



# ELRIG

The Drug Discovery  
Community

# Research & Innovation 2025

## Big Molecules to Big Data... Thinking Big to Drive Innovative Research

10 – 11 March 2025

The Royal Society of  
Medicine, London

#ELRIGRI2025

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# Welcome to Research & Innovation 2025

We are delighted to welcome you to ELRIG's Research & Innovation Conference in London.

This year we are thinking BIG!

Big molecules – a term which can encompass a wide variety of complex molecular types and sizes. With the proliferation of new modalities, this year's sessions are designed to draw learning points from both the successes and the challenges across the different classes of therapeutic agents. Big data - how the use of large data sets is changing drug discovery. Innovative approaches using AI and machine learning are being developed to support multiple steps within the drug discovery process.

Our themed sessions include:

- Day 1 Morning – BIG technology for BIG molecules
- Day 1 Afternoon – BIG molecules for BIG problems
- Day 2 – BIG data for BIG insights: transforming research

We are delighted to be joined by our two keynote speakers, Jue Wang of Google DeepMind and Robert Grundy of Intelligent OMICS.

Alongside the scientific presentations, we encourage you to visit the Exhibition and 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: Arpan Desai (CamGene), Thierry Dorval (Servier), Sara Imarisio (Medicines Discovery Catapult) and Marijn Vlaming (Charles River Laboratories). The organisation of these meetings could not happen without their input and that of the ELRIG Operations team.

## Conference Directors



**Roger Clark**  
Charles River Labs



**Sarah Brockbank**  
Medicines Discovery Catapult

## Keynote Speakers



**Jue Wang**  
DeepMind

Jue Wang is a computational biologist, whose research interests are centred around protein engineering, deep learning, synthetic biology and sustainability. He is currently working at the intersection of machine learning and protein design in his role as Research Scientist and Co-lead of the Protein Design Team at Google DeepMind, where his goal is to develop tools to create proteins with novel, useful functions.



**Robert Grundy**  
Intelligent OMICS

Robert Grundy MBE has spent over 25 years in pharma and biotech. He has served as CEO of CIGA Healthcare and Health Innovation Research Alliance and chaired Matrix, the Science and Technology policy panel in Northern Ireland. He has held or holds visiting and honorary lectureships at King's College London and Queen's University Belfast. He currently serves as CEO at Intelligent OMICS Ltd, an AI-driven drug discovery company

# Day 1 - Track Summary

## Morning – Big technology for big molecules

With advanced drug modalities increasing and improving every day, the innovative technologies required to design, optimize and analyze biotherapeutics are advancing quickly. This session will focus on new and innovative technologies that are used for drug discovery and development of biotherapeutic drugs.

## Afternoon – Big molecules for big problems

The diversity of drug modalities is expanding rapidly, encompassing RNA, cell and gene therapies, PROTACs and many more. This session will explore the innovative potential of these large molecules in treating diseases, the hurdles in their development, and the transformative impact they can have on modern medicine. Join us to delve into the future of therapeutic applications and the exciting possibilities they hold.

### Track Chairs



**Arpan Desai**  
CamGene



**Marijn Vlaming**  
Charles River Laboratories

Time - GMT	Title
08:30 - 09:30	Registration
09:30 - 09:35	ELRIG Welcome
09:35 - 09:45	Conference Director Welcome & Keynote Introduction - Sarah Brockbank (Medicines Discovery Catapult) and Roger Clark (Charles River Laboratories)
09:45 - 10:30	Plenary Keynote: From rocks to picomolar binders: a short history of computational protein design in therapeutics - Jue Wang (Google DeepMind)
10:30 - 11:10	Refreshment break
11:10 - 11:15	Track Chair Introduction: Big technology for big molecules - Marijn Vlaming (Charles River Laboratories)
11:15 - 11:45	AI and the future of biologics drug discovery - Andrew Buchanan (AstraZeneca)
11:45 - 11:50	Technology Spotlight - Promega
11:50 - 12:20	LNP-based mRNA delivery for vaccines and therapeutics of the future - Örn Almarsson (Axelyf)
12:20 - 13:30	Refreshment break
13:30 - 14:00	The Galapagos decentralized cell therapy manufacturing platform - Esther Drent (Galapagos)
14:00 - 14:05	Track Chair Introduction: Big molecules for big problems - Arpan Desai (CamGene Therapeutics)
14:05 - 14:15	Flash poster presentation
14:15 - 14:45	AI antigen design for mRNA vaccines - Joshua Blight (Baseimmune)
14:45 - 14:50	Breakthrough Zone presentation
14:50 - 14:55	Breakthrough Zone presentation
14:55 - 15:30	Refreshment break
15:30 - 16:00	How CAR-T cell therapy re-defines personalised medicine - Alex Ramptos (UCL)
16:00 - 16:10	Flash poster presentation
16:10 - 16:40	The race to the clinic for ultra-rare diseases in the era of advanced modalities - Roxana Redis (Charles River Laboratories)
16:40 - 19:00	Networking in The Exhibition Hall - poster session - 17:00 - 18:00

# Day 2 - Track Summary

## Big data for big insights: transforming research

The application of big data, alongside advancements in artificial intelligence (AI), is revolutionising pre-clinical research and drug discovery, providing a powerful tool to accelerate our understanding of disease mechanisms, facilitate the discovery of future treatments, and improve treatment precision. This session will explore how big data and AI can bridge the gap between early-stage research and patient-specific therapies, akin to the strides seen in personalised oncology. By leveraging vast datasets from genomics, proteomics, and clinical trials, researchers are now able to pinpoint disease-specific markers and develop drugs with enhanced efficacy and safety. In neurodegenerative and other neurological diseases, this transformation opens new opportunities for patient stratification and biomarker discovery, enabling us to identify subgroups of patients with distinct biological profiles and disease trajectories.

### Track Chairs



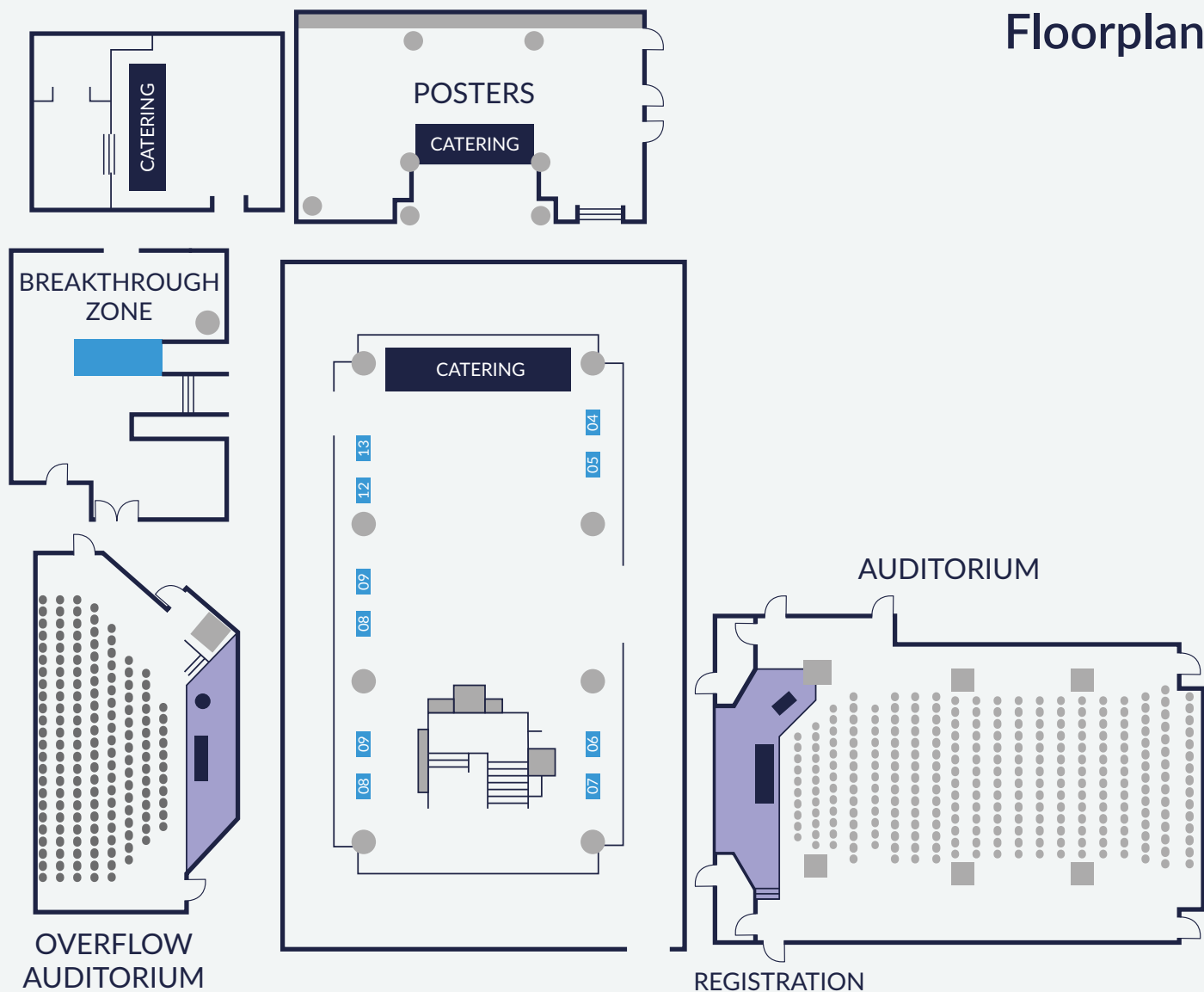
**Thierry Dorval**  
Servier



**Sara Imarisio**  
Medicines Discovery Catapult

Time - GMT	Title
08:30 - 09:30	Registration
09:30 - 09:35	Conference Director Welcome & Keynote Introduction - Sarah Brockbank (Medicines Discovery Catapult) and Roger Clark (Charles River Laboratories)
09:35 - 10:20	Plenary Keynote: Exploiting big data to drive drug discovery through AI and collaboration - Robert Grundy (Intelligent OMICS)
10:20 - 10:25	Best ECP Poster Prize
10:25 - 11:00	Refreshment break
11:00 - 11:05	Track Chair Introduction: Big data for big insights: Transforming research - Thierry Dorval (Servier)
11:05 - 11:35	Unveiling the potential of morphological profiling: Extracting and leveraging cell painting features in drug discovery - Paula Andrea Marin Zapata (Bayer AG)
11:35 - 11:45	Flash poster presentation
11:45 - 12:15	Accelerating the discovery-to-clinical journey with AI - Krishna Bulusu (AstraZeneca)
12:15 - 12:25	Flash poster presentation
12:25 - 12:55	Revolutionizing pharmacology: Leveraging AI and machine learning for predictive drug efficacy - Kelly Zalocusky (Recursion)
12:55 - 13:00	Breakthrough Zone presentation
13:00 - 13:05	Breakthrough Zone presentation
13:05 - 14:15	Refreshment break - posters 13.30 to 14.00
14:15 - 14:20	Track Chair Introduction: Big data for big insights: transforming research - Sara Imarisio (Medicines Discovery Catapult)
14:20 - 14:50	AI for better brain and mental health - Zoe Kourtzi (University of Cambridge)
14:50 - 15:20	Integrative multi-omics approaches to improve early detection and decipher causal pathways in dementia - Petra Proitsi (Queen Mary University of London)
15:20 - 15:50	Patient-led therapeutic antibody, novel target and biomarker discovery - Donna Finch (Alchemab Therapeutics)
15:50 - 16:00	Conference Close

# Floorplan



## Sponsors



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# Information for Participants

## 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
- Network – contact delegates, other exhibitors and speakers easily through opt-in directories and integration with LinkedIn, X and Facebook.



Download our App... search for and install The Event App by EventsAir onto your mobile device, then use the Event App Code found in your email. For convenience, you can add the app to your device's home screen.

## Wi-Fi

- Network is RSM WIRELESS
- Password 2ApkLCHN
- QR code will also be available at Reception

## Wellbeing Room

Available on the basement floor.

## Accessibility

Lift to lower ground floor for toilets, wellbeing room and multi-faith room.

## Multi-Faith Room

Available on the basement floor.

## Conference code of conduct

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.

# About ELRIG

## Who we are

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



### Presence & Awareness

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



### Equality, Diversity & Inclusivity

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



### Sustainability

- Ethical and transparent
- Operational excellence
- Environmentally and economically sustainable events

## Corporate Sponsors

**AstraZeneca**

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## Media Partners

**BioTechniques**

The International Journal of Life Science Methods

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## 2025 events

### FEBRUARY

**WORD+ 2025 – 3rd Annual World Organoid and Organ-on-a-chip Research Day+**  
11 - 13 February 2025  
Cambridge, UK

**Target Innovation & Novel Screening Technologies**  
18 February 2025  
ELRIG's German Forum  
Berlin, DE

### MARCH

**Research & Innovation 2025 – Big molecules to big data**  
10 - 11 March 2025  
London, UK

**Advances In Cell & Gene Therapy**  
ELRIG's UK Forum  
20 March 2025  
Cambridge, UK

### MAY

**Cellular Models & Organoids**  
ELRIG's UK Forum  
8 May 2025  
Leicester, UK

**Therapeutic Oligos 2025 – Drugging the undruggable**  
14 - 15 May 2025  
Gothenburg, SE

### JUNE/JULY

**Neuroimmunology In Drug Discovery**  
ELRIG's USA Forum  
24 June 2025  
Boston, USA

**ELRIG Summer Social**  
2 July 2025  
Cambridge, UK

### SEPTEMBER

**Drug Discovery In Scotland**  
ELRIG's Scottish Forum  
17 September 2025  
Glasgow, UK

### OCTOBER

**Drug Discovery 2025 – A festival of life science**  
21 - 22 October 2025  
Liverpool, UK

### NOVEMBER

**High-Content Imaging And Flow Cytometry In Drug Discovery 2025**  
19 - 20 November 2025  
Stevenage, UK

### DECEMBER

**Ai In Drug Discovery**  
ELRIG & SLAS Joint UK Forum  
2 December 2025  
London, UK