

Materials List for:

# In Vivo Targeted Expression of Optogenetic Proteins Using Silk/AAV Films

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## Materials

Name	Company	Catalog Number	Comments
Aqueous silk fibroin	Sigma	5154-20ML	Aqueous Silk Fibroin (5% w/v) for making films
Microinjector to deposit silk/AAV	Drummond	3-000-207	Nanoject III nanoliter injector
Manipulator to hold implants	Narashige	MM-33	Micromanipulator
Stereoscope to visualize silk deposits	AmScope	SM-6TX-FRL	3.5X-45X Trinocular articulating zoom microscope with ring light
Vacuum chamber to store implants	Ablaze	N/A	3.5 Quart Vacuum Vac Degassing Chamber
Optional, implant holder for storage	N/A	N/A	To store premade optical fibers, drill a grid of ~4 mm-deep holes with a diameter just larger than the ferrule diameter into a plastic block.
Optical fiber	Thorlabs	FT200EMT	Ø200 µm Core Multimode Optical Fiber for fiber implants
Ferrules	Kientec	FZI-LC-230	LC Zirconia Ferrule for fiber implants
Various materials for manufacturing chronic fiber implants	Various	N/A	For detailed procedure, see Ung K, Arenkiel BR. Fiber-optic implantation for chronic optogenetic stimulation of brain tissue. Journal of visualized experiments: JoVE. 2012(68).
Tapered fiber implants	Optogenix	Lambda-B	Tapered fiber implants
GRIN lenses	GoFoton	CLH-100-WD002-002-SSI-GF3	GRIN lenses
Small glass cranial windows	Warner	64-0726 (CS-3R-0)	Small round cover glass, #0 thickness
Large glass cranial windows	Warner	64-0731 (CS-5R-0)	Small round cover glass, #0 thickness
Various materials for manufacturing cranial windows	Various	N/A	For detailed procedure, see Goldey GJ et al. Removable cranial windows for long-term imaging in awake mice. Nature protocols. 2014 Nov;9(11):2515.