

Performing *In Vivo* and *Ex Vivo* Electrical Impedance Myography in Rodents

Marie Mortreux¹, Janice A. Nagy¹, Haowen Zhong¹, Dong-Min Sung¹, Holly A. Concepcion¹, Melanie Leitner², Laura Dalle Paze³, Seward B. Rutkove¹

¹Department of Neurology, Harvard Medical School - Beth Israel Deaconess Medical Center ²Accelerating NeuroVentures ³Charley's Fund

Corresponding Authors

Marie Mortreux

mmortreu@bidmc.harvard.edu

Seward B. Rutkove

srutkove@bidmc.harvard.edu

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Materials

Name	Company	Catalog Number	Comments
3D Printer	Formlabs Inc.	Form 2 Desktop	3D printer
3D Printer	Shenzhen Creality 3D Technology Co. LTD	Creality Ender 3 V2	3D printer
3M Micropore surgical tape	Fisher	19-027761 and 19-061655	models 1530-0 and 1530-1
3M TRANSPORE surgical tape	Fisher	18-999-380 and 18-999-381	models 1527-0 and 1527-1
Connector header vertical 10 POS 1 mm spacing	Digi-Key (Sullins connector solution)	S9214-ND (SMH100-LPSE-S10-ST-BK)	Plastic spacer 1 mm holes for the rat in vivo array displayed in Figure 2A
Cotton-tipped applicators	Fisher	22-363-172	
Dental Wax	Fisher	NC9377103	
Depilatory agent	NAIR	NA	hair remover lotion with softening baby oil
Dumont #7b Forceps	Fine Science Tools	No. 11270-20	Used for dissection, Style: #7b, Tip Shape: Curved, Tips: Standard, Tip Dimensions: 0.17 mm x 0.1 mm, Alloy/Material: Inox, Length: 11 cm
Electronic Digital Caliper	Fisher	14-648-17	Used to measure out the dimensions of the Gastrocnemius muscle
Epoxy adhesive dual cartridge 4 min work life	Devcon	series 14265, model 2217	Glue used in the rat in vivo array displayed in Figure 2A
Ex vivo dielectric impedance cell	Custom	NA	Dielectric cells were 3D printed in the Rutkove laboratory
Graefe Forceps	Fine Science Tools	No. 11051-10	Used for muscle to place and adjust, Length: 10 cm, Tip Shape: Curved, Tips: Serrated, Tip Width: 0.8 mm, Tip Dimensions: 0.8 mm x 0.7 mm, Alloy/Material
Hair clipper	Amazon	NA	Wahl professional animal BravMini+
Impedance Animal Device	Myolex	EIM1103	mView system - investigational electrical impedance myography device for use in animal research
In vivo needle arrays	Custom	NA	Custom arrays using 27 G subdermal needles from Ambu. The construction

			was finalized using a 3D printer in the Rutkove laboratory
In vivo surface array	Custom	NA	The in vivo surface array was printed and assembled in the Rutkove laboratory
Isoflurane	Patterson Veterinary Supplies	07-893-8441 (NDC: 46066-755-04)	Pivotal - 250 mL bottle
Non-woven gauze	Fisher	22-028-559	2 x 2 inch
Polystyrene Weighing Dishes	Fisher	S67090A	Dimensions (L x W x H): 88.9 mm x 88.9 mm x 25.4 mm
Razor Blades	Fisher	12-640	Used to cut muscle to right dimensions, Single-edge carbon steel blades
Student Fine Scissors	Fine Science Tools	No. 91460-11	Used for dissection, Tips: Sharp-Sharp, Alloy/Material: Student Stainless Steel, Serrated: No, Tip Shape: Straight, Cutting Edge: 20 mm, Length: 11.5 cm, Feature: Student Quality
Subdermal needles 27 G Neuroline	Ambu	745 12-50/24	Needles used in the rat in vivo array displayed in Figure 2A
Surgical Scissors - Sharp	Fine Science Tools	No. 14002-13	Used to cut skin, Tips: Sharp-Sharp, Alloy/Material: Stainless Steel, Serrated: No, Tip Shape: Straight, Cutting Edge: 42 mm, Length: 13 cm
TECA ELITE monopolar needle electrodes	Natus	902-DMG50-S	0.46 mm diameter (26 G). Blue hub
Teknova 0.9% saline solution	Fisher	S5815	1000 mL sterile