Three-dimensional digital template atlas of the Macaque brain

Article  (Supplemental Material)


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Figure 2

Original D99 T1
(Lacks contrast and sharpness)

DB58 T1
(High contrast ex-vivo brain)

DB58 nonlinearly aligned to D99

Surrogate D99
with high spatial resolution (0.25 mm),
and gray/white matter contrast
Fig. 4

Saleem and Logothetis Atlas (2012)

A Combined MRI and Histology
Atlas of the Rhesus Monkey Brain
in Stereotaxic Coordinates

AFNI whereami

+++++++ nearby Atlas structures ++++++++ Original input data coordinates in D99_Macaque space

Focus point (LP)=
- 20.00 mm [R], 14.25 mm [A], 5.75 mm [S] (D99_Macaque)
- 20.00 mm [R], 34.25 mm [A], 17.75 mm [S] (D99_Macaque_book)

Atlas D99_atlas: D99 Saleem macaque atlas with supplemental info

Focus point: 45a connections
Within 7 mm: 46v connections
-AND-: 45b connections
Subject MQ registered to Digital atlas

Digital atlas registered to subject MQ

Same section as in Fig. 7F
(slightly rotated to match with histology section shown in Fig. 7J)
Fig. 7

Registration of 3D atlas to test subjects with histological confirmation of architectonic areas

Subject MQ (in-vivo MRI)  Digital atlas (D99) registered to MQ  Histology section of MQ (SMI-32 staining)

A  slice # 32  E  I  sec # 942  M  area A1 (auditory core)

B  slice # 20  F  J  sec # 722  N  area RM (auditory medial belt)

C  slice # 9  G  K  sec # 502  O  STN (Subthalamic nucleus) SN (substantia nigra) MB (Mammillary bodies)

D  H  L  sec # 560  P  area EC (entorhinal cortex)

Subject BASS (in-vivo MRI)  Digital atlas (D99) registered to BASS  Histology section of BASS (Nissl staining)

Q  R  sec # 655  S  area TGdd (medial temporal pole)

CA1 region of hippocampus

CA1 region of hippocampus

area EC (entorhinal cortex)

See Fig. 3F in Scott et al. (2015)