



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
Christine G. Roques, Ph.D.
 Université Paul Sabatier, Toulouse, France

- 1200-1320 LUNCH / INDUSTRY EXHIBITS / STUDENT POSTERS
- 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

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

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 I / 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 USA

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

Laura M. Cox, Ph.D.

Harvard University, Boston, MA USA

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 Clostridia

Paul A. Lawson, Ph.D.

University of Oklahoma, Norman, OK USA

Clinical Implications of Anaerobic Taxonomy Change

Karen Carroll, M.D.

Johns Hopkins University, Baltimore, MD USA

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, Ph.D.

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

Shinsmon Jose, 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, Ph.D.

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, M.D.

Vanderbilt University, Nashville, TN USA

0900-0910 BREAK / INDUSTRY EXHIBITS

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

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

Amea 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

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

Richard J. Vickers, Ph.D.

Summit Therapeutics, Abingdon, Oxfordshire, United Kingdom

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 CLOSES