



## Program Information

### Monday, July 9

- 0800-1600 REGISTRATION
- 0900-1700 ANAEROBIC IDENTIFICATION AND SUSCEPTIBILITY — *See page 3 for details*  
*Diane M. Citron*  
*Mike Cox*
- 0900-1700 EXAMINING ANAEROBES IN THE MICROBIOME: METAGENOMIC AND CULTURE APPROACHES —  
*See page 3 for details*  
*Laura M. Cox, Ph.D.*  
*Anna Seekatz, Ph.D.*  
*Casey Theriot, Ph.D.*
- 1800 ASA BOARD DINNER/MEETING
- 1800 BREWS, WINE & WINGS  
 ROBERT IRVINE'S PUBLIC HOUSE, TROPICANA

### Tuesday, July 10

- 0700-0820 REGISTRATION / BREAKFAST / EXHIBITS
- 0820-0830 WELCOME  
*Jeanne Marrazzo, M.D.*
- 0830-0945 SESSION I: ONE HEALTH: SYNERGY BETWEEN HUMAN & ANIMAL ECOLOGIC SYSTEMS  
*Convener: Francisco Uzal, Ph.D.*  
**Pathogenesis of *C. perfringens* Type C Infections in Humans and Animals**  
*Jihong Li, Ph.D.*  
 University of Pittsburgh, Pittsburgh, PA USA  
**Pathobiology of Clostridial Hepatitis in Animals**  
*Mauricio Navarro, D.V.M., M.Sc.*  
 University of California, Davis, Davis, CA USA  
***Brachyspira* spp. Infections in Animals and Humans**  
*Eric R. Burrough, D.V.M., Ph.D.*  
 Iowa State University, Ames, IA USA
- 0945-1000 BREAK—INDUSTRY EXHIBITS
- 1000-1100 SESSION II: KEYNOTE PRESENTATION  
*Convener: Jeanne Marrazzo, M.D.*  
**Microbiota and the Brain-Gut Axis**  
*Sarkas Mazmanian, Ph.D.*  
 California Institute of Technology, Pasadena, CA USA
- 1100-1200 SESSION III: ANAEROBIC CLINICAL ISSUES IN HUMAN DISEASE  
*Convener: Ellie Goldstein, M.D.*  
**The Role of Anaerobes in Pneumonia: A Breath of Fresh Air**  
*Stephen G. Jenkins, Ph.D.*  
 Weill Cornell Medicine, New York, NY USA  
***Propionibacterium acnes* and Shoulder Surgery**  
*Paul G. Auwaerter, M.D.*  
 Johns Hopkins University, Baltimore, MD USA  
**Characterization of *Cutibacterium* (ex. *Propionibacterium*) *acnes* Populations in Patients with Acne versus Healthy Skin: Interest of a Local Adjunctive Therapy Based on Myrtacine**  
*Sophie Pécastaigns*  
 Fonderephar, Toulouse, France

- 1200-1320 LUNCH—INDUSTRY EXHIBITS
- 1320-1415 SESSION IV: SYSTEMS BIOLOGY TO STUDY THE MICROBIOME & INFECTIOUS DISEASES  
*Convener: Casey Theriot, Ph.D.*  
**Extracting Actionable Knowledge from the EHR: Machine Learning Tools for Predicting Risk of CDI**  
*Jenna Wiens, Ph.D.*  
 University of Michigan, Ann Arbor, MI USA  
**Mathematical Modeling of *C. difficile* Infection and Antimicrobial Resistance**  
*Cristina Lanzas, D.V.M., Ph.D.*  
 North Carolina State University, Raleigh, NC USA
- 1415-1510 SESSION V: NEW TOPICS IN ANAEROBIC SCIENCE  
*Convener: Yiping Han, Ph.D.*  
***C. difficile* Phage**  
*Martha R.J. Clokie, Ph.D.*  
 University of Leicester, Leicester, United Kingdom  
**Engineering Regulatory Systems to Modulate Gene Expression of *Bacteroides* in the Gut**  
*Bentley Lim, Ph.D.*  
 Yale University, New Haven, CT USA
- 1510-1530 BREAK—INDUSTRY EXHIBITS
- 1530-1645 SESSION VI: GENITAL TRACT ANAEROBES, HIV/STI ACQUISITION & REPRODUCTIVE HEALTH  
*Convener: David Fredricks, M.D.*  
**Microbiome Studies to Define the Role of Vaginal Anaerobes in Increasing Susceptibility to HIV**  
*Sujatha Srinivasan, Ph.D.*  
 Fred Hutchinson Cancer Research Center, Seattle, WA USA  
**The Role of Vaginal Anaerobes in HIV: New Data & Proposed Mechanisms**  
*Douglas S. Kwon, M.D., Ph.D.*  
 Harvard Medical School, Cambridge, MA USA  
**Anaerobes & Immunity in the Genital Tract**  
*Caroline M. Mitchell, M.D.*  
 Massachusetts General Hospital, Boston, MA USA
- 1645-1800 SESSION VII: ORAL PRESENTATIONS I—INTERNATIONAL PERSPECTIVES  
*Convener: Daniel Paredes-Sabja, Ph.D.*  
**Ongoing Research on Anaerobes in Europe**  
*Elisabeth Nagy, Ph.D.*  
 University of Szeged, Szeged, Hungary  
**UK *Bacteroides* Species Surveillance Survey: Change in Antimicrobial Resistance Over 16 Years**  
*Harriett C. Hughes, Ph.D.*  
 UK Anaerobe Reference Unit, Cardiff, United Kingdom  
***Clostridioides difficile*: What Do We Know about this Pathogen in Brazil?**  
*Eliane O. Ferreira, Ph.D.*  
 Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil  
**New Insights into *Clostridium difficile* (CD) Infection in Latin America: Novel Description of Toxigenic Profiles of Diarrhea-Associated CD in Bogotá, Colombia**  
*Marina Muñoz, Ph.D.*  
 National University of Colombia, Bogotá, Columbia
- 1800 WINE & CHEESE RECEPTION

# The 14th Biennial Congress of the Anaerobe Society of the Americas

## Tropicana Hotel • Las Vegas, Nevada USA

### Wednesday, July 11

0700-0745 REGISTRATION / BREAKFAST / EXHIBITS

0745-0845 SESSION VIII: ORAL PRESENTATIONS II—  
SEQUENCING & PROBIOTICS

*Convener: Ernesto Abel-Santos, Ph.D.*

**Challenges of Next-Generation-Sequencing Targeting Anaerobes**

*Georg Conrads, Ph.D.*

Aachen University Hospital, Aachen, Germany

**Phylogenomic Analysis of *Fusobacterium Necrophorum* Based on Whole Genome Sequencing and Its Association with Disease and Host**

*Anders A. Jensen, Ph.D.*

Aarhus University, Aarhus, Denmark

**Lactobacillus Cocktails Modulate Monocyte Immune Responses to Pathogenic Vaginal Anaerobes**

*Hidemi Yamamoto*

Harvard Medical School, Cambridge, MA USA

***Clostridium difficile* Virulence Factors Impaired by BIO-K+ Probiotics**

*Sathursha Gunaratnam*

INRS-Institut Armand-Frappier, Laval, Canada

0845-0900 BREAK—INDUSTRY EXHIBITS OPEN

0900-1020 SESSION IX: THE ORAL MICROBIOME & HUMAN HEALTH

*Convener: Purnima Kumar, D.D.S.*

***P. gingivalis* as an Orchestrator of Dysbiosis in Periodontitis**

*George Hajishengallis, D.D.S., Ph.D.*

University of Pennsylvania, Philadelphia, PA USA

**Iron Utilization in Enhancing Virulence Potential of Oral Anaerobes**

*Janina Lewis, Ph.D.*

Virginia Commonwealth University, Richmond, VA USA

**SyngenicDNA: Making Every Bacterial Species Genetically Tractable**

*Christopher D. Johnston, Ph.D.*

The Forsyth Institute, Cambridge, MA USA

**Nitrosative Stress Sensing in *Porphyromonas gingivalis*:**

**Structure and Function of the Heme Binding**

**Transcriptional Regulator HCPR**

*Benjamin Ross Belvin*

Virginia Commonwealth University, Richmond, VA USA

1020-1045 BREAK—INDUSTRY EXHIBITS OPEN

1045-1200 SESSION X: FUSOBACTERIUM AND PATHOGENESIS

*Convener: Sarah Kuehne, Ph.D.*

**New Insights into Fusobacterium-Associated Colorectal Cancers**

*Susan Bullman, Ph.D.*

Dana-Farber Cancer Institute, Boston, MA USA

**Fusobacterium in the Oral Cavity and Its Signaling Potential**

*Sarah Kuehne, Ph.D.*

University of Birmingham, Birmingham, United Kingdom

**Oral Bacteria and CRC: What is Their Role?**

*Julia Drewes, Ph.D.*

The Johns Hopkins University, Baltimore, MD USA

***Fusobacterium nucleatum* and Adverse Pregnancy Outcomes**

*Yiping W. Han, Ph.D.*

Columbia University, New York, NY USA

1200-1300 LUNCH—INDUSTRY EXHIBITS

1300-1400 POSTER SESSION II—INDUSTRY EXHIBITS

1400-1520 SESSION XI: DOES THE HUMAN MICROBIOME IMPACT TREATMENT OF NON-INFECTIOUS DISEASE?

*Convener: Cynthia Sears, M.D.*

**The Gut Microbiome Affects the Uptake and Metabolism of Drugs**

*Jordan Bisanz, Ph.D.*

University of California, San Francisco, San Francisco, CA USA

**The Contribution of Oral Anaerobes to Hypertension: Is There NO Link?**

*Nathan S. Bryan, Ph.D.*

Baylor College of Medicine, Houston, TX

**Anaerobes and the Brain: The Role of Commensal Microbiota in Neurologic Disease**

*Laura M. Cox, Ph.D.*

Harvard University, Boston, MA

1520-1530 BREAK

1530-1630 SESSION XII: TAXONOMY CHANGES AND THE CLINICAL IMPLICATIONS

*Convener: Diane Citron*

**Winds of Change: Taxonomic Restructuring of the Clinically Important Clostrida**

*Paul A. Lawson, Ph.D.*

University of Oklahoma, Norman, OK USA

**Clinical Implications of Anaerobic Taxonomy Change**

*Karen Carroll, M.D.*

The Johns Hopkins University, Baltimore, MD

1630-1800 SESSION XIII: ORAL PRESENTATIONS III: *CLOSTRIDIODES (CLOSTRIDIUM) DIFFICILE* — LABORATORY RESEARCH

*Convener: Stuart Johnson, M.D.*

**Extracellular Vesicles Produced by *Clostridioides difficile***

*Leandro A. Lobo, Ph.D.*

Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

**Characterization of Germination Inhibitors Against *Clostridium difficile* R20291**

*Christopher Yip*

University of Nevada, Las Vegas, Las Vegas, NV USA

**Persistence of *Clostridium difficile* Spores in the Intestinal Epithelium and Its Role in Recurrent Disease**

*Daniel Paredes-Sabja, Ph.D.*

Universidad Andrés Bello, Santiago, Chile

**Microbiota of Mucosal Associated Invariant T Cell Deficient Mice Confer Resistance against *Clostridium difficile* Infection**

*Ashley D. Smith*

U.S. Food and Drug Administration, Silver Spring, MD USA

**IL-22 Prevents *Clostridium difficile* Infection Via Modulation of Microbial Metabolic Activities in the Gut**

*Nobuhiko Kamada, Ph.D.*

University of Michigan, Ann Arbor, MI USA

**Obesity-Associated Gut Microbiota Enhances *Clostridium difficile* Infection in Mice**

*Jose Shinsmon, Ph.D.*

University of Cincinnati, Cincinnati, OH USA

1900

RECEPTION / BANQUET / AWARDS  
HAVANA ROOM, TROPICANA HOTEL



# Program Information

## Thursday, July 12

0700-0800 REGISTRATION / BREAKFAST / EXHIBITS

0800-0900 SESSION XIV: ORAL PRESENTATIONS IV: *CLOSTRIDIODES (CLOSTRIDIUM) DIFFICILE*—CLINICAL TRIALS I

*Convener: Glenn Tillotson, Ph.D.*

Insights from Fidaxomicin, Bezlotoxumab and Surotomycin Clinical Trials: Looking Beyond the Primary Analyses

*Mary Beth Dorr, Ph.D.*

Merck & Co., North Wales, PA USA

SYN-004 (Ribaxamase) Prevents *Clostridium difficile* Infection and Antimicrobial Resistance

*John F. Kokai-Kun*

Synthetic Biologics, Inc., Rockville, MD USA

The Microbiota-based Drug RBX2660 is Efficacious and Safe in Patients with Recurrent *Clostridium difficile* Infections: Results from 2 Controlled Clinical Trials

*Dale Gerding, M.D.*

Hines, Jr. Veterans Affairs Hospital, Hines, IL USA

Misoprostol Protects Mice Against *Clostridium difficile* Infection and Accelerates Recovery of Gut Microbial Diversity After Antibiotics

*David M. Aronoff, Ph.D.*

Vanderbilt University, Nashville, TN USA

0900-0910 BREAK / INDUSTRY EXHIBITS OPEN

0910-1020 SESSION XV: THE “NON-DIFFICILE” CLOSTRIDIA: CURRENT CLINICAL & THERAPEUTIC LANDSCAPE

*Convener: Dennis Stevens, M.D.*

Enterotoxin-Producing *Clostridium perfringens* Type A: Molecular Mechanisms and Clinical Syndromes

*Bruce McClane, Ph.D.*

University of Pittsburgh, Pittsburgh, PA USA

Botulinum Neurotoxin-Encoding Plasmids Can Be Congugatively Transferred to Diverse Clostridial Strain

*Eric A. Johnson, Sc.D.*

University of Wisconsin, Madison, WI USA

The Identification and Characterization of a Novel Extracellular Metalloproteinase Produced by *Clostridium sordellii*

*Michael J. Aldape, Ph.D.*

Veterans Affairs Medical Center, Boise, ID USA

Clostridia, Preterm Neonates and Necrotizing Enterocolitis: New Data

*Julio Aires, Ph.D.*

Paris Descartes University, Paris, France

1020-1030 BREAK / INDUSTRY EXHIBITS OPEN

1030-1200 SESSION XVI: AN UPDATE ON *CLOSTRIDIUM DIFFICILE* PATHOGENESIS

*Convener: David Aronoff, M.D.*

An Update on the Mechanisms of Action of the Large *C. difficile* Toxins

*D. Borden Lacy, Ph.D.*

Vanderbilt University School of Medicine, Nashville, TN USA

Host Immune Defense to *C. difficile* Infection

*William A. Petri, Jr., M.D., Ph.D.*

University of Virginia, Charlottesville, VA USA

Control of *C. difficile* Sporulation and Germination

*Amee Shen, Ph.D.*

Tufts University School of Medicine, Boston, MA USA

Alterations in the Gut Metabolome and *Clostridium difficile* Transcriptome in a Mouse Model of Infection

*Josh R. Fletcher, Ph.D.*

North Carolina State University, Raleigh, NC USA

1200-1300 LUNCH—INDUSTRY EXHIBITS

1300-1400 POSTER SESSION II—INDUSTRY EXHIBITS

1400-1515 SESSION XVII: *CLOSTRIDIUM DIFFICILE*—EVOLVING MANAGEMENT

*Convener: Dale N. Gerding, M.D.*

New IDSA/SHEA Guidelines for CDI Diagnosis and Treatment

*Stuart Johnson, M.D.*

Loyola University, Maywood, IL USA

Fecal Microbiota Transplant and Derivatives for CDI

*Sabil Khanna, M.B.B.S., M.S.*

Mayo Clinic, Rochester, MN USA

Update on Newer Agents for CDI

*Dale Gerding, M.D.*

Hines, Jr. Veterans Affairs Hospital, Hines, IL USA

1515-1530 BREAK

1530-1645 SESSION XVIII: ORAL PRESENTATION V: *CLOSTRIDIUM DIFFICILE*—CLINICAL TRIALS II

*Convener: Vincent Young, M.D., Ph.D.*

Oral Beta-Lactamase Therapy Protects the Gut Microbiome From IV and Oral Antibiotics and Mitigates Propagation of Antibiotic Resistance

*Sheila Connelly, Ph.D.*

Synthetic Biologics, Rockville, MD USA

Developing Microbiome Rehabilitation Biomarkers for *Clostridium difficile* Infections: Continued Evaluation of a Prototype Microbiome Health Index

*Ken Blount, Ph.D.*

Rebiotix, Inc., Roseville, MN USA

Gastrointestinal Tract Microbiome Dynamics Following Treatment with SER-109; An Investigational Oral Microbiome Therapeutic to Reduce the Recurrence of *Clostridium difficile* Infection (CDI)

*Christopher B. Ford, Ph.D.*

Seres Therapeutics, Inc., Cambridge, MA USA

Ridimilazole (RDZ) for *Clostridium difficile* Infection (CDI)

*Richard J. Vickers, Ph.D.*

Summit Therapeutics, Abingdon, Oxfordshire, UK

How about Progress towards the Development of a Prophylactic *C. difficile* Vaccine

*Annaliesa Anderson, Ph.D.*

Pfizer, Inc., New York, NY USA

1645-1700 CLOSING COMMENTS

1700 CONGRESS CLOSE