

CONVERGENCE INSTITUTE AGENDA

Pre-session: Monday, May 13; CI: Tuesday, May 14, 2024 and Wednesday, May 15, 2024

BIO5 Institute-Keating Building, 1657 E. Helen Street (enter through North entrance)

All sessions will be hybrid, but some sessions may be limited to specific audiences. Most activities take place in Keating, room 103. The remainder will be in the Medical Research Building, room 102.

Zoom Meeting ID (for virtual participants) : <https://arizona.zoom.us/j/81283392563>

If two sessions are running concurrently, please visit the agenda for the link to the session you wish to attend.

PRE-SESSION (Monday, May 13)*

Day 0- 9:00am-5:00pm. Keating building, rm 103 (limited to registrants, in person)

9:00am-12:00pm

Interdisciplinary Team Science in Action, Anne Mook (Institute for Research on the Social Sciences, Colorado State University)

12:00pm - 12:45pm

Lunch

12:45pm - 2:00pm

Interdisciplinary Report Assignments and Team Contract, Anne Mook

Break- 5 min

2:05pm-3:05pm (open only to BRIDGES trainees and ECGN GIDP students)

Trainee Focus Group, Shirley Vincent (Owner and Consultant, Vincent Evaluation and Consulting)

Break- 5 min

3:10pm-4:50pm (open only to BRIDGES trainees and ECGN GIDP students)

University of Arizona Responsible Conduct of Research Training (laptop required)

Dinner: NRT Trainees and Panelists

CONVERGENCE INSTITUTE (Tuesday, May 14- Wednesday, May 15)

Tuesday, May 14

Day One-8:45am-4:30pm, Keating Building, rm 103

8:45am-9:00am

Check in

9:00am-9:30am (open to all registrants/hybrid)

Welcome, Scott Saleska (Professor of Ecology and Evolutionary Biology, UA) **and Betsy Arnold** (Professor and Curator of the RL Gilbertson Mycological Herbarium, Plant Sciences, UA)

9:30am - 11:15pm (open to all registrants/hybrid)

“Challenges of Ecosystem Genomics”: Keynote Panel and Discussion:

Team Science to Confront Challenges in Ecological Genomics, Patrick Sorenson (Project Scientist, Lawrence Berkeley National Laboratory)

Integrating fungal ecology and genomics with trace gas fluxes in Alaska, Jana U’Ren (Assistant Professor, Washington State University)

Break- 10 min

Panel discussion

11:15 - 11:45

Self-introduction by Guests from the **Auburn University NRT in Climate Resilience**

12:00pm-12:15pm

Group photo

12:15pm-1:00pm

Working lunch- Open science discussions

1:00pm - 4:30pm (open to all registrants/hybrid)

Trainee Research Engagement Presentations Parts I and II

1:00pm-2:50pm

Trainee Research Engagement Presentations, Part I

10-12 min presentation w/ Q&A, 20 min allotted

Theme: Ecosystem Genomics in a Changing World

Introduction, **Savannah Fuqua** (Ecology and Evolutionary Biology, UA)

Parameterizing Biochar Effect on Soil Decomposition Processes Using Integrated AI and Process Based Modeling, Sabrina Wilson (Hydrology and Atmospheric Science, UA)

Impacts of Green Infrastructure: Rainwater Harvesting Influence on Soil Health, Phoenix Spivey (School of Natural Resources and the Environment, UA)

Evaluating the potential for rapid evolutionary response to climate: clues from the desert annual *Pectocarya recurvata*, Poppy Northing (Ecology and Evolutionary Biology, UA)

Metabolomic implications of methane dynamics in permafrosts of Stordalen,
Jhon del Aguila Pasquel (Environmental Science, UA)

Constraining metabolic reaction networks through thermodynamic optimization,
Michael Mustri (Ecology and Evolutionary Biology, UA)

Break- 10 min

3:00pm-4:30pm

Trainee Research Engagement Presentations, Part II

10-12 min presentation w/ Q&A, 20 min allotted

Theme: Genomic/Genetic Controls, Arid-Land Organisms

Introduction, **Pablo Arán** (Ecology and Evolutionary Biology, UA)

Collapsing inflated genome assemblies: an example with ocotillo, MD Nafis Alam (School of Plant Sciences, UA)

Searching for genes contributing to desiccation resistance in *Drosophila mojavensis*,
Liam Roberts (Entomology and Insect Science, UA)

Using fungal herbarium specimens to unlock historical records of genetic diversity,
Griffin Davis (School of Plant Sciences, UA)

Identifying Atoxigenic Strains of *Fusarium* from Wild Relatives of Crop Plants, Kiernyn Zizzo
(School of Plant Sciences, UA)

Dinner: Caruso's Italian, 6pm

Wednesday, May 15

Day Two- 8:45am-5:00pm Keating Building, rm 103

8:45am - 11:30am

Trainee Research Engagement Presentations Part III

10-12 min presentation w/ Q&A, 20 min allotted

Theme: Microbes, Microbiomes, and their Importance in Ecosystem Genomics

Introduction, **Viviana Friere Zapata** (Environmental Science, UA)

Restoration through disturbance: impacts of grazing, controlled burns, and strip seeding on soil microbial communities, Michael Spaeth (School of Natural Resources, UA)

Plant Genotype as a Determinant of Microbial Community Composition in Lettuce, Neda Arad (School of Plant Sciences, UA)

Using Phyloseq and FAPROTAX to Understand How Sonoran Desert Soil Microbial Community Composition and Function Respond to Altered Precipitation Regimes, Harrison Friedman (School of Natural Resources, UA)

How do soilborne bacteria influence seed survival and germination in a lowland tropical forest?, Erica Cortez (Arizona Biological and Biomedical Sciences, UA)

Break- 10 min

Volatilome Comparison of Aflatoxigenic A. flavus & AF36 Preval on Four Crop Types, Dakota Salyer (School of Plant Sciences, UA)

Aflatoxin Biocontrol on Fumonisin Contamination in Maize, Sallu Nepal (School of Plant Sciences, UA)

Associated growth dynamics in sedimentary microbial communities, Caitlin Tribelhorn (Environmental Science, UA)

Break- 10 min

11:40am-12:20pm

Cultures of Science

Cultures of Science Report, Jennifer Croissant (Associate Professor of Gender & Women's Studies, UA) and ***Lived Experiences of BRIDGES Research Trainees: Interdisciplinary Practices and Perceived Barriers, Highlights, and Program Impact, Christine A. Beach*** (Higher Education, UA)

12:20pm-1:00pm (open to all registrants)

Lunch

1:00pm-4:15pm (Select from 2 tracks)

Track 1: NRT Faculty, Staff, and BRIDGES Advisory Board

1:00pm-2:00pm

NRT Faculty Focus Group Discussion with Shirley Vincent (Owner and Consultant, Vincent Evaluation and Consulting)- Keating Room 103 (limited to Faculty and Advisory Board/hybrid)
Virtual Registrants: **Use Zoom Meeting ID: <https://arizona.zoom.us/j/81283392563>**

Break- 5 min

2:05pm-3:05pm

Progress and Recruitment Report, Betsy Arnold (Professor and Curator of the RLG Mycological Herbarium, Plant Sciences, UA), **Scott Saleska** (Professor of Ecology and Evolutionary Biology, UA), and **Heather Ingram** (Assistant Director, BRIDGES NSF Research Traineeship Program, UA)- Keating Room 103. Virtual Participants: **Use Convergence Institute Zoom Meeting ID: <https://arizona.zoom.us/j/81283392563>**

Break- 5 min

3:10pm-4:10pm

Evaluation Report, Shirley Vincent (Owner and Consultant, Vincent Evaluation and Consulting)-Keating Room 103 Virtual Participants: **Use Convergence Institute Zoom Meeting ID: <https://arizona.zoom.us/j/81283392563>**

Track 2: NRT Trainees, AU Trainees, UA Community

1:00pm -1:55pm

***What is the Impact of your Research on Society?*, Michelle Higgins** (Associate Director, Office of Societal Impact, UA)
Virtual Participants: **Use Zoom Meeting ID: <https://arizona.zoom.us/j/84526331803>**
Password: BRIDGES

Break- 5 min

2:00pm-2:40pm

GRFP and Fulbright Funding Opportunities, Savannah Fuqua (Ecology and Evolutionary Biology, UA); **Ciara Garcia** (School of Plant Sciences, UA); and **Pablo Arán** (Ecology and Evolutionary Biology, UA). **Use Zoom Meeting ID: <https://arizona.zoom.us/j/84526331803>**
Password: BRIDGES

Break- 5 min

2:45pm-4:10pm

Convergence Institute Report Wrap-up, Anne Mook (Institute for Research on the Social Sciences, Colorado State University)

Use Zoom Meeting ID: <https://arizona.zoom.us/j/84526331803>
Password: BRIDGES

Break- 5 min

4:15pm-4:45pm

Trainee Next Steps, Scott Saleska, Betsy Arnold, and Heather Ingram- Keating Room 103