



Pre-ALACI 2024 Congress Introductory Flow Cytometry Course

This course aims to build Latin America's capacity in flow cytometry (FC), covering all aspects of this powerful technique, from experimental designs to data acquisition, analysis, and its applications in research.

This course intends to review and consolidate the basic concepts and applications of the FC and to extend the knowledge and training of attendees in FC applications in research, augmenting researcher's assets.

The course encompasses a four-days agenda, and it will be organized into 2 main activities: theoretical lectures and FC practical activities (experimental design, controls, FC settings, quality control and acquisition).

The training is oriented to participants with a Bachelor's degree in Biology, Biotechnology, Biochemistry, Medicine, and related areas doing their Master, PhD thesis, or similar. They must be directly involved or, shortly, in the FC field. Applicants from around the globe will be welcome, although candidates from Latin American and Caribbean regions will have priority during the selection.

DATES, VENUE AND FORMAT OF THE COURSE

Date: From October 30 to November 2.

Place: Citep - Centro de Innovación en Tecnología y Pedagogía. Universidad de Buenos Aires (UBA), Pres. José Evaristo Uriburu 950, C1114 AAD, Cdad. Autónoma de Buenos Aires. From 9 a.m. to 6 p.m.

Total duration: 30 hours including a final assessment (maximum capacity: 40 attendees for theoretical lectures and 24 for practical, selected from the theoretical participants).

Format: In-person sessions.

Course Structure: Incorporating theoretical classes and in-hand sessions to provide the participants knowledge regarding sample preparation, instruments features, setup/operation, and data collection. The closing session will allow participants to present and deliberate on their project ideas, using flow cytometry to answer research questions in their environments.

Language: English.

REGISTRATION DETAILS

The course is intended for graduate students and life sciences researchers who use or plan to use FC in their projects.

Motivation letter indicating your area of performance, your motivations for taking the course and the benefits for your project/institute (especially for those interested in the practical module) and brief CV are required.

Once the [registration form](#) is completed, accepted students will receive an e-mail with the schedule and the necessary materials.

The course fee will be USD 60, with a discounted rate of USD 40 to members of a national immunology society belonging to ALACI (<https://www.alaci.org/en/sociedades-afiliadas/>), AINCA members or participants from low middle-income countries according to the World Bank Classification. Scholarships will be available to cover the registration costs.

SPEAKERS

Zosia Maciorowski – For 28 years she was responsible for the Flow Cytometry Core Facility at the Curie Institute in Paris, France, from which she is now retired. Zosia is Co-Chair of the Live Education Task Force of the International Society for Advancement of Cytometry (ISAC) which has organized international flow cytometry workshops around the world.

William Telford - HEAD, National Cancer Institute Research Flow facility. He is involved in cytometry education programs, including the National Flow Cytometry Resource Flow Cytometry Workshops (as a sustaining faculty member) and the International Society for Advancement of Cytometry (ISAC), where he has taught numerous courses, tutorials and workshops over the last 10 years.

Maria Jaimes - Cytex Biosciences.

Bernarda Ganem - BD Biosciences.

ORGANIZERS

Florencia Quiroga, Virginia González Polo y Tomas Langer. INBIRS UBA-CONICET.

Ariel Billordo, Soledad Collado y Placida Baz. INIGEM UBA-CONICET.

Mariela Bollati-Fogolín. Head of the Cell Biology Unit. Institut Pasteur de Montevideo, Uruguay. Chair of ISAC CYTO Women Taskforce.

COURSE TOPICS

- ✓ Working principals of a flow cytometer: fluidics, optics, electronics.
- ✓ Set-up and calibration.
- ✓ Compensation.

- ✓ Fluorescence and fluorochromes.
- ✓ Panel design and experimental design of flow cytometry experiments.
- ✓ Spectral flow cytometry.
- ✓ Cell sorting.
- ✓ Data analysis.
- ✓ Applications of FC in research.
- ✓ Wet lab sessions: How to build a flow cytometer?; Instrument calibration and setup; Multicolor staining. Instruments: Conventional and spectral flow cytometers, biosafety cell sorter and more!