



# HIGH CONTENT IMAGING AND FLOW CYTOMETRY IN DRUG DISCOVERY 2023

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21 – 22 NOVEMBER  
GSK, STEVENAGE

#ELRIG

#HIGHCONTENT

#DRUGDISCOVERY

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# WELCOME TO ELRIG'S HIGH CONTENT IMAGING AND FLOW CYTOMETRY IN DRUG DISCOVERY 2023

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Flow cytometry and imaging are two powerful technology platforms that enable high-content analysis of complex cell systems which are proving invaluable in drug discovery and clinical evaluations. Since our first meeting in 2008, we have seen the technology develop and the applications widen across many areas of industrial and academic drug discovery and development. Today we are starting to see the use of sophisticated machine learning and AI techniques beginning to take full advantage of data produced by these powerful microscopic technologies.

There are three themes which are the focus of this meeting:

- **Translational Flow Cytometry and Imaging in Drug Discovery and Development** - The application of technology in biological models from the microscale and single cell through to complex in-vitro tissue systems and the clinic.
- **Novel and Emerging Technologies** - Next generation instrumentation, probe and sensor technology for pharmaceutical research
- **Drug discovery in the era of multiomics and spatial cytometry** - Exploration of the latest multi-parameter techniques and the analytical challenges of using multiomics approaches to link the genome and proteome to cellular regulation and function.

## CONFERENCE DIRECTORS



**Rob Jepras**  
Investigator & GSK Fellow,  
GSK



**Richard Kasproicz**  
Investigator,  
GSK



**James Pilling**  
Associate Principal Scientist,  
AstraZeneca



**Ben Powney**  
Director & Co-Head of Biology,  
Eisai



**Niga Sirwan Nawroly**  
Flow Cytometry Specialist,  
Agilent

# DAY 1 SUMMARY

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21 November 2023

08:30-09:30	Registration
09:30-09:35	ELRIG Welcome & GSK Welcome
09:35-09:45	Conference Director Welcome & Keynote Introduction - Rob Jepras, GSK
09:45-10:30	Keynote Presentation - Image-based profiling software and machine learning for high-throughput phenotype prediction - Gregory Way, University of Colorado
10:30-11:15	Refreshment Break
11:15-11:20	Track Chair Welcome - Rob Jepras, GSK
11:20-11:50	Applying image profiling and 'omics platforms in drug discovery - Richard Kasprovicz, GSK
11:50-11:55	Technology Spotlight - BioProcess Engineering Services
11:55-12:25	A human bone marrow organoid platform for target discovery and validation in haematological malignancies - Abdullah Khan, University of Oxford
12:25-12:30	Technology Spotlight - Thermo Fisher Scientific
12:30-13:45	Refreshment Break Including a workshop from Cytex Biosciences, room VDR3 Full Spectrum Profiling (FSP) <sup>™</sup> , adaptable solutions to deep immunophenotyping using the Cytex Aurora: a practical walkthrough
13:45-13:50	Track Chair Welcome - James Pilling, AstraZeneca
13:50-14:20	Applying Full Spectral Flow Cytometry Techniques to Conventional Instruments - Christopher Hall, Babraham Institute
14:20-14:35	Industry Insider - Revvity
14:35-15:05	The value and challenges of Flow Cytometry in drug discovery and beyond - Alessandra De Riva, Advent Bioservices Ltd
15:05-15:10	Technology Spotlight - Curiox Biosystems
15:10-15:50	Refreshment Break
15:50-16:20	Conference Partner - Revolutionizing High Content Screening: From 2 hours to less than 10 minutes a plate - Kristin Halfpenny, Araceli Bio
16:20-16:40	Poster Presentations Investigating the <i>in vitro</i> enhancement of human differential immune cell responses by immunotherapies pembrolizumab, blinatumomab and trastuzumab - Mark Bryant, Celentyx Implementing a versatile method for the identification of senolytic compounds - Chiara Annunziata, Karolinska Institutet
16:40-17:10	Harnessing flow cytometry to develop macrophage cell therapies to treat liver cirrhosis - Kayleigh Thirwell, Resolution Therapeutics
17:10-17:15	Technology Spotlight - Bio-Rad
17:20-18:00	Site/Lab Tour - pre-booked tickets only
17:15-19:00	Networking in The Function Room and Nucleus - with poster session (30 mins - 17:30 - 18:00)

## FULL SPECTRUM PROFILING (FSP)<sup>™</sup>, ADAPTABLE SOLUTIONS TO DEEP IMMUNOPHENOTYPING USING THE CYTEK AURORA: A PRACTICAL WALKTHROUGH



Lunchtime Workshop, Room VDR3

This workshop will showcase a demonstration of Cytex's® comprehensive solutions to facilitate research using our intuitive SpectroFlo® software with data acquired on a 5 laser Aurora with preoptimized Cytex Assay Settings<sup>™</sup> to acquire our Cytex 14-colour Immunophenotyping Kit. This kit is part of a range of pre-titrated and optimized immunostaining kits

with readily downloadable pre-set experimental templates offered by Cytex® as a plug and play solution. We will demonstrate the ease of experimental setup, and the high-quality resolution of immune subsets using Cytex's® offering of expert panel design and cFluor reagents in a single "off the shelf" assay allowing faster access to biological insights."

#ELRIG

#highcontent

#drugdiscovery

# DAY 2 SUMMARY

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22 November 2023

08:30-09:00	Registration
09:00-09:05	Conference Director Welcome & Keynote Introduction - Niga Nawroly, Agilent Technologies
09:05-09:50	Keynote Presentation - From paints to particles - Rachel Errington, University of Cardiff
09:50-10:05	Industry Insider - Molecular Devices
10:05-10:20	Industry Insider - Standard Bio
10:20-10:40	Poster Presentations and Poster Prizes - Niga Nawroly, Agilent Technologies Addressing <i>in vitro</i> TDP43 pathology using high throughput assays - Atf Nagbou, Axxam Spa A sensitive nephrotoxicity assay of <i>in vitro</i> podocyte effacement - Kathryn Garner, Newcells Biotech
10:40-11:20	Refreshment Break
11:20-11:25	Track Chair Welcome - Ben Powney, Eisai
11:25-11:55	Towards computational cytometry in drug discovery - Hefin Rhys, UCB Pharm
11:55-12:10	Industry Insider - Carl Zeiss
12:10-12:40	High-content phenotypic screen identifies small molecule enhancers of Parkin-dependent ubiquitination and mitophagy - Roberta Tufi, Eisai Co. Ltd
12:40-12:45	Technology Spotlight - Genedata
12:45-13:15	3D imaging using Fourier light-field microscopy: from super-resolution towards 3D imaging flow cytometry - Steve Lee, University of Cambridge
13:15-14:30	Refreshment Break - with poster session (30 mins - 13.30 - 14.00)
14:30-14:35	Track Chair Welcome - Richard Kasprovicz, GSK
14:35-15:05	From Generation to Integration: A Guide to Navigating a Data-intensive Multiomics Project - Maria Giebler, AstraZeneca Emerging Innovations
15:05-15:35	Application of Mass Cytometry in Cancer Research - Yanping Guo & Angeliki Karamani, UCL Cancer Institute
15:35-16:05	Working in Harmony: A suite of deep immunophenotyping panels for clinical sample testing - Irene del Molino del Barrio, GSK
16:05-16:15	Conference Close

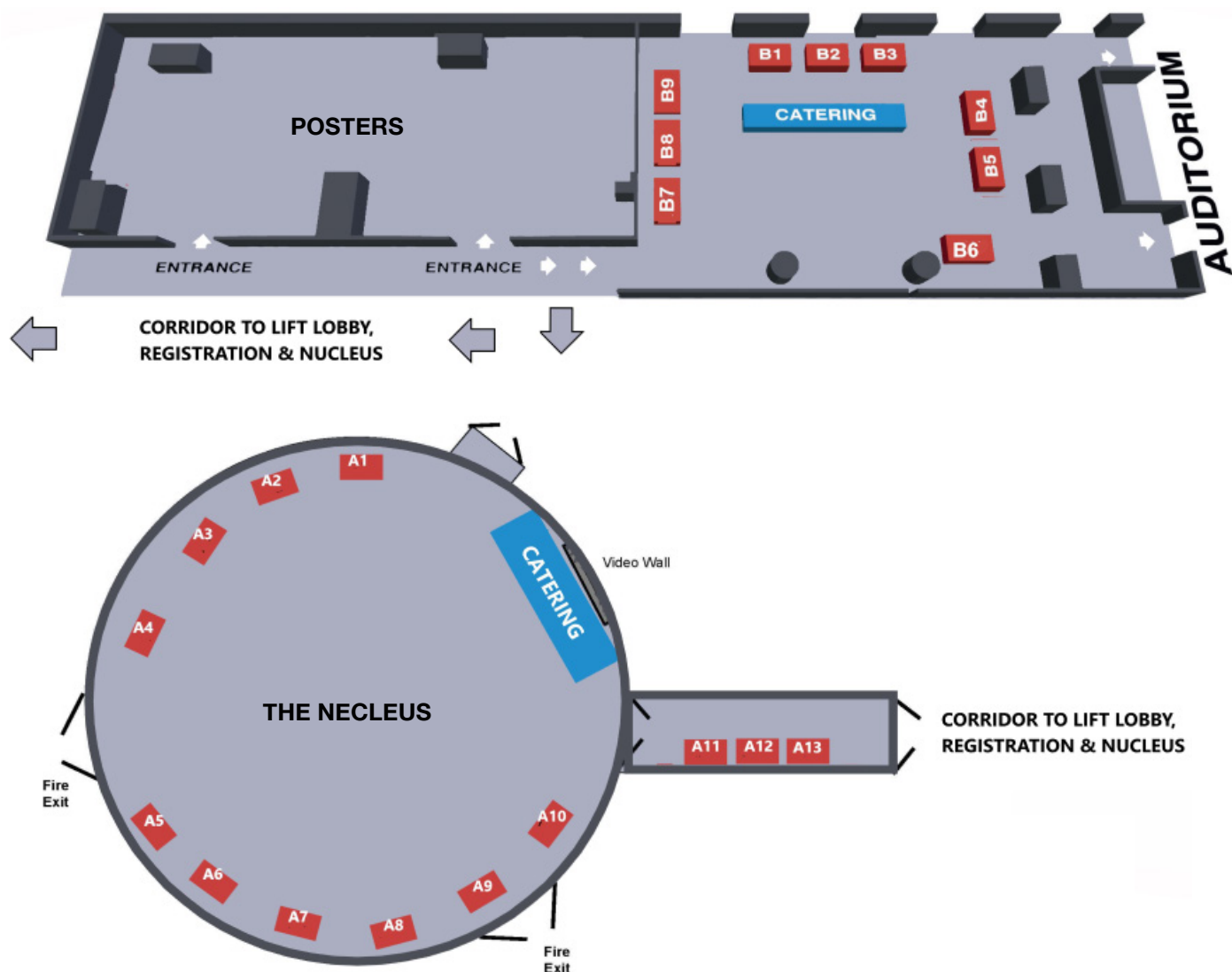
## POSTERS

Please visit the posters during the breaks.

There are two poster prizes, for the best Early Career Professionals poster and the best General Poster.

Prizes are presented on Wednesday 22nd November at 10:20 in the main auditorium.

# FLOOR PLAN & EXHIBITOR BOOTH LOCATIONS



Araceli Biosciences  
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 A7 Zeiss  
 A3  
 A5  
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B7  
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 B2

# 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.

## PRAYER ROOM AND QUIET SPACE

For a prayer room or quiet place, please ask an ELRIG member of staff.

## WIFI NETWORK

GSK Public Wireless

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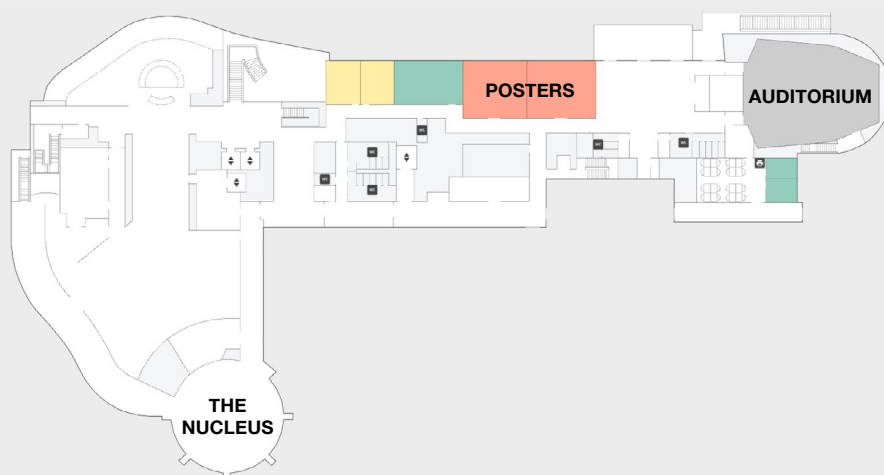


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# ABOUT ELRIG

The European Laboratory Research & Innovation Group (ELRIG) is a leading European not-for-profit organization that exists to provide outstanding scientific content to the life science community. The foundation of the organization is based on the use and application of automation, robotics and instrumentation in life science laboratories, but over time, we have evolved to respond to the needs of biopharma by developing scientific programmes that focus on cutting-edge research areas that have the potential to revolutionize drug discovery.

Comprising a global community of over 12,000 life science professionals, participating in our events, whether it be at one of our scientific conferences or one of our networking meetings, will enable any of our community to exchange information, within disciplines and across academic and biopharmaceutical organisations, on an open access basis, as all our events are free-of-charge to attend!

## STRATEGIC PILLARS



### EVENTS

- World-class scientific events
- Topical, relevant content
- Free to attend



### EQUALITY, DIVERSITY & INCLUSIVITY

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



### PRESENCE & AWARENESS

- Build a trusted brand
- Work with communities
- Expand our digital presence



### SUSTAINABILITY

- A transparent organisation
- Operational excellence
- Becoming a sustainable events organiser

## 2024 EVENTS

### FEBRUARY

**Careers Webinar**  
21 February

### MARCH

**Metabolic Disease Forum**  
Copenhagen, DK  
March

**Research & Innovation 2024**  
Manchester, UK  
20 – 21 March

### APRIL

**AI in Drug Discovery Forum**  
Cambridge, UK  
25 April

**Careers Webinar**  
24 April

### MAY

**Pint of Science Networking Events**  
Various, Europe  
13 – 15 May

**Advances in cell-based screening in drug discovery 2024**  
Gothenburg, SE  
15 – 16 May

### JUNE/JULY

**Drug Discovery Germany Forum**  
Frankfurt, DE  
11 June

**ELRIG's Summer Social**  
Cambridge, UK  
3 July

### SEPTEMBER

**Drug Discovery Scotland Forum**  
Edinburgh, UK  
September

**ECP Networking Event**  
Oxford, UK  
10 September

### OCTOBER

**Drug Discovery 2024**  
London, UK  
2 – 3 October

### NOVEMBER

**Protein Sciences in Drug Discovery**  
Cambridge, UK  
4 – 5 November

### DECEMBER

**ELRIG – SLAS Joint Networking Event**  
Paris, FR  
December