



Research & Innovation 2017

Cells as Models of Disease & New Therapeutics
29th - 30th March 2017, HOMERTON COLLEGE, CAMBRIDGE

Physiologically Relevant 3D Models & Scale-up - Thursday 30th March 2017

Cellular science has played a pivotal role in both fundamental research and drug discovery for over a century. Throughout this period, great advances have been made in how cells are cultured and manipulated in vitro so as to provide models as physiologically relevant as possible. Consequently, whole tissue and 3-dimensional (D) cell culture technologies are being rapidly adopted in vitro as a means to better mimic in vivo settings. Emerging data using these technologies is increasing our understanding of cellular viability and growth, differentiation and signaling in spheroid, organoid or tissue assemblies, thereby providing a better understanding of physiological and pathophysiological processes and, ultimately, underpinning new approaches for optimizing the development of new therapies. In this session, speakers from leading academic and pharmaceutical institutions will cover established and emerging aspects of whole tissue culture, with a focus on innovative approaches in basic cellular and tissue physiology that are applicable to, or being utilized, in translational research and drug discovery arenas.

CHAIRS: Margaret Ashcroft, University of Cambridge and Richard Eglon, Corning

TIME	SPEAKER	TITLE
09:05 - 09:15	Session Chairs	Opening Remarks & Introduction of Keynote
09:15 - 10:15	Plenary Keynote: Richard Eglon (Corning)	To boldly go ...exploring new dimensions in cellular research and drug discovery
10:15 - 10:30	VENDOR SNAPSHOTS	
10:30 - 11:00	COFFEE BREAK	
11:00 - 11:10	Session Chairs	Introductions
11:10 - 11:40	Alison Lloyd (UCL)	Modelling Nerve Regeneration in vitro and in vivo
11:40 - 11:45	VENDOR SNAPSHOT	
11:45 - 12:15	Radek Polanski (AstraZeneca)	Application of 3D culture for mechanism of action studies and oncology biomarker discovery
12:15 - 12:25	VENDOR SNAPSHOTS	
12:25 - 12:55	POSTER TASTERS	
12:55 - 14:00	LUNCH (EXHIBITION & POSTERS)	
14:00 - 14:30	Martin Miller (Cambridge Institute)	Dissecting cell-cell interactions in the tumour microenvironment
14:30 - 15:00	Gary Allenby (Aurelia Bio)	3-Dimensional ElectroSpun Scaffold-Based Biological Assays – A Practical Approach to Performing 3-D Cell Culture and Assays in Microwell Plates
15:00 - 15:30	COFFEE BREAK	
15:30 - 16:00	Paul Andrews (University of Dundee)	The National Phenotypic Screening Centre: Where Predictive Biology Meets the Best Technology
16:00 - 16:30	Jon Roffey (Cancer Research Technology)	TBC
16:30 - 17:00	Lorraine O'Driscoll (Trinity College Dublin)	The relevance of using 3D cell cultures, in addition to 2D monolayer cultures, when evaluating anti-cancer drug sensitivity and resistance
17:00 - 17:15	CONFERENCE CLOSE	