

PROGRAM DRAFT
Annual Meeting of The
Society for Leukocyte Biology
“Infection, Inflammation, Immunity”



September 22 - 24, 2011
Westin, Crown Center
Kansas City, MO

Organizers: Douglas Drevets and Pieter Leenen
(Note: First number denotes related abstract number where available)

Thursday, September 22nd

7:30 am - 6:00 pm Registration
(Century Foyer)

7:30 am - 6:00 pm Networking Lounge and Cyber
Café
(Shawnee/Mission Room)

9:00 am - 11:00 am **Satellite Symposium:**
Cross-Talk between Inflammatory
Responses and the Brain: A PNI
Research Symposium
Chair: Monika Fleshner
Sponsored and organized by PNIRS
(Century Ballroom A)

9:00 am **Microbiota Influences on**
Mucosal and Systemic Inflammatory
Responses: Implications for Stressor-
Induced Immunomodulation
Michael Bailey, *The Ohio State University*

9:30 am **Adrenergic Mediation of Brain**
IL-1beta
John Johnson, *Kent State University*

10:00 am **Stress, DAMPs and**
Immunomodulation
Monika Fleshner, *University of Colorado*

10:30 am **The Contrasting Effects of**
Systemic Bacterial Endotoxin and
Bacterial Infection on the CNS
Hugh Perry, *University of Southampton,*
School of Biological Sciences

12:00-1:00 pm **Lunch Break on Your Own**

12:00 pm - 7:30 pm Exhibits
(Century Ballroom B/C)

1:00-1:15 pm **Welcome**
Chairs: Douglas Drevets and Pieter Leenen
(Century Ballroom A)

1:15-2:45 pm **Plenary I: Cellular and**
Molecular Pathways and Profiles in
Inflammation
Chair: Jill Suttles
(Century Ballroom A)

1:15 pm **Role of microRNA in Macrophage**
Activation and Deactivation
Massimo Locati, *University of Milan*

1 **1:45 pm** **AMPK Regulation of Leukocyte**
Functional Polarization
Jill Suttles, *University of Louisville*

2 **2:15 pm** **CCR2 and Monocyte Subsets in**
Atherosclerosis and Trafficking of
Hematopoietic Stem Cells
Izzy Charo, *Gladstone Institute of*
Cardiovascular Disease, University of
California

2:45 - 3:00 pm **Coffee Break**
(Century Ballroom B/C and Foyer)

3:00 - 4:45 pm SLB Presidential Award

Nominees

Chair: Elizabeth J. Kovacs and William M. Nauseef
(*Century Ballroom A*)

SLB Junior Faculty/Postdocs Presidential Award Finalist

3:15 pm The Complement Protein C1q Modulates Macrophage Activation and NLRP3 Inflammasome Activity during the Uptake of Apoptotic Cells

Marie E Benoit, *University of California Irvine*

3:30 pm The Spatiotemporal Dynamics of Acetaminophen-induced Liver Injury Lead to the Development of a Novel Lipid-mediated Anti-inflammatory Therapeutic Strategy

Suraj J Patel, *Harvard Medical School, Massachusetts General Hospital*

3:45 pm TLR9 Targeted Treatment for the Immune Consequences of Radiation and Radiation Combined Injury

Veit Stoecklein, *BWH Harvard Medical School*

SLB Student Presidential Award Finalist

4:00 pm Neutrophils Drive MMP-8/-9 Gene Expression and Secretion in Tuberculosis by Complex Mechanisms
Catherine Ong, *Imperial College London*

4:15 pm Hematopoietic Stem and Progenitor Cells Traffic to *S. Aureus*-Infected Wounds where they Proliferate and Differentiate Along the Myeloid Lineage in a MyD88-Dependent Manner
Jennifer Granick, *University of California Davis*

4:30 pm Role of Galectin-3 in Classical and Alternative Macrophage Activation and Inflammatory Mediator Production during Acetaminophen-Induced Hepatotoxicity

Ana Cristina Dragomir, *Rutgers University*

4:45 - 6:15 pm SLB Named Awards

Chair: Elizabeth Kovacs and William M. Nauseef
(*Century Ballroom A*)

4:45 pm G. Jeanette Thorbecke Award Winner Age-Associated Changes in Monocyte/Macrophage Function Predispose the Elderly to Infectious Disease

Dawn ME Bowdish, *McMaster University*

5:00 pm Dolph O. Adams Award Winner Discovery of a Viral NLR Homolog that Inhibits the Inflammasome

Blossom Damania, *UNC-Chapel Hill, Lineberger Cancer Center*

3 5:30 pm Bonazinga Award Lecture Macrophages as a System

Sponsored by Accurate Chemical David Hume, The Roslin Institute at the University of Edinburgh and the Royal (Dick) School of Veterinary Studies

6:15 - 7:30 pm Opening Reception
(*Garden Terrace and Century Foyer*)

7:30 - 8:30 pm Keynote Lecture

Chair: Elizabeth J. Kovacs
(*Century Ballroom A*)

4 Impact of Peripheral Infection and Inflammation on the Healthy and Diseased Brain

Hugh Perry, *University of Southampton, School of Biological Sciences*

Friday, September 23rd

7:30 am - 6:00 pm Registration
(*Century Foyer*)

7:30 am - 5:00 pm Exhibits
(*Century Ballroom B/C*)

7:30 am - 9:00 am Breakfast
(*Century Foyer/Ballroom B/C*)

7:30 am-9:00 am **How to Write Your First Grant Application**

Session Chair: Julian G. Cambroner, Ph.D., Professor of Biochemistry and Molecular Biology (Wright State University School of Medicine).
Sponsored and organized by the SLB Professional Development Committee (Shawnee/Mission Room)

This workshop is hosted by the *Professional Development Committee*, as part of the educational mission of the Society for Leukocyte Biology. Julian G. Cambroner, Ph.D. Professor of Biochemistry and Molecular Biology at Wright State University School of Medicine will be the session chair of this workshop. This workshop is targeted to graduate students, postdoctoral fellows, and junior faculty, who are new to the grant writing process! A short presentation by Dr. Cambroner will open the workshop followed by small-group discussion tables (formed with a maximum of 6 individuals plus a scientific leader) to discuss for 25 minutes about grant writing strategies from multiple perspectives. The leaders of the small group discussion tables are scientists with a proven track record of NIH grant funding and who have participated in NIH study sections. Thus far the following faculty have volunteered to participate: Dr. Lee-Ann Allen (University of Iowa), Dr. Julian G. Cambroner (Wright State University), Dr. Martha Cathcart (Cleveland Clinic), Dr. Louis Justment (University of Alabama), Dr. Elizabeth Kovacs (Loyola University Chicago), Dr. Kenneth R. McLeish (University of Louisville), and Dr. William Nauseef (University of Iowa). To achieve our goal and really give the attendees the opportunity to interact with our scientific leaders we have limited this workshop to 40 participants. This will be a very exciting and productive workshop and we anticipate a large response so RSVP to attend will be required.

9:00 am - 6:00 pm **Networking Lounge and Cyber Café**

(Shawnee/Mission Room)

9:00-10:30 am **Plenary II: Neuroinflammation**

Chair: Andrea Tenner
(Century Ballroom A)

9:00 am **Myeloid Cells During CNS Inflammation**

Marco Prinz, *Universitäts Klinikum Freiburg*

5 **9:30 am** **Impact of Innate Immunity and Toll-like Receptor (TLR) Signaling during Central Nervous System Bacterial Infection**

Tammy Kielian, *University of Nebraska Medical Center*

6 **10:00 am** **Good Cop, Bad Cop: Complement Proteins Uncover Novel Opportunities Modulating Neuroinflammation**

Andrea Tenner, *University of California, Irvine*

10:30-10:45 am **Coffee Break**
(Century Ballroom B/C and Foyer)

10:45-12:15 pm **Plenary III: Systems Approaches to the Current Advancement of Anti-inflammatory Therapies**

CoChairs: Lisa Schopf, *Virdante Pharmaceuticals* and Liwu Li, *Virginia Tech*
Sponsored and organized by The Inflammation Research Association (Century Ballroom A)

7 **10:45 am** **A Systems Analysis of Negative Feedback Control of Inflammation Reveals Surprising Specificities**

Alexander Hoffmann, *University of California San Diego Medical Center*

8 **11:15 am** **Translational Pharmacology of AVL-292, A Potent and Selective Inhibitor of B Cell Function**

William Westlin, *Avila Therapeutics*

9 **11:45 am** **Computational Models of Inflammation: Basic Insights and Translational Applications**

Yoram Vodovotz, *University of Pittsburgh*

12:15 pm – 12:45 pm **Member Business Meeting and Presentation of SLB Presidential Awards**

Chair: Elizabeth Kovacs
(Century Ballroom A)

12:45 pm – 2:30 pm **Poster Session I Lunch**

(Century Ballroom B/C and Foyer)

Join us for lunch while you view poster presentations of the even number boards (B2, B4, B6...LB2, LB4...)

2:30-4:00 pm **Concurrent Sessions**

CS 1: Innate Immune Activation

Chair: Luke O'Neil
(Century Ballroom A)

10 **2:30 pm** **Signaling by Toll-Like Receptors and Nlrp3 at the Core of Innate Immunity**

Luke O'Neil, *Trinity College*

11 **3:00 pm** ***Dolph O. Adams Award Winner* Discovery of a Viral NLR Homolog that Inhibits the Inflammasome**

Blossom Damania, *UNC-Chapel Hill, Lineberger Cancer Center*

12 **3:15 pm** ***Student Presidential Finalist* Neutrophils Drive MMP-8/-9 Gene Expression and Secretion in Tuberculosis by Complex Mechanisms**

Catherine Ong, *Imperial College London*

13 **3:30 pm** ***Student Travel Award Winner* Divergent Roles for the FcR γ Chain in Inflammasome Activation**

John R Janczy, *University of Iowa*

14 **3:45 pm** **On the Molecular Bases of IFN β mRNA Expression in Human Neutrophils Transfected with Plasmidic DNA**

Marco A Cassatella, *University of Verona*

CS 2: Lipid - Immune Interactions

Chair: Carey Lumeng
(Liberty Room)

2:30 pm **Adipose Tissue Macrophages as Mediators of Obesity-Induced Inflammation**

Carey Lumeng, *University of Michigan*

15 **3:00 pm** **Phospholipase D2 (PLD2) is a Guanine nucleotide Exchange Factor (GEF) for the Rac GTPase necessary for chemotaxis**

Julian Gomez-Cambronero, *Wright State University School of Medicine*

16 **3:15 pm** **Expression of Adipocyte/Macrophage-Fatty Acid Binding Protein Promotes Tumor Growth and Metastasis**

Ashley S Triplett, *University of Louisville*

17 **3:30 pm** **Oxygen Deprivation Leads to Phospholipid Bilayer Disruption and Phospholipid Scramblase 1 Upregulation in Endothelial Cells**

Emily E. Archer Slone, *Kansas State University*

18 **3:45 pm** ***Student Travel Award Winner* Class IA PI3K p110 α Regulates Phagosome Maturation**

Emily P Thi, *University of British Columbia*

4:00-4:15 pm **Coffee Break**
(Century Ballroom B/C and Foyer)

4:15-5:45 pm **Concurrent Sessions**

CS 3: (Epi)genetic Regulation of Inflammation and Immunity

Chair: John Harley
(Century Ballroom A)

4:15 pm **Genetics Reveals Pathways Involved in Systemic Lupus Erythematosus**

John Harley, *Cincinnati Children's Hospital Medical Center*

19 **4:45 pm** **MicroRNA-155 and HDAC11 Regulate LPS Sensitization in Kupffer Cells of Alcohol-Fed Mice**

Shashi Bala, *UMass Medical School*

20 **5:00 pm** **SirT6 and SirT1 Coordinate a Switch between Macrophage Glucose and Fatty Acid Oxidation during the Acute Inflammatory Response**
Tiefu Liu, *Wake Forest University School of Medicine*

where they Proliferate and Differentiate Along the Myeloid Lineage in a MyD88-Dependent Manner
Jennifer Granick, *University of California Davis*

21 **5:15 pm** **Smoking Altered DNA Methylation in Alveolar Macrophages Correlates with Gene Expression**
Martha M. Monick, *University of Iowa*

7:00-10:00 pm **Social Mixer**
(Benton's – top floor of Westin Crown Center)

22 **5:30 pm** **Cigarette Smoke Decreases Dicer Protein Levels and Leads to an Accumulation of a High Molecular Weight Dicer Complex**
Anna Reisetter, *University of Iowa*

Saturday, September 24th

CS 4: Hematopoiesis under Pressure
Chair: Paul Kincade
(*Liberty Room*)

7:30 am - 5:00 pm **Registration**
(*Century Foyer*)

23 **4:15 pm** **Replenishing the Immune System in Health, Disease and Old Age**
Paul Kincade, *Oklahoma Medical Research Foundation*

7:30 am - 4:30 pm **Exhibits**
(*Century Ballroom B/C*)

24 **4:45 pm** **Expression and Function of IL-17A and IL-25 Receptors in B Cell Malignancies of Germinal Centre Origin**
Vito Pistoia, *G. Gaslini Scientific Institute*

7:30 am - 9:00 am **Breakfast**
(*Century Ballroom B/C and Foyer*)

25 **5:00 pm** **SerpinB1 and Cathepsin G Regulate Neutrophil Homeostasis in a Cell-Autonomous and Caspase-Independent Death Pathway**
Charaf Benarafa, *University of Bern, Theodor Kocher Institute*

7:30 am-9:00 am **Open Forum: Women and Diversity Issues in the Scientific Community**
Chairs: Vijaya Iragavarapu and Julia Kzhyshkowska
Keynote: Reflections on Gender Bias in Science and in Disease
Sharon Wahl, *NIH/NIDCR*
Sponsored and organized by the SLB Women and Diversity Committee
(*Shawnee/Mission Room*)

26 **5:15 pm** **G. Jeanette Thorbecke Award Winner Age-Associated Changes in Monocyte/Macrophage Function Predispose the Elderly to Infectious Disease**
Dawn ME Bowdish, *McMaster University*

Join us for a keynote speech by Sharon Wahl focusing on the issues women and minorities face today in the field. In addition, an open discussion moderated by a panel will provide attendees with an excellent opportunity to ask their questions and share thoughts on the challenges facing scientists today and how to overcome these hurdles. Join us while Drs. Elizabeth Kovacs, Jill Suttles, Martha Cathcart share their experience and knowledge of navigating the professional world. The FASEB MARC winners will also be recognized with a certificate presentation.

27 **5:30 pm** **Student Presidential Finalist Hematopoietic Stem and Progenitor Cells Traffic to S. Aureus-Infected Wounds**

9:00 am - 5:00 pm **Networking Lounge and Cyber Café**
(*Shawnee/Mission Room*)

9:00-10:30 am Plenary IV: Monocyte

Subsets

Chair: Hemmo Drexhage
(*Century Ballroom A*)

9:00 am The Monocyte Lineage in the Context of Chronic Inflammation

Filip Swirski, *Massachusetts General Hospital, Harvard Medical School*

9:30 am Inflammatory Monocyte Trafficking during Bacterial Infection

Eric Pamer, *Memorial Sloan-Kettering Cancer Center*

10:00 am Circulating Monocytes, Microglia and Schizophrenia

Hemmo Drexhage, *Erasmus MC*

10:30 – 10:45 am Coffee Break

(*Century Ballroom B/C and Foyer*)

10:45 am - 12:15 pm Plenary V: DC: Linking Innate and Adaptive Immunity

Chair: Pieter Leenen
(*Century Ballroom A*)

DRAWING FOR PASSPORT TO EXHIBITORS PRIZES!

28 10:45 am MicroRNA Control of DC Differentiation

Pieter Leenen, *Erasmus MC, Rotterdam*

29 11:15 am A STATus Report on Plasmacytoid Dendritic Cell Development

Stephanie Watowich, *MD Anderson Cancer Center*

11:45 am Functional Specialization of Tissue Dendritic Cells

Martien Kapsenberg, *Academisch Medisch Centrum, Universiteit van Amsterdam*

12:15 – 2:15 pm Poster Session II Lunch

(*Century Ballroom B/C and Foyer*)

Join us for lunch while you view poster presentations of the odd number boards (B1, B3, B5...LB1, LB3...)

2:15-3:45 pm Concurrent Sessions

CS 5: Resolving and Non-Resolving Inflammation

Chair: Mary Dinauer
(*Century Ballroom A*)

2:15 pm NADPH Oxidase and the Inflammatory Response

Mary Dinauer, *Washington University*

30 2:45 pm Jr Faculty/Post-Doc Presidential Finalist The Complement Protein C1q Modulates Macrophage Activation and NLRP3 Inflammasome Activity during the Uptake of Apoptotic Cells

Marie E Benoit, *University of California Irvine*

31 3:00 pm Jr Faculty/Post-Doc Presidential Finalist TLR9 Targeted Treatment for the Immune Consequences of Radiation and Radiation Combined Injury

Veit Stoecklein, *BWH Harvard Medical School*

32 3:15 pm NADPH Oxidase 2 is Required for Normal Resolution of Systemic Inflammatory Responses

Laura C Whitmore, *University of Iowa*

33 3:30 pm Jr Faculty/Post-Doc Presidential Finalist The Spatiotemporal Dynamics of Acetaminophen-induced Liver Injury Lead to the Development of a Novel Lipid-mediated Anti-inflammatory Therapeutic Strategy

Suraj J Patel, *Harvard Medical School, Massachusetts General Hospital*

CS 6: Endothelium - Leukocyte Interactions

Chair: Rodger McEver
(*Liberty Room*)

34 2:15 pm Leukocyte Adhesion and Signaling Under Flow

Rodger McEver, *Oklahoma Medical Research Foundation*

35 2:45 pm Trafficking of Dendritic Cells into the Central Nervous System During Neuroinflammation

Pooja Jain, *Drexel University College Of Medicine*

36 3:00 pm Neutrophil Adhesion to Endothelial Cells is Necessary for GM-CSF Induced Expression of Oncostatin M

Wafa Elbjairami, *King Hussein Cancer Center*

37 3:15 pm CD93 Regulates Leukocyte Migration, Vascular Integrity and Complement Activation in Murine Peritonitis

Mallary Greenlee, *University of Notre Dame, Eck Inst for Global Hlth*

3:45-4:00 pm

Coffee Break

(Century Ballroom B/C and Foyer)

4:00-5:30 pm

Concurrent Sessions

CS 7: Cellular Plasticity in Myeloid Differentiation

Chair: David Hume

(Century Ballroom A)

38 4:00 pm The Biology of Macrophage Colony Stimulating Factor (CSF-1) and its Receptor

David Hume, *Roslin Institute, University of Edinburgh*

39 4:30 pm Regulation of Innate Host Factors by Mycobacterium avium Perpetuates Survival in Human Macrophages

Nancy Vazquez, *NIH, NIDCR*

40 4:45 pm Student Presidential Finalist Role of Galectin-3 in Classical and Alternative Macrophage Activation and Inflammatory Mediator Production

during Acetaminophen-Induced Hepatotoxicity

Ana Cristina Dragomir, *Rutgers University*

41 5:00 pm A Novel C1q-Dependent Pathway for Engulfment of Apoptotic Cells

Manuel D Galvan, *Indiana University School of Medicine-Notre Dame*

42 5:15 pm Plasticity of Macrophage Phagocytic and Antimicrobial Programs

Dennis Montoya, *UCLA, Medicine*

CS 8: Lymphoid Plasticity and Inflammatory Pathogenesis

Chair: Luca Gattinoni

(Liberty Room)

43 4:00 pm The Self-Renewing, Multipotent CD8+ Memory Stem Cells

Luca Gattinoni, *NIH*

44 4:30 pm Plasmin Triggers Chemotaxis of Monocyte-Derived Dendritic Cells Through an Akt2-Dependent Pathway and Promotes a T Helper Type 1 Response

Thomas Simmet, *University of Ulm, Inst. of Pharmacol. of Nat. Prod. & Clin. Pharmacol*

45 4:45 pm CCR7/CCL19 Promotes S1P1 Expression via ERK5

Charlotte M. Vines, *University of Kansas Medical Center*

46 5:00 pm The Role of Aryl Hydrocarbon Receptor in IL-23 Dependent Release of IL-22 Following Ethanol Exposure and Burn Injury

Juan L Rendon, *Loyola University Medical Center*

47 5:15 PM Myeloid Cell Dysfunction in Septic Shock: A Novel Regulatory Role for B and T Lymphocyte Attenuator

Nicholas Shubin, *Brown University/Rhode Island Hospital*