

Materials List for

# Photodiode-Based Optical Imaging for Recording Network Dynamics with Single-Neuron Resolution in Non-Transgenic Invertebrates

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jove.com/video/61623

## Materials

Name	Company	Catalog Number	Comments
Achromat 0.9 NA swing condenser	Nikon	N/A	
Bipolar temperature controller	Warner Instruments	CL-100 with SC-20	Controls perfusion saline temperature
Chamber thermometer	Physitemp	BAT-12 with IT-18 microprobe	
Digital camera	Optronics	S97808	
Dissecting forceps	Dumont	#5	
Dissecting scissors	American Diagnostic Corp.	ADC-3410Q	
Imaging microscope	Olympus	BX51WIF	
Imaging perfusion chamber	Siskiyou	PC-H	
Instant Ocean	Instant Ocean	SS6-25	Makes 25 gallons at a time
Master-8 pulse stimulator	A.M.P.I.	Master-8	
Microdispenser	Drummond Scientific	3-000-752	Dye applicator for pressure staining
Microdissection scissors	Moria	15371-92	
Minutien pins (0.1 mm)	Fine Science Tools	NC9677548	For positioning and stabilizing CNS
Motorized microscope platform	Thorlabs	GHB-BX	Gibraltar platform
NeuroPlex imaging software	RedShirtImaging	NeuroPlex	Compatible with the WuTech photodiode array
Objective lenses	Olympus	XLPLN10XSVMF, XLUMPLFLN20XW, LUMPLFLN40XW, UAPON40XW340	
PE-100 polyethylene tubing	VWR	63018-726	Tubing to make suction electrodes
Perfusion pump	Instech	P720 with DBS062SDBSU tube set	
Petroleum jelly	Equate	NDC 49035-038-54	
Photodiode array with control panel	WuTech Instruments	469-IV photodiode array	Contact jianwu2nd@gmail.com for ordering information
RH155	Santa Cruz Biotechnology	sc-499432	Voltage-sensitive dye

RH482	Univ of Conn. Health Center	JPW-1132	Voltage-sensitive dye; special order from Leslie Leow
Silicone earplugs	Mack's	Model 7	To be use for preparation compression
Staining PE tubing	VWR	63018-xxx	Different sizes depending on fit
Sylgard 184 silicone elastomer kit	Dow Corning	Sylgard 184 silicone elastomer kit	
Thorlabs LED and driver	Thorlabs	M735L2-C1, DC2100	LED lamp and driver
Tygon tubing	Fisher Scientific	14-171-xxx	
Vibration isolation table	Kinetic Systems	MK26	Spring-based