Materials List for:

Bridging the Bio-Electronic Interface with Biofabrication

Tanya Gordonov[1,*], Benjamin Liba[2,*], Jessica L. Terrell[1,*], Yi Cheng[3], Xiaolong Luo[2], Gregory F. Payne[1], William E. Bentley[1]

[1]Fischell Department of Bioengineering, University of Maryland

[2]Institute for Bioscience and Biotechnology Research, University of Maryland

[3]Department of Materials Science and Engineering, University of Maryland

[*]These authors contributed equally

Correspondence to: William E. Bentley at bentley@umd.edu

URL: http://www.jove.com/video/4231/

Materials

Name	Company	Catalog Number	Comments
Power Supply	Keithley	SourceMeter 2400	
Three electrode potentiostat	CH Instruments	Potentiostat/Galvanostat 600D	
RE-5B Ag/AgCl Reference Electrode with Flexible Connector	BASi	MF-2052	
Gold coated silicon wafer, 500um Si, 12nM Cr, 120nM Au, SiO_2 for insulation	custom fabricated		
Indium Tin oxide coated glass slide, rectangular, 8-12 ohm resist	Sigma-Aldrich	578274	
Platinum sheet/foil (0.002 in)	Surepure Chemetals	1897	
Slim Line 2" Alligator Clips	RadioShack	270-346	
Multi-Stacking Banana Plug Patch Cord	TSElectronic	B-36-02 B-24-02	
SYLGARD 184 silicone elastomer kit	Dow Corning	NC9020938 From Fischer	
Fluorescecence stereomicroscope	Olympus Corporation	MVX10 MacroView	
cellSens Standard	Olympus Corporation	version 1.3	
Table 1. Electrodeposition and fluorescence visualization equipment.			
Chitosan, medium molecular weight	Sigma-Aldrich	448877	
Hydrochloric Acid, ARISTAR. ACS, NF, FCC Grade	VWR international	BDH3030	
Sodium Hydroxide, Solution. 10.00N	VWR international	VW3247	
Alginic acid, sodium salt	Sigma-Aldrich	180947	
Multifex-MM Precipitated Calcium Carbonate, 70nm particles	Speciality Minerals Inc.	100-3630-3	
Table 2. Chitosan and alginate solution reagents.			
Calcium chloride, dihydrate	J.T. Baker	0504	
Sodium Chloride, Certified ACS crystalline	Fischer Scientific	S271	
Potassium Phosphate Monobasic, anhydrous	Sigma-Aldrich	P9791	
Potassium Phosphate Dibasic, anhydrous	Sigma- Aldrich	P3786	
Phosphate Buffered Saline	Sigma- Aldrich	P4417	
Table 3. Other solution components and buffer reagents.			

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Glucose oxidase from *aspergillus niger*	Sigma-Aldrich	G2133	
Tyrosinase from mushroom	Sigma-Aldrich	T3824	
LB broth, Miller (granulated)	Fischer Scientific	BP9723-2	
"AI2-Synthase" (HGLPT)	Lab stock [16]		
W3110 wildtype cells	Lab stock [30]		
MDAI2 + pCT6-*lsrR-amp*^{r} + pET-*dsRed-kan*^{r} cells	Lab stock [30]		
FluoroSpheres: 1µm diameter, Ex/Em: 505/515	Invitrogen	F8765	
5-(and-6)-carboxyrhodamine 6G succinimidyl ester, Ex/Em: 525/560	Invitrogen	C-6157	
DyLight antibody labeling kit, 405	Thermo Fisher Scientific, Inc.	PI-53020	

Table 4. Enzymes, cells, and other functionalization reagents.

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