

**2008 CYTOMETRY DEVELOPMENT WORKSHOP:
OCTOBER 15 - 19
SESSION TOPICS AND MODERATORS**

**SESSION 1 – Flow Cytometry Instrumentation – Bob Hoffman
(Wednesday afternoon 4:30 - 6:00)**

Tutorial – Flow Cytometer setup and QC methods – Ming Yan
Single fluorescence bead based cytometer instrument sensitivity measurement – Ming Yan
The Blue Sky Effect and Inter-instrument standardization – Stephen Perfetto
"Minicalibrator" for rapid instrument check and test particle standardization – David Parks

**SESSION 2 – Flow Cytometry Instrumentation – Ming Yan
(Wednesday evening 7:30 – 8:00)**

Why are Q values lower on stream-in-air sorters than predicted by collection efficiency and laser power? – Eric Chase
Achieving high detection sensitivity with a low-cost, rugged, pie-shaped detector arrangement – Collin Rich
Compact, high performance cytometer fluidics using peristaltic pumps – Collin Rich
Simultaneous Display of Log and Linear Data from a Single Parameter - Leo Ostruszka

**SESSION 3 – Raman Spectroscopy – John Nolan
(Thursday morning 8:30 – 10:30)**

Tutorial - Raman cytometry – John Nolan
Cell analysis using COINS – Cathy Shachaf
Raman flow cytometry – John Nolan
Tutorial – Optical properties of nanoparticles – David Sebba
Single nanoparticle analysis – David Sebba
Software for spectral cytometry – Dave Novo

**SESSION 4 – Instrumentation – Nancy Perlmutter
(Thursday morning 11:00 – 12:00)**

Laser Rastering: Data comparison to traditional flow cytometry – Giacomo Vacca
Time-Gated Luminescence Flow Cytometry of Europium Complexes – Robert Leif
Improvement of the sensitivity in 32-channel PMT detection – Shingo Imanishi

**SESSION 5 – Flow Cytometry – Bob Hoffman
(Thursday afternoon 5:00 – 6:00)**

Tutorial - Pulse width measurement of particle diameter-comparison of various analog and digital approaches – Bob Hoffman
Analytical Flow Cytometry and Cell Sorting of Cells from GI Muscle Tissue - GFP transgenic animals and antibody labeling of ICC, smooth muscle cells, fibroblasts, macrophages (Flow cytometric pulse width and cell sizing) – Doug Redelman

SESSION 6 – Flow Cytometry Applications – Marty Bigos

(Thursday evening 7:30 – 9:00)

EdU- BrdU - dual labeling for S-phase populations – Bill Godfrey

Use of fixable viability reagents – Bill Godfrey

Effect of fixation on Qdot conjugate staining – Bill Godfrey

Blood cells analysis using single dilution w/o lyse method – Jiong Wu

Fluorochrome optimization – Marty Bigos

Evaluation of Dye combinations for staining panels– David Parks

Applying flow cytometry in a good clinical and laboratory practices environment – Aaron Kantor

SESSION 7 – Imaging – Jeff Price

(Friday morning 8:30 – 10:00)

Analysis of ploidy in tissue sections via automated fluorescence microscopy – Ramses Augustin

Time-Lapse Microscopy and Tracking of Differentiation and Migration of Fluorescent Protein-Labeled Stem Cells –Diego Calzolari

2D/3D multiple cell tracking in live microscopy using active contour models – Alexander Dufour

SESSION 8 – Imaging – Jeff Price

(Friday morning 10:30 – 12:00)

Calcium Transient Monitoring in HT environment – David Charlot

Quantitative analysis of deconvolution methods for fluorescence microscopy images – Mahsa Ranji

Gauging Cytotoxicity via Nuclear Morphometry in Chemical Library Screening – Behrad Azimi
Microscope Autofocus – Jeff Price

SESSION 9 – Alternative Cytometric Technologies – Nancy Perlmutter

(Friday afternoon 4:30 – 6:00)

On-chip & Label-free Impedance Flow Cytometry Technologies (Pros & Cons), Technical Issues, Applications, Future Potential – Marco Di Barardio

Flow Cytometry using Glass Microchips – Joshua Herr

Encoded Nanoparticles – Bill Hyun

SESSION 10 – Alternative Cytometric Technologies – Howard Shapiro

(Friday evening 7:30 – 9:00)

Fountain Flow Cell Sorting in Large Volumes at Ultra-low Concentrations – Paul E Johnson

Fountain Flow Detection of Micro-organisms in Complex Matrices – Paul E Johnson

"Cellular Astronomy" Update – Howard Shapiro

"Cellular Astronomy" Applications– Nancy Perlmutter

**SESSION 11 – Flow Cytometry Data Analysis/Software – James Wood
(Saturday morning 8:30 – 10:00)**

Display and analysis of flow cytometry data – James Wood

Translating Translational Research: Appropriate Algorithms – Janet Siebert

Tutorial - The open source R project: powerful tools for statistical data analysis of FCS files – Martin Krokenberger

**SESSION 12 – Flow Cytometry Data Analysis/Software – Adam Treister
(Saturday morning 10:30 – 12:00)**

Multivariate Analysis of Cell Cycle data – John Quinn

Data presentation in Scalable Vector Graphics – Jeremy Wood

Need for Speed: Optimization & Parallelization in Flow Cytometric Analysis – Maciej Simm

Benchmarks in Parallelizing FlowJo Computations – Jay Almarode

Validation and QC processes in Flow – Nick Ostrout

**SESSION 13 – Flow Cytometry Data Analysis/Software – Wayne Moore
(Saturday afternoon 4:30 – 6:00)**

Cytometry Standards Process and the FlowJo Schemas – Adam Treister

Use Cases in Developing Flow Standards – Aaron Hart

ISAC Data Standards Task Force developments – Wayne Moore

Problems and issues in defining data – Wayne Moore

**SESSION 14 – Flow Cytometry Data Analysis/Software – Adam Treister
(Saturday evening 7:30 – 9:00)**

A Modular Approach to CytometryML with the FlowJo schemas – Robert Leif

GatingML Implementation Experience – Francis Bull

GatingML and InstrumentationML: A discussion on the portions of the new Analytical

Cytometry Standard that is available for public consideration – John Quinn

**Bonfire: Happy Hour with S'mores and more
(Saturday evening 9:00 – 11:00)**