



**Department of Biotechnology, IIT Guwahati
&
Flowcytometry Solutions Pvt. Ltd
Organizes**



Workshop on Flow Cytometry Data Analysis

**Venue: Conference Hall, IIT Guwahati
23th to 24th January 2015**

Fluorescent Activated Cell Sorting (FACS) or Flow Cytometry is widely used in basic and clinical research. To harness the real power of this state of art technique, accurate data analysis of FACS data plays a major role. Correct data analysis is not only important but also critical to adequately identify or functionally characterize the multiple populations of interest within the immune system. In the last few years, the number of parameters (colors) simultaneously used in flow cytometry experiments has increased. This is enabled by the availability of high-end instruments and powerful data analysis tools. In this workshop, we will cover analysis of single or multicolor flow cytometry data and guidelines for the correct data analysis. Participants will be able to open their FCS files with the data analysis software, explore their data using various display options, perform gating, and quickly generate graphical and statistical reports to identify various population of interest. Participants will also be provided with the knowledge to understand potential technical issues with the data. Material will be provided that includes lectures, published articles and Purdue cytometry list discussions.

Day 1 (FN): Designing of a Multicolor Flow Cytometry Experiment

- How to avoid Garbage In/Garbage Out Phenomenon?
- Know your instrument. Instrument standardization.
- Selection of colors (Panel design)/selection of a right antibodies
- Importance of dead cell marker.
- Experimental controls, Isotype controls, FMO, Biological controls, Internal controls
- Introduction to OMIPs—Orchestrating Multiplexity in Polychromatic Sciences.

Day 1 (AN): Compensation and Visualizing Data

- Importance of right Compensation and how to perform it.
- Visualizing Data and Identifying Populations

Day 1 (FN): Basics of Flow Data Analysis and Presentation-What to do and what not to do?

- Discussion about Graph types, Gating and Fundamental Statistics
- How many events to acquire?
- Introduction to MiFlowCyte: Data Presentation Guidelines

Day 2: Data Analysis Lab

- Demonstration of flow data analysis using offline software - Cell Cycle, Proliferation, Apoptosis, Population comparison and multicolor assay, Cell cycle analysis from cancer & normal tissue, blood, pleural or other body fluid
- Troubleshooting flow cytometry data and guidelines to correctly analyze and present the data

Day 2: Participants Discussion, Test and graduation

INSTRUCTOR

Dr Hemant Agrawal (Director-Flowcytometry Solutions Pvt. Ltd)

Application process: The interested participants should email their application to iucw2012@iitg.ernet.in and cc to lrangan@iitg.ernet.in latest by 15th Dec 2014. The shortlisted candidates will be confirmed by email before 25th Dec 2014. Registration fees of Rs.1000 should be paid before 5st January through Demand Draft issued in favor of “IUCW2012” and payable at SBI Bank, IIT Guwahati Branch, Guwahati-781 039. Please mention name and contact number of participant at the backside of Demand Draft.

Selected participants have to take care of their travel and accommodation

Registration Form

Workshop on Flow Cytometry Data Analysis
Organized by Department of Biotechnology, IIT Guwahati
Venue: Conference Centre, IIT Guwahati, Assam
23rd to 24th January 2015

1. Name & Age:
2. Designation & Qualification:
3. Name & Mailing Address of Institution / Organization:
4. Mobile No:
5. Email:
6. Have you ever attended such program, if yes mention year & Institution:
7. How this program will be helpful in your Basic or clinical research/
management:
8. Accommodation required (for outstation participants accommodation can
be arranged in student hostel): Yes/No
9. Proposed date of arrival:
10. Signature of the sponsoring authority/Head/Supervisor

Signature of Head/Supervisor
Date:

Signature of the Applicant
Date: