

# cnio AD HOC SEMINAR

## **“MULTICOLOR FLOW CYTOMETRY COURSE”**

**Venue:** CNIO 2<sup>nd</sup> Floor Seminar Room & Online

**Speakers:** Ana Vieira, European Technical Application Specialist. Cytex Biosciences.

Jamie McCarthy, European Application Specialist. DeNovo Software.

Laura Ferrer, Scientific Solutions Manager - Medical & Scientific Affairs at BD

Lola Martinez, Head of the Flow Cytometry Unit. CNIO. Madrid. Spain

Serena Di Cecilia, Senior European Application Scientist, FlowJo. BD.

## **PROGRAMME**

### **Multicolor Flow: panel design fundamentals and rules.**

Wednesday 24th October 2023 (Presential)

#### **\* Multicolor Flow! (L. Ferrer & L. Martínez)**

**09:30-13:00**

We will go through what you need to know and all aspects you should take into consideration when doing Multicolor Flow. What are the differences between polychromatic and full spectral flow cytometry? Rules and tools to succeed with a multicolor flow panel, including some sample prep tips, how best acquire your data, the rules of compensation/unmixing and sets of controls you need to consider.

From a practical perspective we will put in practise all the learned rules to design together a multicolor flow panel. We will go through the different steps of the experimental design (assigning the markers, choosing the best antibody-fluorochrome combinations, defining controls and using different tools to succeed on panel design (spreading error matrices) and how to standardize your assays.

#### **\* Multicolor Flow panel - design, set up and troubleshooting (CNIO FCCU staff)**

**14:30-16:30**

We will connect to the CNIO core instruments on the facility to run live some multicolor flow samples both in polychromatic and spectral cytometers. How to set up the experiment, do compensation or unmixing and troubleshoot your experiment.

CENTRO NACIONAL DE INVESTIGACIONES ONCOLÓGICAS

Melchor Fernández Almagro, 3 E-28029 Madrid Tel.: +34 91 224 69 00 Fax: +34 91 224 69 80

[www.cnio.es](http://www.cnio.es)

**\* Full Spectral Autofluorescence removal (A. Vieira)**

**16:30-17:30**

Using SpectroFlo we will show you the basics for autofluorescence removal from your data experiment and how that could improve your panel resolution. Ana will cover the different strategies available and how they could be best put to work

## ***Multicolor Flow: data analysis.***

**Thursday 25th October 2023** (Presential & Online)

**\* Analysing a multicolor flow experiment using FCS Express (J. McCarthy)**

**10:00-12:00**

Jamie will be showing you the tools to analyse a multicolor flow experiment using FCS Express v7. We will cover the tools for titration analysis, compensation, unmixing, getting SSM, stats and reporting data plus a brief introduction to the high dimensional analysis tools available within the software.

**\* Analysing a multicolor flow experiment using FlowJo v.10 (S. Di Cecilia).**

**14:00-16:00**

Serena will cover using FlowJo v10. how to clean your data files, compensation, unmixing and how to critically investigate your data, getting stats and reporting data plus a brief introduction to the high dimensional analysis tools available within the software.

\* The Multicolor course is highly recommended if you are doing or planning to use the analytical flow cytometers to run immunophenotyping panels. Some knowledge of how cytometers work is required and aims to users with some flow experience that are now or will run in the future multicolor immunophenotyping flow experiments.

Registration is need it through the link below, and the cost of the course is 50 Euros (CNIO Members), 75 Euros (Non CNIO Members) and 125 Euros (Industry):

<https://www.cnio.es/eventos/multicolor-immunophenotyping-course-24-25-october-2023/>

It includes theoretical and practical sessions in panel design, data acquisition and data analysis using some of the common analysis software in the market. Due to the actual pandemic situation and to comply with the social distancing requirements, the course will be online via remote connection, close to the sessions you will receive the links for the different sessions.

CENTRO NACIONAL DE INVESTIGACIONES ONCOLÓGICAS

Melchor Fernández Almagro, 3 E-28029 Madrid Tel.: +34 91 224 69 00 Fax: +34 91 224 69 80

[www.cnio.es](http://www.cnio.es)