

# SHOCK SOCIETY THIRTIETH ANNUAL CONFERENCE ON SHOCK

Marriott Baltimore Waterfront  
Baltimore, Maryland  
June 9 – 12, 2007

## Saturday, June 9, 2007

- 8:00 AM – 2:00 PM**                      **Council Meeting**  
*Dover A*
- 12:00 – 6:00 PM**                      **Registration**  
*Ballroom Reg Desk*
- 12:00 – 1:30 PM**                      **Glue Grant Update**  
Ronald Tompkins, MD  
Massachusetts General Hospital, Boston, MA
- 1:30 – 1:40 PM**                      **Welcome and Introductions**  
*Salon V-VI*  
Timothy Buchman, MD, PhD  
Washington University School of Medicine, St. Louis, MO
- 1:45 – 3:45 PM**                      **Workshop 1: Choosing Groups: Humans and Animals**  
*Salon V-VI*  
John Marshall, MD  
University of Toronto, Toronto, Ontario
- The assignment of groups for basic or clinical experimentation is as important as the choice of intervention. This choice should be informed by statistics, by experience and by understanding the consequences of group assignment. The purpose of the workshop is to inform investigators, reviewers and readers of strategies for proper selection and consequences of those selections.*
- 1:45 – 2:05 PM**                      **Statistical Inference and the Scientific Method**  
John Marshall, MD  
University of Toronto, Toronto, Ontario
- 2:05 – 2:25 PM**                      **Therapeutic Misassignment**  
Charles Natanson, MD  
National Institutes of Health, Bethesda, MD
- 2:25 – 2:45 PM**                      **Lessons Learned**  
Steven Opal, MD  
Memorial Hospital of Rhode Island, Pawtucket, RI
- 2:45 – 3:05 PM**                      **Animal Models of Disease**  
Cynthia Otto, DVM, PhD  
University of Pennsylvania, Philadelphia, PA
- 3:05 – 3:30 PM**                      **Discussion: John Marshall, MD**
- 3:30 – 3:45 PM**                      **Refreshment Break**
- 3:45 – 5:15 PM**                      **Workshop 2: National Shock and Injury Institute (NSII)**  
*Salon V-VI*  
Mitchell Fink, MD  
University of Pittsburgh, Pittsburgh, PA

*This is a “blue-sky” workshop in which two respected members of the shock community will present ten minutes of oral testimony (e.g., to the Congress) as Director of the (imaginary) NSII. Each will attempt to identify the most important trends and most pressing questions with respect to Shock and Injury Research and Treatment in order to justify the focus of the Institute with respect to how decisions are made about funding. In addition to the oral presentation, each will be asked to submit not only written remarks but also a coarse-grained budget that reflects the organization and focus of (their) Institute. Each Director will of course be able to consult with colleagues in the community in preparing the testimony and constructing the budget. In the discussion period, the audience will be invited to question the “Directors” about their priorities and allocations.*

**3:45 – 3:50 PM**                      **Introduction: Mitchell Fink, MD**

**3:50 – 4:20 PM**                      **NISI: Priorities and Budget-1**  
Col. John B. Holcomb, MD  
US Army Institute of Surgical Research, Ft. Sam Houston, TX

**4:20 – 4:50 PM**                      **NSII: Priorities and Budget-1**  
Lyle (‘Linc’) Moldawer, PhD  
University of Florida, Gainesville, FL

**4:50 – 5:15 PM**                      **Discussion: Mitchell Fink, MD**

**6:00 – 7:00 PM**                      **Presidential Address**  
**Salon V-VI**  
Basil A. Pruitt, Jr, MD  
University of Texas Health Science Center, San Antonio, TX

**7:00 – 8:00 PM**                      **Presidential Reception**  
**Harborside A-B**

**8:00 PM**                                **DINNER - ON YOUR OWN**

**Sunday, June 10, 2007**

**7:00 – 8:00 AM**                      **Continental Breakfast**  
**Foyer West**

**7:00 – 9:00 AM**                      **Editorial Board Breakfast (Invitation only)**  
**Dover A-B**

**7:00 – 10:00 AM**                      **Poster Session I: (Posters 1–71)**  
**Salon I-IV**

**9:30 – 12:00 noon**                      **Symposium I: Lost in Translation**  
**Salon V-VI**  
Craig Coopersmith, MD  
Washington University School of Medicine, St. Louis, MO

*Decades of shock research have had surprisingly little impact at the bedside. What underlies the resistance/reluctance/recidivism that keeps research findings from taking root? How can the barriers be identified and overcome?*

**9:30 – 9:35 AM**                      **Introduction—Framing the problem**  
Craig Coopersmith, MD

**9:35 – 10:00 AM**                      **Why Basic Studies Fail to Translate to Human Patients: Animal Systems as Models**  
Edwin Deitch, MD  
UMDNJ-New Jersey Medical School, Newark, NJ

**10:00 – 10:25 AM**                      **What are the New Strategies/paradigms that Might Lead to Translation of Bench Research to Successful Clinical Trials?**  
Hector Wong, MD  
Children’s Hospital Medical Center, Cincinnati, OH

**10:25 – 10:50 AM**                      **From Guidelines to Behaviors: Individual Decisions and Team Dynamics**  
Vimla Patel, PhD  
Arizona State University, Phoenix, AZ

**10:50 – 11:15 AM** **Creating Usable Decision Support Algorithms: Lessons Learned in the eICU**  
Michael Breslow, MD  
VISICU, Baltimore, MD

**11:15 – 11:40 AM** **Surviving Sepsis: A Study in Implementation**  
Mitchell Levy, MD  
Brown University School of Medicine, Providence, RI

**11:40 – 12:00** **Discussion**  
Craig Coopersmith, MD

**12:00 – 1:30 PM** **Lunch**  
*Harborside A-B*

**1:45 – 3:00 PM** **New Investigator Competition**  
*Salon V-VI*  
Basilia Zingarelli, MD, PhD  
Cincinnati Children's Hospital Medical Center, Cincinnati, OH  
Paul Wischmeyer, MD  
University of Colorado Health Sciences Center, Denver, CO

**1:45 – 2:00 PM** **The Superiority of Embryonic Stem Cell Paracrine Protective Mechanisms Against Ischemia (Abstract 1)**  
Paul Crisostomo, MD  
Indiana University, Indianapolis, IN

**2:00 – 2:15 PM** **Decreased Mortality Following Epidermal Growth Factor Treatment is Associated with Improved Gut Integrity in Sepsis (Abstract 2)**  
Jessica Clark, PhD  
Washington University School of Medicine, St. Louis, MO

**2:15 – 2:30 PM** **BIM siRNA Decreases Lymphocyte Apoptosis and Improves Survival in Sepsis (Abstract 3)**  
Steven Schwulst  
Washington University School of Medicine, St. Louis, MO

**2:30 – 2:45 PM** **Keratinocyte-Derived Chemokine Plays a Critical Role in the Induction of Systemic Inflammation and Tissue Damage Following Trauma-Hemorrhage (Abstract 4)**  
Michael Frink, MD  
University of Alabama at Birmingham, Birmingham, AL

**2:45 – 3:00 PM** **Effect of Ciglitazone on Lung Inflammation in Hemorrhagic Shock (Abstract 5)**  
Ranjit Chima, MD  
Cincinnati Children's Hospital Medical Center, Cincinnati, OH

**3:05 – 3:30 PM** **International Prizewinner Session**  
*Salon V-VI*  
Daniel Brackett, PhD  
University of Oklahoma Health Sciences Center, Oklahoma, OK  
Irshad Chaudry, PhD  
University of Alabama at Birmingham, Birmingham, AL

**3:07 – 3:17 PM** **Age-Related Differences in Pulmonary and Hepatocellular Damage Following Bone Fracture, Soft-Tissue Trauma and Hemorrhage (Abstract 6)**  
Takeshi Matsutani, MD  
University of Alabama at Birmingham, Birmingham, AL

**3:18 – 3:28 PM** **Early Prediction of Deterioration of Septic Patients by Cytokine-Related mRNA Expression Level Measurement (Abstract 7)**  
Ryo Abe, MD  
Chiba University, Chiba, Japan

**3:30 – 3:45 PM** **Break**

**3:45 – 5:50 PM** **Mini-Symposium I (Parallel Session): Apoptosis**

**Salon V-VI**

Richard Hotchkiss, MD  
Washington University School of Medicine, St. Louis, MO  
Linc Moldawer, PhD  
University of Florida, Gainesville, FL

**3:50 – 4:00 PM**

**Gas Pressure Induced Ca<sup>++</sup> Signaling is Oxygen and Ion Channel Dependent to Induce Apoptosis** (Abstract 8)

E. Marion Schneider, PhD  
University Clinic Ulm, Ulm, Germany

**4:00 – 4:10 PM**

**Expression and Localization of the Cell Death Protein BNIP3 in Hepatic Hypoxia and Hemorrhagic Shock** (Abstract 9)

M.R. Metukiri  
University of Pittsburgh, Pittsburgh, PA

**4:10 – 4:20 PM**

**The Response to Sepsis After Knocking Out Bcl-xl & Sirt1 in Hepatocytes & Myeloid Cells.** (Abstract 10)

J. Weber  
University of Nebraska, Lincoln, NE

**4:20 – 4:30 PM**

**Reversal of Trauma/Hemorrhagic Shock (T/HS)-Mediated Liver Apoptosis and Inflammation by IL-6-Activated Stat3.** (Abstract 11)

J. Reves  
Baylor College of Medicine, Houston, TX

**4:30 – 4:40 PM**

**Spleen Apoptosis is a Critical Determinant of HMGB1-Mediated Sepsis Lethality in Mice** (Abstract 12)

Jared M. Huston, MD  
The Feinstein Institute for Medical Research, Manhasset, NY

**4:40 – 4:50 PM**

**Increased Dendritic Cell (DC) Expression of Programmed Death Ligand-1 (PDL-1) Mediates Tolerogenic Activity** (Abstract 13)

Gautam Bandyopadhyay, PhD  
University of Rochester Medical Center, Rochester, NY

**4:50 – 5:00 PM**

**The Survival Advantage Conferred by Prevention of Gut Epithelial Apoptosis in Sepsis Occurs Through the Mitochondrial Pathway and is Dependent Upon the Presence of the Adaptive Immune System** (Abstract 14)

Kevin McConnell, PhD  
Washington University, St. Louis, MO

**5:00 – 5:10 PM**

**Therapeutic Lead Discovery: Inhibitors of *E. Coli*-Induced Lymphocyte Apoptosis** (Abstract 15)

Jonathan E. McDunn, PhD  
Washington University, St. Louis, MO

**5:10 – 5:20 PM**

**In Vivo Silencing of Caspase-3 in Lung Epithelial Cells Ameliorates Extrapulmonary Acute Lung Injury (ALI) Induced by Hemorrhagic Shock & Sepsis** (Abstract 16)

Mario Perl, MD  
Rhode Island Hospital and Brown University, Providence, RI

**5:20 – 5:30 PM**

**Impaired Apoptotic Cell Clearance in MFG-E8-Deficient Mice Leads to Increased Mortality in Sepsis** (Abstract 17)

Michael Miksa, MD  
North Shore University Hospital-LIJ Medical Center, Manhasset, NY

**5:30 – 5:40 PM**

**Lymphocytes as an Anti-Apoptotic/Anti-Inflammatory Regulator of Extrapulmonary Acute Lung Injury?** (Abstract 18)

Fabienne Venet, PhD  
Rhode Island Hospital and Brown University, Providence, RI

- 5:40 – 5:50 PM**                    **Monocyte/Macrophage Apoptosis Occurs with Radiation and Serum-Deprivation But Not *E. coli*.**  
(Abstract 19)  
Octavia Peck-Palmer  
Washington University School of Medicine, St. Louis, MO
- 3:45 – 5:10 PM**                    **Mini-Symposium II: (Parallel Session) Hormones**  
**Salon VII – X**  
Jureta Horton, PhD  
University of Texas Southwestern Medical Center, Dallas, TX  
Carl Hauser, MD  
Beth Israel Deaconess Medical Center
- 3:50 – 4:00 PM**                    **Adrenergic Regulation of Acute Lung Injury** (Abstract 20)  
Michael A. Flierl  
University of Michigan Medical School, Ann Arbor, MI,
- 4:00 – 4:10 PM**                    **Modulation of Blood Volume and Capillary Filtration (Coefficient with Beta-Adrenergic Agents  
in Humans** (Abstract 21)  
Michael Kinsky, MD  
University of Texas Medical Branch, Galveston, TX
- 4:10 – 4:20 PM**                    **Propranolol Restores Inflammatory Balance in Monocytes** (Abstract 22)  
S. Shalhub  
University of Washington, Seattle, WA
- 4:20 – 4:30 PM**                    **Insulin is an Inotrope in a Severe Sepsis Model** (Abstract 23)  
Benjamin Peake, MD  
Regions Hospital, St. Paul, MN
- 4:30 – 4:40 PM**                    **The Role of Tumor Necrosis Factor (TNF)-A in Hepatic Insulin Resistance Following Trauma  
and Hemorrhage** (Abstract 24)  
J. Xu  
University of Alabama at Birmingham, Birmingham, AL
- 4:40 – 4:50 PM**                    **Hyporesponsiveness to Ghrelin Contributes to Aging-Related Hyperinflammatory State in Septic  
Shock** (Abstract 25)  
Rongqian Wu, MD, PhD  
North Shore-LIJ Medical Center, Manhasset, NY
- 4:50 – 5:00 PM**                    **Mechanistic Role of NF- $\kappa$ B in the Induction of Hepatic Growth Hormone (GH) Resistance  
by TNF-A** (Abstract 26)  
M. Buzzelli  
Pennsylvania State University College of Medicine, Hershey, PA
- 5:00 – 5:10 PM**                    **Angiotensin and Insulin Receptor Cross-Talk in Burn Injury** (Abstract 27)  
Sherry Kasper, PhD  
University of Tennessee Graduate School of Medicine, Knoxville, TN
- 5:10 – 6:00 PM**                    **Mini-Symposium III: Novel Models and Tools**  
**Salon VII – X**  
Edwin Deitch, MD  
UMDNJ-New Jersey Medical School, Newark, NJ  
Daniel Traber, PhD  
University of Texas Medical Branch, Galveston, TX
- 5:10 – 5:20 PM**                    **Therapeutic Approaches in Shock: The 1966 “Shock Tour” vs. Current Treatments** (Abstract 28)  
Herbert F. Janssen, PhD  
Texas Tech University Health Sciences Center, Lubbock TX

- 5:20 – 5:30 PM**                      **Monitoring Exotoxin Distribution in Murine Models Using Targeted Magnetic Resonance Imaging** (Abstract 29)  
Deborah Stearns-Kurosawa, PhD  
Oklahoma Medical Research Foundation, Oklahoma City, OK
- 5:30 – 5:40 PM**                      **A Novel Model of Bone Marrow Derived Progenitor Cell Tracking In-Vivo** (Abstract 30)  
Salil Shah  
UMDNJ, New Jersey Medical School, Newark, NJ
- 5:40 – 5:50 PM**                      **Engineering “Smart” Stem Cells for Maximum Benefit in Shock and Tissue Injury** (Abstract 31)  
Troy Markel, MD  
Indiana University School of Medicine, Indianapolis, IN
- 5:50 – 6:00 PM**                      **Hepatic Steatosis in a Model of Chronic Inflammation** (Abstract 32)  
D. Shepherd  
University of Oklahoma, HSC & VA Med. Center, Oklahoma City, OK
- 6:30 – 7:30 PM**                      **Reception**  
**Harborside Foyer**
- 7:30 – 9:30 PM**                      **New Investigator Competition Ceremony**  
**Harborside A-B**                      **Travel Awards Ceremony**

**Monday, June 11, 2007**

- 6:00 – 7:00 AM**                      **Twenty-Fifth Annual Presidential Fun Run**  
Organized by: Mark Clemens, MD  
University of North Carolina at Charlotte, Charlotte, NC
- 7:00 – 9:00 AM**                      **Continental Breakfast**  
**Foyer West**
- 7:00 – 9:00 AM**                      **Poster Session II (posters 72 – 132)**  
**Salon I - IV**
- 9:00 – 12:00**                      **Symposium II: Where Have All the Mediators Gone?**  
**Salon V-VI**                      Kevin Tracey, MD  
The Feinstein Institute for Clinical Research Manhasset, NY

*Pick up any Shock Society program from the late 80's or 90's, and there was a “hot” mediator that year—from TNF and the interleukins, to NO, to HMGB1. But mediator -focused research seems to have faded from center-stage both in practice (labs no longer focus on a particular mediator) and grants/publications/presentations. What happened, and why? What does this tell us about our conceptions of shock and resuscitation, and how has the change in perspective migrated from bench to bedside?*

- 9:30 – 9:35 AM**                      **Introduction—Framing the Problem**  
Kevin Tracey, MD
- 9:35 – 10:00 AM**                      **From Mediators to Networks: A New Perspective on Inflammation**  
Steven Calvano, PhD  
UMDNJ, New Brunswick, NJ
- 10:00 – 10:25 AM**                      **The Digital Mouse: Modeling Mediator Responses and Implications for Human Trials**  
Steven Chang  
Immunetrics, Pittsburgh, PA
- 10:25 – 10:50 AM**                      **Removing Circulating Mediators with Hemodiafiltration**  
Hiroyuki Hirasawa, MD  
Chiba University School of Medicine, Chiba, Japan

**10:50 – 11:15 AM**                    **The Past: Mediators in Sepsis– How the Industry Perspective Changed from the 1990's to 2007**  
 John W. Holaday, PhD  
 HarVest Bank of Maryland, Rockville, MD

**11:15 – 11:40 AM**                    **The Future: Vitalin: Imagining a Mediator**  
 Robert Bartlett, MD  
 University of Michigan, Ann Arbor, MI

**11:40 – 12:00**                        **Discussion: Kevin Tracey, MD**

**12:00 – 1:15 PM**                    **Shock Business Meeting**  
**Salon V-VI**

**1:15 PM**                                **Free Afternoon – Lunch & Dinner on your own**

**Tuesday, June 12, 2007**

**7:00 – 9:00 AM**                    **Continental Breakfast**  
**Foyer West**

**7:00 – 9:00 AM**                    **Poster Session III (Posters 133–184)**  
**Salon I – IV**

**9:00 – 11:30 AM**                    **Symposium III: The Adenosine Receptors**  
**Salon V-VI**  
 William Law, PhD  
 University of the Sciences in Philadelphia, Philadelphia, PA

*The purine nucleoside, adenosine, has emerged as a critical molecule involved in modulating inflammatory responses and cellular functions in all physiological systems during severe stresses including shock, trauma, and sepsis. Selective expression of adenosine receptors (A1, A2a, A2b, and A3), multiple physiological system actions, and recently described unique aspects of the extracellular purine metabolome provide a rich microenvironment to be navigated. Recent advances in understanding the complex and plurifunctional actions of adenosine will be reviewed and discussed in this symposium with special emphasis on inflammatory responses.*

**9:00 – 9:05 AM**                    **Introduction—Framing the Problem**  
 William Law, PhD

**9:05 – 9:30 AM**                    **The ‘Danger’ Sensors that Stop the Immune Response: The A2 Adenosine Receptors**  
 Michail Sitovsky, PhD  
 Northeastern University, Boston, MA

**9:30 – 9:55 AM**                    **Differential Effects of A2 Adenosine Receptor Activation in Hemorrhage, Trauma and Sepsis**  
 George Hasko, MD, PhD  
 UMDNJ, Newark, NJ

**9:55 – 10:20 AM**                    **The A1 and A3 Adenosine Receptors in Inflammation**  
 H. Thomas Lee, MD, PhD  
 Columbia University, New York, NY

**10:20 – 10:45 AM**                    **Interactions Between Adenosine Deaminase and Adenosine Receptors: Signaling in Primary Macrophages**  
 William Law, PhD  
 University of the Sciences in Philadelphia, Philadelphia, PA

**10:45 – 11:10 AM**                    **ATP and Adenosine Receptors in the Regulation of Neutrophil Chemotaxis**  
 Wolfgang Junger, PhD  
 UCSD, San Diego, CA

**11:10 – 11:30 AM**                    **Discussion: William Law, PhD**

**11:30 – 1:00 PM**                    **Boxed Lunch Available**  
**Harborside A**

**11:30 – 1:00 PM**                    **Oral Presentations by and for New Investigators**

**Salon V-VI**

Cynthia Otto, DVM, PhD  
University of Pennsylvania, Philadelphia, PA  
Craig Coopersmith, MD  
Washington University School of Medicine, St. Louis, MO

**1:00 – 2:40 PM**

**Mini-Symposium IV: (Parallel Session) Predicting and Changing the Outcomes**

**Salon V**

Hiroyuki Hirasawa, MD  
Chiba University, Chiba, Japan  
Hobart Harris, MD  
San Francisco General Hospital, San Francisco, CA

**1:00 – 1:10 PM**

**Initial Heart Rate Multiscale Entropy is Associated with Mortality: A Study Of 3,154 Trauma Admissions (Abstract 33)**

P. Norris  
Vanderbilt University, Nashville, TN

**1:10 – 1:20 PM**

**Genetic Variation in Carbamyl-Phosphate Synthetase I (CPSI-I) is an Independent Predictor of Early Mortality Following Trauma: A Study of 666 Consecutive Trauma ICU Admissions (Abstract 34)**

Jeffrey Canter, MD  
Vanderbilt University, Nashville, TN

**1:20 – 1:30 PM**

**TLR4 Mutancy Influences the Clinical Course But Not the Outcome After Sepsis (Abstract 35)**

Michael Frink, MD  
Hannover Medical School, Hannover, Germany

**1:30 – 1:40 PM**

**Early Elevation in Serum IL-6 is Predictive of Poor Outcome (Abstract 36)**

Joseph Cuschieri, MD  
University of Washington, Seattle, WA

**1:40 – 1:50 PM**

**Stratification is the Key: Dexamethasone Saves Mice Predicted to Die in Acute Sepsis (Abstract 37)**

Marcin Osuchowski, DVM, PhD  
University of Michigan, Ann Arbor, MI

**1:50 – 2:00 PM**

**Protective Effects of IL-17 Blockade in Sepsis (Abstract 38)**

Hongwei Gao, PhD  
University of North Dakota, Grand Forks, ND

**2:00 – 2:10 PM**

**Exogenous Cytochrome C Restores Myocardial Cytochrome Oxidase Activity in the Late Phase of Sepsis and Improves Survival (Abstract 39)**

D. Piel  
University of Pennsylvania, Philadelphia, PA

**2:10 – 2:20 PM**

**Alpha-7-Nicotinic Agonist Prevents Systemic Inflammation and Improves Survival in Hemorrhage (Abstract 40)**

B. Cai  
The Feinstein Institute of Medical Research, Manhasset, NY

**2:20 – 2:30 PM**

**Female Stem Cells Elicit a Greater Anti-Inflammatory Effect During Myocardial Ischemia and Reperfusion Injury (Abstract 41)**

Andrew Terrell  
Indiana University, Indianapolis, IN

**2:30 – 2:40 PM**

**Current State of Multiple Organ Dysfunction in Trauma (Abstract 42)**

P. Rhee, MD  
University of Southern California, Los Angeles, CA

**1:00 – 2:40 PM**

**Mini-Symposium V: (Parallel Session) Liver, Gut and Lung**

**Salon VII – X**

Mark Clemens, MD  
University of North Carolina at Charlotte, Charlotte, NC  
Laurie Kilpatrick, PhD  
The Children's Hospital of Philadelphia, Philadelphia, PA

**1:00 – 1:10 PM**

**Reduction of HNF4 Level Changes the Acute Phase Response for HNF-4 -Sensitive Genes (Abstract 43)**

Z. Wang  
Boston University School of Medicine, Boston, MA

**1:10 – 1:20 PM**

**Microvascular Permeability After Burn Injury in Adult and 10-Day-Old Rats (Abstract 44)**

M. Goto  
Loyola University Med Ctr. Burn & Shock Trauma Institute, Maywood, IL

**1:20 – 1:30 PM**

**Synergistic Effect of Ethanol and E. Coli on Gut Permeability and Cytokine Production (Abstract 45)**

Larry Diebel  
Wayne State University, Detroit, MI

**1:30 – 1:40 PM**

**The TLR9 Ligand Cpg-Dna Attenuates the Response to Endotoxemic Stress Through Reduced LPS-Mediated Signaling in Enterocytes (Abstract 46)**

S. Gribar  
Children's Hospital of Pittsburgh, Pittsburgh, PA

**1:40 – 1:50 PM**

**Macrophage Deficiency of Peroxisome Proliferator Active Receptor  $\gamma$  (PPAR $\gamma$ ) Exacerbates Neutrophil Infiltration in the Gut in Sepsis (Abstract 47)**

Basilina Zingarelli

**1:50 – 2:00 PM**

**The Role of the P38 MAPK/HSP27 Pathway in Regulation of TNF-Induced Chemokine Expression in Human Microvascular Endothelial Cells (Abstract 48)**

X. Su  
University of Colorado Health Science Center, Denver, CO

**2:00 – 2:10 PM**

**Hypertonic Saline Inhibits TNF-Induced NF-kB Signaling and Proinflammatory Gene Expression (Abstract 49)**

T. Nydam  
University of Colorado Health Science Center, Denver, CO

**2:10 – 2:20 PM**

**Early Nuclear Factor Kappa B and Vascular Endothelial Growth Factor Expression in Acute Lung Injury (Abstract 50)**

A. Esechie  
University of Texas Medical Branch, Galveston, TX

**2:20 – 2:30 PM**

**Mechanistic Insights Into Pulmonary Epithelial Cell Inflammation After Shock (Abstract 51)**

S. Damle  
University of Colorado Health Science Center, Denver, CO

**2:30 – 2:40 PM**

**Divergent Immunopathogenesis of Acute Lung Injury (Abstract 52)**

D. Rittirsch  
University of Michigan Medical School, Ann Arbor, MI

**2:40 – 3:00 PM**

**Break**

**3:00 – 5:45 PM**

**Mini-symposium VI: (Parallel Session) Signals**

**Salon V**

William Law, PhD  
University of the Sciences in Philadelphia, Philadelphia, PA  
Al Ayala, PhD  
Rhode Island Hospital, Providence, RI

- 3:00 – 3:15 PM**                    **The Endocrinologic Response to Severe Burn Injury** (Abstract 53)  
David Herndon, MD  
Shriners Burn Hospital for Children-Galveston, TX
- 3:15 – 3:30 PM**                    **Differential Regulation of Cytokine Translation by the PI3K/AKT/MTOR Pathway** (Abstract 54)  
Valerie Schaeffer  
University of Washington, Harborview Medical Center, Seattle, WA
- 3:30 – 3:45 PM**                    **Regulation of TNF-Induced Oxygen Radical Production in Human Neutrophils: Role of Pi 3-Kinase,  $\Delta$ -PKC and ERK** (Abstract 55)  
L.E. Kilpatrick  
University of Pennsylvania, Philadelphia, PA
- 3:45 – 4:00 PM**                    **Distinct Involvement of P38-, ERK1/2 and PKC Signaling Pathways in C5a-Mediated Oxidative Burst in Phagocytic Cells** (Abstract 56)  
S. Winter  
Medical School Hannover, Hannover, Germany
- 4:00 – 4:15 pm**                    **Nrf2 Protects from Oxidative Deregulation of Innate Immune Response and Mortality During Polymicrobial Sepsis** (Abstract 57)  
S. Biswal  
Johns Hopkins University, Baltimore, MD
- 4:15 – 4:30 pm**                    **Pharmacologic Inhibition of the CD-14 Signaling Pathway Protects Against Burn-Related Myocardial Inflammation/ Dysfunction** (Abstract 58)  
Jureta W. Horton, PhD  
University of Texas Southwestern, Dallas, TX
- 4:30 – 4:45 PM**                    **Downregulation of Milk Fat Globule EGF-Factor VIII in Sepsis is CD14-Dependent** (Abstract 59)  
H. Komura  
North Shore University Hospital-LIJ Medical Center, Manhasset, NY
- 4:45 – 5:00 PM**                    **IFN- $\gamma$  Mediated Transmigration of HMGB1 is Involved in Macrophage Dysfunction Following CLP** (Abstract 60)  
M. Pahuja  
University of Medicine and Dentistry, NJ-SOM, Stratford, NJ
- 5:00 – 5:15 PM**                    **Dendritic Cells from Burn-Injured Mice Produce Cytokines that Suppress IFN $\gamma$  and Elicit IL4 and TGF $\beta$  Production by NKT Cells** (Abstract 61)  
Douglas E Faunce, PhD  
Loyola University Medical Center, Maywood, IL
- 5:15 – 5:30 PM**                    **Cholinergic Regulation of Leukocyte Recruitment Requires the Spleen** (Abstract 62)  
Christine N Metz, PhD  
The Feinstein Institute for Medical Research, Manhasset, NY
- 5:30 – 5:45 PM**                    **The Systemic Inflammatory Response Syndrome (SIRS) Anti-Inflammatory Milieu: Impact of Infection Prior to Clinical Sepsis** (Abstract 63)  
S. Johnson  
RA Cowley Shock Trauma Center, Baltimore, MD
- 3:00 – 5:45 PM**                    **Mini-symposium VII: (Parallel Session) New Ideas, Innovations, and Insight**  
*Salon VII – X*  
James Cook, PhD  
Medical University of South Carolina, Charleston, SC  
Dan Remick, MD  
University of Michigan Medical School, Ann Arbor, MI

- 3:00 – 3:15 PM**                    **Cytokine Responses and Survival in Nonhuman Primate Model of Anthrax** (Abstract 64)  
S. Kurosawa  
Oklahoma Medical Research Foundation, Oklahoma City, OK
- 3:15 – 3:30 PM**                    **Endotoxin Induced Liver Failure: Interplay Between Mitochondria and Endoplasmic Reticulum** (Abstract 65)  
AV. Kozlov  
Boltzmann Institute Experimental Clinic Traumatology, Vienna, Austria
- 3:30 – 3:45 PM**                    **Injury- and Antigen-Specific Control Of CD4 T Cell Reactivity By CD4+CD25+ Regulatory T Cells** (Abstract 66)  
M. MacConmara  
Brigham and Women's Hospital/Harvard Medical School, Boston, MA
- 3:45 – 4:00 PM**                    **The Influence of Sex Hormones on Coagulation & Inflammation in the Trauma Patient** (Abstract 67)  
Arvin Gee  
Oregon Health & Science University, Portland, OR
- 4:00 – 4:15 pm**                    **Dialogue Between the Coagulation Cascade and the Complement System** (Abstract 68)  
M. Huber-Lang  
Dept. Trauma Div. Surgical Research, University of Ulm, Ulm, Germany
- 4:15 – 4:30 pm**                    **Oxidant Alterations in CD16 Expression are Cytoskeletal Induced** (Abstract 69)  
Joseph Cuschieri, MD  
University of Washington, Seattle, WA
- 4:30 – 4:45 PM**                    **The Anti-Inflammatory Efficacy of Galantamine is Dependent on the Integrity of the Cholinergic Anti-Inflammatory Pathway** (Abstract 70)  
Valentin A Pavlov, PhD  
The Feinstein Institute for Medical Research, Manhasset, NY
- 4:45 – 5:00 PM**                    **Beta-Arrestin 2 Regulates Hepatic Leukosequestration in Endotoxin Shock** (Abstract 71)  
Hongkuan Fan  
Medical University of South Carolina, Charleston, SC
- 5:00 – 5:15 PM**                    **Addition of Ethyl Pyruvate to Hextend Prevents Hyperglycemia and Improves Survival in Hemorrhage** (Abstract 72)  
Yingjie Cui, MD  
The Feinstein Institute of Medical Research. Manhasset, NY
- 5:15 – 5:30 PM**                    **Blunt Chest Trauma Activates Alveolar Type 2 Epithelial Cells to Release Inflammatory Mediators** (Abstract 73)  
DH. Seitz  
Dept. Trauma Div. Surgical Research, University of Ulm, Ulm, Germany
- 5:30 – 5:45 PM**                    **Reproducibility of a Complex Hemorrhagic Shock Model and Tissue Injury in Swine at Three Academic Research Centers** (Abstract 74)  
B. Tieu  
Oregon Health & Science University, Portland, OR
- 6:30 – 7:00 PM**                    **Reception**  
*Grand Ballroom Foyer*
- 7:00 – 9:00 PM**                    **Dinner**  
*Salon VI*  
Scientific Achievements and Service Awards Ceremony