

Materials List for:

# Multi-electrode Array Recordings of Human Epileptic Postoperative Cortical Tissue

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## Materials

Name	Company	Catalog Number	Comments
Brain Slice Chamber-2: Interface	AutoMate Scientific, Inc.	S-BSC2	It requires separate temperature controller
2-channel Temperature Controller	Multichannel Systems, Germany	TC02	It allows to plug in and use 2 interface chambers.
Special cable for connection of TC01 to S-BSC2 with external reference PT100	Multichannel Systems, Germany	CA3	The reference PT100 is placed near the slices
6pin plug-connector with PT100	Multichannel Systems, Germany	TS-PT100	External reference for CA3 cable
MEA workstation for recording data from 120-electrode MEAs	Multichannel Systems, Germany	MEA2100-120	It includes MEA2100-120 headstage and MEA2100 interface board. <a href="http://www.multichannelsystems.com">www.multichannelsystems.com</a>
Microelectrode array for MEA2100-120	Multichannel Systems, Germany	120MEA200/30	Electrode spacing: 200 µm; electrode diameter: 30 µm; glass ring: 6 mm high. Different configurations (spacing, diameter, ring) possible.
Video Microscope Table	Multichannel Systems, Germany	MEA-VMT-1	Table with a video microscope underneath to image the electrode field of the MEAs in an amplifier placed on top of the table and transfer the image to a computer.
Perfusion cannula	Multichannel Systems, Germany	PH01	Heatable perfusion cannula with temperature sensor; temperature can be programmed with TC02 controller
MC_Rack	Multichannel Systems, Germany		Software for data acquisition and recordings
Magnetic Perfusion Holder	Multichannel Systems, Germany	MPH	Magnetic perfusion holder for PH01 element to fix the perfusion cannula and connect the perfusion system to the amplifier's ground
Neuroexplorer	Nex Technologies		Software for data analysis; <a href="mailto:info@neuroexplorer.com">info@neuroexplorer.com</a>
Peristaltic pump (drive unit)	Gilson	F155001	0,01 to 48 rp
Peristaltic pump (pump head)	Gilson	F117800	R2 two channel
Ultrasonic aspirator	Integra Life sciences, USA	Cusa Excel +	It allows blunt subpial dissection of the cortex

Neuronavigation	Isis Solutions, France	Surgiscope	It allows real time identification of the brain structure on the preoperative MRI
Vibratome HM 650 V	Microm		Block slicing into 400 $\mu$ m thick slices