

PRE-CONGRESS INFORMATION PACKET

Anaerobe 2022
July 28-31, 2022

Photo: Joe Wolf

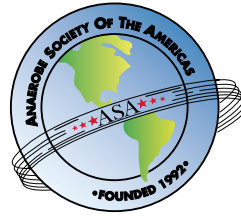
The 16th Biennial Congress of the Anaerobe Society of the Americas
Hyatt Regency, Seattle, WA USA

CONGRESS INFORMATION

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July 28-31, 2022



Microbiology
Educational
Services



COURSE DIRECTOR

David N. Fredricks, MD
ASA President
Fred Hutchinson Cancer Center
Seattle, WA USA

PATRONS & EXHIBITORS

Anaerobe Society of the Americas gratefully acknowledges the following organizations for their generous support of the 16th biennial Congress.

Support for this activity was received in the form of Educational Grants from:

- Burroughs Wellcome Fund
- European Society of Clinical Microbiology and Infectious Diseases
- National Institutes of Allergy and Infectious Diseases

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Exhibitors:

- Advanced Instruments
- Bio-K+
- Cerillo
- Microbiology International
- Qiagen
- Sheldon Manufacturing

Funding for this conference was made possible [in part] by 1 R13 AI169725-01 from the National Institute of Allergy and Infectious Diseases. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

The 16th Biennial Congress of the Anaerobe Society of the Americas

Hyatt Regency, Seattle, WA USA

I CONGRESS SITE

Hyatt Regency Hotel, 808 Howell St., Seattle, WA 98101
(206) 973-1234

Meeting Rooms are on Level 7

II AIRPORT TRANSPORTATION

LIGHT RAIL: The light rail train costs \$3.25 and makes the trip in about 40 minutes. The train departs from the 4th floor of the Airport Parking Garage to the Westlake station, about 5 blocks from the Hyatt. *Transit GO Ticket app.*

SHUTTLE: Premier Airport Shuttle may be booked on-line at premierairportshuttle.com/reservations/. Rates depend on number of passengers/stops. Shuttle is accessed on the 3rd floor of the Airport Parking Garage

TAXI: Taxicabs from/to SeaTac Airport are \$42-50 each way.

LYFT & UBER: Can be accessed on the 3rd floor of the Airport Parking Garage. Rates start from \$35, but may be much higher during surge peaks.

III CONGRESS SCHEDULE

See Schedule on Pages 6-9

A Continental Breakfast will be provided Friday-Sunday, 0700-0830. A Box Lunch will be provided on Saturday, 1205-1230. You are on your own for lunch on Friday and Sunday.

REGISTRATION:

Hyatt Regency Hotel, 7th Floor Meeting Lobby
Thursday July 28, 0800-1600

Friday, July 29-Sunday, July 31—opens 0700

To avoid long lines on Friday morning, we encourage you to register on Thursday, 1000-1530

PRE-CONGRESS WORKSHOPS

WORKSHOPS—Thursday July 28, 0900-1700

Poster Presentations:

SESSION I—Friday, July 29, 1230-1330

SESSION II—Sunday, July 31, 1315-1415

YOUNG INVESTIGATOR'S PRESENTATIONS:

Saturday, July 30, 1230-1330

Please see Page 5 for Poster Mounting instructions.

Discounted Poster Printing is available from **EZ Copy n' Print**. See ordering instructions on Page 5. Posters will be available to be picked up at the ASA Registration Desk.

IV SOCIAL EVENTS

PRE-CONGRESS SOCIAL: Thursday, July 28, 1800-1900. An opportunity to meet and mingle at a No-Host Social in the 7th Floor Meeting Foyer.

WINE & CHEESE RECEPTION: Friday, July 29, 1800-

1900 in the Exhibitor Hall. Each attendee will be provided one complimentary Drink Ticket.

CONGRESS BANQUET: Saturday, July 30 at the Olympic Sculpture Park Pavillion. Cocktails 1900, Dinner 2000. Tickets must be purchased before the Congress. No on-site tickets will be available. Transportation Details will be available at the ASA Registration Desk.

V E-MAIL/WiFi

WiFi is free in guest rooms. There is also free WiFi in public spaces.

VI WEATHER

Sunrise 5:45, Sunset 8:45.

Projected forecast for the Congress is: Daytime temps averaging around 78° F, 25° C; Nighttime: 65° F, 18° C. Chance of rain is 10%.

VII THE SETTING

ANAEROBE 2022 takes place at the Hyatt Regency Hotel in Seattle, WA. This newly-opened 4.5 star hotel provides an excellent venue for our academic and networking activities, and is walking distance to Seattle's most iconic attractions & experiences. Venture farther & immerse yourself in the Pacific Northwest's incredible landscapes. See Page 11.

For more information about Seattle, visit the web site: visitseattle.org

VIII DRESS

Appropriate dress will be casual for all meetings and events. Tropical Shirts are always encouraged.

IX CURRENCY EXCHANGE

There are currency exchange locations in the central terminal of SEA Airport.

Traveler Currency Services: 400 Pine Street in the Westlake Shopping Center.

X RESTAURANTS/SHOPPING

You can find a list of nearby restaurants on Page 10.

SEATTLE DINING SCENE: Seattle has a vibrant dining culture. There are many restaurants near the hotel and further afield. For lunch or a casual dinner, check out tripadvisor.com. For suggestions on fine dining establishments you can visit seattle.eater.com. Other great resources are opentable.com and seattlemet.com.

SHOPPING: Pacific Place (6th and Pine) is a small mall with high-end retail shops.

Westlake Center (4th & Pine) has Nordstrom Rack and Saks 5th Off outlet stores, a food court, and specialty shops.

A selection of trendy shops and boutiques is available at seattlemet.com/style-and-shopping/essential-seattle-shops

Pike Place Market is a great place to find souvenirs.

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LOCAL TRANSPORTATION

LR Link Light Rail—FARES: \$2.25-\$3.50

Sound Transit's Link light rail makes trips from Angle Lake Station to the Northgate through downtown Seattle making 16 stops along the way, Trains arrive every 8 to 15 minutes.

M Seattle Center Monorail—FARES: \$3.00 each way

The iconic Seattle Center Monorail travels between Westlake Center in downtown and Seattle Center at the base of Queen Anne hill. Trains depart every 10 minutes.

King County Metro Transit—FARES: \$2.75-\$3.25

Providing bus service in downtown Seattle and outlying neighborhoods in King county. Download the mobile app for on-the-go transit information, available for iPhone and Android. Timetables and route maps can be found at—tripplanner.kingcounty.gov/#/app/triplanning.

Seattle Streetcars— FARE: \$2.25

South Lake Union: South Lake Union neighborhood to Seattle's vibrant downtown core, consisting of 1.3 miles, nine stops, and full of shops and restaurants as well as Lake Union's 12-acre waterfront park.

First Hill: 10 stops stretching 2.5 miles, connecting to Link light rail at the Capitol Hill and International District stations, the Sounder Commuter Rail and Amtrak intercity rail at the King Street Station, and Metro Transit buses at several points.

The easiest way to pay fares is with an **ORCA** transit card (myorca.com) or by downloading the **Transit Go Ticket App** from the App Store.

Hyatt Regency Hotel

H 808 Howell St.
Seattle, WA 98101
(206) 973-1234

PARKING

Hotel Guest Self Parking \$43* per night for Overnight hotel guests; In & Out privileges included. Vehicle height limit in garage Levels P6 & P7 is 6' 7". Vehicle height limit in garage Levels P4 & P5 is 6' 9". Please contact hotel directly for oversized vehicle parking options. *Parking is subject to availability and pricing is subject to change.

Adjacent to the hotel is an uncovered daily parking lot that charges \$25/day, \$20/day if you park before 10am.

SEATTLE VISITOR CENTERS

1 Upper Pike Street Lobby of the Washington State Convention Center, at 7th Avenue & Pike Street. Summer Hours: Mon-Fri, 9am-4:30pm

1 Pike St. Market Information Center
Southwest Corner of First Avenue and Pike Street in Pike Place Market. Summer Hours: Daily, 10am-6pm

For more information visit the website: visitseattle.org

Seattle Metropolitan, or *Seattle Met*, is a monthly city magazine covering Seattle, with reporting and feature articles on Seattle events, politics, people, dining and restaurants, popular places, and attractions. Visit: seattlemet.com.

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SESSION PRESENTATIONS

Invited Presentations will be 20 minutes in length, including questions, unless otherwise instructed by the Session Chair.

Oral Presentations, selected from submitted abstracts, are 10 minutes, including time for questions. Time limits will be strictly enforced. We have a very busy program

Presenters are required to prepare presentations in Powerpoint. Let us know as soon as possible if you require any other presentation equipment, such as audio feeds.

Please e-mail your presentations to asa@anaerobe.org by July 20, 2022 for review. In addition, bring your presentation to the Congress on a Flash Memory drive. Please deliver your presentation to the Registration Desk, upon registration.

POSTER PRESENTATIONS

Posters are being divided into three presentation sessions.

Poster Session I: Posters should be mounted during the morning of Friday, July 29. Poster Presentations will take place from 1230-1330 on Friday. Posters need to be removed by the end of the Oral Sessions on Friday.

Young Investigator's Presentations: Participants in the Student Competition will prepare a poster and present their work to a panel of judges on Saturday, July 30. Posters should be mounted during the morning of Saturday, July 30. Students will meet with judges at 1205 for lunch (provided), and oral presentations in front of posters will begin at 1230. Presentations should be no more than five minutes, and judges will have five minutes for questions. Your Posters should be removed by the end of the Oral Sessions on Saturday.

Poster Session II: Posters should be mounted during the morning of Sunday, July 31. Poster Presentations will take place from 1315-1415 on Sunday. Posters need to be removed immediately after the Poster Session as the Poster boards will be taken down following the Poster Session.

Poster Session assignments were specified in your Acceptance Letter. Verify your assignment and location in the Abstract Book. Though your abstract will be in the Abstract book, handouts are encouraged.

Abstract Book—Online Only

The digital ASA 2022 Abstract Book will be available a week before the congress at www.anaerobe.org/2022/2022abbook.pdf.

MOUNTING POSTER PRESENTATIONS

Poster space is limited to a total of 8 feet (244 cm) horizontal and 4 feet (122 cm) vertical on poster boards provided. Please prepare your poster to fit within these specifications. Congress will supply push pins and number cards, identifying the posters to the abstract numbers in the Abstract Book.

POSTER PRINTING OPTION

EZ Copy n' Print/Seattle is offering poster printing services at a significant discount. We will pick up the printed posters and have them at the Registration Desk for you. Email print@ezcopy.net for ordering. The preferred format is a pdf file. Use promo code ANAEROBE in the subject line. If you have questions, call: EZ Copy n' Print (206) 632-2523 or email print@ezcopy.net.

Submit your posters to EZ Copy n' Print/Seattle by July 21 to ensure no problems. Posters will be at the Congress Office for pick up at registration. Let ASA know when you upload your poster by email at asa@anaerobe.org, so we can track posters. The cost for a 40" x 32" poster printed in color on 47# matte presentation paper (glossy paper is more) is \$31.74. Check with EZ Copy n' Print for your cost based on the size poster and quantity you are having printed.

HEALTH STATEMENT

The Anaerobe Society is continuing to monitor COVID health conditions (both in the City of Seattle and nationwide, from where attendees will be arriving) in the attempt to provide a healthy and safe environment for ANAEROBE 2022. We will follow state and local guidelines; currently, there is no indoor mask mandate. However, we encourage attendees to wear masks during the Congress when not giving a presentation, and we will ask participants to attest at registration that they are not experiencing symptoms of COVID, been diagnosed with COVID in the last 10 days, or are in quarantine.

Luckily, we will be conducting the Congress in one of the healthiest environments. The Hyatt Regency Seattle is the first and only LEED Gold-Certified hotel in Seattle, offering the highest indoor environmental quality. Dedicated ventilation air to each hotel room ensures good indoor air quality, and floor-by-floor systems allow for better air balance, providing 30% more fresh air ventilation than the minimum standard. The meeting rooms are on a dedicated floor of the hotel with plenty of space. Masks and alcohol hand gel will be available to attendees, and we are working on every level to optimize attendee safety. We also have plenty of space to spread out. We look forward to a successful in-person meeting in the beautiful Pacific Northwest!



Anaerobe 2022

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THURSDAY, JULY 28

0800-1600 REGISTRATION

0900-1700 ANAEROBIC IDENTIFICATION AND
Room 701 SUSCEPTIBILITY

Diane M. Citron
Mike Cox

1800

0900-1700 EXAMINING ANAEROBES IN THE MICROBIOME:
Room 702 METAGENOMIC AND CULTURE APPROACHES

Laura M. Cox, PhD

Anna Seekatz, PhD

Casey M. Theriot, PhD

PRECONGRESS WELCOMING MIXER

Catch up with long-time colleagues and meet new friends at a no-host mixer.

FRIDAY, JULY 29

0700-0820 REGISTRATION / BREAKFAST / EXHIBITS

0820-0830 WELCOME

Regency B *David N. Fredricks, MD*

0830-0930 SESSION I: KEYNOTE—GUT MICROBIAL

Regency B METABOLISM AND CARDIOVASCULAR DISEASE

Moderator: David N. Fredricks, MD

Stanley L. Hazen, MD, PhD

Cleveland Clinic, Cleveland, OH USA

0930-0945 BREAK / EXHIBITS

0945-1145 SESSION II: OUT OF THE BOX: IMPACT OF GUT
Regency B MICROBES ON NON-GI DISEASE

Moderator: Cynthia Sears, MD

The Microbiome and Cancer Immunotherapy

Fyza Shaikh, MD, PhD

John Hopkins University, Baltimore, MD USA

Spingholipids as Modulators of Microbiome Function

Elizabeth L. Johnson, PhD

Cornell University, Ithaca, NY USA

Specific Gut Bacteria Regulate Innate Immune
Functions in the Brain of Aged Mice Related to
Alzheimer's Disease

Caroline Wasén, PhD

Brigham and Women's Hospital, Harvard Medical
School, Boston, MA, USA

*Clostridium Perfringens Epsilon Toxin as a Possible
Environmental Cause of Multiple Sclerosis in Humans*

Jennifer Linden, PhD

Weil Cornell Medicine, New York, NY USA

0945-1045 SATELLITE SYMPOSIUM

Room 701 Introducing the Stratus, Your Solution to Anaerobic
Bacterial Growth Curves

Caerillo

1145-1330 LUNCH / EXHIBITS

1230-1330 POSTER SESSION I

1330-1515 CONCURRENT SESSIONS

1330-1515 SESSION III: FUSOBACTERIA

Regency B *Moderator: Yiping W. Han, PhD*

Mechanistic Insight of *Fusobacterium nucleatum* in
Colorectal Cancer

Yiping W. Han, PhD

Columbia University, New York, NY USA

Experimental Approaches to Identify Virulence
Determinants in *Fusobacterium nucleatum*

Hung Ton-That, PhD

University of California, Los Angeles, CA USA

*Fusobacteria-Dominant Colorectal Cancer Biofilms are
Associated with High Levels of the Polyamine N1,
N12-Diacetylspermine*

Julia Drewes, PhD

Johns Hopkins University, Baltimore, MD USA

Fusobacterium nucleatum Subspecies Differ in Biofilm
Forming Ability *in Vitro*

Maria Muchova, PhD

University of Birmingham, United Kingdom

1330-1515

Room 702

SESSION IV: METHODOLOGY & EPIDEMIOLOGY

Moderator: Karen Carroll, MD

Understanding the Roles of TcdE and TcdL in
Toxin Secretion

Shannon Kordus, PhD

Vanderbilt University, Nashville, TN USA

Identification of a Bile Acid-Binding Transcription
Regulator in *Clostridioides difficile* Using Chemical
Proteomics

Emily Forster

Tufts University, Boston, MA USA

Natural Mutation Identified in CdtR of Clinical
Clostridioides difficile Isolate Attenuates Virulence
in Mice

Qiwen Dong, PhD

University of Chicago, Chicago, IL USA

FliW and CsrA Govern Flagellin (FliC) Synthesis and
Play Pleiotropic Roles in Virulence and Physiology of
Clostridioides difficile R20291

Xingmin Sun, PhD

University of South Florida, Tampa, FL USA

Comparative Genomic Analysis of *Clostridioides dif-*
ficile Strain Restriction Endonuclease Analysis Group Y
across Four Decades

Andrew Skinner, MD

Loyola University, Maywood, IL USA

Anaerobic Microbiota Facilitate Pathogen Access
to the Airway Epithelium in a Novel Co-Culture
Model of Colonization

Ryan Hunter PhD

University of Minnesota, Minneapolis, MN USA

1515-1530 BREAK / EXHIBITS

1530-1730 CONCURRENT SESSIONS

1530-1730

Regency B

SESSION V: BUGS AS DRUGS: ENGINEERED
MICROBIAL COMMUNITIES & FECAL
MICROBIOTA TRANSPLANT

Moderator: Vincent Young, MD

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FRIDAY, JULY 29, CONTINUED

Current State of Knowledge: Fecal Microbiota Transplant for Fecal MDRO Colonization

Jennie H. Kwon, DO, MSCI

Washington University, St. Louis, MO USA

Consistent Microbiome and Bile Acid Restoration across Three Clinical Trials of RBX2660 for Recurrent *Clostridioides difficile* Infection: A Combined Analysis

Ken Blount, PhD

Rebiotix, Roseville, MN USA

Impact of SER-109: An Investigational Microbiome Therapeutic, on Stool Fatty Acid and Bile Acid Metabolites in a Phase 3 Randomized Trial (ECOSPOR III) for Treatment of Recurrent *Clostridioides difficile* Infection (rCDI)

Christopher Ford, PhD

Seres Therapeutics, Inc., Cambridge, MA USA

Efficacy and Safety of SER-109: An Investigational Microbiome Therapeutic for Treatment of Recurrent *Clostridioides difficile* Infection (rCDI): A Phase 3 Double-Blind, Randomized Trial (ECOSPOR III)

Thomas Louie, MD

University of Calgary, Calgary, AB Canada

1530-1730
Room 702

SESSION VI: THE ORAL MICROBIOME AND HUMAN HEALTH

Moderator: Jeff S. McLean, PhD

Precision-Guided Antimicrobial Therapy for Targeted Modulation of Human Microbiome

Wenyuan Shi, PhD

The Forsyth Institute, Boston, MA USA

Anaerobic *pas de deux*: Introducing *Parvoimonas micra* Genetics and Its Interspecies and Host Interactions

Justin L. Merritt, PhD

Oregon Health & Science University, Portland, OR USA

Experimental Gingivitis: Lessons Learned from Chemokine Multi-Plex and Bacterial Sequence Analysis

Richard P. Darveau, PhD

University of Washington, Seattle, WA USA

A Genomic Portrait Reveals the Genetic Plasticity and Evolutionary Adaptation of *Porphyromonas gingivalis*

Mohamed Abdelbary, PhD

Rheinisch-Westfälische Technische Hochschule University Hospital, Aachen, Germany

A Revised Taxonomy of the Genus *Treponema* Delineating Commensal and Pathogenic Organisms

Paul Lawson, PhD

University of Oklahoma, Norman, OK USA

1730
Regency B
1800
Regency A

ASA BUSINESS MEETING

WINE AND CHEESE NETWORKING RECEPTION

SATURDAY, JULY 30

0700-0800
0800-0945
Regency B

REGISTRATION / BREAKFAST / EXHIBITS

SESSION VII: FUNCTIONAL ROLES OF ANAEROBES IN THE GASTROINTESTINAL TRACT

Moderator: David N. Fredricks, MD

Glycan Scavenging by Human Gut Bacteria

Nicole M. Koropatkin, PhD

University of Michigan, Ann Arbor, MI USA

Microbial Bile Acid Conjugation as a New Mechanism of Host-Microbiome Crosstalk

Robert A. Quinn, PhD

Michigan State University, East Lansing, MI USA

Characterization of Rare Lachnospiraceae

Anna Seekatz, PhD

Clemson University, Clemson, SC USA

Diversity, Phylogeny, and Antimicrobial Nature of a Bile Acid Conjugation Within the Lachnospiraceae

Douglas Guzior

Michigan State University, East Lansing, MI USA

0945-1000
1000-1205
Regency B

BREAK / EXHIBITS

SESSION VIII: *CLOSTRIDIODES DIFFICILE*: MANAGEMENT UPDATE

Moderator: Vincent Young, MD

Diagnosis of *C. difficile* Infection: NAAT vs. Other Algorithms, Ultrasensitive Toxin Testing

Karen Carroll, MD

The Johns Hopkins University, Baltimore, MD USA

1205-1345
1230-1330
Room 701

LUNCH / EXHIBITS

SESSION IX: BREAKOUT LUNCH SESSION

Moderator: Yiping Han, PhD

Meet the Editors: Tips on Publishing in Peer-Reviewed Journals

Cynthia Sears, MD

1230-1330

YOUNG INVESTIGATOR'S PRESENTATIONS

Treatment and Prevention: IDSA/SHEA Guideline Update

Stuart Johnson, MD

Hines VA Medical Center, Hines, IL USA

Effect of the COVID-19 Pandemic on Rates of *Clostridioides difficile* Infection in One VA Hospital and Correlation with Rates in the National VA Healthcare System

Lorinda Wright, PhD

Edward Hines VA Hospital, Hines, IL USA

Update on Ibezapolstat Clinical Trial Development

Kevin Garey, PhD

University of Houston, Houston, TX USA

Impact of Misdiagnosis of *Clostridioides difficile* Infections (CDI) by Standard-of-Care Specimen Collection and Testing on Estimates of Hospitalized CDI Incidence Among Adults in Louisville, Kentucky, 2019-2020

Frederick J. Angulo, DVM, PhD

Pfizer, Collegeville, PA USA

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SATURDAY, JULY 30, CONTINUED

1345-1615 CONCURRENT SESSIONS

1345-1615 REGISTRY B SESSION X: BASIC SCIENCE OF *CLOSTRIDIROIDES DIFFICILE* INFECTION

Moderator: *Stuart Johnson, MD*

Phenotypic Heterogeneity in *Clostridioides difficile*

Rita Tamayo, PhD

University of North Carolina, Chapel Hill, NC USA

Immune-Microbiota Interactions in Defense Against *Clostridioides difficile*

Michael C. Abt, PhD

University of Pennsylvania, Philadelphia, PA USA

Impact of *C. difficile* Small Acid Soluble Proteins of Spore Physiology

Joseph A. Sorg, PhD

Texas A&M University, College Station, TX USA

Sneak Attacks: Host Defense Peptides Enhance Antibiotic Efficacy Against *C. difficile* Without Triggering Spore Formation

Erin Purcell, PhD

Old Dominion University, Norfolk, VA USA

Colonization of Hamsters with Nontoxicogenic *Clostridioides difficile* REA Type M3 (M3), Following Treatment with Fidaxomicin or Vancomycin.

Susan Sambol

Loyola University, Maywood, IL USA

Distinct Single-Cell Growth Dynamics of *Clostridioides difficile* Clade 5 Strains Revealed by Anaerobic Time-Lapse Microscopy

John Ribis, PhD

Tufts University, Boston, MA USA

1345-1615 ROOM 702 SESSION XI: OPTIMIZING ANAEROBIC CULTIVATION

Moderator: *Sujatha Srinivasan, PhD*

Revealing the Hidden Lifestyle of an Ultra-Small Saccharibacteria

Batbileg Bor, PhD

Forsyth Institute, Boston, MA USA

Human Microbiota Diversity through Culture Enriched Metagenomics

Michael G. Surette, PhD

McMaster University, Hamilton, Ontario Canada

Anaerobic Cultivation and Strain-Banking from the Human Gastrointestinal Tract

Ann Neville, PhD

Wellcome Sanger Institute, United Kingdom

Enhancing the Abundance of Understudied Fastidious Species Within Oral Microcosms

Madeline Krieger, PhD

Oregon Health and Science University, Portland, OR USA

Automated Analysis of Microbial Growth Reveals Phenotypic Diversity of *Clostridioides difficile*

Firas Midani, PhD

Baylor College of Medicine, Houston, TX USA

Pseudomonas aeruginosa Isolates from Chronic Rhinosinusitis Develop Increased Virulence Under Anaerobic Conditions

Do-Yeon Cho, MD

University of Alabama, Birmingham, AL USA

1615-1630 BREAK / EXHIBITS

1630-1730 CONCURRENT SESSIONS

1630-1730 REGISTRY B SESSION XII: *CLOSTRIDIROIDES DIFFICILE* HOT TOPICS

Moderator: *Daniel Paredes-Sabja, PhD*

Taurine Conjugated Bile Acids Ameliorate Apoptosis Caused by *Clostridioides difficile* Toxins

Casey M. Theriot, PhD

North Carolina State University, Raleigh, NC USA

Olfactomedin-4 Exacerbates *Clostridioides difficile* Infection-Induced Mortality in Mice

Shinsmon Jose, PhD

University of Cincinnati, Cincinnati, OH USA

Sex-Mediated Differences in Murine *Clostridioides difficile* Infection Outcome

Ernesto Abel-Santos, PhD

University of Nevada, Las Vegas, NV USA

The Difficile Genomics Sequencing and Typing Service

Trefor Morris, MSc

Anaerobe Reference Unit, Public Health, Wales United Kingdom

1630-1730 ROOM 702 SESSION XIII: GENETIC MANIPULATION OF ANAEROBES: STRATEGIES AND SUCCESSES

Moderator: *Sarah A. Kuehne, PhD*

In Pursuit of a *Fusobacterium* 'Pan-genetic' System

Daniel Slade, PhD

Virginia Tech, Blacksburg, VT USA

Systemic Design of Genetic Systems of for Non-Model Organisms to Advance Functional Interactions of the Human Microbiota

Christopher Johnston, PhD

Fred Hutchinson Cancer Center

Seattle, WA USA

1900

RECEPTION / BANQUET / AWARDS

PAVILION AT THE OLYMPIC SCULPTURE PARK



The 16th Biennial Congress of the Anaerobe Society of the Americas

Hyatt Regency, Seattle, WA USA

SUNDAY, JULY 31

0700-0800 REGISTRATION / BREAKFAST / EXHIBITS

0800-1000 REGISTRY B SESSION XIV: EMERGING ANAEROBES AND DISEASE ASSOCIATIONS

Moderator: Audrey N. Schuetz, MD

The *Veillonellaceae*: An Emerging Pathogenic Genus with Changing Susceptibility Patterns

Ellie J.C. Goldstein, MD

University of California, Los Angeles, CA USA

Novel Anaerobes in the Reproductive Tract

Sujatha Srinivasan, PhD

Fred Hutchinson Cancer Center, Seattle, WA USA

Mechanisms of Virulence and Protection in *Paenicostridium sordellii* Infection

Sarah Bernard, MS

Vanderbilt University, Nashville, TN USA

Sneathia vaginalis: An Emerging Pathogen of Pregnancy and Its Pore-Forming Toxin

Kimberly Jefferson, Ph.D.

Virginia Commonwealth University, Richmond, VA USA

Gardnerella Diversity and Ecology in Pregnancy and Preterm Birth

Hannah Berman

North Carolina State University, Raleigh, NC USA

Glycogen Break Down by Vaginal Bacteria

Elliot Lee, EdM

Fred Hutchinson Cancer Center, Seattle, WA USA

1000-1015 BREAK / EXHIBITS

1015-1215 CONCURRENT SESSIONS

1015-1215 REGISTRY B SESSION XV: ANAEROBES IN LOW BIOMASS ENVIRONMENTS

Moderator: David N. Fredricks, MD

Intro to the Challenge: The Placental Microbiome?

David N. Fredricks, MD

Fred Hutchinson Cancer Research Ctr., Seattle, WA USA

Fallopian Tube Microbiome Analysis: Potential Pitfalls

Bo Yu, MD, MS

Stanford University, Stanford, CA USA

Point-Counterpoint Debate: Anaerobes in the Lung: Cystic Fibrosis

—Anaerobes as Pathogens

Michael G. Surette, PhD

McMaster University, Hamilton, Ontario Canada

—Anaerobes as Commensals and Transients

Pradeep Singh, MD

University of Washington, Seattle, WA USA

—Panel Discussion

Mapping the Inratumoral Microbiota in Human Oral and Colorectal Cancers

Susan Bullman, PhD

Fred Hutchinson Cancer Research Ctr., Seattle, WA USA

1015-1215 ROOM 702 SESSION XVI: ONE HEALTH: ANAEROBES IN HUMANS, ANIMALS, AND THE ENVIRONMENT

Moderator: Francisco A. Uzal, DVM, PhD

New Insights into Sporulation and Enterotoxin Production by *Clostridium perfringens* Type F

Bruce A. McClane, PhD

University of Pittsburgh, Pittsburgh, PA USA

Genomic and Evolutionary Insights into *C. difficile*: The Quintessential One Health Pathogen

Daniel R. Knight, PhD

The University of Western Australia, Perth Australia

Microbiome Therapy in Companion Animals: Strategies for the Creation of Anaerobic Microbial Complexes

Niokhor Dione, PhD

Animal Microbiome Analytics, Oakland, CA USA

Evaluating the Role of Pore Formation in *Clostridium perfringens* Enterotoxin Permeability Effects

Archana Shrestha, PhD

University of Pittsburgh, Pittsburgh, PA USA

1215-1315 LUNCH / EXHIBITS

1315-1415 POSTER SESSION II

1415-1600 CONCURRENT SESSIONS

1415-1600 REGISTRY B SESSION XVII: CLINICAL INFECTIOUS DISEASE: ANAEROBE INFECTIONS

Sponsor: European Society of Clinical Microbiology and Infectious Diseases

Moderator: Vincent Young, MD

Increased Variety of Actinomyces Infections

Eija Könönen, DDS, PhD

University of Turku, Turku Finland

Diabetic Wound Infections

Elizabeth A. Grice, PhD

University of Pennsylvania, Philadelphia, PA USA

Real Time Surveillance of Antimicrobial Resistance in Anaerobic Bacteria

Trefor Morris, MSc

Anaerobe Reference Unit, Public Health, Wales UK

Eucast Breakpoints and Methods for Susceptibility Testing of Anaerobic Bacteria

Trefor Morris, MSc

Anaerobe Reference Unit, Public Health, Wales UK

1415-1600 ROOM 702 SESSION XVIII: MODEL SYSTEMS TO ELUCIDATE THE BIOLOGY OF ANAEROBES

Moderator: Aimee Shen, PhD

In Vitro Modeling of Anaerobic Communities

Jennifer M. Auchtung, PhD

University of Nebraska, Lincoln, NE USA

Determinants of Biofilm Formation in the Anaerobe Gut Symbiont *Bacteroides thetaiotaomicron*

Jean-Marc Ghigo, PhD

Institut Pasteur, Université de Paris, Paris France

Synbiotic Delivery of Human Microbiota and Paired Fiber Improves Post-Antibiotic Resilience in Mice in Sex-Dependent Ways

Steve Lindemann, PhD

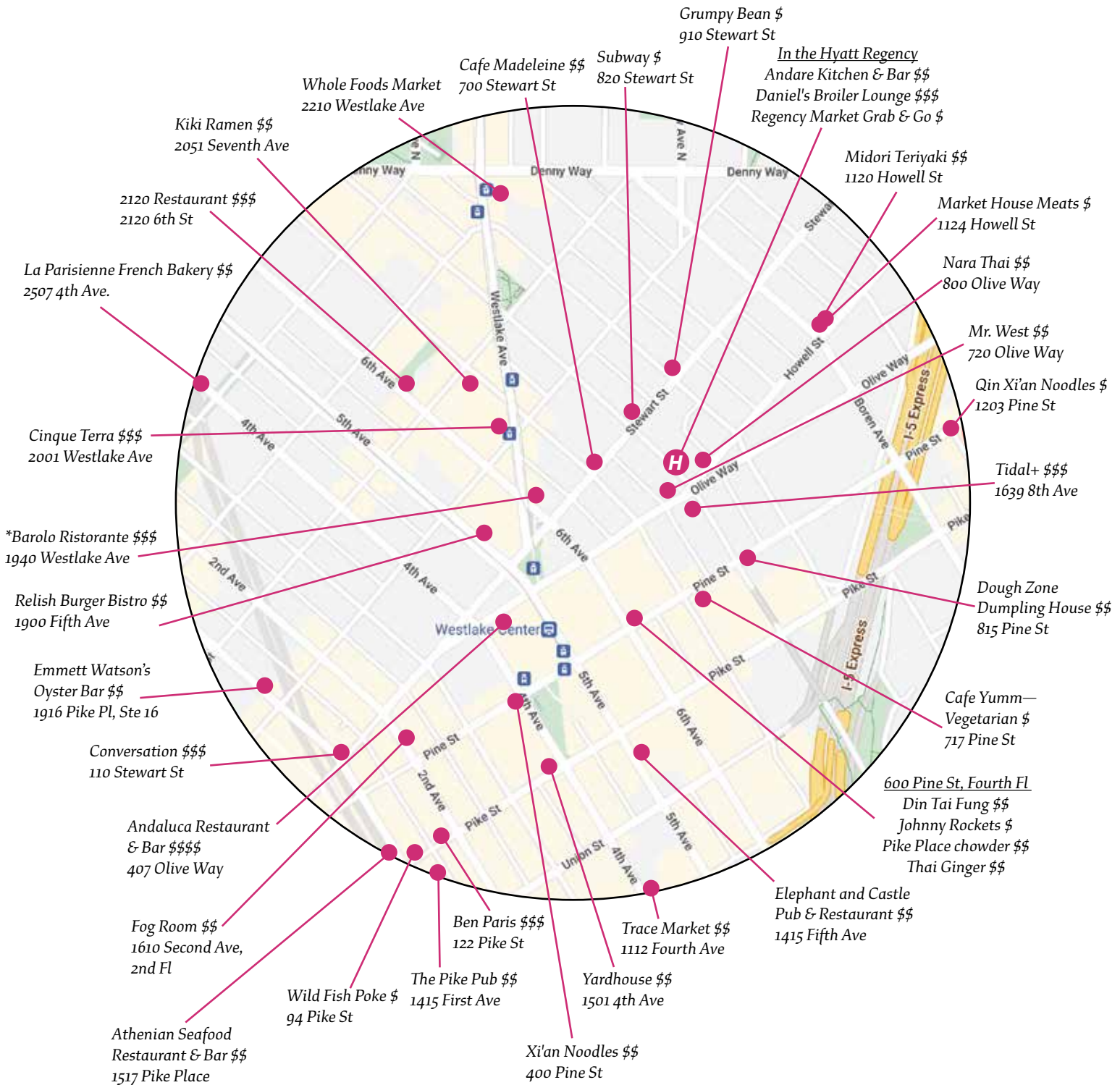
Purdue University, West Lafayette, IN USA

1600 CONGRESS ADJOURNS



Anaerobe 2022

July 28-31, 2022



Here are some dining spots within 1/2 mile or so of the hotel, including both fine dining and more casual fare. Please check restaurant websites for operating hours.

WHAT TO DO IN SEATTLE

Seattle is a dynamic, urban city surrounded by unmatched natural beauty. There are too many activities to list, but here are some highlights. For more ideas, stop by a Visitor Center or go to: visitseattle.org.

Bellevue Arts Museum Arts Fair—The largest, award-winning arts & crafts festival in the Northwest, July 29-31.

Boeing Aircraft Factory Tour—The world's largest building by volume, where 747s, 777s, and Dreamliners are being constructed. The Future of Flight Aviation Center consists of exhibits about airplane advancements, from jet fuel to in-flight entertainment systems.

Burke Museum of Natural History and Culture—Located on the University of Washington campus, it has a focus on dinosaurs, fossils, Northwest Native art, plant and animal collections, and cultural pieces from across the globe.

Chinatown-International District—A diverse neighborhood of Asian restaurants, shops, the Wing Luke Museum, and the Seattle Pinball Museum.

Fifth Avenue Theater—Presents the Broadway touring company of *Come from Away*, July 20-Aug. 7.

Frye Art Museum—Home to late 19th- and early 20th-century German art, as well as cutting-edge rotating exhibits.

MLB Baseball—Seattle Mariners hosts the Texas Rangers, July 25-27. Link to Discount Tickets on the Anaerobe Congress Website: www.anaerobe.org.

Day Tours—Several tour companies offer day trips to Mt. Rainier, the nearby active volcano, Snoqualmie Falls, and cruises of Puget Sound.

Pike Place Market—One of the oldest and largest public markets in the U.S., the landmark features eateries, specialty food shops, retail stores, craft market, farmer's market, and views of Elliott Bay.

Pioneer Square—Seattle's original downtown, full of beautiful old buildings in Romanesque Revival style, underground tours that take you beneath the streets to see the remains of the city's first buildings, and an ever-growing slate of hip shops and restaurants.

Seattle Center Monorail—Links Seattle Center—home of the Space Needle and several other notable attractions—to downtown's Westlake Center along an approximately one-mile route.

Seattle Great Wheel—One of the largest ferris wheels in North America at 175 feet tall, with 42 climate controlled gondolas.

South Lake Union—Offers a range of restaurants and shops, as well as rentals to paddle on the lake.

Space Needle—Built for the 1962 World's Fair, the 605-foot-tall Space Needle quickly became an icon of the city that today is recognized far and wide. From the observation level, you can view the entire region from Elliott Bay to the Cascade Mountains, and even Mount Rainier.

Starbucks Reserve Roastery & Tasting Room—A Willy Wonka-esque coffee wonderland, where you'll find exclusive beverages, various brewing methods, a coffee library, and more.

Washington State Ferries—The quintessential Pacific Northwest experience is a ride on one of 22 ferries across Puget Sound. Take a trip to visit one of the nearby islands.

Whale Watching—Its whale watching season, and several tour companies offer excursions.

Woodland Park Zoo—Home to a variety of plant and animal life, including tigers, komodo dragons, and orangutans. The *ZooTunes* music series features George Clinton & Parliament Funkadelic, July 28th, and The Roots, July 30.

MUSEUMS

Chihuly Garden and Glass—The most comprehensive collection of art by world-renowned glassblower Dale Chihuly. The pièce de résistance is the glasshouse, with a vibrant 100-foot-long sculpture in hues of red, orange, and yellow suspended from the ceiling.

Museum of Flight—One of the largest air and space collections in the U.S., with the likes of a Boeing lunar rover and Air Force One from the Eisenhower era to a NASA space shuttle trainer tour and flight simulators.

Museum of History & Industry—Features exhibits related to the history of the region. Among the current exhibitions are photographs by Ansel Adams.

Museum of Pop Culture (MoPOP)—Colorful exhibits cover everything from the history of indie video games and horror films to Nirvana, the Seahawks, and more.

Pacific Science Center—Brings science to life, with hundreds of hands-on exhibits, experiences, and enthusiastic science educators. Plus permanent science exhibits like a Tropical Butterfly House, a Planetarium, IMAX® theaters, and Laser Dome.

Olympic Sculpture Park—A 9-acre sculpture park on Seattle's waterfront featuring monumental artworks. The *Anaerobe 2022* Banquet will be held in the Pavilion.

Seattle Aquarium—The ninth largest aquarium in the U.S. offers hands-on marine experiences, focusing of life on Puget Sound

Seattle Art Museum (SAM)—As the Northwest's visual art center, the museum features artwork from traditional Native American art to the modern and contemporary. The lobby hosts a 40-foot large-scale sculpture, echoing the contours of a 140-year-old Western Hemlock tree. Currently on exhibit is *Japanese Design and Crafts*.

Seattle Asian Art Museum—The 1933 Art Deco building originally served as home to the Seattle Museum of Art, and now houses SAM's extensive Asian art collection.

MUSIC

Seattle is known for its club scene. Special events include One Nation Under a Groove Tour with George Clinton & Parliament Funkadelic, The Motet featuring former members of Turkuaz, Fishbone, and Pimps of Joytime at the Seattle Zoo, July 28.

CityPASS

The Seattle CityPASS offers savings of 46% for admissions to the Space Needle and Seattle Aquarium, plus the choice of three more from Argosy Cruises Harbor Tour, Chihuly Garden and Glass, Museum of Pop Culture (MoPOP), and Woodland Park Zoo. For info, visit the website: citypass.com/seattle-comparison/.

NATIONAL PARKS

Seattle is surrounded by the most amazing scenery, if you want to explore further afield.

Mount Rainier National Park, just 2 hours from Seattle has 236,381 un-spoiled acres. It was established in 1899, 17 years before the National Park Service was formed, making it one of the oldest in the nation. For more: nps.gov/mora; visitrainier.com.

Olympic National Park, 2 1/2 hours from Seattle. Named for Mount Olympus, deemed fit to be the home of gods, Olympic National Park seems a likely spot for deities to settle. It has luminous peaks, lush rain forests, and a stretch of wild beaches, all contained on a peninsula across the water from Seattle. For more: nps.gov/olymp; olympicnationalparks.com

Cascades National Park, 2 1/2 hours from Seattle is wilder, larger, and more remote than its two Washington cousins. North Cascades National Park is still a stone's throw from the state's urban center. For more: nps.gov/noca.