

# Program

## Fall Program Texas Branch ASM

### Thursday November 4

#### Opening Session

7:00 – 7:15 pm (Central) – Welcome statements and guidance for virtual sessions

Join Zoom Meeting

<https://txstate.zoom.us/j/93052773716?pwd=cFJ5dm9zWU4yTDIzV2crUkYvTHA0Zz09>

Meeting ID: 930 5277 3716

Passcode: 228564



7:15pm – **Keynote Presentation – Dr. Esther Babady** – Director of the Clinical Microbiology Service, Memorial Sloan-Kettering Cancer

**COVID-19 Testing: Innovation in the Midst of a Pandemic**

Following Dr. Babady’s presentation, there will be a business meeting for the Texas ASM leadership

### Friday November 5

**8:30 – 10:30 am Concurrent faculty sessions:** 1A – New Frontiers in Microbiology (featuring new microbiology faculty in Texas); 1B – Medical Microbiology

**1A – New Frontiers in Microbiology session host: Bob McLean, Texas State University**

Join Zoom Meeting

<https://txstate.zoom.us/j/93707171556?pwd=NXBBa3NicWNPaHMzajNKUTRwcHFodz09>

Meeting ID: 937 0717 1556

Passcode: 946092

8:30 – 9:00am – **Nicholas Dillon**, UT-Dallas “Bicarbonate modulates antibiotic activities”

9:00 – 9:30am – **David Smyth**, Texas A&M San Antonio “Moving beyond SARS-CoV-2 surveillance: How can Next-Gen Sequencing support wastewater-based epidemiology?”

9:30 – 10:00am – **Elizabeth Skellam**, University of North Texas “Fantastic fungi, complex chemistry, and exciting enzymes”

### **1B – Infectious Diseases session - session host: Manish Kumar, Texas State University)**

Join Zoom Meeting

<https://txstate.zoom.us/j/97177250117?pwd=Znh6OWloZUVJZ2Jjc1dCSnJCek1udz09>

Meeting ID: 971 7725 0117

Passcode: 003327

8:30 – 9:00am – **Julian Hurdle**, Texas A&M University Houston “Mechanisms and impact of antibiotic resistance in *Clostridioides difficile*”

9:00 – 9:30am – **Jennifer K Spinler**, Baylor College of Medicine “Whole genome sequencing of SARS-CoV-2 viral genome variants in the pediatric population”

9:30 – 10:00am – **Jayhun Lee**, UT-Health Houston “The esophageal gland mediates host immune evasion by the human parasite *Schistosoma mansoni*”

10:00 – 10:30am – **David Greenberg**, UT Southwestern “Developing *Pseudomonas*-Specific Antibiotics Utilizing Antisense”

10:30-10:45 am Break

10:45-12:15 pm Student Presentations (will have three concurrent sessions)

### **2A – Graduate Student – Medical Microbiology session host: Dustin Edwards, Tarleton State University**

Join zoom meeting:

<https://tarleton.zoom.us/j/93681695806?pwd=YjdVOHZkWkFhelh5M0dKbVBiSjB5UT09>

Password: TXASM

10:45-11:00am **Ileana Corsi**, UT-Health-Houston “AtxA-Controlled Small RNAs of *Bacillus anthracis* Virulence Plasmid pXO1 Regulate Gene Expression in trans”

11:00-11:15am **James McLellan**, UT-San Antonio “Single-cell quantitative bioimaging of *P. berghei* liver stage translation”

11:15-11:30am **Donghoon (Alex) Kang**, Rice University “5-Fluorocytosine Synergizes with Gallium Nitrate to Inhibit *Pseudomonas aeruginosa*”

11:30-11:45am **Jordan Wolfkill**, UT-Rio Grande Valley “Expression of cold shock transcriptional regulator CaspA and the putative virulence-associated protein

VacB/RNaseR restores growth at low temperature in pandemic O3:K6 serotype *Vibrio parahaemolyticus*"

11:45-12:00pm **Megan Burch**, Sam Houston State University "Development of a SYBR Green-Based RT-qPCR for the Detection and Quantification of Lone Star Virus"

12:00-12:15pm **Chahat Upreti**, UT-Dallas "The clinic vs the farm: exploring differences in genomic attributes of *Enterococcus faecalis* sourced from human and animal niches"

## **2B Graduate Student – General Microbiology session host: Kavita Kakirde, Texas State University**

<https://txstate.zoom.us/j/93759055282?pwd=cXhZaFIXT1FIU3dCMUV0cGg0anh1QT09>

Meeting ID: 937 5905 5282

Passcode: Microbe

10:45-11:00am **Trusha Parekh**, UT-Dallas "New insights into the regulation of methylotrophic metabolism in *Paracoccus denitrificans*"

11:00-11:15am **Samuel Tye**, Texas State "Impact of Captivity on the Microbiome of the endangered Comal Springs Riffle Beetle, *Heterelmis comalensis*"

11:15-11:30am **Caroline Black**, Texas Tech "Polymicrobial Communities in Chronic Wounds Impact Antibiotic Susceptibilities"

11:30-11:45am **Feroz Ahmed**, UT-Arlington "Characterizing a role for outer membrane lipoproteins in remodeling the cell envelope of *Acinetobacter baumannii*"

11:45-12:00pm **Paxton Bachand**, Texas A&M-Corpus Christi "Analysis of a Brown Tide Harmful Algal Bloom Microbiome"

12:00-12:15pm **Meaghan Rose**, UT-Arlington "Characterization of a *Bacillus megaterium* strain isolated from *Aeschynomene indica* stem nodules: Nod-factor independent nodulation"

## **2C Undergraduate Students – session host: Davida Smyth, Texas A&M-San Antonio**

Join Zoom Meeting

<https://NewSchool.zoom.us/j/97064011065?pwd=N0xMM29EYzMxaklvMWI5ZngrdU9WUT09>

Password: 388732

10:45-11:00am **Tony Jha**, Sam Houston State University and Cal Berkeley, "Prediction of Bacterial sRNAs using Sequence-Derived Features and Machine Learning"

11:00-11:15am **Filemon Tan**, Rice University "Competitive Interactions between oprD-mutant and Wild-type *P. aeruginosa*"

11:15-11:30am **Christian Miller**, Sam Houston State University “Inhibition of autophagy in human microvascular endothelial cells during Colorado tick fever virus infection”

11:30-11:45am **Sadie Ruesewald**, UT-Arlington “The effect of a drought-tolerant *Bradyrhizobium* bio-fertilizer on soybean growth in a temperature gradient greenhouse”

11:45-12:00pm **Saoirse Disney-McKeethen**, Rice University “Evolution of *P. aeruginosa* to colistin in a microfluidic emulsion reveals distinct evolutionary trajectories from those observed in traditional batch environments”

12:00-12:15pm **Taylor M Ranson**, Texas State “The Effects of *Escherichia coli* central metabolism mutants on planktonic growth and biofilm formation”

12:15-1:00 pm Lunch break

## **1:00-2:50 pm Poster presentations**

Padlet links are below, and you can click on links to see the poster, get a brief (~1 minute) introduction of the poster by the author, and also there will be a zoom link where you can meet with the presenter and ask questions. While the posters can be seen throughout the conference, the authors will only be in attendance virtually during the times listed below)

**1:00-1:50 pm – Graduate Posters** (graduate student authors will be available for virtual meeting) <https://padlet.com/mclean6/v4irjde3tgb4vulc>

## **2:00-2:50 pm – Undergraduate Posters, and Posters by Faculty or Other Professionals**

Undergraduate Posters [https://padlet.com/m\\_k135/cz0r734q4cqt3b6z](https://padlet.com/m_k135/cz0r734q4cqt3b6z)

Posters by Faculty and Other Professionals [https://padlet.com/m\\_k135/gca70qjgnzu65rgf](https://padlet.com/m_k135/gca70qjgnzu65rgf)

**3:00-5:00 pm Afternoon sessions** (3A – postdoctoral presentations; 3B – bacteriophage presentations)

## **3A – Postdoctoral Presentations – session host: Nicholas Dillon, UT-Dallas**

Join Zoom Meeting

<https://txstate.zoom.us/j/97700644913?pwd=aS9MTm5SM3FtSDBPdWRSbnlxUGZCQT09>

Meeting ID: 977 0064 4913

3:00-3:20pm **Renee Fleeman** – UT Austin “Refining our understanding of antimicrobial peptide mediated disruption of the *Klebsiella pneumoniae* capsule”

3:20-3:40pm **Kristen Engevik** – Baylor College of Medicine “Rotavirus infection causes specific changes in the intestinal microbiome”

3:40-4:00pm **Starla Thornhill** – Texas State University and Texas A&M San Antonio “Bacterial adhesion and corrosion in space flight”

4:00-4:20pm **Firas Midani** – Baylor College of Medicine “Automated analysis of microbial growth reveals phenotypic diversity of *Clostridioides difficile*”

4:20-4:40pm **Yahan Wei** – UT Dallas “Utilization of the host-derived metabolite glycerophosphocholine for phosphatidylcholine biosynthesis in mitis group streptococci”

4:40-5:00pm **Chetanchandra Joshi** – Baylor College of Medicine “The NRF2/Keap1/p62 Pathway Governs the Host Response to Urinary Tract infections”

### **3B – Bacteriophage structure and function – session host: Heidi Kaplan, UT-Health Houston**

**Join from the meeting link**

<https://uthealth.webex.com/uthealth/j.php?MTID=ma13e84e3723142a81e1b6fa3f8f6b439>

3:00-3:30pm **Sabrina Green**, Baylor College of Medicine “TAIL $\theta$ Ring phage for the gut and beyond”

3:30-4:00pm **Petr Leimen**, University of Texas Medical Branch “Structural basis of template strand deoxyuridine promoter recognition by a viral RNA polymerase”

4:00-4:30pm **Lanying Zeng**, Texas A&M College Station “Single-cell studies of phage infection dynamics”

4:30-5:00pm **Junjie Zhang**, Texas A&M College Station “Single-stranded RNA phages: from bacterial lysis to virulence reduction”

### **5:00-6:00 pm Goldschmidt Awardee sessions – session host: Bob McLean, Texas State**

Join Zoom Meeting

<https://txstate.zoom.us/j/91468518474?pwd=aWQ1V25oUzJlZXJ3OUhYWU1SaS9pQT09>

Meeting ID: 914 6851 8474

Passcode: 773137

5:00-5:30 **Lauren Howe-Kerr**, Rice University “Dynamics of symbiont-infecting dinoRNAVs across a reef-wide thermal stress event”

5:30-6:00 **Kathryn L Campbell**, Texas A&M-Galveston “Lifestyles and Metabolic Contributions Of Viruses In The Various Environments Of A Hydrothermal System”

6:00-7:00 pm Dinner break

**7:00-8:00 pm Keynote Presentation (host Madhu Choudhary, past-President, Texas ASM Branch, Sam Houston State University)**

Join Zoom Meeting

<https://shsu.zoom.us/j/4127520698>

Meeting ID: 412 752 0698



**Keynote Presentation – Dr. Peter Christie, McGovern Medical School, UT-Health, Houston** “Mechanistic and structural advances in our understanding of bacterial conjugation”

**8:00-8:30 pm Announcement of Student and Postdoctoral Awards, Closing ceremony**