

Materials List for:

A Novel and Translational Rat Model of Concussion Combining Force and Rotation with In Vivo Cerebral Microdialysis

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Materials

Name	Company	Catalog Number	Comments
Animal Preparation			
Sprague Dawley Rats	Charles River Laboratories	SAS SD 40	
Microdialysis Guide Cannula Implantation Surgery			
Ketamine Hydrochloride (100 mg/ml)	Bioniche	1989529	
Xylazine Hydrochloride (100 mg/ml)	Bimeda	8XYL004C	
Solution of Chlorhexidine Gluconate 2% and Isopropyl Alcohol 2%	Carefusion	260100C	
Lidocaine Hydrochloride	Alveda Pharma	0122AG01	
Bupivacaine Hydrochloride	Hospira	1559	
Ophthalmic Ointment	Baussh and Lomb inc.	2125706	
Stereotaxic Frame	Stoelting	51600	
Stereotaxic Cannula Holder Arm	Harvard Apparatus	72-4837	
Drill	Dremel	8050-N/18	
Suture Thread Coated Vicryl Rapide 4-0	Ethicon	VR2297	
Dental Acrylic Cement	Harvard Apparatus	72-6906	
Screws	JI Morris Company	P0090CE125	
Isoflurane	Baxter	CA2L9100	
Cannula Gauge 20 10.55mm	HRS Scientific	C311G/SPC	
Dummy-Cannula 10.55mm	HRS Scientific	C311DC/1/SPC	
Microdialysis Procedure			
CMA 402 Syringe Pump	Harvard Apparatus Canada	CMA-8003110	
Microsyringe 2.5ml Glass	Harvard Apparatus Canada	CMA-8309021	
Syringe Clip Medium For 1-2.5ml	Harvard Apparatus Canada	CMA-3408310	
Low-Torque Dual Channel Quartz-Lined Swivel	Instech Laboratories Inc.	375/D/22QM	
GSC Cast Iron Support Ring Stand	Fisher Scientifique	S13748	
Fisherbrand Castaloy Adjustable-Angle Clamps	Fisher Scientifique	05769Q	

NaHCO ₃ Sodium Bicarbonate	Sigma-Aldrich Canada	S5761-500G	For Artificial Cerebrospinal Fluid (aCSF)
MgCl ₂ Magnesium Chloride	Sigma-Aldrich Canada	M8266-100G	For Artificial Cerebrospinal Fluid (aCSF)
NaCl Sodium Chloride	Sigma-Aldrich Canada	S7653-1KG	For Artificial Cerebrospinal Fluid (aCSF)
L-Ascorbic Acid	Sigma-Aldrich Canada	A5960-25G	For Artificial Cerebrospinal Fluid (aCSF)
KCl Potassium Chloride	Sigma-Aldrich Canada	P9333-500G	For Artificial Cerebrospinal Fluid (aCSF)
NaH ₂ PO ₄ Sodium Phosphate Monobasic	Sigma-Aldrich Canada	S0751-1KG	For Artificial Cerebrospinal Fluid (aCSF)
CaCl ₂ Calcium Chloride	Sigma-Aldrich Canada	383147-100G	For Artificial Cerebrospinal Fluid (aCSF)
Lighter	Canadian Tire		For Laboratory Constructed Probes / Available at most hardware stores
Epoxy Glue	Canadian Tire		For Laboratory Constructed Probes / Available at most hardware stores
Super Glue Gel	Canadian Tire		For Laboratory Constructed Probes / Available at most hardware stores
Heat Shrink Tube 0.063" Inner Diameter Gardner Bender	Canadian Tire		For Laboratory Constructed Probes / Available at most hardware stores
Cut-Off Wheels Dremel #409	Canadian Tire		For Laboratory Constructed Probes / Available at most hardware stores
BD Needle 26 Gauge 0.5 Inch PrecisionGlide Sterile 305111	Fisher Scientifique	14-826-15	For Laboratory Constructed Probes
BD Needle 21 Gauge 1.5 Inch PrecisionGlide Sterile 305167	Fisher Scientifique	14-826-5B	For Laboratory Constructed Probes
26G Stainless Steel Tubing One Foot	HRS Scientific	SST-26/FT	For Laboratory Constructed Probes
Polyethylene Tubing PE/20 .024" OD X .015" ID	HRS Scientific	C315CT	For Laboratory Constructed Probes
Polyethylene Tubing PE/10 .024" OD X .011" ID	HRS Scientific	C314CT	For Laboratory Constructed Probes
Polyethylene Tubing PE/50 .038" OD X .023" ID	HRS Scientific	C313CT	For Laboratory Constructed Probes
30S WIRE ST.ST 0.008X 1' Long	HRS Scientific	008BSH/30S	For Laboratory Constructed Probes
Polymicro Technologies Flexible Fused Silica Capillary Tubing Inner Diameter 50µm, Outer Diameter 150µm	Molex LLC Polymicro Technologies	106815-0015	For Laboratory Constructed Probes
Spectra Por 132294 Micro-Dialysis Hollow Fiber Membranes 13 kD MWCO	Spectrum Labs	FSSP9778671	For Laboratory Constructed Probes
Stainless Steel Collar	Siray In.c	304	For Laboratory Constructed Probes / Custome made
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Concussion Apparatus			
Brass Weight	Rapido Métal Inc.		Attach metal loop to base
Metal Loop	Rona Inc.		Available at most hardware stores

PVC Guide Tube	Rona Inc.		Available at most hardware stores
Aluminum Foil	Alcan		Available at most grocery stores
Tape			Available commercially
GSC Cast Iron Support Ring Stand	Fisher Scientifique	S13748	
U-Shaped Plexiglas Frame	Présentoirs PlexiPlus Inc.		Custom made
Foam Cushion	Mousse D&R Foam Inc.		Custom made
Razor Blades	VWR International	55411-055	
Super Strong Trilene XT 20 lb. Berkley	Canadian Tire		Available at most hardware stores
Isoflurane	Baxter	CA2L9100	
Stop Watch			Available at most sporting goods retailer
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