

METADATA

R605

connectivity
ATLAS

Experiment

• Animal	
○ Case number / original protocol number	R605 / YvD16
○ Species / strain / gender / birth date / weight	Rat /Sprague Dawley/ Male /25.10.2007/318g /
○ Source (provider)	Scanbur BK AS
○ Microbiological status (e.g. FELASA)	conventional animal, free from zoonoses
○ Behavioral data	NA
○ Genetic characteristics	NA
• Experimental parameters	
○ Date / time (dd.mm.yyyy)	20.12.2007
○ Responsible investigator	YvD
○ Surgery parameters	
▪ Anaesthesia / analgesia	1.41 ml hypnorm:dormicum (1:1), s.c.
▪ Perioperative monitoring	Rectal temperature, reflexes (leg withdrawal, cornea)
▪ Postoperative care	Temgesic 0,15 ml, s.c.
○ Axonal tracing parameters	
▪ Injection target localization	Bregma coordinates: AP = 0 mm; ML = 4.0 mm (left); DV = 1.5 mm subpial Needle inserted with 25° rotation towards left from the midsagittal plane
▪ Tracer substance	<i>Phaseolus vulgaris</i> leucoagglutinin (Molecular Probes), 2.5% in 0.01M phosphate buffer, pH8.0
▪ Tracer delivery	Iontophoresis through glass pipette, tip diameter = 10-15 µm, 7.5 µA positive current 5s on/off duty cycle, 20 min
○ Survival time	7 days
• Perfusion	
○ Date / time (dd.mm.yyyy)	27.12.2007
○ Responsible investigator	YvD
○ Surgery parameters	
▪ Anaesthesia / analgesia	Nembutal 0,75 ml i.p.
○ Procedure	transcardial approach
○ Solutions	0,9% saline, 4% paraformaldehyde, 10% sucrose
• Tissue extraction	
○ Date / time (dd.mm.yyyy)	18.05.2007
○ Responsible investigator	YvD
○ Storage	30% sucrose

Histology

• Tissue block processing	
○ Date / time (dd.mm.yyyy)	09.01.2008
○ Embedding	NA
○ Tissue blocking	Coronal
○ Procedure defining block face angle	External landmarks adjusted to flat skull position
○ Tissue marks	Shallow razor cut on right side
• Sectioning	
○ Date / time (dd.mm.yyyy)	09.01.2008, 26.03.2008
○ Equipment	Freezing microtome (Microm HM450)
○ Section thickness	50 µm
○ Sampling	All
○ Section numbering	Consecutively from first section including prefrontal cortex
○ Storage procedure	0.1M PBS, pH 7.4 + 0.1 % PFA
• Staining 1 <i>Pha-L</i>	
○ Date / time (dd.mm.yyyy)	09.01.2008, 16.01.2008, 02.04.2008, 03.04.2008
○ Sampling	1:2 from entire brain
○ Staining procedure(s)	Histochemistry for <i>Pha-L</i>
○ Mounting procedure	manual on standard 1" glass
• Staining 2 thionine	
○ Date / time (dd.mm.yyyy)	14.03.2008, 30.05.2008
○ Sampling	1:2 from entire brain (same selection as for <i>Pha-L</i> staining)
○ Staining procedure(s)	Thionine counterstaining for <i>Pha-L</i> sections
○ Mounting procedure	manual on standard 1" glass
• Staining 3 CO	
○ Date / time (dd.mm.yyyy)	26.05.2008, 04.06.2008
○ Sampling	1:2, from SI
○ Staining procedure(s)	histochemistry for cytochrome oxidase
○ Mounting procedure	manual, on standard 1" glass

Image acquisition

• Slide scanning	
○ Date / time (dd.mm.yyyy)	...
○ Equipment /software	Olympus Bx52 /20x Olympus UplanApo,NA 0.70 / NeuroLucida Virtual Slice (v 6.0)
○ File format(s)	TIFF
• Image processing	
○ Adjustments	rotate, crop
○ File format(s)	TIFF, PFF, JPEG

Databasing

• Filename / metadata link	metadataR605.pdf
• Location parameters	...

Analysis

• Injection site	
○ Procedure	Histological analysis of cytochrome oxidase patterns in SI (position) / Image analysis (size)
○ Position	SI barrel cortex, whisker D3
○ Size	Volume = 1.09 mm ³ ; largest area = 1226760 µm ²

Original publication

Zakiewicz IM, van Dongen YC, Leergaard TB, Bjaalie JG (2010) - submitted manuscript