



ASM

CONFERENCE ON BIOFILMS

NOVEMBER 9-13, 2025 | PORTLAND, OR

Final Program



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SOCIETY FOR
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General Information

Registration and Name Badges

ASM Staff will be available at the registration desk in the Oregon Ballroom Foyer at the Portland Marriott Downtown Waterfront during posted registration hours. Participants may collect name badges and program materials at the registration desk. A name badge is required for entry into all sessions and meals.

Participants' guests may not attend receptions, sessions, poster sessions, lunches or coffee breaks.

Please note that badges for pre-registrants will be provided.

Registration Hours

Sunday, November 9

3:00 pm – 7:30 pm

Monday, November 10

7:30 am – 6:00 pm

Tuesday, November 11

7:30 am – 6:00 pm

Wednesday, November 12

7:30 am – 5:00 pm

Thursday, November 13

7:30 am – 7:00 pm

Abstracts

All abstracts presented at the conference can be viewed in the [ASM Biofilms Online Planner](#).

Poster Sessions

Poster boards are in the Exhibit Hall on Lower Level 2. Official poster sessions are scheduled on Monday, Tuesday, Wednesday and Thursday afternoons.

Posters can be mounted the day of the presentation beginning at 8 a.m. and must be removed by 4:30 p.m. on the same day. Posters left beyond that time will be removed and discarded at the end of the conference.

Please check your assigned poster board number in the abstract index that can be found on the ASM Biofilms website.

Tabletop Exhibits

Please be sure to visit the supporters' display tables in the Exhibit Hall on Lower Level 2. Supporting company representatives will be available to talk with you during poster sessions and breaks.

Networking Meals and Social Events

Registration includes attendance at the Welcome Reception on Sunday evening, Networking Lunches on Monday, Tuesday and Thursday and the Closing Reception on Thursday evening. Ample time has also been scheduled for participants to network during coffee breaks.

Certificate of Attendance

Certificates of Attendance can be downloaded after the conference. Participants will receive an email with a link to print their certificate approximately three days after the conference.

Note: Certificates of Attendance do not list session information.

Protecting The Science— Photo Policy

To protect the integrity of science, taking photos or videos of projected images of any session, slide or poster with any device is prohibited.

To view abstracts, visit abstracts online.

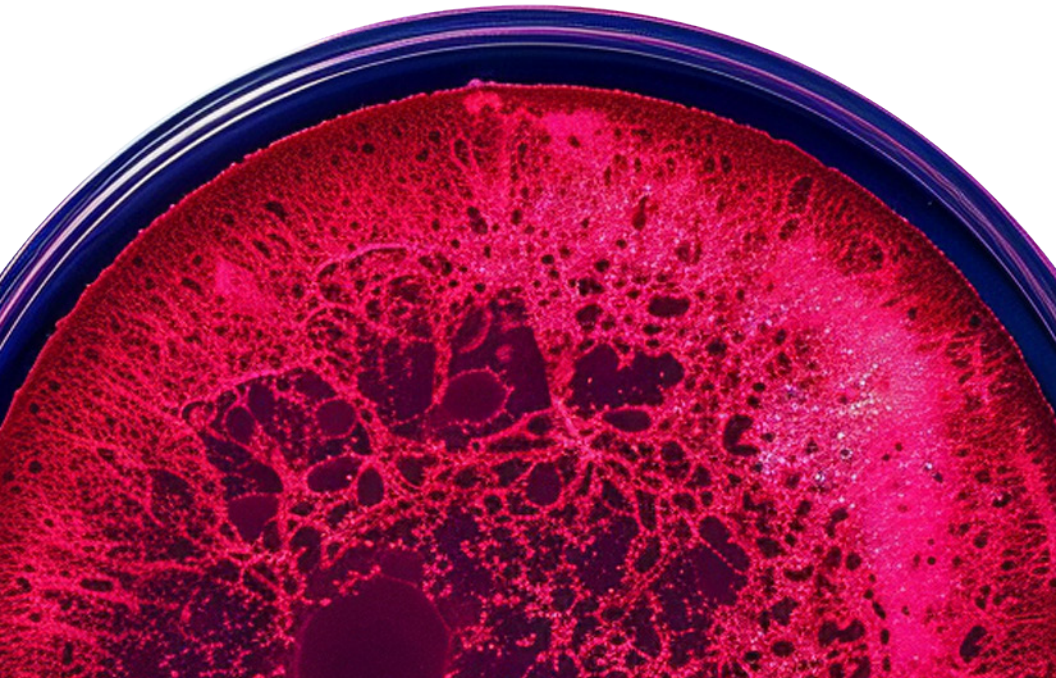
ASM Events Code of Conduct

The American Society for Microbiology (ASM) is the main forum for microbial sciences that considers and debates scientific issues in an orderly, respectful and fair manner. ASM is committed to providing an environment that encourages free expression and exchange of scientific ideas and promotes equal opportunities and respectful treatment for all participants. All participants are expected to treat others with respect and consideration, follow venue rules, and alert ASM staff or security of any dangerous situations

or anyone in distress. ASM prohibits and will not tolerate any form of harassment or bullying at its events. The full ASM Events Code of Conduct policy can be viewed on ASM's website.

Social Media Etiquette

While attending any ASM meeting, as well as when interacting with ASM on social media, ASM expects that all attendees will contribute to the professional atmosphere of the meeting. ASM and the Program Committee reserve the right to remove, delete or block any individual or social media comments exhibiting behavior that detracts from or disrupts the scientific environment.



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Scientific Program

View the Program online [here](#).

Note: All General Session presentations are taking place in the Oregon Ballroom E-I

Sunday, November 9

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|----------------|---|
| 1-5 p.m. | Mark Shirliff Early Career Symposium (Mount Hood Room) (Additional fee \$ and advanced registration required) |
| 6-7:15 p.m. | Opening General Session |
| 6-6:15 p.m. | Opening Remarks Clay Fuqua, Ph.D., <i>Indiana University at Bloomington</i> , <i>Biofilms 2025 Program Committee Chair</i> |
| 6:15-7:15 p.m. | The Many Faces of Biofilm Development in <i>Pseudomonas aeruginosa</i> Keynote Speaker: Matthew Parsek, Ph.D., <i>University of Washington</i> |
| 7:15-8:30 p.m. | Welcome Reception (Oregon Ballroom A-D) |

Monday, November 10

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| 7:45-8:15 a.m. | Morning Refreshments (Oregon Ballroom A-D) |
| 8:15-10:05 a.m. | Scientific Session 1: Environmental Biofilms and Climate Change Moderator: Birthe Venø Kjellerup, Ph.D., <i>University of Maryland</i> |
| 8:15-8:40 a.m. | Hidden Heroes: Climate Change's Unseen Engineers Christine Foreman, Ph.D., <i>Montana State University</i> |
| 8:40-9:40 a.m. | Oral Abstract Presentations |
| 9:40-10:05 a.m. | Microfluidic Investigation on the Role of Flow Dynamics, Surface Roughness and Bacterial Motility on Biofilm Formation Judy Q. Yang, Ph.D., <i>University of Minnesota</i> |
| 10:05-10:35 a.m. | Morning Break in Poster Hall (Exhibit Hall) |
| 10:35 a.m.-12:25 p.m. | Scientific Session 2: Multispecies Biofilms and Microbiomes Moderator: Caitlin Light, Ph.D., <i>Binghamton University</i> |
| 10:35-11 a.m. | Microbial Interactions in Biocrusts of Desert Soils: The Good, the Bad and the Ugly Ferran Garcia-Pichel, Ph.D., <i>Biodesign Institute and School of Life Sciences</i> |

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| 11 a.m.–12 p.m. | Oral Abstract Presentations |
| 12–12:25 p.m. | Microbiome Ecology in Patients Receiving Cancer Treatment Joao Xavier, Ph.D., <i>Memorial Sloan Kettering Cancer Center</i> |
| 12:25–12:40 p.m. | Lightning Talks |
| 12:40–2:10 p.m. | Lunch & Learn Presentation |
| 12:40 - 1:25 p.m. | Lunch |
| 1:25 - 2:10 p.m. | AJEDI Makes Better Microbiology Jo Handelsman, Ph.D., <i>University of Wisconsin-Madison</i> |
| 2:10–4:10 p.m. | Poster Session #1 with Refreshments (Exhibit Hall) |
| 4:10–6 p.m. | Scientific Session 3: Attachment and Early Biofilm Formation Moderator: Christophe Beloin, Ph.D., <i>Institut Pasteur</i> |
| 4:10–4:35 p.m. | Biofilm Cell Fates Revealed Using Far-Red Fluorogenic Probes Andrew Bridges, Ph.D., <i>Carnegie-Mellon</i> |
| 4:35–5:35 p.m. | Oral Abstract Presentations |
| 5:35–6 p.m. | <i>Helicobacter pylori</i> Uses Its Flagella in Multiple Ways to Control Biofilm Formation Karen Ottemann, Ph.D., <i>UC Santa Cruz</i> |
| Tuesday, November 11 | |
| 7:45–8:15 a.m. | Morning Refreshments (Oregon Ballroom A-D) |
| 8:15–10:05 a.m. | Scientific Session 4: Structures and Processes in Maturing Biofilms Moderator: Boo Shan Tseng, Ph.D., <i>University of Nevada</i> |
| 8:15–8:40 a.m. | Role for the Symbiosis Polysaccharide in <i>Vibrio fischeri</i> Biofilm Formation (J. William Costerton Lecture) Karen Visick, Ph.D., <i>Loyola Stritch School of Medicine</i> |
| 8:40–9:40 a.m. | Oral Abstract Presentations |
| 9:40–10:05 a.m. | <i>Mycobacterium abscessus</i> Biofilms: A Persistent Phenotype in Cystic Fibrosis and its Interaction with <i>Pseudomonas</i> Luanne Hall-Stoodley, Ph.D., <i>Ohio State University</i> |
| 10:05–10:35 a.m. | Morning Break in Poster Hall (Exhibit Hall) |

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| <p>10:35–12:25 p.m.</p> <p>10:35–11 a.m.</p> <p>11 a.m.–12 p.m.</p> <p>12–12:25 p.m.</p> | <p>Scientific Session 5: Metabolic and Physiological Biofilm Properties Moderator: Maria Hadjifrangiskou, Ph.D., <i>Vanderbilt University</i></p> <p>Metabolic Heterogeneity in <i>Pseudomonas aeruginosa</i> Biofilms Lars Dietrich, Ph.D., <i>Columbia University</i></p> <p>Oral Abstract Presentations</p> <p>Spatial Heterogeneity and Resistance of Bacterial Biofilms Jintao Liu, Ph.D., <i>Tsinghua University</i></p> |
| <p>12:25–12:40 p.m.</p> | <p>Lightning Talks</p> |
| <p>12:40–2:10 p.m.</p> <p>12:40–1:25 p.m.</p> <p>1:25–2:10 p.m.</p> | <p>Lunch & Learn Presentation</p> <p>Lunch</p> <p>Cultivating Minds and Microbes: The Intersection of Education and Biofilm Research in Course-Based Undergraduate Research Experiences Caitlin Light, Ph.D., <i>Binghamton University</i></p> |
| <p>2:10–4:10 p.m.</p> | <p>Poster Session #2 with Refreshments (Exhibit Hall)</p> |
| <p>4:10–6 p.m.</p> <p>4:10–4:35 p.m.</p> <p>4:35–5:35 p.m.</p> <p>5:35–6 p.m.</p> | <p>Scientific Session 6: Mechanisms of Biofilm Dispersal Moderator: Erin Gloag, Ph.D., <i>Virginia Tech</i></p> <p>Cyclic di-GMP Signaling in <i>Vibrio cholerae</i> Christopher Waters, Ph.D., <i>Michigan State University</i></p> <p>Oral Abstract Presentations</p> <p>Outer Membrane Vesicles as Players in Biofilm Development and Matrix Dynamics Jeffrey Schertzer, Ph.D., <i>Binghamton University</i></p> |
| <p>Wednesday, November 12</p> | |
| <p>7:45–8:15 a.m.</p> | <p>Morning Refreshments (Oregon Ballroom A-D)</p> |
| <p>8:15–10:05 a.m.</p> <p>8:15–8:40 a.m.</p> <p>8:40–9:40 a.m.</p> | <p>Scientific Session 7: Social and Asocial Interactions in Biofilms Moderator: Mette Burmølle, Ph.D., <i>University of Copenhagen</i></p> <p>Moving Biofilms: Collective Movement in THOR, a Model Microbial Community Jo Handelsman, Ph.D., <i>University of Wisconsin-Madison</i></p> <p>Oral Abstract Presentations</p> |

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| 9:40–10:05 a.m. | From Molecular Genetics to Phylogenomics: A Journey Across the Determinants of Biofilm Formation in <i>Klebsiella pneumoniae</i> Olaya Rendueles García, Ph.D., <i>Center for Integrative Biology Toulouse</i> |
| 10:05–10:35 a.m. | Morning Break in Poster Hall (Exhibit Hall) |
| 10:35 a.m.–12:25 p.m. | Scientific Session 8: Biofilms on Host Organisms Moderator: Megan O'Malley, Ph.D., <i>University of Washington</i> |
| 10:35–11 a.m. | Immune Dynamics During Biofilm Coinfection Daniel Wozniak, Ph.D., <i>Ohio State University</i> |
| 11 a.m.–12 p.m. | Oral Abstract Presentations |
| 12–12:25 p.m. | Plant Root Microbiota Biofilms in Protection Against Pathogens Cara Haney, Ph.D., <i>University of Pittsburgh</i> |
| 12:25–12:40 p.m. | Lightning Talks |
| 12:40–2:10 p.m. | Lunch On Your Own |
| 2:10–4:10 p.m. | Poster Session #3 with Refreshments (Exhibit Hall) |
| 4:15–7:15 p.m. | Paul Stoodley Biofilm Image Analysis Workshop (Mount Hood Room) (Additional fee \$ and advanced registration required) |
| Thursday, November 13 | |
| 7:45–8:15 a.m. | Morning Refreshments (Oregon Ballroom A-D) |
| 8:15–10:05 a.m. | Scientific Session 9: Antimicrobial Therapies and Biofilms Moderator: Kendra Rumbaugh, Ph.D., <i>Texas Tech University</i> |
| 8:15–8:40 a.m. | Targeted Drug Delivery for Biofilm Infections Rikke Louise Meyer, Ph.D., <i>Aarhus University</i> |
| 8:40–9:40 a.m. | Oral Abstract Presentations |
| 9:40–10:05 a.m. | Why Evolution in Biofilms is Different, with Important Consequences for Antimicrobial Treatment Vaughn Cooper, Ph.D., <i>University of Pittsburgh</i> |
| 10:05–10:35 a.m. | Morning Break in Poster Hall (Exhibit Hall) |
| 10:35 a.m.–12:25 p.m. | Scientific Session 10: Biofilm Control and Engineering Moderator: Ehud Banin, Ph.D., <i>Bar-Ilan University</i> |

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| 10:35–11 a.m. | Staphylococcus aureus Biofilm-Immune Metabolic Cross-talk Dictates Infection Outcome Tammy Kielian, Ph.D., <i>University of Nebraska Medical Center</i> |
| 11 a.m.–12 p.m. | Oral Abstract Presentations |
| 12–12:25 p.m. | Using Smart Biomaterials to Combat Biofilms Anita Shukla, Ph.D., <i>Brown University</i> |
| 12:25 –12:40 p.m. | Lightning Talks |
| 12:40 –2:10 p.m. | Lunch & Learn |
| 12:40–1:10 p.m. | Lunch |
| 1:10–2:10 p.m. | Early Career Round Table Discussions (optional) |
| 2:10–4:10 p.m. | Poster Session #4 with Refreshments (Exhibit Hall) |
| 4:10–6 p.m. | Scientific Session 11: History and New Approaches in Biofilm Research Moderator: Mark Schembri, Ph.D., <i>University of Queensland</i> |
| 4:10–4:35 p.m. | The Story of Slime Hans-Curt Flemming, Ph.D., <i>Singapore Center for Life Science and Engineering</i> |
| 4:35–5:35 p.m. | Oral Abstract Presentations |
| 5:35–6 p.m. | High-Throughput Biofilm Assaying Using Drop-Based Microfluidics Connie Chang, Ph.D., <i>Mayo Clinic</i> |
| 6–7:15 p.m. | Closing General Session |
| 6–7 p.m. | Location Matters in Host-Microbe Symbioses Keynote Speaker: Nicole Dubilier, Ph.D., <i>Max Planck Institute</i> |
| 7–7:15 p.m. | Awards Presentation & Closing Remarks Karin Sauer, Ph.D., <i>Binghamton University, Biofilms 2025 Program Committee Chair</i> |
| 7:15–8:15 p.m. | Closing Reception (Oregon Ballroom A-D) |

Pre-Conferences and Workshops

Mark Shirliff Early Career Symposium (Additional Fee \$)

Sunday, Nov. 9, 1-5 p.m. PT

Kickstart your ASM Conference on Biofilms 2025 experience with the Mark Shirliff Early Career Symposium (ECS), a unique opportunity designed specifically for trainees by trainees. Taking place just before the main conference, this symposium offers an informal and supportive environment where early-career scientists can share their research, connect with peers and gain valuable insights from 2 inspiring faculty speakers.

Organized by graduate students and postdocs, the ECS is tailored to address the needs and aspirations of the next generation of biofilm researchers. With opportunities to present your work, network with like-minded professionals and gain career-building advice, this program is not to be missed.

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| 1-1:30 p.m. | Building Sustainable Polymicrobial Biofilms, Scientists and Laboratories Dominique (Nicki) Limoli, Ph.D., <i>Indiana University</i> |
| 1:30-2:50 p.m. | Oral Abstract Presentations |
| 2:50-3:15 p.m. | Break |
| 3:15-4:15 p.m. | Oral Abstract Presentations |
| 4:15-4:45 p.m. | G-quadruplexes and Extracellular RNA Co-Exist in Pseudomonas Biofilm Matrices Thomas Seviour, Ph.D., <i>Aarhus University</i> |

Paul Stoodley Biofilm Image Analysis Workshop (Additional Fee \$)

Wednesday, Nov. 12, 4:15-7:15 p.m. PT

Elevate your biofilm research with advanced microscopy and image analysis techniques at the Paul Stoodley Biofilm Image Analysis Workshop. This optional hands-on session, held during the afternoon and early evening of Wednesday, Nov. 12, 2025, in Portland, Ore., at the ASM Conference on Biofilms, is designed for researchers aiming to enhance the quantifiability and statistical rigor of their biofilm imaging.

Led by experts in biofilm image analysis, the workshop will cover essential concepts and practical applications of analyzing multi-channel 3D (XYZ) and 4D (XYZT) confocal data sets. The workshop will include an overview of COMSTAT, BiofilmQ, MiPACT workflow and biofilm-aggregate analysis using IMARIS. Attendees will gain direct experience using powerful, freely available tools like COMSTAT

and BiofilmQ. Step-by-step guidance will be provided, and participants will have access to example data sets or may analyze their own.

To participate, bring a laptop capable of running MATLAB-based software; detailed instructions for downloading and installing the necessary programs will be shared in advance. Don't miss this opportunity to refine your skills and apply cutting-edge image analysis techniques to your biofilm research!

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| 4:15-4:50 p.m. | MiPACT Workshop Leader: William DePas, Ph.D. , <i>University of Pittsburgh</i> |
| 4:50-5:25 p.m. | Biofilm-Aggregate Analysis Workshop Leader: Sophie Darch, Ph.D. , <i>University of South Florida</i> |
| 5:25-6 p.m. | COMSTAT Demonstration Workshop Leader: Erin Gloag, Ph.D. , <i>Virginia Tech</i> |
| 6-6:35 p.m. | BiofilmQ Demonstration Workshop Leader: Hannah Jeckel, Ph.D. , <i>California Institute of Technology</i> |
| 6:35-7:15 p.m. | Independent Work Time Participants work independently on either provided or their own data sets. Experienced users of COMSTAT and BiofilmQ will be available for assistance. |



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