



## Virtual Symposium on ESKAPE Pathogens

February 3-4, 2025 | Online | Eastern Time (USA)

### Scientific Program

#### Monday, Feb 3<sup>rd</sup>, 2025

08:50-08:55 Zoom Joining and AV Check

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08:55-09:00 Welcome and Introduction to ESKAPE-2025

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#### Session I

**Session Chair: Dane Parker**, Rutgers New Jersey Medical School, NJ, United States

09:00-09:25 **Karen Moreau**, University of Lyon, France  
*The role of RNA in the regulation of virulence in *Staphylococcus aureus**

09:25-09:50 **Rachel Contarin**, ANSES, Université de Lyon, France  
*Mobile genetic elements in *Staphylococcus aureus*, vectors of antibiotic resistance*

09:50-10:15 **Dane Parker**, Rutgers New Jersey Medical School, NJ, United States  
*Metabolic control of antimicrobial resistance in *Staphylococcus aureus**

10:15-10:40 **Jeffrey L. Bose**, University of Kansas, KS, United States  
*Fatty acids in *Staphylococcus aureus*: Beyond membrane building blocks*

10:40-11:05 **Chia Lee**, University of Arkansas for Medical Sciences, AK, United States  
*Modulation of Agr regulatory function by ClpC chaperone in *Staphylococcus aureus**

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11:05-11:25 **Break**

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#### Session II

**Session Chair: Silva Holtfreter**, University Medicine Greifswald, Germany

11:25-11:50 **Rebecca Pospich**, Hannover Medical School, Germany  
*Adaptive T cell responses to *Staphylococcus aureus* and its virulence factors in atopic dermatitis*

- 11:50-12:15** **Jonathan Batchelder**, University of Connecticut, CT, United States  
The effects of metabolism and oxidative stress on *Staphylococcus aureus* fluoroquinolone Survival
- 12:15-12:40** **Josefien Hommes**, University of Calgary, Canada  
Vectored immunoprophylaxis of MEDI4893 protects against *Staphylococcus aureus*  $\alpha$ -Toxin
- 12:40-13:05** **Jennifer Walker**, The University of Texas, TX, United States  
Investigating *Staphylococcus aureus* recalcitrance to prophylactic antibiotic treatment Strategies

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**13:05-13:25** **Break**

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### Session III

**Session Chair: D. Ashley Robinson**, University of Mississippi Medical Center, MS, United States

- 13:25-13:50** **D. Ashley Robinson**, University of Mississippi Medical Center, MS, United States  
Genome evolution of MRSA during geographic dispersal
- 13:50-14:15** **Silva Holtfreter**, University Medicine Greifswald, Germany  
Finding the perfect match: Improving murine colonization and infection models by using mouse-adapted *Staphylococcus aureus* strains
- 14:15-14:40** **Shaun Brinsmade**, Georgetown University, Washington, DC, United States  
Roles for de novo and salvaging pathways in staphylococcal membrane biogenesis during polymicrobial infection
- 14:40-15:05** **Sonia Jain**, Shri Ramkrishna Institute of Medical Sciences, West Bengal, India  
Elucidating the Role of Toxin Antitoxin System in ESKAPE pathogen by CRISPR Cas System

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**15:05** **Day 1 Closing Remarks**

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**Tuesday, Feb 4<sup>th</sup>, 2025**

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**08:50-09:00 Zoom Joining and Day 2 Opening Remarks**

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## **Session IV**

**Session Chair: Ana Eulalio**, Imperial College London, United Kingdom

- 09:00-09:25** **Barbara M. Bröker**, University Medicine Greifswald, Germany  
*Secreted proteases – Staphylococcus aureus' swiss army knife*
- 09:25-09:50** **Rebecca Corrigan**, University College Dublin, Ireland  
*Signalling nucleotides: crucial pathways for Staphylococcus aureus infection*
- 09:50-10:15** **Lindsey "Les" Shaw**, University of South Florida, FL, United States  
*The post-translational regulation of infection in Staphylococcus aureus*
- 10:15-10:40** **Stephen Tufts**, University of Victoria, Victoria BC, Canada  
*Staphylococcal superantigen driven persistence during blood stream infections*

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**10:40-11:00 Break**

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## **Session V**

**Session Chair: Stephen Tufts**, University of Victoria, Victoria BC, Canada

- 11:00-11:25** **Jamie K Hobbs**, The University of Sheffield, United Kingdom  
*Using atomic force microscopy to probe the cell wall of S. aureus and its role in life, death, and antimicrobial resistance*
- 11:25-11:50** **Ana Eulalio**, Imperial College London, United Kingdom  
*Dissecting Staphylococcus aureus intracellular lifestyle by microscopy-based phenotypic Screenings*
- 11:50-12:15** **Mariya Goncheva**, University of Victoria, Canada  
*Beyond the single species – understanding how Staphylococcus aureus complicates respiratory viral infections*
- 12:15-12:40** **Pu-Ting Dong**, The Forsyth Institute, Cambridge, MA, United States  
*Probing life with photons: How optical imaging uncovers the hidden signature of biological systems*

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**12:40-13:00 Break**

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## **Session VI**

**Session Chair: Ana Lidia Flores Mireles**, University of Notre Dame, IN, United States

- 13:00-13:25** **Ana Lidia Flores Mireles**, University of Notre Dame, IN, United States  
Antibiotic-sparing therapies against catheter-associated urinary tract infections
- 13:25-13:50** **Dina Raafat**, University Medicine Greifswald, Germany  
Periprosthetic joint infections - What can the immune system reveal?
- 13:50-14:15** **Tania Wong**, Rutgers New Jersey Medical School, NJ, United States  
Diet-mediated immunometabolic regulation promotes pulmonary clearance of *Klebsiella Pneumoniae*
- 14:15-14:40** **Brandon Berryhill**, Emory University, GA, United States  
Fecal microbiota transplantation as a tool for controlling *Klebsiella dysbiosis*

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**14:40**      **Symposium Closing Remarks**

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**Have a query? Reach out to us!**

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