Materials List for:

## Imaging Neural Activity in the Primary Somatosensory Cortex Using *Thy1*-GCaMP6s Transgenic Mice

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## **Materials**

Name	Company	Catalog Number	Comments
C57BL/6J-Tg(Thy1- GCaMP6s)GP4.3Dkim/J	Jackson	24275	Can be any strains made by the genetically-encoded neuronal indicator and effector expressing the green fluorescent calcium indicator, GCaMP, in subsets of excitatory neurons in the cortex.
B6.Cg-Tg(Thy1-EGFP)OJrs/GfngJ.	Jackson	7919	Can be any strains expressing EGFP in subsets of neurons within specific populations in the cortex; providing a bright, vital Golgi-like stain.
Dumont no. 5 forceps, standard, Dumoxel	Fine Science Tools	11251-30	Can be any brand of choice.
Dumont no. 5SF forceps	Fine Science Tools	11252-00	Can be any brand of choice.
Micro Bead Sterilizer	Southern Labware	B1201	Can be any brand of choice.
Harishige's SG-4N Head Holding Adaptor	Tritech Research	SG-4N	Can be any brand of choice.
Ideal Micro-Drill Complete Kit	Harvard Apparatus	72-6065	Can be any brand of choice.
Burrs for Micro Drill	Fine Science Tools	19007-05	Can be any brand of choice.
Round cover glass, 3 mm	Harvard Biosciences	W4 64-0720	Can be any brand of choice.
Round cover glass, 5 mm	Harvard Biosciences	W4 64-0700	Can be any brand of choice.
Norland optical adhesive	Norland Products	7106	Can be any brand of choice.
Loctite liquid super glue	WB Mason	LOC1647358	Can be any brand of choice.
Grip cement kit, powder and solvent	Dentsply	675570	Can be any brand of choice. Mix 5 parts of white dental cement powder (Grip Cement) with one part of black Tempera powder paint (to shield from light; some users prefer a 10:1 ratio).
Gel foam	Moore Medical	2928	Can be any brand of choice.
Micro dissecting scissors	Roboz	RS-5841	Can be any brand of choice.
Artificial cerebrospinal fluid (ASF)	-	-	The ACSF contains 125 mM NaCl, 4.5 mM KCl, 26 mM NaHCO <sub>3</sub> , 1.25 mM NaH <sub>2</sub> PO <sub>4</sub> , 2 mM CaCl <sub>2</sub> , 1 mM MgCl <sub>2</sub> and 20 mM glucose. Bubble the ACSF with oxygen (95% oxygen, 5% carbon dioxide) and adjust the pH to 7.4. Prepare

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	fresh ACSF solution before every experiment.