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AD HOC SEMINAR

"GOOD PRACTICES IN HIGH DIMENSIONAL FLOW CYTOMETRY"

Venue: *CNIO 2nd Floor Seminar Room & Online*
Speakers: *Lola Martinez,* *Head of the Flow Cytometry Unit. CNIO. Madrid. Spain*
  Aida Fiz, *Flow Cytometry Unit Staff. CNIO. Madrid. Spain*
  Ana Vieira, *Remote EU Technical Application Specialists. Cytek*
  Andrea Valle, *Senior Product Manager. DeNovo Software*
  Ioannis Panetas, *Senior Scientific Advisor, FlowJo, BD Biosciences*

PRELIMINARY PROGRAMME

Multicolor Flow: panel design fundamentals and rules.
Wednesday 19th November 2025 *(CNIO 2nd floor seminar room)*

* Good Practices in High Dimensional Flow *(L. Martínez)*   **10**:00-11:00
We will introduce concepts such spectral overlapping, compensation/unmixing, and go through what you need to take into consideration when planning your Multicolor Flow Experiments. The rules you must follow incl. sample prep tips, strategies on how best acquire your data and standardize them, and controls need it.

* High Dimensional panel design tools, optimization and troubleshooting *(L. Martínez)* **13:30-13:30**
We will be talking on best practices in systematic panel design from a practical perspective and feature you some tools that maybe of interest to you while designing your panels. Once the panel is design and acquire how to assess it is working as expected? Which steps we need to follow to optimize our panel? Laura will walk you through on how to troubleshoot your controls and look to your panel data with a critical eye.

 * Sharper Panels, Cleaner Data: A Cytek Workflow Session *(A. Vieira)*   **15:00-17.00**
We will explore the various tools Cytek offers for panel design, data troubleshooting, and autofluorescence

removal, and discuss how these can enhance your panel resolution. This will be demonstrated through practical examples showing how to apply these tools effectively.

Multicolor Flow Data Analysis & Troubleshooting.

Thursday 20th November 2025 *(CNIO 2nd floor seminar room)*

* High dimensional analysis tools in FCS Express and OMIQ *(A. Valle)*   **10:00-12:30**
Andrea will be showing you the tools to analyse a high-parameter multicolor flow experiment using FCS Express v7. We will cover from basic data analysis - titration analysis, compensation and unmixing, getting SSM tables in FCS Express- to more powerful analysis analysis tools discussing some of the dimensionality reduction and visualization algorithms available within those softwares. We will give you the tools to carry out such analysis and we will discuss how to assess which one fits better our needs.

* Analysing a multicolor flow experiment using FlowJo v.10 *(I. Panetas).*   **14:00-17:00**
Ionanis 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 Good Practices in High Dimensional Flow Cytometry Workshop is highly recommended if you are doing or planning to do soon immunophenotyping panels. Some knowledge of how cytometry works is required for this advance workshop.

Registration is need it through the link below, and the cost of the course is 50 Euros (CNIO Members), 85 Euros (Non CNIO Members) and 150 Euros (Industry): https://www.cnio.es/eventos/advance-multicolor-course-19-20-november-2025/

It includes theoretical and practical sessions in panel design, data acquisition and data analysis using some of the common analysis software in the market. The Friday before the workshop starts, participants will receive further information on the different sessions.