



ELRIG

The Drug Discovery
Community

biotechne®

Advanced Cell Models in Drug Discovery and Toxicology

ELRIG's UK Forum

DATE

8 May 2025

LOCATION

Henry Wellcome Building
The University of Leicester, Leicester

Drug discovery is rapidly moving beyond the traditional immortalised cell lines into advanced models that can better mimic and predict the complex physiological environment of the human body. Organoids and spheroids have the potential to revolutionise drug discovery and toxicology by offering more predictive, human-relevant insights. This forum explores the latest advancements in physiologically relevant cell models, and how they are being adopted in practical applications. Highlighting developments in organoid, organ on a chip technology, automation, and high-throughput screening, with discussions on applications in disease modelling and safety assessment. Plus sharing real-world case studies on improving drug candidate selection, reducing late-stage failures, and enhancing the predictive power of preclinical testing.

Corporate Partners



Time - GMT	Title
10:00 - 10:30	Registration & coffee
10:30 - 10:35	Site welcome: Tim Hammond (Royal Society Entrepreneur in Residence, University of Leicester)
10:35 - 10:40	ELRIG welcome: Sanj Kumar, CEO
10:40 - 10:45	Forum Director welcome
10:45 - 11:10	Modelling the obesogenic breast tumour microenvironment - Mhairi Morris (Loughborough University)
11:10 - 11:15	Technology spotlight - Alithea Genomics
11:15 - 11:20	Technology spotlight - SPT Labtech Ltd
11:20 - 11:45	Engineering neural circuitry to model biological neuronal networks in health and disease - Eric Hill (Loughborough University)
11:45 - 12:15	Refreshment break
12:15 - 12:40	Modelling human liver in vitro – nothing that is worthwhile is easy - Emma Shepard (Aston University)
12:40 - 12:55	Forum partner - Bio-technie
12:55 - 13:10	Patient-derived explants for drug and biomarker discovery - Gareth Miles (University of Leicester)
13:10 - 13:25	ECP presentation – Optimising cryopreservation and post-thaw differentiation of monocytes for efficient cell banking and high-throughput screening - Natalia Gonzalez-Martinez (University of Warwick)
13:25 - 13:40	ECP presentation
13:40 - 13:45	Technology spotlight - Molecular Devices
13:45 - 14:45	Lunch
14:45 - 14:50	Session introduction
14:50 - 15:15	Patient-derived organoid platform for target and drug discovery capturing tumour heterogeneity at scale - Luigi Aloia (AstraZeneca)
15:15 - 15:20	Technology spotlight - BrainXell
15:20 - 15:25	Technology spotlight - Merck Life Sciences KGaG
15:25 - 15:50	Prediction of respiratory toxicity using human and rat 3D airway models - Mary McElroy (Charles River Laboratories)
15:50 - 15:55	Technology spotlight - Miltenyi
15:55 - 17:00	Networking

Please ask at ELRIG reception for the wellbeing room and prayer room.