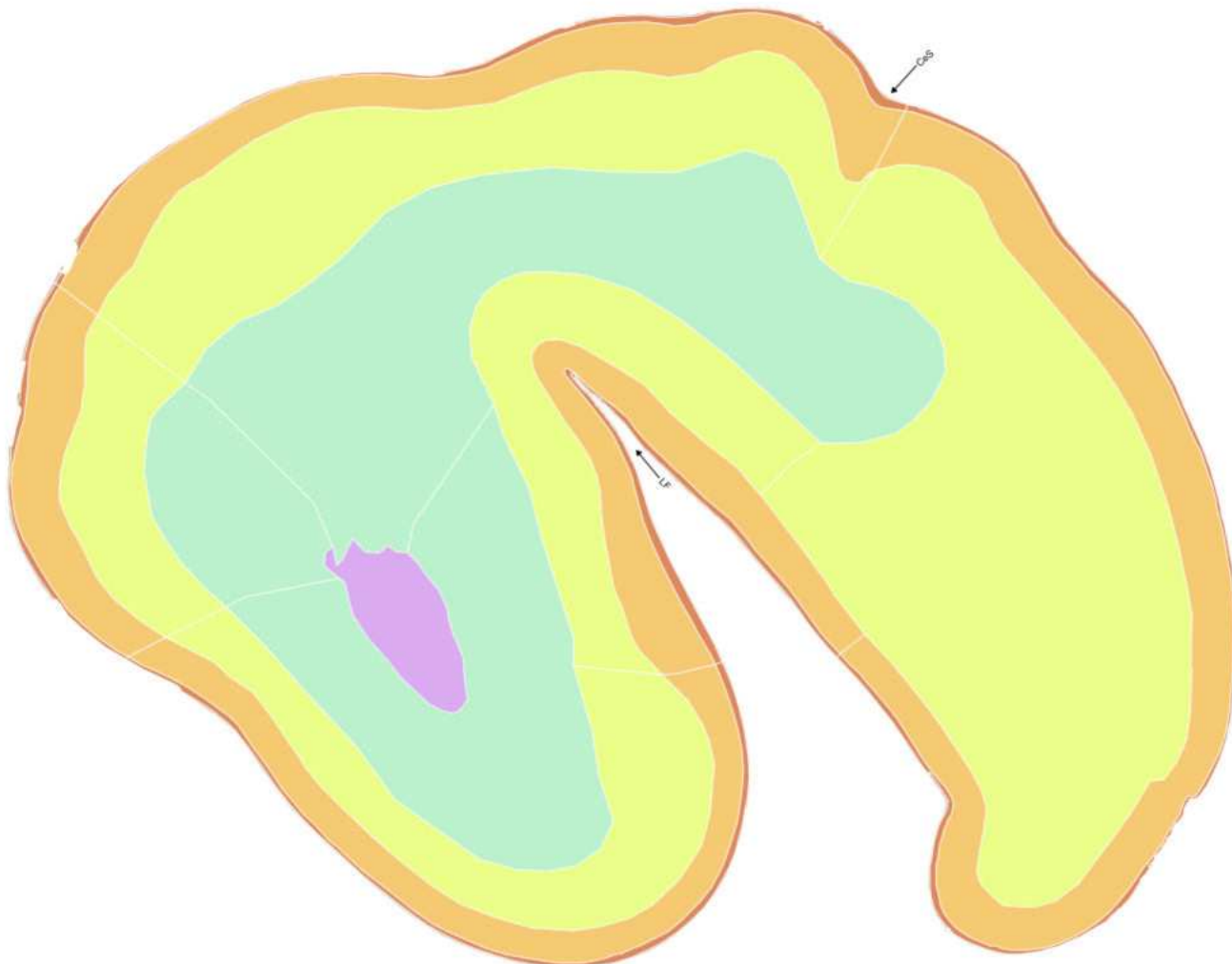
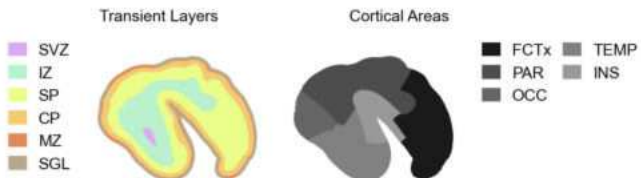


5 mm

Age: 24 GW



L-R Level: -14.28 mm



5 mm

→ CeS: Central sulcus
→ LF: Lateral fissure

Age: 24 GW

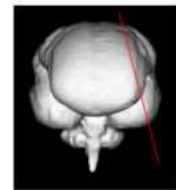


L-R Level: -14.46 mm



5 mm

Age: 24 GW



L-R Level: -14.46 mm

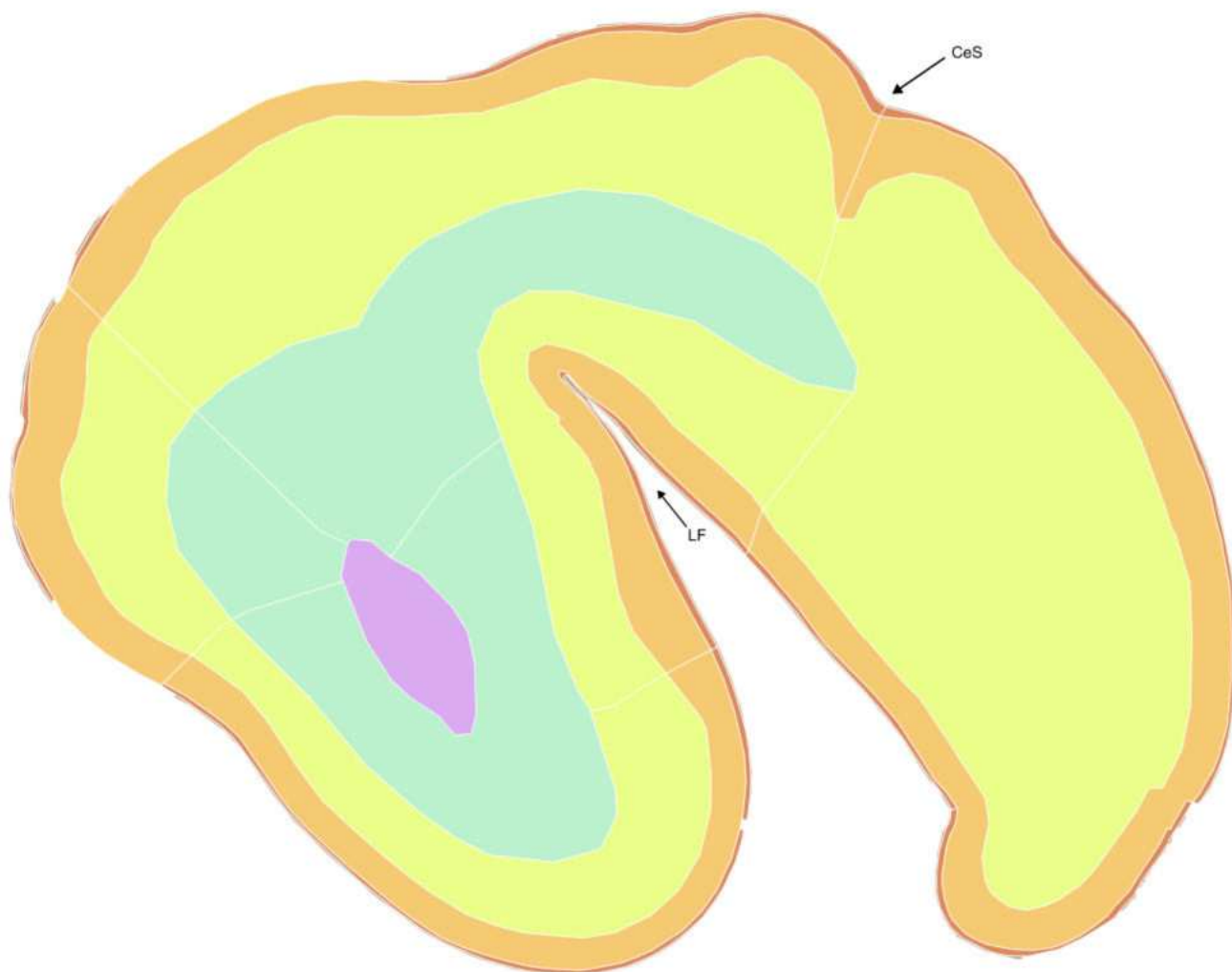
Transient Layers



Cortical Areas



- FCTX
- PAR
- OCC
- TEMP
- INS

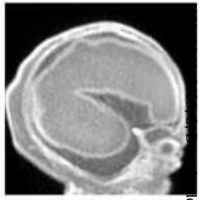


5 mm

→ LF: Lateral fissure

→ CeS: Central sulcus

Age: 24 GW

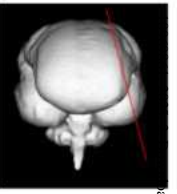


L-R Level: -15.36 mm

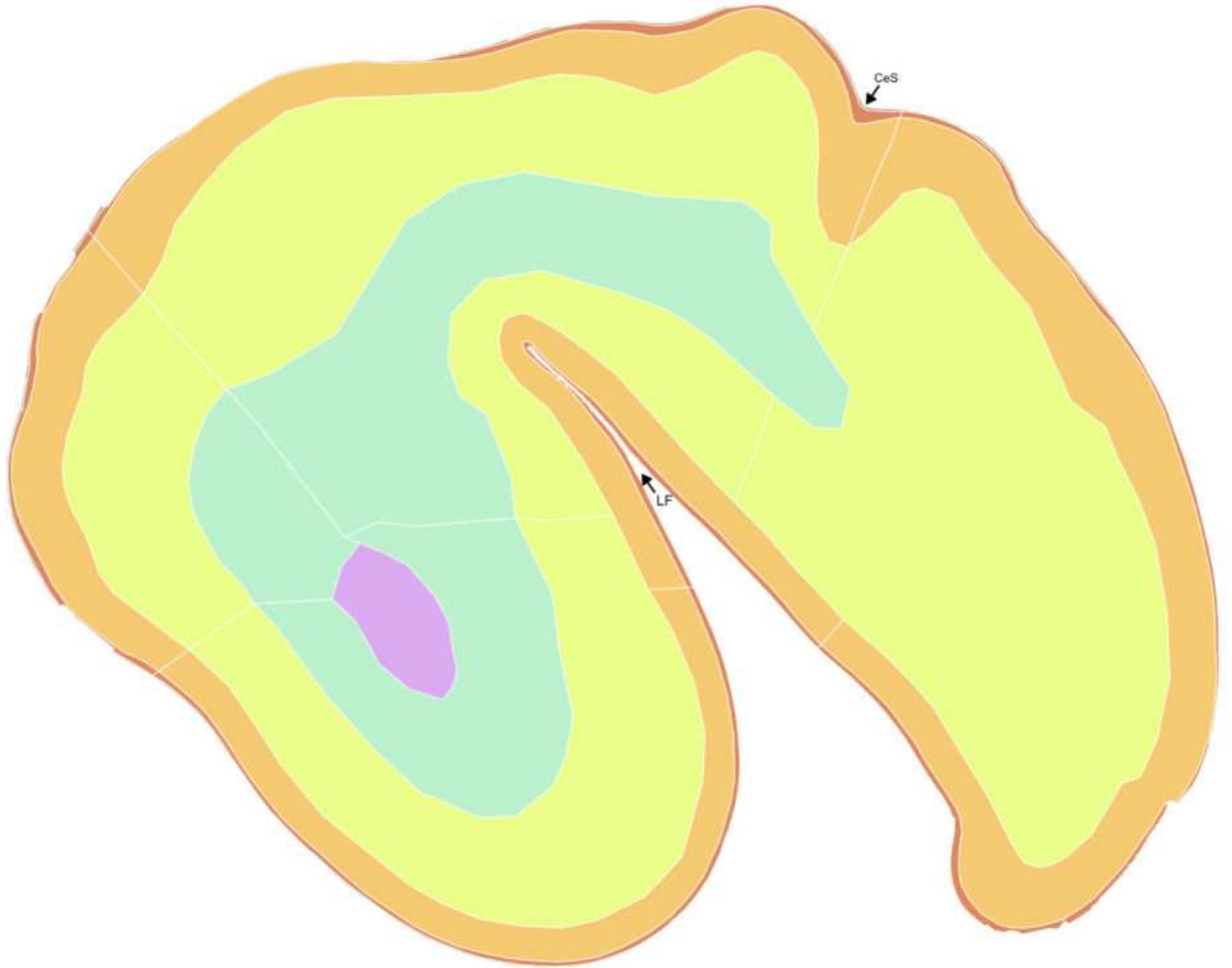
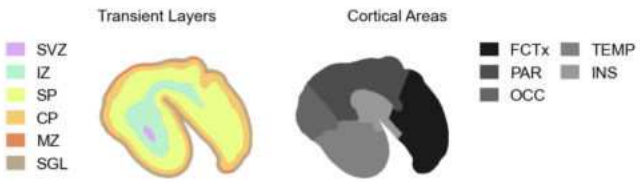


5 mm

Age: 24 GW



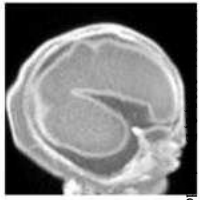
L-R Level: -15.36 mm



5 mm

- CeS: Central sulcus
- LF: Lateral fissure

Age: 24 GW

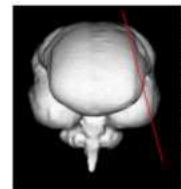


L-R Level: -16.14 mm

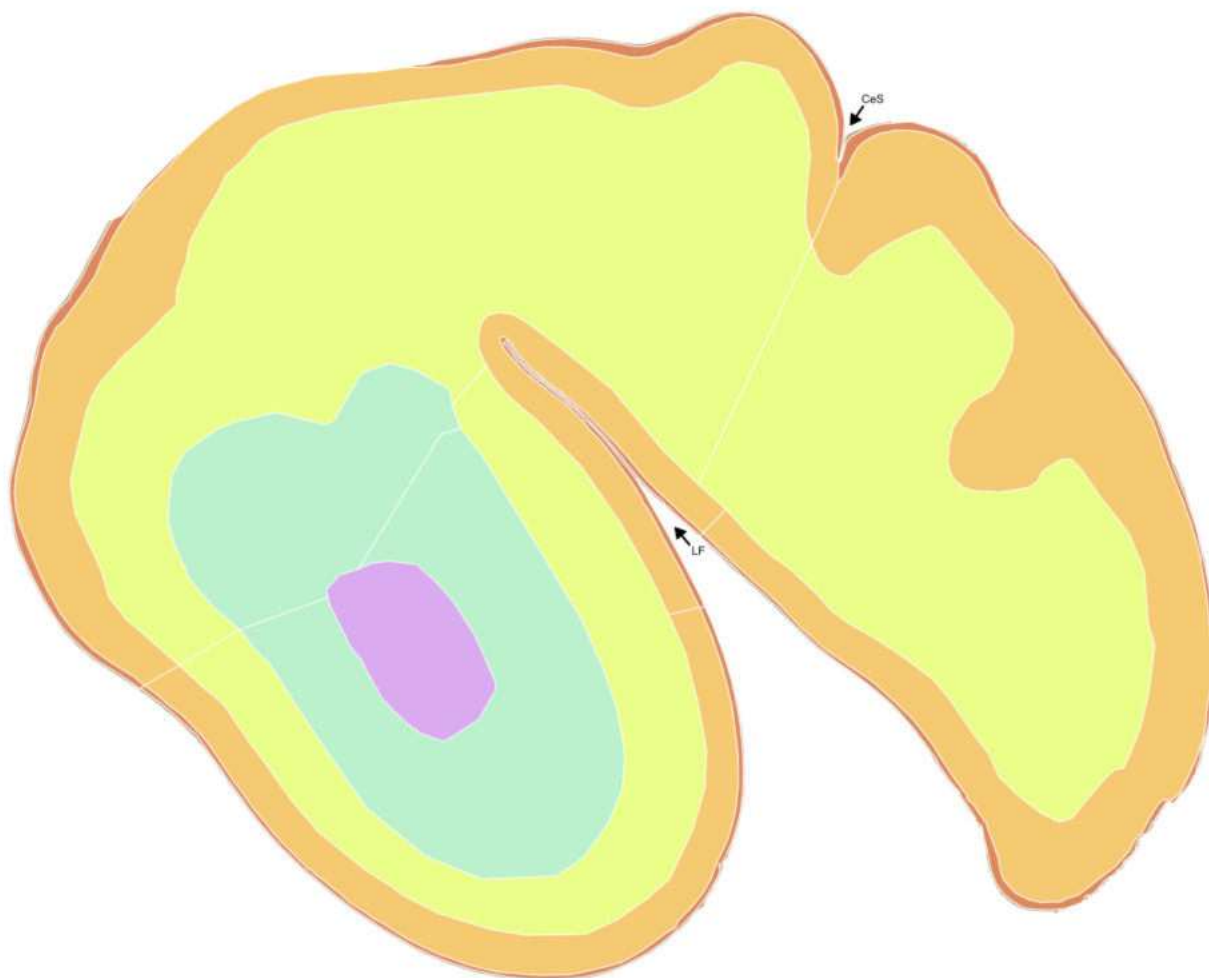
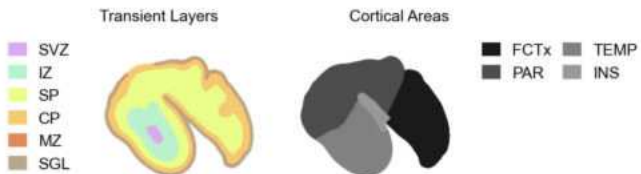


5 mm

Age: 24 GW



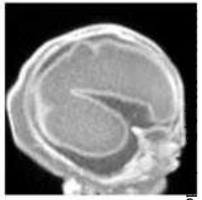
L-R Level: -16.14 mm



→ CeS: Central sulcus
→ LF: Lateral fissure

5 mm

Age: 24 GW

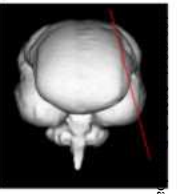


L-R Level: -16.62 mm

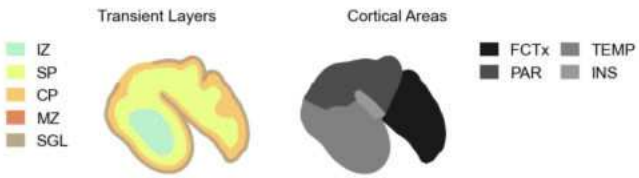


5 mm

Age: 24 GW



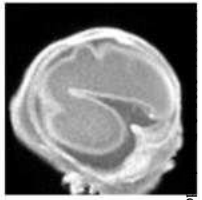
L-R Level: -16.62 mm



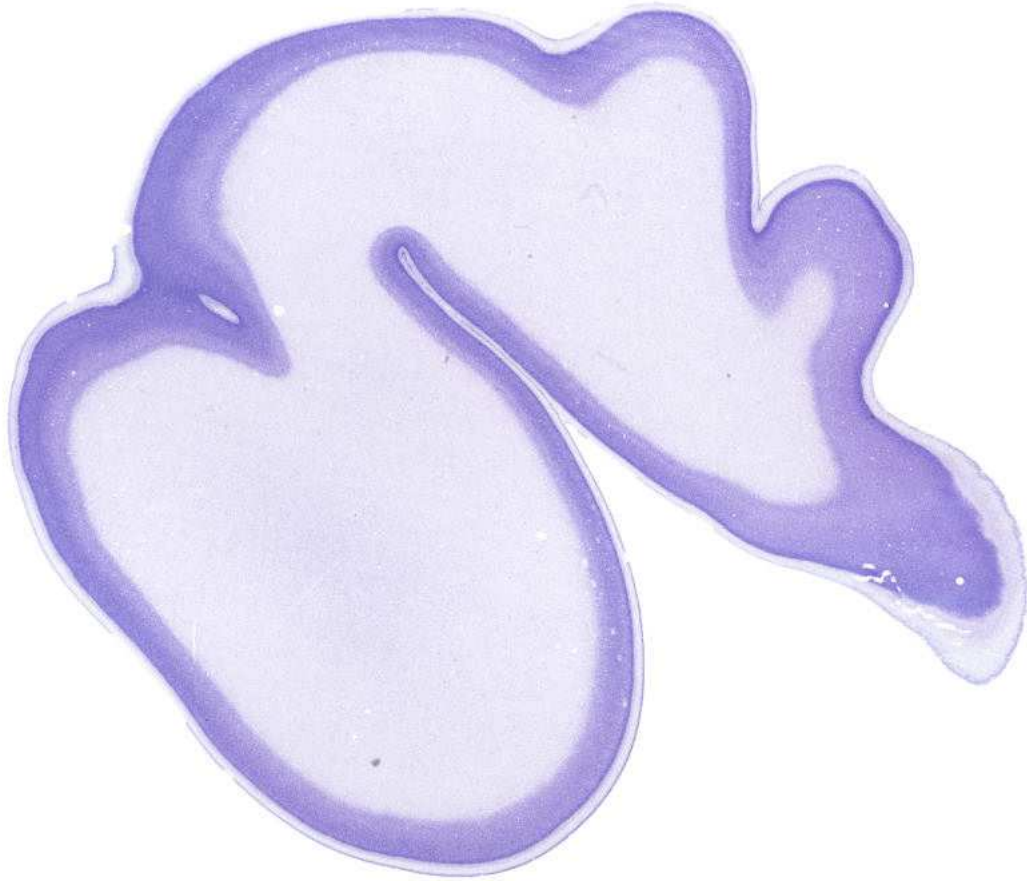
→ CeS: Central sulcus
→ LF: Lateral fissure

5 mm

Age: 24 GW

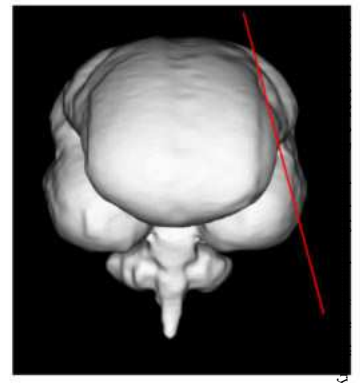
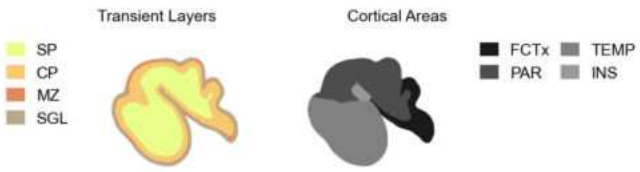


L-R Level: -18.3 mm

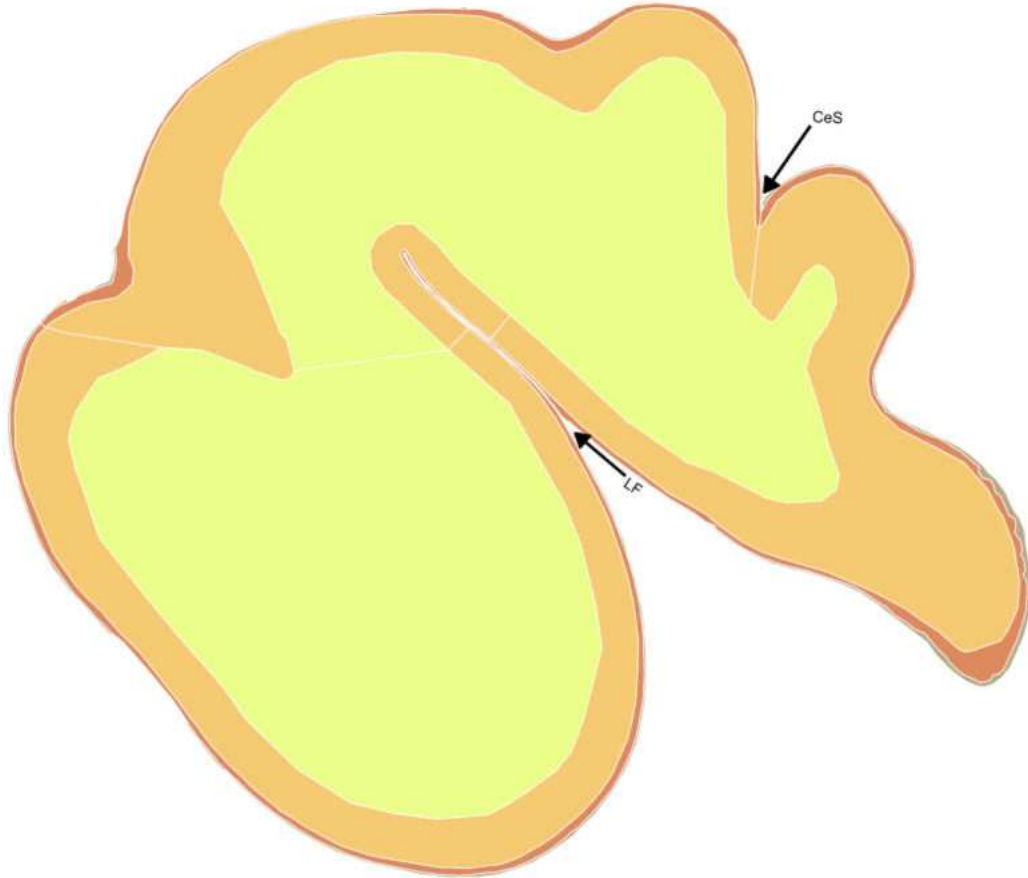


5 mm

Age: 24 GW



L-R Level: -18.3 mm

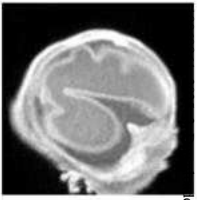


5 mm

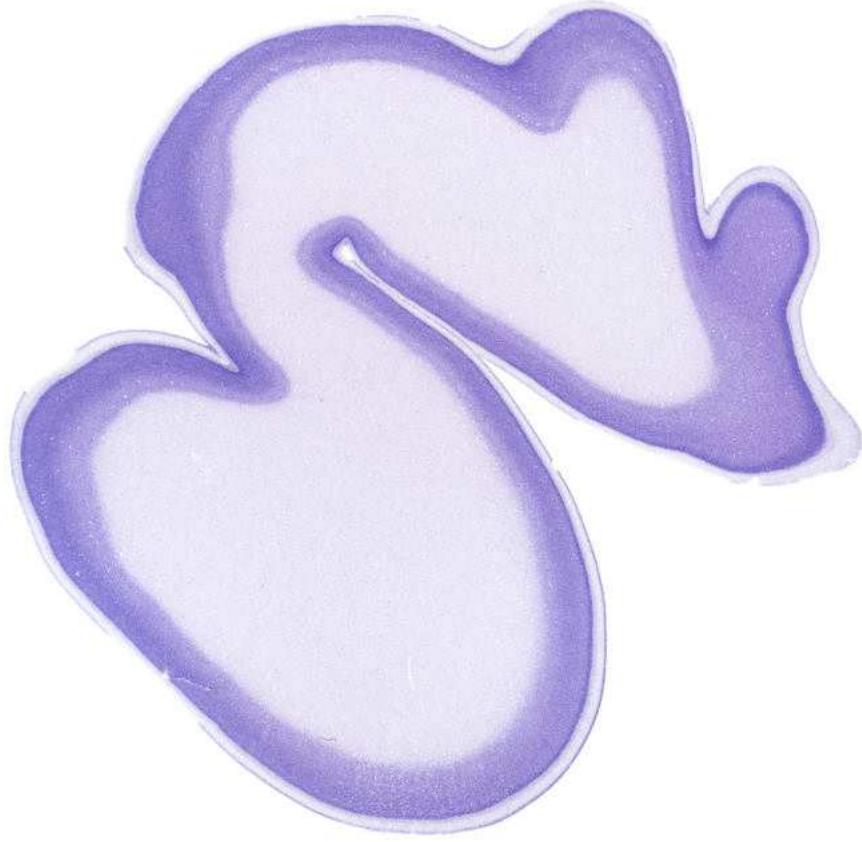
→ LF: Lateral fissure

→ CeS: Central sulcus

Age: 24 GW

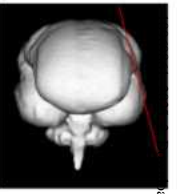


L-R Level: -19.8 mm

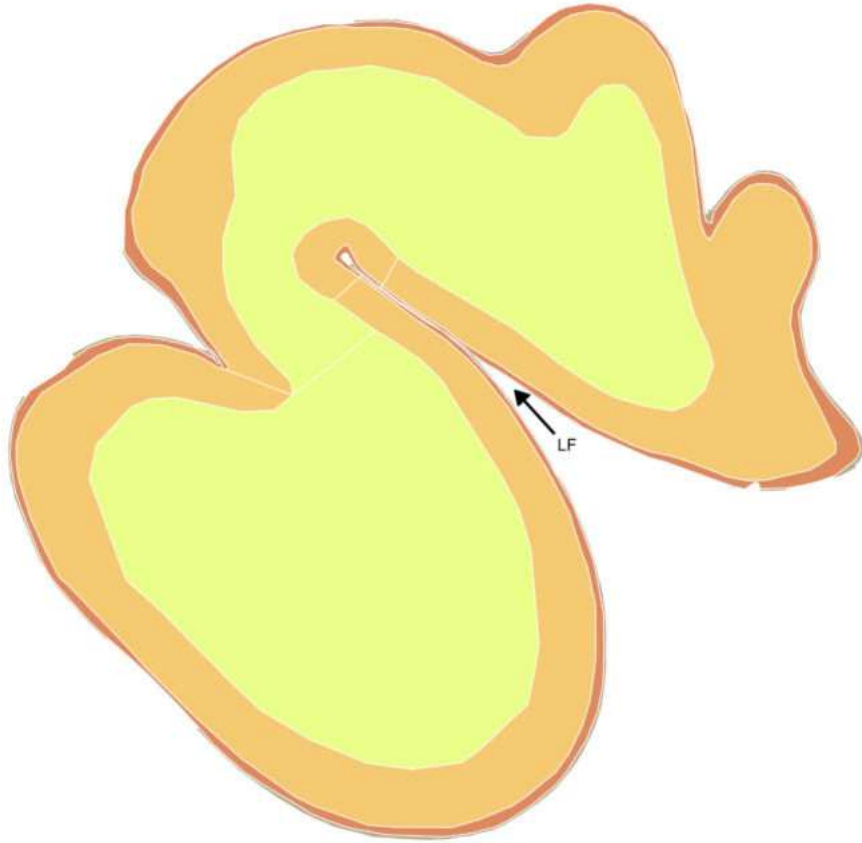
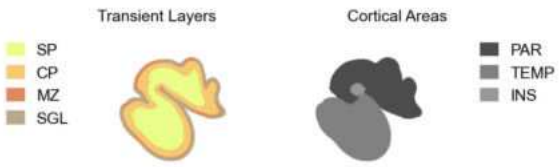


5 mm

Age: 24 GW



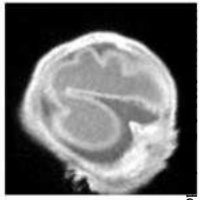
L-R Level: -19.8 mm



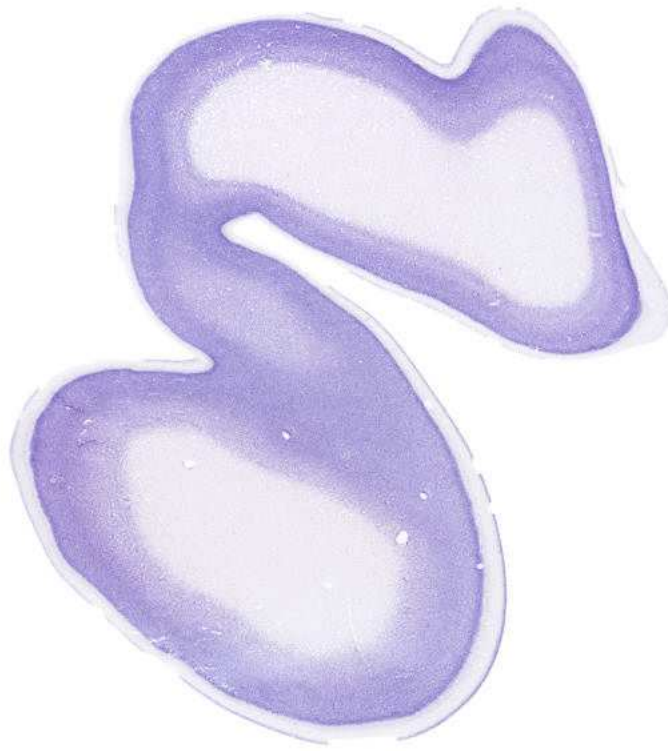
→ Lateral Fissure

5 mm

Age: 24 GW

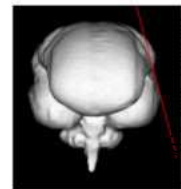


L-R Level: -21.24 mm



5 mm

Age: 24 GW



L-R Level: -21.24 mm

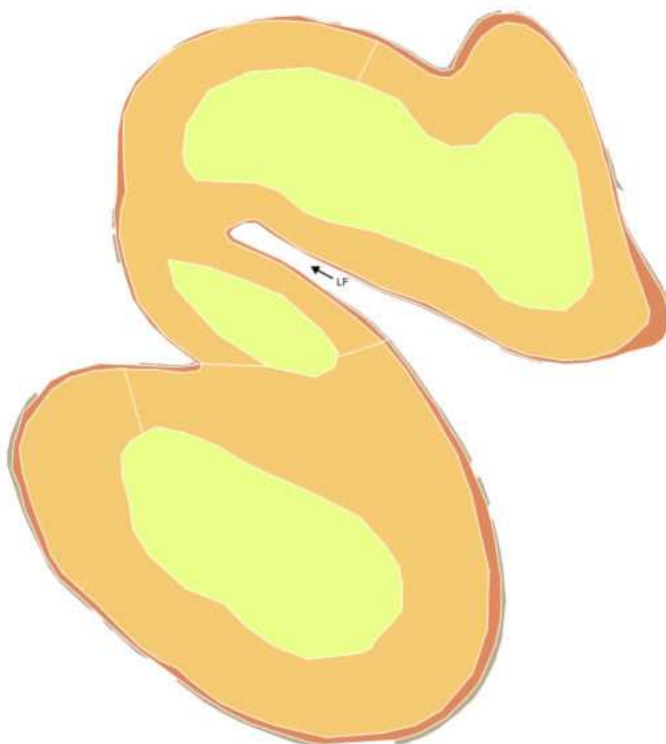
Transient Layers

- SP
- CP
- MZ
- SGL



Cortical Areas

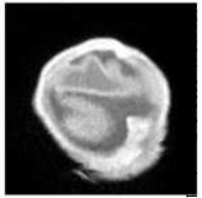
- PAR
- TEMP



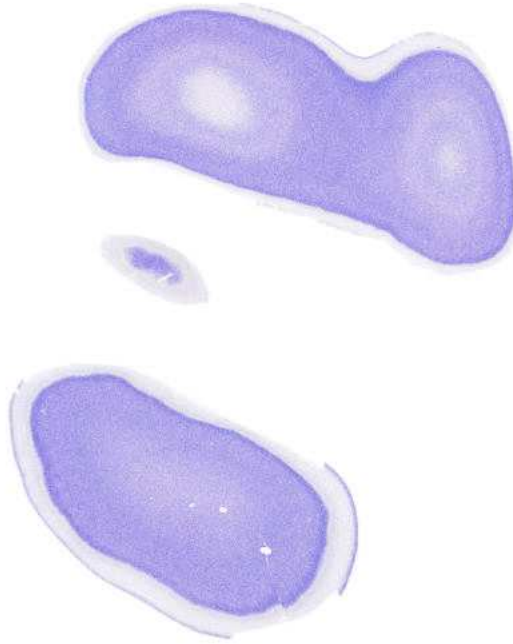
5 mm

→ LF: Lateral fissure

Age: 24 GW

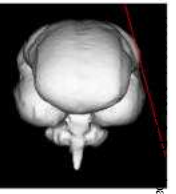


L-R Level: -22.38 mm

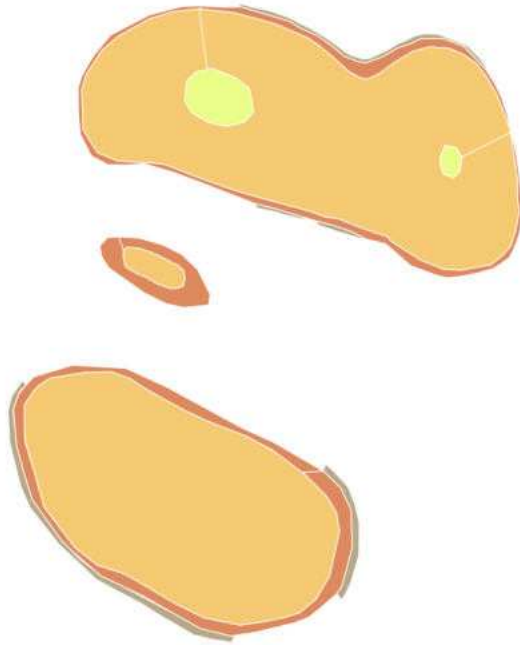


5 mm

Age: 24 GW

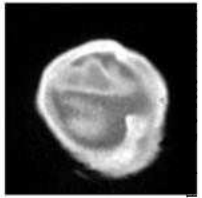


L-R Level: -22.38 mm

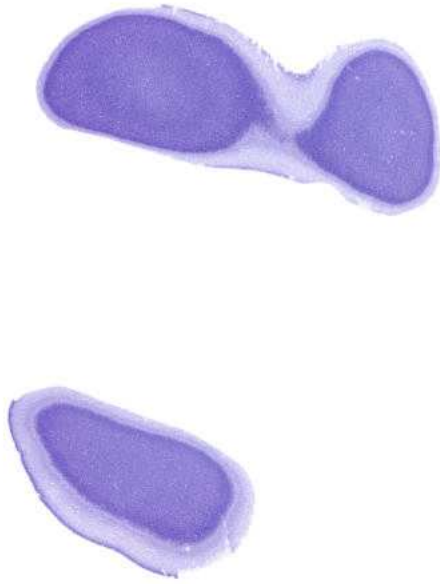


5 mm

Age: 24 GW

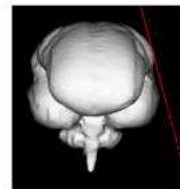


L-R Level: -22.98 mm

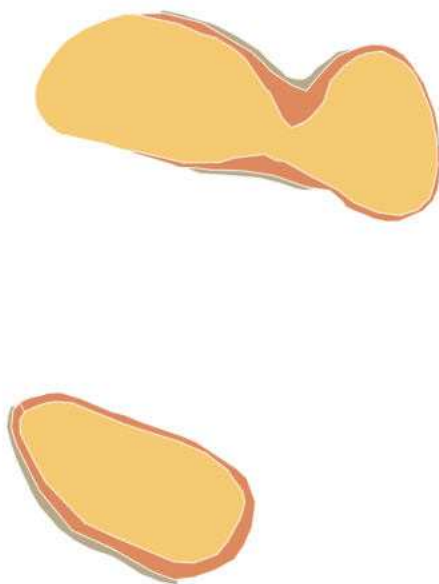


5 mm

Age: 24 GW

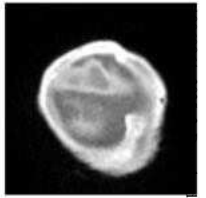


L-R Level: -22.98 mm

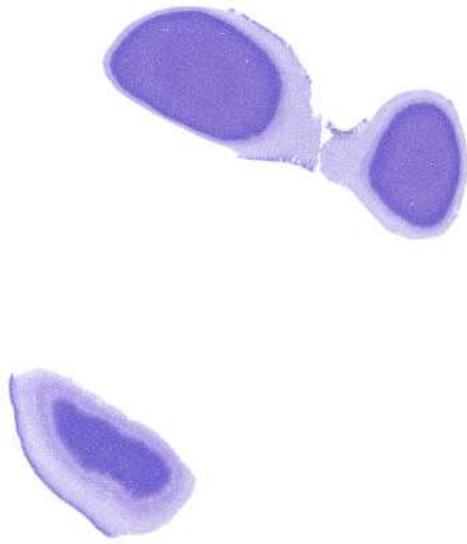


5 mm

Age: 24 GW

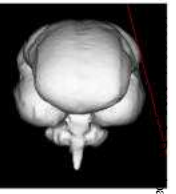


L-R Level: -23.22 mm

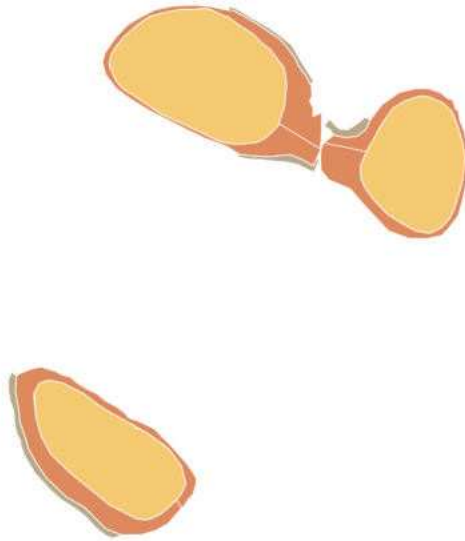


5 mm







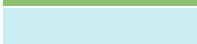


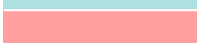






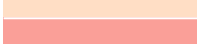



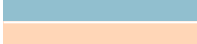

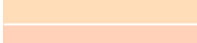














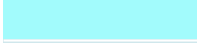

Age: 24 GW

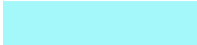














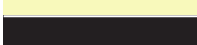



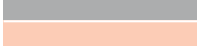


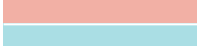

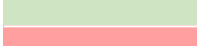







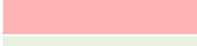








L-R Level: -23.22 mm





























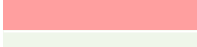
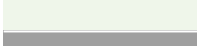














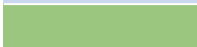













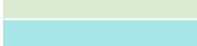


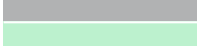
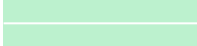
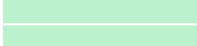

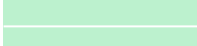
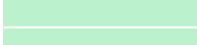
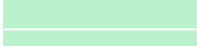
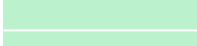
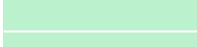
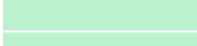
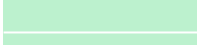
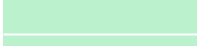
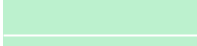
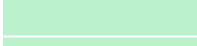
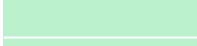
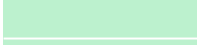

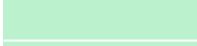
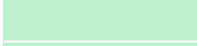
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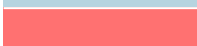




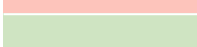









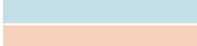
















NAME	ACRONYM	COLOR	ID
Abducens nerve	VI		466
Abducens nucleus	VIn		274
Accessory nucleus	XIn		373
Accumbent neuroepithelium	acbn		1024
Allocortex	AICTx		64
Ammon's horn	CA		83
Amygdala	AMY		135
Amygdalo-hippocampal area	AHi		138
Amygdalo-striatal area	AStr		393
Anisiform lobule, crus II	CRUSII		362
Ansa lenticularis	al		337
Anisiform lobule (HVIIA)	AN		360
Anisiform lobule, crus I	CRUSI		361
Anterior amygdaloid area	AAA		289
Anterior commissure	ac		243
Anterior complex of the thalamus	ANT		256
Anterior hypothalamic area	AHA		413
Anterior hypothalamic nucleus	AHN		384
Anterior lobe of cerebellum (H_V)	CBX-Ant		348
Anterior pretectal nucleus	APT		322
Anterodorsal nucleus of the thalamus	AD		163
Anteromedial nucleus of the thalamus	AM		164
Anteroventral nucleus of the thalamus	AV		165
Aqueduct	Aq		227
Archicortex	ArCTx		65
Arcuate nucleus of the hypothalamus	ARH		181
Arcuate nucleus of the medulla	ARM		336
Area postrema	AP		316
Auditory radiation	audr		345
Basal forebrain	BFB		148
Basal nuclei	BN		140
Basal nucleus of Meynert	BNM		313
Basal nucleus of the amygdala	BL		286
Basal nucleus of the amygdala, dorsal part	BLd		433
Basal nucleus of the amygdala, dorsolateral part	BLdl		434
Basal nucleus of the amygdala, intermediate part	BLi		435
Basal nucleus of the amygdala, ventrolateral part	BLvl		436
Basolateral complex of the amygdala	BLA		136
Basomedial nucleus of the amygdala	BM		287

NAME	ACRONYM	COLOR	ID
Basomedial nucleus of the amygdala, magnocellular	BMmg		437
Basomedial nucleus of the amygdala, parvocellular	BMpv		438
Bed nucleus of the stria terminalis	BST		152
Biventral lobule (HVIII)	BVL		364
Brachium of the inferior colliculus	bic		343
Brainff	Br		1
CA1 field of hippocampus	CA1		386
CA2 field of hippocampus	CA2		387
CA3 field of hippocampus	CA3		388
CA4 field of hippocampus	CA4		389
Calcarine sulcus	CaS		46
Callosal glioepithelium	cc-gli		1014
Calossal sling	cs		1028
Caudal linear raphe nucleus	CLI		446
Caudate nucleus	Cau		142
Central canal	CC		230
Central complex of the thalamus	CTH		257
Central gray of the pons	CGP		429
Central gray of the spinal cord	CG		369
Central lateral nucleus of the thalamus	CL		166
Central lobe of cerebellum	CBX-Cent		352
Central medial nucleus of the thalamus	CM		395
Central nucleus of the amygdala	CEA		295
Central sulcus	CeS		20
Centralis (III)	CENT		350
Centromedian nucleus of the thalamus	CMT		258
Cerebellar cortex	CBX		216
Cerebellar glioepithelium/ependym	CB-g		1010
Cerebellar hemispheres	HEM		219
Cerebellar nuclei	CBN		217
Cerebellar peduncles	cpb		250
Cerebellum	CB		215
Cerebral cortex	Ctx		4
Cerebral peduncle	cp		242
Choroid plexus	Chp		229
Cingulate cortex	CING		120
Cingulate gyrus	CINGg		129
Cingulate neuroepithelium	cingn		1015
Cingulate sulcus	CINGs		128









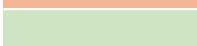




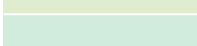
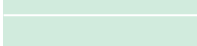













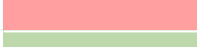









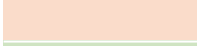
NAME	ACRONYM	COLOR	ID
Clastrum	CLA		131
Cochlear nuclei	CN		374
Commissural nucleus	COM		272
Corona radiata	cor		237
Corpus callosum	cc		238
Corpus callosum, body	cc-b		240
Corpus callosum, genu	cc-g		239
Corpus callosum, splenium	cc-s		241
Cortical nucleus of the amygdala	COA		290
Cortical nucleus of the amygdala, anterior part	COAa		291
Cortical nucleus of the amygdala, posterior part	COAp		292
Cortical plate, cerebral cortex	CP-CTX		7
Cortical plate, cingulate cortex	CP-CING		123
Cortical plate, entorhinal cortex	CP-ENT		59
Cortical plate, frontal cortex	CP-FCTx		15
Cortical plate, hippocampal formation	CP-HPF		69
Cortical plate, hippocampus	CP-HIP		77
Cortical plate, insula	CP-INS		502
Cortical plate, occipital cortex	CP-OCC		41
Cortical plate, orbital cortex	CP-ORB		24
Cortical plate, parasubiculum	CP-PARA		104
Cortical plate, parietal cortex	CP-PAR		32
Cortical plate, postsubiculum	CP-POST		112
Cortical plate, presubiculum	CP-PRESUB		96
Cortical plate, subiculum	CP-SUB		88
Cortical plate, temporal cortex	CP-TEMP		50
Corticofugal tract	cortf		232
Corticomedial complex of the amygdala	CMX		137
Corticospinal tract	corts		233
Culmen (IV-V)	CUL		351
Cuneate nucleus	CUN		314
Declive (VI)	DEC		353
Dentate gyrus	DG		82
Dentate nucleus	DN		222
Developmental (transient) structures	dev		5000
Diencephalic neuroepithelium	dne		1000
Diencephalon	Di		159
Dorsal cochlear nucleus	DCN		375
Dorsal complex of the thalamus	DOR		254



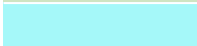




































NAME	ACRONYM	COLOR	ID
Dorsal funiculus	df		311
Dorsal gray of the spinal cord	DGSC		317
Dorsal horn	DH		367
Dorsal hypothalamic area	DHA		308
Dorsal motor nucleus	Xn		278
Dorsal premammillary nucleus	PMd		409
Dorsal raphe nucleus	DR		448
Dorsal sensory nucleus X	X-sens		271
Dorsal tegmental decussation	dtgx		457
Dorsal tegmental nucleus	DTN		267
Dorsomedial nucleus of the hypothalamus	DMH		183
Eddinger-Westphal nucleus	EW		403
Endopiriform nucleus	EP		132
Entorhinal cortex	ENT		56
Epithalamic gliopithelium/ependyma	eg		1002
Epithalamus	EPI		173
External capsule	ext		244
External germinal layer, cerebellum	CBXext		1009
External medullary lamina of the thalamus	emlth		417
Facial motor nucleus	VIIIn		275
Facial nerve	VII		467
Fasciola cinereum	fc		344
Fastigial nucleus	FN		220
Fiber tracts	ft		3000
Field of Forel	FF		175
Fimbria	fi		339
Flocculus (HX)	FLO		365
Folium (VIIa)	FOL		354
Forebrain	FB		2
Fornix	fx		247
Fourth ventricle	4V		228
Frontal cortex	FCtx		12
Frontal neuroepithelium	ftctxn		1023
Ganglionic eminence	GE		158
Germinal trigone	TRI		223
Globus pallidus	GP		145
Globus pallidus lateral segment	GPI		146
Globus pallidus medial segment	GPm		147
Gracile nucleus	GR		315





















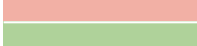
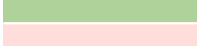

















NAME	ACRONYM	COLOR	ID
Habenula	H		172
Habenulo-interpenduncular tract	hi		310
Hindbrain	HB		204
Hippocampal formation	HPF		66
Hippocampal glioepithelium/ependyma	hipg		1016
Hippocampus	HIP		74
Hypoglossal nucleus	XIIIn		279
Hypothalamic glioepithelium/ependyma	hg		1003
Hypothalamus	HY		177
Induseum griseum	IG		84
Inferior colliculus	IC		195
Inferior colliculus, central nucleus	ICc		318
Inferior colliculus, dorsal nucleus	ICd		385
Inferior colliculus, external nucleus	ICe		319
Inferior olive	IO		212
Infundibulum	Inf		190
Insula	INS		118
Intercalated cell groups of the amygdala	IA		296
Intercalated nucleus of the medulla	INM		430
Intermediate gray of the spinal cord	IH		368
Intermediate zone, CA1 field	IZ-CA1		421
Intermediate zone, CA2 field	IZ-CA2		423
Intermediate zone, CA3 field	IZ-CA3		425
Intermediate zone, CA4 field	IZ-CA4		427
Intermediate zone, cerebral cortex	IZ-CTX		9
Intermediate zone, cingulate cortex	IZ-CING		125
Intermediate zone, entorhinal cortex	IZ-ENT		61
Intermediate zone, frontal cortex	IZ-FCTx		17
Intermediate zone, hippocampal formation	IZ-HPF		71
Intermediate zone, hippocampus	IZ-HIP		79
Intermediate zone, insula	IZ-INS		504
Intermediate zone, occipital cortex	IZ-OCC		43
Intermediate zone, orbital cortex	IZ-ORB		26
Intermediate zone, parasubiculum	IZ-PARA		106
Intermediate zone, parietal cortex	IZ-PAR		34
Intermediate zone, postsubiculum	IZ-POST		114
Intermediate zone, presubiculum	IZ-PRESUB		98
Intermediate zone, subiculum	IZ-SUB		90
Intermediate zone, temporal cortex	IZ-TEMP		52

NAME	ACRONYM	COLOR	ID
Internal capsule	int		236
Internal medullary lamina of the thalamus	im		334
Interpeduncular fossa	IpF		443
Interpeduncular nucleu, caudal part	IPNc		452
Interpeduncular nucleu, dorsolateral part	IPNdl		450
Interpeduncular nucleu, dorsomedial part	IPNdm		451
Interpeduncular nucleus	INT		283
Interposed nucleus	IP		221
Interstitial nucleus of Cajal	INC		444
Islands of Calleja	IsCj		439
Lateral corticospinal tract	corts-l		234
Lateral dorsal nucleus of the thalamus	LD		162
Lateral fissure	LF		117
Lateral funiculus	lf		346
Lateral geniculate nucleus	LGN		167
Lateral habenula	LH		394
Lateral hypothalamic area	LHA		184
Lateral lemniscus	ll		327
Lateral mammillary nucleus	LMN		407
Lateral medullary lamina	lml		415
Lateral migratory stream	Lms		156
Lateral nucleus of the amygdala	LA		288
Lateral posterior nucleus of the thalamus	LP		416
Lateral preoptic area	LPO		300
Lateral reticular nucleus	LRN		305
Lateral septal nucleus	LS		150
Lateral tuberal nucleus	LTN		302
Lateral ventricle	LV		226
Lingula (I-II)	LING		349
Locus coeruleus	LC		209
Magnocellular preoptic nucleus	MgPO		411
Mammillary body	M		185
Mammillary glioepithelium/ependyma	mg		1004
Mammillary peduncle	mp		398
Mammillotegmental tract	mtg		312
Mammillothalamic tract	mth		284
Marginal zone, cerebral cortex	MZ-CTX		6
Marginal zone, cingulate cortex	MZ-CING		122
Marginal zone, entorhinal cortex	MZ-ENT		58













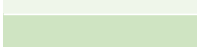

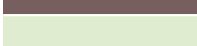











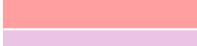












NAME	ACRONYM	COLOR	ID
Marginal zone, frontal cortex	MZ-FCTx		14
Marginal zone, hippocampal formation	MZ-HPF		68
Marginal zone, hippocampus	MZ-HIP		76
Marginal zone, insula	MZ-INS		501
Marginal zone, occipital cortex	MZ-OCC		40
Marginal zone, orbital cortex	MZ-ORB		23
Marginal zone, parasubiculum	MZ-PARA		103
Marginal zone, parietal cortex	MZ-PAR		31
Marginal zone, postsubiculum	MZ-POST		111
Marginal zone, presubiculum	MZ-PRESUB		95
Marginal zone, subiculum	MZ-SUB		87
Marginal zone, temporal cortex	MZ-TEMP		49
Medial dorsal nucleus of the thalamus	MD		161
Medial forebrain bundle	mfb		235
Medial geniculate nucleus	MGN		168
Medial habenula	MH		399
Medial lemniscus	ml		341
Medial mammillary nucleus	MMN		408
Medial medullary lamina	mml		414
Medial nucleus of the amygdala	MEA		294
Medial preoptic area	MEPO		301
Medial preoptic nucleus	MPO		187
Medial pretectal nucleus	MPT		323
Medial septal nucleus	MS		151
Median eminence	ME		191
Median raphe nucleus	MrN		447
Medulla	Med		211
Medullary glioepithelium/ependyma	meg		1007
Mesencephalic neuroepithelium	mn		1006
Mesencephalic nucleus	V		261
Midbrain	MB		192
Migratory stream, general	Ms-g		441
Migratory streams	Mss		442
Nodulus (X)	NOD		358
Nucleus accumbens	NAC		144
Nucleus ambiguus	AMB		277
Nucleus fasciculosus of the thalamus	FA		459
Nucleus limitans of the thalamus	NL		405
Nucleus of Darkschewitsch	ND		404





























NAME	ACRONYM	COLOR	ID
Nucleus of Roller	NR		213
Nucleus of the diagonal band	NDB		154
Nucleus of the lateral lemniscus, dorsal	NLLd		264
Nucleus of the lateral lemniscus, ventral	NLLv		265
Nucleus of the optic tract	NOT		325
Nucleus of the posterior commissure	NPC		321
Nucleus prepositus	PRP		214
Nucleus reuniens	RE		170
Occipital cortex	OCC		38
Occipital lobe neuroepithelium and subventricular zone	ocn		1020
Oculomotor nerve	III		455
Oculomotor nuclear complex	III		263
Olfactory bulb	OLFb		133
Olfactory cortex	OLF		134
Olfactory cortex	OLF		134
Olfactory penduncle	olfp		252
Olfactory tubercle	OT		155
Olivary pretectal nucleus	OPT		326
Optic chiasm	och		249
Optic tract	ot		251
Orbital cortex	ORB		21
Orbitofrontal neuroepithelium	orbn		1022
Parabigeminal nucleus	PBN		320
Parabrachial nucleus	PB		206
Parabrachial nucleus, lateral part	PBI		464
Parabrachial nucleus, medial part	PBm		465
Parafascicular nucleus of the thalamus	Pf		171
Paraflocculus (HIX)	PFLO		366
Parahippocampal gyrus	PARG		55
Parahippocampal neuroepithelium	phipn		1018
Paralaminar nucleus of the amygdala	PLA		297
Paramedian lobules (HVIIB)	PRM		363
Paranigral nucleus of the VTA	PnVTA		449
Parapeduncular nucleus	PaP		453
Parasubiculum	PARA		101
Paratenial nucleus of the thalamus	PT		391
Paraventricular nucleus of the hypothalamus	PVH		180
Paraventricular nucleus of the thalamus	PVT		333
Parietal cortex	PAR		29

NAME	ACRONYM	COLOR	ID
Parietal lobe neuroepithelium and subventricular zone	parn		1021
Parieto-occipital sulcus	POS		37
Periamygdaloid cortex	PAC		293
Periaqueductal gray	PAG		285
Perifornical nucleus	PeF		303
Periventricular complex of the thalamus	PVTH		260
Pineal gland	PIN		280
Pituitary gland	Pit		189
Pons	P		205
Pontine gray	PG		208
Posterior commissure	pc		248
Posterior complex of the thalamus	POT		259
Posterior hypothalamic nucleus	PHN		307
Posterior pretectal nucleus	PPT		324
Posteromedial hypothalamic nucleus	PHM		309
Postsubiculum	POST		109
Precerebellar neuroepithelium	pcbn		1008
Pregeniculate nucleus	PGN		419
Premammillary area	PMM		299
Preoptic area	PO		186
Preoptic glioepithelium/ependyma	prgl		1005
Preoptic periventricular nucleus	PVPO		304
Presubiculum	PRESUB		93
Pretectum	Prt		203
Principal mammillary tract	pmt		396
Principal sensory nucleus of the trigeminal	PSV		266
Pulvinar nucleus of the thalamus	PULV		169
Putamen	Put		143
Pyramidal decussation	pyrd		281
Pyramis (VIII)	PYR		356
Raphe interpositus nucleus	RIP		461
Raphe magnus nucleus	RM		460
Raphe nuclei	Raphe		210
Raphe obscurus nucleus	RO		463
Raphe pallidus nucleus	RPA		462
Red nucleus	R		200
Reticular formation, Medulla	Ret-Med		378
Reticular formation, Midbrain	Ret-MB		377
Reticular formation, Pons	Ret-P		372

NAME	ACRONYM	COLOR	ID
Reticular nucleus of the thalamus	RT		176
Reticular tegmental nucleus	RTN		268
Retrochiasmatic nucleus of the hypothalamus	RCH		418
Retrorubral area	RR		428
Rhabdoid nucleus	RbN		454
Rhombencephalic neuroepithelium	rhn		1025
Rhomboid nucleus of the thalamus	RH		390
Rostral linear raphe nucleus	RLI		445
Rostral migratory stream	Rms		157
Septum	SEP		149
Simplex lobule (HVI)	SIM		359
Solitary nucleus	SOL		270
Spinal cord	SP		231
Spinal nucleus of the trigeminal	SPV		273
Stria medullaris	stm		246
Stria terminalis	stt		245
Striatum	Str		141
Strionuclear glioepithelium	str-g		1013
Subfornical organ	SFO		255
Subgeniculate nucleus	SbGN		432
Subiculum	SUB		85
Subparafascicular nucleus	SPF		380
Subparafascicular nucleus, magnocellular part	SPFm		381
Subparafascicular nucleus, parvocellular part	SPFp		382
Subpial granular layer, cerebral cortex	SGL-CTX		5
Subpial granular layer, cingulate cortex	SGL-CING		121
Subpial granular layer, entorhinal cortex	SGL-ENT		57
Subpial granular layer, frontal cortex	SGL-FCTx		13
Subpial granular layer, hippocampal formation	SGL-HPF		67
Subpial granular layer, hippocampus	SGL-HIP		75
Subpial granular layer, insula	SGL-INS		500
Subpial granular layer, occipital cortex	SGL-OCC		39
Subpial granular layer, orbital cortex	SGL-ORB		22
Subpial granular layer, parasubiculum	SGL-PARA		102
Subpial granular layer, parietal cortex	SGL-PAR		30
Subpial granular layer, postsubiculum	SGL-POST		110
Subpial granular layer, presubiculum	SGL-PRESUB		94
Subpial granular layer, subiculum	SGL-SUB		86
Subpial granular layer, temporal cortex	SGL-TEMP		48

NAME	ACRONYM	COLOR	ID
Subplate zone, CA1 field	SP-CA1		420
Subplate zone, CA2 field	SP-CA2		422
Subplate zone, CA3 field	SP-CA3		424
Subplate zone, CA4 field	SP-CA4		426
Subplate zone, cerebral cortex	SP-CTX		8
Subplate zone, cingulate cortex	SP-CING		124
Subplate zone, entorhinal cortex	SP-ENT		60
Subplate zone, frontal cortex	SP-FCTx		16
Subplate zone, hippocampal formation	SP-HPF		70
Subplate zone, hippocampus	SP-HIP		78
Subplate zone, insula	SP-INS		503
Subplate zone, occipital cortex	SP-OCC		42
Subplate zone, orbital cortex	SP-ORB		25
Subplate zone, parasubiculum	SP-PARA		105
Subplate zone, parietal cortex	SP-PAR		33
Subplate zone, postsubiculum	SP-POST		113
Subplate zone, presubiculum	SP-PRESUB		97
Subplate zone, subiculum	SP-SUB		89
Subplate zone, temporal cortex	SP-TEMP		51
Substantia innominata	SI		153
Substantia nigra	SN		197
Substantia nigra pars compacta	SNc		198
Substantia nigra pars reticulata	SNr		199
Subthalamus	Sth		188
Subventricular zone, cerebral cortex	SVZ-CTX		10
Subventricular zone, cingulate cortex	SVZ-CING		126
Subventricular zone, entorhinal cortex	SVZ-ENT		62
Subventricular zone, frontal cortex	SVZ-FCTx		18
Subventricular zone, hippocampal formation	SVZ-HPF		72
Subventricular zone, hippocampus	SVZ-HIP		80
Subventricular zone, insula	SVZ-INS		505
Subventricular zone, occipital cortex	SVZ-OCC		44
Subventricular zone, orbital cortex	SVZ-ORB		27
Subventricular zone, parasubiculum	SVZ-PARA		107
Subventricular zone, parietal cortex	SVZ-PAR		35
Subventricular zone, postsubiculum	SVZ-POST		115
Subventricular zone, presubiculum	SVZ-PRESUB		99
Subventricular zone, subiculum	SVZ-SUB		91
Subventricular zone, temporal cortex	SVZ-TEMP		53

NAME	ACRONYM	COLOR	ID
Superior cerebellar peduncle decussation	scpx		458
Superior colliculus	SC		194
Superior colliculus commissure	scc		431
Superior olive	SO		207
Suprachiasmatic nucleus of the hypothalamus	SCH		179
Suprageniculate nucleus	SGN		400
Supramammillary area	SUM		298
Supramammillary decussation	smd		397
Supraoptic nucleus of the hypothalamus	SON		178
Tectum	Tct		193
Tegmentum	Tgt		196
Telencephalon	Tel		3
Temporal cortex	TEMP		47
Temporal lobe neuroepithelium	tempn		1019
Tenia tecta	TT		130
Thalamic glioepithelium/ependyma	tg		1001
Thalamus	TH		160
Third ventricle	3V		225
Transient cell zone in the external capsule	tcet		1026
Transient cell zone in the extreme capsule	tcete		1027
Trapezoid body	tb		342
Trigeminal motor nucleus	Vn		269
Trigeminal nerve	V		469
Trochlear nerve	IV		468
Trochlear nucleus	IV		262
Tuber (VIIb)	TUB		355
Tuberal area	TU		412
Tuberomammillary nucleus	TMM		306
Uncinate fasciculus (forebrain)	Unc-f		338
Uvula (IX)	UVU		357
Ventral anterior nucleus of the thalamus	VA		329
Ventral cochlear nucleus	VCN		376
Ventral complex of the thalamus	VEN		282
Ventral funiculus	vf		347
Ventral gray of the spinal cord	VG		370
Ventral horn	VH		371
Ventral lateral nucleus of the thalamus	VL		330
Ventral medial basal nucleus of the thalamus	VMB		402
Ventral medial nucleus of the thalamus	VM		383

NAME	ACRONYM	COLOR	ID
Ventral posteroinferior nucleus of the thalamus	VPI		401
Ventral posterolateral nucleus of the thalamus	VPL		331
Ventral posteromedial nucleus of the thalamus	VPM		332
Ventral premammillary nucleus	PMv		410
Ventral tegmental area	VTA		201
Ventral tegmental decussation	vtgx		456
Ventricles	Vs		6000
Ventricular zone, cerebral cortex	VZ-CTX		11
Ventricular zone, cingulate cortex	VZ-CING		127
Ventricular zone, entorhinal cortex	VZ-ENT		63
Ventricular zone, frontal cortex	VZ-FCTx		19
Ventricular zone, hippocampal formation	VZ-HPF		73
Ventricular zone, hippocampus	VZ-HIP		81
Ventricular zone, insula	VZ-INS		506
Ventricular zone, occipital cortex	VZ-OCC		45
Ventricular zone, orbital cortex	VZ-ORB		28
Ventricular zone, parasubiculum	VZ-PARA		108
Ventricular zone, parietal cortex	VZ-PAR		36
Ventricular zone, postsubiculum	VZ-POST		116
Ventricular zone, presubiculum	VZ-PRESUB		100
Ventricular zone, subiculum	VZ-SUB		92
Ventricular zone, temporal cortex	VZ-TEMP		54
Ventromedial nucleus of the hypothalamus	VMH		182
Vermis	VERM		218
Vestibular nuclear complex	VNC		276
Visual radiation	visr		340
White matter fibers	wmf		253
Zona incerta	ZI		174
		