



Research & Innovation

ACCELERATING FUTURE
DRUG DISCOVERY
2024



RESEARCH & INNOVATION 2024 ACCELERATING FUTURE DRUG DISCOVERY



20 - 21 MARCH
THE UNIVERSITY OF MANCHESTER

#ELRIG

#RI2024

WELCOME TO RESEARCH & INNOVATION 2024

We are delighted to welcome you to ELRIG's Research & Innovation Conference in Manchester. It is fantastic to be hosting this at The University of Manchester in their bicentenary year.

This event will discuss how emerging biology and cutting-edge technologies are pioneering the medicines of tomorrow. Bringing together scientists, researchers and entrepreneurs with bold ideas to serve our shared ambitions in creating the next generation of therapeutics to cure more patients around the world. Our four themed sessions include:

Track 1 – Animal-free drug discovery

Track 2 – Oncology: thinking the unthinkable and drugging the undruggable

Track 3 – New horizons in tackling antimicrobial resistance

Track 4 – Mass spectrometry and proteomics

We are honoured to be joined by our two keynote speakers, Dr Anderson Ryan of FasT BioPharma and Steve Bates OBE, FMedSci of the BioIndustry Association.

Alongside the scientific presentations, we encourage you to visit the Exhibition and TechBio Breakthrough Zone to learn more about the tools and services available to support your research. Browse the posters and enjoy meeting new friends and old during the networking.

We would like to thank our track chairs: Emma Shepherd (Aston University); Mike Morton (Apconix); Liz Anderson (Storm Therapeutics); Susan Critchlow (AstraZeneca); Bev Isherwood (Medicines Discovery Catapult); Lisa Dawson (Charles River Laboratories); Zack Gurard-Levin (Charles River Laboratories) and Marcus Bantscheff (GSK). The organisation of these meetings could not happen without their help and that of the ELRIG Operations team.

CONFERENCE DIRECTORS



Roger Clark
Charles River Labs



Sarah Brockbank
Medicines Discovery Catapult

KEYNOTE SPEAKERS



Dr Anderson Ryan
Head of R&D
FasT Biopharma

Since the publication of the book 'Cancer: Science and Society' by the eminent scientist John Cairns in 1978, the biological understanding and treatment of cancer has evolved beyond anything that could have been predicted. Here, from a personal perspective, I will review the major changes that have occurred over the last half-century and highlight new research directions that could potentially lead to the elimination of cancer as a leading cause of death in the modern world.



Steve Bates
CEO
UK Bioindustry Association

Steve Bates is the CEO of the UK Bioindustry Association, the UK's Trade Association for innovative life science companies with over 550 members. The UK is uniquely set up to be a globally competitive research & innovation superpower, with a combination of world leading academic institutions, a thriving industrial sector, all underpinned by the National Health Service. The integration of tech in life sciences will allow us to meet the challenges of tomorrow, precision medicine in oncology, AMR and animal-free drug discovery are all possible through Big Data & AI. Key to taking advantage of new technologies is nurturing the next generation of talent. Diversity in thinking is as important as diversity in data and creating a diverse team and wider life science sector will improve innovation for all.

DAY 1 - TRACK SUMMARY

TRACK CHAIRS



Emma Shepherd
Aston University



Michael Morton
ApconiX

ANIMAL-FREE DRUG DISCOVERY

20 March
Theatre B (first floor)

There has been a major shift away from animal use which has been catapulted by recent legislation stating that the FDA will consider approval of new medicines without animal data. This session will showcase some of the latest innovations and applications of animal-free technologies including world leading experts who will share their insights and experiences on the challenges and opportunities of animal-free drug discovery and development.

08:15 – 09:15	Registration
09:15 – 09:20	ELRIG Welcome - Melanie Leveridge (ELRIG Chair)
09:20 – 09:25	Conference Director Welcome & Keynote Introduction - Roger Clark (Charles River Laboratories) and Sarah Brockbank (Medicines Discovery Catapult)
09:25 – 10:10	Plenary Keynote - Are we there yet? Current and future advances in defeating cancer - Anderson Ryan (FasT BioPharma Ltd)
10:10 – 10:40	Industry Insider - bit.bio
10:40 – 10:45	ECP Impact Award Introduction
10:45 – 11:00	ELRIG – Early Career Professional Impact Award
11:00 – 11:30	Refreshment break
11:30 – 11:35	Track Introduction - Animal-free drug discovery - Emma Shepherd (Aston University) & Michael Morton (ApconiX Ltd)
11:35 – 12:05	The use of complex cell models for translational science - Emily Offer (Medicines Discovery Catapult)
12:05 – 12:35	Using pluripotent stem cells to identify new drug targets through disease modelling - Sue Kimber (University of Manchester)
12:35 – 14:10	Refreshment break
14:10 – 14:15	Track Introduction - Animal-free drug discovery - Emma Shepherd (Aston University) & Michael Morton (ApconiX Ltd)
14:15 – 14:45	Reducing our reliance on animals through advanced technologies: today and tomorrow - Aurélie Thomas (AstraZeneca)
14:45 – 15:00	Flash poster presentations
15:00 – 15:30	The NC3Rs: Accelerating the development and application of animal-free drug discovery and development - Cathy Vickers (NC3Rs)
15:30 – 16:00	Refreshment break
16:00 – 16:30	Harnessing organ-chip technology: A path to human-centric research - Asli Akidil (Emulate)
16:30 – 16:35	Technology Spotlight
16:35 – 17:05	Improving seizure liability detection in drug development: An in vitro approach using hiPSC neuronal cells and ion channel screening - Kim Rockley (ApconiX)
17:05 – 19:00	Network like a boss - Networking in The Exhibition Hall - 30 minute poster session - 17:30 – 18:00

DAY 1 - TRACK SUMMARY

TRACK CHAIRS

ONCOLOGY: THINKING THE UNTHINKABLE AND DRUGGING THE UNDRUGGABLE

20 March
Theatre A (second floor)

In the ever-evolving landscape of cancer research, we find ourselves on the precipice of transformative discoveries that will pave the way for a new generation of cancer therapeutics. This session will explore the latest innovations in Oncology drug discovery and development and will cover advances in developing antibody-drug conjugates, RNA modifying enzymes and targeting previously undruggable targets.



Liz Anderson
Storm Therapeutics



Susan Critchlow
AstraZeneca

08:15 – 09:15	Registration
09:15 - 11:00	All presentations in Theatre B
11:00 – 11:30	Refreshment break
11:30 – 11:35	Track Introduction - Oncology: thinking the unthinkable and drugging the undruggable - Elizabeth Anderson (Storm Therapeutics Ltd) & Susan Critchlow (AstraZeneca)
11:35 – 12:05	Rational combinations with ADCs: Mechanisms, prioritization and optimization of novel partners - Jay Mettatal (AstraZeneca)
12:05 – 12:35	CAR-T cell therapy development from concept to cure - Sabrina de Munnik (Charles River Laboratories)
12:35 – 12:50	Industry Insider - CETSA®: Accelerating Primary Screening of P53 through Rapid High-Throughput Target Engagement Technology - Isabella Martin Caballero - Pelago Bioscience AB
12:50 – 14:10	Refreshment break
14:10 – 14:15	Track Introduction - Oncology: thinking the unthinkable and drugging the undruggable - Elizabeth Anderson (Storm Therapeutics) & Susan Critchlow (AstraZeneca)
14:15 – 14:45	Bicycle® molecules to target solid tumors - Steve Ludbrook (Bicycle Therapeutics)
14:45 – 14:55	Flash poster presentations
14:55 – 15:00	Technology Spotlight - Promega
15:00 – 15:30	STC-15, a small molecule inhibitor of the METTL3 RNA methyltransferase, activates innate immunity pathways and enhances anti-tumour immunity - Yaara Ofir-Rosenfeld (Storm Therapeutics)
15:30 – 16:00	Refreshment break
16:00 – 16:30	Building an AI enabled target identification and automated validation pipeline - Alex Gaither (Exscientia AI)
16:30 – 16:35	Technology Spotlight - OmicScouts
16:35 – 17:05	Discovery of a novel class of brain penetrant inhibitors of KRAS G12C - Jason Kettle (AstraZeneca)
17:05 – 19:00	Network like a boss - Networking in The Exhibition Hall - 30 minute poster session - 17:30 – 18:00

DAY 2 - TRACK SUMMARY

TRACK CHAIRS

NEW HORIZONS IN TACKLING ANTIMICROBIAL RESISTANCE

21 March
Theatre B (first floor)

AMR is one of the biggest health challenges we face as a global society, and it is currently developing faster than the speed of our scientific discoveries. There is an urgent need to grow a pipeline of high-quality antimicrobial drugs and diagnostics if we are going to address AMR and protect lives worldwide. Antimicrobial therapies are undergoing a transformation. Similar to that which occurred with the treatment of cancer where innovation has led to both 'one for all' chemotherapies and treatments that target specific oncogenic pathways, pathogen and/or indication specific approaches to tackle multi-drug resistant infections are being considered. This transformation is being enabled by a new wave of innovation in medicines and diagnostics discovery. This session will explore the opportunities and challenges.



Bev Isherwood
Medicines Discovery
Catapult



Lisa Dawson
Charles River
Laboratories

08:30 – 09:15	Registration
09:15 – 09:20	Conference Director Welcome & Keynote Introduction - Roger Clark (Charles River Laboratories) and Sarah Brockbank (Medicines Discovery Catapult)
09:20 – 09:25	University of Manchester
09:25 – 10:10	Plenary Keynote - Supporting the UK's globally competitive innovation ecosystem - Steve Bates (BioIndustry Association)
10:10 – 10:25	Innovation prize presentation
10:25 – 10:30	Poster prize presentation
10:30 – 11:00	Refreshment break
11:00 – 11:05	Track Introduction - New horizons in tackling antimicrobial resistance - Bev Isherwood (Medicines Development Catapult) & Lisa Dawson (Charles River Laboratories)
11:05 – 11:35	Discovery and characterization of Zosurabalpin - Claudia Zampaloni (F. Hoffmann-la Roche Ltd.)
11:35 – 11:40	Technology Spotlight
11:40 – 12:10	Development of patient-derived neutralizing antibodies targeting multidrug-resistant Pseudomonas aeruginosa - Alexander Simonis (Department of Internal Medicine, University Hospital of Cologne)
12:10 – 12:25	Flash poster presentations
12:25 – 12:55	Precision protein antibiotics targeting gram-negative pathogens - Daniel Walker (Glox Therapeutics)
12:55 – 14:15	Refreshment break - poster session 13:30 – 14:00
14:15 – 14:20	Track Introduction - New horizons in tackling antimicrobial resistance - Bev Isherwood (Medicines Development Catapult) & Lisa Dawson (Charles River Laboratories)
14:20 – 14:50	A novel immunotherapy to treat gram-negative infections - Dave Chapman (Centauri Therapeutics)
14:50 – 15:20	Getting phages closer to clinical development - Martha Clokie (University of Leicester)
15:20 – 15:50	Panel Discussion - How to make precision medicine for AMR a reality? - Colm Leonard (Manchester University NHS Foundation Trust & Infex Therapeutics); Martha Clokie (University of Leicester); Jo Fothergill, (Liverpool University); Jonathan Jones (High Value Manufacturing Catapult, Centre for Process Innovation); Claudia Zampaloni (Roche)
15:50 – 16:00	Conference close

DAY 2 - TRACK SUMMARY

TRACK CHAIRS

MASS SPECTROMETRY + PROTEOMICS

21 March
Theatre A (second floor)

Mass spectrometry (MS) continues to gain momentum as a powerful tool in drug discovery and development, allowing the direct and hypothesis free analysis of the molecular constituents of cells and body fluids. Mass spectrometric measurements provide valuable insights for defining disease states, target discovery and validation, target engagement and mechanisms of bioactive molecules and drug safety. This session will highlight recent advances in mass spectrometry techniques and their applications in drug discovery, including native MS, affinity selection mass spectrometry (ASMS), and chemoproteomics. Learn from experts on how MS can inform on small molecule-target interactions, elucidation of protein structures, and the impact of drugs on cellular pathways.



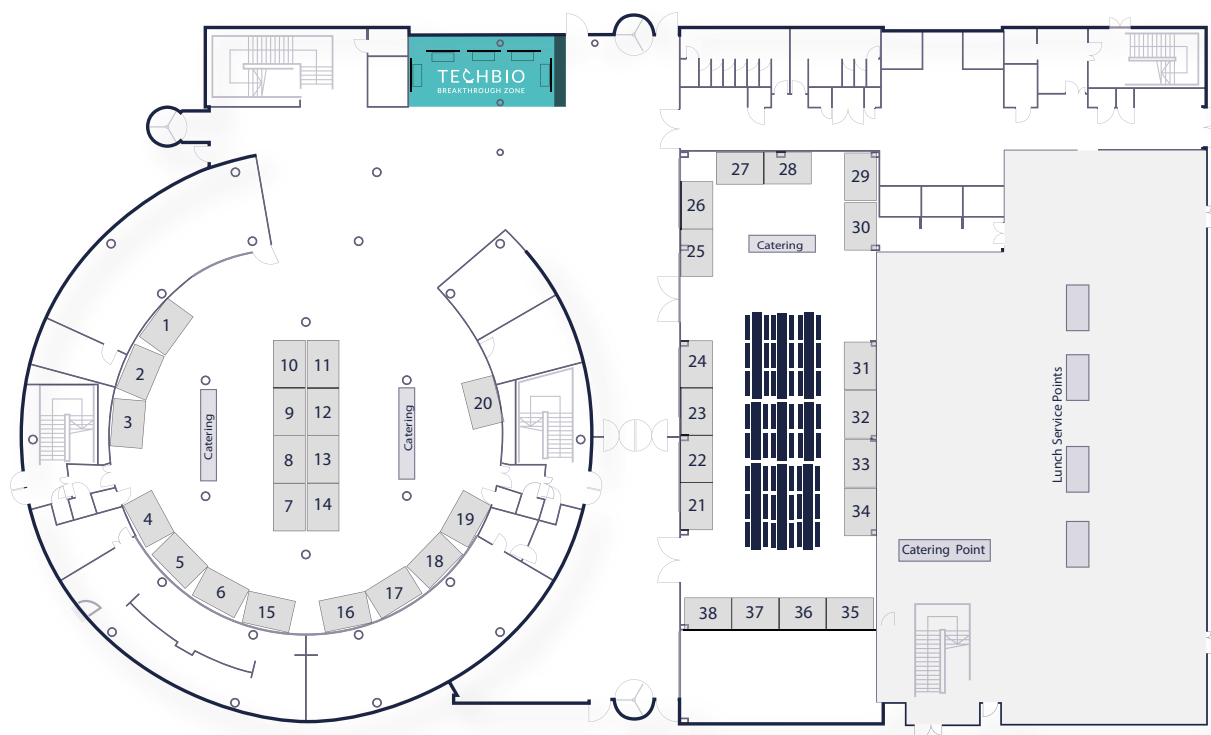
Zack Gurard-Levin
Charles River
Laboratories



Marcus Bantscheff
Cellzome/GSK

08:30 – 09:15	Registration
09:15 – 11:00	All presentations in Theatre B
10:30 – 11:00	Refreshment break
11:00 – 11:05	Track Introduction - Mass Spectrometry + Proteomics - Zack Gurard-Levin (Charles River Laboratories) & Marcus Bantscheff (Cellzome/GSK)
11:05 – 11:35	Spatial proteomics pinpoints JAK/STAT signaling as the driver of lethal cutaneous drug reactions - Thierry Nordmann (Max Planck Institute of Biochemistry, Munich)
11:35 – 11:40	Technology Spotlight - Beckman Coulter
11:40 – 12:10	Chemical proteomics reveals the target landscape of small molecule compounds - Maria Reinecke (OmicScouts)
12:10 – 12:20	Flash poster presentations
12:20 – 12:25	Technology Spotlight - Promega
12:25 – 12:55	Leveraging mass spectrometry proteomics to advance TPD based degraders from early discovery to clinic - Kirti Sharma (Kymera Therapeutics)
12:55 – 13:10	Industry Insider - Rapid MS-guided covalent fragment-based drug discovery workflow demonstrated on Bruton's tyrosine kinase - Kilian Knoll (Wuxi AppTec UK Ltd)
13:10 – 14:15	Refreshment break - poster session 13:30 – 14:00
14:15 – 14:20	Track Introduction - Mass Spectrometry + Proteomics - Zack Gurard-Levin (Charles River Laboratories) & Marcus Bantscheff (Cellzome/GSK)
14:20 – 14:50	High-throughput mass spectrometry in drug discovery - Matthias Trost (Newcastle University)
14:50 – 15:20	Making the most out of a sticky situation: Innovative affinity selection mass spectrometry assay for proteins, RNA, and cells - Zack Gurard-Levin (Charles River Laboratories)
15:20 – 15:50	Make the invisible visible: spatial mapping of metabolites and drugs via mass spectrometry imaging - Stefan Schmidt (CeMOS, University of Applied Sciences Mannheim)
15:50 – 16:00	Conference close

FLOOR PLAN



INDUSTRY INSIDERS



Booth 19



Booth 25



Booth 11

VENUE



The University of Manchester

Booth 8

TECHNOLOGY SPOTLIGHTS



Booth 31



Booth 30



Booth 20



Booth 4

TECHBIO BREAKTHROUGH ZONE



SPONSORS



Booth 12



Booth 3



Booth 10



Booth 9



Booth 7



Booth 5



Booth 34



Booth 1



Booth 2



Booth 6

INFORMATION FOR PARTICIPANTS

To help keep a safe space, we require the following from all attendees:

Pre-registration for the meeting is essential. At ELRIG we want all our meeting participants to enjoy, participate in and contribute to the event.

ELRIG does not accept harassment or intimidation of ELRIG participants in any form whether verbal, physical, or written (including on social media or by email).

Harassment includes, but is not limited to:

1. Offensive or unwanted conduct on the basis of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex or sexual orientation which has the purpose or effect of violating dignity or creating an intimidating, hostile or degrading environment.
2. Use of sexualised or other inappropriate images or unwelcome sexualised content, inappropriate physical contact, unwelcome sexual attention or stalking.
3. Sustained interruption of speakers or those asking questions.
4. Unwanted photography or filming.

Intimidation includes, but is not limited to:

1. Making threats.
2. Bullying.
3. Personal attacks.

Participants who do not adhere to these rules will be

asked

to stop and expected to comply immediately. Participants may be removed from any meeting at the discretion of ELRIG's management. If you are being harassed/intimidated, notice that someone else is being harassed/intimidated, or have any other concerns, please contact any of the ELRIG management team immediately. They

will

be able to step in to remove you or others from a chain of communication, if this is the preferred action, and can also facilitate a discussion or mediation. If you wish, you may also nominate someone else to support facilitating any mediation or as an observer to this process.

Use the WiFi network UoM-Guest, you will need to login and authenticate your identity using one of the options given.

ELRIG MOBILE APP

Download the free ELRIG app and access all our conference information, programme and more from your phone or tablet.

- View the event programme
- View presentation and poster abstracts
- View speaker profiles
- View the exhibitor guide
- View the delegate and exhibitor list
- Organise your day with your own favourites list
- Share your profile as vCard and QR Code and scan exhibitor QR code information tags
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CAR PARKING

The University of Manchester parking information can be found at <https://www.estates.manchester.ac.uk/services/operationalservices/carparking/>. The nearest car parks are Booth Street East or West.

PRAYER / MULTIFAITH ROOMS

The prayer room is 2.217 on the second floor. The closest multifaith room is in the Manchester Museum across the road.

DISABLED & CHANGING FACILITIES

Disabled facilities can be found on each floor. Changing facilities can be found in the Manchester Museum across the road.

WELLBEING ROOM

The wellbeing room is room 2.218 on the second floor.

CORPORATE PARTNERS



CAREER DEVELOPMENT PARTNER



MEDIA PARTNERS



UPCOMING EVENTS

APRIL

AI in Drug Discovery Forum
Cambridge, UK | 25 April

Careers Webinar – AI at the Frontier: Empowering Early Career Professionals in Drug Discovery
24 April

MAY

Pint of Science Networking Event
Various, Europe | 13 – 15 May

Advances in Cell-Based Screening
Gothenburg, SE | 15 – 16 May

JUNE/JULY

Careers Webinar – Beyond the Lab: Mental Health & Wellbeing
5 June

Drug Discovery Forum
Frankfurt, DE | 11 June

ELRIG's Summer Social
Cambridge, UK | 3 July

SEPTEMBER

Drug Discovery Forum
Edinburgh, UK | September

ECP Networking Event – Beyond the Lab: Innovation Skills to Boost your Career
Oxford, UK | 10 September

OCTOBER

Drug Discovery 2024
London, UK
2 – 3 October

NOVEMBER

Protein Sciences in Drug Discovery
Cambridge, UK | 18 – 19 November

Metabolic Disease Forum
Copenhagen, DK | 5 November

DECEMBER

ELRIG – SLAS Joint Networking Forum
London, UK | 3 December

Drug Discovery Forum
Paris, FR | December

ABOUT ELRIG

ELRIG, a market-leading UK-based not-for-profit volunteer-led organisation, is dedicated to delivering inspiring events to the dynamic life science community.

Our roots were originally in the application of automation, robotics, and instrumentation in laboratories, although we continuously evolve to meet the sector's shifting needs.

With a global community of over 22,000 life science professionals across all levels, ELRIG remains committed to accessible and inclusive events. Participation at our conferences, forums and networking events is free and unrestricted, reflecting the rich diversity of our community, and enabling learning and collaboration across disciplines, academia, and biopharmaceutical organisations.

STRATEGIC PILLARS



EVENTS

- Best in class events
- Curated topical content
- Free to attend



EQUALITY, DIVERSITY & INCLUSIVITY

- Accessible to all
- Promotes engagement and collaboration
- Celebrating diversity



PRESENCE & AWARENESS

- Trusted brand
- Cross-community collaboration
- Growing digital presence



SUSTAINABILITY

- Ethical and transparent
- Operational excellence
- Sustainable events