



# 5TH ANNUAL MEETING

OF THE

# IRISH CYTOMETRY SOCIETY

17<sup>TH</sup> - 18<sup>TH</sup> NOVEMBER 2009

SCIENCE GALLERY

TRINITY COLLEGE DUBLIN

## GOLD SPONSORS:

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### PLENARY SESSION

#### PACCAR THEATRE

### TUESDAY, NOVEMBER 17TH

9:30 – 9:40 Introduction. Alfonso Blanco President, Irish Cytometry Society

9:40 – 9:50 Welcome Address John McCormack President, Irish Cancer Society

Session 1: Joint Chair: Barry Moran and Sergio Anguissola

9:50 – 10:35 Frank Barry National University of Ireland, Galway

Stem Cell Therapy for Tissue Repair: The Stem Cell-Host Interaction

10:35 – 10:55 Annette Byrne Royal College of Surgeons of Ireland, Dublin

In Vivo Imaging (Optical and Radionucleotide Imaging)

10:55 – 11:15 Jan Gratama Erasmus MC, Rotterdam, The Netherlands

External quality assurance of circulating tumor cell detection

11:15 – 11:35 William Gallagher University College Dublin

Tissue-Based Imaging: Automated Image Analysis in Histopathology

11:35–11:50 Poster Session and Coffee Break

Session 2: Joint Chair: Alfonso Blanco and Orla Hanrahan

11:50 – 12:10 John Daley Harvard University - USA

Developing an effective scientific program within a core flow cytometry facility

12:10 – 12:30 Amanda McCann

University College Dublin

Hypoxia Mirrored in the Epigenome

**12:30 – 12:50** Richard Grenfell

Cancer Research UK - Cambridge

A Solution to Sorting Unscreened, Live, Human Stem Cells

12:50 – 13.40 Poster Session and Lunch

Session 3: Joint Chair: Ann Atzberger and Sergio Anguissola

13:40 – 14:25 Seamus Martin

Trinity College Dublin

Apoptosis: Controlled Demolition at the Cellular Level

14:25 – 14:45 Lydia Lynch

Harvard University / University College Dublin

The human omentum as an immunological tool

14:45 – 15:05 Rob Pineda

University of Nottingham, UK

Using Imaging Flow Cytometry to Examine Intracellular Delivery of Polymeric Nanosensors

15:05 – 15:20 Shijuan Grace Zeng

Trinity College Dublin

Multiplex Analysis of Cytokine and Immunoglobulin Production in Invariant Natural Killer T Cell – B Cell Interactions using Cytometric Bead Arrays

**15:20 – 15:35** Michelle Duffy

National University of Ireland, Galway

Marrow Stromal Cells (MSCs) potently inhibit the primary induction of T-helper 17 Cells through Cell-Cell Contact

15:35 - 15:50 Nadia Chanzu

Kingston University, London, UK

The Role of Cytochemistry and Flow Cytometry in the Modern Diagnosis of Acute Myeloid Leukaemia

#### 15:50 – 16:05 Poster Session/Coffee Break

Session 4: Joint Chair: Orla Hanrahan and Sergio Anguissola

16:05 – 16:35 Nicolas Goardon University of Oxford- UK

Leukaemic Stem cells in Acute Myeloid Leukaemia

16:35 – 16:50 Luciene Zanchetta Institute of Technology, Sligo

Nucleoids Remodeling and Impaired Mitochondrial Dynamics in Human Malanoma Cells in Response to UVR

16:50 – 17:05 Nora Lieggi University College Dublin

Translation of Novel Anti-Cancer Cytotoxicity Biomarkers Detected with High Content Analysis from an In Vitro Predictive Model to an In Vivo Cell Model

17:05 – 17:15 José Enrique O'Connor University of Valencia, Spain

10th EuroConference on Clinical Cell Analysis

17:30 – 18:30 Happy Hour! sponsored by Accuri Cytometers

O'Neill's Pub. Pearse Street.

# PARALLEL SESSION SEMINAR ROOM BIOCHEMISTRY (WELLCOME) BUILDING TUESDAY, NOVEMBER 17<sup>TH</sup>

#### UK - IRELAND CORE MANAGERS MEETING

Chairman:

**Barry Moran** Trinity College Dublin

15:05 – 16:05 Running a Core Facility in the Current Economic Climate

John Daley, Vasilis Toxavidis, John Tigges, Suzan Lazo-Kallanian

Harvard University

**David Cottell** University College Dublin

Ian Dimmick University of Newcastle, UK

Rui Gardner Instituto Gulbenkian, Portugal

**16:35 – 17:30** Health and Safety

**David McDonald** VWR International Ltd. - Dublin

**Ann Atzberger** Trinity College Dublin

**Richard Grenfell** Cancer Research UK - Cambridge

# PARALLEL SESSION FRED ROOM BIOCHEMISTRY (WELLCOME) BUILDING TUESDAY, NOVEMBER 17<sup>TH</sup>

#### **COMPANY TUTORIALS**

14:45 – 15:45 Gillian Byrne

Applied Cytometry

VenturiOne® Offline Data Analysis Software - Making flow faster

### PLENARY SESSION

#### PACCAR THEATRE

### WEDNESDAY, NOVEMBER 18TH

Session 1: Joint Chair: Barry Moran and Orla Hanrahan

9:30 – 10:00 Francesco Lanza Hospital de Cremona - Italy

Multiparametric Analysis of Mesenchymal Stromal Cells from Different Sources

10:00 – 10:30 Vasilis Toxavidis, John Tigges, Suzan Lazo-Kallanian

Harvard University – USA

New Technological Advances and their Effects on Polychromatic Flow Cytometry

10:30 – 11:00 José Enrique O'Connor University of Valencia, Spain

Cytomics for Assessment of Drug Safety and Prediction of Human Acute and Chronic Toxicity.

11:00 – 11:20 Poster Session/Coffee Break

Session 2: Joint Chair: Alfonso Blanco and Orla Hanrahan

11:20 – 11:35 James Harris Trinity College Dublin

Regulation of the NLRP Inflammasome by phosphoinositide-3-kinases and Autophagy

11:35 – 11:50 José Enrique O'Connor University of Valencia, Spain

The Use of Hermetic Cell Culture Containers (PetakaG2T) for Cell Biological Research

11:50 – 12:10 Maarten Van Es University College Dublin

Combining Atomic Force Microscopy with Confocal Microscopy: Illuminating the Role of Forces in the Life Cycle of Cells

#### 12:10 – 12:30 Adriele Prina-Mello Trinity College Dublin

Flow Cytometric Response and Comparative Analysis of Immunofunctionalized Silica coated Magnetic Nanowire and Nanoparticle

#### 12:30 – 12:45 Ian Mercer University College Dublin

Instantaneous Imaging of Protein Structure and Function for High Throughput Fingerprinting

#### 12:45 – 13:45 Lunch

Session 3: Joint Chair: Alfonso Blanco and Sergio Anguissola

13:45 – 14:30 Thomas Cotter University College Cork

Looking Cell Death in the Eye

14:30 – 14:50 David Cottell University College Dublin

The Relevance Of Ultrastructural Analysis in the Diagnosis Of Human Disease

#### 14:50 – 15:10 Kanchan Phadwal University of Oxford- UK

Investigating Autophagy in Human Antigen Presenting Cells and Mouse Knockout Models using Imagestream

15:10 – 15:25 Alessia Stocca National University of Ireland, Galway

Characterisation of the Phenotype, Developmental Potential and Immunosuppressive Properties of Mouse Mesenchymal Progenitor Cell Lines and Clones.

15:25 – 15:40 Fengjuan Wang University College Dublin

Study of cell death induced by amine-modified polystyrene in 1321N1 cells

#### 15:40 – 15:55 Poster Session/Coffee Break

3 Minute Presentation by Poster Competition Finalists

#### Session 4: Joint Chair: Barry Moran and Orla Hanrahan

15:55 – 16:15 Alfonso Blanco University College Dublin

A Flow-Cytometric Method for a Continuous Measurement of Intracellular Ca<sup>2+</sup> Concentration

16:15 – 16:30 Elisa Piscianz IRCCS Burlo Garofolo, Italy

Identification of Allo-Reactive Lymphocytes in a B Cell-Based MLR

16:30 – 16:45 Sergio Anguissola University College Dublin

A Novel NLS sequence in PEDF Mediates its Interaction with Transportin-SR2 and Nuclear Import

16:45 – 17:00 Imelda Doolan University of Limerick

Development of Fluorescence Activated Cell Sorting Methodology to Isolate Sub-populations of Lactococcus lactis Subsp. Cremoris AM2 with Enhanced Intracellular Enzyme Release

17:00 Conclusion; and Oral and Poster Presentation Prizes

# PARALLEL SESSION SEMINAR ROOM BIOCHEMISTRY (WELLCOME) BUILDING WEDNESDAY, NOVEMBER 18<sup>TH</sup>

#### COMPANY TUTORIALS

14:35 – 15.05 Gareth Jones

Cyntellect

In Situ Cytometry for Vital Cells

15.05 – 15:35 Jane Wood

Partec

Partec CyScope: High performance, portable, fluorescence microscopy

15:35 - 16:05 David Coulson

Alpha Technologies

ImageStreamX® Cytometry: High Speed High Content Image Analysis of Cells in Flow – See what you've been missing!!

16:05 - 16:35 Kelly Lundsten

Cambridge Bioscience Ltd

Multicolour Flow Cytometry: Configuration, Design and Practicalities

16:35 – 17:05 Kate Easten

Accuri Cytometers

Reducing Variability in Flow Cytometric Analysis with the Accuri C6

17:05 – 17:35 Adrian Rea

Enzo Life Sciences

Fluorescent Molecular Probes - an introduction to Enzo's CELLestial<sup>TM</sup> product range

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#### COMPANY TUTORIALS

15:00 – 15:50 Gillian Byrne

**Applied Cytometry** 

Follow-Up:

VenturiOne® Offline Data Analysis Software - Making flow faster

15:50 – 16:40 Yannick Marrari

Becton Dickinson

Automated Imaging and High-Content Analysis of Cell-Based Assays - A complementary method to flow cytometry

#### We would like to acknowledge our sponsors:

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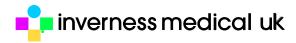


















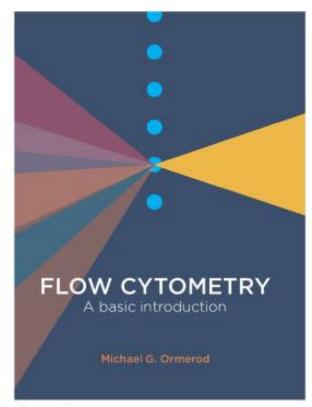
We would also like to thank the Irish Cancer Society and the International Society for the Advancement of Cytometry for their support



# Flow Cytometry A basic introduction by Michael G. Ormerod

A new introductory book available **free** on the Web at

http://flowbook.denovosoftware.com.



This new introduction to flow cytometry has two unique features.

Most of the figures have links to the data file from which they were derived. If you have downloaded FCS Express Reader, the layout used for each figure can be accessed. In some cases, extra information is supplied, including other data files. The reader can experiment with the data, changing the position of the gates, etc.

The other feature is a parallel book, which is a Wiki. You can add to the book, make corrections, even add your own data files. We hope that this version may grow into a text book of flow cytometry developed and maintained by the whole flow community.

The book is free for you to read on the Web site above. A conventional paperback version is available for purchase at <a href="https://www.denovosoftware.com/site/introtoflowormerod.shtml">www.denovosoftware.com/site/introtoflowormerod.shtml</a>.

We hope that you enjoy this new venture and look forward to hearing any comments.

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