

Materials List for:

# Utilizing Custom-designed Galvanotaxis Chambers to Study Directional Migration of Prostate Cells

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## Materials

Name	Company	Catalog Number	Comments
<b>Cells</b>			
pRNS-1-1 prostate cells			Lee, <i>et al.</i> (1994)
PNT2 prostate cells	Sigma-Aldrich	95012613-1VL	Berthon, <i>et al.</i> (1995)
<b>Medium and solutions</b>			
RPMI 1640 medium	Invitrogen	11875-093	warm up to 37 °C before use
Fetal Bovine Serum - Premium	Atlanta Biologicals	S11150	10% in PBS, warm up to 37 °C before use
Antibiotic-Antimycotic (100x)	Life Technologies	15240	add 5 ml to 500 ml medium
2-propanol	VWR	BDH1133-5GL	
PBS	-	-	137 mM NaCl, 2.7 mM KCl, 4.3 mM Na <sub>2</sub> HPO <sub>4</sub> and 1.5 mM KH <sub>2</sub> PO <sub>4</sub> in 1,000 ml of H <sub>2</sub> O, pH to 7.4 and autoclaved, warm up to 37 °C before use
0.25% Trypsin-EDTA	Invitrogen	25200-056	warm up to 37 °C before use, treat cells for 3-5 min at 37 °C
<b>Galvanotaxis device</b>			
Galvanotaxis chambers	Precision Plastics Inc, CA		Custom-designed (1/4" x 2" x 3.5"), non-toxic, clear PVC chambers. Please contact the authors for the design specs.
Galvanotaxis electrodes	UCD electric shop		platinum coiled electrodes with flexible cords
Galvanotaxis power box	Substrate Engineering, CA		custom-designed DC power output with voltmeter
Microscope Cover Glass, Large, 45 x 50 mm, No. 1.5	Fisher	12-544-F	
Microscope Cover Glass, small, 25 x 25 mm, No. 1	ThermoScientific	3307	
Diamond point marker	ThermoScientific	750	
Marine grade silicon sealer, clear	3M	051135-08019	
High vacuum grease	Dow Corning	2021846-0807	
6 ml syringe	Fisher Scientific	05-561-64	
Nichiryo Syringe, 1.5 ml	Nichiryo	SG-M	
Cotton applicators	Purtian Medical Products	806-WC	
Qtips	Johnson & Johnson	729389	
Nalgene 180 PVC tubing	Nalgene	8000-9030	503/16 ID x 5/16 OD x 1/16 Wall
Bacto-Agar	Difco	0140-01	make 2% agar solution

Razor Blade	Personna	74-0001	
<b>Equipments and Software</b>			
Benchtop Centrifuge	Eppendorf	5810R	operated with an A-4-62 rotor
Cellometer Auto T4	Nexcelom	Auto T4	
Cellometer counting chambers	Nexcelom	CHT4-SD100-002	load 20 µl cell solutions to count
Culture Temp Warming plate	Bel-Art Scienceware	370150000	to keep the galvanotaxis chambers at 37 °C
Eclipse TE-2000 microscope with motorized stage and environmental chamber	Nikon		
Plan Fluor 10X/0.30 objective len	Nikon		
Retiga EX CCD camera	Qimaging		Cooled CCD camera, mono-color, 12-bit
Compressed air with 5% CO <sub>2</sub>	Airgas		special order
Volocity 6.3	PerkinElmer		Image acquiring software
Improvision OpenLab 5.5.2	PerkinElmer		Cell tracking software and customized to measure migration angles
FileMaker Pro Advanced, 8.0	FileMaker		
Microsoft Excel 2008 for Mac	Microsoft		