

1st Online International Winter School On Flow Cytometry Data Analysis and Presentation

(Research & Clinical; Basic & Advanced)

13th November – 15th December, 2024

HIGHLIGHTS

- ✓ Introduction to Flow Cytometry Data Analysis & Presentation
- ✓ Know Your Software (KYS)-Acquisition vs Analysis Software
- ✓ Data Import, Data Standards
- ✓ Backbone of Correct Data Analysis: Sample, Experimental Designing, Controls & Data Acquisition
- ✓ Display Plots, Gating Tools, Algorithm Based Analysis Tools
- ✓ Spectral Overlap & Compensation/Unmixing
- ✓ Statistics in Flow Cytometry Data Analysis
- ✓ Clinical Data Analysis and Case Studies (Leukemia, Lymphoma, Myeloma, MRD)
- ✓ High Dimensional Data Analysis (t-SNE, UMAP, FlowSOM etc)
- ✓ Artificial Intelligence/Machine Learning (AI/ML) in Data Analysis
- ✓ Live Demonstration of Data Analysis and Interpretation
- ✓ Data Presentation and Publication Guidelines (MIFlowCyt)
- ✓ Q & A, Troubleshooting, Self Assessment
- ✓ Help With Your Data Sets

FACULTY

* Hemant Agrawal, India
* Andrea Valle, Italy
* Nupur Das, India

* Paul Wallace, USA
* Jamie McCarthy, UK

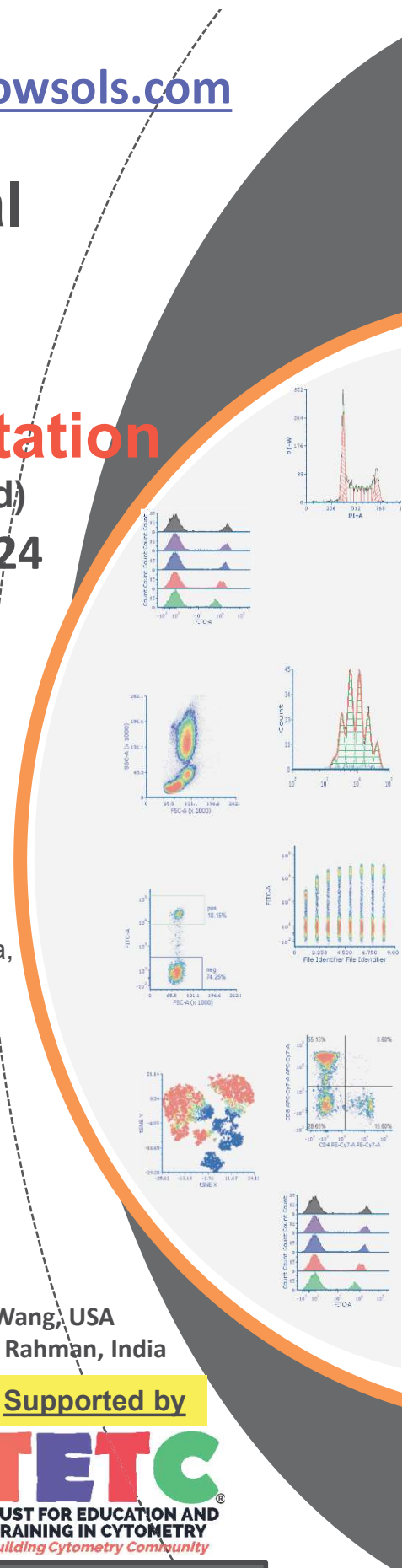
* Andrea Wang, USA
* Khaliqur Rahman, India

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Course Overview & Objective

Flow Cytometry is one of the most powerful single cell analysis tool used in biological research and clinical diagnostics. Using this state-of-the art technology, we can study and quantify various parameters of the cells or cell like particles in heterogeneous samples. This Online Winter School for Flow Cytometry Data Analysis & Presentation is a comprehensive program designed to provide participants with in-depth knowledge and practical skills in analyzing and presenting flow cytometry data. This course is ideal for researchers, students, and clinicians looking to enhance their expertise in this critical area of biological research and clinical diagnostics. Through lectures and practical activities, participants will learn the core concepts of flow cytometry data analysis & presentation and troubleshooting. We will cover the theory combining with data analysis sessions using different data sets as part of our course curriculum.

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Speakers



Hemant Agrawal
Director
Flowcytometry Solutions
India



Paul Wallace
Professor Emeritus
RPCCC
USA



Andrea Wang
Co-Founder & CEO
AHEAD MEDICINE
USA



Khaliqur Rahman
Professor
SGPGIMS
India



Nupur Das
Consultant & In-charge
Hematop. & Flow Div.
Amrita Hospital, India



Andrea Valle
Product Manager
De Novo Software
USA



Jamie McCarthy
Tech. Application Specialist
OMIQ Software
USA

Who Can Attend

- Student, Lab Technologist, Researcher, Postdoc, Faculty, Doctor, Industry Professional, etc
- The basic understanding of the principles of flow cytometry is required.
- No programming/coding experience is required
- Participants from academic/non-academic institutions and clinical labs from all over the world are encouraged to apply

Program (7.00 pm - 9:00 pm IST)

Day and Date	Topic
Day 1 (13 th November)	Introduction to Flow Cytometry Data Analysis and Presentation
Day 2 (15 th November)	Know Your Software (KYS) — Acquisition vs Analysis Software, Data Import, Data Standards, Display Plots, Gating Tools, Algorithm based analysis tools etc
Day 3 (17 th November)	The Backbone of Correct Data Analysis: <ul style="list-style-type: none"> • Experimental Designing • Sample and its Quality • Controls (Assay Controls, Gating Controls, Instrument Controls etc) • Data Acquisition (PMTV settings, Threshold etc)
Day 4 (20 th November)	The Importance of Compensation/Unmixing in Correction of Spectral Overlap in Data Analysis: <ul style="list-style-type: none"> -Compensation Controls and Unmixing Reference Controls -Manual Vs Automatic Compensation -Beads Vs Cells as Compensation/Unmixing Reference Controls
Day 5 (22 nd November)	Flow Cytometry Data Analysis (Part 1) <ul style="list-style-type: none"> -Raw Data to Results: How to Create an Analysis Workflow -Analysis of Different Data Sets—Cell Viability, Cell Cycle, Apoptosis, Proliferation, MMP, ROS etc
Day 6 (24 th November)	Flow Cytometry Data Analysis (Part 2) <p>Voltration/Gaintration, Antibodies Titration, Signal Transduction, Intracellular Cytokines, Cytometric Bead Array (CBA), Immunophenotyping of Whole Blood Leukocytes etc.</p>
Day 7 (27 th November)	Statistics in Flow Cytometry Data Analysis <p>Frequency, Percentage, MFI, CV, Statistical Models, Absolute Counts, Tests for Statistical Significance etc</p>
Day 8 (28 th November)	Approach towards Immunophenotyping of Acute Leukemia and MRD (Clinical) <p>Markers, Maturation Patterns, Gating Strategies, Controls etc</p> <p>Case Studies</p>
Day 9 (30 th November)	Approach towards Immunophenotyping of Lymphoma and Myeloma (Clinical) <p>Markers, Maturation Patterns, Gating Strategies, Controls etc</p> <p>Case Studies</p>
Day 10 (2 nd December)	Introduction and Best Practices in High Dimensional Data Analysis <p>Data pre-processing, Scaling/Transformation, Down Sampling etc</p> <p>Dimensionality Reduction and Clustering</p>
Day 11 (4 th December)	High Dimensional Data Analysis using FCS Express Software (t-SNE, UMAP, FlowSOM etc)
Day 12 (6 th December)	High Dimensional Data Analysis using OMIQ Software (t-SNE, UMAP, FlowSOM etc)
Day 13 (8 th December)	Flow Cytometry Data Presentation and Publication Guidelines <p>MIFlowCyt: Data Presentation Guidelines (An ISAC Recommendation)</p>
Day 14 (11 th December)	Role of Artificial Intelligence/Machine Learning (AI/ML) in Flow Cytometry Data Analysis
Day 15 (15 th December)	Q & A, Troubleshooting, Discussion and Final Quiz

- *This is an interactive course designed to learn the flow cytometry data analysis and presentation principles in a simple and correct way*
- *Exercises will be given for self assessment*

How to Apply

- Fill Registration form online by clicking on the “**Register Now**” button below.
- Thereafter make a payment via scanning the below QR using any payment app. After payment, send receipt at training@flowsols.com. Once all the information is received, the registration will be confirmed within 24 hours via email.

Registration Fee*

For India

- Student/Research Fellow/Trainee/Technologist: INR 6000 (non-Phd and non-MBBS)
- Postdoc/Resident Doctor (JR/SR)/Technical or Scientific Officer: INR 8000
- Faculty/Consultant: INR 10000
- Industry Professional: INR 15000

Payment (For India)

Scan the below QR Code and make a payment



Outside India:

- SAARC/South East Asia/South America/ Africa: USD 150
- Other Countries: USD 300

International Payment

Upon registration, payment link will be shared with you to make an online payment.

Register Now

**Discount on Registration Fee
10% for Group of 5 or More**

***Registration Fee is non-refundable**

**Reading Material will be provided
Recordings for all the sessions will be available to watch
E-Certificate will be given to all registered participants**

Feedback from Our Past Courses

“Thank you for your dedication, expertise, and the effort you put into making this course such a rewarding experience. I am confident that the knowledge and skills I have gained will greatly benefit my work and professional growth.”

ILBS, Delhi, India

“I very much enjoyed the course, it was very well organized and you are a very patient and considerate teacher. I will definitely recommend this course to my colleagues and anyone else interested in flow cytometry”

Cornell University, USA

“This was my first formal course on flow learning, and I must admit, I started from scratch. However, your ability to explain this complex topic in such a simple and beautiful manner has truly made a significant impact on my understanding. I can confidently say that I am no longer at ground zero, thanks to your guidance.”

Dhaka Medical College, Bangladesh

“There are very few course instructors like you who put in their sweat to ensure we maximize our learnings from the course. I really appreciate how you executed the course and always kept engaging the students and answering all the queries. Thank you for the course and it was such a great experience!”

IISc, Bangalore, India

“Thank you very much. I wanted to express my sincere gratitude for the beautiful lectures and informative workshop on flow cytometry. Your expertise & passion for the subject matter were evident in every aspect of the presentation, and I left feeling inspired and empowered.”

NCI Cairo University, Egypt

**Last Date of
Registration**

10th November 2024

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