

Materials List for:

# A Novel *In Vitro* Model of Blast Traumatic Brain Injury

Rita Campos-Pires<sup>1,2</sup>, Amina Yonis<sup>1</sup>, Warren Macdonald<sup>2,3</sup>, Katie Harris<sup>1</sup>, Christopher J. Edge<sup>4,5</sup>, Peter F. Mahoney<sup>6</sup>, Robert Dickinson<sup>1,2</sup>

<sup>1</sup>Anaesthetics, Pain Medicine and Intensive Care Section, Department of Surgery and Cancer, Imperial College London

<sup>2</sup>Royal British Legion Centre for Blast Injury Studies, Department of Bioengineering, Imperial College London

<sup>3</sup>Department of Bioengineering, Imperial College London

<sup>4</sup>Department of Life Sciences, Imperial College London

<sup>5</sup>Department of Anaesthetics, Royal Berkshire Hospital NHS Foundation Trust

<sup>6</sup>Royal Centre for Defence Medicine, Medical Directorate Joint Force Command

Correspondence to: Robert Dickinson at [r.dickinson@imperial.ac.uk](mailto:r.dickinson@imperial.ac.uk)

URL: <https://www.jove.com/video/58400>

DOI: [doi:10.3791/58400](https://doi.org/10.3791/58400)

## Materials

Name	Company	Catalog Number	Comments
Geys balanced salt solution	Sigma UK	G9779	
D-glucose	Sigma UK	G8270	
Antibiotic/antimycotic	Sigma UK	A5955	
Minimum essential medium Eagle	Sigma UK	M4655	
Hanks balanced salt solution	Sigma UK	H9269	
Horse serum	Sigma UK	H1138	
L-glutamine	Sigma UK	G7513	
HEPES	VWR Prolabo, Belgium	441476L	
Sodium hydroxide	Sigma UK	S-0945	
Tissue culture inserts	Millicell CM 30 mm low height Millipore	PICM ORG 50	
6-well plates	NUNC, Denmark	140675	
Propidium iodide	Sigma UK	P4864	
Sterile polyethylene bags - Twirl'em sterile sample bags	Fisherbrand	01-002-30	
Portex Avon Kwill Filling Tube 5" (127 mm)	Smiths Medical Supplies	E910	
Epifluorescence microscope	NIKON Eclipse 80i, UK		
Microscope objective	Nikon Plan UW magn. 2x, NA 0.06, WC 7.5 mm		
Microscope filter	Nikon G-2B (longpass emission)		
Mylar electrical insulating film, 304 mm x 200 mm x 0.023 mm	RS Components UK	785-0782	
Pressure transducer	Dytran Instruments Inc.	2300V1	
Tissue chopper	Mickle Laboratory Engineering Co., Guildford, Surrey, United Kingdom.	Mcllwain tissue chopper	
Silicone elastomer	Dow Corning, USA	Sylgard 184	
Graphing & statistics software	GraphPad Software, USA	Prism 7.0	