

# Keystone Symposia: Tolerance and Autoimmunity

Sponsored by Novo Nordisk A/S

February 21–26, 2010 • Taos Convention Center • Taos, New Mexico • USA

Scientific Organizers: Betty Diamond and Diane J. Mathis

## PROGRAM FACULTY & TALKS

**Jacques F. Banchereau**, Baylor Institute for Immunology Research, USA  
*Tolerogenic and Immunogenic DCs*

**Bryce A. Binstadt**, University of Minnesota, USA  
*Organ Response to Inflammation*

**Philippe Bouillet**, Walter and Eliza Hall Institute of Medical Research, Australia  
*Bcl2/Bim, Balancing Life and Death*

**Jane H. Buckner**, Benaroya Research Institute, USA  
*Signals Underlying Receptor Editing*

**Chang-Zheng Chen**, Stanford University, USA  
*MicroRNAs: Setting Thresholds*

**Charlotte Cunningham-Rundles**, Mount Sinai Medical Center, USA  
*Immunodeficiency and Autoimmunity in Man*

**Betty Diamond**, Feinstein Institute for Medical Research, USA  
*Regulation of Antigen-Activated B Cells*

**Teresa P. DiLorenzo**, Albert Einstein College of Medicine, USA  
*DC Triggering of Diabetogenic T Cells*

**Shohei Hori**, RIKEN Research Center for Allergy and Immunology, Japan  
*Treg Control of the Immune Response*

**Judith A. James**, Oklahoma Medical Research Foundation, USA  
*Pre-Clinical Humoral Autoimmune Events in Systemic Lupus*

**Matthias Kretzler**, University of Michigan, USA  
*Renal Responses in SLE*

**Juan J. Lafaille**, New York University School of Medicine, USA  
*Energy and Tolerance*

**Fabienne Mackay**, Nursing and Health Sciences Central Clinical School, Australia  
*BAFF and the B Cell Repertoire*

**Ann Marshak-Rothstein**, Boston University School of Medicine, USA  
*TLRs and Immune Activation*

**Diane J. Mathis**, Harvard Medical School, USA  
*Molecular Pathways Controlling Autoimmunity*

**Claudia Mauri**, University College London, UK  
*Regulatory B Cells in Health and in SLE*

**John G. Monroe**, Genentech, Inc., USA  
*Lipid Biosynthesis and Cholesterol*

**Jeffrey V. Ravetch**, Rockefeller University, USA  
*The Up- and Down-Side of Immune Complexes*

**Bruce Compton Richardson**, University of Michigan, USA  
*Chromatin Structure and Immune Activation*

**William M. Ridgway**, University of Cincinnati, USA  
*Why Some Tissues are Targeted for Damage*

**Lars Rönnblom**, Uppsala Universitet, Sweden  
*Controls of the Unfolding of Lupus*

**Anthony Rosen**, Johns Hopkins School of Medicine, USA  
*Antigens and Autoimmunity*

**Alexander Y. Rudensky**<sup>\*</sup>, Memorial Sloan Kettering Cancer Center, USA  
*Regulatory and Conventional T Cells Battling within the Tissues*

**Steven E. Shoelson**, Harvard Medical School, Joslin Diabetes Center, USA  
*The Adipocyte and the Monocyte*

**Gregg J. Silverman**, University of California, San Diego, USA  
*Regulation of TLR Responses by Harnessing of "Good" Autoreactivity*

**Kevin J. Tracey**, Feinstein Institute for Medical Research, USA  
*Reflexive Control of Autoinflammation*

**Antonio Uccelli**, University of Genoa, Italy  
*Mesenchymal Stem Cells: A New Cell Therapy for Autoimmune Diseases*

**Eric M. Verdin**, University of California, San Francisco, USA  
*HDAC7 and Autoimmunity*

**Carola G. Vinuesa**, John Curtin School of Medical Research, Australia  
*Controlling TFH Cell Development and Activity*

<sup>\*</sup>Keynote speaker. Program subject to change. Current as of September 24, 2009



Elegant studies of central T and B cell tolerance have been performed, leading to the identification of multiple mechanisms that remove or silence autoreactive cells during their maturation, but also reminding us that some autoreactive cells do mature to immunocompetence in all individuals. Furthermore, studies of the B cell response to antigen have clearly demonstrated that autoreactivity can arise de novo in antigen-activated cells, which also requires silencing. Finally, it has now been established in studies of multiple autoimmune diseases that a critical checkpoint exists between autoreactivity and tissue injury, one of the issues about which we remain most ignorant. Understanding peripheral mechanisms for maintaining self-tolerance offers promise for better therapies for autoimmune disease. The proper implementation of this new knowledge requires an understanding of similarities and differences between animal models and human disease. Specific Issues: • Translating results from studies of animal models to human studies • Peripheral and central tolerance • T cells and B cells • The relationship between autoimmunity and immunodeficiency • The role of dendritic cells in autoimmunity • What dictates generation of autoreactive antibody in one individual and not in another? • How much autoreactivity must occur in order to progress to disease and what governs this? • What exactly is "pathogenic autoreactivity," i.e. are all investigators talking about the same thing? • How much of pathogenesis is due to autoreacting antibodies per se versus the tissue's response to antibody? • What role is innate immunity playing in all of this?

## PROGRAM PLENARY SESSIONS:

- Signaling Negative Selection of Autoreactive Lymphocytes
- Early Moments in Autoimmunity
- B Cell Effectors and Regulators
- Braking Autoimmunity
- Regulating Thresholds for Activation and Tolerance I and II
- Tissue Response: Turning the Other Cheek (Or Not)
- Novel Insights and Novel Therapeutics

## DEADLINES:

Abstract & Scholarship: October 21, 2009  
Late-Breaking Abstract: November 20, 2009  
Early Registration: December 21, 2009

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