FLOWCYTOMETRY SOLUTIONS™
Helping innovations

OKLAHOMA STATE UNIVERSITY
CENTER FOR HEALTH SCIENCES

3rd Annual Online Certificate Course in Flow Cytometry

Principles, Experimental Designing and Data Analysis

April 25 — May 25, 2025

Course Overview and Objectives

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 1-month online course will cover the fundamentals and provide a deeper understanding of the important concepts of flow cytometry. Through lectures and practical activities, participants will learn the core concepts in experimental designing, data acquisition, data analysis and presentation and troubleshooting. We will cover the theory combining with the practical sessions of the most frequent assays as part of our course curriculum. This in-depth 1-month course will enhance your flow cytometry knowledge and skills preparing you for any current or future flow cytometry jobs and projects.

Course Highlights

- Basics of flow cytometry
- Applications of flow cytometry
- Know your cytometer (KYC)
- Machine setup, QC, voltage/gain settings, etc.
- Sample preparation, experimental designing, controls
- Panel designing, spectral overlap and compensation
- Cell sorting
- Advances in flow cytometry (spectral)
- Data analysis and presentation (basic and high dimensional)
- Live demonstration of instrument setup and data acquisition
- Q&A, troubleshooting, self assessment

BONUS LECTURE Career Options in Flow Cytometry

Speakers

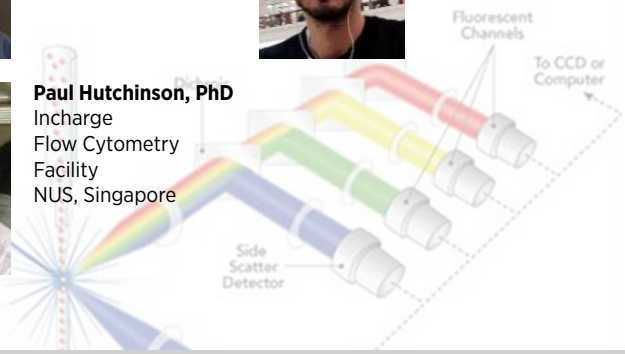
Hemant Agrawal, PhD
Director
Flowcytometry Solutions
India

Rashmi Kaul, PhD
Professor of Immunology Biochemistry & Microbiology Department
Oklahoma State University Center for Health Sciences
USA

Rui Gardner, PhD
Head
Flow Cytometry
MSKCC
NY, USA

Andrea Valle, PhD
Product Manager
De Novo Software
USA

Paul Hutchinson, PhD
Incharge
Flow Cytometry Facility
NUS, Singapore



Who Can Attend

- Students, lab technologist, researchers, postdoc, faculty, doctors, industry professionals, etc.
- This online course is designed for students, researchers, doctors and technical people at any step of their career.
- Participants from academic/non-academic institutions from all over the world are encouraged to apply.

LAST DAY OF REGISTRATION APRIL 23, 2025

Flow Cytometry Course Program

8:30-10:30 a.m. CST | 7:00-9:00 p.m. IST

DAY AND DATE	TOPIC
DAY 1 — Friday, April 25	**Introduction to Flow Cytometry**
DAY 2 — Saturday, April 26	• **Applications of Flow Cytometry in Biological Sciences** • **The Impact of Flow Cytometry on Immunobiology**
DAY 3 — Monday, April 28	**KYC: Know Your Cytometer** — Decoding the Black Box — Fluidics, Optics and Electronics **Live Demonstration: Setting up a Flow Cytometer Correctly** — Quality Control, Template Creation, PMTV Settings, Threshold Settings, etc.
DAY 4 — Wednesday, April 30	**Q&A, troubleshooting, discussion**
DAY 5 — Friday, May 2	**Flow Cytometry Experimental Designing (Part 1) (Fundamentals)** Fluorochrome/Dye Selection, Spectral Viewer, Spectral Overlap & Compensation, Sample and its Quality, Antigen Density, Autofluorescence, etc.
DAY 6 — Monday, May 5	**Flow Cytometry Experimental Designing (Part 2) (Cell Health assays)** like Viability, Apoptosis, ROS, MMP, Proliferation etc
DAY 7 — Wednesday, May 7	**Flow Cytometry Experimental Designing (Part 3) (Immunophenotyping)** Antibodies Selection, Antibody Clone, Panel designing, Data Spread, Spillover Spreading Matrix (SSM), etc.
DAY 8 — Friday, May 9	• **Sample Preparation for Flow Cytometry Assays** • **Controls in Flow Cytometry** Assay Controls, Gating Controls, Instrument Controls, Comp Controls, etc.
DAY 9 — Sunday, May 11	**Career Options in Flow Cytometry**
DAY 10 — Tuesday, May 13	**Live Demonstration: Multicolour Immunophenotyping Experiment** Antibodies Titration, Preparation of Compensation Controls and Multicolor Samples, Generation of Compensation Matrix and Spillover Spreading Matrix (SSM), Data acquisition and Discussion
DAY 11 — Thursday, May 15	• **Advances in Flow Cytometry (Spectral Flow Cytometry)** **Q & A, Troubleshooting, Discussion**
DAY 12 — Friday, May 16	**Flow Cytometry Data Analysis and Presentation** Data Standards, Plots, Displays, Axis, Gating, Statistics, No. of Events to Acquire, etc.
DAY 13 — Sunday, May 18	**Live Demonstration: Flow Cytometry Data Analysis and Presentation** Analysis of Different Data Sets — Cell Viability, Cell Cycle, Apoptosis, Proliferation, MMP, ROS, Signal Transduction, Cytokines, Whole Blood Leukocytes etc.
DAY 14 — Tuesday, May 20	**Lecture: Cell Sorting — Principle and Approach** **Live Demonstration: Cell Sorting**
DAY 15 — Thursday, May 22	**Live Demonstration: Flow Cytometry Data Analysis and Presentation** High Dimensional Data Analysis (tSNE, UMAP, etc.)
DAY 16 — Sunday, May 25	**MIFlowCyt:** Flow Cytometry Data Publication Guidelines (An ISAC Recommendation) **Troubleshooting, Discussion, Q & A and Final Quiz**

This is an interactive course designed to learn the flow cytometry principles in a simple way.
Exercises will be given for each topic for self assessment.
This is not a clinical diagnosis course.

FLOWCYTOMETRY™ SOLUTIONS
Helping innovations

OKLAHOMA STATE UNIVERSITY
CENTER FOR HEALTH SCIENCES

How to Apply

- Fill out the registration form online by clicking on the **"Register Now"** button below.
- Thereafter, send an email to training@flowsols.com requesting the payment link.
- Once paid, share the payment receipt to training@flowsols.com, your registration will be confirmed within 24 hours via email.

Registration Fee*

REGISTRATION CATEGORY	REGISTRATION FEE
Student/Research Fellow (non-PhD)/ Trainee/Technical Assistant	$300 USD
Postdoc/Resident Doctor/ Techinical or Scientific Officer/Core Manager	$400 USD
Faculty/Medical Consultant	$500 USD
Industry Professional/Non-Academia	$750 USD

Register Now

*Registration Fee is non-refundable

Discount on registration fee
10% for group of 10 or more

Registration Fee Payment

After filling out the registration form, send an email to training@flowsols.com requesting the payment link.

Reading material provided

Recordings available for all sessions

E-Certificate given to registered participants

Online course is 32 hours over 16 days

LAST DAY OF REGISTRATION APRIL 23, 2025

CONTACT
training@flowsols.com
rashmi.kaul10@okstate.edu
(USA) +91-766-513-0114

OUR SUPPORTER

TETC
TRUST FOR EDUCATION AND TRAINING IN CYTOMETRY
Building Cytometry Community

Course Feedback

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

Thank you very much. I wanted to express my sincere gratitude for the beautiful lectures and informative workshop on Flow Cytometry. Your expertise and passion for the subject matter were evident in every aspect of the presentation, and I left feeling inspired and empowered.
— NCI Cairo University, Egypt

Thank you very much. This was my first formal course on flow cytometry, 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

Thank you very much for your brilliant teaching and dedication, I learned a lot and appreciate it very much.
— University of Sri Jayewardenepura, Sri Lanka

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