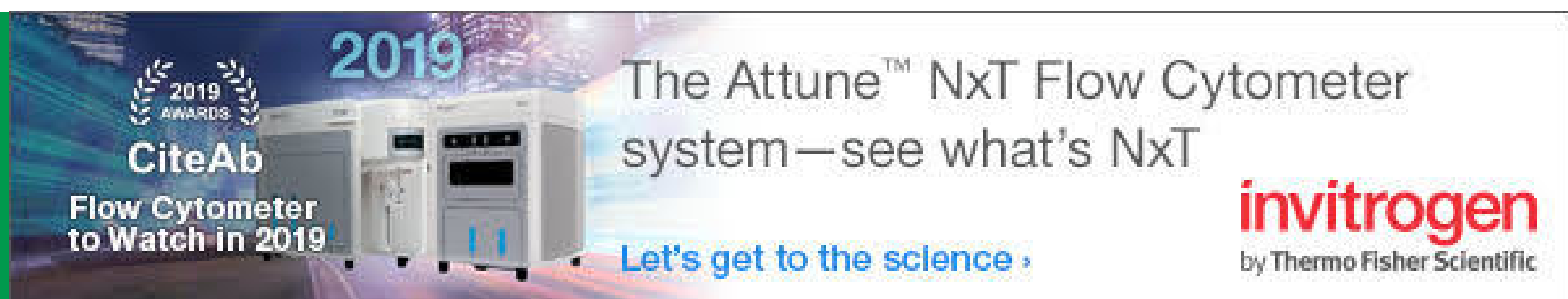


**27-29
September,
2019**

Application of Flow Cytometry in Pharmacology and Drug Discovery



**VENUE:
PGIMER
Chandigarh**



Organized by:

Experimental Pharmacology Laboratory, PGIMER, Chandigarh.

- **Organizing Chairperson: Prof. Bikash Medhi**
- **Organising Vice-Chairman: Dr. Ajay Prakash**
- **Organizing Secretary: Dr. Subodh Kumar**
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LEARNING PROGRAM SCHEDULE

Day 1

- ▶ Basics of Flow Cytometry
- ▶ Flow Cytometry in Drug Discovery
- ▶ Instrument Setup, Standardization
- ▶ Cell Death and Differentiation 1: Apoptosis by Annexin V staining
- ▶ Cell Death and Differentiation 2: Caspase 3/7 staining, JC1 staining
- ▶ Cell Death and Differentiation 2: Caspase 3/7 staining, JC1 staining
- ▶ Review and Discussion

Day 2

- ▶ Cell Division, Free radical flow cytometry
- ▶ Identification of Reactive Oxygen Species by flow cytometry
- ▶ Live dead differentiation, Cell cycle
- ▶ Cell labelling and Division by CFSE
- ▶ Cell Response analysis by flow cytometry: Intra cellular cytokine assay: Stimulation with PMA/Ionomycin
- ▶ Discussion, Closure

Day 3

- ▶ Cell response analysis by flow cytometry: Intracellular cytokine assay
- ▶ Detection of rare events by flow cytometry: Importance in drug discovery
- ▶ Rare event detection by flow cytometry
- ▶ Discussion, Closure, Exam, Award

LIMITED SEATS!

30 ONLY

Registration Charges:

**Students/Researchers/Ph.D/Post Doc Fellow/MD/DM
35,00 INR/ 100 USD**

**Faculty
45,00 INR/ 130 USD**

**Late Registration Charges
500 INR/25 USD extra (after 15 Sept. 2019)**

APPLICATIONS OF FLOW CYTOMETRY

Flow Cytometry is a means of identifying and measuring certain physical and chemical characteristics of cells or particles as they travel in suspension. Flow cytometry uses fluorescent probes to identify and characterize cells or particles. The benefit of flow cytometry is the rapid simultaneous measurement of several parameters on a cell by cell basis.

Applications in basic research

- ▶ Apoptosis measurement
- ▶ Cell cycle analysis
- ▶ Cell proliferation
- ▶ Cell sorting
- ▶ Membrane potential
- ▶ Transfection efficiency

Applications in Clinical trial/research

- ▶ Live/dead bacteria discrimination (Indicator of killing potential of an antibiotic)
- ▶ Immunophenotyping (Analysis of leukemias and lymphomas and hematological clinical trials)
- ▶ Detection of minimal residual disease (e.g. Acute Leukemia)
- ▶ Stem cell enumeration
- ▶ Solid organ transplantation (T cell cross-match, Postoperative monitoring)
- ▶ Detection of autoantibodies
- ▶ Immunodeficiency diseases (primary immunodeficiencies diseases, HIV infection: CD4+ cell counts)
- ▶ Reticulocyte analysis
- ▶ Stability of whole blood (stability of post-collection sample, in presence and absence of compound)
- ▶ Stability of stained cells
- ▶ *Ex-vivo* effect of compound