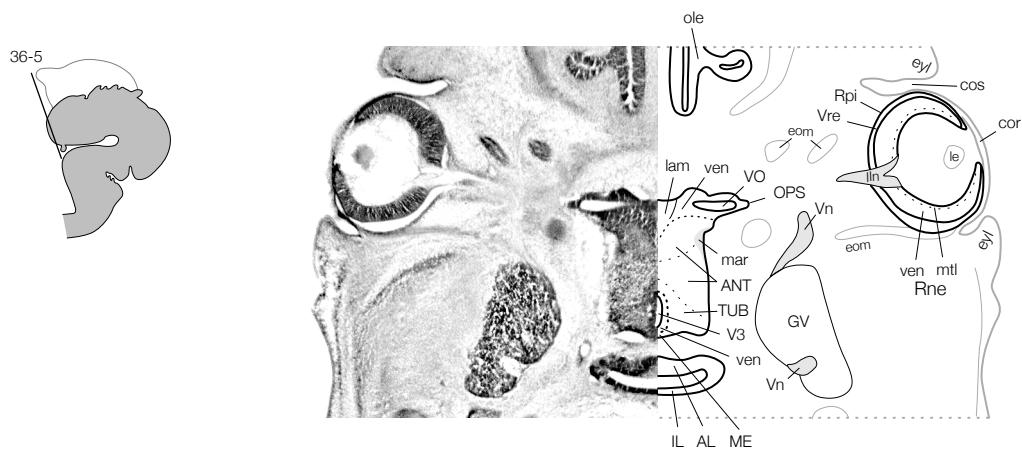
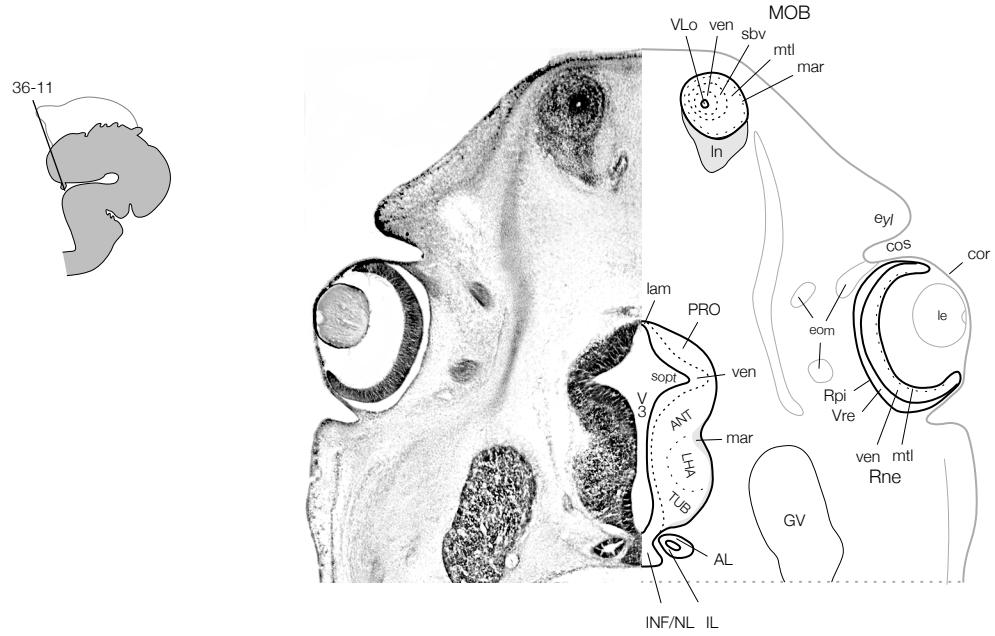


H. Embryonic Day 15: further mantle differentiation

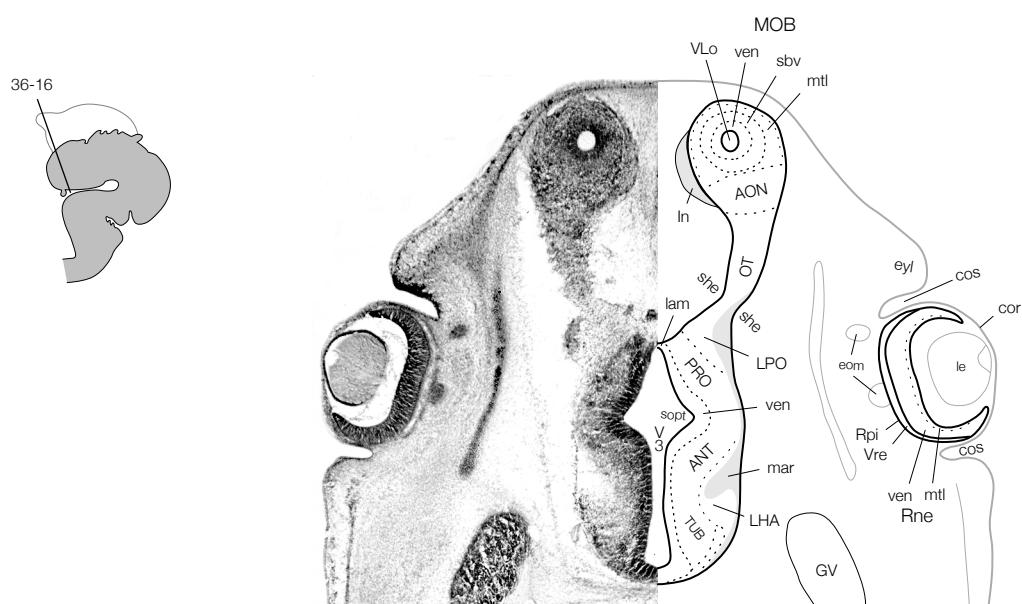
Two rather complete approximately transverse (30 sections) and horizontal (15 sections) series illustrate this period of rat brain development. As text Fig. 14 makes clear, the longitudinal axis of the brain is unusually convoluted on e15.



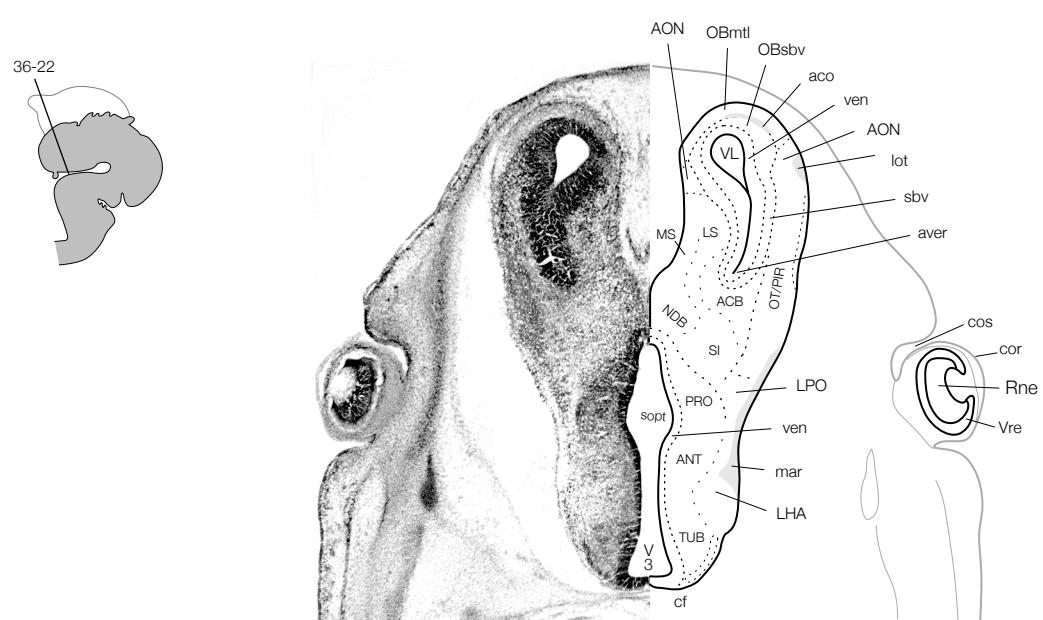
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2



3

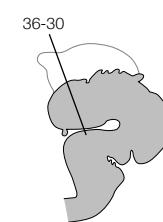
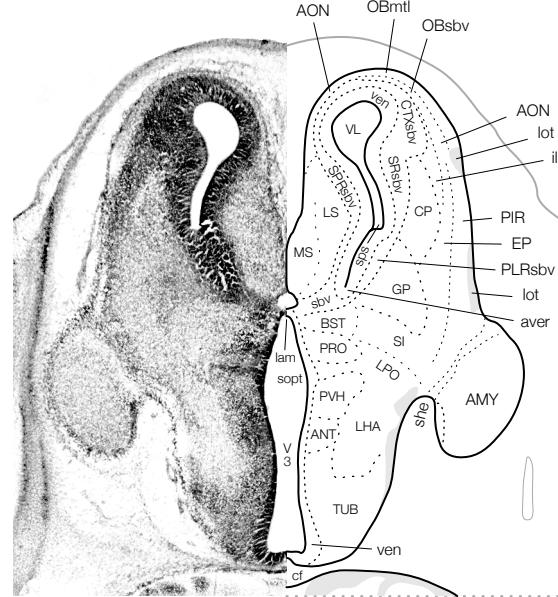


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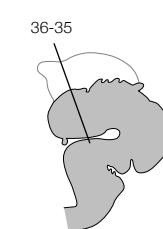
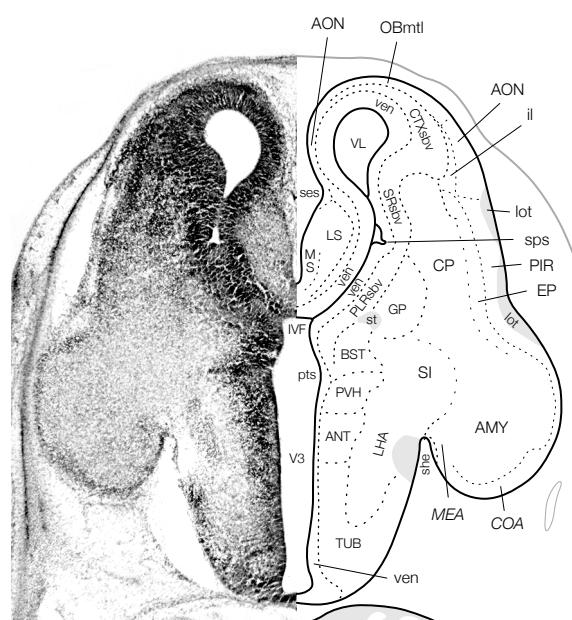
e15 transverse

- ACB nucleus accumbens
- aco anterior commissure, olfactory limb
- AL pituitary gland, anterior lobe
- AMY amygdala
- ANT anterior level, hypothalamus
- AON anterior olfactory nucleus
- apd ansa peduncularis
- ard dorsal arch, telencephalic vesicle
- avec ventral angle, caudal
- aver ventral angle, rostral
- BST bed nuclei stria terminalis
- CEA central nucleus amygdala
- cf cephalic flexure
- COA cortical nucleus amygdala
- cor cornea
- cos conjunctival sac
- CP caudoputamen
- cpd cerebral peduncle

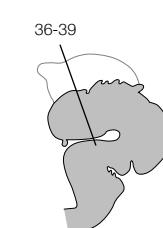
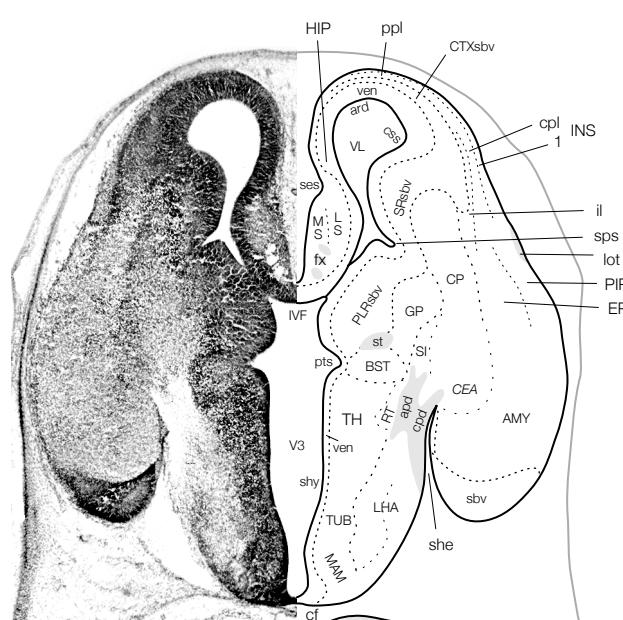
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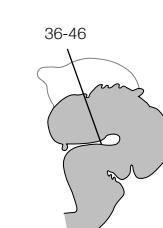
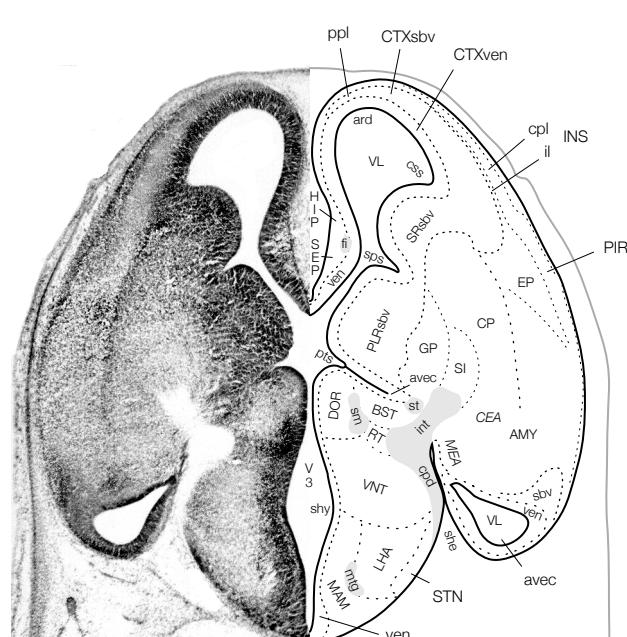
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7



8



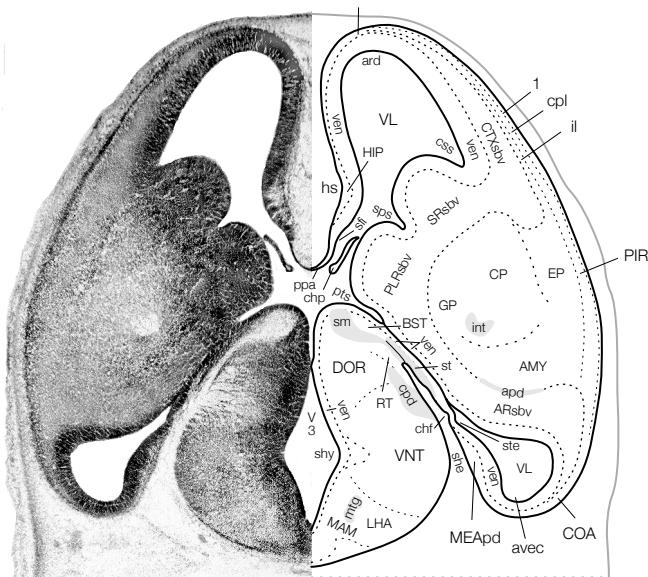
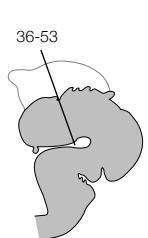
1 mm

css corticostriatal sulcus
CTX1 cerebral cortex, layer 1
--cpl --, cortical plate
--il --, intermediate layer
--sbv --, subventricular layer
--ven --, ventricular layer
DOR dorsal thalamus
eom extraocular muscles
EP endopiriform nucleus
eyl eyelid
fi fimbria
fx columns of the fornix
GP globus pallidus
GV trigeminal ganglion
HIP hippocampal region
Il optic nerve
IL pituitary gland, intermediate lobe
In olfactory nerve
INF infundibulum

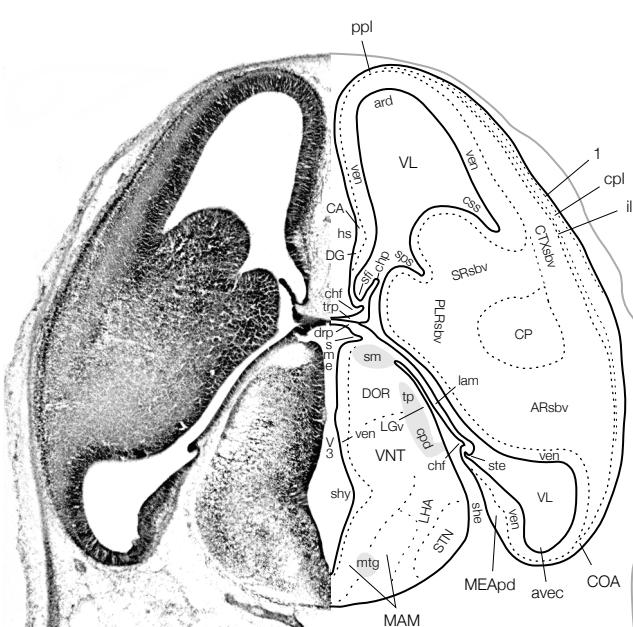
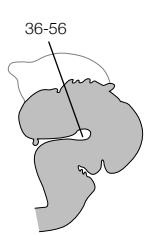
INS insular region
int internal capsule
IVF interventricular foramen
lam lamina terminalis
le lens
LHA lateral hypothalamic area
lot lateral olfactory tract
LPO lateral preoptic area
LS lateral septal nucleus
MAM mammillary level, hypothalamus
mar marginal layer, neural tube
ME median eminence
MEA medial nucleus amygdala
MOBmar main olfactory bulb, marginal layer
--mtl --, mantle layer
--sbv --, subventricular layer
--ven --, ventricular layer
MS medial septal nucleus
mtg mammillotegmental tract

NDB nucleus of the diagonal band
NL pituitary gland, posterior lobe
OBmtl olfactory bulb, mantle layer
--sbv --, subventricular layer
ole olfactory epithelium

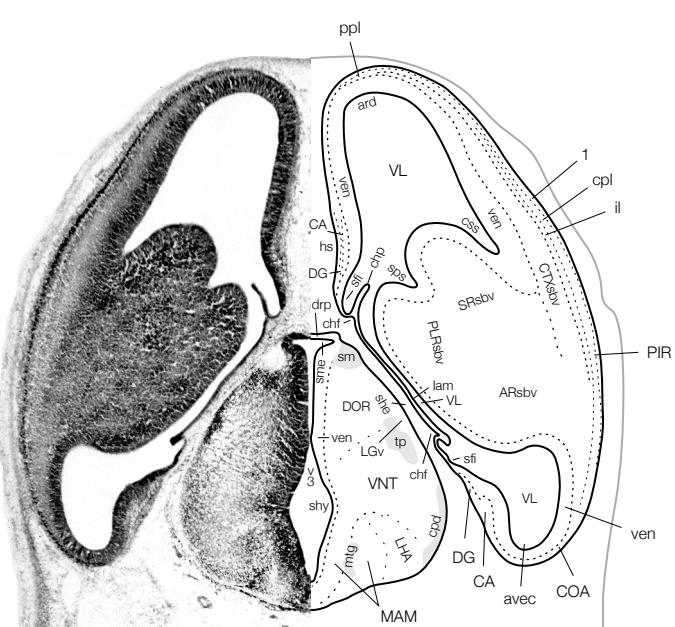
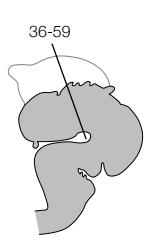
she hemispheric sulcus
shy hypothalamic sulcus
SI substantia innominata
sm stria medullaris
sopt optic sulcus
SPRsbv septal ridge, subventricular layer
sps striatopallidal sulcus
SRsbv striatal sulcus, subventricular layer
st stria terminalis
STN subthalamic nucleus
TH thalamus
TUB tuberal level, hypothalamus
V3 third ventricle
ven ventricular layer
VL lateral ventricle
VLo lateral ventricle, olfactory part
VN trigeminal nerve
VT ventral thalamus
Vre retinal ventricle



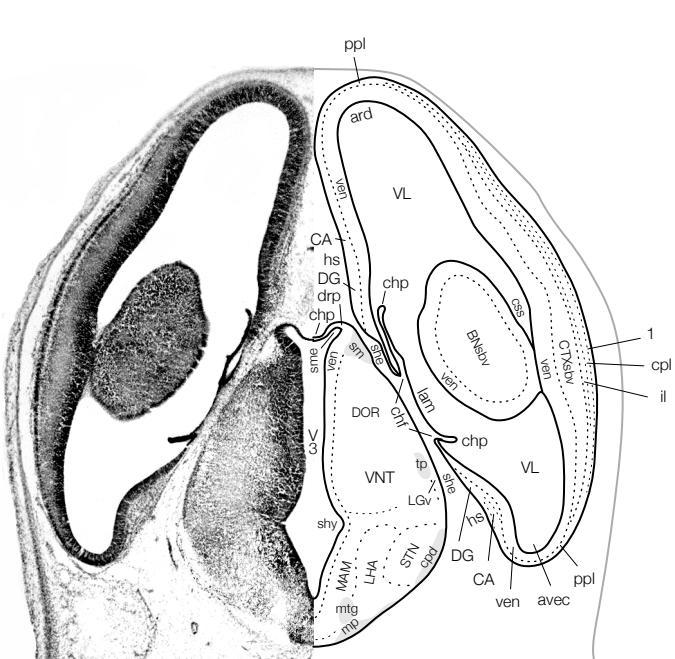
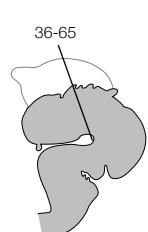
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10



11

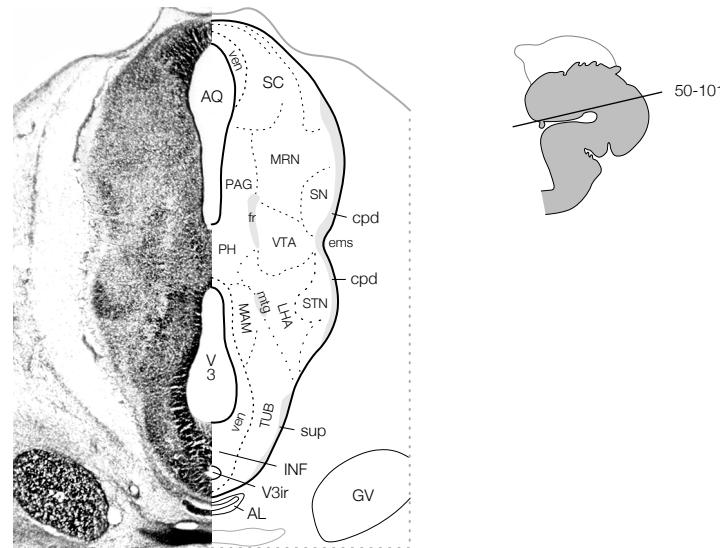


12

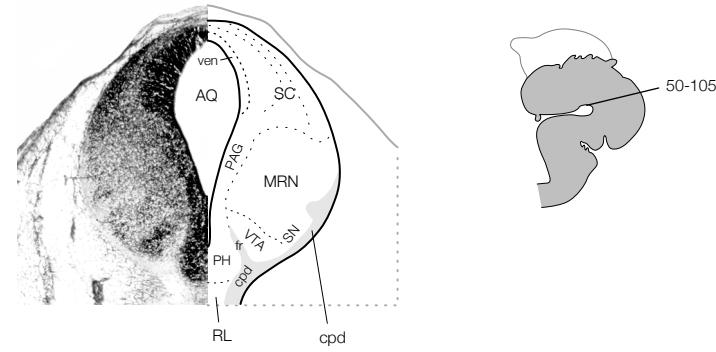
e15 transverse

- AMY amygdala
- AL pituitary gland, posterior lobe
- apd ansa peduncularis
- AQ cerebral aqueduct
- ard dorsal arch, telencephalic vesicle
- ARsbv amygdalar ridge, subventricular layer
- avec ventral angle, caudal
- BNsbv basal nuclei, subventricular layer
- BST bed nuclei stria terminalis
- CA Ammon's horn
- CB cerebellum
- chf choroid fissure
- chp choroid plexus

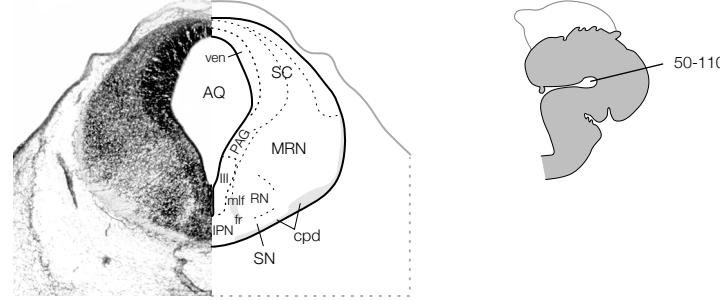
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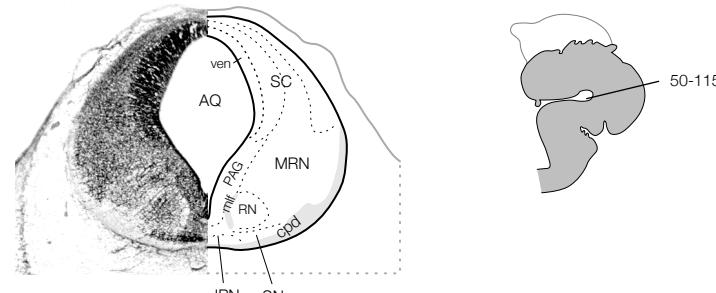
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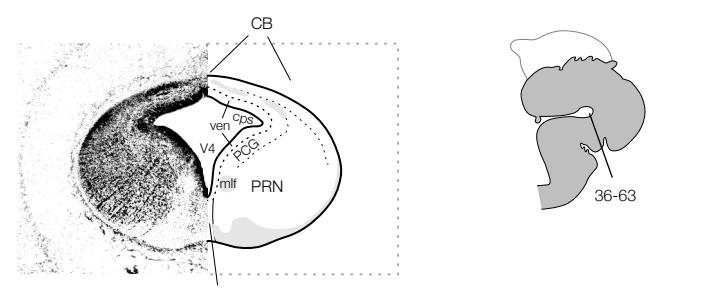
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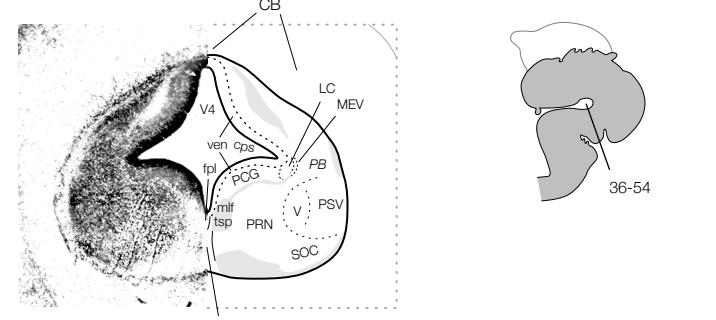
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17



18



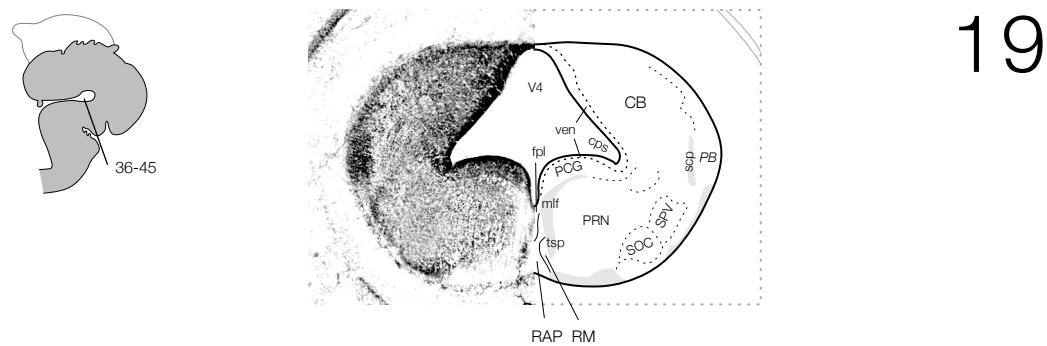
1 mm

COA cortical nucleus amygdala
CP caudoputamen
cpd cerebral peduncle
cps cerebellopontine sulcus
css corticostratial sulcus
CTX1 cerebral cortex, layer 1
--cpl --, cortical plate
--il --, intermediate layer
--ppl --, preplate
DG dentate gyrus
DOR dorsal thalamus
drp diencephalic roof plate
ems external mesencephalic-diencephalic sulc.
EP endopiriform nucleus
fpl floor plate
fr fasciculus retroflexus
GP globus pallidus
GV trigeminal ganglion
HIP hippocampal region

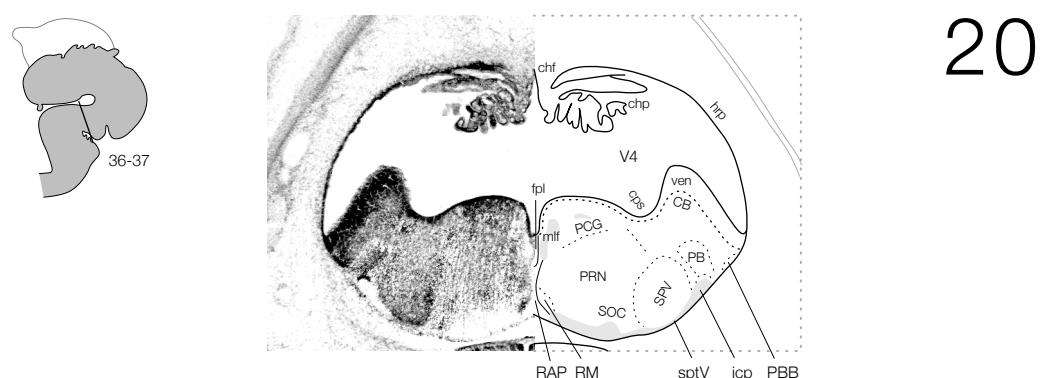
hs hippocampal sulcus
III oculomotor nucleus
INF infundibulum
int internal capsule
IPN interpeduncular nucleus
lam lamina terminalis
LC locus coeruleus
LGv lateral geniculate complex, ventral part
LHA lateral hypothalamic area
MAM mammillary level, hypothalamus
MEA medial nucleus amygdala
--pd --, posterodorsal part
MEV mesencephalic nucleus of the trigeminal
mlf medial longitudinal fascicle
mp mammillary peduncle
MRN mesencephalic reticular nucleus
mtg mammillotegmental tract
PAG periaqueductal gray
PB parabrachial nucleus

PCG pontine central gray
PH posterior hypothalamic nucleus
PIR piriform area
ppa paraphysial arch
ppl preplate, cortical neural tube
PLRsrb pallidal ridge, subventricular layer
PRN pontine reticular nucleus
PSV principal sensory nucleus of the trigeminal
pts pallidothalamic sulcus
RAP brainstem raphe
RL rostral linear nucleus raphé
RN red nucleus
RT reticular nucleus thalamus
SC superior colliculus
sfi fimbrial sulcus
she hemispheric sulcus
shy hypothalamic sulcus
sm stria medullaris
sme sulcus medullaris

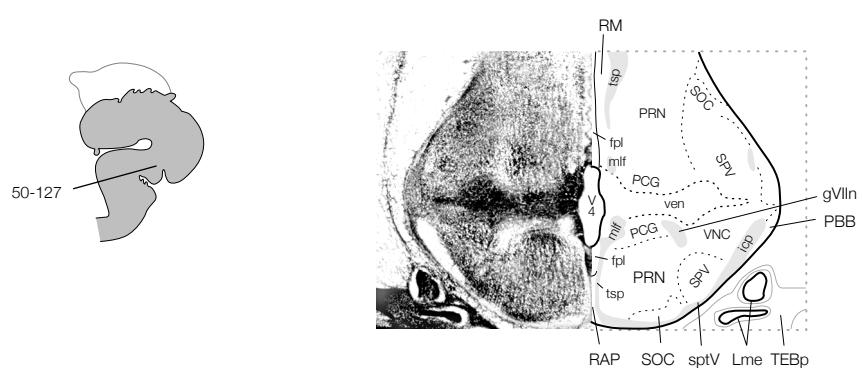
SN substantia nigra
SOC superior olive complex
sps striatopalidal sulcus
SRsrb striatal sulcus, subventricular layer
st stria terminalis
ste sulcus terminalis
STN subthalamic nucleus
sup supraoptic commissures
tp thalamic peduncles
trp telencephalic roof plate
tsp tectospinal pathway
TUB tuberal level, hypothalamus
V3 third ventricle
--ir --, infundibular recess
v4 fourth ventricle
ven ventricular layer
VL lateral ventricle
VNT ventral thalamus
VTA ventral tegmental area



19



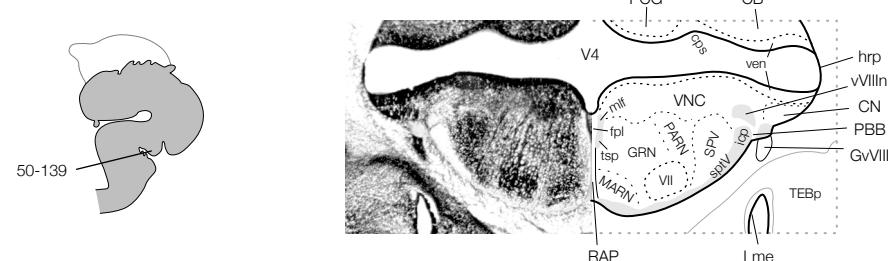
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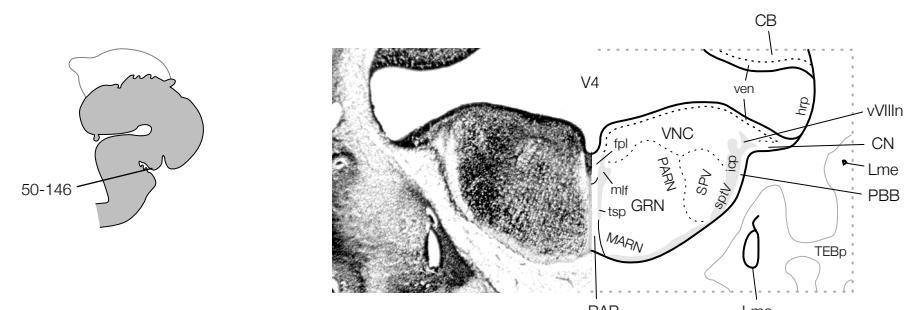
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22



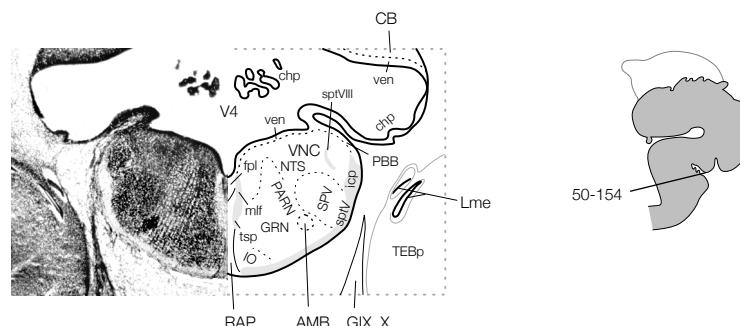
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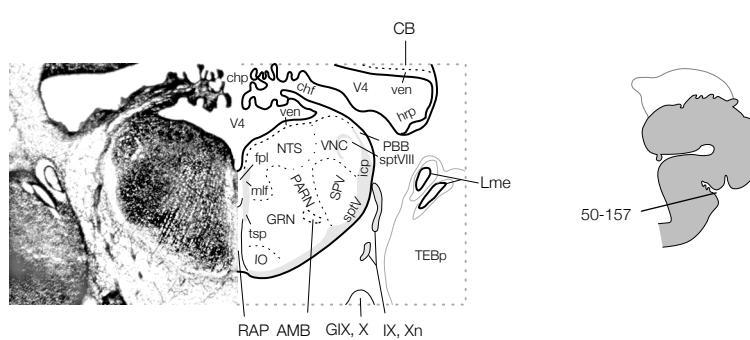
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e15 transverse

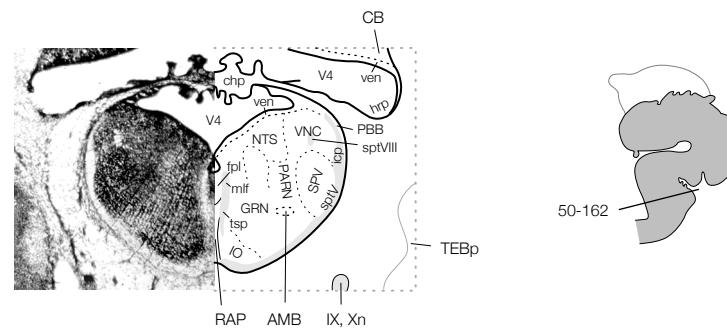
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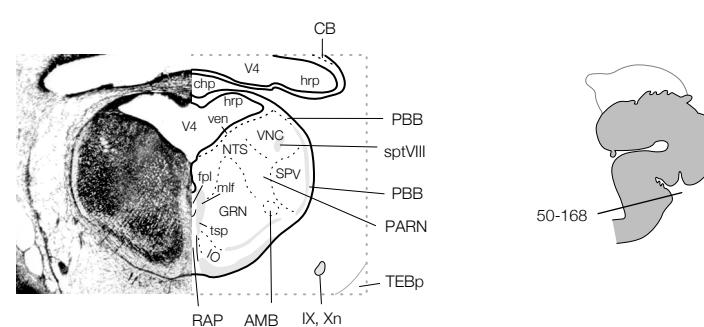
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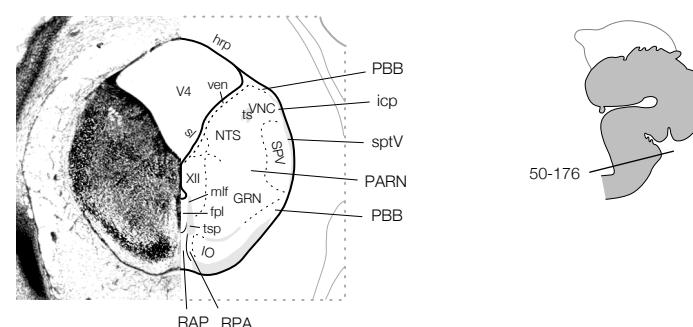
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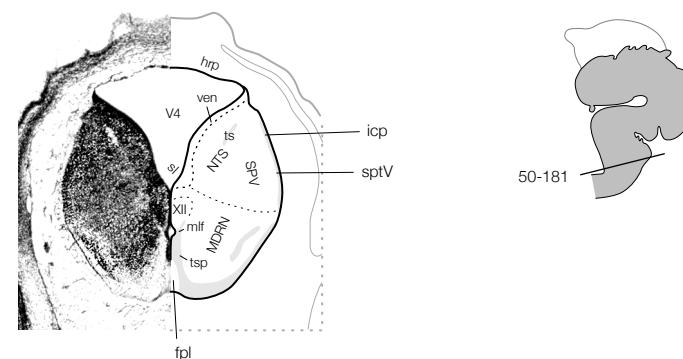
28



29



30



1 mm

AMB	nucleus ambiguus
CB	cerebellum
chf	choroid fissure
chp	choroid plexus
CN	cochlear nuclei
cps	cerebellopontine sulcus
fpl	floor plate
GIX, X	glossopharyngeal, vagal ganglia
GRN	gigantocellular reticular nucleus
gVIII	genu of the facial nerve
GvIII	vestibular ganglion
hrp	hindbrain roof plate
icp	inferior cerebellar peduncle
IO	inferior olfactory complex
IX, Xn	glossopharyngeal, vagus nerves
Lme	membranous labyrinth
MARN	magnoceullular reticular nucleus
MDRN	medullary reticular nucleus
mlf	medial longitudinal fascicle

NTS	nucleus of the solitary tract
PARN	parvicellular reticular nucleus
PB	parabrachial nucleus
PBB	pontobulbar body
PRN	pontine reticular nucleus
RAP	brainstem raphe
RM	nucleus raphe magnus
RPA	nucleus raphe pallidus
scp	superior cerebellar peduncle
sl	sulcus limitans
SOC	superior olivary complex
sptV	spinal tract of the trigeminal nerve
sptVIII	spinal tract of the vestibular nerve
SPV	spinal nucleus of the trigeminal nerve
TEBp	temporal bone, petrous part
ts	solitary tract
tsp	tectospinal pathway
v4	fourth ventricle
ven	ventricular layer

VII	facial nucleus
VIII	vestibulocochlear nerve
VNC	vestibular nuclei
vVIII	vestibular nerve
XII	hypoglossal nucleus