Materials List for: Characterizing Cell Migration Within Three-dimensional *In Vitro* Wound Environments

Seema Nandi^{1,2}, Ashley C. Brown^{1,2}

¹Joint Department of Biomedical Engineering, North Carolina State University and The University of North Carolina - Chapel Hill ²Comparative Medicine Institute, North Carolina State University

Correspondence to: Ashley C. Brown at aecarso2@ncsu.edu

URL: https://www.jove.com/video/56099 DOI: doi:10.3791/56099

Materials

Name	Company	Catalog Number	Comments
Materials			
Dulbecco's Modified Eagle's Medium, 4.5 g/L Glucose, w/ Sodium Pyruvate, w/out L- Glutamine	VWR	VWRL0148-0500	DMEM already containing L- glutamine can also be used
100mm Tissue Culture Dish, Non- Treated, Sterilized, Non-Pyrogenic	VWR	10861-594	Dishes of any size can be used for hanging drop culture
Fetal Bovine Serum from USDA approved countries, heat inactivated, sterile-filtered, cell culture tested	Sigma-Aldrich	12306C-500ML	
L-glutamine	Fisher Scientific	ICN1680149	Not needed if using DMEM that already contains L-glutamine
Penicillin-Streptomycin Solution stabilized, sterile-filtered, with 10,000 units penicillin and 10 mg streptomycin/mL	Sigma-Aldrich	P4333-100ML	
Human Dermal Fibroblasts, neonatal	Thermo Fisher	C0045C	Can be replaced with other cell type of interest
21 G x 1 1/2' needle	BD	305167	22 G x 1 1/2 needles will also work
1 mL syringe	VWR	89174-491	Syringes of any volume can be used
Cell Culture Multiwell Plates, Polystyrene, Greiner Bio-One (Individially Wrapped) (48 wells)	VWR	82051-004	
Human Fibrinogen - Plasminogen, von Willebrand Factor and Fibronectin Depleted	Enzyme Research Laboratories	FIB 3	Can be replaced with matrix protein of interest
Human Alpha Thrombin	Enzyme Research Laboratories	HT 1002a	May not be necessary depending on matrix protein of interest
Equipment			
BSL2 cell culture hood			
Cell culture incubator			
Inverted microscope with 10X objective			
Centrifuge compatibile with 15 mL tubes			