

# Keystone Symposia: Advances in Molecular Mechanisms of Atherosclerosis

(Joint with meeting on: **The Macrophage: Intersection of Pathogenic and Protective Inflammation**)

February 12–17, 2010 • Fairmont Banff Springs • Banff, Alberta • Canada

Scientific Organizers: *Russell A. DeBose-Boyd and Christopher K. Glass*

## PROGRAM FACULTY & TALKS

**Philippe Boucher**, UMR CNRS 7213, University of Strasbourg, France  
*PPAR-gamma Inhibits Vascular Calcification by Controlling an LRP1/beta-Catenin Signaling Pathway*

**Israel F. Charo**∆, Gladstone Institute of Cardiovascular Disease, USA  
*Macrophage Movement in Atherosclerosis Lesions*

**Ajay Chawla**∆, Stanford University Medical Center, USA  
*Adipocyte/Macrophage Intersection*

**Linda K. Curtiss**∆, The Scripps Research Institute, USA  
*Toll Like Receptors*

**Russell A. DeBose-Boyd**, University of Texas Southwestern Medical Center, USA  
*Degradation of HMG CoA Reductase and Cholesterol Metabolism*

**Garret A. FitzGerald**, University of Pennsylvania, USA  
*Cyclooxygenases and Thrombosis*

**Frederic Geissmann**∆, Hôpital Necker - Enfants Malades, France  
*In vivo Monitoring of Monocyte/Macrophage Traffic*

**Christopher K. Glass**∆, University of California, San Diego, USA  
*Nuclear Receptor-Mediated Repression of Inflammatory Responses*

**Göran K. Hansson**, Karolinska University Hospital, Sweden  
*Interplay of innate and adaptive immune mechanisms in atherosclerosis*

**Gökhan S. Hotamisligil**∆, Harvard University School of Public Health, USA  
*Metabolic Stress and Inflammation*

**Michael Karin**∆, University of California, San Diego, USA  
*NF-kappaB Signaling Pathways that Regulate Inflammation and Immunity*

**Sekar Kathiresan**, Massachusetts General Hospital, USA  
*Mapping of Genes Related to Blood Lipids and Myocardial Infarction in Humans*

**Gerald Krystal**∆, British Columbia Cancer Research Center, Canada  
*The Role of SHIP in M1/M2 Macrophage Skewing and Activation*

**Steven L. Kunkel**∆, University of Michigan Medical School, USA  
*Epigenetic Regulation of the Macrophage Phenotype*

**Peter Libby**, Brigham and Women's Hospital, USA  
*Extracellular Matrix Metabolism and Determinants of Plaque Stability*

**Ziad Mallat**, Centre de Recherche Cardiovasculaire Lariboisière, France  
*Regulatory T Cell Immunity in Atherosclerosis*

**Ruslan M. Medzhitov**∆, Yale University School of Medicine, USA  
*Regulation of Inflammatory Gene Expression*

**Kathryn J. Moore**, Massachusetts General Hospital, USA  
*The Path to Macrophage Foam Cell Formation*

**Peter J. Murray**∆, St. Jude Children's Research Hospital, USA  
*Cytokine-Mediated Deactivation of the Activated Macrophage*

**Carl F. Nathan**\*∆, Weill Cornell Medical College, USA  
*Macrophages, Inflammation and Host Defense*

**Daniel J. Rader**, University of Pennsylvania Medical Center, USA  
*Functional Assessment of New Lipid and Atherosclerosis Genes*

**Gwendalyn J. Randolph**, Mount Sinai School of Medicine, USA  
*Emigration of Monocyte-Derived Cells out of Atherosclerotic Plaques*

**Karen Reue**, University of California, Los Angeles, USA  
*Identification of Genes that Regulate Lipid Metabolism and Energy Homeostasis*

**Eric Schadt**, Pacific Biosciences, USA  
*Moving Toward a Systems Biology Understanding of Complex Human Diseases*

**Ayesha Sitlani**, Merck & Co., Inc., USA  
*Talk Title to be Determined*

**Ira Tabas**, Columbia University, USA  
*Mechanisms and Consequences of Macrophage Apoptosis in Atherosclerosis*

**Alan R. Tall**, Columbia University, USA  
*Role of ABC Transporters in Atherosclerosis and Foam Cell Formation*

**Peter Tontonoz**∆, University of California, Los Angeles, USA  
*Integration of Metabolism and Inflammation by Nuclear Receptors*

**Joseph L. Witztum**, University of California, San Diego, USA  
*Natural Antibodies and B1 Cells*

\*Keynote speaker. ∆Speaker in a joint session. Programs subject to change.  
Current as of September 21, 2009



*Atherosclerosis, a disease that affects arterial blood vessels, is the major cause of death in developed countries and emerging economies worldwide. The disease is initiated when cholesterol-rich low-density lipoproteins adhere to the walls of arteries, triggering a complex set of reactions involving a variety of cell types including macrophages, endothelial cells, smooth muscle cells and lymphocytes. This initial lesion progresses to a more complicated atherosclerotic plaque through subsequent cell-cell and cell-lipid interactions that cause chronic inflammation, extracellular alterations and necrosis. These responses promote plaque disruption, which triggers acute thrombosis resulting in vascular occlusion and myocardial infarction. The goal of this meeting is to provide attendees with the latest advances in the understanding of cellular processes that contribute to atherosclerosis, with particular emphasis on cholesterol metabolism and foam cell formation, genetics and the immune system. These goals will be significantly enhanced by holding the meeting concurrently with the meeting on The Macrophage: Intersection of Pathogenic and Protective Inflammation. In addition to four atherosclerosis-specific plenary sessions, four joint sessions are planned to highlight major developments in areas of mutual interest to investigators in the fields of atherosclerosis and macrophage biology. Elucidation of mechanisms underlying development of atherosclerosis may reveal new therapeutic strategies to combat the disease. This program will stimulate interactions that are likely to augment and accelerate this process.*

## PROGRAM PLENARY SESSIONS & WORKSHOPS:

- Genetics and Functional Genomics of Atherosclerosis
- Signaling and Gene Expression (Joint)
- Immune Mechanisms and Atherosclerosis
- Macrophage Movement (Joint)
- The Vulnerable Plaque
- Deactivating Macrophage Activity (Joint)
- Cholesterol Homeostasis/Foam Cell Formation
- Metabolism and Macrophages at the Intersection of Metabolic Control (Joint)

## DEADLINES:

Abstract & Scholarship: October 12, 2009  
Late-Breaking Abstract: November 13, 2009  
Early Registration: December 14, 2009

[www.keystonesymposia.org/10J7](http://www.keystonesymposia.org/10J7)

**KEYSTONE SYMPOSIA™**  
on Molecular and Cellular Biology  
*Accelerating Life Science Discovery*

PO Box 1630 • Silverthorne, CO 80498 • USA  
[www.keystonesymposia.org](http://www.keystonesymposia.org) • 1-800-253-0685 • 1-970-262-1230