

**Christine Mirzayan Science and Technology Policy Graduate Fellows  
2020  
Biographical Sketches**



**Miriam Akeju** (PGA/BHEW) is currently completing a PhD in Biochemistry, Cellular and Molecular Biology at Johns Hopkins School of Medicine. Her research focuses on identifying the molecular mechanisms that regulate stem cell maintenance as well as cellular sex identity within *Drosophila melanogaster* gonads. During her graduate career, Miriam has focused on shaping and changing policies to support and better the lives of her fellow graduate students. She served as president of the Biomedical Scholars Association where she invited speakers who increased the visibility of role models for underrepresented minority students and implemented coffee hours to aid in the recruitment of URM students to Johns Hopkins. Additionally, Miriam served on the Masters and PhD Policy Committee as one of two graduate student representatives chosen to advocate for students' needs. As a Mirzayan Fellow, Miriam hopes to gain the knowledge and skills necessary to impact national policies that will allow for further retention of URM scientists.



**Adegboyega "Ade" Akinsiku** (HMD/HCS) is completing his Ph.D. in Human-Centered Computing at the University of Maryland, Baltimore County (UMBC). Prior to UMBC, Ade earned a bachelor's degree in Computer Engineering from Howard University. Ade has a passion for finding solutions to multifaceted problems. He is excited to apply that passion in the domain of science policy as a Mirzayan Fellow. His research sits at the intersection of computing, behavioral sciences, privacy, and ethics. Ade's doctoral research aims to improve the design and development process of systems that provide rehabilitation services over the internet for stroke survivors with physical and/or cognitive disabilities (i.e., telerehabilitation). He primarily investigates how stroke survivors and their care networks perceive privacy, and how their perception should be included in computing and policy development. Ade has interned/conducted research at Ateneo de Manila University (Philippines), Intel Corporation, IBM Research, and the African Leadership University (Mauritius). Ade is a past National Science Foundation Louis Stokes Alliance for Minority Participation (LSAMP) Bridge to the Doctorate Fellow, GEM Fellow, and Google Generation Scholar. He has been an active member and leader in the National Society of Black Engineers since he was a senior in high school. Ade spends his free time with family, biking, and serving at the local church.



**Emma Alme** (DELS/BLS) is completing her PhD in biochemistry and molecular biology at the University of California, San Francisco. She also holds a B.S in Biology with Honors in Biochemistry and Biophysics from Stanford University. Her graduate work focuses on understanding how post-translational modifications of proteins can rewire biological pathways in response to changing environments. As a graduate student, Emma led the Science Policy Group at UCSF and organized a variety of workshops and advocacy events to facilitate scientists' engagement with science policy issues. Notably, she led an Op-Ed writing campaign on the importance of scientific research funding ahead of the 2018 Midterm Elections and organized a UCSF Advocacy Day in D.C. that brought 40 students and faculty to Capitol Hill. She also started the Gender Equity Taskforce at UCSF to help address gender harassment issues on campus and improve climate. Additionally, Emma interns with the Office of Science Policy and Strategy at UCSF, where she is helping support collaborations across research institutions. Emma is passionate about working to enhance the scientific research enterprise and as a Mirzayan Fellow, she is looking forward to learning how scientists can contribute to the national conversation on important policy issues facing our society.



**Rekha Balachandran** (NAE/Center for Engineering, Ethics, and Society) is currently a Postdoctoral Research Fellow at Purdue University School of Health Sciences studying the effects of manganese exposure on cell signaling pathways in mammalian cell line and in neurons of different lineages derived from human induced pluripotent stems cells. Rekha earned her Ph.D. at the University of Illinois at Urbana-Champaign with an emphasis on neurotoxicology and chronobiology. Her dissertation work examined the effects of circadian disruption on attention and impulsive behavior. Rekha also earned her M.S in biological engineering studying the metabolic burden imposed by synthetic gene circuits. During Rekha's graduate studies, she sought different avenues to learn more about policy and regulatory landscape. Rekha was previously an intern at the USDA's National Institute of Food and Agriculture working on developing policy briefs and strategies regarding the emerging global bioeconomies. Rekha is a member of Society of Toxicology and Developmental Neurotoxicology Society (DNTS), serving as the webmaster for DNTS for the last 2 years. This fellowship opportunity gives her an avenue to explore the world of science policy to learn more about the symbiotic relationship between the scientists and legislators. As a scientist who is interested in policy, she is keen on learning how to work towards keeping the policy and regulatory affairs at par with speed at which the technology is developing. Being a Mirzayan Fellow gives Rekha an unparalleled opportunity to hone her skills needed for a successful career science policy.



**Samantha Basile** (DELS/BASC) is a temporary Climatologist for the Great Lakes Integrated Sciences and Assessments Program (GLISA), a boundary organization between regional researchers and practitioners, where she works to analyze and interpret climate information. This past summer she defended her Ph.D. research in the Climate and Space Sciences and Engineering Department at the University of Michigan, Ann Arbor. The goal of her Ph.D. research was to evaluate model uncertainty associated with climate system representations and interactions. Samantha's career

motivation is to work at the intersection of climate science research and policy. While in graduate school she led interdisciplinary efforts focused on science policy communication and participation, including community events and op-ed writing. She was selected to join the 2017 University of Michigan Climate Delegation to the U.N. international climate negotiations in Bonn, Germany. Samantha received her B.S. in Atmospheric Science from the University at Albany, State University of New York. She completed both her M.Eng. in Applied Climate and M.S. in Atmospheric, Oceanic and Space Sciences at the University of Michigan, Ann Arbor. Samantha is originally from the Capital Region of New York. Outside of professional life she is interested in art, dance, and running.



**Michael Baumer** (PGA/COSEMPUP) is currently finishing his PhD in physics at Stanford University. His research has focused on understanding the relationship between galaxies and the cosmic distribution of dark matter, as well as testing the world's largest digital camera before it is installed on the Large Synoptic Survey Telescope. Outside the lab, Michael is an avid science communicator, sharing his passion for science at a variety of public outreach events in the Bay Area and serving as a guide for visiting groups of students and members of the public at SLAC National Accelerator Laboratory. He has also served as a co-leader of national outreach and Congressional advocacy efforts for high-energy physics through the SLAC Users' Organization.

Previously, Michael studied physics and mathematics at the University of Chicago, and earned an MPhil in high-energy particle physics at the University of Cambridge, where he was a Gates Scholar.



**Brittany Bishop** (DELS/BCST) is a PhD candidate in chemical engineering at the University of Washington (UW). She holds a BSE in chemical engineering from Case Western Reserve University. Her doctoral research focuses on creating non-toxic and more efficient fluorescent nanomaterials for imaging, lighting, and clean energy applications. Outside of research, Brittany is interested in science communication and policy, with a passion for increasing equity, education resources, and accessibility in STEM. At UW, she has worked with the Graduate and Professional Student Senate to create student-focused legislative and lobbying agendas, develop science policy and communication programming, and advocate for improved campus resources for women and students with disabilities. Brittany was also an Education and Training Fellow for the UW Clean Energy Institute, where she organized and led outreach events across Washington State to teach K-12 students the benefits of alternative and clean energy. Currently, she is the Media Director for UW Women in Chemical Engineering, which focuses on diversity efforts and the empowerment of women in chemical engineering. In her free time, Brittany also enjoys rock climbing, photography, and painting.



Villanova University.

**Elizabeth Coppola** (DBASSE EO) is a PhD candidate at Purdue University's Department of Human Development and Family Studies, where her research focuses on the health and well-being of children and families who have been exposed to adversity, stressors, and transitions. Throughout her graduate studies, she worked as a Summer Associate at the RAND Corporation, a policy intern at Purdue University's Center for Families, and a research assistant at Purdue University's Military Family Research Institute. Prior to her doctoral studies, she was a research assistant at the Center for Academic and Workforce Readiness and Success at Educational Testing Service (ETS). She holds a MA in Criminology, Law, and Society and a BA in Psychology from



**Daniel Desautels** (DBASSE/CPOP) is currently a PhD candidate in the Population Biology, Ecology and Evolution program at Emory University. His research focuses on understanding how changes in ecosystems can alter the transmission of infectious diseases. Specifically, he studies how managing invasive species can alter the transmission of parasitic worms in aquatic ecosystems. He holds a BS in Microbiology and Life Sciences Communication from the University of Wisconsin-Madison. Daniel is a member of the Emory Science Advocacy Network, a student organization at Emory University that explores issues in science policy and science advocacy. Broadly, Daniel is interested in understanding and developing policy to address issues at the intersection of human health, ecosystem health, and society. He is excited to work with CPOP to learn more about evidence-based science policy and to explore the broader policy community in Washington. After the Christine Mirzayan Fellowship, Daniel will return to Atlanta to finish his PhD and then use skills he acquired during the fellowship to pursue a career in science policy.



**Jennifer DiStefano** (DEPS/BEES) is a Ph.D. candidate in Materials Science and Engineering at Northwestern University. She graduated from Penn State University in 2015 with a B.S. in materials science. Her Ph.D. research, under the guidance of Professor Vinayak Dravid, focuses on developing semiconducting nanomaterials for more energy-efficient electronic and optical devices as well as clean-fuel production. As a member of the Materials Research Society Government Affairs Committee, Jennifer writes memos on emerging materials for MRS Congressional Visit Days to support continued research funding. Jennifer also holds a certificate in management from the Northwestern Kellogg School of Management. She is excited to utilize the

Mirzayan Fellowship as an opportunity to learn about the U.S. energy policy landscape and contribute to future energy solutions. Jennifer enjoys hiking, bird-watching, and making her own kombucha and yogurt in her spare time.



**William "Iam" Gaieck** (PGA/STEP) earned his Ph.D. and M.S. in Materials Science and Engineering at the University of California at Irvine (UCI). His doctoral research was focused on electrochemical methods for energy conversion and energy storage associated with hydrogen production. William is formerly a McNair Scholar and American Chemical Society Scholar from the University of California at San Diego (UCSD), where he received a B.S. in Chemistry with a focus in Chemical Education. When not honing his science communication, science policy, and science diplomacy skills, William can be found learning languages, salsa dancing, cooking,

kayaking, and rock climbing.



**Clair Geary** (DBASSE/BOSE) recently completed her PhD in Immunology and Microbial Pathogenesis from Weill Cornell. Her thesis research examined how natural killer cells protect against CMV, a common and usually harmless virus that causes severe complications for cancer patients and newborns. Prior to her doctorate work, Clair earned a BA in Molecular Biology from Scripps College and worked as a research technician at the University of Washington studying virus-host interactions in HIV. During graduate school, Clair led numerous science outreach and education initiatives, including school visits, on-campus science days, and a mentorship program, as well as

serving as the graduate student representative on the university's Community Advisory Board. As a Mirzayan Fellow, Clair is excited to delve into the policy side of STEM education, and use evidence-based strategies to better engage learners of all ages with science. In her free time, she enjoys baking, crossword puzzles, and exploring the outdoors.



**Crystal Grant** (PGA/CWSEM) is a PhD candidate in Genetics at Emory University. As an NSF Graduate Research Fellow, she uses bioinformatics tools to characterize the molecular changes in humans with age. During her undergraduate studies at Cornell University, she earned a BA in Biological Sciences with a minor in Anthropology. Throughout her graduate studies, Crystal has advocated for graduate students as President of Emory's Graduate Student Council, volunteered with K-12 science outreach and education initiatives around Atlanta, and mentored underrepresented students. She obtained training in science policy and advocacy through her professional societies, and has represented AAAS and the Coalition for the Life Sciences on Capitol Hill. As a Mirzayan fellow, Crystal is excited to combine her interest in crafting evidence-based science and technology policies with her doctoral experience working with big data. In her free time, she enjoys practicing yoga, exploring museums, and traveling.



**Nikaela Flournoy** (Gulf Research Program) is a postdoctoral fellow in the Alabama Water Institute at The University of Alabama. Prior to receiving a Ph.D. in biological sciences in 2016 from The University of Alabama, she received her M.S. in microbiology from the University of Iowa and a B.S. in biology from Alabama A&M University. For the last three years, her research has focused on interdisciplinary coastal biogeochemical studies, where she investigates the impact of the 2010 Gulf of Mexico oil spill disaster on the biodiversity and ecosystem services in marshes and nearshore habitats. Nikaela combines bench, field, and computational approaches to profile microbial communities in coastal areas affected by the 2010 oil spill. In 2018, she was selected to be a Gulf of Mexico Research Initiative (GoMRI) Scholar. Nikaela is an advocate for the importance of early engagement in science, resource accessibility, and retention of underrepresented minority students in STEM fields. As a Mirzayan Fellow, Nikaela hopes to learn how to apply her interests in coastal resource sustainability and science policy with her dedication to broadening participation in STEM for workforce development in areas of national need.



**Natalie Herbert – The Rosenblith Fellow -- (PGA/InterAcademy Partnership for Research)** is a PhD candidate (ABD) studying science communication at the Annenberg School for Communication at the University of Pennsylvania. Natalie's research asks how experts can best communicate to the public and policymakers when uncertainty prevents them from making conclusive recommendations. In work funded by the FDA/NIH Tobacco Centers of Regulatory Science, Natalie has researched how depictions of expert uncertainty about e-cigarettes affect health behaviors. Natalie has also studied how public health can benefit from communication technologies, including online social networks to encourage exercise and virtual reality to reduce opioid overdose deaths. She holds an MA in Communication from Penn and a BA with honors in Political Science from UCLA.



**Lydia Le Page** (NAM E0) is a postdoc from England, working in the Chaumeil lab at UC San Francisco, where she is imaging brain metabolism with MRI to understand Alzheimer's disease. Alzheimer's disease affects 30 million Americans, which is why Lydia is enthusiastic about joining the Healthy Longevity Global Roadmap team at the National Academy of Medicine during her Mirzayan fellowship. Alongside her academic work, Lydia is a member of the leadership team for the Science Policy Group at UCSF, and recently represented UCSF at the 2019 Capitol Hill Life Science Fair. She is a medical script writer for educational videos with Youreka Science, working recently on videos for a free online textbook 'The Explorer's Guide to Biology'. Further, she is a NSPN WikiScientist this fall, learning how to edit Wikipedia with the goals of democratizing evidence based policy, empowering voters to check politicians' claims and helping policy-makers make the best use of research when developing policies. Lydia has previously worked with Sense About Science, a UK-based charity that advocates for the use of scientific evidence in public life.



**Jennifer Puthota** (HMD/HCS) is a medical student at the CUNY School of Medicine in New York. She received her bachelor's degree in biomedical sciences from the City College of New York's Sophie Davis School. Working closely with her school's Humanities in Medicine program, Jennifer participates in the practice of Narrative Medicine and is compelled by the storytelling and listening component of health care. She has been involved with research concerning the genetic factors underlying mental illnesses like schizophrenia and bipolar disorder. Her most recent research project explored how increasing air temperatures may be negatively affecting birth outcomes. Interested in the intersectionality of disciplines, she was very much encouraged to better understand how policy works with the sciences to bolster health.



**Samantha Rawlins** (DEPS/SSB) is currently completing a PhD in Aerospace Systems Engineering at the University of Alabama in Huntsville. She holds an MS in Nuclear and Quantum Engineering from the Korea Advanced Institute of Science and Technology (KAIST), and a BS in Aerospace Engineering from the California Polytechnic State University in San Luis Obispo. Samantha's research focuses on applying a model-based systems engineering approach towards a crewed mission to Mars utilizing NASA's nuclear thermal propulsion technology. Her previous work has included investigating alternative, minimally-intrusive solutions for simultaneously generating power from the propulsive reactor. During her studies, Samantha quickly recognized the importance of policy for enabling future space exploration missions and has consistently advocated for space nuclear technologies both independently on the Hill and through various organizations. She is honored to have been selected as a Mirzayan Fellow and greatly looks forward to receiving formal training on space policy matters and working with the Space Studies Board towards establishing a more robust space nuclear policy.



**Pingdewinde "PSam" Sam** (HMD/BGH) is a PhD candidate in Cellular and Molecular Physiology at the Johns Hopkins University, School of Medicine. His thesis work focuses on determining a novel mechanistic pathway of a mitochondrial protein, essential for mitochondrial function but also implicated in specific lethal diseases. He holds a BS from San Francisco State University and an AS from City College of San Francisco. Outside of academic research, he retains a vested interest in science and global health advocacy—one which has inspired several years of leadership in these arenas. Specifically, he has not only mentored and taught underrepresented minorities, but also founded Teebo, INC. in 2012, a U.S.-based non-profit organization focused on eliminating poverty and hunger, combating water-related diseases, and improving health in the country of Burkina Faso, West Africa. As an advocate for education, he also co-founded EDEN school with his wife in 2016. Furthermore, he recently completed a mini-course certificate program in Science Policy and Advocacy with FASEB and JHU.



**Caroline Schuerger** (DBASSE/CLAJ) is a 5th year PhD student in the Molecular Medicine PhD program at the Cleveland Clinic and Case Western Reserve University. Her thesis work is in translational bladder cancer research, utilizing methods from bioinformatics, genetics, to proteomics. Caroline is passionate about using science and science policy in the service of human rights. She also enjoys good food, trying new things, and showing everyone pictures of her dog and two cats.

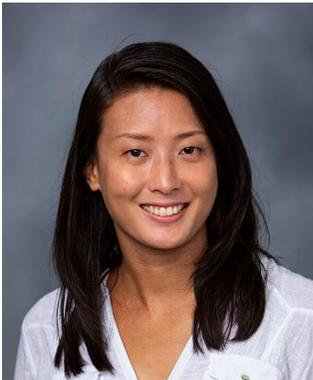


**Brittany Segundo** (DEPS/BMSA) is a doctoral student in Industrial and Systems Engineering at Texas A&M. Her research uses stochastic programming to identify optimal responses to large-scale and complex wildfires. She has served as the president of the student chapter of the Institute for Operations Research and the Management Sciences, as well as been a member of the Student Government Association's Municipal Affairs Commission, where she lobbied for greater student representation in local government. One of her favorite opportunities in graduate school has been teaching introductory operations research, where she strives to teach mathematical programming in a way that is accessible and highlights the potential of these methodologies in novel application areas, such as humanitarian response planning. Prior to her graduate studies, Brittany earned her BS in Industrial and Systems Engineering from North Carolina State University and worked as a management consultant. She is excited to learn more about communicating mathematical ideas to different audiences during her time as a Fellow at the Board on Mathematical Sciences and Analytics.



**David "Dave" Stokes** (DBASSE/BOHSI) is seeking a Ph.D. in Information Studies at the University of California Los Angeles (UCLA) in the Graduate School of Education and Information Studies. His research is steeped in the social sciences. It examines information policy, information seeking behavior, and information and communication technologies by focusing on human interactions with information and technology, and policies that govern those interactions. He holds a Master of Library and Information Science from the University of Washington's (UW) Information School, and an International Development Certificate from UW's Evans School of Public Policy and Governance. He also holds a Bachelor of Science in Mass Communication from the College of Fine Arts and Communication at Towson University. He was a

Library of Congress internship award recipient; Library Journal Mover and Shaker nominee; and, invited to the Dean's Scholar's Dinner for an awarded fellowship. He looks forward to bringing his experiences to the Board on Human-Systems Integration (BOHSI) at the Division of Behavioral and Social Sciences and Education. Dave has previously worked in US Federal Government and academic information/library settings, and has conducted international field research.



**Dianna Tran** (DBASSE/Board on Children, Youth, and Families) is currently completing her PhD in developmental psychology at the University of Notre Dame. She holds an MA in psychology from the University of Notre Dame, and a BA in psychology from California State University Long Beach. Her research focuses on the socioemotional and academic development of children, with a focus on low-income minority families. While completing her graduate studies, she serves on the federal and state policy committees of the Science Policy Initiative at Notre Dame. She is also a member of the Diversity/Inclusion committee within the psychology department of ND, which aims to promote an inclusive environment within the department by

providing support for underrepresented groups. Additionally, in collaboration with Play Like a Champion Today, she has assisted in evaluation of a summer athletic and recreation program in North Lawndale Chicago, which provides safe sports opportunities for youth. As a Mirzayan fellow, she looks forward to having opportunities to contribute to science policy projects that promote the well-being of children, especially those from disadvantaged backgrounds.



**Logan Warberg** (DEPS/CSTB) is a doctoral student in the Department of Engineering and Public Policy at Carnegie Mellon University. His research focuses on online privacy, where he incorporates methods from decision science, behavioral economics, and machine learning to focus on issues that can impact public policy. In recent projects, he examined the use of nudges for privacy decision making and the impact of the General Data Protection Regulation on content publishers. His current work focuses on personalization technologies in the contexts of mobile permission recommendations and online advertising. Prior to starting work on his PhD, Logan earned undergraduate degrees in Computer Science and Political Science from Montana State University. As a Mirzayan fellow, he looks forward to engaging with current issues in privacy while gaining exposure to the workings of the science and technology policy process.



**Martin Wolf** (DBASSE/BECS) is a Ph.D. candidate in Atmospheric Chemistry at the Massachusetts Institute of Technology. He researches how anthropogenic aerosol emissions impact climate by changing the ways clouds form, reflect sunlight, and precipitate. Martin strives to apply his expertise to construct meaningful climate policy. Through collaborations with Harvard Law School, he has designed and help implement policies to reduce greenhouse gas emissions on college and university campuses. Martin's favorite pastimes include cloudspotting, gardening, and sailing. As a Mirzayan Fellow, Martin hopes to practice consensus-based policy formulation with diverse stakeholders. He is looking forward to sharing and expanding his passion for understanding the nexus between climate and human societies.