Supporting Women In Academia

With Raina Maier, Elise Gornish, Ashley Snider, Theresa Crimmins, Jacqueline Maximillian & Eva Romero

Monday, March 6th

2:00 pm - 4:00 pm

ENR2 Building, S210 1064 E Lowell St, Tucson, AZ 85719

THE UNIVERSITY OF ARIZONA
Agriculture, Life & Veterinary Sciences & Cooperative Extension

Raina M. Maier
Director, UA Superfund Research Program
520-621-7231
rmaier@arizona.edu
UA Profile
Superfund

Raina Maier's research program focuses on understanding how we can exploit microbes and their activities and products to benefit human health and the environment. She is a Professor of Environmental Microbiology in the Department of Environmental Science. She is known for her contributions to the field of microbially-produced surfactants - molecules that she has studied since she joined the University of Arizona in 1991. These amazing molecules have been the basis for several research discoveries and patents in the field of environmental cleanup and metal recovery especially related to mining. She is also known for her work on the relationships between microbial diversity and ecosystem function in arid and semi-arid environments with a focus on mine tailings and desert soils. Dr. Maier serves as the Director of the University of Arizona NIEHS Superfund Research Center which is focused on understanding the health impacts and advancing innovative solutions for remediation of mine waste sites. Related to mining, her group's innovative work on establishing vegetative caps on mine waste is changing the way we think about and evaluate the revegetation process.

Elise Gronish
Extension Specialist – Ecology Management, &
Restoration of Rangelands
520-621-3307
egornish@email.arizona.edu

Dr. Elise Gornish is a Cooperative Extension Specialist in Ecological Restoration at the University of Arizona. Her research and outreach program largely focuses on identifying strategies for successful restoration in arid land systems and integration of restoration approaches into weed management.

Originally from New York, Dr. Gornish received her MS and PhD from Florida State University in 2013. She then completed two years of a post doc at the University of California, Davis.

Dr. Gornish is an early career leader in the fields of arid land restoration and weed management and has published over 75 papers and has presented over 200 times at various venues.

In addition to vegetation management, Dr. Gornish is passionate about STEM inclusion and in 2018 become the Director of UA GALS (Girls on outdoor Adventure for Leadership and Science). This new program focuses on providing science learning and leadership opportunities to traditionally underserved female high school students through backcountry programming.

Theresa Crimmins
Director
theresa@usanpn.org
(520) 621-8523
Short CV
ORCID
@TheresaCrimmins

Theresa Crimmins is the Director for the USA National Phenology Network and has been a part of the organization since 2007. Hailing from Ohio and Michigan, she received a B.S. and M.A at Western Michigan University and a Ph.D. from the University of Arizona. In her role with the Network, Theresa supports an amazing team of individuals and works enthusiastically to support the growth and use of phenology data and resources curated by the USA-NPN, involvement in Nature's Notebook, and a broader appreciation of phenology among scientists and non-scientists alike.

Theresa is also a Research Professor in the School of Natural Resources and the Environment at the University of Arizona and has published over 70 peer-reviewed articles and book chapters in journals including *Nature*, *Geophysical Research Letters*, *Global Change Biology*, and *Journal of Ecology*. Her writing has also appeared in *Scientific American*, *The Hill*, and the *Arizona Daily Star*, and she has appeared in the PBS productions SciGirls and American Spring Live as well as on NPR and The Weather Channel. Theresa is an author on the "Ecosystems and Biodiversity" chapter of the Fifth National Climate Assessment, is a member of the inaugural cohort of NEON Ambassadors, and is a Fellow of the Linnean Society. She also currently serves on the editorial board for *Ecosphere*. In 2018, Theresa received the Alumni Achievement Award from the Department of Geography as well as the Globally-Engaged Pillar Award from the College of Arts and Sciences at Western Michigan University.

Ashley J Snider, PhD
Associate Professor, School of Nutritional Sciences and Wellness
Joint appointed in The BIO5 Institute
520-621-8093
ashleysnider@arizona.edu

EDUCATION & PROFESSIONAL TRAINING

- Post-Doctoral Training, Sphingolipids and Animal Models of Disease, Medical University of South Carolina
- Ph.D., Pharmacology and Toxicology, Washington State University
- B.S., Marine Biology, University of North Carolina at Wilmington

RESEARCH & INTERESTS

The long-term research goals of my lab are to define the roles of lipid metabolic pathways centered on bioactive sphingolipids in intestinal biology and pathobiology and determine the mechanisms involved. Sphingolipids, long thought to be only structural components of cell membranes, have emerged over the last two decades as bioactive lipids with distinct and important biological functions. Fatty acids are incorporated into ceramide, the central lipid in sphingolipid metabolism, via two enzymatic reactions: through de novo synthesis initiated by serine palmitoyl transferase (SPT) into the sphingoid backbone of sphingolipids, and via incorporation by ceramide synthases (CerS) into the fatty-acyl chain of ceramide. Ceramide in turn serves as a metabolic hub for the synthesis of several classes of sphingolipids, including sphingomyelin, ceramide 1-phosphate (C1P), glycosphingolipids and sphingosine-1-phosphate (S1P). We have previously demonstrated the importance of serval sphingolipids and their metabolic enzymes as key regulators in inflammatory bowel disease, as well as colon cancer and colitis-associated colon cancer. In addition, we have demonstrated that specific dietary FAs increase inflammation in the intestinal epithelium in cells and in vivo.

Our current research focus builds on this foundation.
The three main projects in my lab examine:

1. Effects of dietary fatty acids on sphingolipid metabolism in ER stress and inflammation.
2. Roles of dietary fatty acids and sphingolipids in animal models of inflammation and colitis-associated cancer.
3. Roles for sphingolipids and their metabolizing enzymes in intestinal biology and pathobiology.

Jacqueline Maximillian, Ph.D.
Office: (520) 621-9308
Cell: (208) 874-2074
maximillianj@arizona.edu

Jacqueline "Jackie" Maximillian is an Associate Professor of Practice in the Department of Environmental Science, where she has been since 2016. Professor Maximillian teaches Introduction to Environmental Science, a high enrollment Gen. Ed. in the Spring and Fall semesters. She teaches the upper-level environmental assessment of contaminated sites and undergraduate research capstone. She teaches all the courses synchronously and asynchronously. In 2021, she received a Provost Teaching Innovation Award.

Her scholarly interest focuses on using Virtual and Augmented Reality (VR/AR) to increase the accessibility and inclusivity of field sciences to non-traditional and underrepresented student groups by bridging the experiential learning and STEM gaps. Much of this work has been on producing 360 degree videos of the Santa Cruz River water quality monitoring parameters, which incorporate real-time data collection, sampling, and data extraction—also supervising a graduate student in collecting data on students' learning experience through virtual reality.

In 2022, she was part of the MENTOR (Mentorship through Effective Networking, Transformational Opportunities, and Research) Institute, where she mentored four faculty inside and outside the College of Agriculture and Life Sciences.

She is a member of the AIRES Advisory Council and Arizona's Environmental Literacy Program. She also serves in departmental and college committees as a member and chair. As a co-chair, she is professionally engaged in the Association of Environmental Science and Studies' professional development. She helped pioneer the mentoring program and launched an external reviewers' inventory page to assist faculty on promotion and tenure journeys.

She holds a Ph.D. in Natural Resources from the University of Idaho and an M.S. and
B.S. in Forestry from the Sokoine University of Agriculture, Tanzania.