

Materials List for:

# Advanced Diffusion Imaging in The Hippocampus of Rats with Mild Traumatic Brain Injury

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URL: <https://www.jove.com/video/60012>

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## Materials

Name	Company	Catalog Number	Comments
<b>Induction of trauma</b>			
0.9% NaCl physiologic solution	B Braun	394496	
brass weight 450g	custom made	custom made	diameter 18mm and 210 mm height
catheter	Terumo	Versatus-W	26G
ethilon II	Ethicon	EH7824	FS-3, 4-0, 3/8, 16mm
Matrass	Foam to Size	Type E	
Plexiglas tube	ISPA Plastics	416564	M1 PMMA XT GOO tube 25x19 mm (inner diameter 19 mm, minimal length of 1.50 m)
Preclinical CT scanner	Molecubes	X-cube	
Steel helmet	custom made	custom made	diameter 10 mm and 3 mm thickness
Vetbond Tissue Adhesive	3M	1469SB	
Vetergesic (buprenorphin)	EcuPhar	VETERG20	0.05 mg/kg
Xylocaine 2% gel	AstraZeneca	Xylocaine 2%	gel
Xylocaine (lidocaine 2%)	Aspen/AstraZeneca	Xylocaine 2% gel	100 µl injection
<b>Diffusion MRI</b>			
Preclinical MRI acquisition software	Bruker Biospin MRI GmbH	Z400_PV51_CENTOS55	ParaVision 5.1 MRI software
Preclinical MRI scanner	Bruker Biospin MRI GmbH	PharmaScan 70/16	7T MRI scanner
Quadrature volume coil	Bruker Biospin MRI GmbH	RF RES 300 1H 075/040 QSN TR	Model No: 1P T13161C3
Small animal physiological monitoring unit	Rapid Biomedical	EKGHR02-0571-043C01	Unit for respiratory monitoring
Water-based heating unit	Thermo Fisher Scientific	Haake S 5P	Model No: 1523051
<b>Anaesthesia</b>			
Anaesthesia movable unit	Veterinary technics		BDO - Medipass, Ijmuiden
isoflurane: Isoflo	Zoetis	B506	
Oxygen generator	Veterinary technics	7F-3	BDO - Medipass, Ijmuiden
<b>Diffusion image processing</b>			
Amide	<a href="http://amide.sourceforge.net">http://amide.sourceforge.net</a>	Version 1.0.5.	Medical Imaging Data Examiner Toolbox (Loening AM, Gambhir SS, "AMIDE: A Free Software Tool for Multimodality Medical Image Analysis", Molecular Imaging, 2(3):131-137, 2003)
ExploreDTI	<a href="http://www.exploredti.com">http://www.exploredti.com</a>	Version 4.8.6	Toolbox for (pre-)processing and analysis of diffusion weighted MR images (Leemans A, Jeurissen)

			B, Sijbers J, and Jones DK. ExploreDTI: a graphical toolbox for processing, analyzing, and visualizing diffusion MR data. In: 17th Annual Meeting of Intl Soc Mag Reson Med, p. 3537, Hawaii, USA, 2009)
MRtrix3	<a href="http://www.mrtrix.org">http://www.mrtrix.org</a>	Version 3.0_RC3-86-g4b523b41	Toolbox for (pre-)processing and analysis of diffusion weighted MR images