KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Regulation and Dysregulation of Innate Immunity in Disease (B9)

February 18-22, 2018 • Fairmont Hotel Vancouver • Vancouver, British Columbia, Canada Scientific Organizers: Lynda M. Stuart, Kathryn J. Moore and Kate L. Jeffrey

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 18, 2017 / Abstract Deadline: November 16, 2017 / Discounted Registration Deadline: December 18, 2017

SUNDAY, FEBRUARY 18

Arrival and Registration

MONDAY, FEBRUARY 19

Welcome and Keynote Address

Kate A. Fitzgerald, University of Massachusetts Medical School, USA Innate Immunity: Protecting the Sanctity of the Cytosol and the Host

Looking for More: Screening in the Innate Immune System

Nir Hacohen, Massachusetts General Hospital, USA Innate Immune Cells and Pathways in Human Disease

Lynda M. Stuart, Bill & Melinda Gates Foundation, USA *Transposon Mutagenesis Screens for Host Resistance*

Kathryn E. Holt†, University of Melbourne, Australia Microbial Genomic Screens

Short Talk(s) Chosen from Abstracts

Gene Regulatory Networks in Innate Immunity

Julian C. Knight, University of Oxford, UK

Gene-on-Gene – Insights into Regulation of Innate Immune Responses Leveraging Human Genetic Variation

Alex K. Shalek, Massachusetts Institute of Technology, USA *Learning More by Looking at Less – Single Cell Analyses of Pathogen Responses*

Matthew L. Albert, Genentech, Inc., USA

Geographical Variations in the Human Innate Immune Response to Pathogens

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, FEBRUARY 20

Epigenetic Regulation of Host Defense

Kate L. Jeffrey, Massachusetts General Hospital, Harvard Medical School, USA

Epigenome Readers in Innate Immunity and IBD

Gioacchino Natoli, IEO, European Institute of Oncology, Italy *Genomic Landscapes in Inflammation*

Mélanie Hamon, Institut Pasteur, France

Listeria and Strep Induced Epigenetic Alterations

Stephen T. Smale, University of California, Los Angeles, USA *Macrophage Epigenomics*

Short Talk(s) Chosen from Abstracts

Innate Defense at the Mucosa

Ramnik Xavier, Massachusetts General Hospital and Broad Institute, USA

Different LPS Exposures Instructs Immune Fate

P'ng Loke, New York University School of Medicine, USA *Tissue and M2 Macrophages*

Daniel Mucida, Rockefeller University, USA

Tissue Adaptation: Implications for Gut Immunity and Tolerance

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, FEBRUARY 21

Entraining Immunity

Mihai G. Netea, Radboud University, Netherlands *Trained Immunity: A Memory for Innate Host Defense*

Judith E. Allen, University of Manchester, UK

Macrophage Education on Site

Eicke Latz, University of Bonn, Germany

Cholesterol and Trained Immunity

Musa M. Mhlanga, University of Cape Town, South Africa *Trained Immunity, IncRNA and 3D Chromatin Topology*

Short Talk(s) Chosen from Abstracts

Metabolic Control of Innate Immune Cells

Kathryn J. Moore, New York University Medical Center, USA Micro-RNAs Coordinate the Physiology of Innate Immune Cells

Edward J. Pearce, Max Planck Institute of Immunobiology and Epigenetics, Germany

Metabolic Control of Myeloid Responses

Javier E. Irazoqui, University of Massachusetts Medical School, USA *TFEB: From Lysosome Storage to Innate Defense*

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, FEBRUARY 22

In the Balance: Immunodeficiencies and Auto-Inflammation

Catherine (Lynn) Hedrick[†], La Jolla Institute for Allergy and Immunology, USA

Human Monocyte Heterogeneity as Revealed by High Dimensional Mass Cytometry

Andrew Oberst, University of Washington, USA Inflammatory Cell Death in Innate Immunity

Kim Newton, Genentech, Inc., USA RIP Kinases as Therapeutic Targets

Virginia Pascual, Cornell University, USA

Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Pyroptosis, Necroptosis and Inflammatory Death

Thirumala-Devi Kanneganti, St. Jude Children's Research Hospital, USA

Inflammasome and Inflammation

Peter Vandenabeele, VIB, Ghent University, Belgium RIP Kinase in Inflammation at Mucosal Surfaces

Vishva M. Dixit, Genentech, Inc., USA

Gasdermin-D: How to Punch Holes in a Dying Cell

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

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FRIDAY, FEBRUARY 23 Departure