33rd

Fungal Genetics Conference

March 17–22, 2026 | Pacific Grove, CA | #Fungal26

PROGRAM BOOK

GSA

Table of Contents

GSA is an international scientific society representing more than 5,000 researchers and educators around the world. In addition to connecting researchers through conferences and career programs, we publish two peer-reviewed scholarly journals, GENETICS and G3: Genes|Genomes|Genetics. We encourage you to join GSA so you can make use of exclusive member benefits and get involved in the Society's many programs, including professional development training, awards, advocacy, and more. Join us as we work to advance the field and serve our community. Visit genetics-gsa.org for more information.

GENETICS has been innovating since 1916, publishing high quality original research across the breadth of the field.

G3: Genes|Genomes|Genetics is an open access journal that publishes high quality, useful results regardless of perceived impact.

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Genetics Society of America gratefully acknowledges the following sponsors:

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ADM Unlocking Nature. Enriching Life.

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Sponsor

MMSA Medical Mycological Society of the Americas

Conference App

Download the GSA Conference App to your smartphone (available on both iOS and Android) to have meeting information at your fingertips. Once you download the app, you will only need access to the internet for program updates. You will not need an internet connection to access previously downloaded information. Full access to the Program is also available through the web version on the conference website.

Your registration badge ID is needed to access the App. The badge ID was sent in a registration confirmation email from the address NoReply@Convention-Mail.com and is on your conference badge.

Wifi Access

Complimentary Wifi is available in the meeting rooms and Fireside Pavilion. Below are instructions on how to access the network.

1. Select Asilomar Conference from the list of available networks in their Wifi Settings
2. Enter your personal email address
3. Enter the Promo Code on the Gateway Page
4. Promo Code: conference2026
5. Accept terms and conditions

Registration

Registrants were emailed their badge to print at home. Show your pre-printed badge to the registrar to collect your badge holder and lanyard in Surf and Sand. For admission to the sessions, posters, exhibits, and receptions, you must have your official conference badge.

The Program Book, Abstract Book, and Certificates of Attendance and Participation are all available online. The Registration Desk will be open in Surf and Sand during the hours noted below.

Tuesday, March 17	4:00 p.m.–9:30 p.m.
Wednesday, March 18	8:00 a.m.–5:00 p.m.
Thursday, March 19	8:30 a.m.–4:00 p.m.
Friday, March 20	8:30 a.m.–4:00 p.m.

Oral Presentations/Speaker Ready Room

All plenary and concurrent session speakers must go to the Speaker Ready Room located in Triton 24 hours before the start of your session to upload and review your presentation and become familiar with the equipment that will be in the session room. You will not be able to use your own computer or upload your presentation in the session room. The day of your presentation, arrive 20 minutes before the start of your session (not your talk) to let the session chair know you are there and to get any last minute instructions. The Speaker Ready Room will be open during the hours noted below.

Tuesday, March 17	4:00 p.m.–7:30 p.m.
Wednesday, March 18	7:30 a.m.–5:00 p.m.
Thursday, March 19	8:00 a.m.–5:00 p.m.
Friday, March 20	8:00 a.m.–5:00 p.m.
Saturday, March 21	8:00 a.m.–2:00 p.m.

Poster Sessions

All posters will be displayed in the Fireside Pavilion located in the garage under the Fred Farr Forum. Display your poster after 9:00 a.m. the day of your presentation. All posters will be up for one day. Posters must be removed at 10:30 p.m. After that time, remaining posters will be removed and recycled. The meeting does not take responsibility for posters that are not removed on time. Authors will present according to the following schedule:

Wednesday, March 18	All “A” posters must be displayed.	
	7:00 p.m.–7:30 p.m.	Open Viewing
	7:30 p.m.–8:30 p.m.	Odd-numbered posters
	8:30 p.m.–9:30 p.m.	Even-numbered posters
	9:30 p.m.–10:30 p.m.	Open Viewing
Thursday, March 19	All “B” posters must be displayed.	
	7:00 p.m.–7:30 p.m.	Open Viewing
	7:30 p.m.–8:30 p.m.	Odd-numbered posters
	8:30 p.m.–9:30 p.m.	Even-numbered posters
	9:30 p.m.–10:30 p.m.	Open Viewing
Friday, March 20	All “C” posters must be displayed.	
	7:00 p.m.–7:30 p.m.	Open Viewing
	7:30 p.m.–8:30 p.m.	Odd-numbered posters
	8:30 p.m.–9:30 p.m.	Even-numbered posters
	9:30 p.m.–10:30 p.m.	Open Viewing

Job and Meeting Postings

Individuals and institutions offering or seeking employment and organizers of meetings may post notices and resumes on the Community Notices bulletin board, which is located in the Fireside Pavilion.

Meals

Meals are not included in the registration fee. Guests staying at Asilomar, or in a off-site hotel reserved through Asilomar and those who purchased a meal plan are invited to eat at Crocker Dining Hall. If you prefer to eat outside, you can pick up a to-go meal in Crocker Dining Hall and sit at the picnic tables available in the meadow. Phoebe Cafe, located in the Social Hall, has a limited menu available for those that did not purchase a meal plan. Meals are offered at the following times:

Breakfast	7:30 a.m.–8:30 a.m.
Lunch	12:00 p.m.–1:00 p.m.
Dinner	6:00 p.m.–7:00 p.m.

Parking

Parking on the Asilomar Conference Grounds is complimentary.

Security/Lost and Found

For all emergencies and lost and found items, contact Asilomar security by dialing 0 from any house phone. The conference Registration Desk will be able to assist you as well.

Quiet Space

There are living rooms available in Lodge, Afterglow, Pirates Den, and Stuck-Up Inn for those who are looking for a quiet space to recharge.

GSA wishes to thank our fantastic group of exhibitor partners. Be sure to visit the companies that have come to support your science and show you how they can help advance your research. You can renew current relationships or meet potential future suppliers.

BioSense Solutions
https://biosensesolutions.dk/
info@biosensesolutions.dk

oCelloScope™ Live-Cell Imaging – Automated Microbial Growth Kinetics and Morphology Analysis. The oCelloScope™ platform is used by microbiologists all over the world to study growth and morphology. We use image analysis and machine learning to provide a time-lapse technology 250 times more sensitive than using OD (plate readers).

Cultivarium
cultivarium.org
kenneth@cultivarium.org

Cultivarium empowers life scientists to access the biosphere's genetic potential by creating tools for engineering novel microorganisms. We aim to provide essential resources–including culture recipes, DNA delivery parameters, and genome engineering methods–enabling researchers to discover and tune microbes to solve pressing global challenges and push biotechnology frontiers faster than ever.

FungiDB
www.fungidb.org

FungiDB accommodates diverse genomic-scale datasets on hundreds of fungal/oomycete species, including genome sequences and annotation, transcriptomic and other functional data, phenotypic information, orthology tools for comparative analysis and functional inference, and more. Advanced tools (now supported by AI) enable users to ask their own questions, expediting hypothesis generation and testing.

Mycology Journal
https://www.tandfonline.com/journals/tmyc20
hanl@im.ac.cn

Mycology: An International Journal on Fungal Biology (ISSN 2150-1203) is a quarterly, open-access journal published by Taylor & Francis. The journal dedicates itself to publishing high-quality research across all subdisciplines of mycology. It aims to establish a robust academic platform to foster scholarly communication and constructive dialogue within the global mycological community.

Nikon Instruments Inc
https://www.microscope.healthcare.nikon.com/
thomsen@nikon.com

PhytoAB Inc
www.phytoab.com
frank@phytoab.com

Union Biometrica, Inc.
sales@unionbio.com
www.unionbio.com

Union Biometrica provides flow cytometry for objects that are too large for traditional cytometers, such as fungal pellets, and offers an alternative to manual sorting. These instruments analyze and dispense objects based on size and fluorescent parameters. Automating this process offers increased speed, sensitivity, quantification, and repeatability of experiments.

Code of Conduct

This Code of Conduct covers in-person conferences, online conferences, and other online events hosted by the Genetics Society of America. GSA conferences include plenary presentations, concurrent sessions, poster presentations, workshops.

GSA Conferences foster an international community of geneticists and provide an opportunity to discuss scientific advances and form new collaborations.

GSA values your attendance and wants to make your experience productive and inspiring by fostering an open exchange of ideas in a professional setting. Our Code of Conduct was established to communicate a transparent set of standards and guidelines for acceptable behavior at GSA Conferences and to provide a positive, safe, and welcoming environment for all attendees, vendors, volunteers, and staff.

All conference participants (regardless of their role) are expected to follow the Code of Conduct while attending any portion of the conference, including but not limited to keynote presentations, concurrent sessions, live poster Q&A sessions, and workshops. Because there is also a virtual nature to the conference, our Code of Conduct extends to communications related to the meeting and its attendees, presenters, exhibitors, sponsors, staff, and vendors. These types of communications include Zoom chat, Zoom Q&A window, live poster Q&A, email, social media, and texts.

Unacceptable Behaviors

Unacceptable behaviors include, but are not limited to:

- Intimidating, harassing, abusive, discriminatory, derogatory, or demeaning speech or actions by any participant and at all related events
- Harmful or prejudicial verbal or written comments or visual images related to gender, gender expression, gender identity, marital status, sexual orientation, race, religion, political orientation, socioeconomic standing, disability or ability status, or other personal characteristics, including those protected by law
- Inappropriate use of nudity and/or sexual images (including presentation slides, posters, Slack channels, or Zoom chat)
- Deliberate intimidation or stalking
- Violating the rules and regulations of the online provider, Zoom
- Sustained disruption of scientific sessions or other events
- Unwelcome and uninvited attention or contact
- Real or implied threat of physical harm
- Real or implied threat of professional or financial damage or harm
- Photographing or reproducing slides of oral presentations and posters without permission

- Recording of scientific and other sessions without permission

Taking Action or Making a Report

To confidentially report a Code of Conduct violation or to file a complaint, including a complaint about a GSA volunteer or GSA staff member, please visit genetics-gsa.ethicspoint.com. Please email Tracey DePellegrin, GSA Executive Director, at tracey.depellegrin@genetics-gsa.org. GSA staff is available to assist participants in making a report.

Consequences of Non-compliance

Anyone asked by GSA staff, Organizer, Session Chair, Workshop Leader, Moderator, Presenter, or Zoom representative to stop unacceptable behavior is expected to comply immediately. Retaliation toward GSA or toward someone reporting an incident or after experiencing any of the following consequences will not be tolerated and may result in additional sanctions.

The consequences of non-compliance with GSA's Code of Conduct may include:

- Immediate removal from in-person meeting
- Immediate removal from accessing the online meeting
- Immediate removal from Slack channels and the meeting app without warning
- Restrictions from future GSA meeting attendance
- Termination of GSA membership or positions on GSA Boards or Committees
- Incidents may be reported to the proper authorities

Accessibility

GSA is committed to assisting attendees with special needs. If you have accessibility questions or requests please email gsaconferences@genetics-gsa.org. If you have difficulty walking long distances, consider renting a scooter from Scoot Around. They will deliver your scooter to your hotel and pick it up when you no longer need it. For more details, visit www.scootaround.com or call (888) 441-7575.

Diversity and Inclusion

GSA is committed to foregrounding equity, accessibility, and inclusion alongside scientific content, education, and professional development at each step of conference planning. We seek to create opportunities for all individuals to fulfill their scientific potential, regardless of their background, identity, or circumstances.

A commitment to inclusion leads to innovation by attracting the widest possible talent to the community and fostering greater diversity of ideas, approaches, and perspectives. The Allied Program Committee and the Community Organizers aim to select speakers and session chairs that represent the breadth and diversity of the discipline and of conference participants. GSA especially encourages the Committee and

Organizers to select excellent speakers from groups that have been historically excluded or marginalized in science.

Social Media/Photo/Video Policy

Live posting of presentations on social media is allowed unless the speaker explicitly opts out by stating so at the start of the talk. Taking or sharing photos or videos of posters is permitted only with the presenter's consent during the assigned poster session. Taking photos of posters while the presenter is not present is strictly prohibited. By attending a GSA Conference, you grant GSA the right to use your photograph, video, name, and likeness for use in GSA educational, news, or promotional materials.

Family Policy

Fungal 2026 welcomes attendees with children!

Children are allowed in plenary, concurrent, and poster sessions; this includes babywearing of young children. Those travelling with family members or caregivers who are not in the scientific community and not registered for the meeting can obtain a guest pass from the conference Registration Desk so that they can accompany children into the poster sessions. All guests will be asked to agree to the Conference Code of Conduct and will need a name badge to enter the sessions. Guests must obtain their pass during posted registration hours.

To ensure the safety of all children in attendance and to create a productive and fulfilling meeting atmosphere for all attendees, we ask all parents and caregivers to abide by the following guidelines:

- Children ages 12 and under must be accompanied by an adult in all meeting areas.
- Parents and caregivers should do their best to ensure that children are not disruptive to any sessions they attend (including poster sessions).
- For safety reasons, children are not allowed in the Exhibit/Poster Hall during set-up or break-down times.

General Safety Tips for Attending Meetings

You should practice common sense safety guidelines when attending any conference:

- Be aware of your surroundings at all times, and don't get distracted by your phone.
- Use the buddy system when leaving the hotel, especially during early morning and late evening hours.
- Don't wear your meeting badge outside of the designated meeting space or when you leave the hotel.
- Don't carry a lot of cash or credit cards.
- Don't leave personal property unattended anywhere, at any time.

All times are listed in Pacific Standard Time (PST)

Monday, March 16, 2026		
7:00 p.m. – 10:00 p.m.	22nd International Aspergillus Meeting	Merrill Hall
Tuesday, March 17, 2026		
8:30 a.m. – 3:00 p.m.	22nd International Aspergillus Meeting	Merrill Hall
9:00 a.m. – 5:30 p.m.	Fusarium Workshop	Chapel
9:00 a.m. – 5:30 p.m.	4th Symposium on Zygosporic and Zoosporic Fungi	Fred Farr Forum
9:00 a.m. – 5:00 p.m.	Magnafest	Kiln
9:00 a.m. – 5:30 p.m.	Dothideomycetes Genetics Workshop	Nautilus
1:00 p.m. – 2:00 p.m.	Conference Success Tips and Welcome from the Early Career Leadership Program	Scripps
2:30 p.m. – 3:00 p.m.	Getting Involved in GSA's Early Career Professional Development	Scripps
3:30 p.m. – 4:30 p.m.	Individual Development Plan	Scripps
4:00 p.m. – 9:30 p.m.	Registration	Surf and Sand
4:00 p.m. – 7:30 p.m.	Speaker Ready Room	Triton
6:00 p.m. – 7:00 p.m.	Dinner (for those staying at Asilomar or bought a meal plan)	Crocker Dining Hall
7:30 p.m. – 9:00 p.m.	Opening Social	Merrill Hall
Wednesday, March 18, 2026		
7:30 a.m. – 8:00 a.m	Netwalking	Meet at Crocker Dining Hall
7:30 a.m. – 5:00 p.m.	Speaker Ready Room	Triton
8:00 a.m. – 5:00 p.m.	Registration	Surf and Sand
8:45 a.m. – 12:00 p.m.	Welcome and **Plenary Session** 1: From Signals to Systems: Fungal Cell Regulation and Development	Merrill Hall and Chapel
12:00 p.m. – 1:00 p.m.	Lunch (for those staying at Asilomar or bought a meal plan)	Crocker Hall and Box lunches on patio
12:30 p.m. – 1:45 p.m.	Scientific Journeys & Community	Chapel
1:00 p.m. – 2:00 p.m.	Meet up with morning plenary session speakers	Social Hall Deck
3:00 p.m. – 6:00 p.m.	**Concurrent Sessions**	
	Antifungal Drugs and Resistance	Merrill Hall
	Artificial Intelligence in Fungal Research	Fred Farr Forum
	Ecology of Fungal Communities	Kiln
	Genomics of Environmental Opportunism: Fungal Adaptation at the Edge of Pathogenicity	Chapel
	Lipid Homeostasis in Fungal Pathogenesis and Drug Resistance	Scripps
	Multicellular Development	Heather
	Nutrient Sensing	Nautilus
6:00 p.m. – 7:00 p.m.	Dinner (for those staying at Asilomar or bought a meal plan)	Crocker Dining Hall
7:00 p.m. – 10:30 p.m.	"A" Poster Presentations and Exhibit Session (cash bar available)	Fireside Pavilion

Thursday, March 19, 2026		
7:30 a.m. – 8:00 a.m	Netwalking	Meet at Crocker Dining Hall
8:00 a.m. – 4:00 p.m.	Speaker Ready Room	Triton
8:30 a.m. – 4:00 p.m.	Registration	Surf and Sand
9:00 a.m. – 12:00 p.m.	Plenary Session 2: Dangerous Liaisons: Fungal Pathogens in Host Interactions	Merrill Hall and Chapel
12:00 p.m. – 1:00 p.m.	Lunch (for those staying at Asilomar or bought a meal plan)	Crocker Hall and Box lunches on patio
12:30 p.m. – 1:45 p.m.	Navigating the National Science Foundation and the Directorate of Biological Sciences	Chapel
1:00 p.m. – 2:00 p.m.	Meet up with morning plenary session speakers	Social Hall Deck
3:00 p.m. –6:00 p.m.	**Concurrent Sessions**	
	Cell Wall Synthesis and Remodeling	Scripps
	Fungal Strain Heterogeneity & Pangenomes	Chapel
	Fungi and their Interactions with Animals and Microbes	Fred Farr Forum
	Genomic Technologies	Kiln
	Host Pathogen Interactions	Merrill Hall
	Sensing and Signaling	Heather
	Sexual and Asexual Development	Nautilus
6:00 p.m. – 7:00 p.m.	Dinner (for those staying at Asilomar or bought a meal plan)	Crocker Dining Hall
7:00 p.m. – 10:30 p.m.	”B” Poster Presentations and Exhibit Session (cash bar available)	Fireside Pavilion
Friday, March 20, 2026		
7:30 a.m. – 8:00 a.m	Netwalking	Meet at Crocker Dining Hall
8:00 a.m. – 5:00 p.m.	Speaker Ready Room	Triton
8:30 a.m. – 4:00 p.m.	Registration	Surf and Sand
8:55 a.m. – 12:00 p.m.	Plenary Session 3: Fungal Evolution, Genomics, and Cellular Adaptations	Merrill Hall and Chapel
12:00 p.m. – 1:00 p.m.	Lunch (for those staying at Asilomar or bought a meal plan)	Crocker Hall and Box lunches on patio
12:30 p.m. – 1:45 p.m.	Toward 10,000 fungal genomes and phenotypes	Chapel
12:30 p.m. – 1:45 p.m.	Neurospora Business Meeting	Merrill Hall
1:00 p.m. – 2:00 p.m.	Meet up with morning plenary session speakers	Social Hall Deck
3:00 p.m. –6:00 p.m.	**Concurrent Sessions**	
	Clocks and Light Sensing	Fred Farr Forum
	Effectors and Defense Mechanisms	Chapel
	Fungal Genome Evolution	Merrill Hall
	Genomic and Ecological Perspectives on Fungal Symbiosis across the Parasitism-mutualism Spectrum	Scripps
	Mycotechnology	Nautilus
	The Plasticity of Fungal Genome Organization	Kiln
	The Spatial Organization of Fungal Cells	Heather

Friday, March 2026 continued		
6:00 p.m. – 7:00 p.m.	Dinner (for those staying at Asilomar or bought a meal plan)	Crocker Dining Hall
7:00 p.m. – 10:30 p.m.	"C" Poster Presentations and Exhibit Session (cash bar available)	Fireside Pavilion
Saturday, March 21, 2026		
8:00 a.m. – 2:00 p.m.	Speaker Ready Room	Triton
8:55 a.m. – 12:00 p.m.	Plenary Session 4: Systems Biology and Ecological Interactions of Fungi	Merrill Hall and Chapel
12:00 p.m. – 1:00 p.m.	Lunch (for those staying at Asilomar or bought a meal plan)	Crocker Hall and Box lunches on patio
12:30 p.m. – 2:00 p.m.	Fungal Policy Committee Meeting (invitation only)	Surf and Sand
1:00 p.m. – 1:45 p.m.	Meet up with morning plenary session speakers	Social Hall Deck
2:00 p.m. – 5:00 p.m.	**Concurrent Sessions**	
	Bioengineering and Fungal Biology	Kiln
	Chromatin Biology and Epigenomics	Scripps
	Emerging and Re-emerging Fungal Pathogens	Merrill Hall
	Fungal Adaptation to Infection-relevant Traits	Fred Farr Forum
	Life in the Water: Freshwater and Marine Fungi	Nautilus
	RNA Biology in Fungi	Chapel
	Secondary Metabolites and Volatile Compounds in Fungal Communications	Heather
5:30 p.m. – 5:45 p.m.	GSA Student Poster Awards and Fungal26 Postdoc Poster Awards	Merrill Hall and Chapel
5:45 p.m. – 6:30 p.m.	Perkins/Metzenberg Lecture, Nancy Keller	Merrill Hall and Chapel
6:30 p.m. – 7:30 p.m.	Dinner (for those staying at Asilomar or bought a meal plan)	Crocker Dining Hall
8:30 p.m. – 11:00 p.m.	Closing Party with the Amplified DNA Band Hosted Bar 8:30 p.m. – 9:30 p.m. Cash Bar 9:30 p.m. – 11: 00 p.m.	Merrill Hall
Sunday, March 22, 2026		
7:30 a.m. – 8:30 a.m.	Breakfast	Crocker Hall

Monday, March 16, 2026

7:00 p.m. – 8:30 p.m.
Merrill Hall
22nd International Aspergillus Meeting

Tuesday, March 17, 2026

8:30 a.m. – 2:30 p.m.
Merrill Hall
22nd International Aspergillus Meeting

Organizer: Mike Bromley

9:00 a.m. – 5:30 p.m.
Fred Farr Forum
4th Symposium on Zygosporic and Zoosporic Fungi

Organizers: Luis Corrochano, Victor Garre, Joseph Heitman and Joey Spatafora

9:00 a.m. – 6:00 p.m.
Nautilus
Dothideomycetes Genetics Workshop

Organizers: Burt Bluhm, Stephen B. Goodwin and Megan McDonald

9:00 a.m. – 5:30 p.m.
Chapel
Fusarium Workshop

Organizers: Domingo Martinez-Soto, Manuel Sanchez Lopez-Berges and Dilay Hazal Ayhan

9:00 a.m. – 6:00 p.m.
Kiln
Magnafest

Organizers: Franke Menke and Miriam Oses-Ruiz

Tuesday, March 17, 2026

1:00 p.m. – 2:00 p.m.
Scripps
Conference Success Tips and Welcome from the Early Career Leadership Program

The purpose of this event is to help first-time conference attendees and early career scientists make the most of the conference and provide a chance to meet other attendees in an informal setting. Topics covered may include introductions to organizers of the meeting, advice on having meaningful interactions, and an introduction to scientific events and other conference programming.

2:30 p.m. – 3:00 p.m.
Scripps
Getting Involved in GSA's Early Career Professional Development

GSA Early Career Leadership Program (ECLP) members will join us in sharing how to get involved in GSA's professional development programming for early career scientists. GSA will walk through upcoming events and programs including how and when to apply to join the ECLP.

3:30 p.m. – 4:30 p.m.
Scripps
Individual Development Plan

This workshop will walk participants through the career exploration process by combining self-assessment exercises with IDP-informed strategies to break participants out of the linear career path. Participants will leave with a better understanding of their personal goals and how to ensure that their professional goals align with their values and needs.

Wednesday, March 18, 2026

8:45 a.m. – 12:00 p.m.
Merrill Hall and Chapel

Welcome and Plenary Session 1: From Signals to Systems: Fungal Cell Regulation and Development

Session Chairs: Martine Bassilana, University Cote d'Azur/CNRS/INSERM, France; and Kap-Hoon Han, Woosuk University, Republic of Korea

8:45 a.m. GSA Welcome **Jason Stajich**

8:55 a.m. Fungal Policy Chair Welcome **Xiaorong Lin**

8:58 a.m. Organizer Welcome **Meritxell Riquelme and Antonis Rokas**

1 9:05 a.m. Microtubule-dependent endosomal mRNA transport **Michael Feldbrügge** Heinrich-Heine University Duesseldorf

2 9:35 a.m. Control of conidiation in *Aspergillus nidulans*: On the centrality and specificity of the master regulator BrlA **Oier Etxebeste** University of the Basque Country

3 10:05 a.m. Circadian clock control of mRNA translation, translation fidelity, and aging **Deborah Bell-Pedersen** Texas A&M University

10:35 a.m. Coffee break

4 11:00 a.m. Emergent behaviour of mycelial networks **Mark Fricker** University of Oxford

5 11:30 a.m. Structural insights into mechanisms of zinc scavenging by the *Candida albicans* zincophore 1 **Johanna Syrjanen** University of Helsinki

Wednesday, March 18, 2026

12:30 p.m. – 1:45 p.m.
Chapel

Scientific Journeys & Community

Session Chair: Javier Tabima, Clark University

This session aims to highlight personal scientific trajectories and the ways in which background, training, mentorship, institutional context, and lived experience influence:

- Research questions and approaches
- Mentorship and lab culture
- Engagement with students, collaborators, and the broader fungal genetics community
- Outreach, education, and community-building efforts

12:30 p.m. Introduction, Javier Tabima, Clark University

12:35 p.m. Korena K. Mafune, University of Washington

12:45 p.m. Lotus Lofgren, University of California, Berkeley

12:55 p.m. Terry Torres-Crúz, Purdue University

1:05 p.m. Juliana Gonzalez-Tobón, Cornell University

1:15 Roundtable Discussion - Moderated Q&A and community dialogue

1:40 p.m. Closing

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Kiln
Ecology of Fungal Communities

Session Chairs: Natalie Christian, University of Louisville, United States; and Adriana Romero, University of California, Riverside, United States

6 3:00 p.m. Impact of global change drivers on dryland fungi: Implications for public health and biodiversity **Katharine Gottwald** New Mexico State University

7 3:20 p.m. Global patterns of diversity and distribution in *Aspergillus* fungi are driven by human and environmental influences **Olivia Riedling** Vanderbilt University

8 3:40 p.m. Annual grass invasion is associated with differences in the community structure and abundance of biocrusts, arbuscular mycorrhizal fungi, and general fungi **Rachel Berner** Washington State University

9 4:00 p.m. Metatranscriptomics of natural communities reveals functional differentiation and seasonal nutrient transport in the Populus soil microbiome **Keaton Tremble** Duke University

4:20 p.m. Coffee break

10 4:40 p.m. A 150-Year Record of Foliar Fungal Endophyte Dynamics in Norway Spruce (*Picea abies*) Across Finland **Fred Asiegbu** University of Helsinki

11 5:00 p.m. Tissue specificity, ecological function, and salinity tolerance of fungi associated with the pneumatophores and leaves of black mangrove (*Avicennia germinans*) **Justin Shaffer** California State University, Fresno

12 5:20 p.m. Direct and indirect effects of the keystone fungal endophyte *Epichloë amarillans* under anthropogenic global change **Natalie Christian** University of Louisville

13 5:40 p.m. Assessing the Ecological and Genomic Determinants of Facultative Pathogenicity Through *Colletotrichum siamense* on Strawberry **Libby Indermaur** Connecticut Agricultural Experiment Station

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Merrill Hall
Antifungal Drugs and Resistance

Session Chairs: Judith Berman, Tel Aviv University, Israel; and Jeffrey Rybak, St. Jude Children's Research Hospital, United States

14 3:00 p.m. *Candida auris* can acquire echinocandin tolerance via HOG-MAPK pathway modulation and cell-wall remodeling that escapes routine AFST, reduces in vivo treatment efficiency, and facilitates resistance evolution **Hans Carolus** Université Laval

15 3:20 p.m. Functional Genomic Mapping Illuminates the Network Architecture of Drug Resistance in *Candida glabrata* **Catrin Williams** University of Exeter

16 3:40 p.m. Proteomic profiling of antifungal drug responses of *Aspergillus fumigatus* indicates drug-specific signatures and modes of action **Olaf Kniemeyer** Leibniz Institute for Natural Product Research and Infection Biology (HKI)

17 4:00 p.m. An *Aspergillus fumigatus* homeobox transcription factor provides resistance to copper stress and alters lipid metabolism through oxylipin signaling **Harrison Estes** University of Wisconsin-Madison

4:20 p.m. Coffee break

18 4:40 p.m. Digging into organic waste: Environmental selection of azole-resistant *Aspergillus fumigatus.* **Bo Briggeman** Wageningen University & Research

19 5:00 p.m. Rapid Emergence of Highly Fungicide-Persistent Variants During Cryptococcal Infections **Yuyan Xie** Institute of Microbiology, Chinese Academy of Sciences (IMCAS)

20 5:20 p.m. Evolutionary adaptation of *Candidozyma auris* during human infection **Jeffrey Rybak** St. Jude Children's Research Hospital

21 5:40 p.m. ColonyPy: A python-based image analysis pipeline to quantify tolerance and heteroresistance in *Cryptococcus neoformans* **Priscilla Atim** Virginia Tech University

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Fred Farr Forum
Artificial Intelligence in Fungal Research

Session Chairs: Orlando Arguello-Miranda, North Carolina State University, United States; and Abbe LaBella, UNC Charlotte, United States

22 3:00 p.m. Quantitative imaging of fungal life cycle transitions through generative deep learning **Orlando Arguello-Miranda** North Carolina State University

23 3:20 p.m. AI-driven protein design to understand effector function within the *Magnaporthe oryzae* rice pathosystem **Angus Bucknell** The Sainsbury Laboratory

24 3:40 p.m. Allopolyploidization as a driver of structural, functional, and phenotypic diversification in *Brettanomyces bruxellensis* **Joseph Schacherer** University of Strasbourg / CNRS

25 4:00 p.m. Deep Learning and Generative AI for Fungal Genomics **Carson Andorf** USDA-Agricultural Research Service

4:20 p.m. Coffee break

26 4:40 p.m. Interrogating yeast biodiversity by analyzing "silent" synonymous codon bias with machine learning **Abbe LaBella** University of North Carolina, Charlotte

27 5:00 p.m. Characterization of *de novo* miniproteins targeting *Candida albicans* virulence traits **Evelyne Côté** University of Toronto

28 5:20 p.m. AI-Driven *Fusarium* Databases: identify key genetic variation and target to combat agricultural threats and aid development of crops resistant to disease and mycotoxin contamination **Hye-Seon Kim** USDA-Agricultural Research Service

29 5:40 p.m. AI-Driven Phenotyping Uncovers Predominantly Antagonistic Dynamics in Poplar Root Bacterial–Fungal Interactions **Tomas Rush** Oak Ridge National Laboratory

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Chapel
Genomics of Environmental Opportunism: Fungal Adaptation at the Edge of Pathogenicity

Session Chairs: Iuliana Ene, Institut Pasteur, France; and Andrei Steindorff, Lawrence Berkeley National Laboratory, United States

30 3:00 p.m. Heat adaptation in the pathogenic yeast *Cryptococcus deneoformans* **Asiya Gusa** Duke University

31 3:20 p.m. Evolutionary Analysis of Pmk1 MAPK-dependent fungal pathogenesis across the Fungal Tree of Life **Neha Sahu** The Sainsbury Laboratory

32 3:40 p.m. Investigating the repeated evolution of pathogenesis in *Aspergillus* section *Fumigati* **Thomas Sauters** Vanderbilt University

33 4:00 p.m. Single-cell genomics of Freshwater Zoosporic Fungi **Steven Ahrendt** DOE Joint Genome Institute

4:20 p.m. Coffee break

34 4:40 p.m. When Preparedness Meets Opportunity – A Genomic Perspective on the Ecological Plasticity of *Trichoderma* **Irina Druzhinina** The Royal Botanic Garden Kew

35 5:00 p.m. High-throughput genetics in the *Cryptococcus* genus **Blake Billmyre** University of Georgia

36 5:20 p.m. The Evolution of Host Preference Across the *Botrytis* Genus **Lori Pradhan** Louisiana State University

37 5:40 p.m. Recent lineage diversification and gene flow shape climate adaptation in the Swiss needle cast pathogen of Douglas-fir **Richard Hamelin** University of British Columbia

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Scripps

Lipid Homeostasis in Fungal Pathogenesis and Drug Resistance

Session Chairs: Kai Heimel, Georg-August-University, Germany; and Chaoyang Xue, Rutgers University, nited States

38 3:00 p.m. A ceramide synthase is important for filamentous fungal biofilm morphology and antifungal drug resistance **Robert Cramer** Geisel School of Medicine at Dartmouth

39 3:20 p.m. Genomic and transcriptomic profiling of *Hanseniaspora guilliermondii*'s ethanol stress response **Diogo Santos** iBB, Institute for Bioengineering and Biosciences, Instituto Superior Técnico, University of Lisbon

40 3:40 p.m. Tolerance to the antifungal drug fluconazole is mediated by tuning cytoplasmic fluidity **Robert Arkowitz** CNRS/INSERM/University Cote d'Azur

41 4:00 p.m. Lipid homeostasis in antifungal resistance of *Cryptococcus neoformans* **Shoily Khondker** Public Health Research Institute, New Jersey Medical School, Rutgers University

4:20 p.m. Coffee break

42 4:40 p.m. Powdery Mildew Fungi Manipulate Plant Lipid Metabolism for their Growth & Reproduction **Mary Wildermuth** University of California Berkeley

43 5:00 p.m. Evolution of short amino-acid insertions in Gcn4 rewires metabolic gene regulation in the *Candida* lineage **Megan Garber** University of California, San Francisco

44 5:20 p.m. Membrane fluidity control by the *Magnaporthe oryzae* acyl-CoA binding protein sets the thermal range for host rice cell colonization **Richard Wilson** University of Nebraska at Lincoln

45 5:40 p.m. Elucidation of fluconazole resistance in the emerging fungal pathogen *Candida auris* **Tamaki Tatesaka** Chiba University

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Heather

Multicellular Development

Session Chairs: Yen-Ping Hsueh, Max Planck Institute for Biology, Germany; and Anita Sil, University of California, San Francisco, United States

46 3:00 p.m. Large-scale transcriptomics reveal a kexin protease required for the formation of the multicellular host morphology of the fungal pathogen *Coccidioides* **Christina Homer** Oregon Health & Science University

47 3:20 p.m. Transcriptional regulation during vegetative reproduction in the Mucoral fungus *Phycomyces blakesleeanus* **María Corrochano-Luque** University of Sevilla

48 3:40 p.m. Cellularization in chytrid fungi uses distinct mechanisms from conventional cytokinesis and cellularization in animals and yeast **Edgar Medina** University of Massachusetts Amherst

49 4:00 p.m. Cell polarity and the making of a trap for nematode predation **Yen-Ping Hsueh** Max Planck Institute for Biology

4:20 p.m. Coffee break

50 4:40 p.m. A cytokinetic contractile-ring-associated short kinesin-3 motor is required for sexual development in *Podospora anserina* **Leonardo Peraza-Reyes** National Autonomous University of Mexico

51 5:00 p.m. Environmental drivers and cellular mechanisms of development in the fungal pathogen *Coccidioides* **Rachel Brem** University of California, Berkeley

52 5:20 p.m. Phosphoproteomic analysis of the Target of Rapamycin (TOR) signalling pathway in the rice blast fungus *Magnaporthe oryzae* **Matthew Wengler** The Sainsbury Laboratory

53 5:40 p.m. From dormancy to disease: a life cycle proteome atlas of *Cryptococcus neoformans* **Benjamin Chadwick** University of Macau

Wednesday, March 18, 2026

3:00 p.m. – 6:00 p.m.
Nautilus
Nutrient Sensing

Session Chairs: James Konopka, Stony Brook University, United States; and James Kronstad, University of British Columbia, Canada

54 3:00 p.m. Ubiquinone promotes nutrient sensing in the fungal pathogen *Candida albicans* **James Konopka** Stony Brook University

55 3:20 p.m. Metabolic crosstalk between the opportunistic pathogen *Candida albicans* and the gastrointestinal tumor microenvironment **Rosana Alves** Universidade do Minho

56 3:40 p.m. Copper homeostasis links plant colonization and trap formation in the nematode-trapping fungus *Arthrobotrys flagrans* **Rafael Palos Fernandez** Karlsruhe Institute of Technology

57 4:00 p.m. Fungal Foundries: Differential Nutrient Uptake Across the Fungal Kingdom **Jack Orebaugh** Oak Ridge National Lab

4:20 p.m. Coffee break

58 4:40 p.m. Fungi at the buffet: The regulatory landscape of nutrient sensing **Lori Huberman** Cornell University

59 5:00 p.m. The High Cost of Assimilation: How Wood-Decaying Fungi Balance Transcriptional Investment Between Extracellular Deconstruction and Intracellular Metabolism **Idoia Jimenez** Public University of Navarre

60 5:20 p.m. Fire-adapted fungi: specialists, generalists, and charcoal chompers **Monika Fischer** University of British Columbia

61 5:40 p.m. A candidate effector modulates virulence dependent on temperature and host phosphate status by regulating root colonization **Jacy Newfeld** The University of Tokyo

Thursday, March 19, 2026

9:00 a.m. – 12:00 p.m.
Merrill Hall and Chapel
Plenary Session 2: Dangerous Liaisons: Fungal Pathogens in Host Interactions

Session Chairs: Robert Cramer, Geisel School of Medicine at Dartmouth, United States; and Eva Stukenbrock, Max Planck Institute of Evolutionary Biology, Germany

9:00 a.m. GSA Journals Update **Lauren McIntyre** Florida State University

62 9:10 a.m. Life in the Burrow: Vertebrate Hosts and the Maintenance of Coccidioides in Desert Ecosystems **Bridget Barker** Northern Arizona University

63 9:40 a.m. Deciphering the effector code of a gall-inducing fungus **Armin Djamei** University of Bonn

64 10:10 a.m. Dissecting Wheat Tandem Kinase–Mediated Immunity Using a Rice Blast Model **Yi-Chang Sung** University of California Davis

10:40 a.m. Coffee break

11:10 a.m. Spore Lecture Introduction **Jay Dunlap** Geisel School of Medicine at Dartmouth

65 11:20 a.m. The Spore Factory: Evolutionary experiments in the Anthropocene **Matthew Fisher** Imperial College London

Thursday, March 19, 2026

12:30 p.m. – 1:45 p.m.
Chapel
Navigating the National Science Foundation and the Directorate of Biological Sciences

Organizer: Sara Branco, University of Colorado

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Scripps
Cell Wall Synthesis and Remodeling

Session Chairs: Jennifer Lodge, Duke University, United States; and Frederico Lopez, Universidad de Alicante, Spain

66 3:00 p.m. Deletion of septin AspB unlocks caspofungin fungicidal potential in the human pathogen *Aspergillus fumigatus* **Jose Vargas-Muniz** Virginia Tech

67 3:20 p.m. Mitochondrial Drug-Binding Strategy Underlies Caspofungin Resistance in *Cryptococcus neoformans* **Anna Loksztejn** Duke University School of Medicine

68 3:40 p.m. Architecture of Fungal Cell Wall and Remodeling by Antifungals: New Insight from Solid-State NMR Spectroscopy **Tuo Wang** Michigan State University

69 4:00 p.m. A Coordinated Breakdown of Cell Wall Homeostasis Underlies the Antifungal Action of Chitosan **Federico Lopez-Moya** University of Alicante

4:20 p.m. Coffee break

70 4:40 p.m. Pmk1-dependent regulation of a Mst12–Bip1 transcriptional network governing pathogenesis by the rice blast fungus, *Magnaporthe oryzae* **Camilla Molinari** The Sainsbury Laboratory

71 5:00 p.m. Deciphering the Role of Carbohydrate-Active Enzymes in the Pathogenicity and cell degradation of *Fusarium oxysporum* Infecting Banana Plant **Mst Shamim Ara Supty** Georgia Southern University

72 5:20 p.m. Elucidation of basidiomycete-specific chitin synthase roles in the white-rot fungus *Pleurotus ostreatus* **Kim Schiphof** Kyoto University

73 5:40 p.m. Invading in full force: substantial pressure from Botrytis cinerea infection cushions breaches plant surfaces **Frank Pieterse** Wageningen University & Research

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Chapel

Fungal Strain Heterogeneity & Pangenomes

Session Chairs: Daniel Croll, University of Neuchatel, Switzerland; and Aleeza Gerstein, University of Manitoba, Canada

74 3:00 p.m. The role of mutation rate and drug stress in the evolution of antifungal resistance within *Aspergillus fumigatus* **Michael Bottery** University of Manchester

75 3:20 p.m. A genomic view of hypermutation potential in *Candida auris* drug resistance **David Firer** Brown University

76 3:40 p.m. A new reference graph-pangenome for *Aspergillus fumigatus* recovers gene expression of accessory genes absent from the reference strain **Marion Perrier** Friedrich Schiller University Jena

77 4:00 p.m. *Candida albicans* genetic parallelism in recurrent vulvovaginal candidiasis **Aleeza Gerstein** University of Manitoba

4:20 p.m. Coffee break

78 4:40 p.m. Global analysis of genotypic and phenotypic variation in an NIH collection of 160 *Candida albicans* patient-derived isolates with paired clinical metadata **Jessie MacAlpine** National Institutes of Health

79 5:00 p.m. Evolution of invasive *Phytophthora ramorum* populations in Oregon's coastal forests **Steph Chase** Oregon State University

80 5:20 p.m. Stage-specific transposase activation as mechanism of genetic variation in the clonally propagating pathogen *Fusarium oxysporum* **Ana Rodriguez Lopez** University of Córdoba

81 5:40 p.m. Tracking plant pathogen emergence using thousand-genome panels **Daniel Croll** University of Neuchatel

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Fred Farr Forum

Fungi and their Interactions with Animals and Microbes

Session Chairs: Stephen Dolan, Clemson University, United States; and Alisha Quandt, University of Colorado Boulder, United States

82 3:00 p.m. Illuminating *in vivo* macrophage-*A. fumigatus* interactions across multiple days of infection **Emily Rosowski** Clemson University

83 3:20 p.m. Machine learning identifies novel hallmarks of symbiotic evolution in *Burkholderia*-related bacterial endosymbionts of Mucoromycota fungi **Jessie Uehling** Oregon State University

84 3:40 p.m. Signal Reliability and Nutritional Rewards Drive Divergent Evolutionary Trajectories in Nematode-Trapping Fungus *Arthrobotrys oligospora* **Hung-Che Lin** Max Planck Institute for Biology Tübingen

85 4:00 p.m. Mycangial ultrastructure, temporal transcriptomics of fungal colonization, and engineering of the fungal symbiont community in *Xyleborus affinis* ambrosia beetles **Ross Joseph** University of Illinois Chicago

4:20 p.m. Coffee break

86 4:40 p.m. Environmental impacts on gene expression in the amphibian gut fungus *Basidiobolus* **Kimberly Syring** Oregon State University

87 5:00 p.m. Understanding *Basidiobolus*-bacterial interactions using multi-replicated enrichment communities **Joseph Spatafora** Oregon State University

88 5:20 p.m. Understanding Diversity of Endohyphal Bacteria in Clinical Mucorales Isolates **Jack Gregory** University of Exeter

89 5:40 p.m. Analyzing differences in codon usage patterns in *Rhizopus micosporus*, its bacterial endosymbiont *Mycetohabitans* sp., and the novel prophages residing in the bacterial genome **Caroline West** University of North Carolina Charlotte

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Kiln
Genomic Technologies

Session Chairs: Rhys Farrer, University of Exeter, United Kingdom; and Melania Figueroa, CSIRO, Australia

90 3:00 p.m. Linker histone H1.52 governs facultative heterochromatin and metabolic adaptation in Cryptococcus neoformans **Grace Paul** Medical Research Council Centre for Medical Mycology

91 3:20 p.m. Beyond a reference genome: how cereal rusts pangenomes are changing our research approaches **Melania Figueroa** CSIRO

92 3:40 p.m. Distribution of haploid chromosomes into separate nuclei in two pathogenic fungi **Jinyi Tan** University of British Columbia

93 4:00 p.m. Computational tools for chromosome conformation capture **Geoffrey Fudenberg** University of Southern California

4:20 p.m. Coffee break

94 4:40 p.m. A CRISPR activation platform to identify genes involved in trisomy-associated antifungal drug resistance in *Candida albicans* **Rebecca Shapiro** University of Guelph

95 5:00 p.m. FLASH, a new statistical machine learning algorithm, can accurately predict and link novel genes to antifungal resistance in diverse clinical and environmental fungi **Marie-Claire Harrison** Stanford University

96 5:20 p.m. Development of a synthetic biology toolkit for heterologous gene expression in the oyster mushroom, *Pleurotus ostreatus* **Panward Prasongpholchai** University of Warwick

97 5:40 p.m. Facultative heterochromatin mediated by core and accessory chromosome-encoded H3K27-specific methyltransferases controls virulence in a fungal phytopathogen **Slavica Janevska** Leibniz-HKI

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Merrill Hall
Host Pathogen Interactions

Session Chairs: Gert Bange, University of Marburg, Germany; and Teresa O'Meara, University of Michigan, United States

98 3:00 p.m. Towards a mechanistic understanding of novel defense proteins from maize against *U. maydis* **Gert Bange** SYNMIKRO

99 3:20 p.m. Cross-kingdom Interaction with *Candida albicans* Promotes Gut Colonization and Pathogenesis of *Salmonella* Typhimurium **Judith Behnsen** University of Illinois Chicago

100 3:40 p.m. Uncovering cell-specific responses of barley during *Magnaporthe oryzae* infection **Louisa Wirtz** RWTH Aachen University

101 4:00 p.m. Epigenetic rewiring of the low-oxygen response by an Inhibitor of Growth (ING) family Protein drives *Aspergillus fumigatus* disease progression **Sandeep Vellanki** Geisel School of Medicine at Dartmouth

4:20 p.m. Coffee break

102 4:40 p.m. How fungi exploit host defense activity for pathogenic development: Insights from a new peptide-GPCR system **Florian Altegoer** Heinrich-Heine University

103 5:00 p.m. Trehalose biosynthesis pathway-mediated thermotolerance via tight regulation of glycolytic flux **Erica Washington** Duke University

104 5:20 p.m. Training a pathogen: Uncovering the molecular strategies of host adaptation in a human fungal pathogen **Zoe Hilbert** Boston College

105 5:40 p.m. Dissecting turgor-sensing mechanisms required for appressorium-mediated plant infection by the rice blast fungus *Magnaporthe oryzae* **Lauren Ryder** The Sainsbury Laboratory

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Heather
Sensing and Signaling

Session Chairs: David Canovas, University of Sevilla, Spain; and Frank Menke, The Sainsbury laboratory, United Kingdom

106 3:00 p.m. Light-dependent regulation of development by the velvet complex in *Neurospora crassa* **David Canovas** University of Sevilla

107 3:20 p.m. A co-evolved peptide-GPCR system senses host entry to drive fungal infection **Cesar Gabriel Mendoza Rojas** Heinrich Heine University of Düsseldorf

108 3:40 p.m. TORC1 integrates multiple environmental cues to regulate appressoria formation in the rice blast fungus **Nathaniel Yakobov** University of Geneva

109 4:00 p.m. From spore to attack mode: what molecular switches trigger appressorium development in *Magnaporthe oryzae*? **Miriam Oses Ruiz** Public University of Navarre (UPNA)

4:20 p.m. Coffee break

110 4:40 p.m. Phosphoproteomic analysis of appressorium development identifies Vts1, a novel RNA-binding protein required for pathogenicity in the blast fungus *Magnaporthe oryzae* **Frank Menke** The Sainsbury Laboratory

111 5:00 p.m. Capture of the SmSTRIPAK proxiome identifies the Greenbeard proteins SmDOC1/2 as regulators of sexual development in *Sordaria macrospora* **Stefanie Poeggeler** Georg-August University of Göttingen

112 5:20 p.m. Bridging Continuum Mechanics and Fungal Biology to Enable Mycelium-Based Biosensing Technologies **Meredith Silberstein** Cornell University

113 5:40 p.m. RNA isoforms and structure rapidly respond to temperature changes in *Histoplasma* **Murat Can Kalem** University of California, San Francisco

Thursday, March 19, 2026

3:00 p.m. – 6:00 p.m.
Nautilus
Sexual and Asexual Development

Session Chairs: Sven Krappmann, University Hospital Erlangen, Germany; and Brenda Wingfield, University of Pretoria, South Africa

114 3:00 p.m. The (mis)use of sex categories in fungi **Anne Pringle** University of Wisconsin-Madison

115 3:20 p.m. The complex evolution and genomic dynamics of mating-type loci in *Cryptococcus* and *Kwoniella* **Marco Dias Coelho** Duke University Medical Center

116 3:40 p.m. Unidirectional mating-type switching as a programmed genome-editing system in filamentous fungi **Markus Wilken** University of Pretoria

117 4:00 p.m. Adding pieces to the puzzle of *Aspergillus fumigatus* sexuality **Sven Krappmann** University Hospital Erlangen

4:20 p.m. Coffee break

118 4:40 p.m. Signs of ongoing reproductive incompatibility in *Aspergillus fumigatus* **Ben Auxier** Wageningen University

119 5:00 p.m. *Malassezia* parasexual hybridization, yeast-to-hyphae transition, and pathogenesis **Giuseppe Ianiri** University of Molise

120 5:20 p.m. Genetic variation in health and aging in spores isolated from *Schizosaccharomyces pombe* **Nicole Nuckolls** Stowers Institute for Medical Research

121 5:40 p.m. A Bitter Tug-of-War: Exploiting fungal sexual reproduction for better blue cheese **Jonathan Heale** University of Nottingham

Friday, March 20, 2026

8:55 a.m. – 12:00 p.m.
Merrill Hall and Chapel
Plenary Session 3: Fungal Evolution, Genomics, and Cellular Adaptations

Session Chairs: Amelia Barber, Universitat Jena, Germany; and David Hibbett, Clark University, United States

8:55 a.m. Fungal Policy Committee Election **Xiaorong Lin** University of Georgia

122 9:00 a.m. Evolution of complex life cycles in Pucciniales **M. Catherine Aime** Purdue University

123 9:30 a.m. Hidden in plain air: mapping airborne fungal resistance through citizen science **Eveline Snelders** Wageningen University

124 10:00 a.m. Disentangling the evolutionary history of yeasts near its geographical origin **Isheng Jason Tsai** Academia Sinica

10:30 a.m. Coffee break

125 11:00 a.m. *Starship* transposons and the makings of a new framework to study fungal evolution **Emile Gluck-Thaler** University of Wisconsin-Madison

126 11:30 a.m. The shattered genome of *Basidiobolus*: a fungus from the gut of reptiles and amphibians **Lluvia Vargas Gastélum** Oregon State University

Friday, March 20, 2026

12:30 p.m. – 1:45 p.m.
Merrill Hall
Neurospora Business Meeting

12:30 p.m. – 1:45 p.m.
Chapel
JGI_EMSL Workshop -Toward 10,000 Fungal Genomes and Phenotypes

Organizer: Igor Grigoriev, US DEO Joint Genome Institute

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Nautilus
Mycotechnology

Session Chairs: Gloria Muzzi-Erichsen, 21st Bio, United States; and Jacob Steenwyk, University of California, Berkeley and HHMI, United States

127 3:00 p.m. Harnessing Filamentous Fungi for Biomanufacturing of Animal-Free Milk Proteins **Lucy Sullivan** 21st.Bio

128 3:20 p.m. Production of hen egg ovalbumin by *Trichoderma reesei* using precision fermentation technology and testing of its techno-functional properties **Chris Landowski** Onego Bio

129 3:40 p.m. The impact of developmental structures on pure mycelial materials made from *Aspergillus nidulans* **Mark Marten** University of Maryland, Baltimore County

130 4:00 p.m. A fungal community driven development of the oCelloScope™ image analysis platform to quantify growth using deep learning in Medical-, Crop Sci-, Food research and Strain Development **Soren Busch** BioSense Solutions

4:20 p.m. Coffee break

131 4:40 p.m. Building the Future of Roads: Biotechnological optimization of mycelium-based binder **Line Kloster Pedersen** Visibuilt

132 5:00 p.m. Deciphering the chemical language of the fungal-microbiome interactions using computational omics **Marnix Medema** Wageningen University

133 5:20 p.m. A high(er) throughput method for using CRISPR/Cas9 to delete genes from *Coccidioides posadasii* **Katrina Jackson** Northern Arizona University

134 5:40 p.m. Empowering Fungal Research: Cultivarium tools to accelerate study and engineering of non-model fungi **Nili Ostrov** Cultivarium

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Fred Farr Forum
Clocks and Light Sensing

Session Chairs: Christina Kelliher, University of Massachusetts Boston, United States; and Zhenzhong Yu Nanjing, Agricultural University, Peoples Republic of China

135 3:00 p.m. Light regulates alternative splicing and cell wall remodeling in *Trichoderma guizhouense* **Zhenzhong Yu** Nanjing Agricultural University

136 3:20 p.m. A Guardian of the Cell: How Cryptochrome Balances Stress Responses in *A. nidulans* **Alexander Landmark** KIT Institute of Applied Biosciences

137 3:40 p.m. Evaluation of a candidate MAT locus for *Linnemannia elongata* (Mortierellomycotina) using quantitative PCR methods **Kyle Mondron** Oregon State University

138 4:00 p.m. DNA damage tolerant colonies of a fungal plant pathogen acquire mutator phenotype **Shay Covo** Hebrew University

4:20 p.m. Coffee break

139 4:40 p.m. Circadian clock control of translation fidelity in *Neurospora crassa* **Griffin Best** Texas A&M University

140 5:00 p.m. Circadian clock is critical for regulating pathogenicity in *Fusarium oxysporum* **Xiao Liu** Institute of Microbiology, Chinese Academy of Sciences

141 5:20 p.m. Evidence that *Entomophthora muscae* controls the timing of host death via its own circadian clock **Leslie Torres Ulloa** Harvard University

142 5:40 p.m. Illuminating transcriptional dynamics underlying circadian clock regulation and photoentraiment. **Luis F. Larrondo** Pontificia Universidad Catolica de Chile

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Chapel

Effectors and Defense Mechanisms

Session Chairs: Gustavo Goldman, Universidade de São Paulo, Brazil; and Suzanne Noble, University of California, San Francisco, United States

143 3:00 p.m. *Aspergillus fumigatus* conidial surface-associated proteome reveals factors for fungal evasion and host immunity modulation **Gustavo Goldman** Universidade de Sao Paulo

144 3:20 p.m. The immune system of the mushroom *Schizophyllum commune*: identification of transcriptional regulators and effectors **Erik Beijen** Utrecht University

145 3:40 p.m. Genetic dissection of the chemical defense of ink cap mushroom *Coprinopsis cinerea* against fungivorous nematodes **Shurui Mai** ETH Zurich

146 4:00 p.m. Phytoalexins as host cues: convergent evolution of detoxification mechanisms in polyxenous pathogens *Botrytis cinerea* and *Colletotrichum tropicale* **Akira Ashida** Nagoya University

4:20 p.m. Coffee break

147 4:40 p.m. The emerging fungal pathogen *Candida auris* induces IFNγ to colonize mammalian hair follicles **Suzanne Noble** University of California, San Francisco

148 5:00 p.m. Identification and functional validation of avirulence effectors in wheat rusts **Camilla Langlands-Perry** CSIRO

149 5:20 p.m. Identification and characterization of *Cercospora beticola* effector candidates associated with adaptation to the sugarbeet resistance gene *BvCr4* **Nathan Wyatt** USDA-Agricultural Research Service

150 5:40 p.m. Spp1-mediated processing of substrate proteins promotes plant defence suppression and virulence of fungal biotrophs **Nora Marie Kühne** University of Goettingen

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Merrill Hall

Fungal Genome Evolution

Session Chairs: Christina Cuomo, Brown University, United States; and Aaron Vogan, Uppsala University, Sweden

151 3:00 p.m. Investigating genetic and environmental factors driving *Starship*-mediated gene transfer in fungi **Anna Mirandola** Uppsala University

152 3:20 p.m. Comparative genomics using long-read sequencing of clinical *Candida auris* isolates reveals transmission dynamics and drug resistance mechanisms **Sinem Beyhan** J. Craig Venter Institute

153 3:40 p.m. Selfish genetic element promotes mitotic stability of a dispensable chromosome in the fungal pathogen *Fusarium oxysporum* **Gema Puebla Planas** University of Cordoba

154 4:00 p.m. Phyletic Patterns of c-NHEJ Genes Are Reflected in Genomic Signatures in Fungal Genomes **Einat Hazkani-Covo** The Open University of Israel.

4:20 p.m. Coffee break

155 4:40 p.m. Dissecting the fitness effects of copy number variants using CRISPR-activation across diverse strains and environments **Petra Vande Zande** University of Minnesota

156 5:00 p.m. Chromosomal translocation of a horizontally-acquired gene cluster and virus-like elements in a cosmopolitan yeast **Jassim Al-Oboudi** University of Wisconsin-Madison

157 5:20 p.m. Comparative genomics of plant associated fungi to assess endophytic genome signatures **Joss Etty** University of Bath

158 5:40 p.m. Population-Specific Transcriptomic Rewiring Underlies Secondary Metabolic Diversification in *Aspergillus flavus* and the Domestication of *Aspergillus oryzae* **Milton Drott** USDA-Agricultural Research Service

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Scripps

Genomic and Ecological Perspectives on Fungal Symbiosis across the Parasitism-mutualism Spectrum

Session Chairs: Francismar Marcelino-Guimarães, Brazilian Agricultural Research Corporation, Brazil; and Lotus Lofgren, Duke University, United States

159 3:00 p.m. Hi-C and HiFi Sequencing Unveils Genome Compartmentalization and RNA Operon Physical Interactions in *Gigaspora margarita* **Nicolas Corradi** University of Ottawa

160 3:20 p.m. Integrative structural genomics of the secretome in a plant pathogenic fungus provides insights into effector evolution and functional diversification **Eva Stukenbrock** Kiel University

161 3:40 p.m. Host Association and Secondary Metabolism in a Widespread Amphibian Gut Symbiont **Javier Tabima** Clark University

162 4:00 p.m. Transcriptomic variation explains *Suillus tometosus* zinc tolerance in the absence of population structure **Jessica Fletcher** University of Colorado Denver

4:20 p.m. Coffee break

163 4:40 p.m. Genomic, transcriptomic and molecular study of lichenization in the model lichen *Xanthoria parietina* **Camille Puginier** The Sainsbury Laboratory

164 5:00 p.m. Host-specific isocyanide natural product diversification in the pathogenic mold *Fusarium sporotrichioides* **Livia Oster** University of Minnesota Twin Cities

165 5:20 p.m. The core and accessory gene repertoire of rust fungi (pucciniales): Genomic insights into their adaptive evolution **Francismar Marcelino-Guimarães** Brazilian Agricultural Research Corporation - Embrapa Soybean

166 5:40 p.m. Among Us: Cheaters and transposons drive adaptations in experimental evolution of *Botrytis cinerea* **Suraj Hassan Muralidhar** Wageningen University and Research

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Kiln

The Plasticity of Fungal Genome Organization

Session Chairs: Henrik De Fine Licht, University of Copenhagen, Denmark; and Michael Habig, University Kiel, Germany

167 3:00 p.m. *Starship* transposons mediate horizontal gene transfer between fungi **Andrew Urquhart** The University of Melbourne

168 3:20 p.m. Starship-mediated horizontal transfer of transposable elements across fungi **Hanne Griem-Krey** Kiel University

169 3:40 p.m. Experimental evolution reveals new mechanism of niche adaptation in *Fusarium oxysporum* **Cristina López-Díaz** University of Cordoba

170 4:00 p.m. Evolution of supernumerary chromosomes in blast fungal pathogens **Sanzhen Liu** Kansas State University

4:20 p.m. Coffee break

171 4:40 p.m. Transposable elements drive evolution and alternative virulence strategies in *Colletotrichum lupini* **Andrea Menicucci** University of Bologna

172 5:00 p.m. Roles of aneuploidy in *Aspergillus fumigatus* unstable adaptation and antifungal resistance **Anna Lehmann** Duke University School of Medicine

173 5:20 p.m. Beyond the lab: The variable landscape of genomic instability in yeast isolates **María Angélica Bravo Núñez** Cornell University

174 5:40 p.m. The genetics of speciation in *Saccharomyces* **Jasmine Ono** University of Nottingham

Friday, March 20, 2026

3:00 p.m. – 6:00 p.m.
Heather
The Spatial Organization of Fungal Cells

Session Chairs: Johannes Freitag, University of Marburg, Germany; and Lillian Fritz-Laylin, University of Massachusetts, United States

175 3:00 p.m. Inducing novel endosymbioses in the filamentous fungus *Rhizopus microsporus* **Alannah Holderbusch** ETH Zurich

176 3:20 p.m. Polarized cell wall growth during exit tube assembly in the chytrid *Batrachochytrium dendrobatidis* **Kirsten Underwood** University of Massachusetts Amherst

177 3:40 p.m. The dynein light chains differentially affect cargo movement in *Aspergillus nidulans* **Jenna Christensen** Northwestern University

178 4:00 p.m. Acyl-coA binding protein AcbdA regulates peroxisome movement via hitchhiking on early endosomes in Aspergillus nidulans **John Salogiannis** University of Vermont

4:20 p.m. Coffee break

179 4:40 p.m. A Bipartite Complex Coordinates Glucan Synthesis and Remodeling to Build the Fungal Cell Wall **Alaina Willet** Vanderbilt University

180 5:00 p.m. Regulation of cell polarity in a multibudding fungus **Luyang Wang** Massachusetts Institute of Technology

181 5:20 p.m. Peroxisomal targeting via organellar transit **Johannes Freitag** University of Marburg

182 5:40 p.m. The role of eisosomal proteins in pathogenesis of *Cryptococcus neoformans* **Lukasz Kozubowski** Clemson University

Saturday, March 21, 2026

8:55 a.m. – 12:00 p.m.
Merrill Hall and Chapel
Plenary Session 4: Systems Biology and Ecological Interactions of Fungi

Session Chairs: Nina Gunde-Cimerman, University of Ljubljana, Slovenia; and Richard Hamelin, University of British Columbia, Canada

8:55 a.m. Fungal Genetics Policy Committee Election Results **Xiaorong Lin** University of Georgia

183 9:00 a.m. Evolution of form, function and cross-kingdom interactions in Pezizales **Gregory Bonito** Michigan State University

184 9:30 a.m. Trait tradeoffs drive survival of pyrophilous fungi after wildfires **Sydney Glassman** University of California, Riverside

185 10:00 a.m. Microbial symbioses and their role in fungal biology **Laila P. Partida-Martinez** Cinvestav Irapuato

10:30 a.m. Coffee break

186 11:00 a.m. What is the ecology of *Penicillium* species? Insights from Fleming, forests, and fromage **Benjamin Wolfe** Tufts University

187 11:30 a.m. Genome-scale model, *in vitro* experimentation, and stable cultures of algae, cyanobacteria, and fungi support a symbiotic exchange of amino acids for melanin **Erin Carr** University of Nebraska-Lincoln

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Kiln
Bioengineering and Fungal Biology

Session Chairs: Debora Lyn Porter, University of California Merced, United States; and Claire Stanley, Imperial College London, United Kingdom

188 2:00 p.m. Microfluidic "Fungi-on-a-Chip" platforms for probing fungal interactions **Claire Stanley** Imperial College London

189 2:20 p.m. Unravelling the molecular mechanisms of bacterial–fungal endosymbiosis **Ingrid Richter** Unidad de Genómica Avanzada - CINVESTAV

190 2:40 p.m. Dissecting the root-fungal interface in 3D reveals spatially distinct signalling landscapes **Amey Redkar** National Centre for Biological Sciences (NCBS)

191 3:00 p.m. *Lichtheimia*: An emerging fungal pathogen in human mucormycosis – insights from lung-on-chip and invertebrate models **Kerstin Voigt** University of Jena

3:20 p.m. Coffee break

192 3:40 p.m. Fungal structure as inspiration for advanced engineering materials **Debora Lyn Porter** University of California Merced

193 4:00 p.m. Mycotechnology to the rescue: biosustainable Production of secondary metabolites by filamentous fungi using carbon sourced from polystyrene and polyethylene plastic waste **Clay Wang** University of Southern California

194 4:20 p.m. Toward a platform for space mycotecture **Rolando Perez** Blue Marble Space Institute of Science

195 4:40 p.m. Engineering filamentous fungi for waste-to-food conversion **Vayu Hill-Maini** Stanford University

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Scripps
Chromatin Biology and Epigenomics

Session Chairs: Andrew Klocko, University of Colorado Colorado Springs, United States; and Zachary Lewis, University of Georgia, United States

196 2:00 p.m. Stress-driven emergence of heritable non-genetic drug resistance **Jing Lin (Lucy) Xie** Stanford University

197 2:20 p.m. Epimutations driven by RNAi or heterochromatin evoke transient antimicrobial drug resistance in fungi **Yeeun Son** Duke University Medical Center

198 2:40 p.m. Death or disomy: perturbing spindle checkpoint kinases in the fungal pathogen *Cryptococcus neoformans* **Kevin Hardwick** University of Edinburgh

199 3:00 p.m. Functional dissection of the RNAi pathway in the oomycete *Phytophthora sojae* **Francis Fang** The Ohio State University

3:20 p.m. Coffee break

200 3:40 p.m. Paralogs of the *Candida albicans TLO* (telomere-associated) gene family form interconnected functional networks through incomplete redundancy **Emily Simonton** University of Wisconsin - Madison

201 4:00 p.m. Epigenetic regulation of *Starship* activity in *Pyricularia oryzae* **Aidan McVey** Kansas State University

202 4:20 p.m. ATRX/SAD-6 enables a versatile system for genome surveillance and defense in fungi **Eugene Gladyshev** Institut Pasteur

203 4:40 p.m. DNA adenine methylation as a key epigenetic switch in non-Dikarya fungi **Victoriano Garre** Universidad de Murcia

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Merrill Hall

Emerging and Re-emerging Fungal Pathogens

Session Chairs: Matthew Fishe,r Imperial College London, United Kingdom; and Ilan Schwartz, Duke University, United States

204 2:00 p.m. From Environmental Microbiomes to Human Health: Fungal Pathogen Ecology Across Scales **Amelia Barber** Friedrich Schiller University

205 2:20 p.m. Fitness effects of multi-fungicide resistances in *Aspergillus fumigatus* **Ben Auxier** Wageningen University

206 2:40 p.m. Genomics insights into the *Bipolaris gigantea* host range expansion from grasses to hemp **Flavia Rogerio** University of Florida

207 3:00 p.m. Re-parameterising wheat stem rust (*Puccinia graminis* f. sp. *tritici*) epidemiological models to explore disease dynamics in a changing climate **Cesaree Morier-Gxoyiya** John Innes Centre

3:20 p.m. Coffee break

208 3:40 p.m. The last of cats: Zoonotic spillover, evolution, and the continental expansion of *Sporothrix brasiliensis* **Anderson Messias Rodrigues** Federal University of Sao Paulo

209 4:00 p.m. Human-mediated hybrid zones between amphibian-killing chytrid lineages produce second generation recombination **Thomas Jenkinson** California State University, East Bay

210 4:20 p.m. Contrasting environmental and clinical isolates of *Coccidioides*, the causative agent of Valley Fever **Lisa Couper** University of California, Berkeley

211 4:40 p.m. Reductive evolution in *Paracoccidioides lobogeorgii*, causing Jorge Lobo's disease **Marcus Teixeira** University of Brasilia

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Fred Farr Forum

Fungal Adaptation to Infection-relevant Traits

Session Chairs: Jiorgos Kourelis, Imperial College London, United Kingdom; and Damian Krysan, University of Iowa, United States

212 2:00 p.m. Environmental triggers, including immune responses, enhance morphotype formation and dissemination in a CD4+ T Cell-Deficient model of cryptococcosis **Jessica Brown** University of Utah

213 2:20 p.m. On the origins and evolution of the necrotrophic effector *ToxA* within giant Starship transposons **Megan McDonald** University of Birmingham

214 2:40 p.m. Pikobodies: What does it take to bioengineer NLR immune receptor-nanobody fusions **Jiorgos Kourelis** Imperial College London

215 3:00 p.m. Intracellular metabolism of the fungal pathogen Histoplasma capsulatum **Chad Rappleye** Ohio State University

3:20 p.m. Coffee break

216 3:40 p.m. Understanding how Candida albicans, a fungal species, is adapted for survival in the human gut microbiome **Manjari Shrivastava** University of California, San Francisco

217 4:00 p.m. Dissecting appressorium-mediated plant infection by FIB-SEM Volumetric EM and Cryogenic Electron Tomography **Juan Carlos De la Concepcion** ZMBP, University of Tübingen

218 4:20 p.m. IL-17 derepresses cytokine translation to induce immunity against candidiasis **Jianfeng Lin** The Lundquist Institute

219 4:40 p.m. Translational Control of *Cryptococcus neoformans*: Uncovering Mechanisms of Latency, Reactivation, and Pathogenesis in the Immunocompromised Host **Maia Mazzaferro** University at Buffalo

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Nautilus

Life in the Water: Freshwater and Marine Fungi

Session Chairs: Ramon Alberto Batista Garcia, Universidad de Jaén, Mexico; and Huzefa Raja, University of North Carolina Greensboro, United States

220 2:00 p.m. Bioprospecting marine and freshwater fungi from Mexico **Mario Figueroa** National Autonomous University of Mexico

221 2:20 p.m. Benthic and beyond: Genomic, biogeographic, and experimental insights into the aquatic and terrestrial lifestyles of *Tetracladium* **Jennifer Anderson** Swedish University of Agricultural Sciences

222 2:40 p.m. Genomic and phenotypic comparison of terrestrial and aquatic *Rhodotorula* yeasts **Jason E. Stajich** University of California, Riverside

223 3:00 p.m. Extremely halotolerant black yeast *Hortaea werneckii* in the Arabian Gulf: Novel thermotolerant genotypes from one of the World's most extreme marine environments **Nina Gunde - Cimerman** University of Ljubljana, BF

3:20 p.m. Coffee break

224 3:40 p.m. Fungal diversity and their involvement in the decomposition of deep-sea submerged plants **Yuriko Nagano** Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

225 4:00 p.m. Genomic insights into the melanized fungus *Exophiala pacifica* ETNP2018 reveals adaptation to the open ocean **Xuefeng Peng** University of South Carolina

226 4:20 p.m. Actin-based cell crawling in chytrid zoospores illuminates potential mechanisms of ancestral fungal locomotion **Stephanie Brody** University of Massachusetts Amherst

227 4:40 p.m. Quantitative multi-omics reveal functional diversity and carbohydrate-active enzyme activity of marine fungi in the Eastern tropical South Pacific OMZ **Madeleine Thompson** University of South Carolina

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Chapel

RNA Biology in Fungi

Session Chairs: Alessia Buscaino, Quadram Institute, United Kingdom; and Baoye He, Texas A & M University, United States

228 2:00 p.m. Mechanisms of RNA interference in Cryptococcus **Elizabeth Bayne** University of Edinburgh

229 2:20 p.m. RNAi restriction of a novel mycovirus prevents viral induced alterations in transcription and virulence in a critical human fungal pathogen **Jun Huang** Duke University

230 2:40 p.m. Mitochondrial translation elongation speed controls OXPHOS biogenesis by coordinating the synthesis and folding of mitochondrially encoded proteins **Zhipeng Zhou** Huazhong Agricultural University

231 3:00 p.m. Extracellular vesicle-mediated RNA transfer across cell-wall barriers in plant–fungal pathogen communication **Baoye He** Texas A&M University

3:20 p.m. Coffee break

232 3:40 p.m. A long non-coding RNA mediates crosstalk between fungal thermal adaptation and azole drug response in *Aspergillus fumigatus* **Sourabh Dhingra** Clemson University

233 4:00 p.m. tRNA modification and codon usage underlie phytopathogen effector evolution and secretion **Nawaraj Dulal** University of Nebraska-Lincoln

234 4:20 p.m. The role of RNA interference in the human fungal pathogen *Candida albicans* **Alessia Buscaino** Quadram Institute

235 4:40 p.m. Fungi-wide explorations show unique paradigms found in sRNA processing and function **Nate Johnson** Universidad Mayor

Saturday, March 21, 2026

2:00 p.m. – 5:00 p.m.
Heather
Secondary Metabolites and Volatile Compounds in Fungal Communications

Session Chairs: Joan Bennett, Rutgers Univ, United States; and Linda Johnson, AgResearch Limited, New Zealand

236 2:00 p.m. Dissection of the epoxyjanthitrem pathway in *Epichloë* sp. *Lp*TG-3 strain AR37 by CRISPR gene editing to deliver improved SDN-1 type endophytes for grasses **Linda Johnson** Bioeconomy Science Institute

237 2:20 p.m. Potential roles of volatile metabolite-mediated plant-fungal interactions in plant growth and health and custom-designed tools for investigating such interactions below ground **Seogchan Kang** Penn State

238 2:40 p.m. Gas-mediated plant-microbial interactions: impacts to plant germination and growth **Adriana Romero-Olivares** University of California, Riverside

239 3:00 p.m. Genome-wide association of Specialized metabolism in *Botrytis cinerea* **Jordan Dowell** Louisiana State University

3:20 p.m. Coffee break

240 3:40 p.m. MERCK complex and downstream regulatory genes operate development and secondary metabolism in *Aspergillus nidulans* **Pranay Agarwal** Maynooth University

241 4:00 p.m. A biosynthetic survey and a heterologous production platform for molecules from biocontrol fungi **Pablo Cruz-Morales** Technical University of Denmark

242 4:20 p.m. GATA-type regulator NsdD-mediated species-specific rewiring of gene regulatory networks in *Aspergillus* **Kap-Hoon Han** Woosuk University

243 4:40 p.m. Biosynthetic pathway of the volatile toxin 3-octanone in the oyster mushroom *Pleurotus ostreatus* **Yi-Yun Lee** Max Planck Institute for Biology Tübingen

Saturday, March 21, 2026

5:30 p.m. – 5:45 p.m.
Merrill Hall and Chapel
GSA Student Poster Awards and Fungal26 Postdoc Poster Awards

Chair: **Li-Jun Ma,** University of Massachusetts Amherst

5:30 p.m. GSA Student Poster Awards

5:40 p.m. Fungal Meeting Postdoc Poster Awards Sponsored by *Fungal Biology and Biotechnology*

Saturday, March 21, 2026

5:45 p.m. – 6:30 p.m.
Merrill Hall and Chapel
Perkins/Metzenberg Lecture

5:45 p.m. Introduction, **Clay Wang** University of Southern California

5:50 p.m. Lecture **Nancy Keller** University of Wisconsin, Madison

Biochemistry and Metabolism

244A The DEAD Box RNA Helicase PRD-1 Links Glucose Availability to Circadian Period and Nutritional Compensation in Neurospora crassa **Sharon Veron Akisa** University of Massachusetts Boston

245A Unravelling the biosynthetic pathway and bioactivity of pleurotin **Fabrizio Alberti** University of Warwick

246A Transition to an oxygen-limited phase in stirred-tank fermentation causes a transient increase in intracellular ROS and triggers respiratory rebalancing including an alternative oxidase-mediated bypass in *Aspergillus oryzae* **Soma Araki*** Tohoku University

247A Circadian clock control of translation fidelity in Neurospora crassa **Griffin Best** Texas A&M University

248A Secreted family of proteins required for high levels of mycotoxin synthesis and corn disease **Daren Brown** USDA-ARS

249A Investigation of pathways that operate downstream of G proteins to regulate cellulase production in *Neurospora crassa* **May Campbell** University of California

250A Genome-wide association of Specialized metabolism in *Botrytis cinerea* **Jordan Dowell** Louisiana State University

251A Cryo-ET reveals the structural cell biology microsporidian parasites **Damian Ekiert** Johns Hopkins University

252A An *Aspergillus fumigatus* homeobox transcription factor provides resistance to copper stress and alters lipid metabolism through oxylipin signaling **Harrison Estes** University of Wisconsin-Madison

253A Ergot Alkaloid Biosynthesis in Aspergillus aspearensis **Jessica Fuss** West Virginia University

254A Rhythmic interaction between ZUOTIN and ribosomes may promote daily rhythms in protein

folding and activity **Madhusree Gangopadhyay** Texas A&M University

255A Reconstructing the evolution of a widespread fungal isocyanide megasynthase using genomes of lichenized fungi **Grant Nickles** University of Wisconsin-Madison

256B Natural products from aquatic fungi as novel treatments for neurodegenerative disease. **Jordan Havert** High Point University

257B The High Cost of Assimilation: How Wood-Decaying Fungi Balance Transcriptional Investment Between Extracellular Deconstruction and Intracellular Metabolism **Idoia Jimenez** Institute of Multidisciplinary Research in Applied Biology, Public University of Navarre

258B A glucose-dependent defects in a CHV1-, sectorization-associated mutant of *Cryphonectria parasitica* **Yo-Han Ko** Jeonbuk National University

259B Biosynthetic pathway of the volatile toxin 3-octanone in the oyster mushroom *Pleurotus ostreatus* **Yi-Yun Lee** Max Planck Institute for Biology Tübingen

260B Translational Control of *Cryptococcus neoformans*: Uncovering Mechanisms of Latency, Reactivation, and Pathogenesis in the Immunocompromised Host **Maia Mazzaferro** University at Buffalo

261B Subcellular deep proteomics reveals extensive circadian clock regulation of the proteome, phosphoproteome, and translation fidelity in *Neurospora crassa* **Sidharth Mohan** Texas A&M University

262B Interplay between mitochondrial dysfunction and metabolic adaptation to non glucose carbon source in engineered yeast for improved biofuel production **Heungyun Moon** University of Wisconsin-Madison

263B Genetic variation in health and aging in spores isolated from *Schizosaccharomyces pombe* **Nicole Nuckolls** Stowers Institute for Medical Research

264B Fungal Foundries: Differential Nutrient Uptake Across the Fungal Kingdom **Jack Orebaugh** Oak Ridge National Lab

265B Global Proteomic and Phosphoproteomic Analysis Reveals Potential Calcineurin-Dependent Effectors in Cell Wall and Membrane Organization in *Aspergillus fumigatus* **Aron Osakina** University of Arkansas for Medical Sciences

266B Strain-specific redox balancing for *Aspergillus fumigatus* pathoadaptation and antifungal drug susceptibility **Katherine Quinn** Geisel School of Medicine, Dartmouth College

267C Delineation of the sterigmatocystin biosynthetic gene cluster in *Aspergillus nidulans* through functional analysis of *stcX* **Kiminori Shimizu** Tokyo University of Science

268C Automated discovery of stress-responsive natural products from anaerobic gut fungi in extreme environments **Rafael Solorzano** University of California, Santa Barbara

269C Investigating the biosynthetic capacity of *Trichoderma koningiopsis* to combat papaya dieback disease caused by *Erwinia mallotivora* **Kim Summers** University of Warwick

270C Structural insights into mechanisms of zinc scavenging by the *Candida albicans* zincophore 1 **Johanna Syrjanen** University of Helsinki

271C Genetic characterization of N-acetylglucosamine utilization in *Aspergillus nidulans* **Richard Todd** Kansas State University

272C Elucidating Cell Wall Architecture in Rhizopus and Mucor Species and Melanin Structure in Lichtheimia via Solid-State NMR Spectroscopy **Tuo Wang** Michigan State University

273C Trehalose biosynthesis pathway-mediated thermotolerance via tight regulation of glycolytic flux **Erica Washington** Duke University

274C Powdery Mildew Fungi Manipulate Plant Lipid Metabolism for their Growth & Reproduction **Mary Wildermuth** University of California Berkeley

275C Intentionally left blank

276C Large-scale transcriptomics reveal a kexin protease required for the formation of the multicellular host morphology of the fungal pathogen *Coccidioides* **Christina Homer** Oregon Health & Science University

277C Mitochondrial Drug-Binding Strategy Underlies Caspofungin Resistance in *Cryptococcus neoformans* **Anna Loksztejn** Duke University School of Medicine

Biotechnology

278A Semi-automated high-throughput screening accelerates strain development in *Trichoderma reesei* **Norman Adlung** Technical Research Centre of Finland

279A Synthetic nuclease gene drives as a novel mode of plant pathogen biocontrol **Ben Auxier** Wageningen University

280A From lab to table: Harnessing fungi to convert globally abundant food and agricultural byproducts into sustainable food **Braydon Black** Stanford University

281A CrispR/Cas9 mediated co-editing strategy in genetically recalcitrant fungi **Lenny Bonadei** University of Geneva

282A Empowering Fungal Research: Cultivarium tools to accelerate study and engineering of non-model fungi **Nili Ostrov** Cultivarium

283A A fungal community driven development of the oCelloScope™ image analysis platform to quantify growth using deep learning in Medical-, Crop Sci-, Food research and Strain Development **Soren Busch** BioSense Solutions

284A OMICS analyses to disclose tolerance mechanisms to the antimicrobial SO_2 in the wine spoilage yeast *Saccharomycodes ludwigii* **Bárbara Coelho** Institute for Bioengineering and Biosciences, Instituto Superior Técnico

285A Breaking Barriers in Fungal Engineering: Development of the Serine Recombinase-Assisted Genome Engineering (SAGE) Toolkit **Kyle Davis** Oak Ridge National Laboratory

286A Utilizing the FIND-IT technology to accelerate strain development across microbial species **Stephen Fuchs** Traitomic

287A Asymmetric mitonuclear interactions trigger transgressive inheritance and mitochondria-dependent heterosis in hybrids of the model system *Pleurotus ostreatus* **Edurne Garde** Public University of Navarre

288A Genetic Engineering of *Trichoderma atroviride* for Functional Studies in the Rhizosphere **Jaqueline Gerhardt** Stanford

289A A Bitter Tug-of-War: Exploiting fungal sexual reproduction for better blue cheese **Jonathan Heale** University of Nottingham

290A The impact of developmental structures on pure mycelial materials made from *Aspergillus nidulans* **Mark Marten** University of Maryland, Baltimore County

291B Laboratory evolution of the all-rounder yeast *Metschnikowia pulcherrima* shows different mechanisms of adaptation depending on genotype and ploidy **Daniel Henk** University of Bath

292B Improved recombinant protein production and culture rheology in pure oxygen aeration fermentation using a hyphal dispersion strain of *Aspergillus oryzae* **Satoshi Ishibashi** Tohoku University

293B Transcriptomic Insights into Isomaltose-induced amylolytic enzyme production in *Aspergillus nidulans* **Da Min Jeong** Tohoku University

294B Quantification of Viable Fungal Spores Using a PMAxx Dye-Based Viability-qPCR Assay **Junseong Kang** Texas A&M University

295B Building the Future of Roads: Biotechnological Optimization of Mycelium-Based Binder **Line Kloster Pedersen** Visibuilt

296B Functional analysis of Mbp1 in cell wall synthesis and mycelium material properties in *Pleurotus ostreatus* **Hayase Kojima** Kyoto University

297B Episomal maintenance of introduced plasmid with or without AMA1 sequence in the basidiomycete *Pleurotus ostreatus* **Daishiro Koshi** Kyoto University

298B Azole-resistant development in *Aspergillus fumigatus* and its related antifungal strategy with novel nano-salt particles used as the aerosolized disinfectant **Ling Lu** Nanjing Normal University

299B Genetic Modulation of Glycosylation Pathways Enhances Protein Stability and Activity in Filamentous Fungi **Yun Luo** IFF

300B Role of hydrophobins in gas entrainment/foaming during fungal fermentations **Lori Maggio-Hall** IFF

301B Harnessing the edible fungus *Neurospora intermedia* to convert waste into food **Alessandra Massa** Stanford Univeristy

302B A biosynthetic survey and a heterologous production platform for molecules from biocontrol fungi **Pablo Pablo Cruz-Morales** Technical University of Denmark

303B Fungal Biocomposites from Regolith Simulant and Whole or Lipid-Extracted Microalgae for Circular Resource Use in Space Habitats **Caleb Bedsole** Texas A&M University

304C Genetic library screening in filamentous fungal cells using a genome integration system restrictive for single variant expression **Jonathan Palmer** IFF

305C Toward a platform for space mycotecture **Rolando Perez** Blue Marble Space Institute of Science

306C Employing Machine Learning Methods to Explore Thermotolerance Genetics in Saccharomycotina Yeasts **Taylor Powell** University of North Carolina at Charlotte

307C Development of genetic transformation methods in anaerobic gut fungi **Hugh Purdy** University of California, Santa Barbara

308C Implementation of robotics and high-throughput imaging to capture growth rate data for *Neurospora crassa* cultured under different conditions. **Monique Quinn** University of California, Riverside

309C Construction of the *Aspergillus oryzae* strain producing high levels of kojic acid by CRISPR/Cas9-mediated multicopy gene integration **Sohta Sagara** Tohoku University

310C Less environmental bitterness: filamentous fungi as a valorisation route for coffee bean wet-processing effluents **Eszter Sas** Maynooth University

311C Elucidation of basidiomycete-specific chitin synthase roles in the white-rot fungus *Pleurotus ostreatus* **Kim Schiphof** Kyoto University

312C Bridging Continuum Mechanics and Fungal Biology to Enable Mycelium-Based Biosensing Technologies **Meredith Silberstein** Cornell University

313C The increase in cell volume and nuclear number of the koji-fungus *Aspergillus oryzae* contributes to its high enzyme productivity. **Norio Takeshita** University of Tsukuba

314C Discovery and Characterization of Novel Endogenous Protease Inhibitors from *Trichoderma reesei* for Enhanced Heterologous Protein Production **Mari Valkonen** VTT Technical Research Centre of Finland

315C Mycotechnology to the rescue: Biosustainable Production of secondary metabolites by filamentous fungi using carbon sourced from Polystyrene and Polyethylene Plastic Waste **Clay Wang** University of Southern California

316C CRISPR/Cas9-Mediated Multicopy Integration into 13 Chromosomal Loci Enables Hyperproduction of Xylanase in *Aspergillus oryzae* **Silai Zhang** Tohoku University

317C Production of hen egg ovalbumin by *Trichoderma reesei* using precision fermentation technology and testing of its techno-functional properties **Chris Landowski** Onego Bio

Cell Biology

318A Novel Cysteine bZIP Transcription Factors and Their Role in the Oomycete *Phytophthora infestans* **Alicia Acevedo** University of California, Riverside

319A The role of atypical Thioredoxins in *Candida albicans* **Luiz Alberti** Stony Brook University

320A Metabolic crosstalk between the opportunistic pathogen *Candida albicans* and the gastrointestinal tumor microenvironment **Rosana Alves** Universidade do Minho

321A The RNA-binding protein Psc1 sequesters transcripts in biomolecular condensates to regulate

cryptococcal tolerance to CO_2 **Emma Blackburn** University of Georgia

322A Actin-based cell crawling in chytrid zoospores illuminates potential mechanisms of ancestral fungal locomotion **Stephanie Brody** University of Massachusetts Amherst

323A Exploring the interaction between the septin cytoskeleton and the cell wall integrity pathway MAPKs MpkA and MkkA in *Aspergillus fumigatus* **Rebecca Busch** Virginia Tech

324A Short-term experimental adaptation of *Fusarium oxysporum* f. sp. *mori* to respiratory inhibitors fungicides **Erisneida Campos Jiménez** Center for Scientific Research and Higher Education of Ensenada (CICESE)

325A Multilayered regulation of TORC1 signaling by Ait1, Gcn2, and SEAC/GATOR during nitrogen limitation and starvation **Andrew Capaldi** University of Arizona

326A Quantitative single-molecule FISH reveals differential subcellular localization of *flb* family mRNA in the filamentous fungus *Aspergillus niger* **Xiaoyi Chen** Utrecht University

327A Echinocandin Resistance: Mapping CWI-SIN Crosstalk in *Aspergillus nidulans* **Alexander Doan** UMBC

328A Crosstalk between nonsense-mediated decay (NMD) and Tor alters fluconazole susceptibility of *Cryptococcus neoformans* **Sean Duffy** SUNY at Buffalo

329A Characterization of *Histoplasma* micro- and macroconidia reveals key distinguishing features **Bevin English** University of California San Francisco

330A How a shapeshifting fungus builds hyphal networks: hyphal initiation and growth in polymorphic fungus *Aureobasidium pullulans* **Clara Fikry** Massachusetts Institute of Technology

331A Characterization of the galactosaminogalactan pathway genes in *Neurospora crassa* **Stephen Free** SUNY University at Buffalo

332A Peroxisomal targeting via organellar transit **Johannes Freitag** University of Marburg

333A How fungal antigen subcellular localization affects translation and antigen processing in macrophages **Madeline Giner** University of Georgia

334A Trk1 potassium transport is crucial for effective *Candida* (*Candidozyma*) *auris* pathogenesis **Ad am Glawe** University of Wisconsin - Madison

335A Mutants escaping from growth inhibition between colonies of the same strain in filamentous fungi **Yuya Hamanaka** The University of Tokyo

336B Death or disomy: perturbing spindle checkpoint kinases in the fungal pathogen *Cryptococcus neoformans* **Kevin Hardwick** University of Edinburgh

337B Expanding experimental tractability across the *Schizosaccharomyces* clade of fission yeast **Rachel Helston** Stowers Institute for Medical Research

338B A novel beta-propeller protein in *Aspergillus nidulans* required for microtubule stability **Steven James** Gettysburg College

339B Lipid homeostasis in antifungal resistance of *Cryptococcus neoformans* **Shoily Khondker** Public Health Research Institute, New Jersey Medical School, Rutgers University

340B The role of eisosomal proteins in pathogenesis of *Cryptococcus neoformans* **Lukasz Kozubowski** Clemson University

341B DIA-PASEF Proteomic Profiling Reveals MpkA-Dependent Iron Stress Responses and Metabolic Reprogramming that Influence Siderophore Biosynthesis in *Aspergillus nidulans* **JungHun Lee** University of Maryland Baltimore County

342B Dynamic localization of the septin Cdc3 in the predator yeast Saccharomycopsis schoenii **Justin Leonhardt** Clemson University

343B Septins and cytokinesis in the polymorphic fungus *Aureobasidium pullulans* **Daniel Lew** MIT

344B Cryptococcal mRNA vaccine development based on GPI-anchored mannoproteins **Yeqi Li** University of Georgia

345B Circadian clock is critical for regulating pathogenicity in *Fusarium oxysporum* **Xiao Liu** Institute of Microbiology, Chinese Academy of Sciences

346B Quantification of *Aspergillus nidulans* Actin Dynamics during Early Growth and Septum Formation **Mark Marten** UMBC

347B FluG confers conidial heterogeneity in *Aspergillus fumigatus* **Ken Miyazawa** National Institute of Infectious Diseases

348B The *Aspergillus fumigatus* growth determinant Afu6g07200 is the first granulin described in fungi **Uxue Perez Cuesta** University of Tennessee Health Science Center

349B The general repressor Ssn6 suppresses biofilm formation in *C. neoformans* **Nhu Pham** University of Georgia

350B Antifungal resistance: formation of heterochromatin-dependent epimutations in fission yeast **Alison Pidoux** University of Edinburgh

351B Spatial coordination of growth and division in *Ashbya gossypii* **Taylor Pompan** Duke University

352B Small but mighty: Defining the *Cryptococcus neoformans* titanide morphotype as a driver of fungal pathogenesis **Abigail Potton** University of Exeter

353B Anaerobic Gut Fungi Produce Extracellular Vesicle-Like Particles **Artury Ramirez** University of California Santa Barbara

354B Characterization of two *Neurospora crassa* GH72 family enzymes and their roles in cell wall biogenesis **Stephen Free** SUNY University at Buffalo

355C Dissecting turgor-sensing mechanisms required for appressorium-mediated plant infection by the rice blast fungus *Magnaporthe oryzae* **Lauren Ryder** The Sainsbury Laboratory

356C New tools to tweak the appressorial *Mo*TOR **Yvonne Scamarcia** University of Geneva

357C Characterization of the Structure and Function of the Septal Pore Apparatus in *Coprinopsis cinerea* **Blanka Sokolowska** ETH Zürich

358C A novel functional cell biology platform for the fungal symbiont domesticated by leafcutter ants **Ayoub Stelate** University of Copenhagen

359C Unisexual reproduction in the global human fungal pathogen *Cryptococcus neoformans* **Sheng Sun** Duke University Medical Center

360C Investigating the role of the Nuclear Dbf2-related (NDR) kinase Cot1 in polarized growth and infection-related development in the blast fungus *Magnaporthe oryzae* **Rachel Taylor** University of Arkansas

361C Identification of *Aspergillus fumigatus* Septation Effectors through Proximity-labeling with TurboID **Harrison Thorn** University of Tennessee Health Science Center

362C Polarized cell wall growth during exit tube assembly in the chytrid *Batrachochytrium dendrobatidis* **Kirsten Underwood** University of Massachusetts Amherst

363C The RNA virome of *Saccharomyces cerevisiae* **Robert Valencia** University of Toronto

364C The role of beta 1,6-glucans in *Cryptococcus neoformans* cell wall organization **Joseph Vasselli** Duke University

365C Regulation of cell polarity in a multibudding fungus **Luyang Wang** Massachusetts Institute of Technology

366C Architecture of Fungal Cell Wall and Remodeling by Antifungals: New Insight from Solid-State NMR Spectroscopy **Tuo Wang** Michigan State University

367C A Bipartite Complex Coordinates Glucan Synthesis and Remodeling to Build the Fungal Cell Wall **Alaina Willet** Vanderbilt University

368C Stress-driven emergence of heritable non-genetic drug resistance **Jing Lin (Lucy) Xie** Stanford University

369C Heterologous expression of *Bipolaris maydis* hydrophobins in *Aspergillus nidulans* and characterization of major hydrophobins in *Aspergillus oryzae* **Akira Yoshimi** Graduate School of Global Environmental Studies, Kyoto University

370C Cell cycle control in the unconventional multi-budding yeast *Aureobasidium pullulans* **Yiqiao Zheng** Massachusetts Institute of Technology

371C Acyl-coA binding protein AcbdA regulates peroxisome movement via hitchhiking on early

endosomes in Aspergillus nidulans **John Salogiannis** University of Vermont

372C Intra-conidial Development Stages Together with Sir5-Mediated Metabolic Checkpoint Shape UV Response Outcomes **Shay Covo** Hebrew University

Developmental Biology

373A The conserved C-terminus of the non-receptor GEF RIC8 is important for GDP-GTP exchange on Gα subunits *in vitro* and regulation of growth and development *in vivo* **Katherine Borkovich** University of California

374A Comprehensive Role of the MylA in Fungal Development, Stress Response, and Toxigenicity in *Aspergillus flavus* **He-Jin Cho** Kyungpook National University

375A The GTP exchange factor Ric8 controls alternative morphogen etic fates in pathogenic *Cryptococcus* **Yeseul Choi** Duke University

376A Transcriptional regulation during vegetative reproduction in the Mucoral fungus *Phycomyces blakesleeanus* **María Corrochano-Luque** University of Sevilla

377A Conservation of the regulatory pathway for conidiophore development across species of the *Aspergillus* genus **Antonio Franco-Cano** University of Sevilla

378A Autophagy in the filamentous fungus *Sordaria macrospora*: The roles of SmATG11 and SmATG17 in selective and non-selective degradation **Svenja Groth** University of Goettingen

379A From dormancy to disease: a life cycle proteome atlas of *Cryptococcus neoformans* **Benjamin Chadwick** University of Macau

380A Quantitative imaging of fungal life cycle transitions through generative deep learning **Orlando Arguello-Miranda** North Carolina State University

381A Phosphoproteomic analysis of the Target of Rapamycin (TOR) signalling pathway in the rice blast fungus *Magnaporthe oryzae* **Matthew Wengler** The Sainsbury Laboratory

382B Identification and Characterization of Pathogenicity-Related Transcription Factor in *Aspergillus flavus* **He-Jin Cho** Kyungpook National University

383B The sole putative leucine-rich repeat receptor Lrr1 in *Cryptococcus neoformans* facilitates conjugation during mating **Nathan Glueck** Mercer University

384B GATA-type regulator NsdD-mediated species-specific rewiring of gene regulatory networks in *Aspergillus* **Kap-Hoon Han** Woosuk University

385B Analysis of the effects of *wc-2* disruption using CRISPR/Cas9 on fruiting body formation in *Pleurotus ostreatus* **Yoichi Honda** Kyoto University

386B Homeodomain Transcription Factor is Essential for Toxocyst Formation in the Oyster Mushroom *Pleurotus ostreatus* **Sheng-Chian Juan** Max Planck Institute for Biology Tübingen

387B Mating-type transcription factors from *Aspergillus fumigatus* and *Penicillium chrysogenum*: crystallization of the DNA binding domain and determination of MAT protein DNA binding motifs. **Ulrich Kück** Ruhr-University Bochum

388B Unraveling toxocyst development in the oyster mushroom *Pleurotus ostreatus* **Yi-Yun Lee** Max Planck Institute for Biology Tübingen

389B Decoding hyphal constriction in *Magnaporthe oryzae* using a simple assay **Song Hee Lee** Yeungnam University

390C A tissue-resolved developmental transcriptome of the mushroom-forming fungus *Psilocybe cubensis* **Matthew Meyer** The Ohio State University

391C A Yak1 ortholog (Dkl) orchestrates dimorphism and global gene expression in *Mucor lusitanicus* **Gabriel Navarro-Del Saz** Departamento de Genética y Microbiología, Facultad de Biología, Universidad de Murcia

392C The role of chromatin modifiers and transcription factors during fruiting body development in the filamentous ascomycete *Sordaria macrospora* **Minou Nowrousian** Ruhr-University Bochum

393C Capture of the SmSTRIPAK proxiome identifies the Greenbeard proteins SmDOC1/2 as regulators of sexual development in *Sordaria macrospora* **Stefanie Poeggeler** Georg-August University of Göttingen

394C Investigating the Effects of Temperature and Mycelial Culture Age on *Coccidioides* Arthroconidia Physiology **Matthew Tate** Veterans Affairs San Diego Healthcare System

395C Identification of the early sequestered germline lineage in *Marasmius oreades* **Peter Jan Vonk** Stockholm University

396C Characterization of the roles of the *Um*AA7 and *Um*AA10 CAZymes in the morphogenesis and pathogenesis of *Ustilago maydis* **Sara Vujakovic** The University of British Columbia

397C Environmental drivers and cellular mechanisms of development in the fungal pathogen *Coccidioides* **Rachel Brem** University of California, Berkeley

Evolutionary/Comparative Genomics

398A Comparative transcriptomics of Paracoccidiodes and Histoplasma reveals a conserved hyphal regulon **Romina Abbasian** UCSF

399A Opening Pandora's Box: The giant genome of *Pandora neoaphidis* **Meaghan Adler** University of North Carolina, at Chapel Hill

400A Linking genomic functional traits to lifestyles and hosts in hypocrealean fungi via machine learning **Brooke Allen** USDA-ARS

401A Chromosomal translocation of a horizontally-acquired gene cluster and virus-like elements in a cosmopolitan yeast **Jassim Al-Oboudi** University of Wisconsin-Madison

402A Exploring the biosynthetic potential of *Theobroma cacao* fungal endophytes of the *Bionectriaceae*. **Luis Mejía** Instituto de Investigaciones Científicas y Servicios de Alta Tecnología (INDICASAT)

403A Adaptation mechanisms of the human pathogenic fungus, *Fusarium oxysporum* MRL8996 **Dilay Hazal Ayhan** Acibadem University

404A *Integrative Sequence–Structure Mining of Fungal Polyurethane-Degrading Enzymes Through a One Health Framework* **Gunseli Bayram Akcapinar** Acibadem University Graduate School of Health Sciences

405A Genomic dynamics of *Magnaporthe oryzae* through sequential *in vitro* subculture and *in planta* infection cycles **Ravi Bika** Kansas State University

406A Rapid shift in azole resistance of *Aspergillus fumigatus* during isolate processing **Balazs Brankovics** Westerdijk Fungal Biodiversity Institute – KNAW

407A Beyond the lab: The variable landscape of genomic instability in yeast isolates **María Angélica Bravo Núñez** Cornell University

408A Integrated genomic and cytological approaches reveal mini-chromosome variation in *Pyricularia oryzae* **Lidia Calderon** Kansas State University

409A Evolution of invasive *Phytophthora ramorum* populations in Oregon's coastal forests **Steph Chase** Oregon State University

410A Haplotype-level assembly for a hybrid species *Saccharomyces bayanus* reveal substantial introgression from multiple species **Junhao Chen** Saint Louis University

411A Evolutionary history of the transition of *Kluyveromyces* budding yeast from terrestrial to aquatic environments **Kaylee Christensen** University of Hawai'i, Manoa

412A Genome evolution of homothallic and heterothallic members of the genus *Sordaria* **Chi-Ting Chung** Georg-August-University-Goettingen

413A Telomere-to-Telomere Reference Genome for *Septoria glycines* Highlights Shared and Species-Specific Virulence Factors Among Soybean Foliar Fungal Pathogens **Lily Cooper** University of Tennessee

414A DNA damage tolerant colonies of a fungal plant pathogen acquire mutator phenotype **Shay Covo** Hebrew U

415A Contrasting environmental and clinical isolates of *Coccidioides*, the causative agent of Valley Fever **Lisa Couper** University of California, Berkeley

416A Identification of genetic elements related to thermotolerance across the *Cryptococcus* clade **Madeline Cusick** University of Georgia

417A Genomic diversity and rapid phenotypic adaptation following serial infection of a specialist fungal pathogen in a novel host **Henrik De Fine Licht** University of Copenhagen

418A Population-Specific Transcriptomic Rewiring Underlies Secondary Metabolic Diversification in *Aspergillus flavus* and the Domestication of *Aspergillus oryzae* **Milton Drott** USDA-ARS

419A Life cycle plasticity in *Cronartium ribicola,* the causal agent of white pine blister rust **Brian Duarte** University of British Columbia

420A Comparative genomics using long-read sequencing of clinical *Candida auris* isolates reveals transmission dynamics and drug resistance mechanisms **Jacob Durazo** J. Craig Venter Institute

421A Comparative genomics of plant associated fungi to assess endophytic genome signatures **Joss Etty** University of Bath

422A A genomic view of hypermutation potential in *Candida auris* drug resistance **David Firer** Brown University

423A Genome evolution of lichen-forming fungi associated with a major photobiont switch from a green algal to a cyanobacterial symbiont **Diego Garfias Gallegos** Duke University

424A Evaluating the role of bacterial endosymbionts in evolution and diversity of plant associated Mortierellomycotina fungal communities **Daniyal Gohar** Oregon State University

425A Biofilm regulatory network divergence in *Candida* species is driven by cis-acting variations **Deepika Gunasekaran** University of California Merced

426A Pan-genomics of the Laccaria species complex reveal a two-speed evolution of the "mycorrhizal-toolkit" **Keaton Tremble** Duke University

427B ABAQS: A Comprehensive Scoring Method for Assessing Genome Annotation Quality **Sajeet Haridas** DOE Joint Genome Institute

428B FLASH, a new statistical machine learning algorithm, can accurately predict and link novel genes to antifungal resistance in diverse clinical and environmental fungi **Marie-Claire Harrison** Stanford University

429B Characterization of global isolates of *Penicillium rubens* and *Penicillium chrysogenum* reveals differing strategies for maintenance of genome plasticity **Anne Hatmaker** University of Minnesota

430B Living with a killer: how coevolved *Saccharomyces cerevisiae* become killer toxin resistant **Michelle Hays** University of Michigan

431B Phyletic Patterns of c-NHEJ Genes Are Reflected in Genomic Signatures in Fungal Genomes **Einat Hazkani-Covo** The Open University of Israel

432B Alternative evolutionary trajectories following RNAi loss in *Cryptococcus* **Joseph Heitman** Duke University

433B Phased nuclear and mitochondrial genome assemblies of *Cryptococcus* A/D hybrids using long-read sequencing and trio-binning **Nicolas Helmstetter** University of Exeter

434B *Malassezia* parasexual hybridization, yeast-to-hyphae transition, and pathogenesis **Giuseppe Ianiri** University of Molise

435B Human-mediated hybrid zones between amphibian-killing chytrid lineages produce second generation recombination **Thomas Jenkinson** California State University, East Bay

436B PCR-based differentiation of *Aspergillus* oryzae and aflatoxigenic *Aspergillus* flavus targeting the aflatoxin biosynthesis gene cluster **Eunji Jeong** Soongsil University

437B De novo chromosomal-level assemblies of *Coccidioides* species reveal inter-species and intra-species genomic rearrangements **Melanie Jimenez** Veterans Affairs San Diego Healthcare System

438B Whole genome similarity provides a robust framework for classification of fungal species and their variants **Hayden Johnson** Oregon State University

439B Telomere-to-telomere pangenome of 60 *Aspergillus oryzae* strains enabled by a new robust DNA extraction protocol **Achille Julienne** DTU Biosustain

440B Signs of ongoing reproductive incompatibility in *Aspergillus fumigatus* **Spyros Kanellopoulos** Wageningen University

441B Estimating the distribution of fitness effects of loss of heterozygosity (LOH) events using an engineered library of *Saccharomyces cerevisiae* **Yi-Hong Ke** University of Michigan

442B Genome-wide association of nutrient-use and pathogenicity in Botrytis cinerea **Belinda Kincade** Louisiana State University

443B Comparative genomic approaches between cuticular wax composition of Populus species and germ tube length of Sphaerulina musiva enlightened promising genomic regions. **Alexandre Lassagne** Oregon State University

444B Global analysis of genotypic and phenotypic variation in an NIH collection of 160 *Candida albicans* patient-derived isolates with paired clinical metadata **Jessie MacAlpine** National Institutes of Health

445B Homothallic or heterothallic? A genomic investigation into the sexual capabilities of the ascomycete fungus *Clonostachys rosea* **David Manyara** Swedish University of Agricultural Sciences

446B Epigenetic regulation of *Starship* activity in *Pyricularia oryzae* **Aidan McVey** Kansas State University

447B Transposable elements drive evolution and alternative virulence strategies in *Colletotrichum lupini* **Andrea Menicucci** University of Bologna

448B Lineage-specific expansion of MoTeRs shapes subtelomeric architecture in *Magnaporthe oryzae* **Astha Mishra** Tennessee Technological University

449B Evaluation of a candidate MAT locus for *Linnemannia elongata* (Mortierellomycotina) using quantitative PCR methods **Kyle Mondron** Oregon State University

450B Genomic characterization of Japanese *Syzygites* strains, mycoparasitic Mucoromycetous fungi **Chise Moriya** National Institute of Technology and Evaluation

451B Genetics of thermotolerance in *Neurospora discreta* **Donald Natvig** University of New Mexico

452B A telomere-to-telomere gapless genome assembly and mycotoxin potential of *Fusarium sporotrichioides* from Barley (*Hordeum vulgare*) **Abbeah Mae Navasca** North Dakota State University

453B *Aspergillus fumigatus* Af293/CEA10 community sequencing initiative **Grant Nickles** University of Wisconsin-Madison

454B WTF: What the *Fusarium* is happening on winegrapes? **Drew Olson** University of Georgia

455B Recent lineage diversification and gene flow shape climate adaptation in the Swiss needle cast pathogen of Douglas-fir **Richard Hamelin** University of British Columbia

456B Losses of Deeply Conserved Genes in the Mitotic Exit Network Led to Multiple Rewiring Events in Budding Yeasts **Xiaoxue Zhou** New York University

457C The genetics of speciation in *Saccharomyces* **Jasmine Ono** University of Nottingham

458C Genomic insights into the melanized fungus *Exophiala pacifica* ETNP2018 reveals adaptation to the open ocean **Xuefeng Peng** University of South Carolina

459C A new reference graph-pangenome for *Aspergillus fumigatus* recovers gene expression of accessory genes absent from the reference strain **Marion Perrier** Friedrich Schiller University Jena

460C Secondary Metabolism as a Source of Functional Diversity in *Colletotrichum* **Irene Picicci** University of Parma

461C Pangeneric analysis of the oyster mushroom family illuminates the mechanisms of evolution of carnivorous mushrooms **Prasanth Prakash Prabhu** Clark University

462C The Evolution of Host Preference Across the *Botrytis* Genus **Lori Pradhan** Louisiana State University

463C Selfish genetic element promotes mitotic stability of a dispensable chromosome in the fungal

pathogen *Fusarium oxysporum* **Gema Puebla Planas** University of Cordoba

464C Integrative Multi-Omics Analysis of *Candida albicans* Isolates from Distinct Human Niches **Piyapat Rintarhat** Chung-Ang University

465C Stage-specific transposase activation as mechanism of genetic variation in the clonally propagating pathogen *Fusarium oxysporum* **Ana Rodriguez Lopez** University of Córdoba

466C A supergene underlies evolution of a novel secotioid phenotype in the dimorphic mushroom *Lentinus squamulosus* **Thomas Roehl** Clark University

467C Using TN-seq to identify genes required for yeast survival against amoeba predation **Emily Rush** University of Georgia

468C Evolutionary Analysis of Pmk1 MAPK-dependent fungal pathogenesis across the Fungal Tree of Life **Neha Sahu** The Sainsbury Laboratory

469C Evolutionary Mechanisms Shaping Chromosome Architecture in *Fusarium* **Sahar Salimi** Tennessee Tech University

470C A large-scale phylogenomic analysis of host-specificity of entomopathogenic fungi via automated data retrieval **Kelsey Scott** USDA-ARS

471C Lineage-specific rules for protein architecture at fungal scale **Sadikshya Sharma** University of California, Riverside

472C Linking phenotype to genome: Integrating bioassays and genome comparison reveals candidate virulence factors in a highly pathogenic *Beauveria* isolate **Somraj Shrestha** Auburn University

473C Uncovering Mitochondrial Plasmid Diversity in Fungi with GenomeOcean Embeddings **Andrei Steindorff** DOE Joint Genome Institute - Lawrence Berkeley National Laboratory

474C Deciphering the Role of Carbohydrate-Active Enzymes in the Pathogenicity and cell degradation of *Fusarium oxysporum* Infecting Banana Plant **Mst Shamim Ara Supty** Georgia Southern University

475C Elucidation of fluconazole resistance in the emerging fungal pathogen *Candida auris* **Tamaki Tatesaka** Chiba University

476C Evidence of actively-transposing *Starship* elements in *Sclerotinia sclerotiorum* **Chanel Thomas** Forestry & Agricultural Biotechnology Institute (FABI), University of Pretoria

477C Unraveling a metabolic mystery: A novel galactose catabolism pathway in yeasts **Emily Ubbelohde** University of Wisconsin - Madison

478C Investigation of a novel azole-resistance mechanism through sexual reproduction in *Aspergillus fumigatus* **Momotaka Uchida** Chiba University

479C In genomes we trust: assessing genomic reliability within the family Nectriaceae **Alessandra Villani** National Research Council of Italy

480C Non-coding sequence conservation correlates to the gene expression evolution and sheds light to the evolution of Sordariomycetes **Yen-Wen Wang** Yale University

481C Diversity of Major Surface Glycoprotein Copies Encoded Within the Expression Cassette of *Pneumocystis carinii* **Nicholas Wolf** University of Cincinnati

482C Genomic insights into resistance-breaking strains of *Anisogramma anomala* causing Eastern filbert blight in the Pacific Northwest **Alex Zaccaron** Oregon State University

483C Investigating the repeated evolution of pathogenesis in *Aspergillus* section *Fumigati* **Thomas Sauters** Vanderbilt University

484C Comparative Genomics Analysis Sheds Light on Pathogenicity Determinants in Cotton Fusarium Wilt Fungi **Yi Zhou** Texas A&M University

485C Phenotyping of *Rhodotorula* tolerance to heavy metal contamination for bioremediation applications **Christian Ona** University of California Riverside

486C Developing Genomic, Taxonomic, and Biodiversity Resources for the USDA-ARS Entomopathogenic Fungi Collection **Kathryn Bushley** USDA-Agricultural Research Service

Functional Genomics

487A Deep Learning and Generative AI for Fungal Genomics **Carson Andorf** USDA-Agricultural Research Service

488A High-throughput screening reveals mechanisms of environmental control of germination in a fungal thermophile **Rachel Brem** UC Berkeley

489A Fungal Factory for Terpenoid Production: Genome Editing of *Coprinopsis cinerea* **Sandra Breuer** Fraunhofer-Institut für Molekularbiologie und Angewandte Oekologie IME

490A KERS Complex and Downstream Regulators Control Development and Secondary Metabolism in Aspergillus nidulans **Thuc Bui** Maynooth University

491A Tracing host-specificity in *Magnaporthe oryzae* pathotype *Triticum*: Functional genomics of lineage-specific genes **Florencia Casanova** RWTH Aachen University

492A Functional Assessment of *Sporisorium reilianum* a2 Mating Genes, *lga2* and *rga2*, in *Ustilago maydis* **Dennis Doe** University of Louisville

493A The dynamic idiomorph – a new role in heterokaryon incompatibility and diversification of mating-type regions **Paul Dyer** University of Nottingham

494A Fungal *Starships* as Hotbeds of Sub-functionalization: Divergent Roles of the LaeA Paralogs on *Starship Janus* **Justin Eagan** University of Wisconsin-Madison

495A Transcriptomic variation explains *Suillus tometosus* zinc tolerance in the absence of population structure **Jessica Fletcher** University of Colorado Denver

496A Genome assembly, functional annotation, and secondary metabolite potential of *Akanthomyces lecanii*, a mycoparasite with biocontrol capacity of the coffee rust fungus *Hemileia vastatrix* **Wendhy Fuentes** Universidad Tecnológica de Panamá

497A FunDLM, a fungal-specific large DNA language model for genetic research **Nikesh Gyawali** Kansas State University

498A Fungal standoff: Interaction-responsive gene expression in co-cultured white- and brown-rot fungi **Adam Haag** University of Minnesota

499A Frequent and Specific Horizontal Chromosome Transfer Between *Metarhizium* Species *in Vitro* and in the Field **Michael Habig** University Kiel

500A FungiDB: Tools for Genomic-Scale Data Exploration, Integration, and Discovery **Omar Harb** University of Pennsylvania

501A Development of a high-throughput functional genomics platform for filamentous fungi **Lori Huberman** Cornell University

502A Assessing the role of the histone variant H2A.Z on histone PTM distribution and genome organization in *Neurospora crassa* **Taylor Hutter** University of Colorado Colorado Springs

503A A high(er) throughput method for using CRISPR/Cas9 to delete genes from *Coccidioides posadasii* **Katrina Jackson** Northern Arizona University

504A Extracellular vesicle-mediated delivery of genetic material for transformation and CRISPR/Cas9-based gene editing in *Pneumocystis murina* **Steven Sayson** University of Cincinnati College of Medicine

505B The target specificity of a heterochromatic histone deacetylase complex in *Neurospora crassa* **Farh Kaddar** University of Colorado Colorado Springs

506B Fitness effects of multi-fungicide resistances in *Aspergillus fumigatus* **Ben Auxier** Wageningen University

507B Investigating fungicide mode of action using high-throughput functional genomics **Joshua Kerkaert** Cornell University

508B AI-Driven *Fusarium* Databases: identify key genetic variation and target to combat agricultural threats and aid development of crops resistant to disease and mycotoxin contamination **Hye-Seon Kim** USDA-Agricultural Research Service

509B Functional characterization of peptidase G1 in *Cryphonectria parasitica* **GeonMin Kim** Jeonbuk national University

510B Topological Consequences of Large-Scale Genome Rearrangements in *Neurospora crassa* **Andrew Klocko** University of Colorado Colorado Springs

511B Investigating Drug Resistance in *C. neoformans* using Diploid TN-seq **Amy Kuhn** University of Georgia

512B Establishing gene essentiality and incorporation in *Candidozyma auris* **Ajay Larkin** University of Michigan

513B Unraveling the regulatory network of Zeb2 in zearalenone biosynthesis **Nahyun Lee** Seoul National University

514B Roles of aneuploidy in *Aspergillus fumigatus* unstable adaptation and antifungal resistance **Anna Lehmann** Duke University School of Medicine

515B *Aureobasidium pullulans* as a genetic model for phyllosphere commensalism and enhancing crop resilience **Julian Liber** Duke University

516B Genetic Manipulation of the Dermatophytes *Trichophyton mentagrophytes* and *Trichophyton rubrum* **Thea Lunden** Aalborg University

517B Mating hormone biosynthesis and mating type determination in *Phytophthora* are controlled by a conserved gene cluster **Milan Milenovic** University of California Riverside

518B SIR2 is Required for Spore Development and Infection Capability in *Pyricularia oryzae* **Ari Mortensen** Tennessee Technological University

519B Energy Trade-Off via Ribosome Biogenesis Control Underlies Early Plant Penetration in Plant Pathogenic Fungi **Jinhwan Oh** Seoul National University

520B Assessment of exudate-triggered responses driving *Fusarium solani* species complex dominance in the soybean spermosphere **Arpan Parajuli** Auburn University

521B The US NIAID Genomic and Bioinformatic Resources for Fungal Research **Liliana Brown** NIAID

522B Development of a Genetic Transformation System for *Pseudopithomyces toxicarius* **Neriman Yilmaz** Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria (UP)

523C Meta-analysis of *Pleurotus ostreatus* Transcriptomes: Global Transcriptomic Architecture and Transcriptional Effort Allocation in Basidiomycetes **Antonio Pisabarro** Public University of Navarre (UPNA)

524C Adaptations in the polyextremophilic yeast, *Naganishia friedmannii*. Surprises from comparative genomics and a series of freeze thaw RNA Seq experiments. **Alisha Quandt** University of Colorado Boulder

525C Dissecting the root-fungal interface in 3D reveals spatially distinct signalling landscapes **Amey Redkar** National Centre for Biological Sciences (NCBS)

526C Genomic and transcriptomic profiling of *Hanseniaspora guilliermondii*'s ethanol stress response **Diogo Santos** iBB, Institute for Bioengineering and Biosciences, Instituto Superior Técnico, University of Lisbon

527C A CRISPR activation platform to identify genes involved in trisomy-associated antifungal drug resistance in *Candida albicans* **Rebecca Shapiro** University of Guelph

528C Understanding how Candida albicans, a fungal species, is adapted for survival in the human gut microbiome **Manjari Shrivastava** University of California, San Francisco

529C Paralogs of the *Candida albicans TLO* (telomere-associated) gene family form interconnected functional networks through incomplete redundancy **Emily Simonton** University of Wisconsin - Madison

530C Staying Dry: The Peptidic Architecture of Fungal Hydrophobicity **Teis Esben Sondergaard** Aalborg University

531C Environmental impacts on gene expression in the amphibian gut fungus *Basidiobolus* **Kimberly Syring** Oregon State University

532C Saturation mutagenesis of fungal *pyrE* to identify variants that endow resistance to DHODH inhibitors

without impacting fitness **Jamie Tindale** University of Manchester

533C Role of pyrimidines transport in the adaptation to the novel antifungal olorofim in *Aspergillus fumigatus* **Clara Valero** The University of Manchester

534C Spore Whiteout – Depigmentation of *Apiospora arundinis* Conidia **klaus Westphal** Aalborg University

535C Dissecting the homeodomain *MAT* locus and engineering novel tripolar and bipolar mating systems in *Cryptococcus amylolentus* **Liping Xiong** Duke University

536C Can genes "knock-in/out" resolve the "loss-for-gain" paradox of brown-rot fungal wood decomposition? **Jiwei Zhang** University of Minnesota

537C How does genetic background influence phenotypes? **Lea Lortal** UCSF

538C Functional characterization of a SAM-dependent methyltransferase implicated in sectorization of MAPK mutants in *Cryphonectria parasitica* **Jeesun Chun** Jeonbuk National University

539C *CpFre1*-mediated iron homeostasis in relation to hypovirus infection and sectorization **Yo-Han Ko** Jeonbuk National University

Fungal Diversity

540A Genomic features of parasexual reproduction among two genetically distinct hybrid groups of *Cryptococcus neoformans* **Rahul Anand** University of Exeter

541A Uncovering Cultivable Fungal Diversity from Cabbage Microhabitats Through Selective Media Strategie**s Sunmin An** Sunchon National University

542A A 150-Year Record of Foliar Fungal Endophyte Dynamics in Norway Spruce (*Picea abies*) Across Finland **Fred Asiegbu** University of Helsinki

543A ColonyPy: A python-based image analysis pipeline to quantify tolerance and heteroresistance in *Cryptococcus neoformans* **Priscilla Atim** Virginia Tech University

544A Insights into the Taxonomic Diversity and Genome Complexity of the Fusarium Bean Root Rot Complex **Irene Blanco-Casallas** Michigan State University

545A Diversity and Functions of Zoosporic Pathogens of Invertebrates **Kathryn Bushley** USDA-ARS

546A The Macroevolution of Filamentation Morphology Across the *Saccharomycotina* Yeast Subphylum **Christina Chavez** Vanderbilt.University

547A High-Throughput Phenotyping Systems for Resistance Screening Against Bipolaris Brown Spot and Rhizoctonia Sheath Blight in Long-Grain Rice **Seo yeon Kim** Sunchon National University

548B Save the Ketchup! Population genetics and phylogenomics reveal clones from two obscure taxa in the *Fusarium solani* Species Complex that cause a devastating disease on California processing tomato **David Geiser** Penn State University

549B Inhibitor of Apoptosis Proteins are highly conserved across fungi, with notable expansions in Lecanoromycetes **Miette Hennessy** University of Wisconsin - Madison

550B Mycodnaviridae: a new group of giant viruses discovered as past and present infections of zoosporic fungi **Timothy James** University of Michigan

551B Selective Media Reveal Hidden Cultivable Fungal Diversity in Soybean Microhabitats **Seo yeon Kim** Sunchon National University

552B Fungal diversity and their involvement in the decomposition of deep-sea submerged plants **Yuriko Nagano** Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

553B Transcriptional differences related to thermotolerance in *Cryptococcus neoformans* and related species **Hanna Roucka** University of Georgia

554B Fungi from Plants and the Soil They Were Growing In **Inisa Shrestha** Kansas State University

555C A fungal volatile organic compound shifts fungal communities to enhance drought resilience in pasture systems **Sereyboth Soth** Lincoln University

556C Integrated Genomic and Metabolomic Evidence for Divergent Fumonisins and Beauvericin Production in *Fusarium proliferatum* **Antonia Susca** National Research Council of Italy

557C Quantitative Multi-Omics Reveal Functional Diversity and Carbohydrate-active Enzyme Activity of Marine Fungi in the Eastern Tropical South Pacific OMZ **Madeleine Thompson** University of South Carolina

558C Revision of the *Pseudopithomyces* (Pleosporales) genus supports the identification of a new toxigenic species, *Pseudopithomyces toxicarius* sp. nov., responsible for facial eczema in livestock **Christine Voisey** Bioeconomy Science Institute of New Zealand

559C *Fusarium* Strikes Back: Expanding the Diversity of Fumonisin Producers in South African Maize **Neriman Yilmaz** Forestry and Agricultural Biotechnology Institute (FABI) - University of Pretoria (UP)

560C Genetic and ecological diversity of *Fusarium falciforme* as a circumglobal plant pathogen of crop and landscape plants **Kacey Zimmerman** University of California, Davis

Fungal Ecology

561A Assessment of filamentous fungi with dye-degrading potential isolated from Basque estuaries **Ziortza Agirrezabala Urkia** University of the Basque Country

562A Enhanced Competitiveness of Neck-Derived Magnaporthe oryzae Isolates Across Rice Tissues **Sunmin An** Sunchon National University

563A Cellular responses of *Aspergillus sydowii* to growth at extreme chaotropic concentrations of $MgCl_2$ **Ramon Alberto Batista Garcia** Universidad Autónoma del Estado de Morelos

564A Fungal responses under stress: Contrasting trophic strategies over time **Brittany Byford** New Mexico State University

565A Genome-scale model, *in vitro* experimentation, and stable cultures of algae, cyanobacteria, and fungi support a symbiotic exchange of amino acids for melanin **Erin Carr** University of Nebraska-Lincoln

566A The impact of geospatial variables and local mycobiota on the landscape of drug-resistant *Aspergillus fumigatus* in the United Kingdom **Harry Chown** Imperial College London

567A Fungal trait responses under global change drivers **Maya Clausen** New Mexico State University

568A Influential fungi: arbuscular mycorrhizal fungal genomic identity drives shifts in soil bacterial community structure in two agricultural crop species **Robert Ferguson** University of Ottawa

569A Disrupting Microbial Communities: Investigating Patulin as a Driving Force of Microbiome Community Dynamics **Ben Haefner** University of Wisconsin - Madison

570B Born wild, acting sus: Cheating *re-shapes* fungal virulence and antifungal resistance **Suraj Hassan Muralidhar** Wageningen University and Research

571B Interactions between arbuscular mycorrhizal and ergot alkaloid-producing endophytic symbionts in morning glories. **Garrett Hicks** West Virginia University

572B Opposing Roles of Nitrogen and Potassium in Modulating Rice Brown Spot Severity **Seol-Hwa Jang** Sunchon National University

573B Emergence of Alternaria-Induced Leaf Spot on Rice Under High-Temperature, High-Humidity Conditions in Korea **Seol-Hwa Jang** Sunchon National University

574B Many sites, many stories: context-dependent fungal responses to global change drivers **Inoka Jayasundara** New Mexico State University

575B Re-parameterising wheat stem rust (*Puccinia graminis* f. sp. *tritici*) epidemiological models to explore disease dynamics in a changing climate **Cesaree Morier-Gxoyiya** John Innes Centre

576B Resistance of *B. cinerea* to Different Methods of Specialized Metabolites **Jenna Moseley** Louisiana State University

577B A Novel Fungal Association Characterizes Crohn's Disease in a South Korean Cohort **Katherine Mueller** Texas Tech University Health Sciences Center

578B Gene expression analysis of *Neurospora discreta* strains isolated from burnt Joshua trees after the Cima Dome fire in California **Katherine Borkovich** University of California

579C Shedding light on the growth pattern of the fairy ring fungus *Marasmius oreades* **Boel Olsson** Stockholm University

580C Global patterns of diversity and distribution in *Aspergillus* fungi are driven by human and environmental influences **Olivia Riedling** Vanderbilt University

581C Roadkill Wildlife Reveals Potential Reservoirs of Pathogenic *Sporothrix* Species from Paraná, Brazil (2017–2023) **Anderson Messias Rodrigues** Federal University of Sao Paulo

582C Accumulation and localization of europium in the filamentous fungus *Podospora anserina* **Gwenael Ruprich-Robert** Universite Paris Cite

583C Ergot alkaloids in the fungus *Aspergillus leporis* affect the foraging behavior of the slime mold *Physarum polycephalum* **Jordan Sexstone** West Virginia University

584C Tissue specificity, ecological function, and salinity tolerance of fungi associated with the pneumatophores and leaves of black mangrove (*Avicennia germinans*) **Justin Shaffer** California State University, Fresno

585C The floral mycobiome of the foundational dryland shrub *Larrea tridentata* (creosote): how pollinator exclusion and climate variability shape fungal community assembly **Shelby Showalter** University of New Mexico

586C Metatranscriptomics of natural communities reveals functional differentiation and seasonal nutrient transport in the Populus soil microbiome **Keaton Tremble** Duke University

587C Assessing fungal growth and health risks in post-flooded facilities following Hurricane Helene **Gabrielle Walker** Duke University

588C Incidence of Fungal Infections in the United States over the Last 10 Years using Electronic Health Records **Theodore White** University of Missouri-Kansas City

589C Seasonal Mating-Type Imbalance Suggests Restricted Sexual Reproduction in Field Populations of *Bipolaris oryzae* in Korea **Seo yeon Kim** Sunchon National University

Gene Regulation

590A MERCK complex and downstream regulatory genes operate development and secondary metabolism in *Aspergillus nidulans* **Pranay Agarwal** Maynooth University

591A The Unfolded Protein Response is involved in antibacterial defense in fungi **Emma Alessandri** ETH Zürich

592A Decoding Stress-Specific Roles of Ribosome-Associated Quality Control Initiation in *Cryptococcus neoformans* **Alexandra Benedetto** SUNY University at Buffalo

593A Transcription factors encoded by non-clustered genes directly activate biosynthetic gene cluster expression during *Epichloë*-grass symbiosis **Daniel Berry** Victoria University of Wellington

594A Identification of potential DNA N6-methyladenine readers uncovers a broad regulatory role of adenine methylation in non-dikarya fungi **Pablo Carrillo Marín** Departamento de Genética y Microbiología, Facultad de Biología, Universidad de Murcia, 30100, Murcia, Spain

595A Deciphering of the non-canonical unfolded protein response (UPR) pathway governs the pathogenicity of *Candidozyma auris* (*Candida auris*) **Hyunjin Cha** Yonsei University

596A Comparative Transcriptome and Mutational Analysis Reveal Nitrogen-Responsive Regulators of Filamentation in *Ustilago maydis* **Rebecca Dangol** University of Louisville

597A Tissue-specific activation of genes regulated by Polycomb Repressive Complex 2 in *N. crassa* fruiting bodies **Abigail Deaven** University of Georgia

598A A long non-coding RNA mediates crosstalk between fungal thermal adaptation and azole drug response in *Aspergillus fumigatus* **Sourabh Dhingra** Clemson University

599A Dynamics of Alternative Polyadenylation (APA) at 3' UTR regions in wild-type Neurospora crassa and CFIm mutants to investigate a short circadian clock period length defect **Katelyn Diune** UMass Boston

600A Can the presence of a fungal volatile organic compound improve plant resilience to abiotic stress? **Jesus Francisco Echaide Aquino** Lincoln University

601A Functional dissection of the RNAi pathway in the oomycete *Phytophthora sojae* **Francis Fang** The Ohio State University

602A Post-transcriptional regulation of the *C. neoformans* stress response by the RNA-binding protein Gis2 **Julia Furfaro** Witebsky Center for Microbial Pathogenesis and Immunology, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo

603A Evolution of short amino-acid insertions in Gcn4 rewires metabolic gene regulation in the *Candida* lineage **Megan Garber** University of California, San Francisco

604A Chromatin dynamics of ergosterol biosynthetic gene regulation in wild-type and azole-resistant *Aspergillus fumigatus* **Sarah Beth Griffin** University of Georgia

605A *sit1* regulates morphological development and aflatoxin biosynthesis in *Aspergillus flavus* **Airin Gulshan** Northern Illinois University

606A Gene Regulatory Network Inference Reveals Novel Regulators of Cellulose Degradation in Neurospora crassa **Luis F. Larrondo** Pontificia Universidad Catolica de Chile

607B Retrotransposon-mediated transition from sexual to asexual development in the katsuobushi fungus, *Aspergillus chevalieri* **Kentaro Hiramatsu** The United Graduate School of Agricultural Sciences, Kagoshima University

608B Role of the *osaA* transcription factor gene in development, secondary metabolism and virulence in the mycotoxigenic fungus *Aspergillus flavus* **Farzana Ehetasum Hossain** Northern Illinois University

609B RNAi restriction of a novel mycovirus prevents viral induced alterations in transcription and virulence in a critical human fungal pathogen **Jun Huang** Duke University

610B Mapping nuclear cooperation in fungal syncytia **Ameya Jalihal** Duke University

611B Facultative heterochromatin mediated by core and accessory chromosome-encoded H3K27-specific methyltransferases controls virulence in a fungal phytopathogen **Slavica Janevska** Leibniz-HKI

612B RNA isoforms and structure rapidly respond to temperature changes in *Histoplasma* **Murat Can Kalem** University of California San Francisco

613B Evolution of RNA binding in the fungal regulatory protein Ssd1 **Benny Kleinerman** University of Edinburgh

614B Mechanisms behind nitrous oxide production and lignocellulose degradation in anaerobic salt marsh sediment fungi deduced through transcriptomics **Birch Lazo-Murphy** University of South Carolina

615B Developing transposable element reporter systems in *Cryptococcus* **Cheyenne Lee** Duke Unviersity

616B Genome-wide CRISPRi Exploration of Plant-derived Compounds for Antifungal Potential **Ofri Levi** Tel-Hai academic college

617B Light controls gene functions through alternative splicing in fungi **Yifan Li** Nanjing Agricultural University

618B Response of *Candida albicans* white and opaque cells to phagocytosis by macrophages suggests that opaque cells are “pre-adapted” **Matthew Lohse** University of California, San Francisco

619B Pmk1-dependent regulation of a Mst12–Bip1 transcriptional network governing pathogenesis by the rice blast fungus, *Magnaporthe oryzae* **Camilla Molinari** The Sainsbury Laboratory

620B Acute temperature shifts drive rapid remodeling of the morphogenetic program in *Histoplasma* **Anna Morrison** UCSF

621B Comparative transcriptome analysis among *roc1* mutants in the white-rot fungus *Pleurotus ostreatus* **Takehito Nakazawa** Kyoto University

622C Cys-bZIP transcription factors function as redox sensors regulating development and stress responses in the oomycete *Phytophthora infestans* **Thuy Nguyen** University of California Riverside

623C Deletion of Elongator Protein 1 (Elp1) relieves heterochromatin defects in a Pol II mutant of *Schizosaccharomyces pombe* **Mamta Nirmal** Michigan State Unirversity

624C The regulatory network of 186 transcription factors of a model mushroom during development and cellulose degradation **Robin Ohm** Utrecht University

625C AtrR Interaction Network and Its Role in Azole Resistance in *Aspergillus fumigatus* **Sanjoy Paul** The University of Iowa

626C Upregulation of a mobile carotenoid gene cluster during fungal plant infection **Annika Pratt** University of Wisconsin-Madison

627C Epigenetic control of cellulase gene expression via HDA-2/SIF-2–mediated regulation of MAK-1 phosphorylation and CLR-2 activity in *Neurospora crassa* **Lina Qin** Fujian Normal University

628C Telomere anchoring to the nuclear envelope through Lem2 is required for *Ustilago maydis* pathogenicity **Estela Sanz Marti** Universidad Pablo de Olavide / Centro Andaluz de Biología del Desarrollo

629C Transcriptome analysis in response to beech wood sawdust to identify a new regulator for lignocellulose-degrading enzyme-encoding genes in the white-rot fungus *Pleurotus ostreatus* **Rio Sato** Kyoto University

630C Investigating Uniparental Inheritance of Mitochondrial DNA During Sexual Reproduction in *Cryptococcus neoformans* **Ran Shi** University of Georgia

631C Ssb1 chaperone orchestrates stress-induced translatome reprogramming and virulence regulation in *Cryptococcus neoformans* **Prabhakar Singh** University at Buffalo, New York

632C tRNA-m1A methylation supports hyphal growth of Neurospora crassa through controlling cellular energy metabolism **ziqing Wang** Huazhong Agricultural University

633C From Energy Sensing to Epigenetic Activation: The AMPK/TrSnf1-ACE3-MST2 Pathway Orchestrates Cellulase Synthesis in *Trichoderma reesei* **Wei Wang** East China University of Science and Technology

634C QTL Mapping to identify the mechanisms of extreme CO_2 tolerance in *Cryptococcus neoformans* **Yuhang Wang** University of Georgia

635C Assessing impact of temperature on growth and transcriptional codon usage bias across Saccharomycotina yeasts **Audrey Ward** University of North Carolina at Charlotte

636C Regulation of the mannanase genes by multiple transcription factors in *Aspergillus nidulans* **Haruno Watanabe** Graduate School of Bioresources, Mie University

637C Pseudouridine modification regulates development, azole resistance and genome stability in *Aspergillus fumigatus* **Yuanwei Zhang** Nanjing Normal University

Initiatives in Education and Pedagogy

638A Laboratory Evolution of a Non-Model Yeast for Citizen Science and Education **Bethany Teale** University of Bath

Pathogenic and Mutualistic Interactions

639A Characterization of Colletotrichum isolates from symptomatic dry bean fields in North Dakota and western Minnesota **John A Teixeira** North Dakota State University

640A Finding genes essential for bacterial-fungal symbiosis using transposon insertion sequencing **Bhuwan Abbot** UNC Charlotte

641A Unravelling the Molecular Mechanisms of Bacterial–Fungal Endosymbiosis **Ingrid Richter** Unidad de Genómica Avanzada - CINVESTAV

642A The sealing domain of tRNA ligase (Trl1) is a potential antifungal drug target **Khondakar Sayef Ahammed** Ohio State University

643A Exploring biocontrol potential of a bacterial strain against Fusarium root rot in pulses through transcriptomic approaches **Suruchi Aryal** North Dakota State University

644A Phytoalexins as host cues: convergent evolution of detoxification mechanisms in polyxenous pathogens *Botrytis cinerea* and *Colletotrichum tropicale* **Akira Ashida** Nagoya University

645A Comparative phosphoproteomics identifies a novel group of Pmk1-regulated effectors deployed by the rice blast fungus *Magnaporthe oryzae* during plant infection **Mark Jave Bautista** The Sainsbury Laboratory

646A Splash Dispersal of *Colletotrichum* Conidia on Host and Nonhost Leaf Architectures **Caleb Bedsole** Texas A&M University

647A The polyketide synthase, Ctb1, is required for cercosporin biosynthesisbut not virulence in the maize pathogen *Cercospora zeae-maydis* **Burt Bluhm** University of Arkansas Division of Agriculture

648A Identification and characterization of *Cercospora beticola* effector candidates associated with adaptation to the sugarbeet resistance gene *BvCr4* **Nathan Wyatt** USDA - ARS

649A A single laccase is essential for cell wall construction and environmental sensing in *Sclerotinia sclerotiorum* **Madeline Bondy** University of Wisconsin - Madison

650A Host transcriptomic and metabolic pathway shifts imposed by intracellular bacteria within *Mortierellaceae* **Gregory Bonito** Michigan State University

651A AI-driven protein design to understand effector function within the *Magnaporthe oryzae* rice pathosystem **Angus Bucknell** The Sainsbury Laboratory

652A Pmk1-driven signal integration and developmental control in the rice blast fungus *Magnaporthe oryzae* **Euan Cawston** The Sainsbury Laboratory, Norwich

653A Large scale proteome mapping of multidrug resistant *Candida auris* isolates **Benjamin Chadwick** University of Macau

654A Hypovirus-mediated enhancement of *Trichoderma harzianum* biocontrol activity through virus-fungus-plant interactions **Jeesun Chun** Jeonbuk National University

655A Characterization of *de novo* miniproteins targeting *Candida albicans* virulence traits **Evelyne Côté** University of Toronto

656A Role and regulation of dispersal in Candida albicans commensalism and pathogenicity **Eli Cytrynbaum** University of Wisconsin - Madison

657A Characterizing macrophage dependent spherulation in *Coccidioidies* **Apoorva Dabholkar** UCSF

658A Molecular Basis of a Bacterial 'Toxin Sponge' that Protects its Fungal Partner from Antimicrobial Compounds **Kurt Dahlstrom** University of Georgia

659A Influence of pathogen carbon metabolism on host immunity **Bright Owusu Danso** Liberty University

660A Characterization of Extracellular Vesicles in *Fusarium oxysporum* f. sp. *vasinfectum* **Brisa Davila** Texas A&M University

661A Dissecting appressorium-mediated plant infection by FIB-SEM Volumetric EM and Cryogenic Electron Tomography **Juan Carlos De la Concepcion** ZMBP, University of Tübingen

662A Interspecific interactions and virulence variation among *Fusarium* species causing root rot in pulse crops **Anmol Dhaliwal** North Dakota State University

663A A novel *Starship* transposon in a broad host range pathogen mediates host-specialized virulence on strawberry **Christine Jade Dilla-Ermita** University of California, Davis

664A Determining the Sln1-mediated turgor sensing pathway and phospho-histidine landscape in the blast fungus *Magnaporthe oryzae* **Fabio Dos-Santos Barbosa** The Sainsbury Laboratory

665A tRNA modification and codon usage underlie phytopathogen effector evolution and secretion **Nawaraj Dulal** University of Nebraska-Lincoln

666A The outer membrane of a protective bacterial partner plays a key role in fungal resistance to phenazines **Hannah Edwards** University of Georgia

667A Brute-force or Trojan horse: How do bacteria hijack the fungal immune system? **Jude Edwards** University of California, Berkeley

668A Measuring fitness penalties of fungicide resistance mutations via *in planta* competition assays. **Ashton Esco** North Dakota State University

669A A *Pyrenophora teres* f. *teres* effector defeats the broadly used barley net form net blotch resistance gene, *Rpt5* **Timothy Friesen** USDA-ARS

670A tissue-dependent role for cell wall regulatory pathways on *Aspergillus fumigatus* virulence. **Kevin Fuller** University of Pittsburgh

671A A molecular diagnostic marker for the primary causative agent of Fusarium stem rot and decline (FRD) outbreak in California processing tomatoes, *F. noneumartii* FN-1 (*F. solani* Species Complex) **David Geiser** Penn State University

672A Molecular architecture and dynamic remodeling of fungal cell walls revealed by Advanced Solid-State NMR Spectroscopy **Isha Gautam** Michigan State University

673A Epistasis at the cell surface: what is the role of Erg3 loss-of-function in acquired echinocandin resistance? **Hans Carolus** Université Laval

674A Understanding Diversity of Endohyphal Bacteria in Clinical Mucorales Isolates **Jack Gregory** University of Exeter

675A *Tribollium castaneum:* a novel, ecologically-relevant arthropod model for human fungal pathogens **Thomas Sauters** Vanderbilt University

676A Invading in full force: substantial pressure from Botrytis cinerea infection cushions breaches plant surfaces **Frank Pieterse** Wageningen University & Research

677B The C2-domain protein SppA contributes to virulence and resistance to FksA-targeting antifungals in *Aspergillus fumigatus* **Benjamin Chadwick** Morgridge Institute for Research

678B Genomic features of Crusty, a novel polyextremotolerant fungus with *Methylobacterium* symbionts that functions within biological soil crust consortia **Steven Harris** Iowa State University

679B Secretion of *Periglandula clandestina*-derived ergot alkaloids from host morning glory roots **Corinne Hazel** West Virginia University

680B The UPR regulated Phu1 protein connects endoplasmic ATP levels to stress tolerance and virulence **Kai Heimel** University of Goettingen

681B Proteomics of programmed cell death in *Aspergillus fumigatus* conidia to design fluorescent viability reporter **Thorsten Heinekamp** Leibniz Institute for Natural Product Research and Infection Biology

682B Understanding lichen communication: Structural and functional characterization of *Peltigera* GPCRs **Max Heinen** Heinrich-Heine-University Dusseldorf

683B Host suppression of stress signaling in the maize pathogen *Cochliobolus heterostrophus* **Benjamin Horwitz** Technion - IIT

684B Assessing the Ecological and Genomic Determinants of Facultative Pathogenicity Through *Colletotrichum siamense* on Strawberry **Libby Indermaur** Connecticut Agricultural Experiment Station

685B *Fusarium oxysporum* f. sp. *vasinfectum* race 4 (Fov4) *FNP1*, a non-ribosomal peptide synthetase gene, plays an important role in cotton Fusarium wilt **Madison Isaacs** Texas A&M University

686B Distorted segregation and occurrence of non-parental allele type in a biparental population of wheat tan spot pathogen *Pyrenophora tritici-repentis* **Md. Mukul Islam** North Dakota State University

687B Functional characterization of the HSP70 domain-containing core effector of *Cercospora beticola* **Rajdeep Jaswal** North Dakota State University

688B Chromosome-scale metagenome assemblies reveal transposable element dynamics in *Peltigera* lichens **Vivien Joisten-Rosenthal** Heinrich-Heine University Düsseldorf,Faculty of Mathematics and Natural Sciences, Institute for Biological Data Science

689B Vaccine Development for *Cryptococcus neoformans* **Roshni Kadam** Rutgers University

690B Parallel comparative transcriptome analyses of bacterial–fungal interactions (BFI) reveal the determinants of BFI directionality **Takumi Kasai** University of Tsukuba

691B Expanding the fungal microbiome: databases, detection tools, and novel mycovirus–endobacteria co-occurrences **Julia Kelliher** Los Alamos National Laboratory

692B Proteomic profiling of antifungal drug responses of *Aspergillus fumigatus* indicates drug-specific signatures and modes of action **Olaf Kniemeyer** Leibniz Institute for Natural Product Research and Infection Biology (HKI)

693B Spp1-mediated processing of substrate proteins promotes plant defence suppression and virulence of fungal biotrophs **Nora Marie Kühne** University of Goettingen

694B Identification and functional validation of avirulence effectors in wheat rusts **Camilla Langlands-Perry** CSIRO

695B Outcomes of competitive dynamics of *Fusarium graminearum* and *F. poae* on wheat heads **Imane Laraba** Agriculture and Agri-Food Canada

696B Investigation of major surface proteins in cryptococcal immunogenicity **Yong Gyu Lee** University of Georgia

697B Signal Reliability and Nutritional Rewards Drive Divergent Evolutionary Trajectories in Nematode-Trapping Fungus *Arthrobotrys oligospora* **Hung-Che Lin** Max Planck Institute for Biology Tübingen

698B IL-17 derepresses cytokine translation to induce immunity against candidiasis **Jianfeng Lin** The Lundquist Institute

699B A Toxic Paradox: Towards understanding how the blue mold fungus escapes patulin toxicity during host-microbe interactions **Dianiris Luciano-Rosario** USDA-ARS

700B A tale of two Xylaria: exploring the genomic basis of opposing plant-fungal associations in shared hosts **Annabella Lyndon** Michigan State University

701B CBM18 at the fungal–Host interface in *Batrachochytrium dendrobatidis* **Qinxi Ma** University of Exeter

702B Decoding Phenazine Stress Responses in *Aspergillus calidoustus* During Protection by *Paraburkholderia edwinii* **Sonai Majhi** University of Georgia

703B A link between calcineurin and the amino acid permease, BycA, for virulence in *Mucor* **Gabriela Maldonado** Texas Tech University Health Science Center

704B The core and accessory gene repertoire of rust fungi (pucciniales): Genomic insights into their adaptive evolution **Francismar Marcelino-Guimarães** Brazilian Agricultural Research Corporation - Embrapa Soybean

705B Study of Virulence and Fungicide Resistance in *Fusarium oxysporum* f. sp. *mori* **Domingo Martinez Soto** Centro de Investigación Científica y de Educación Superior de Ensenada

706B Mariner-Based Transposon Mutagenesis Identifies *Paraburkholderia edwinii* Genes Required for Protecting *Aspergillus calidoustus* Under Phenazine Stress **Nathon Mclaughlin** University of Georgia

707B A co-evolved peptide-GPCR system senses host entry to drive fungal infection **Cesar Gabriel Mendoza Rojas** Heinrich Heine University of Düsseldorf

708B An OMICS view of the interaction established between the commensal bacterium *Lactobacillus gasseri* and the pathogenic yeast *Candida glabrata* **Nuno Mira** Institute for Bioengineering and Biosciences, Instituto Superior Tecnico

709B Generalist pathogen *Botrytis cinerea* shows host-specific responses to closely related legumes **Anna Muhich** University of California, Davis

710B *Parastagonospora nodorum* necrotrophic effector SnTox267 targets a wheat susceptibility pathway to facilitate mesophyll colonization and drive in planta infection **Ashley Nelson** North Dakota State University

711B A candidate effector modulates virulence dependent on temperature and host phosphate status by regulating root colonization **Jacy Newfeld** The University of Tokyo

712B Copper homeostasis links plant colonization and trap formation in the nematode-trapping fungus *Arthrobotrys flagrans* **Rafael Palos Fernandez** Karlsruhe Institute of Technology

713B Understanding the mechanisms of antifungal response in an emerging fungal pathogen, *Basidiobolus* **Lauren Parry** Clark University

714B Metabolic plasticity and virulence of *Cryptococcus neoformans* are regulated by mitochondrial homeostasis **Jose Alberto Patino Medina** Johns Hopkins Bloomberg School of Public Health

715B Genetic Basis for a Bacterium Acting as a Toxin Sponge to Protect its Fungal Partner from Phenazines **Alyssia Gonzalez** University of Georgia

716C Kinase-regulated development of plant surface penetration structures in B. cinerea and M. oryzae **Frank Pieterse** Wageningen University & Research

717C Beyond Single-Pathogen Paradigms: A Meta-Pathogen Approach to Understanding Mycotoxin Production in Fusarium Head Blight **Nadia Ponts** INRAE

718C Rho-GDP dissociation inhibitor modulates aflatoxin biosynthesis and virulence in *Aspergillus flavus*. **Michael Price** Liberty University College of Osteopathic Medicine

719C Genomic, transcriptomic and molecular study of lichenization in the model lichen *Xanthoria parietina* **Camille Puginier** The Sainsbury Laboratory

720C Host-Fungal Interactions at the Base of Animal Evolution **Sarina Qin** University of California, Merced

721C Intracellular metabolism of the fungal pathogen Histoplasma capsulatum **Chad Rappleye** Ohio State University

722C Genome-wide association mapping study-based identification of a candidate effector region in Cercospora sojina linked to Rcs2-mediated avirulence **Sydney Reeves** University of Tennessee, Knoxville

723C Investigating the role glutathione degradation by *Magnaporthe oryzae* during rice blast disease **Nisha Rokaya** University of Nebraska-Lincoln

724C Substantial overlap in virulence-related genes and traits across strains of two Aspergillus species with differing clinical relevance **Thomas Sauters** Vanderbilt University

725C Accessory gene cluster confers high copper tolerance in the cross-kingdom pathogen *Fusarium oxysporum* **Manuel Sánchez López-Berges** Universidad de Córdoba

726C Single-cell profiling reveals tissue-protective and IFN-gamma-driven hyperactivated neutrophils during *Pneumocystis*pneumonia **Steven Sayson** University of Cincinnati College of Medicine

727C Temperature-Driven Shifts in Cypress Immune Responses to Seiridium cardinale infections: Insights into Climate Change Scenarios **Edoardo Scali** UC Berkeley

728C Searching for virulence factors of the plant pathogen *Ascochyta rabiei* using *Agrobacterium tumefaciens*-mediated transformation **Jessica Schallon** Washington State University

729C Interactions of nematophagous fungi with *Steinernema* nematodes **Hillel Schwartz** Max Planck Institute for Biology

730C Host–pathogen interactions in an alternative model: elucidating *Candida albicans* virulence *in vivo* **Nora Shamoon** University of California, Merced

731C Fungal Mycobiome and Secondary Metabolites in Corn **Inisa Shrestha** Kansas State University

732C Functional Characterization of Pathogenicity Drivers in *Sphaerulina musiva* to Inform Split CRISPR-Cas9 Gene Drive Engineering **Joshua Sparks** Oakridge National Laboratory

733C *Cercospora cf. flagellaris* can infect *Nicotiana tabacum* and cause tobacco greenspot–a disease associated with latent *C. nicotianae* infections. **Kona Swift** University of Arkansas Division of Agriculture

734C Macrophage phagocytosis of *Coccidioides* promotes its differentiation into the parasitic form **Jane Symington** UCSF

735C Comparative transcriptomic analysis of *Microbotryum superbum* in pathogenic and endophytic lifestyle during infection of *Dianthus seguieri* plants **Derica Tavares** University of Louisville

736C Evidence that Entomophthora muscae controls the timing of host death via its own circadian clock **Leslie Torres Ulloa** Harvard University

737C Endolevanase: A Host-Specific Hidden Weapon of *Fusarium graminearum* Provoking Fusarium Head Blight in Wheat **Trang Tran-Minh** Ghent University

738C Exploiting FgGMTV1 for Biocontrol of Fusarium Head Blight in Wheat **Yi-Wen Tseng** Ohio State University

739C Epigenetic rewiring of the low-oxygen response by an Inhibitor of Growth (ING) family Protein drives *Aspergillus fumigatus* disease progression **Sandeep Vellanki** Geisel School of Medicine at Dartmouth

740C *Lichtheimia*: An Emerging Fungal Pathogen in Human Mucormycosis – Insights from Lung-on-Chip and Invertebrate Models **Kerstin Voigt** University of Jena

741C Botryozyma yeast , a sexually transmitted infection of Panagrellus redivivus nematodes **Jun Ting Wang** UC Berkeley

742C Mucoromycotina 'Fine Root Endophytes': a distinct mycorrhizal strategy in early-diverging fungal lineages **Alan Wanke** Sainsbury Laboratory

743C Bacterial partner protects *Aspergillus calidoustus* from Voriconazole **Lyric Wardlaw** University of Georgia

744C Identifying Antigen Targets for mRNA-LNP Vaccine Development Against *Cryptococcus neoformans* **Anuja Warrier** University of Georgia

745C Analyzing differences in codon usage patterns in *Rhizopus micosporus*, its bacterial endosymbiont *Mycetohabitans* sp., and the novel prophages residing in the bacterial genome **Caroline West** University of North Carolina Charlotte

746C Uncovering cell-specific responses of barley during *Magnaporthe oryzae* infection **Louisa Wirtz** RWTH Aachen University

747C Identification and characterization of core *Cercospora beticola* biotrophic effectors through pan-genomic analysis. **Nathan Wyatt** USDA-ARS

748C Identification of pathogenicity-related genes in *Fusarium oxysporum* f. sp. *lycopersici* using an accessory chromosome-deletion library constructed by CRISPR/Cas9 genome editing **Masaya Yamazaki** Tokyo University of Agriculture and Technology

749C Dissecting the *Candida albicans* and *Pseudomonas aeruginosa* relationship through diverse isolates. **Jenny Zhang** UC San Francisco

750C Among Us: Cheaters and transposons drive adaptations in experimental evolution of *Botrytis cinerea* **Suraj Hassan Muralidhar** Wageningen University and Research

751C Characterization of compounds that inhibit filamentation in the human fungal pathogen *Candida albicans* **Yaxin Guo** University of Toronto

752C Molecular Diagnostics for Rice Brown Spot: qPCR and LAMP Markers Targeting *Bipolaris oryzae* and *Nigrospora oryzae* **Sunmin An** Sunchon National University

753C Genetic and pathogenic diversity of *Cryptococcoccus gattii* **Qinxi Ma** University of Exeter

Population Genomics

754A Genomic Insights into the Emergence of *Colletotrichum chrysophilum*: the Major Causal Agent of Apple Bitter Rot and Glomerella Leaf Spot **Riccardo Baroncelli** University of Bologna

755A What makes a fungal species? Investigating speciation concepts in the polymorphic tiger sawgill Letninus tigrinus. **Alexander Bradshaw** Clark University

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758A Haplotype-Resolved Genomes Reveal Diversity at the Homeodomain Mating-Type Locus in *Rhizoctonia solani* AG1-IB **Jackson Cooper** Center for Integrated Fungal Research, Department of Entomology and Plant Pathology, North Carolina State University

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760A Population genomic diversity of VNI lineage of *Cryptococcus neoformans* from North Carolina **Erick Figueroa-Ildefonso** Duke University

761B Genome-Scale Insights into Diversity and Fungicide Resistance Potential of *Botrytis cinerea* Populations in California Nurseries **Sergio Gabriel Peralta** University of California, Davis

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765B Dosage-Dependent Genetic Architecture of Specialized Metabolite Resistance in *Botrytis cinerea* **Melanie Madrigal** Louisiana State University

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768B Genomic insights into the reproductive biology and population diversity of *Xanthoporthe myrticola* (Cryphonectriaceae), an emerging tree pathogen in South Africa **Nam Pham** University of Pretoria

769C Identifying the consequences of genomic content changes in *Cryptococcus neoformans*. **Claire Reichardt** University of Georgia

770C Genomics insights into the *Bipolaris gigantea* host range expansion from grasses to hemp **Flavia Rogerio** University of Florida

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772C Population genomics of the laminated root rot fungus *Coniferiporia* **Lluvia Vargas** Oregon State University

773C Investigating genetic and molecular mechanisms of amphotericin B resistance in *Candida auris* **Dominique Walker** Brown University

774C New insights into genomic diversity and population structure of hybrid and rare lineages of *Cryptococcus neoformans* **Kayla Wilhoit** Duke University

775C Uncovering in-field dynamics, persistence and adaptation of a clonal Ascochyta rabiei population of chickpea using a novel molecular workflow **Hayley Wilson** Griffith University

776C BRC-Analytics.org: a platform for free, high performance fungal genomics analysis **Scott Cain** Penn State University

Synthetic Biology

777A Exploring the biosynthetic potential of the leaf-cutter ant pathogen *Escovopsis weberi* using heterologous expression **Shumukh Alharthi** Swansea University

778A Towards synthetic biology in edible mushrooms: characterization of endogenous regulatory elements in the mushroom *Coprinopsis cinerea* **Peter Allen** Stanford University

779A Assessing Agricultural Waste Utilization by the Basidiomycete Fungus Coprinopsis cinerea **Jon Arizti Sanz** Stanford University

780A Nutrient-responsive metabolites and conserved biosynthetic capacity of *Hyaloscypha finlandica*, a prominent dark septate endophyte of poplar **Julian Cosner** Oak Ridge National Laboratory

781A Illuminating brown-rot genetics: An eGFP-based molecular toolbox for *Gloeophyllum trabeum* **Nandin Ganjoloo** University of Minnesota

782B Illuminating transcriptional dynamics underlying circadian clock regulation and photoentraiment. **Luis F. Larrondo** Pontificia Universidad Catolica de Chile

783B Development of a synthetic biology toolkit for heterologous gene expression in the oyster

mushroom, *Pleurotus ostreatus* **Panward Prasongpholchai** University of Warwick

784B AI-driven optimization of growth factor manufacturing from waste by *Aspergillus oryzae* **Ofer Prinz Setter** University of California, Berkeley

785B Deep homology and design of proteasome chaperone proteins in *Candida auris* **Jackson Rapala** University of Michigan

786B Development of genetic transformation and imaging techniques to gain a better understanding of how filamentous fungi internalize, transport, and transform critical minerals **Aaron Robinson** Los Alamos National Laboratory

787C Monitoring DNA transmission across fungal communities using RNA barcoding **Travis Seamons** Rice University

788C Investigating factors that govern heterologous gene expression in Agaricomycetes **Deniz Sinar** Stanford University

789C Production of gentisyl alcohol in *Yarrowia lipolytica* **Jens Sørensen** Aalborg University

790C Engineering *Trichoderma*-Based Biosentinels: Smart Systems to Detect, Remember, and Respond to Environmental Stressors **Joanna Tannous** Oak Ridge National Laboratory

791C Characterizing genetic parts in fungal mycelium using large particle flow cytometry **Bishal Thapa** Massachusetts Institute of Technology

792C A tunable and strict gene expression system with a high dynamic range in filamentous fungi **Masaki Yokoyama** Tohoku University

793C Fungarium Sequencing Project - Large-Scale Museomics and Whole-Genome Recovery from Historical Type Material **Mikele Baugh** Royal Botanic Gardens Kew

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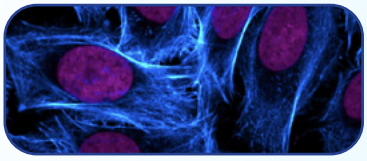
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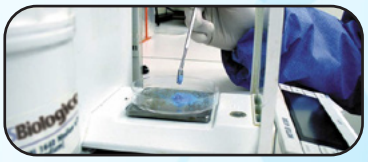
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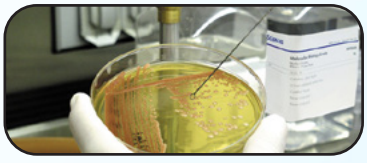
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IMPORTANT DATES

March 5, 2026
Abstract submission deadline

April 16, 2026
Early registration deadline

April 22, 2026
Housing deadline

ABSTRACT TOPICS

- Disease models and aging
- Evolution and population genetics
- Gene regulation
- Genomics and systems biology
- Genome integrity
- Initiatives in education, pedagogy, engagement, and outreach
- Intra and inter cellular dynamics
- Life cycle *(NEW topic in 2026)*
- New technology and resources
- Synthetic biology and industrial yeasts *(NEW topic in 2026)*

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