

PROGRAM

Thirty-Fourth Annual Meeting of the Surgical Infection Society



**Baltimore, Maryland
May 1–3, 2014**

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 sponsorship of the American College of Surgeons and the Surgical Infection Society. The American College of 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

In compliance with ACCME Accreditation Criteria, the American College of Surgeons, as the accredited provider of this activity, must ensure that anyone in a position to control the content of the educational activity has disclosed all relevant financial relationships with any commercial interest. All reported conflicts are managed by a designated official to ensure a bias-free presentation. Please see the insert to this program for the complete disclosure list.

Please note: The maximum of 21 Category 1 Credits includes 17 hours for the general scientific sessions and 4 hours for the post-graduate course.

Learning Objectives:

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

Upon completion of this course, 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 VAP in trauma patients
- Debate current controversies in the diagnosis and treatment of surgical infections
- Use antimicrobials for a set course in the treatment of ventilator acquired pneumonia
- Discuss recent developments in the study of infection in cellular and molecular mechanisms
- Understand current treatment for secondary bacterial peritonitis



American College of Surgeons
Division of Education

This supplement was supported by an unrestricted grant from Merck.

Surgical Infection Society Thirty-Fourth Annual Meeting Marketing Sponsors

Platinum

Pfizer, Inc.

Gold

CareFusion

Cubist

IrriMax Corporation

Silver

Applied Medical

Sponsors and Exhibitors

3M

Davol

LifeCell

Mary Anne Liebert, Inc.

ThermoFisher

UBS Securities

**SURGICAL INFECTION SOCIETY THIRTY-FOURTH ANNUAL MEETING
Baltimore, Maryland, May, 1-3, 2014**

Wednesday, April 30, 2014

19:00-21:30 Presidential Dinner (By invitation)

Thursday, May 1, 2014

07:00-07:30 Executive Council Breakfast (By invitation)

Sienna

07:30-11:30 Executive Council Meeting (By invitation)

Sienna

06:30-07:30 Breakfast

Cobalt

07:30-11:30 Surgical Infection Course

Ballroom

Moderators: David Efron, MD and Stephanie Goldberg, MD

BIOLOGY OF SEPSIS and PHARMACOLOGY

Microbiology of Surgical Pathogens

Lena Napolitano

7:30-7:55 am

Biology and Metabolism of Sepsis

Timothy Billiar

7:55-8:20 am

Organ Physiology and Multiple Organ Failure/Dysfunction

John Marshall

8:20-8:45 am

Antimicrobials and Antibiotic Pharmacodynamics

Pamela Lipsett

8:45-9:10 am

Q and A session

9:10-9:20 am

Break

9:20-9:30 am

RISK PREVENTION/PROPHYLAXIS

Prevention of Hospital-Acquired Infections

E. Patchen Dellinger

9:30-10:00 am

Clostridium difficile Infections

John Mazuski

10:00-10:20 am

Q and A session

10:20-10:30 am

SPECIFIC INFECTIONS

Necrotizing Soft Tissue Infections

Brian Harbrecht

10:30-10:55 am

Diagnosis and mManagement of Primary, Secondary,
and Tertiary Peritonitis

Mark Malangoni

10:55-11:20 am

High-Risk Patients: Who are They and How

Soumitra Eachempati

11:20-11:45 am

Should They Be Managed?

Q and A session

11:30-11:45 Nominating Committee (By invitation)

Sienna

11:45-13:00 Lunch

Cobalt

13:00-16:45 PLENARY SYMPOSIUM

Ballroom

The Art and Science of Surgical Infections (Papers 1-10)

Moderators: William Cheadle, MD and Nicholas Namias, MD

O1. Replenishing the core gut microbiome via fecal microbiota transplant (FMT) can rescue mice from advanced-stage polymicrobial sepsis. Jennifer DeFazio (Resident), presenting. University of Chicago.

Discussant: Greg Beilman, MD.

02. The SIS Study To Optimize Peritoneal Infection Therapy (STOP-IT) Trial: Four Days of Antibiotics Result in Similar Outcomes Compared to Duration. Robert Sawyer, presenting. University of Virginia. *Discussant: Philip S. Barie, MD*

03. Expression of MiR-21 is advantageous in the Immune Response to Peritonitis. Rebecca Barnett (Resident), presenting. University of Louisville. *Discussant: Michael Morowitz, MD*

04. A prospective randomized study to assess the optimal duration of antimicrobial prophylaxis in total gastrectomy. Ryoji Fukushima, presenting. Teikyo University School of Medicine. *Discussant: J. Wesley Alexander, MD*

05. Thrombin-processed Ecr4 is chemotactic and recruits inflammatory monocytes to the injury site. Jisook Lee, presenting. University of California San Diego. *Discussant: Timothy Billiar, MD.*

06. Empiric Azoles Are Not Beneficial in Surgical Patients: A Propensity-Matched Cohort Study. Christopher Guidry (Resident), presenting. University of Virginia. *Discussant: Pamela Lipsett, MD*

07. TNF- α , IL-6 and IL-8 cytokines in relation to TNF- α -308 G/A polymorphism in postoperative sepsis. Kavita Baghel, presenting. King George's Medical University, India. *Discussant: John Marshall, MD*

08. Obstructive sleep apnea: a risk factor for surgical site infection after colectomy. Spyridon Fortis (Resident-New Member), presenting. University of Minnesota. *Discussant: E. Patchen Dellinger, MD.*

09. Are Functional Single Nucleotide Polymorphisms of Proinflammatory Cytokines Associated with the Development of Necrotizing Enterocolitis or Spontaneous Perforation in Premature Infants? Ashanti Franklin (Resident), presenting. Children's National Medical Center. *Discussant: Gary An, MD*

010. Screening for Ventilator-Associated Pneumonia in the Surgical Intensive Care Unit: Single-Institution Analysis of 1,013 Bronchoalveolar Lavage. Fredric D. Pieracci, presenting. Denver Health Medical Center/University of Colorado Health Sciences Center. *Discussant : Lena Napolitano, MD*

16:45-17:30	SIS Antibiotic Duration Study-Robert Sawyer, MD	Cobalt
17:30-18:15	<i>Surgical Infections</i> Editorial Reception (By Invitation)	Azure
18:15-19:00	SIS Foundation Board Meeting (By Invitation)	Cobalt
19:00-20:30	Welcome Reception	Pool Deck

Friday, May 2, 2014

07:00-08:00 **Breakfast Symposium** Cobalt

08:00-09:45 **PARALLEL SESSION I** Ballroom I
Cellular and Molecular Mechanisms (**Papers 11-15**)
Moderators: Ori Rotstein, MD and Brian Zuckerbraun, MD

011. Cyclic adenosine monophosphate activation of protein kinase A may play a role in the pathogenesis of necrotizing enterocolitis. Catherine Hunter , presenting. Northwestern University. *Discussant: Matthew Rosengart, MD*

11:00-12:00 Surgical Infection Society Presidential Address Ballroom
“The Wheel”
Nicholas Namias, MD, MBA, FACS, FCCM
Professor and Chief, Division of Trauma and Acute Care Surgery
Robert Zeppa Endowed Chair in Trauma Surgery
Executive Vice Chairman, DeWitt Daughtry Family Department of Surgery
University of Miami, Miller School of Medicine

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

13:30-15:15 UPDATE SYMPOSIUM I Ballroom
GI Fistulae, Anastomotic Leak, and Other Abdominal Catastrophes
Moderators: Tina Mele, MD and Samir S. Awad, MD

Topic 1: Endoscopic Approaches to Source Control: Rajeev Attam, MD—University of Minnesota
Topic 2: Management of GI Fistulae, Soup to Nuts: David Efron, MD—The Johns Hopkins Hospital
Topic 3: Microbial Pathogenesis of Anastomotic Leaks: John Alverdy, MD—University of Chicago
Topic 4: Closing the Infected Abdomen: If, When, How: Jose Diaz, MD—University of Maryland Medical Center

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

15:30-17:00 PARALLEL SESSION III Ballroom I
Basic Mechanisms of Infection (**Papers 22-27**)
Moderators: Timothy Billiar, MD and Daithi Heffernan, MD

O22. Oncostatin M modulates immune cell recruitment and bacterial translocation in a murine model of sepsis. Pang Young (Resident), presenting. University of Alberta. *Discussant: Tina Mele, MD*

O23. Association of Inflammasomes and Caspase-1 Mediated Cardiac Dysfunction with Sepsis. Deborah Carlson, presenting. UT Southwestern. *Discussant: Brian Eliceiri, PhD*

O24. Invariant Natural Killer T-cells modulate the Gamma-Delta-Lymphocyte response to polymicrobial sepsis. Whitney Young (Resident), presenting. Brown University, Rhode Island Hospital. *Discussant: Ping Wang, MD*

O25. Glutamine Improves Innate Immunity and the Intestinal Barrier Function During Parenteral Nutrition. Rebecca Busch (Resident/New Member), presenting. University of Wisconsin Madison. *Discussant: Todd Costantini, MD*

O26. Mesenchymal Stem Cells Reverse Chronic Stress Induced Bone Marrow Dysfunction Following Traumatic Injury. Amy Gore (Resident), presenting. NJMS-Rutgers. *Discussant: William Cheadle, MD*

O27. Wound Infection after Attenuating a Key Inflammatory Signaling Pathway. Saman Arbabi, presenting. University of Washington. *Discussant: Olga Zaborina, PhD*

15:30-17:00 PARALLEL SESSION IV Ballroom II
Hospital Acquired and Skin/Soft Tissue Infections (**Papers 28-33**)

Moderators: John Mazuski, MD, PhD and Addison May, MD

O28. Reduction of infectious complications following trauma laparotomy through use of a perioperative antibiotic protocol. William Symons (New Member), presenting. Washington University. *Discussant: Jeffery Claridge, MD*

O29. Sustainability of a Hospital-Acquired Pressure Ulcer Prevention Bundle In Surgical Patients. Sylvia Martinez, presenting. Baylor College of Medicine. *Discussant: Sandy Swoboda RN, MSN*

O30. Ventilator-associated Events: Correlation with Ventilator-associated Pneumonia? Arek Wiktor (Resident/New Member), presenting. University of Michigan Health System. *Discussant: Fredric D. Pieracci, MD*

O31. Health-Related Quality of Life Among Necrotizing Soft Tissue Infection Survivors and Clinical Predictors of Poor Outcome. Timo Hakkarainen (Resident), presenting. University of Washington. *Discussant: Jeffrey G. Chipman, MD*

O32. A Surgeon-Directed Peripherally Inserted Central Catheter Team Utilizing a Novel Screening Protocol to Decrease Infectious Complications and Associated Cost. Vihas Patel (Resident), presenting. Brigham and Women. *Discussant: Laura Moore, MD*

O33. Predictors of Mortality Among Intravenous Drug Users with Staphylococcus aureus Bacteremia. Ram Anantha (Resident), presenting. Schulich School of Medicine and Dentistry, Western University. *Discussant: Colin Braithwaite, MD*

17:00-18:00 Annual Business Meeting (*Members only*) Ballroom II
18:00-19:00 Committee Meetings (*Attendance mandatory for committee members*) Cobalt

Saturday, May 3, 2014

07:00-08:00 Executive Council Meeting (*By invitation*) Sienna
07:00-08:00 Breakfast Cobalt
08:00-09:00 UPDATE SYMPOSIUM II: PRO-CON DEBATES Ballroom

Moderators: Matthew R. Rosengart

The Double X Chromosome: Does Gender Really Matter in Human Disease?

Speakers: PRO: Jason Sperry, MD, MPH—University of Pittsburgh
CON: Addison May, MD—Vanderbilt University

Is Zero Achievable in CLABSI, CAUTI, and VAP?

Speakers: PRO: Madhuri Sopirala, MD—University of Cincinnati
CON: Zero Dark Dirty!—Robert Sawyer, MD—University of Virginia

09:00-10:00 UPDATE SYMPOSIUM III Ballroom

Advanced Platform Technologies: An Update

Moderator: John Alverdy

Topic 1: A Metagenomic Approach to Understand Surgical Infection-The Role of Next Generation Technology—Jack Gilbert, PhD—Argonne National Laboratory

Topic 2: Computational Needs and Approaches to Manage Metagenomic Data-Scott Christley, PhD—University of Chicago

Topic 3: Statistical Analysis of Megadatasets-Managing Terabytes of Data? Paul Bankey, MD, PhD—University of Rochester

10:00-10:15 FELLOWSHIP AWARD RECIPIENT PRESENTATIONS Ballroom

Moderators: Philip S. Barie, MD, MBA and Evan Nadler, MD

SIS Foundation Resident Fellowship 2013

Kendall Sowards, MD

SIS Foundation Junior Faculty Fellowship 2013

Jared Huston, MD

10:15-10:30 Break—Visit the Exhibits

10:30-12:00 PARALLEL SESSION V

Proteins, Genes, and Pathogens (**Papers 34-38**) Ballroom I

Moderators: John Marshall, MD and Rachel Khadaroo, MD, PhD

O34. The Enteric Nervous System (ENS) Neuropeptide, Bombesin (BBS), Maintains Goblet Cell Function During Parenteral Nutrition (PN). Aaron Heneghan (New Member), presenting. University of Wisconsin Madison. *Discussant: Jared Huston, MD*

O35. Computational prediction of a novel transcriptional regulation for the PqsH encoding gene in *Pseudomonas aeruginosa*. Scott Christley, presenting. University of Chicago. *Discussant: Kaysie Banton, MD*

O36. The Genomic Expression of Aged Murine Hematopoietic Stem Cells after Polytrauma Indicates a Failure to Support Development of Innate Immunity. Philip Efron, presenting. University of Florida. *Discussant: Joseph Minei, MD*

O37. Ursodeoxycholic acid as a mediator of intestinal epithelial cell restitution. Stephanie Papillon (Resident), presenting. Children's Hospital Los Angeles. *Discussant: Celeste Finnerty, PhD*

O38. NEC as an infectious disease: Identifying strains of opportunistic pathogens. Debi Thomas, presenting. Children's Hospital of Los Angeles. *Discussant: Evan Nadler, MD*

10:30-12:00 PARALLEL SESSION VI

Clinical Issues in Surgical Infection (**Papers 39-44**) Ballroom II

Moderators: Lillian Kao, MD and Jeffery Chipman, MD

O39. A Systematic Approach to Preventing Sharps Injuries in the Operative Care Line at an Urban Tertiary Care Center. Sylvia Martinez, presenting. Baylor College of Medicine. *Discussant: Peter A. Burke, MD*

O40. Acute kidney injury (AKI) causes persistent dysregulation of the leukocyte transcriptome. Benjamin Szpila (Resident), presenting. University of Florida College of Medicine *Discussant: David Efron, MD*

O41. External Validation of the Ventral Hernia Risk Score for Predicting Surgical Site Infections. Mike Liang (New Member), presenting. University of Texas Health Sciences Center. *Discussant: Donald Fry, MD*

O42. Use of Computed Tomography to Diagnose Aspiration in Trauma Patients. Vanessa Fawcett, presenting. University of Washington. *Discussant: Philip S. Barie, MD, MBA*

O43. Predictors of Monomicrobial Necrotizing Fasciitis. Rhett Willis (Resident/New Member), presenting. University of Virginia. *Discussant: Addison May, MD*

O44. Transforming growth factor beta induced epithelial-mesenchymal transition leads to persistent intestinal fistulae. Xiuwen, presenting. Jinling Hospital, China. *Discussant: Catherine Hunter, MD*

12:00-13:15 LUNCHEON SYMPOSIUM

Cobalt

(Industry-sponsored; not part of scientific program)

13:30-15:00 PARALLEL SESSION VII

Pathophysiologic Mechanisms of Infection (Papers 45-49)

Ballroom I

Moderators: Marc Jeschke, MD, PhD and Catherine Hunter, MD

O45. Genomic and Proteomic Survival Biomarker Profiles in Severely Burned Children. Padma Gayathri Nainar (Resident), presenting. University of Texas Medical Branch / Shriners Hospitals for Children. *Discussant: Marc Jeschke, MD, PhD*

O46. Intestinal bile acids differentially control intestinal cell proliferation. Avafia Dossa (Resident), presenting. Children's Hospital Los Angeles. *Discussant: Ziad Sifri, MD*

O47. The gut during prolonged critical illness harbors low membership pathogen communities that are less virulent as a group than individually. Olga Zaborina, presenting. University of Chicago. *Discussant: Mary Kwaan, MD*

O48. Muscle Injury and Ischemia Contribute to the Pathogenesis of *A. baumannii* Infection. Irma Fleming (Resident), presenting. University of Chicago. *Discussant: Duane Hospenthal, MD*

O49. Differential Immune and Hormonal Expression in Cardiac Versus Hepatic Blood after Burn Injury in Rodents. Marc Jeschke (Resident), presenting. Sunnybrook Health Sciences Centre. *Discussant: Tina Palmieri, MD*

13:30-15:00 PARALLEL SESSION VIII:

The Surgical Infection Society Supreme Court (**Papers 50 -54**)

Ballroom II

Moderators: Pamela Lipsett, MD, MHE, and Nicholas Namias, MD, MBA, John Alverdy, MD, Robert Sawyer and E. Patchen Dellinger

O50. A Reappraisal of MRSA VAP in the Surgical ICU: Not Just a Late Infection Any More. Jacquelyn Glenn, presenting. Denver Health Medical Center.

O51. Environmental contact versus patient contact in the ICU: what do we touch? Sandy Swoboda, presenting. Johns Hopkins.

O52. Early appropriate empiric antimicrobial prescribing in septic patients presenting to the emergency department does not lead to decreased mortality. James Gilmore (Resident), presenting. Brigham and Women.

O53. CAUTIs and CLABSIs: Do physicians REALLY know what they are? Therese Duane, presenting. Virginia Commonwealth University Medical Center.

O54. A Comparison of ICU infections in a United States Trauma Center and a Teaching Hospital in Ho Chi Minh City, Vietnam. Andrew Stephens, presenting. Brown University.

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

Ballroom Foyer

Moderators: Group A: **(P1-P8)**

Olga Zaborina, PhD and Marc Jeschke, MD

Group B: **(P9-P17)**

Brian Elicieri, PhD and Celeste Finnerty, PhD

Group C: **(P18-P27)**

Jeffery Tessier, MD and Therese Duane, MD

Group D: **(P28-P33)**

Kaysie Banton, MD and David Blake, MD

Group E: **(P34-P43)**

Reza Askari, MD and Howard Belzberg, MD

Group F: **(P44-P52)**

Christine S. Cocanour, MD and Samir Awad, MD

19:00-20:00 New Member Reception

Ballroom Foyer

20:00-22:00 Awards Banquet

Ballroom

22:00 ADJOURNMENT