

PROGRAM

Thirty-Fifth Annual Meeting of the Surgical Infection Society



**Westlake Village, California
April 15-18, 2015**

Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint providership of the American College of Surgeons and the Surgical Infection Society. The American College Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™

The American College of Surgeons designates this live activity for a maximum of *21 AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclosure Information Paragraph

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Learning Objectives:

This activity is designed for physicians, research scientists, nurses, nurse practitioners, and pharmacists.

Learning Objective(s)--At the end of this activity, participants will be able to:

- Summarize results on the latest research relevant to the diagnosis and treatment of surgical infections
- Use antimicrobials for empiric treatment of sepsis in trauma patients
- Debate current controversies in the diagnosis and treatment of surgical infections
- Use antimicrobials for a set course in the treatment of surgical infections
- Discuss recent developments in the study of cellular and molecular mechanisms in the pathogenesis of surgical infections
- Understand current treatment for secondary bacterial peritonitis

American College of Surgeons, Division of Education



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- 01.** Pathway Analysis of the Intestinal Transcriptome of Mice Rescued From Sepsis via a Fecal Microbiota Transplant Demonstrates a Role for IL22. Monika Krezalek (Resident), presenting. University of Chicago. *Discussant: Michaela West, MD, PhD*
- 02.** Statewide Evaluation of Intra-wound Antibiotics in Spine Surgery Patients: A Report from the SCOAP-CERTAIN Collaborative. Anne Pugel, (Resident) presenting. University of Washington. *Discussant: Robert G. Sawyer, MD*
- 03.** Microbial Changes in Opioid-Induced Colonic Anastomotic Leak. Baddr Shakhsheer (Resident), presenting. University of Chicago. *Discussant: Philip S. Barie, MD, MBA*
- 04.** Colonic Lavage for the Treatment of Severe *C. difficile* Infections: The London Protocol. Calvin Lung, (Resident) presenting. University of Western Ontario. *Discussant: Pamela A. Lipsett, MD, MHPE*
- 05.** Hepatocytes are a Dominant Source Of HMGB1 in the Innate Immune Response During Sepsis. Meihong Deng, (New Member) presenting. University of Pittsburgh. *Discussant: Henri R. Ford, MD, MHA*
- 06.** Obesity is not Associated with Antimicrobial Treatment Failure for Intra-Abdominal Infection. Zachary Dietch (Resident), presenting. University of Virginia. *Discussant: E. Patchen Dellinger, MD*
- 07.** Deficiency in Oncostatin M Receptor Results in Improved Survival in Older Mice Following Sepsis Through Down-Regulation of IL-10. Saad Salim (New Member), presenting. University of Alberta. *Discussant: Brian Zuckerbraun, MD*
- 08.** Novel Predictors of Burn Wound Infections in Severely Burned Children. Arham Ali (Resident), presenting. University of Texas Medical Branch. *Discussant: Basil A. Pruitt, Jr., MD*
- 09.** Repair of the Enteric Nervous System through Vagal-Mediated Expansion of Neural Stem Cells. Simone Langness (Resident), presenting. University of California, San Diego. *Discussant: William G. Cheadle, MD*
- 010.** Risk-Adjustment for Determining Surgical Site Infection in Colon Surgery: Are we Using Appropriate Variables? Sydne Muratore, presenting. University of Minnesota. *Discussant: Donald E. Fry, MD*

16:45-17:30	“SIS WAIT FOR IT Planning Study”-Robert G. Sawyer, MD	Library
16:45-17:30	Committee Meetings	Garden Lawn
17:30-18:15	<i>Surgical Infections</i> Editorial Reception (By Invitation)	Balcony B
18:15-19:00	SIS Foundation Board Meeting (By Invitation)	Library
19:00-20:30	Welcome Reception	Waterfall

Friday, April 17, 2015

06:30-08:00	Breakfast	Garden Lawn
07:00-08:00	Breakfast Symposium <i>(Industry-sponsored; not part of scientific program)</i>	Garden Lawn
08:00-09:45	PARALLEL SESSION I Clinical Research (Papers 11-15) <i>Moderators: Daithi S. Heffernan, MD, and Sandra Swoboda, RN, MSN</i>	Ballroom BCD

O11. RibScore: A Novel Radiographic Score based on Fracture Pattern that Predicts Pneumonia, Respiratory Failure, and Tracheostomy. Brandon Chapman (Resident), presenting. University of Colorado-Denver. *Discussant: Addison K. May, MD*

O12. Top Guns: The Maverick and Goose of Empiric Therapy. Stephen Davies (Resident), presenting. University of Pittsburgh. *Discussant: Jeffrey L. Johnson, MD*

O13. Contact Isolation In Trauma Patients: An Analysis Of Infectious Complications. Mark Hamill, presenting. University of Virginia. *Discussant: Sandra M. Swoboda, MSN, RN*

O14. Comparing Readmissions and Infectious Complications of Blunt Splenic Injuries Using a Statewide Database. Olubode Olufajo presenting. Brigham and Women's Hospital. *Discussant: Daithi S. Heffernan, MD*

O15. Impact of Type of Insurance on Infection Rates after Trauma. Jaswin Sawhney (Resident), presenting. Brown University. *Discussant: Amy A. McDonald, MD*

08:00-9:45 PARALLEL SESSION II

Ballroom AE

Basic Science (Papers 16-20)

Moderators: Carl Hauser, MD and Brian Eliceiri, PhD

O16. Hypothermia Prolongs the Survival of Rats with Severe Septic Shock by Inhibiting the Splenic Release of Neutrophils and Monocytes. Rhett N. Willis (Resident), presenting. University of Virginia. *Discussant: Kevin P. Mollen, MD*

O17. *Listeria monocytogenes* Inhibits Th17 Responses Through TLR2 Signaling. Song Liu, presenting. Medical School of Nanjing University. *Discussant: Meihong Deng, MD*

O18. Mitochondrial ROS Induces Cardiac Inflammation via Damage in Mitochondrial DNA and Stimulation of RAGE Pathway in a Pneumonia-related Sepsis Model. Qun (Sophia) Zang, presenting. University of Texas-Southwestern. *Discussant: Carl Hauser, MD*

O19. Blue Light Reduces Organ Injury During Critical Illness. Du Yuan (Resident), presenting. University of Pittsburgh. *Discussant: Nicholas Namias, MD, MBA*

O20. The Collagenolytic Activity of Fecal *Enterococcus faecalis* Predicts Anastomotic Leak: Development of a Novel Assay to Clinically Track the Collagenolytic Phenotype. Kristina Guyton (Resident), presenting. University of Chicago. *Discussant: Matthew R. Rosengart, MD, MPH*

09:45-10:00 BREAK-Visit the Exhibits

10:00-11:00 William A. Altemeier Memorial Lecture

Ballroom BCD

“Evolving Epidemiology of MOF into PICS”

Frederick A. Moore, MD, FACS, MCCM

Professor and Chief of Acute Care Surgery, University of Florida Health

11:00-12:00 Surgical Infection Society Presidential Address

Ballroom BCD

“Let’s Go Far”

John C. Alverdy, MD

The Sara and Harold Lincoln Thompson Professor and Executive Vice Chair
Department of Surgery, University of Chicago Medicine

12:00-13:15 LUNCHEON SYMPOSIUM Garden Lawn
(Industry-sponsored; not part of scientific program)

13:30-15:15 UPDATE SYMPOSIUM I Ballroom BCD
International Topics in Surgical Infections
Moderator: Joseph Solomkin, MD

Topic 1: Strategies to Prevent SSI in Japan Keita Morikane
 Topic 2: Approach to Surgical Site Infection in Nicaragua Andrew Stephen
 Topic 3: Surgical Infections in the Deployed Setting David Blake
 Topic 4: Surgical site infection rates following cesarean section in sub-Saharan Africa: A focus point for guideline-based intervention Joseph Solomkin

15:15-13:30 Break-Visit the Exhibits

15:30-17:00 PARALLEL SESSION III Ballroom BCD
Clinical Research (Papers 21-26)
Moderators: Samir S. Awad, MD and Heather L. Evans, MD, MS

O21. Preoperative Antisepsis Protocol Compliance and the Effect on Bacterial Load Reduction. Alison Smith (Resident), presenting. Tulane University. *Discussant: Jared Huston, MD*

O22. Necrotizing Enterocolitis: Does Perforation Matter? Varun Bhalla, presenting. Children's National Medical Center. *Discussant: Catherine J. Hunter, MD*

O23. Abdominal Compartment Syndrome, Cerebral Infarction, and Acute Respiratory Distress Syndrome are the Biggest Modifiable Risk Factors for Surgical Site Infections in Blunt Traumatic Hemorrhagic Shock. John Hwabejire (Resident), presenting. Howard University. *Discussant: Lena M. Napolitano, MD*

O24. Do Polymicrobial Intra-Abdominal Infections have Worse Outcomes than Monomicrobial Intra-Abdominal Infections? Puja M. Shah (Resident), presenting. University of Virginia. *Discussant: Lillian Kao, MD*

O25. The Influence of Beta-Lactam Prescribing Patterns on Resistance Rates among Various Adult ICU Populations. Sara E Parli, presenting. University of Kentucky. *Discussant: Jeffrey M. Tessier, MD*

O26. Prophylactic Gentamicin is Not Associated with Acute Kidney Injury in Patients with Open Fractures. Jeffrey M. Tessier, presenting. JPS Health Network. *Discussant: Heather L. Evans, MD*

15:30-17:00 PARALLEL SESSION IV Ballroom AE
Basic Science (Papers 27-32)
Moderators: Matthew R. Rosengart, MD, MPH and Todd W. Costantini, MD

O27. Paucity of Bacteria Implicated in Pathogenesis of Experimental Necrotizing Enterocolitis. Joanna Lim (Resident), presenting. Children's Hospital Los Angeles. *Discussant: Michael J. Morowitz, MD*

O28. Pre-B Cell Colony Enhancing Factor (PBEF)/Nampt Phosphorylation by PI3 Kinase is Indispensable for the Inhibition of Neutrophil (PMN) Apoptosis in Patients with Sepsis. Song Jia (New Member), presenting. Keenan Research Centre for Biomedical Science, St. Michael's Hospital, Toronto. *Discussant: John Mazuski, MD, PhD*

O29. Acute Appendicitis in Children is Associated with an Abundance of Bacteria from the Genus *Fusobacterium*. Matthew Rogers (New Member), presenting. Children's Hospital of Pittsburgh. *Discussant: Jose J. Diaz, MD*

O30. Effect of Remote Ischemic Preconditioning on LPS-Induced Pulmonary Inflammation In Mice. So Jung Choi (New Member), presenting. University of Toronto. *Discussant: Brian Eliceiri, PhD*

O31. Latent Cytomegalovirus Infection Predisposes Immune Competent Hosts to Pro-Inflammatory Pulmonary Immune Responses. Varun Dwivedi, presenting. The Ohio State University. *Discussant: Ori Rotstein, MD*

O32. Defining The Mitochondrial DAMP Repertoire: Formyl Peptides are Not all Created Equal! Carl Hauser, presenting. Center for Vascular Biology Research, Harvard Medical School, BI Deaconess Medical Center. *Discussant: Gary C. An, MD*

17:00-18:00 Annual Business Meeting (*Members only*)

Ballroom AE

18:00 Free Evening

Saturday, April 18, 2015

07:00-08:00 Executive Council Meeting (*By invitation*)

Georgian

07:00-08:00 Breakfast

Garden Lawn

08:00-09:00 UPDATE SYMPOSIUM II

Ballroom BCD

What to do with the Darned Sub-specialists: Common Practices in Surgical Infections

Moderator: Jeffrey Claridge, MD

Topic 1: Thoracic Surgery

Daniel Raymond

Topic 2: Orthopedic Surgery

Antonia Chen

09:00-10:00 UPDATE SYMPOSIUM III

Ballroom BCD

PRO-CON DEBATES

Moderator: John Mazuski, MD, PhD

DEBATE: Nutritional Support: Does it Matter?

Patricia Byers vs. Michael Morowitz

DEBATE: Fever-Suppress or Let it Ride?

Carl Schulman vs. Kaysie Banton

10:00-10:15 FELLOWSHIP AWARD RECIPIENT PRESENTATIONS

Ballroom BCD

Moderators: Philip S. Barie, MD, MBA and Kevin P. Mollen, MD

SIS Foundation Basic or Translational Research Training Fellowship-2014

Anthony J. Lewis, MD. University of Pittsburgh

SIS Foundation Clinical Research Training Fellowship-2014

Elinore J. Kaufman, MD. Weill Medical College of Cornell University

SIS Foundation Junior Faculty Fellowship-2014-2015

Heather L. Evans, MD, MS. University of Washington

10:15-10:30 BREAK—Visit the Exhibits

10:30-12:00 PARALLEL SESSION V

Clinical Research (Papers 33-38)

Ballroom BCD

Moderators: Mary R. Kwaan, MD, MPH and David P. Blake, MD, MPH

O33. Does Circadian Rhythm Affect the Risk for Post-Operative Infectious Complications? Christopher Guidry (Resident), presenting. University of Virginia. *Discussant: Christine S. Cocanour, MD*

O34. WITHDRAWN

O35. Obesity Paradox in Patients with Soft Tissue Infections Nationwide. Elissa Lin, presenting. Brigham and Women's Hospital. *Discussant: David P. Blake, MD, MPH*

O36. Developing an SSI Risk Score Incorporating Daily Objective Wound Assessments using Machine Learning. Heather L. Evans, presenting. University of Washington. *Discussant: Donald E. Fry, MD*

O37. Component Separation versus Bridged Repair for Large Ventral Hernias: A Multi-Institutional Risk-Adjusted Comparison. Julie Holihan (Resident), presenting. University of Texas Health Science Center at Houston. *Discussant: Kamal M. F. Itani, MD*

O38. Clinical Diagnosis of Infection in SICU: You are Not as Good as You Think! Madhu Subramanian (New Member), presenting. University of Texas, Southwestern. *Discussant: Patrick J O'Neill, PhD, MD*

10:30-12:00 PARALLEL SESSION VI

Basic Science (Papers 39-43)

Ballroom AE

Moderators: Gary C. An, MD and Rachel Khadaroo, MD, PhD

O39. Characterization of the Murine Septic Response Using Wireless Telemetry Technology. Anthony Lewis (Resident), presenting. University of Pittsburgh. *Discussant: Tina S. Mele, MD*

O40. *Lactobacillus* Probiotic Species Strengthen Intestinal Barrier Function and Tight Junction Integrity. Brian Blackwood (Resident), presenting. Northwestern University Feinberg School of Medicine. *Discussant: John Marshall, MD*

O41. Mesenchymal Stem Cells Reverse Anemia and Bone Marrow Dysfunction Following Trauma, Hemorrhagic Shock, and Chronic Stress. Amy Gore (Resident), presenting. Rutgers-New Jersey Medical School. *Discussant: Todd W. Costantini, MD*

O42. Remote Ischemic Preconditioning Plasma Prevents Neutrophil Infiltration by Increased Anti-oxidative Capacity in the Zebrafish. Chung Ho Leung, presenting. University of Toronto. *Discussant: Brian Zuckerbraun, MD*

O43. *Pseudomonas aeruginosa* Infection Augments Burn-Induced Hepatic ER Stress. Mile Stanojcic (Resident), presenting. Sunnybrook Research Institute, University of Toronto, Toronto, Canada. *Discussant: Steven E. Wolf, MD*

12:00-13:15 LUNCHEON SYMPOSIUM Garden Lawn
(Industry-sponsored; not part of scientific program)

13:30-15:00 PARALLEL SESSION VII:
The Surgical Infection Society-Supreme Court (Papers 44-48) Ballroom BCD
*Moderators: Pamela A. Lipssett, MD, MHE, John C. Alverdy, MD,
John C. Marshall, MD, Robert G. Sawyer, MD, and William G. Cheadle, MD*

O44. Computed Tomography Versus Ultrasound for the Diagnosis of Acute Cholecystitis. D. Dante Yeh, presenting. Harvard Medical School, Massachusetts General Hospital.

O45. Comparison of Screening Tools' Ability to Detect Sepsis Accurately. Richard Wawrose, presenting. University of Texas Health Science Center at Houston.

O46. Pulmonary Microbiome and Cytokine Analysis of Bronchoalveolar Lavage in Mechanically Ventilated Trauma Patients? Ryan M. Huebinger, presenting. University of Texas Southwestern.

O47. The Transition from a Rural to Urban Environment in Africa Alters the Expression of Genes Involved in Cholesterol Metabolism: Potential Implications for Susceptibility to Infectious Diseases. Radhames Lizardo, presenting. University of California, San Diego.

O48. Impact and Progression of Organ Dysfunction in Patients with Necrotizing Soft Tissue Infections; A Multicenter Study. Eileen M. Bulger, presenting. University of Washington.

16:00-17:20 POSTER SESSION (Posters 1- 52) Ballroom Foyer
Basic and Clinical Studies in Surgical Infection

Moderators: Group 1: **Cell Biology I** (P1-P6)
Michael Cripps, MD and Catherine J. Hunter, MD
Group 2: **Cell Biology II** (P7-P11)
Kevin P. Mollen, MD and Celeste C. Finnerty, PhD
Group 3: **Outcomes I** (P12-P17)
Patrick J. O'Neill, PhD, MD and Michael K. Liang, MD
Group 4: **Outcomes II** (P18-P23)
Soumitra R. Eachempati, MD and Charles A. Adams Jr., MD
Group 5: **Pathogens I** (P24-P29)
Jeffrey W. Shupp, MD and Barbara Trautner, MD, PhD
Group 6: **Pathogens II** (P30-P35)
Howard Belzberg, MD and Philip Chang, MD
Group 7: **Wounds and Incisions I** (P36-P40)
Christine S. Cocanour, MD and Jose J. Diaz, MD
Group 8: **Wounds and Incisions II** (P41-P45)
Weidun Alan Guo, MD and Kamal M. F. Itani, MD

19:00-19:45 New Member Reception Ballroom Foyer
19:45-22:00 Awards Banquet Ballroom
22:00 ADJOURNMENT