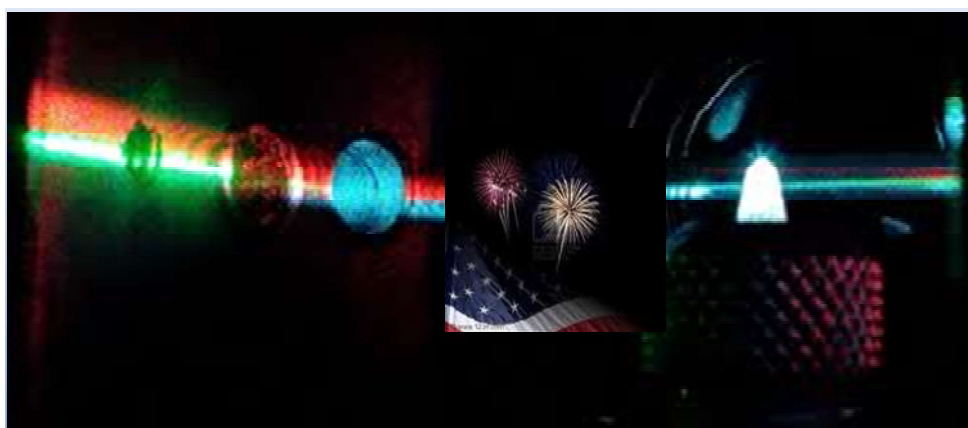




21st INDO-US Workshop and Symposium on Applications of Laser Flow Cytometry in Biomedical Research

2nd-5th February 2020



Organized by

Panjab University, Chandigarh

and

Trust for Education and Training in Cytometry (TETC)

and

**Live Education Task Force,
International Society for Advancement of Cytometry (LETF-ISAC)**

Venue

**Department of Biotechnology,
Panjab University, Chandigarh, India**

TRUST FOR EDUCATION AND TRAINING (TETC)

THE TRUST FOR EDUCATION AND TRAINING IN CYTOMETRY (TETC), a registered non-profit Indian trust for conducting INDO-US Cytometry Workshops in collaboration with the host Institutes invites your participation during Hands-on Workshop cum Symposium on Flow-Cytometry at Panjab University, Chandigarh, India.

THE CONCEPT

Flow cytometry is based on detection and rapid analysis of cellular markers and constituents stained with a fluorochrome and excited by a laser beam. Besides large cells (e.g., algae, bacteria, yeast, plant and mammalian cells) laser flow cytometry is used for study and sorting of human chromosomes and cells labeled with nanoparticles and beads.

The important value of laser flow cytometry is its ability to make measurements on a large numbers of single cells within a short period of time (millions of cells per minute) and generating multiparametric data. The heterogeneity of populations can be revealed and different subsets of cells identified and quantified. Selected cell populations can also be electronically sorted for further study.

The wet lab workshop to be held at the Panjab University & PGIMER, Chandigarh that will include lectures, tutorials and wet labs to review and demonstrate the various flow cytometric methods for Biomedical research.

Applications are invited from students and researchers who wish to acquire expertise in the use of flow cytometry for their research. An application form can be downloaded from website, <http://biotechnology.puchd.ac.in/>, and should be sent along with a two page biodata to the Organizing Secretary at kashmirbio@pu.ac.in.

Workshop Highlights

- ✓ Principles of Flow Cytometry
- ✓ Flow Cytometry Quality assurance
- ✓ Multicolor experiment and Panel design
- ✓ B, T and NK cell Immuno-phenotyping
- ✓ Cell proliferation & Apoptosis assays
- ✓ Single Cell Sorting
- ✓ Small Particle Analysis
- ✓ Data Analysis and Presentation

REGISTRATION FEE:

Event	Students	Faculty/Doctor/ Postdoc	Corporate
Symposium	Rs. 2000/-	Rs. 3000/-	Rs. 5000/-
Workshop	Rs. 4000/-	Rs. 5000/-	Rs. 8000/-
Both	Rs. 5000/-	Rs. 7000/-	Rs 12000/-
On Spot Registration of Rs. 2000/-Will be Added to the Above Price			

Number of Participants: 100 for Symposium and 30 for Workshop

Patrons

Prof Raj Kumar, Vice-Chancellor, Panjab University, Chandigarh
Prof Awtar Krishan, Co-Chair, LETF, ISAC, USA

National Advisor cum Chairman Organizing Committee

Prof. R. C. Sobti, PU, Chandigarh, India

Work shop Convenor

Dr. Rekha Gour, TETC

Organizing Secretaries

Dr. Kashmir Singh, PU
Dr. Sanjeev Puri, PU
Dr. Hemant Agrawal, TETC

Organizing Committee Members

Dr. H. Kishnamurthy, NCBS
Dr. Vivek Tanavade, AU

INVITED FACULTY/SPEAKER

International

Dr. Zosia Maciorowski, France
Dr. Brent Wood, USA
Dr. Günnur Deniz, Turkey
Dr. Paresh Jain, Singapore
Dr. Aastha Sobti, Sweden

National

Dr. Hemant Agrawal, Jaipur
Dr. Rekha Gour, Mumbai
Dr. Vivek Tanavade, Ahmedabad
Dr. Latha Rangan, Guwahati
Dr. Sunil Arora, Chandigarh
Dr. Nirupama Trehanpati, New Delhi
Dr. Rajeev Kumar, Silchar
Dr. Deepak Sharma, Mumbai
Dr. Bipasha Bose, Mangalore
Dr. Biman Saikia, Chandigarh

Local Organizing Committee (Panjab University)

Dr. Jagdeep Kaur, Dept. of Biotechnology.	Biomedical Excellence, PU, Chandigarh
Dr. Neena Caplash, Dept. of Biotechnology	Dr. Rajat Sandhir, Dept. of Biochemistry
Dr. Jagtar Singh, Dept. of Biotechnology	Dr. V.L. Sharma Dept. of Zoology
Dr. DD Singh, Dept. of Biotechnology	Dr. Sukhbir Kaur, Dept. of Zoology
Dr. Kashmir Singh, Dept. of Biotechnology	Dr. Veena Puri, Centre for Systems Biology
Director, UIET,	&
Chairperson, Dept. of Biochemistry	Bioinformatics
Chairperson, Dept. of Biophysics	Dr. Devinder Singh, Dept. of Laws
Chairperson, Dept. of Microbiology	Dr. Rohit Sharma, Microbial Biotech.
Chairperson, Dept. of Zoology	Dr. Prashant Gautam, UIHTM
Chairperson, Centre for Stem Cell Tissue	Dr Amrik Singh Ahluwalia, Dept of Botany
Eng. & Incharges- CRIKC	Dr Karan Vasisht, UIPS

Workshop Outline

Flow Cytometry in Biomedical Research

The workshop in Chandigarh will mainly focus on application of flow cytometry in Biomedical Research. We look forward to register about 30 participants for the hands-on wet-lab workshop. The description of lab module (LM) being offered along with the faculty involved is given below. At the time of initial application each applicant will give their preference for the Wet lab. The participants are also expected to provide their brief biodata giving research interests along with a small paragraph giving reasons for his choice of wet labs. An expert committee will select the candidates for participation and only selected candidates will be asked to send the full registration for the wet workshop. Each selected registrant for workshop will be able to participate in the wet lab hands on.

LM-1: DNA and Cell Cycle Analysis:

In this wet lab, we will demonstrate flow cytometric methods for DNA content and cell cycle analysis and for the detection of proliferating and aneuploid cells. Tissue culture cell lines, tumors and formalin fixed paraffin embedded materials and plant material may be used for demonstration

LM-2: Multicolor experiment and Panel design:

In this wet lab, we will demonstrate and discuss sample processing and staining protocols used in phenotypic analysis. We will also review principles of antibody titration, panel design and discuss the relevance of different experimental controls (e.g. isotype, compensation, FMO etc.) in multicolor phenotype analysis.

LM-3: B, T and NK cell Immuno-phenotyping:

In this wet lab, we will demonstrate and discuss sample processing and staining protocols for performing B, T and NK Cells phenotypic analysis.

LM-4: Proliferation and Apoptosis:

We will demonstrate flow cytometric methods for the detection of proliferating and apoptotic cells from mammalian cell cultures.

LM-5: Hematopoietic and Mesenchymal Stem Cells:

Flow cytometric detection and quantitation of CD34 positive cells is a useful technique for enumeration of hematopoietic stem cells in bone marrow, cord blood or in mobilized peripheral blood used for bone marrow transplantation. We will discuss and demonstrate the ISHAGE protocol used for enumeration of viable CD34+ cells using single platform flow cytometry. We will also discuss markers used for the identification of mesenchymal stem cells.

Contact Information

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For updates, please follow us on Facebook

<https://www.facebook.com/cytoindia/>
<https://www.facebook.com/tetcindia/>

Last date for registration: 25th December 2019



**21st INDO-US
Flow Cytometry Workshop cum Symposium on
“Applications of Laser Flow Cytometry in Biomedical Research”**

**Jointly organized by
Live Education Task Force, International Society for Advancement of
Cytometry (LETF-ISAC),
Trust for Education and Training in Cytometry (TETC)
Panjab University (PU)**

at

**Department of Biotechnology, BMS Block I, Sector 25, Panjab University, Chandigarh
2nd-5th February 2020**

Registration Form

Name: _____

Designation: _____

Organization: _____

Mobile number: _____

Email: _____

Previous experience with flow cytometry:

Expectations from this course:

Payment Details:
DD/NEFT/RTGS number:
Name of the Bank:
Date:

Account detail:
Name of the account:
Name of the Bank:
Branch:
Account Number:
IFSC Code:
MICR Code:

Last date for registration: 25th December 2019