



40th Annual
CONFERENCE on SHOCK

JUNE 3-6, 2017 | FORT LAUDERDALE, FL



40th ANNUAL CONFERENCE ON SHOCK
Marriott Harbor Beach Resort & Spa • Fort Lauderdale, Florida • June 3 – 6, 2017

Conference schedule as of May 31, 2017

SATURDAY, JUNE 3, 2017

- 8:00 AM – 1:00 PM** **Council Meeting (*invitation only*)**
Ping Wang, MD, Shock Society President
The Feinstein Institute for Medical Research, Manhasset, NY
Clearwater-Orlando Rooms
- 8:00 AM – 6:00 PM** **Speaker Ready Room**
Tallahassee Room
- 10:00 AM – 6:00 PM** **Registration**
Grand Foyer Registration Counter

1:00 PM – 3:00 PM **PLENARY SESSION I: Mitochondrial Dysfunction in Shock**
Moderators: Carrie A. Sims, MD, PhD, University of Pennsylvania School of Medicine, Philadelphia, PA and Lance Becker, MD, The Feinstein Institute for Medical Research and Northwell Health, Manhasset, NY
Salon F, Grand Ballroom

- 1:10 PM – 1:25 PM** **Trauma**
Carrie A. Sims, MD, PhD, University of Pennsylvania School of Medicine, Philadelphia, PA
- 1:25 PM – 1:40 PM** **In TBI**
Todd Kilbaugh, MD, Children's Hospital of Philadelphia and University of Pennsylvania, Philadelphia, PA
- 1:40 PM – 2:05 PM** **Mitochondrial Energy Metabolism and the Immune Response in Sepsis (*Abstract 1*)**
Scott L. Weiss, MD, Children's Hospital of Philadelphia and University of Pennsylvania Perelman School of Medicine, Philadelphia, PA
- 2:05 PM – 2:20 PM** **Non-traumatic Brain Injury**
Richard Levy, MD, Columbia College of Physicians and Surgeons, New York, NY
- 2:20 PM – 2:35 PM** **Metformin Corrects Hepatic Mitochondrial Abnormalities in a Murine Model of Thermal Trauma (*Abstract 2*)**
Christopher Auger, PhD, Sunnybrook Health Sciences Centre and Ross Tilley Burn Centre, Toronto, ON, Canada
- 2:35 PM – 2:50 PM** **Determinants of Skeletal Muscle Mitochondrial Respiratory function in Children with Severe Burns (*Abstract 3*)**
Victoria G. Rontoyanni, PhD, Shriners Hospitals for Children and University of Texas Medical Branch, Galveston, TX
- 2:50 PM – 3:00 PM** **Questions & Answers**
- 3:00 PM – 3:30 PM** **Refreshment Break**
Grand Foyer

3:30 PM – 5:30 PM **PLENARY SESSION II: Best of the Best: Top Rated Abstracts Submitted**
Moderators: Ping Wang, MD, The Feinstein Institute for Medical Research, Manhasset, NY
and Timothy R. Billiar, MD, University of Pittsburgh Medical Center, Pittsburgh, PA
Salon F, Grand Ballroom

3:30 PM – 3:45 PM **Improved Survival in Murine Neonatal Sepsis following Alum Pretreatment is Dependent on Non-granulocyte GR1 Positive Myeloid Cells and is Inflammasome-independent** (*Abstract 4*)
Jaimar C. Rincon, PhD, University of Florida, Gainesville, FL

3:45 PM – 4:00 PM **Surfactant Protein D Modulates the Activation and Differentiation of Endogenous Krt5+ Stem Cells following Lung Injury through Regulation of Notch Signaling Pathway** (*Abstract 5*)
Xiaoyi Zhang, SUNY Upstate Medical University, Syracuse, NY and Shandong Provincial Hospital Affiliated to Shandong University, China

4:00 PM – 4:15 PM **Interleukin (IL)-15 Enables Septic Shock by Maintaining Natural Killer Cell Integrity and Function** (*Abstract 6*)
Yin Guo, MD, PhD, Vanderbilt University Medical Center, Nashville, TN

4:15 PM – 4:30 PM **Accurate Sepsis Diagnosis from One Droplet of Whole Blood** (*Abstract 7*)
Daniel Irimia, MD, PhD, Massachusetts General Hospital, Harvard Medical School and Shriners Burns Hospital, Boston, MA

4:30 PM – 4:45 PM **Toll-like Receptor-4 Agonist (Monophosphoryl Lipid A) Prevented Onset of Sepsis in Ovine Model of Cutaneous Burn and Pneumonia** (*Abstract 8*)
Satoshi Fukuda, PhD, University of Texas Medical Branch, Galveston, TX

4:45 PM – 5:00 PM **Toll-like Receptor 2 and Tumor Necrosis Factor Alpha Induce Acute Kidney Injury through Renal C3 Production during Sepsis** (*Abstract 9*)
Matthew J. Delano, MD, PhD, University of Michigan, Ann Arbor, MI

5:00 PM – 5:15 PM **Blockade of 2B4 but not PD-1 Mediates Decreased Sepsis Mortality in Animals with Preexisting Malignancy** (*Abstract 10*)
Ching-wen Chen, MS, Emory University, Atlanta, GA

5:15 PM – 5:30 PM **Sepsis Leads to Impaired Contextual Memory and Abnormal Hippocampal Ensemble Dynamics** (*Abstract 11*)
Joshua J. Strohl, BS, Feinstein Institute for Medical Research, Manhasset, NY

5:30 PM – 6:30 PM **PRESIDENTIAL ADDRESS**
Timothy R. Billiar, MD, University of Pittsburgh Medical Center, Pittsburgh, PA
Salon F, Grand Ballroom

6:30 PM – 7:30 PM **Presidential Reception**
Salon E, Grand Ballroom

Dinner on Your Own

7:30 PM – 9:00 PM **NEW INVESTIGATORS WORKSHOP**
Salon F, Grand Ballroom

SUNDAY, JUNE 4, 2017

7:00 AM – 8:30 AM **Editorial Board Breakfast (*invitation only*)**
Clearwater-Orlando Rooms

7:00 AM – 9:00 AM **CONTINENTAL BREAKFAST & POSTER SESSION I: ABSTRACTS P1 – P77**
Caribbean Ballroom & Foyer

7:00 AM – 5:00 PM **Speaker Ready Room**
Tallahassee Room

7:00 AM – 5:00 PM **Registration**
Grand Foyer Registration Counter

9:00 AM – 11:00 AM **PLENARY SESSION III: Building a Better Mousetrap – Modeling Sepsis**
Moderators: Daniel Remick, MD, Boston University School of Medicine, Boston, MA and
Craig M. Coopersmith, MD, Emory University, Atlanta, GA
Salon F, Grand Ballroom

9:00 AM – 9:20 AM **How Clinical Studies on Sepsis are Designed**
Christopher Seymour, MD, University of Pittsburgh, Pittsburgh, PA

9:20 AM – 9:40 AM **Current Sepsis Models - The Good, the Bad and the Ugly**
Phillip Efron, MD, University of Florida, Gainesville, FL

9:40 AM – 10:00 AM **Potential Endpoints: Mortality vs. Immunologic Changes vs. Organ Dysfunction**
Clifford Deutschman, MS, MD, MCCM, The Feinstein Institute for Medical Research,
Manhasset, NY

10:00 AM – 10:20 AM **What Can be Translated and What Cannot**
Craig M. Coopersmith, MD, Emory University, Atlanta, GA

10:20 AM – 10:40 AM **The Model Grant Proposal**
Daniel Remick, MD, Boston University School of Medicine, Boston, MA

10:40 AM – 11:00 AM **Wiggers-Bernard Conference - Evidence Driven, Expert Opinion on an Improved Model**
Marcin Osuchowski, DVM, PhD, Ludwig Boltzmann Institute for Experimental and Clinical
Traumatology, Vienna, Austria

11:00 AM – 11:30 AM **Refreshment Break**
Grand Foyer

11:30 AM – 12:30 PM **KEYNOTE ADDRESS: Chad Bouton**
Introduction: Clifford S. Deutschman, MS, MD, MCCM, The Feinstein Institute for Medical
Research, Manhasset, NY
Salon F, Grand Ballroom

12:30 PM – 1:30 PM **Boxed Lunch**
Grand Foyer

12:30 PM – 1:30 PM **Luncheon Seminar: Academic and Industrial Job Skills**
Salon E, Grand Ballroom

1:30 PM – 2:45 PM

NEW INVESTIGATOR COMPETITION

Moderator: Weng-Lang Yang, PhD, The Feinstein Institute for Medical Research,
Manhasset, NY
Salon F, Grand Ballroom

1:30 PM – 1:45 PM

Metformin Exerts Beneficial Effects in Hemorrhagic Shock in an AMPKa1-independent Manner (Abstract 12)

Paul T. Kim, MD, University of Cincinnati Medical Center and Cincinnati Children's Hospital Medical Center, Cincinnati, OH

1:45 PM – 2:00 PM

Endocytosis of Red Blood Cell Microparticles by Endothelial Cells is Mediated by Rab5 (Abstract 13)

Young Kim, MD, University of Cincinnati College of Medicine, Cincinnati, OH

2:00 PM – 2:15 PM

The Protective Effect of a Short Peptide Derived from Cold-inducible Ribonucleic Acid-binding Protein in Renal Ischemia Reperfusion Injury (Abstract 14)

Joseph T. McGinn, MD, Hofstra Northwell School of Medicine and The Feinstein Institute for Medical Research, Manhasset, NY

2:15 PM – 2:30 PM

A Single Nucleotide Polymorphism in MPPED2 is Associated with Increased Requirement for Mechanical Ventilation and Mortality in Trauma (Abstract 15)

Lukas Schimunek, University of Pittsburgh, Pittsburgh, PA

2:30 PM – 2:45 PM

Biomarker Evidence for Persistent Immune Suppression in Patients who Develop Chronic Critical Illness after Sepsis (Abstract 16)

Julie A. Stortz, MD, University of Florida College of Medicine, Gainesville, FL

2:50 PM – 3:50 PM

RESEARCH FELLOWSHIP RECIPIENT PRESENTATIONS

Moderator: Weng-Lang Yang, PhD, The Feinstein Institute for Medical Research,
Manhasset, NY
Salon F, Grand Ballroom

2:50 PM – 3:05 PM

Deletion of the Endotoxin Receptor Toll-like Receptor 4 from Intestinal Epithelial Cells Leads to Metabolic Syndrome in Mice (Abstract 17)

Peng Lu, PhD, Johns Hopkins University School of Medicine, Baltimore, MD
Shock Faculty Research Award 2015 Recipient

3:05 PM – 3:20 PM

Cardiolipin Functions as Intracellular DAMP to Activate Caspase 11 after Hemorrhagic Shock (Abstract 18)

Qian Sun, MD, PhD, University of Pittsburgh, Pittsburgh, PA
Shock Research Investigator Fellowship 2016 Recipient

3:20 PM – 3:35 PM

Xenogeneic Compatibility of Human Blood and Blood Derived Components in Preclinical Animal Models (Abstract 19)

Louie Hendricks, MD, US Naval Medical Research Unit, San Antonio, TX
Shock-DoD Fellowship 2016 Recipient

3:35 PM – 3:50 PM

PGE₂ Derived from Microsomal Prostaglandin E Synthase-1 (Mpges-1) Induces Hepatic Ischemia/Reperfusion Injury through EP4 Receptor Signaling (Abstract 56)

Nobuyuki Nishizawa, MD, Kitasato University School of Medicine, Sagami-hara, Japan
Young Investigator Award 2016 Winner of Japan Shock Society

3:50 PM – 4:00 PM

Refreshment Break

Grand Foyer

4:00 PM – 6:00 PM **PARALLEL SESSION I: Traumatic Brain Injury**
Moderators: Rosemary Kozar, MD, Shock Trauma Center, University of Maryland, Baltimore, MD and Charles E. Wade, PhD, Center for Translational Injury Research, Houston, TX
Salon F, Grand Ballroom

- 4:00 PM – 4:20 PM** **Cellular Microparticle and Traumatic Brain Injury-associated Coagulopathy** (*Abstract 20*)
Jing-Fei Dong, MD, PhD, Bloodworks Research Institute and University of Washington School of Medicine, Seattle, WA
- 4:20 PM – 4:40 PM** **Strategic Use of Oxygen during Neurocritical Care** (*Abstract 21*)
Gary M. Fiskum, PhD, School of Medicine, University of Maryland Baltimore, Baltimore, MD
- 4:40 PM – 5:00 PM** **Dynamic Platelet Function Changes after Traumatic Brain Injury** (*Abstract 22*)
Michael D. Goodman, MD, University of Cincinnati, Cincinnati, OH
- 5:00 PM – 5:20 PM** **Development of Cellular Therapies for TBI** (*Abstract 23*)
Charles S. Cox, Jr., MD, McGovern Medical School, UT Health, Houston, TX
- 5:20 PM – 5:40 PM** **Nonclassical Monocytes are Required for Neutrophil Recruitment in Traumatic Brain Injury** (*Abstract 24*)
Hadijat M. Makinde, PhD, Northwestern University, Evanston, IL
- 5:40 PM – 6:00 PM** **Computational Analysis Supports an Early Role of Lymphoid Associated Cytokines in Traumatic Brain Injury Survivors** (*Abstract 25*)
Dongmei Liu, MD, University of Pittsburgh, Pittsburgh, PA and Third Xiangya Hospital, China

4:00 PM – 6:00 PM **PARALLEL SESSION II: Selected Immunology and Sepsis Abstracts**
Moderators: Timothy R. Billiar, MD, University of Pittsburgh Medical Center, Pittsburgh, PA and Laurie Kilpatrick, PhD, Temple University School of Medicine, Philadelphia, PA
Salon E, Grand Ballroom

- 4:00 PM – 4:15 PM** **Cytotoxin Cerebral Edema is Correlated with Microglial Activation in a Mouse Model of Sepsis** (*Abstract 26*)
Diana Pang, MD, University of Pittsburgh, Pittsburgh, PA
- 4:15 PM – 4:30 PM** **Pre-existing Malignancy Increases the Co-expression of TIGIT and PD-1 on Activated CD44^{HI} CD4⁺ T Cells in Septic Mice** (*Abstract 27*)
Kimberly M. Ramonell, MD, Emory University School of Medicine, Atlanta, GA
- 4:30 PM – 4:45 PM** **The Protective Role of Human Ghrelin in Sepsis: Improvement of CD4 T cell Proliferation** (*Abstract 28*)
Mian Zhou, MD, The Feinstein Institute for Medical Research and Hofstra Northwell School of Medicine, Manhasset, NY
- 4:45 PM – 5:00 PM** **A Proof of Concept Study that Supports the Use of Precision Medicine Approach for Glucocorticoid Sepsis Therapy** (*Abstract 29*)
Xiang-an Li, PhD, University of Kentucky, Lexington, KY
- 5:00 PM – 5:15 PM** **Sepsis Erodes CD8+ Memory T cell Protective Immunity against an EBV Homolog in a 2B4-dependent Manner** (*Abstract 30*)
Jianfeng Xie, Emory University School of Medicine, Atlanta, GA
- 5:15 PM – 5:30 PM** **Pathological Role of Visceral White Adipose Tissue in Development of Severe Acute Pancreatitis in Aged Mice** (*Abstract 31*)
Marlene E. Starr, PhD, University of Kentucky, Lexington, KY

- 5:30 PM – 5:45 PM** **Improved Survival in Septic JAM-A/- Mice and Intestinal Microbiome-Immune Interaction** (*Abstract 32*)
Nathan J. Klingensmith, MD, Emory University, Atlanta, GA
- 5:45 PM – 6:00 PM** **Questions & Answers**
- 6:30 PM – 7:30 PM** **Reception**
Grand Foyer
- 7:30 PM – 10:00 PM** **Dinner**
New Investigator Competition and Travel Awards Ceremony
Salon E, Grand Ballroom
Tickets will be collected

MONDAY, JUNE 5, 2017

- 6:00 AM – 7:00 AM** **33rd Annual Presidential Fun Run**
Runners to meet in hotel lobby at 5:45 AM

7:00 AM – 9:00 AM **CONTINENTAL BREAKFAST & POSTER SESSION II: ABSTRACTS P78 – P160**
Caribbean Ballroom & Foyer

- 7:00 AM – 1:00 PM** **Registration**
Grand Foyer Registration Counter

- 7:00 AM – 5:00 PM** **Speaker Ready Room**
Tallahassee Room

9:00 AM – 11:00 AM **PLENARY SESSION IV: Gaseous Mediators of Shock**
Moderators: Czaba Szabo, MD, PhD, University of Texas Medical Branch, Galveston, TX and Leo Otterbein, PhD, Beth Israel Deaconess Medical Center, Boston, MA
Salon F, Grand Ballroom

- 9:00 AM – 9:20 AM** **Role of CO in Critical Illness**
Brian Zuckerbraun, MD, UPMC Presbyterian Hospital General Trauma Surgery, Pittsburgh, PA
- 9:20 AM – 9:40 AM** **Potential Neuroprotective Role of CO in the Injured Brain**
Sylvain Dore, MD, University of Florida, Gainesville, FL
- 9:40 AM – 10:00 AM** **Role of H₂S in Critical Illness**
Czaba Szabo, MD, PhD, University of Texas Medical Branch, Galveston, TX
- 10:00 AM – 10:20 AM** **Bacterial Hydrogen Sulfide Confers Resistance to the Immune System** (*Abstract 33*)
Tracy Toliver-Kinsky, PhD, University of Texas Medical Branch and Shriners Hospitals for Children, Galveston, TX
- 10:20 AM – 10:40 AM** **Thiamine Preserves Mitochondrial Function in a Rat Model of Traumatic Brain Injury through the Activation of Oxoglutarate Dehydrogenase Complex (OGDHC)** (*Abstract P71*)
Andrey Kozlov, PhD, Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, Vienna, Austria
- 10:40 AM – 11:00 AM** **Questions & Answers**
- 11:00 AM – 11:30 AM** **Refreshment Break**
Grand Foyer

11:30 AM – 12:30 PM SHOCK BUSINESS MEETING
Ping Wang, MD, Shock Society President
The Feinstein Institute for Medical Research, Manhasset, NY
Salon F, Grand Ballroom

12:30 PM Free Afternoon & Evening

TUESDAY, JUNE 6, 2017

7:00 AM – 9:00 AM CONTINENTAL BREAKFAST & POSTER SESSION III: ABSTRACTS P161 – P251
Caribbean Ballroom & Foyer

7:00 AM – 1:00 PM Speaker Ready Room
Tallahassee Room

7:00 AM – 3:30 PM Registration
Grand Foyer Registration Counter

9:00 AM – 11:30 AM PARALLEL SESSION III: Inflammation and Injury in Children
Moderators: David Hackam, MD, PhD, Johns Hopkins School of Medicine, Baltimore, MD
and Jose Prince, MD, The Feinstein Institute for Medical Research, Manhasset, NY
Salon F, Grand Ballroom

9:00 AM – 9:20 AM Early Immune Development in Neonatal Sepsis
David Hackam, MD, PhD, Johns Hopkins University, Baltimore, MD

9:20 AM – 9:40 AM Neonatal Sepsis – Pathogenesis and Mechanisms (Abstract 35)
Jose M. Prince, MD, Hofstra Northwell School of Medicine and The Feinstein Institute for
Medical Research, Manhasset, NY

9:40 AM – 10:00 AM Pediatric IBD and the Mitochondrial Response
Kevin P. Mollen, MD, University of Pittsburgh School of Medicine, Pittsburgh, PA

10:00 AM – 10:20 AM Necrotizing Enterocolitis Associated Lung Disease, Pathogenesis and Therapeutic Strategy (Abstract 36)
Hongpeng Jia, MD, Johns Hopkins University School of Medicine, Baltimore, MD

10:20 AM – 10:40 AM Neutrophil Function and Transcriptomics in Term and Preterm Neonates (Abstract 37)
Steven L. Raymond, MD, University of Florida College of Medicine; Gainesville, FL

10:40 AM – 11:00 AM The Protective Effect of Glycolipid Stimulation in Neonatal Sepsis is Mediated by the MHC-like Molecule CD1d (Abstract 38)
Alexandra C. Bolognese, MD, Hofstra Northwell School of Medicine, Hempstead, NY

11:00 AM – 11:20 AM Murine Neonatal Sepsis is Associated with Significant Cachexia and Neurodevelopmental Impairment (Abstract 39)
James Wynn, MD, University of Florida, Gainesville, FL

11:20 AM – 11:35 AM Induction of Heme Oxygenase-1 is Protective against Sepsis in a Preterm Mouse Model (Abstract 57)
Kazumichi Fujioka, PhD, Kobe University Graduate School of Medicine, Kobe, Japan
Presidential Award 2016 Winner of Japan Shock Society

9:00 AM – 11:30 AM **PARALLEL SESSION IV: Lung Injury**
Moderators: Laurie Kilpatrick, PhD, Temple University School of Medicine, Philadelphia, PA and Lorraine Ware, MD, Vanderbilt School of Medicine, Nashville, TN
Salon E, Grand Ballroom

- 9:00 AM – 9:20 AM** **Modeling PKC-delta Regulation of Neutrophil-Endothelial Interactions with a Novel Microfluidics Device** (*Abstract 50*)
Mohammad F. Kiani, PhD, Temple University, Philadelphia, PA
- 9:20 AM – 9:40 AM** **Targeting the Pulmonary Endothelial as a Therapeutic Approach for Treating Indirect Acute Lung Injury**
Joanne Lomas-Neira, PhD, Brown University, Providence, RI
- 9:40 AM – 10:00 AM** **Molecular Phenotyping to Reduce Heterogeneity in ARDS** (*Abstract 41*)
Lorraine B. Ware, MD, Vanderbilt University School of Medicine, Nashville, TN
- 10:00 AM – 10:20 AM** **Mesenchymal Stem (Stromal) Cells: Preclinical Evidence for Potential Value for Treatment of Acute Respiratory Distress Syndrome** (*Abstract 40*)
Michael A. Matthay, MD, University of California, San Francisco, CA
- 10:20 AM – 10:40 AM** **Water-Soluble Curcumin Complex Administration Reduces Severity of Lethal Pneumonia** (*Abstract 43*)
Suresh Madathilparambil, PhD, University of Michigan, Ann Arbor, MI
- 10:40 AM – 11:00 AM** **MicroRNA 887 and 15A are Differentially Expressed in ARDS and Alter Disease-relevant Gene Expression** (*Abstract 44*)
Hongkuan Fan, PhD, Medical University of South Carolina, Charleston, SC
- 11:00 AM – 11:20 AM** **Genetic Deficiency of AMP-activated Protein Kinase Alpha1 Worsens Lung Injury during Polymicrobial Sepsis** (*Abstract 45*)
Satoshi Kikuchi, MD, PhD, Ehime University Hospital, Japan and Cincinnati Children's Hospital Medical Center, Cincinnati, OH
- 11:20 AM – 11:30 AM** **Questions & Answers**
- 11:30 PM – 12:30 PM** **Lunch**
Caribbean Ballroom & Foyer

12:00 PM – 1:30 PM **ORAL PRESENTATIONS BY AND FOR NEW INVESTIGATORS**
Salon E, Grand Ballroom

- 12:00 PM – 12:15 PM** **Alterations in Mitochondrial Protein Turnover, Fusion and Fission Accompany Skeletal Muscle Mitochondrial Dysfunction in Patients with Severe Burn**
John Ogunbileje, PhD, University of Texas Medical Branch, Galveston, TX
- 12:15 PM – 12:30 PM** **Amitriptyline Treatment Ameliorates Septic Shock and Improves Survival**
Brent Xia, MD, University of Cincinnati, Cincinnati, OH
- 12:30 PM – 12:45 PM** **Sepsis Induces Adipose Tissue Browning in Non-obese Mice but Not in Obese Mice**
Itay Ayalon, MD, Cincinnati Children's Hospital Medical Center, Cincinnati, OH
- 12:45 PM – 1:00 PM** **NLRC4 Inflammasome Is a Regulator of Macrophage Function in Polymicrobial Sepsis**
Sagar Paudel, BS, Louisiana State University, Baton Rouge, LA
- 1:00 PM – 1:15 PM** **Microparticles Containing Sonic Hedgehog Induce Mitochondrial Depolarization, Reactive Oxygen and Cell Death in Vascular Endothelial Cells**
Neha Attal, BS, University of North Carolina at Charlotte, Charlotte, NC

1:15 PM – 1:30 PM **Mild traumatic Brain Injury Induces Genetic Changes in Mouse Lung to Augment Pseudomonas Aeruginosa Clearance**
Max Vaickus, MS, Boston University School of Medicine, Boston, MA

12:30 PM – 1:30 PM **PLENARY SESSION V: Best of the Best 2**
Moderators: Mark Jeschke, MD, PhD, Sunnybrook Health Sciences Center, Toronto, Ontario, Canada and Timothy R. Billiar, MD, University of Pittsburgh Medical Center, Pittsburgh, PA
Salon F, Grand Ballroom

12:30 PM – 12:45 PM **Early Blockade of PD-L1 Increases Mortality in Sepsis (Abstract 46)**
Catherine Valentine, MD, Boston University Medical Center, Boston MA

12:45 PM – 1:00 PM **Treatment with the TLR4 Agonist Monophosphoryl Lipid A Protects Mice against Severe Staphylococcus Aureus Infection via Augmentation of Innate Antimicrobial Cell Functions (Abstract 47)**
Julia K. Bohannon, PhD, Vanderbilt University Medical Center, Nashville, TN

1:00 PM – 1:15 PM **Inhibition of Beta-Catenin/TCF Signaling Mitigates Sepsis-Induced Organ Injury (Abstract 48)**
Archana Sharma, PhD, The Feinstein Institute for Medical Research, Manhasset, NY

1:15 PM – 1:30 PM **Circulating Exosome-associated miRNAs are Proinflammatory in Sepsis (Abstract 49)**
Lin Zou, MD, PhD, University of Maryland School of Medicine, Baltimore, MD

1:30 PM – 3:10 PM **PLENARY SESSION VI: Innovative Approaches to Shock Research**
Moderators: Clifford S. Deutschman, MS, MD, MCCM, The Feinstein Institute for Medical Research, Manhasset, NY and David Hackam, MD, PhD, Johns Hopkins School of Medicine, Baltimore, MD
Salon F, Grand Ballroom

1:30 PM – 1:50 PM **Microvascular Network on a Chip (Abstract 42)**
Mohammad F. Kiani, PhD, Temple University, Philadelphia, PA

1:50 PM – 2:10 PM **Measuring Mitochondrial Function**
Todd Kilbaugh, MD, Children's Hospital of Philadelphia and University of Pennsylvania, Philadelphia, PA

2:10 PM – 2:30 PM **Lung Imaging in ARDS: Recent Developments (Abstract 51)**
Maurizio Cereda, MD, University of Pennsylvania, Philadelphia, PA

2:30 PM – 2:50 PM **Cognitive Impairment in Sepsis Survivors (Abstract 52)**
Patricio T. Huerta, PhD, The Feinstein Institute for Medical Research and Hofstra-Northwell School of Medicine, Manhasset, NY

2:50 PM – 3:10 PM **Genetic Models in Pediatric Sepsis (Abstract 53)**
Chhinder P. Sodhi, PhD, Johns Hopkins University School of Medicine, Baltimore, MD

3:10 PM – 3:30 PM **Refreshment Break**
Grand Foyer

3:30 PM – 5:30 PM **PLENARY SESSION VII: Sepsis Survivors – The Next Big Thing**
Moderators: Barbara Sherry, PhD, The Feinstein Institute of Medical Research, Manhasset, NY, and Carrie A. Sims, MD, PhD, University of Pennsylvania School of Medicine, Philadelphia, PA
Salon F, Grand Ballroom

- 3:30 PM – 3:50 PM** **Sepsis Survivors – The Clinical Problem**
David F. Gaieski, MD, Thomas Jefferson University Hospital, Philadelphia, PA
- 3:50 PM – 4:10 PM** **Cognitive Dysfunction in Sepsis Survivors**
Joshua Strohl, PhD, The Feinstein Institute for Medical Research, Manhasset, NY
- 4:10 PM – 4:30 PM** **Persistent Hyper-metabolism**
Scott Brakenridge, MD, MSCS University of Florida, Gainesville, FL
- 4:30 PM – 4:50 PM** **White Cell Function and Cytokine Patterns in Sepsis – Acute vs. Chronic**
Sangeeta Chavan, PhD, The Feinstein Institute for Medical Research, Manhasset, NY
- 4:50 PM – 5:10 PM** **Mitochondrial Damage and Dysfunction in Skeletal Muscle of Middle-Aged Murine Sepsis Survivors (Abstract 54)**
Allison M. Steele, BS, University of Kentucky, Lexington, KY
- 5:10 PM – 5:30 PM** **Donepezil Increases Survival in CLP Sepsis but Persistent Splenic Pathology and Bacterial Infection Remain in 28-Day Survivors (Abstract 55)**
Tammy R. Ozment, DVM, PhD, East Tennessee State University, Johnson City, TN
- 6:00 PM – 7:00 PM** **Reception**
Grand Foyer
- 7:00 PM – 9:00 PM** **Dinner**
Scientific Achievements and Service Awards Ceremony
Salon E, Grand Ballroom
Tickets will be collected