

Keystone Symposia: Lymphocyte Activation and Gene Expression

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February 27–March 4, 2010 • Beaver Run Resort • Breckenridge, Colorado • USA

Scientific Organizers: Leslie J. Berg, Lawrence E. Samelson and Facundo D. Batista

PROGRAM FACULTY & TALKS

- Balbino Alarcon**, CSIC-Universidad Autonoma de Madrid, Spain
Intramolecular Mechanism for Transmission of the Conformational Change in the TCR
- Facundo D. Batista**, Cancer Research UK, London Research Institute, UK
Signals Regulating B Cell Spreading in Response to Antigen
- Leslie J. Berg**, University of Massachusetts Medical Center, USA
Tec Kinases in T Cell Differentiation
- Doreen A. Cantrell**, University of Dundee, UK
Matching Lymphocyte Metabolism and Migration
- Arup K. Chakraborty**, Massachusetts Institute of Technology, USA
How T Cells “See” Antigen
- Mark M. Davis***, Stanford University, USA
T-Cell Receptor Signaling
- Michael L. Dustin**, New York University School of Medicine, USA
Immunological Synapse Formation in Normal and Pathological Immune Responses
- Ronald N. Germain**, NIAID, National Institutes of Health, USA
Cell Dynamics during the Initiation and Effector Phases of Adaptive Immune Responses
- Gillian Griffiths**, Cambridge Institute for Medical Research – Wellcome Trust/MRC Building, UK
The Cell Biology of Secretion in T Cells
- Joonsoo Kang**, University of Massachusetts Medical School, USA
Transcriptional Regulation of α - β vs. γ - δ T Cell Lineage Commitment
- Gary A. Koretzky**, University of Pennsylvania School of Medicine, USA
Role of SLP-76 in Immune Cell Development and Function
- Matthew F. Krummel**, University of California, San Francisco, USA
Motility and Polarity in T Cell Responses
- Richard S. Lewis**, Stanford University School of Medicine, USA
A Molecular Mechanism for Sustained Calcium Signaling during T Cell Activation
- Bernard Malissen**, Centre d’Immunologie de Marseille-Luminy, France
Th2 Lymphoproliferative Disorders Resulting from Defective LAT Signalosomes
- Matthias Merkenschlager**, Imperial College London, UK
MicroRNAs as Integral Components of B Cell Developmental-Stage-Specific Regulatory Circuits
- Susan K. Pierce**, NIAID, National Institutes of Health, USA
Changes in the B Cell Antigen Receptor with Activation
- Klaus Rajewsky**, PCMM, Children’s Hospital Boston, Immune Disease Institute, USA
Aspects of Transcriptional and microRNA Control in B Cell Development
- Anjana Rao**, Harvard Medical School, USA
Ca Signaling and Transcription Regulation in Lymphocytes
- Steven L. Reiner**, University of Pennsylvania, USA
Specifying the T Cell Fates Required for Immunity
- Juan Rivera**, NIAMS, National Institutes of Health, USA
Signaling Downstream of the Fc ϵ RI in Mast Cells
- Ellen A. Robey**, University of California, Berkeley, USA
Cell Interactions and Migration in the Thymus
- Takashi Saito**, RIKEN Center for Allergy and Immunology, Japan
Molecular Dynamics for T Cell Activation and Costimulation
- Lawrence E. Samelson**, National Institutes of Health, USA
Signaling at the TCR
- Pamela L. Schwartzberg**, National Institutes of Health, USA
Altered T Cell Function in Mice Deficient in SAP, a Model for X-Linked Lymphoproliferative Disease
- Andrey S. Shaw**, Washington University School of Medicine, USA
Immunological Synapse and Polarity in T Lymphocytes
- Phillip Anton van der Merwe**, University of Oxford, UK
Molecular Mechanism of TCR Triggering
- Carola G. Vinuesa**, John Curtin School of Medical Research, Australia
MicroRNA-Mediated Repression of Autoimmunity
- Casey T. Weaver**, University of Alabama at Birmingham, USA
Gene Expression and the TH17 Response
- Arthur Weiss**, University of California, San Francisco, USA
Structural Insights into ZAP-70 Regulation and TCR Signaling

*Keynote speaker. Program subject to change. Current as of September 24, 2009



Lymphocytes mediate the adaptive immune responses to antigens derived from infectious agents, transformed cells, transplanted organs and, in the setting of autoimmunity, one’s own cells. The study of lymphocyte activation and gene expression is central to understanding the complex biology of these cells and offers hope for regulating these cells in different clinical settings. Much has been learned in the past several decades in this field. Receptors, enzymes and adapter molecules have been identified, signaling cascades and networks have been defined, and the complex regulation of gene expression has been explored. Nonetheless many basic questions remain to be elucidated. Among several contentious areas of research that will be presented by experts at this meeting are the actual means by which antigen receptors initiate the activation process, how activation induces changes in signaling pathways, intracellular organelles and the cytoskeleton, and how changes in chromatin and transcriptional factors determine gene expression.

PROGRAM PLENARY SESSIONS & WORKSHOPS:

- Initiation of Antigen Receptor Signaling
- Cell Biology of Lymphocyte Activation
- Transcriptional Regulation and Chromatin Remodeling during Lymphocyte Activation
- Workshop 1: Proximal Events in Lymphocyte Activation
- Downstream Pathways of Antigen Receptor Signaling I, II and III
- Visualization of Lymphocyte Activation
- Workshop 2: Regulation of Gene Expression during Lymphocyte Activation
- Regulation of the Immune Response by microRNA

DEADLINES:

Abstract & Scholarship: October 27, 2009
Late-Breaking Abstract: November 30, 2009
Early Registration: December 28, 2009

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