Materials List for:

Mechanical Testing of Mouse Carotid Arteries: from Newborn to Adult

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Materials

Name	Company	Catalog Number	Comments
Name of the reagent/equipment	**Company**	**Catalogue number**	**Comments**
Air tank and regulator	Airgas Mid America	UN3156	For pressurizing myograph
Pressure myograph and software	Danish Myotechnology	110P, MyoView	With custom cannulae (Figure 2)
Inverted microscope, 5x lens and camera	Zeiss	Axiovert 40C	For tracking artery diameter
Physiological saline solution (PSS)	Chemicals from Sigma		Recipe and details in Table 2
Surgical tape	Various suppliers		For securing the mouse during dissection
Dissection board	Fisher Scientific	09-002-24A	For securing mouse during dissection
Dissecting microscope with camera	Zeiss	Stemi 2000-C	For arterial dissection and mounting
Dissecting scissors	Fine Science Tools	14058-11	For cutting skin and opening the chest
Fine tweezers (2)	Fine Science Tools	11200-14	For grasping artery ends
Curved forceps	Fine Science Tools	11274-20	For clearing tissue and exposing carotid arteries
Micro-scissors	Fine Science Tools	15005-08	For precise cutting of arteries
7-0 and 10-0 silk suture	Various suppliers		For estimating length and fastening arteries on cannulae
Digital calipers	Fisher Scientific	806-93-111	For measuring suture length and checking artery length
Disposable scalpel	Feather	No. 15	For cutting artery rings
Activated charcoal	Sigma	C4386-500G	For marking cut locations on vessels
18G Needle	Beckton-Dickinson	305136	For applying activated charcoal to vessels, clearing blood and filling myograph tubing
20 mL syringe	Various suppliers		For clearing blood and filling myograph tubing
Petri dish	Fisher Scientific	08-757-13B	For inserting vessels after dissection and testing to take pictures
Microfuge tube	Fisher Scientific	02-682-550	For storing vessels before testing
Fine wire	California Fine Wire Company	100192	For clearing clogged cannula
ImageJ software	National Health Institute	www. rsbweb.nih.gov/ij	Open-source image processing program developed by NIH
Matlab software	Mathworks		Useful for analyzing data and fitting constitutive equations

