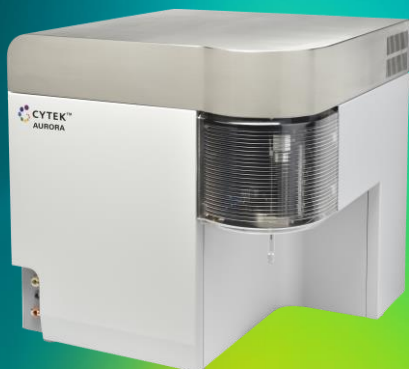


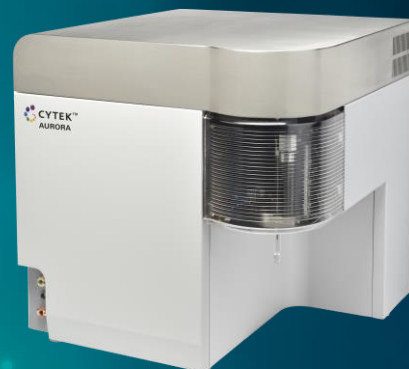
Cytek Biosciences Spectral Cytometry Forum

Best Practices in Full Spectrum Cytometry™ (FSP)

Tue 10th January 2023, 10:00 -16:30
Wellcome Auditorium
Queens Medical Research Institute,
Edinburgh BioQuarter,
University of Edinburgh,
47 Little France Crescent,
Edinburgh,
EH16 4TJ

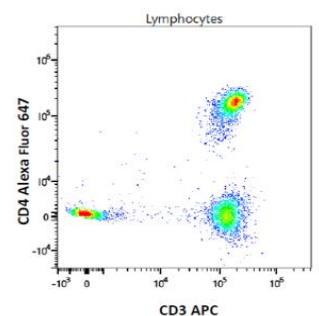
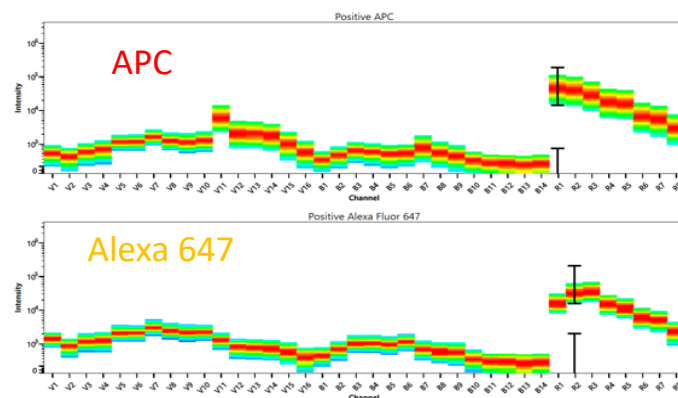
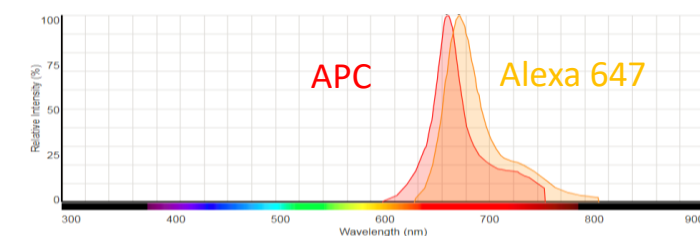


www.cytexbio.com/pages/aurora



Cytek Biosciences present a spectral cytometry forum for existing users and new adopters of the technology which will deliver talks on best practices and approaches to provide greater insight into the biology of your research. These talks will cover a range of topics including:

- Why do spectral flow cytometry?
- Main differences between conventional and high-resolution spectral flow cytometry
- How to achieve high resolution spectral flow cytometry
- Instrument setup considerations
- Fluorochrome options
- Panel design considerations
- Data troubleshooting workflow
- Reagent Optimization
- Approaches to handling autofluorescence (AF) and complex multiple AF in samples
- New reagent developments



Gated on lymphocytes



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Tue 10th Jan 2023

Schedule

09:50 - 10:10	Registration & Coffee
10:10 – 10:20	Cytek Welcome and meeting overview
10:20 – 11:00	Fundamentals of Full Spectrum Cytometry™ (FSP)
11:00 – 11:45	FSP™ Reference Controls Best Practices
11:45 – 12:30	FSP™ Debunking Titration Myths
12:30 – 13:30	Lunch
13:30 – 14:15	Introducing Cytek's cFluor® High Parameter Enablers for Full Spectrum Profiling
14:15 – 14:45	Approaches to Panel Design
14:45 – 15:00	Coffee Break
15:00 – 15:30	Full Spectrum Profiling™ Technology to Handle Multiple Autofluorescence in Complex Samples
15:30 – 16:15	Approaches to Spectral Data Troubleshooting
16:15 – 16:30	Summary and Meeting Close

Click on Registration Link to Register:

<https://www.eventbrite.co.uk/e/qmricytek-biosciences-spectral-cytometry-forum-best-practices-in-fsp-tickets-482994187617>



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Tue 10th Jan 2023

Abstracts

10:20 – 11:00 Fundamentals of Full Spectrum Cytometry™ (FSP)

This talk will introduce to researchers new to spectral cytometry key concepts and how spectral cytometry differs from conventional flow cytometry. Key aspects of light sampling and how a spectral signature is generated and how it can be interpreted will be demonstrated including the impact Full Spectral Profiling (FSP) has in research.

11:00 – 11:45 FSP™ Reference Controls Best Practices

Single stain controls are the bedrock of accounting for light emitted by multiple fluorochromes in flow cytometry and these fundamentals remain true in FSP. Here we will reiterate best practices to ensure optimal unmixing and demonstrate methods to evaluate single stain reference controls to ensure unmixing accuracy and reproducibility.

11:45 – 12:30 FSP™ Debunking Titration Myths

This talk will investigate requirements and best practices to ensure antibody reagent optimization in order to maximize resolution in multicolor flow cytometry. Here we will introduce key aspects for reagent validation including metrics, staining protocols, differences across instruments, instrument settings and with data file types to ensure all relevant factors for reagent optimization can be considered in advance of routine running of a given flow cytometry panel.

13:30 – 14:15 Introducing Cytek's cFluor® High Parameter Enablers for Full Spectrum Profiling

Cytek Biosciences will showcase new reagent solutions to support multiparameter flow cytometry and introduce new unique fluorochrome options in the form of cFluor high parameter enablers that offer the option for improved resolution and lower complexity in existing panels. Here we will show how these tools can offer the expansion on existing panels to allow for greater biological insight.

14:15 – 14:45 Best Practices in Multicolour Panel Design

Full Spectrum Profiling (FSP)™ using spectral cytometry offers the opportunity to incorporate a far greater array of fluorochromes into a single panel when compared to conventional flow cytometry. As antibody (Ab) panels of ever greater marker numbers are now being investigated through FSP™ to provide a deeper understanding of many biological areas of interest we must ensure that antigen (Ag) resolution is maintained through good panel design. Consideration of key factors including fluorochrome brightness, Ag expression, fluorochrome similarity and photon counting error (Spread) and its impact on Ag resolution in multiparameter flow cytometry.



Cytek Biosciences Spectral Cytometry Forum

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Abstracts (Cont.)

15:00 – 15:30 Full Spectrum Profiling™ Technology to Handle Multiple Autofluorescence in Complex Samples

The presence of high autofluorescence (AF) and multiple heterogenous AF in biological samples can present many challenges in flow Cytometry to antigen (Ag) resolution and cell classification resulting in impurities in the determinations of certain cell fractions. FSP offers key tools to be able to better account for AF by using AF like a fluorescent tag in the unmixing. By accounting for this AF and correctly assigning photons to the AF and not other fluorochromes within a panel, FSP can improve Ag resolution. Here we present a 4D approach, additionally to the default unmixing with AF extraction in Spectroflo to demonstrate how best to handle complex tissues where multiple AF are present and optimize unmixing results and improve data resolution.

15:30 – 16:15 Approaches to Spectral Data Troubleshooting

We present a 6-step strategy to approach data troubleshooting of problem datasets to investigate and identify the source of problems within the unmixed data. This presentation will demonstrate how to accurately assess your data and unmixing and show key areas where issues with unmixing can arise, their root causes and how to overcome this in future experiments.