

Materials List for

# Development of Combinatorial Therapeutics for Spinal Cord Injury using Stem Cell Delivery

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jove.com/video/66872

## Materials

Name	Company	Catalog Number	Comments
3-(Decyldimethylammonio)propane sulfonate inner salt	Sigma-Aldrich	D4266	Used during sciatic nerve decellularization, SB-10
3-(N,N-Dimethylpalmitylammonio)propane sulfonate	Sigma-Aldrich	H6883	Used during sciatic nerve decellularization, SB-16
AlamarBlue reagent	Fisher Scientific	DAL 1100	Used during AlamarBlue cell viability test
Chondroitinase ABC	Sigma-Aldrich	C3667	Used during sciatic nerve decellularization
Cryostat	Leica	CM1860	
Deoxyribonuclease	Sigma-Aldrich	D4263	Used during sciatic nerve decellularization
Disodium hydrogen phosphate heptahydrate	VWR	BDH9296	Chemical for 100 mM Na/50 mM phos and 50 mM Na/10 mM phos buffer
DNeasy Blood & Tissue kit	Qiagen	69506	Used during DNA analysis
Dpx Mountant for histology, slide mounting medium	Sigma-Aldrich	6522	Used during H&E staining
Eosin	Sigma-Aldrich	HT110216	Used during H&E staining
Ethanol	VWR	89125-172	
Formaldehyde	Sigma-Aldrich	252549	Used during H&E staining
Glutaraldehyde (GA)	Sigma-Aldrich	G6257	Used during PDMS surface functionalization
hASC growth media	Lonza	PT-4505	Used to culture hASCs, containing of fetal bovine serum and penicillin/streptomycin
Hematoxylin	VWR	26041-06	Used during H&E staining
human adipose-derived stem cell	Lonza	PT-5006	
Hydrochloric acid (HCl)	Sigma-Aldrich	320331	Used to digest decellularized tissues and adjust pregels solutions
M199 media	Sigma-Aldrich	M0650	Used to dilute pregels to desired concentration

Optimal cutting temperature compound	Tissue-Tek	4583	
Pepsin	Sigma-Aldrich	P7000	Used to digest decellularized tissues
Peracetic acid	Lab Alley	PAA1001	Used during spinal cord decellularization
Phosphate buffered saline (PBS)	VWR	97062-948	
Plate reader	BioTek Instruments	Synergy Mx	
Polyethyleneimine (PEI)	Sigma-Aldrich	181978	Used during PDMS surface functionalization
Porcine sciatic nerve	Tissue Source LLC		Live pigs, with no identifiable information and no traceability details
Porcine spinal cord	Tissue Source LLC		Live pigs, with no identifiable information and no traceability details
QuantiFluor dsDNA system	Promega	E2670	Used to analyze DNA contents
Rheometer	TA Instruments	DHR 2	
Rugged rotator	Glas-co	099A RD4512	Used during spinal cord decellularization
Sodium chloride (NaCl)	VWR	BDH9286	Chemical for 100 mM Na/50 mM phos and 50 mM Na/10 mM phos buffer
sodium deoxycholate	Sigma-Aldrich	D6750	
Sodium dihydrogen phosphate monohydrate	VWR	BDH9298	Chemical for 100 mM Na/50 mM phos and 50 mM Na/10 mM phos buffer
Sodium hydroxide solution (NaOH)	Sigma-Aldrich	415443	Used to adjust pregels solutions
SU-8	Kayaku advanced materials	SU8-100	Used to coat silicon wafer
Sucrose	Sigma-Aldrich	S8501	Used during spinal cord decellularization
Sylgard 184 silicone elastomer kit	DOW	1317318	Polydimethylsiloxane (PDMS) base and curing agent
Triton X-100	Sigma-Aldrich	X100	Used during spinal cord decellularization
Trypsin-EDTA (0.05%), phenol red	Thermo Fisher	25300062	Used during hASC work and during spinal cord decellularization
Tube revolver rotator	Thermo Fisher	88881001	Used during sciatic nerve decellularization
Xylene	VWR	MK866816	Used during H&E staining