

Program2024 Spring Meeting

March 21 – 23, 2024 Mt. Lebanon Camps Cedar Hill, TX



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Opening Keynote

Kevin Forsberg

Assistant Professor Department of Microbiology UT Southwestern Medical Center

Kevin Forsberg, PhD, grew up outside of Madison, Wisconsin and, like any good Wisconsinite, eats way too much cheese (among other things).

Kevin attended college at Arizona State University, during which time he studied copy number variation in autism spectrum disorders. After graduation, Kevin did his PhD work in the lab of Gautam Dantas at Washington University in St. Louis, researching antibiotic resistance genes in soil microbial communities.



For his postdoc, Kevin joined the lab of Harmit Malik at the Fred Hutchinson Cancer Center to study phage-bacterial conflicts. There, Kevin developed a functional selection to find Cas9 inhibitors from large DNA libraries (e.g. metagenomic libraries). Applied to human oral and fecal microbiomes, this selection revealed many new examples of phage counter-defenses, including CRISPR-Cas inhibitors with new mechanisms. Kevin's current lab continues to use functional selections to reveal new bacterial defenses and phage counter-defenses, which they pursue in mechanistic detail.

Eugene and Milicent Goldschmidt Lecturer

ASM Distinguished Lecturer

Brenda Anne Wilson

Professor of Microbiology, SMCB, College of LAS Associate Director of Undergraduate Education, SMCB, College of LAS Professor of Pathobiology, College of Vet Med Professor of Biomedical & Translational Sciences, Carle Illinois College of Med Sandia Senior Faculty Fellow, OVCRI



Brenda Anne Wilson, PhD, is currently Professor of Microbiology and Associate Director of Undergraduate Education in the School of Molecular & Cellular Biology, College of Liberal Arts and Sciences; Inaugural Professor of Biomedical and Translational Sciences in the Carle Illinois College of Medicine; Professor of Pathobiology in the College of Veterinary Medicine; and Senior Faculty Fellow in the Office of the Vice Chancellor for Research and Innovation at the University of Illinois at Urbana-Champaign. She is a Fellow of the American Academy of Microbiology (AAM) and a member of the AAM Selection Committee, and an American Society for Microbiology (ASM) Distinguished Lecturer. She earned her BA degree in biochemistry and German from Barnard

College. She was a DAAD graduate Fellow in biochemistry at Ludwig-Maximilians Universität München, Germany. As an AAUW doctoral fellow studying antibiotic biosynthesis, she earned her PhD degree in chemistry from Johns Hopkins University. She then undertook her NIH postdoctoral fellowship training in microbiology at Harvard Medical School, where she began her studies on bacterial protein toxins. Her first tenured faculty appointment was in Biochemistry at Wright State University School of Medicine. Her current research work focuses on the host-microbe interface, bacterial pathogenesis and structure-function of bacterial protein toxins, development of anti-toxin and toxin-based therapeutic biologics, comparative and functional genomic technologies and applications involving microbiomes and their roles in health and disease, climate change impacts on health and microbiomes, and development of technologies and applications for detection and risk assessment of Dual Use Research of Concern (DURC) objects, publications, and activities.

Eugene and Milicent Goldschmidt Graduate Student Awardee Kathryn E. Appler

Kathryn Appler is a Ph.D. candidate in the Baker Marine Microbial Ecology Lab at the University of Texas at Austin Marine Science Institute. Her fascination with metagenomics and microbial ecology stems from her undergraduate research in biofilm architecture at Coe College and clinical microbial experience as a research technician in the COHO Lab at the Alaska SeaLife Center. Currently, she is utilizing metagenomics techniques to describe the diversity in deep-sea hydrothermally-active sediments, focusing on unraveling the evolutionary and environmental roles of Asgard archaea, the closest known group to the archaeal host involved in the origin of eukaryotes.



2023 Peggy Cotter Awardee Speaker Jesús Romo

Dr. Jesús Antonio Romo is an Assistant Professor in the Department of Molecular Microbiology and Immunology at The University of Texas at San Antonio (UTSA) and part of the South Texas Center for Emerging Infectious Diseases (STCEID). His research focuses on characterizing the contributions of fungal colonizers of the gastrointestinal tract during bacterial infections. Additional areas of interest include medical mycology, polymicrobial biofilms, the mycobiome, and drug discovery and development. Previously, he was an NIH IRACDA postdoctoral fellow in the Department of Molecular Biology and Microbiology at Tufts University School of Medicine in the laboratory of Dr. Carol A. Kumamoto where he began investigating the effect of



fungal colonizers of the gastrointestinal tract during infection by the bacterial pathogen *Clostridioides difficile* using in vitro, murine, and cell culture models. Dr. Romo received his Ph.D. in Cell and Molecular Biology from UTSA under the guidance of Dr. Jose L. Lopez-Ribot studying the fungal pathobiont *Candida albicans* and its ability to form biofilms. Dr. Romo's passions include research, teaching, outreach, and science communication. He has also dedicated his entire career to supporting scientists from historically marginalized communities in and out of the laboratory.

Meeting Sponsors







Special Acknowledgements

Judging Chair: Heidi Kaplan, UTHealth McGovern Medical School JMBE Working Group Leaders: Lee Hughes, University of North Texas, and

Dustin Edwards, Tarleton State University

Graduate School Application Workshop Leader(s): Drew Stenesen, University of

Dallas, Ana Henriquez, University of Dallas

Meeting Organizers: William Cody, University of Dallas

Dustin Edwards, Tarleton State University

Jennifer Hennigan, Abilene Christian University



No parking permit required. Most parking is near the motel (blue star).

Check in is at the Texas Hall (purple star).

Wifi Network Information:

Texas Hall

Password: trustinhim

Motel

No password required

Lodges No wifi available

Texas Branch ASM Spring Meeting 2024

Thursday, March 21st

4:00 PM-5:30 PM Texas Hall

Registration

5:30 PM Dining Hall

Dinner (arrival time must be between 5:30-6:00p)

> Welcome and Opening Remarks Jennifer Hennigan and William Cody

7:15 PM -8:15 PM Opening Keynote: Genes unseen: The hidden world

of phage-bacterial conflicts

Kevin Forsberg - UT Southwestern

8:30 PM-9:30 PM Maple Lodge Meeting Room

Texas ASM Business Meeting

Texas Hall

TX ASM student trivia game night sponsored by University of Dallas ASM

Friday, March 22nd

8:00 AM Dining Hall

Breakfast (arrival must be between 8:00-8:30 AM)

9:00 AM -10:15 AM *Texas Hall*

Undergraduate Student Oral Presentations (in competition for Orville Wyss award)

10:15 AM- 10:30 AM BREAK

10:30 AM- 11:45 AM Graduate Student Oral Presentations

(in competition for Charlie Gauntt award)

12:00 PM Dining Hall

Lunch (arrival must be between 12-12:30 pm)

1:30 PM - 2:00PM Career Session: Anne Devlin, BCG Consulting

2:00 PM- 2:30 PM Eugene and Milicent Goldschmidt Graduate Student

Award: Revealing the mysteries of eukaryogenesis using clues from a novel branch on the tree of life

Kathryn E Appler, UT Austin, UTMSI

2:30 PM-3:00 PM	Peggy Cotter Awardee Session: Characterizing the impact of Nakaseomyces glabrata gastrointestinal colonization during Clostridioides difficile infection Jesús Romo, UTSA- South Texas Center of Emerging Infectious Diseases
3:00 PM - 4:00 PM	BREAK
4:00 PM - 6:00 PM	Student Poster Presentations and Judging
6:00 PM	Dining Hall Dinner (must arrive between 6:00-7:00 PM)
7:30 PM - 8:30 PM	Eugene and Milicent Goldschmidt Lecture: <i>Toxins</i> , <i>Toxins</i> , <i>Everywhere: Turning Foe into Friend</i> Brenda Anne Wilson - University of Illinois at Urbana-Champaign
	ASM Distinguished Lecturer
8:30 PM - 8:45 PM	Awards Presentation Closing Remarks and Announcements
8:45 PM - 10:00 PM	Ice Cream Social sponsored by UT Health
	Book signing with Dr. Brenda Anne Wilson
Saturday, March 23rd 7:30 AM	Dining Hall Breakfast (must arrive between 7:30-8:30 AM)
9:00 AM	JMBE Working Group Session Lee Hughes, University of North Texas Dustin Edwards, Tarleton State University
	Graduate School Application Workshop Drew Stenesen, University of Dallas Ana Henriquez, University of Dallas
11:30 AM	Check-out with ASM Organizers Texas Hall

See you at the 2024 Fall Meeting!