
EMSI 2025 INSTRUCTORS

CAMILO BARBOSA



SESSIONS TAUGHT: Reduce the Benefits of Single Mutations, Trade-Offs in Therapy

E-MAIL: barbosap@umich.edu

Camilo Barbosa is Postdoctoral Fellow, Michigan Medicine - Infectious Diseases, University of Michigan. He is a microbiologist investigating fundamental evolutionary questions to address the growing challenge of antibiotic resistance. His research explores how to hinder the evolutionary trajectory of bacteria toward resistance, whether bacterial evolution can be predicted and redirected, and how to increase the cost of resistance to prevent undesirable adaptive outcomes. He approaches these questions using a combination of experimental evolution, genomics and genetics, clinical data mining, and statistical analysis.

MEREDITH SPENCE BEAULIEU



Email: spencebeaulieu@ncsu.edu

Dr. Meredith Spence Beaulieu is a board certified medical and veterinary entomologist interested in vector-borne disease dynamics, public health, and science policy. As the University Program Manager for the Global One Health Academy, Spence Beaulieu helps envision and execute university-wide interdisciplinary initiatives to advance research, training, and public engagement in One Health. She is particularly passionate about graduate student training and co-leads the academy's Global One Health Fellows program.

Prior to joining the Global One Health Academy, Spence Beaulieu was the Assistant Director of the Triangle Center for Evolutionary Medicine (TriCEM), an inter-institutional and interdisciplinary center focused on understanding the role of ecology and evolution in predisposing humans, animals, and plants to disease, and exploiting this knowledge to improve health outcomes. She received her PhD in Entomology from NC State with research focused on the effects of suburban development on mosquito assemblages, and its subsequent impacts on pathogen transmission using dog heartworm disease as a study system.

Spence Beaulieu is an alumna of the Entomological Society of America (ESA) Science Policy Fellow program and is active in multiple academic societies, including ESA, the International Society for Evolution, Medicine, and Public Health (ISEMPH), the American Mosquito Control Association, and the North Carolina Mosquito and Vector Control Association.

JOEL BROWN

SESSIONS TAUGHT: Ecological Modeling & Extinction Theory

E-MAIL: Joel.Brown@moffitt.org

Dr. Brown is an evolutionary ecologist with over 300 peer-reviewed publications and a leader in mathematical modeling of evolutionary and population dynamics. He is a world leader in applying principles of ecology and evolution to contain and cure cancer while enhancing the length and quality of the patients' lives. He has applied evolutionary game theory to define, understand, model and develop improved treatment strategies for cancer. These models see cancer as the evolution of a new, single-celled species. The tumor becomes an ecosystem within which the cancer cells exhibit both ecological and evolutionary dynamics as they compete for space and resources, form associations, and further speciate to fill the niches that emerge from heterogeneity within the tumor. Dr. Brown is a Senior Member of the Department of Integrated Mathematical Oncology at the Moffitt Cancer Center in Florida. Dr. Brown is also a Distinguished Professor Emeritus at the University of Illinois Chicago.



ANURAAG BUKKURI

SESSIONS TAUGHT: Ecological Modeling & Extinction Theory, Life History Enlightened Therapies for Cancer Treatment

E-MAIL: anb701@pitt.edu

Anuraag is a Postdoctoral Associate in the Department of Computational & Systems Biology at the University of Pittsburgh School of Medicine. Anuraag integrates mathematical, computational, and experimental approaches to pose and address questions in cancer evolution. His research focuses on the mechanisms and role of polyploidy in cancer initiation, progression, and therapeutic resistance. Drawing inspiration from evolutionary ecology, social science, and geobiology, he develops novel, evolutionarily informed strategies for cancer treatment.



AMJAD DABI

SESSIONS TAUGHT: SLiM Simulation Tutorial

E-MAIL: amjad_dabi@unc.edu

Amjad Dabi is a Ph.D. candidate in Bioinformatics and Computational Biology at the University of North Carolina at Chapel Hill, working under the mentorship of Dr. Dan Schrider. His research applies machine learning and high-performance computing to genetic data, with a focus on evolutionary simulations and understanding the emergence of drug resistance during cancer's clonal evolution. Amjad is passionate about the intersection of biology and AI, and brings expertise in large-scale data analysis, genetic simulations, and predictive modeling. He thrives in collaborative, cross-disciplinary environments aimed at solving complex biological problems.



ROBERT A. GATENBY, MD

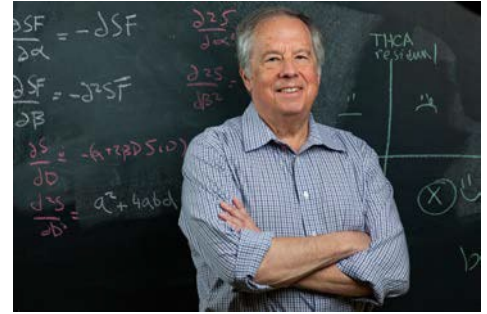
SESSIONS TAUGHT: Ecological Control Strategies, “Adaptive Therapy Clinical Trials”

Department Chair in Radiology

Co-Director Center of Excellence for Evolution Based Therapy

E-MAIL: Robert.Gatenby@moffitt.org

Bob received a B.S.E. in Bioengineering and Mechanical Sciences from Princeton University and an M.D. from the University of Pennsylvania. He completed his residency in radiology at the University of Pennsylvania where he also served as chief resident. Bob remains an active clinical radiologist specializing in body imaging. While working at the Fox Chase Cancer Center after residency, Bob perceived that cancer biology and oncology were awash in data but lacked coherent frameworks of understanding to organize this information and integrate new results. Reaching back to his training in engineering and physical sciences, Bob recognized that cancer was a complex dynamic system (similar, for example, to weather) and that understanding the often non-linear interactions that govern such systems requires mathematical models and computer simulations. As a result, most of Bob’s subsequent research has focused on exploring mathematical methods to understand the first principles and key parameters that govern cancer biology and treatment. In 2008, Bob joined Moffitt as chair of radiology and convinced the leadership to add a group of mathematicians to the faculty and form the Integrated Mathematical Oncology (IMO) department. Now numbering 8 faculty mathematicians and over 20 post docs and grad students, the IMO has catalyzed formation of several disease-oriented teams of oncologists, surgeons, pathologists, radiologists, mathematicians, physicists, cancer biologists, imaging scientists and evolutionary biologists. These multidisciplinary groups are investigating virtually every aspect of cancer biology and therapy. In fact, IMO members are co-PIs of two ongoing clinical trials that use evolutionary dynamics and computational models to guide therapy. There is no other cancer center in the world that has completely integrated mathematical modeling and computer simulations into basic science and clinical research.

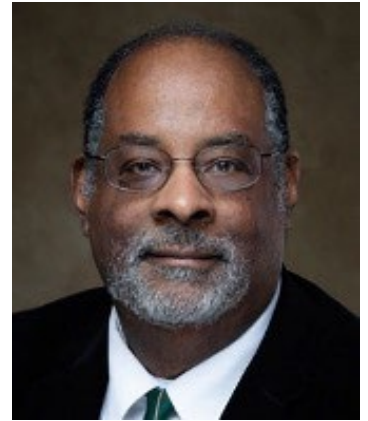


JOSEPH GRAVES, JR.

SESSIONS TAUGHT: Long Term Evolution Experiments, Debate on "In which 'system' are we most likely to see successful 'evolution proof' strategies rolled out?"

DR. JOSEPH L. GRAVES, JR., Mackenzie Scott Endowed Professor of Biology, Department of Biology, North Carolina A&T State University, 1601 E. Market Sr, Greensboro, NC 27411.

E-MAIL: gravesjl@ncat.edu



Summary of Accomplishments:

Dr. Joseph Graves, Jr. received his Ph.D. in Environmental, Evolutionary and Systematic Biology from Wayne State University in 1988. In 1994 he was elected a Fellow of the Council of the American Association for the Advancement of Science (AAAS.) In 2012, he was chosen as one of the “Sensational Sixty” commemorating 60 years of the NSF Graduate Research Fellowship Award. In 2017, he was listed as an “Outstanding Graduates” in Biology at Oberlin College; and was an “Innovator of the Year” in US Black Engineer Magazine. In 2021, he was named “Researcher of the Year,” Department of Nanoengineering, North Carolina A&T, 2022, “Researcher of the Year,” College of Science and Technology, North Carolina A&T; and in 2023, “Senior Researcher of the Year”, as well as “Community Engaged Teacher of the Year”; North Carolina A&T State University. In 2024, he has been chosen for a “Genius Award” by the Liberty Science Center, in Jersey City, NJ.

His research in the evolutionary genomics of adaptation shapes our understanding of biological aging and bacterial responses to nanomaterials. He is presently the Director, Genomic Research and Data Science Center for Computation and Cloud-Computing, GRADS-4C, NIH; Associate Director, Precision Microbiome Engineering (PreMiEr) NSF Gen-4 ERC; and the Director, NC Amgen Biotech Experience.

He has published five books: *A Voice in the Wilderness: A Pioneering Biologist Explains How Evolution Can Help Us Solve Our Biggest Problems*, (New York: Basic Books), 2022 [Nominated for Phi Beta Kappa Best Science Book 2022, Named top science book 2022, Next Big Idea Club]; with Alan Goodman, *Racism, Not Race: Answers to Frequently Asked Questions*, Columbia University Press, 2022 [Kirkus Reviews as “One of the Best Non-Fiction 2021” and to its “Best Books About Being Black in America 2021”]; *Principles and Applications of Antimicrobial Nanomaterials*, (Amsterdam NE: Elsevier), 2021; *The Emperor's New Clothes: Biological Theories of Race at the Millennium*, Rutgers University Press, 2005 and *The Race Myth: Why We Pretend Race Exists in America*, Dutton Press, 2005.

He leads programs addressing underrepresentation of minorities in science. He has aided underserved youth in Greensboro via the YMCA chess program. He has also served on the Racial Reconciliation and Justice Commission, and COVID Vaccination Task Force of the Episcopal Diocese of North Carolina. He also served as the science advisor to the Chicago, New Brunswick, and Methodist of Ohio Theological Seminaries through the AAAS Dialogues of Science, Ethics, and Religion (DoSER) program.

CORBIN JONES



SESSIONS TAUGHT: Detecting Selection
E-MAIL: cdjones@email.unc.edu

Corbin is a Professor in the Biology Department as well as a Professor of the Carolina Center for Genome Sciences (CCGS). The goal of his research is to identify, clone, and characterize the evolution of genes underlying natural adaptations in order to determine the types of genes involved, how many, and what types of genetic changes occurred, and the evolutionary history of these changes. His lab aims to develop new methods relevant to the study of evolutionary genomics including theoretical, bioinformatic and statistical approaches.

CRISTINA LANZAS



SESSIONS TAUGHT: Reduce Selection for Resistance, Phylogenetics
E-MAIL: clanzas@ncsu.edu

Cristina Lanzas is Professor of Infectious Disease in the Department of Population Health and Pathobiology at the Veterinary College at NCSU. Her research program focuses on understanding the transmission of antimicrobial-resistant and zoonotic pathogens to inform disease control. She is currently the principal investigator for three large interdisciplinary projects in infectious disease epidemiology and modeling. She leads one of the teams within the CDC Modeling Infectious Diseases Network, a CDC network that supports innovative transmission modeling in the area of antibiotic-resistant infections. She is also the PI for an NIH Maximizing Investigator's Award for established investigators in antimicrobial resistance modeling. She is a permanent member of the NIH study section on Modeling and Analysis of Biological Systems. Before joining NCSU, she was an Assistant Professor of Epidemiology at the University of Tennessee and senior personnel at the National Institute for Mathematical and Biological Synthesis. She holds a master's and a PhD from Cornell University and a veterinary degree from the Universitat Autònoma de Barcelona.

CHARLIE NUNN



SESSIONS TAUGHT: Ecological Control Strategies, Selection Shadow, Evolutionary Escape, One Health/Comparative Oncology
DIRECTOR, TRICEM
E-MAIL: clnunn@duke.edu

Charlie is Professor of Evolutionary Anthropology and Global Health at Duke University. He uses evolutionary approaches to understand and improve human and animal health. He and his research group investigate the ecology of infectious disease, the evolution of sleep, and the links between ecology, evolution and global health. They investigate these topics using phylogenetic methods, mathematical modeling, and fieldwork in Madagascar, Kenya and other locations.

JONATHAN PARR



SESSIONS TAUGHT:

E-MAIL: jonathan_parr@med.unc.edu

Dr. Parr is an associate professor in the UNC Department of Medicine's Division of Infectious Diseases, faculty in the Curriculum in Genetics and Molecular Biology, and a founding member of the cross-disciplinary Infectious Disease Epidemiology and Ecology Laboratory (www.ideelresearch.org). His research focuses on the molecular epidemiology of malaria and other infectious diseases, with active Gates Foundation- and NIH-funded projects in the Democratic Republic of the Congo and Ethiopia. He established UNC as a founding member of a WHO laboratory network to support surveillance of malaria parasite strains with mutations that allow them to escape diagnosis and has served as a WHO expert on this topic. His group is broadly interested in developing cross-cutting methods relevant to multiple pathogens, including viral hepatitis and syphilis, and emphasizes projects with potential for direct impacts on the health of the communities where he works.

MARTHA BURFORD REISKIND



SESSIONS TAUGHT: The Evolution of Resistance: Drivers, Dynamics, and Tradeoffs
E-MAIL: mbreiski@ncsu.edu

Dr. Martha Burford Reiskind is an Associate Professor in the Department of Biological Sciences at NC State, and the Director of Graduate Programs in the Genetics & Genomics Academy. Her research focuses on understanding the interaction of genes and environment in shaping the evolutionary trajectory of species. Her lab focuses on small population dynamics, landscape genomics, and rapid evolution of native and invasive species. From fish, to frogs, to mosquitoes, to butterflies. Specifically, the lab is interested in the rapid evolution of vectors of disease and animals of conservation concern. She addresses how abiotic and biotic interactions influence genetic changes in the genome, such as how human behaviors may influence insecticide resistance in disease vectors such as *Aedes* mosquitoes.

MICHAEL REISKIND



SESSIONS TAUGHT: Integrated Pest Management
E-MAIL: mhreiski@ncsu.edu

Dr. Michael Reiskind has spent his professional career studying various aspects of infectious disease, with a recent focus on pathogens transmitted by arthropods. He received his Masters of Public Health and a PhD from the University of Michigan and completed post-doctoral training at the Florida Medical Entomology Laboratory. He is currently an associate professor in the Department of Entomology and Plant Pathology at North Carolina State University.

DAVID RASMUSSEN



SESSIONS TAUGHT: Phylogenetics

E-MAIL: drasmus@ncsu.edu

David Rasmussen is an Associate Professor in the Department of Entomology and Plant Pathology and Bioinformatics Research Center at NC State. David did his Ph.D. with Dr. Katia Koelle at Duke University and then a postdoc with Dr. Tanja Stadler at ETH Zurich. During both his Ph.D. and postdoc, he developed phylodynamic methods for tracking the spread of pathogens using genomic sequence data and applied them to study the transmission dynamics of human viruses such as dengue, influenza and HIV. He then joined NC State in 2018 where his research group now focuses on improving phylodynamic methods for studying the evolution and epidemiology of both human and agricultural pathogens. Recent work in his group has focused on understanding the genomic determinants of pathogen fitness in real world environments and how generalist pathogens like plant RNA viruses overcome fitness tradeoffs between environments to emerge on novel hosts.

DAN SCHRIDER

SESSIONS TAUGHT: SLiM Simulation Tutorial

E-MAIL: drs@unc.edu

Dan is an Assistant Professor in the Department of Genetics at the University of North Carolina at Chapel Hill. His research group develops and applies computational tools to make inferences about evolution from population genetic datasets. Their research areas include but are not limited to the population genetics of adaptation, genomic copy number variants, phylogenetic inference, and the application of modern machine learning tools to evolutionary questions.



MEGAN SERR



SESSIONS TAUGHT: Gene Drive

E-MAIL: meserr@meredith.edu and meserr@ncsu.edu

Megan Serr is an Associate professor of Biology at Meredith College. She is also an Assistant adjunct professor in the Biology department and a Genetic Engineering and Society Affiliate for North Carolina State University. Her primary research focuses on fieldwork and exploring gene drive technology in rodents. Here, she focuses on the reproductive competitiveness of laboratory and wild-derived island mice. With a partnership from NC State University with John Godwin, she is part of the Genetic Biocontrol of Invasive Rodents Program. As a steering member for the program, she works with other diverse experts from seven world-renowned universities, government, and non-profit organizations advancing gene drive research to control invasive rodents. At Meredith, she conducts additional research on amphibians and diseases. Her

work focuses on studying local chytrid fungus levels and helps raise awareness nationally about chytridiomycosis as a deadly disease for amphibians.

JASON SOMARELLI



SESSIONS TAUGHT: Trade-Offs in Therapy, One health/comparative oncology; comparative methods, including Peto's Paradox
E-MAIL: jason.somarelli@duke.edu

Dr. Somarelli is an Assistant Professor in the Department of Medicine at Duke University Medical Center and Associate Member of the Duke Cancer Institute. Dr. Somarelli's research uses evolutionary and ecology paradigms to understand molecular adaptations to extreme environments. His work spans diverse topics, such as the molecular adaptations of whales to low oxygen conditions, the evolutionary pressures faced by cancer cells during drug treatment, and the evolution of microbes to use plastic as a nutrient source.

In addition to his scholarly activities, Dr. Somarelli is active as a mentor, leading multiple outreach and research training programs for high school students and undergraduates. He has received multiple recognitions for his teaching and mentoring and is passionate about providing opportunities in science for students from groups that have been systematically prevented from careers in science.

JORY WEINTRAUB

SESSIONS TAUGHT: Science Communication Workshop
E-MAIL: weintraub@ncsu.edu

Jory is Director of Science Engagement at NC State University, and an adjunct assistant professor in NC State's Dept. of Communication. Previous positions have included Science Communication Director and Senior Lecturing Fellow with Duke University's Initiative for Science and Society, and Asst. Director of Education & Outreach at the National Evolutionary Synthesis Center. He serves on the TriCEM Advisory Board, and previously served on the Board of Directors of Science Communicators of North Carolina. Jory has a BS in biochemistry/cell biology, and a Ph.D. in immunology. His professional interests include science communication, STEM outreach, societal impacts of research, and diversity/equity/inclusion in STEM.



BRIAN WIEGMANN

SESSIONS TAUGHT: Phylogenetics
E-MAIL: bwiegman@ncsu.edu

Brian is William Neal Reynolds Professor of Entomology at North Carolina State University. His research involves the phylogeny and evolution of flies and other insects using genomic data and phylogenetic analysis tools. A major goal is elucidating the genetic changes and adaptations that accompany or cause species biodiversity. Projects in the Wiegmann lab involve comparing genes and genomes in flies with specialized feeding habits - especially those that affect humans and livestock as blood feeders and disease vectors, such as mosquitoes, horse flies, sand flies, and stable flies



PAUL HESS



E-MAIL: prhess@ncsu.edu

Brian is William Neal Reynolds Professor of Entomology at North Carolina State University. His research involves the phylogeny and evolution of flies and other insects using genomic data and phylogenetic analysis tools. A major goal is elucidating the genetic changes and adaptations that accompany or cause species biodiversity. Projects in the Wiegmann lab involve comparing genes and genomes in flies with specialized feeding habits - especially those that affect humans and livestock as blood feeders and disease vectors, such as mosquitoes, horse flies, sand flies, and stable flies

EMSI 2025 VISITORS

SID THAKUR



Email: sthakur@ncsu.edu

Sid is a Professor in the College of Veterinary Medicine, NC State University. He espouses the concepts of “One Health” and seeks to understand how antimicrobial resistance develops in “superbugs” that affect animal and human health. He is the Director of Global Health CVM and the Director of Global Health Initiatives at NC State.

GREGORY ALLAN WRAY

Email: gwrays@duke.edu

Dr. Gregory Wray is a Professor of Biology at Duke University whose research focuses on the evolution of genes and genomes to uncover the origins of biological diversity. His work emphasizes changes in gene expression and integrates both empirical and computational approaches across multiple levels of biological organization.

At the fine scale, Dr. Wray investigates the functional consequences and fitness effects of specific regulatory sequence variants in genes linked to ecologically relevant traits. At the broader scale, he develops molecular and analytical tools to detect changes in gene function across genomes, including statistical frameworks for identifying natural selection on regulatory elements and experimental strategies to uncover variation in transcriptional regulation. His intermediate-scale work explores functional variation in gene networks within wild populations and under natural environmental perturbations. His research program capitalizes on the strengths of multiple biological systems and methodological innovations to advance our understanding of evolutionary processes.



SHELLEY HWANG



Email: shelley.hwang@duke.edu

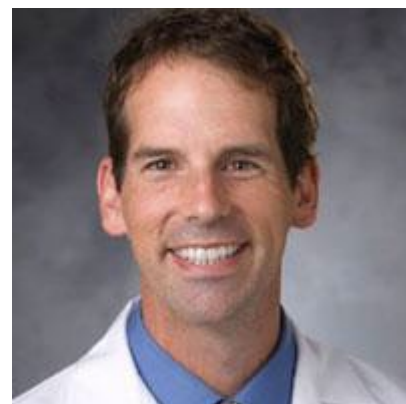
E. Shelley Hwang, MD, MPH is the Mary and Deryl Hart Distinguished Professor of Surgical Oncology and Radiology, Vice Chair of Research and Chief of Breast Surgery for the Duke Department of Surgery. She also serves as Co-Lead for the Women's Cancer Program at the Duke University Comprehensive Cancer Center. Her research focus includes breast cancer prevention, identifying less invasive treatments for early-stage breast cancers including ductal carcinoma in situ (DCIS), and addressing and mitigating health care disparities in breast cancer.

Dr. Hwang is an experienced clinical trialist with an interest in both the biology and treatment of early-stage breast cancer. She has led large, multidisciplinary clinical teams of breast cancer providers, advocates, and researchers, and currently leads a clinical group of nine full time breast surgeons successfully engaged and committed to clinical research who provide a strong clinical patient base and engaged collaboration for translational projects. She is a nationally recognized figure in pre-invasive disease and leads or participates in several collaborative efforts on this topic including the Cancer Research UK "Precision" study and the randomized trial of DCIS active surveillance known as COMET. She is the surgical Principal Investigator of the Duke National Cancer Institute (NCI) National Clinical Trials Network, which promotes and oversees recruitment to cooperative group trials. She also serves as a member of the NCI Breast Cancer Steering Committee and the National Comprehensive Cancer Network Screening Guidelines Committee.

WILLIAM EDWARD

Email: william.eward@duke.edu

Dr. Will Eward is a physician-scientist at Duke University, where he specializes in the treatment and study of Sarcoma. As a dual DVM-MD with expertise in comparative models of cancer, Will serves as Executive Director of the Duke University Comparative Oncology Group. Although his lab primarily studies cancer, they are very interested in plastic waste because it can perpetuate carcinogens in the environment. Will's research includes how we can transform plastic waste into a biodegradable substrate. Will is a team leader for the Bass Connections team on Bioremediation of Plastic Pollution to Conserve Marine Biodiversity.



EDWARD F. PATZ



Email: edward.patz@duke.edu

Dr. Edward Patz is a Co-Founder and serves as Chief Executive Officer & Board Member at Grid Therapeutics. For over 20 years, Dr. Patz has led a basic science laboratory at Duke University focused on lung cancer biology and early cancer detection. Dr. Patz holds a BS in physics from Duke University, was a researcher in High Energy Physics at Harvard University and received his MD at the University of Maryland. Dr. Patz previously served on the faculty at Brigham and Women's Hospital, Harvard Medical School, and the Dana-Farber Cancer Institute.

EMSI 2025 ASSISTANTS

MARIA CREIGHTON

Email: maria.creighton@duke.edu

Maria is a PhD candidate in the Duke University Department of Biology studying the evolution of mammalian social relationships. Her research integrates data from individual, group, and species levels across wild animal populations to examine how social and physical environments shape fitness-related outcomes across evolutionary timescales. She employs a range of statistical methodologies to uncover patterns and interactions within complex biological systems. Maria has contributed to teaching a variety of undergraduate courses, including those on primate behavior and evolution, introductory biology, and animal physiology. She has also served as an instructor for the Osher Lifelong Learning Institute, where she engages adult learners with diverse interests in science.



TANIA GUERRERO-ALTAMIRANO



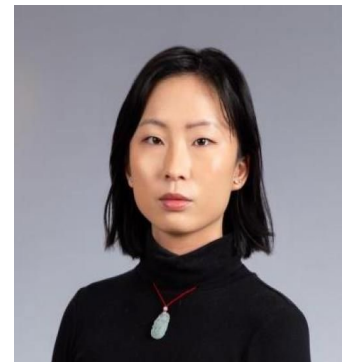
Email: tania.guerrero@duke.edu

I earned my DVM in Mexico City, where I worked in wildlife welfare and molecular diagnostics. I completed my MSc at Freiburg University and the Leibniz Institute for Zoo and Wildlife Research in Germany. My interests include the genetic and evolutionary constraints shaping fitness and survival. Now, as a PhD student in Greg Wray's lab at Duke University, I study genetic interactions in gene regulation. Alongside my wet lab work, I have developed strong bioinformatics skills and served as a teaching assistant for the graduate course "Foundations of Data Science for Biologists."

MELODY XIAO

Email: melody.xiao@duke.edu

Mel Xiao (she/they) is a second-year PhD Ecology student in the Nunn Lab at Duke University. Her current research interests include disease ecology, One Health, antimicrobial resistance (AMR), and the impact of anthropogenic change on infectious disease dynamics. Meanwhile, her past research spans a wide range of topics related to public health, from longitudinal vaccine effectiveness studies with the WHO to cholera intervention program evaluations in Nigeria to investigating the genetic bases of antibiotic tolerance in the lab. She received her BA in Health Sciences from Rice University and her MHS in Infectious Disease Epidemiology from the Johns Hopkins Bloomberg School of Public Health.



EMSI 2025 ORGANIZERS

JENNIFER HURTGEN



Email: jennifer.hurtgen@duke.edu

As a Research Project Manager at Duke University, Jennifer helps faculty from a variety of departments and institutions accomplish their meaningful work. She has mentored undergraduate and graduate research teams, designed internal processes and metrics for project tracking, facilitated community engagement events, driven proposal development, managed multi-institution collaborations across the region, and coordinated international research teams. Currently, she serves as the assistant director of TriCEM, the program director for Duke RESTORE and the Wetland and Coasts Center, the special assistant to the Dean of the Sanford School of Public Policy - Strategic Initiatives, and project coordinator for the SEHAT Study (NIH). She holds a BS in Psychology from UNC-Chapel Hill, an MEd in Curriculum and Instruction from UNC-Greensboro, and is currently a doctoral student at UNC-Chapel Hill earning her EdD in Learning and Leadership.

KATRINA DEWITT

Email: jennifer.hurtgen@duke.edu

Katrina DeWitt is a Ph.D. candidate in Biology at Duke University, where she studies how environmental change shapes microbial communities and their functional roles in ecosystems. Her research explores how temperature shifts alter microbial diversity, abundance, and activity, with implications for plant health and nutrient cycling. She combines fieldwork, laboratory experimentation, and statistical modeling to investigate ecological and evolutionary dynamics in host-associated microbiomes, particularly within carnivorous pitcher plant systems.

