

Christine Mirzayan Science and Technology Policy Graduate Fellows
2010 Fall Biographical Sketches



Paul Beaton (Fall 2010, PGA/STEP) is a senior program officer with the Board on Science, Technology, and Economic Policy with the National Academies of Sciences, Engineering, and Medicine. He brings a wealth of experience and expertise in entrepreneurship and innovation and in science and technology policy, particularly in the areas of energy and natural resources. At STEP he works on a spectrum of issues from tax and energy to intellectual property. Prior to joining STEP, Paul earned a combined J.D. and Master of Environmental Management from the Yale Law School and the Yale School of Forestry & Environmental Studies, where he received the Benjamin F. Stapleton, Jr. Scholarship, a Dean's Scholarship, and a Sonnenschein Scholarship. At Yale, he focused primarily on energy and climate change law and policy, authoring research on the climate effects of U.S. agriculture policy and an analysis of policy and structure at the United Nations Intergovernmental Panel on

Climate Change. Paul also worked with a negotiating team and heads of state at the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change in Copenhagen, Denmark and counseled advisors to Ecuador's constitutional assembly on drafting national environmental legislation. He also helped form a climate policy NGO in Costa Rica, served on the executive board of The Yale Journal on Regulation, as an executive officer of the Yale Environmental Law Association, helped revise a textbook on business law for entrepreneurs, and conducted economic and policy research through the Yale Center for Business and the Environment. A native of North Carolina, Paul earned his B.Sc. (*summa cum laude*) from UNC-Asheville where he received a Congressionally-awarded Barry M. Goldwater Scholarship, the William and Ida Friday Award for community service, and was elected to Omicron Delta Kappa, the national leadership honor society. Paul also received the University Fellows Grant, which along with a NSF grant, supported his research on the impacts of industrial substances that

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches

have replaced ozone-depleting chemicals since the enactment of the Montreal Protocol. Following his undergraduate work, Paul worked as a special guest research chemist for the National Institute of Standards and Technology before returning to North Carolina to co-established the state's first biodiesel production facility. (Updated 2/2016)



Lindsay Birt (Fall 2010, DELS/WSTB) is a PhD student in agricultural and biological engineering at Purdue University. She received her BS and MS in biological and agricultural engineering from Texas A&M University. Her master's thesis focused on evaluating interrill erosion and runoff rates from compost applications mainly used as a best management practice for highway hill slopes. Her doctoral research specializes in quantifying the impacts of best management practices and developing a management framework to track the effectiveness of watershed efforts. She is the recipient of a Purdue Doctoral Fellowship, Myron A. Pugacz Fellowship, Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science Fellowship, and the Purdue University's Alliance for Graduate Education and the Professoriate (AGEP) Scholarship. She also has served as graduate student advisor to two EPA-P3 funded student design projects, and has volunteered as the National Society's

Black Engineers 2007 Special Interest Group Environmental Director. Her career goals are to bridge engineering with environmental management and public policy, and explore the impacts of environmental management at multiple scales and how to effectively communicate these results to communities and engage stakeholders in decision making. (Updated 9/2010)



Timothy J. Buker (Fall 2010, DBASSE/BOHSI) is currently a human factors specialist with SAIC, and working in the Federal Aviation Administration's Unmanned Aircraft Program Office in Washington, D.C. In addition, he founded PsyGineering, a brain-machine interface start-up company. He earned his MS in aviation human factors from Florida Institute of Technology in 2009, where he also received a BS in aerospace engineering in 2007. His master's thesis was completed while working as a consultant at the Naval Air Warfare Center Training Systems Division in Orlando, Fla., under the guidance of Dr. John Deaton and Dr. Dennis Vincenzi. His work primarily focused on simulation-based training with use of helmet-mounted displays (HMDs) and the mitigation of simulator sickness. Concerning this and other work, he has co-authored journal articles and conference papers. He enjoyed his Mirzayan Fellowship with BOHSI. Other work experience includes an internship at NASA

Ames Research Center, participation in the Space Florida Academy, and work with the U.S. Army Corps of Engineers. In his free time, Tim enjoys traveling, snowboarding, and surfing. (Updated 10/2011)



Laura DeFeo (Fall 2010, PGA/BHEW) is currently the director of programs and policy in the National Research Council Executive Office (NRCEO). Laura oversees the institutional approval process for new projects, assists the NRCEO in overseeing the programmatic activities of the NRC, works with the Office of the General Counsel to update and answer questions about institutional policies, and helps staff the NRC Governing Board and its subcommittees. Prior to joining the NRCEO, she was a report review officer with the NRC Report Review Committee, where she facilitated the review process for reports from the NRC/IOM divisions. Laura graduated with a Ph.D. in chemistry from Yale University (2010) after earning a B.S. from Duquesne University (2004). Her doctoral research involved validation and development of simulation methodology and the computational study of organic reactions under unique conditions with the goal of establishing more environmentally

friendly, safe, cost-effective, and efficient catalysis. During graduate school, she acted as a liaison among administrators, faculty, staff, and student peers in order to advise university policy as an officer of the Graduate Student Assembly. Laura had a great time working with BHEW on a study of research universities during the fellowship, which provided an opportunity for her to learn about higher education and science policy at the national level. In her free time, she enjoys cross training, swimming, skiing, reading, rock and folk music, and visiting friends and family. (Updated 2/2016)

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches



Melinda DiVito (Fall 2010, DELS/BLS) earned her BS in cell and molecular biology from the University of Michigan and her PhD in cell and molecular physiology from the University of North Carolina. In her doctoral research, Melinda studied how myosin motor proteins affect cell behavior. Myosins can change the cell's shape, its capacity to migrate, and its ability to interact with other cells. These changes in cell behavior have implications in many areas of health and disease, including brain and organ development, cancer progression, and atherosclerosis. During her scientific training, Melinda developed an enthusiasm for communicating scientific information through writing manuscripts, presenting seminars, teaching, and participating in science outreach activities, such as National DNA Day. Melinda aspires to employ her scientific training and communication skills in a career in science policy. She is eager to gain policy experience as a Mirzayan Fellow with the BLS and excited to contribute to the endeavors of the BLS by translating scientific knowledge to help guide decisions regarding policy and professional practice. In her free time, Melinda is an avid volleyball player and enjoys cooking, gardening, and tasting new foods and wines.



Jeremy Flattau (Fall 2010, DBASSE/DBASSE EO) is currently the head of data quality and content at Placemeter, a New York City based company that turns video into meaningful data. Prior to joining Placemeter, Jeremy worked at the Office of Research and Data at the New York City Department of Education and managed Flattau Associates, LLC, a firm dedicated to providing metrics on governance stability in developing countries. Jeremy has a number of years of nonprofit management experience, highlighted by his creation and direction of *The Cipher*, an on-line magazine written by and for underprivileged youths in Providence, R.I. and his direction of Project Eye-to-Eye, an arts-mentoring program for children with learning disabilities. Jeremy holds a master's degree in international affairs from New School University in New York City, and a bachelor's degree in political science from Brown University. (Updated 2/2016)



Jesse Flynn (Fall 2010, PGA/CSTL) currently serves as a AAAS Science and Technology Policy Fellow at the Department of Defense in the Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs. There he advances efforts to develop medical countermeasures and diagnostics against traditional and emerging threats. Prior to this, Jesse served as an Associate Program Officer at the Institute of Medicine (IOM) in the Board on Population Health and Public Health Practice. There he produced a consensus report requested by the Department of Health and Human Services outlining recommendations for the Patient Protection and Affordable Care Act. Preceding his role at the IOM, Jesse served at the National Academy of Sciences as a Christine Mirzayan Science & Technology Policy Graduate Fellow. As a Mirzayan Fellow, he developed content and proposals for Academies projects regarding the international sharing of scientific data, microbial forensics, and international animal law. Prior to this, Jesse served in the Science and Technology Policy Program at the James A. Baker III Institute for Public Policy of Rice University. At the Baker Institute, he led projects and published articles on matters ranging from international scientific collaborations in the Greater Middle East to the impact of NIH American Recovery and Reinvestment Act funding. Jesse holds a PhD in biochemistry and molecular biology from The University of Texas Graduate School of Biomedical Sciences at Houston and performed his doctoral research at the M.D. Anderson Cancer Center. In his career, he aims to serve society by preventing, protecting against, and responding to natural, accidental, and intentional global threats. (Updated 10/2011)

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches



Carol Hayes (Fall 2010, DBASSE/CLAJ) received her JD with honors from the University of Illinois College of Law. During her second and third years of law school, Carol worked as a research assistant, was the Recent Developments Editor of the *Journal of Law, Technology and Policy* (JLTP), and served as the Treasurer for the Student Animal Legal Defense Fund. Carol's student note, entitled "Content Discrimination on the Internet: Calls for Regulation of Net Neutrality," was published in the Fall 2009 issue of JLTP. Prior to law school, Carol received a BA in psychology with honors from the University of Arkansas at Fayetteville. Throughout law school, Carol's studies emphasized an interdisciplinary, policy-oriented approach to law, and she enjoyed gaining experience in policy as a Mirzayan Fellow with CLAJ. After law school, Carol continued to research in a capacity affiliated with the

University of Illinois, and her projects have included a book chapter about the law of covenants not to compete, and an article examining cyber security issues and self-defense in cyberspace. Carol's long term goal is to apply her legal education towards a career working with policy issues. In her spare time, Carol enjoys writing, running, and spending time with friends (both human and canine). (Updated 10/2011)



Maha Hilal (Fall 2010, PGA/OCEE) is currently pursuing a PhD in justice, law, and society at American University in Washington, D.C. Her area of research interest is in the field of human rights, with a focus on survivors of human rights abuses and the adverse consequences they face post-abuse. Maha received her master's degree in counseling and her bachelor's degree in sociology from the University of Wisconsin-Madison. Maha has worked and volunteered at a number of human rights organizations, in addition to serving as a dialogue facilitator at American University. Upon completing her doctoral degree, she plans to pursue a career as a scholar-practitioner in the fields of human rights and conflict resolution. During the Mirzayan Fellowship, Maha worked on a science cooperation project focused on the Israeli-Palestinian conflict. (Updated 10/2011)



Robert Horner (Fall 2010, DBASSE/CHDGC) is an ORISE Fellow at the Department of Energy's Office of Energy Policy and Systems Analysis, where he works on electricity policy. Previously, he worked for four years as a policy analyst and an energy/environmental systems specialist at Argonne National Laboratory's Washington, D.C. office, where he published research on shale gas development, the energy-water nexus, and land use for solar power. Immediately after his Mirzayan Fellowship, he interned on the majority staff of the U.S. Senate Committee on Commerce, Science, and Transportation, where he worked on climate and energy policy. He completed an M.S. in sustainability from Arizona State University in August 2010. He also earned a B.S. in industrial and systems engineering and a B.A. in science, technology, and society from North Carolina State University in December of 2007. His interests lie in the science, technology, and public policy nexus -- particularly as it

applies to energy and sustainability issues. Through the Mirzayan Fellowship, Robert began learning how science policy works in Washington. Robert loves the outdoors, and in particular enjoys alpine mountaineering, backpacking, cycling, skiing, running, swimming, and competing in triathlons. (Updated 2/2016)



Sarah Isquick (Fall 2010, IOM/BSP) is an incoming fourth-year medical student at Case Western Reserve University School of Medicine. She is currently conducting research in teenage pregnancy prevention as a Doris Duke Clinical Research Fellow at the University of California, San Francisco. She received a BS in English literature from the University of Michigan. As an undergraduate, she conducted organic synthesis and pharmacology research but upon coming to medical school, she became increasingly interested in health policy and advocacy work. Some of her passions include LGBT health, adolescent reproductive and sexual health and patient safety. At CWRU School of Medicine, she works to educate other students and faculty by organizing lectures, film screenings, advocacy events and letter writing campaigns about relevant issues in medicine. Upon receiving her MD, she aspires to identify and eliminate health disparities by conducting outcomes-based

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches

research and working in policy. She is immensely grateful for the wonderful experiences and opportunities she had as a Mirzayan Fellow and hopes to continue furthering her understanding of science and technology policy. In her free time, she enjoys cycling, yoga, baking, reading and traveling. (Updated 10/2011)



Lamis Jomaa (Fall 2010, IOM/FNB) completed her PhD in nutritional sciences at Penn State in August 2010. Her dissertation focused on assessing the progress of schools in implementing local wellness and nutrition policies developed to address the problem of childhood obesity, and exploring the role that students play in making healthier changes in the school environment. Lamis earned her master's degree at Penn State and her bachelor's degree in nutrition and dietetics at the American University of Beirut with a high distinction. As a Fulbright scholar, Lamis' previous professional experiences in academic, clinical and community settings in her home country of Lebanon shaped many of her current research interests, particularly her interest in public health nutrition, international nutrition, and nutrition education. As a graduate student, she gained a better understanding of the wide-

impact and outcomes of school nutrition policies and an appreciation to the challenges that need to be overcome when translating policies into successful programs and initiatives. One of her main career goals is to be involved in developing nutrition and health-promotion policies and programs that target vulnerable sub-populations. Lamis considered the Mirzayan Fellowship as an invaluable opportunity that gained her a better understanding of how scientific research drives recommendations for policies of population-wide impact. During her fellowship, Lamis worked with the Food and Nutrition Board at the Institute of Medicine on a number of obesity prevention studies and workshops and benefited tremendously from the myriad of opportunities she was given to interact with skilled professionals and experts in the field of human nutrition and health as well as her mentor, fellow colleagues and Mirzayan fellows. Her personal interests include traveling, reading, cooking, participating in and organizing multicultural events. (Updated 10/2011)



Brian King (Fall 2010, DELS/BCST) recently completed his PhD in chemistry at the University of California, San Diego (UCSD), where he focused on chemical vapor sensing with porous silicon photonic crystals. He received his bachelor's in chemistry from Harvard University in 2004, where he became interested in a career at the convergence of science, international relations, and public policy while working at the David Rockefeller Center for Latin American Studies and researching single molecule fluorescence. Through the Mirzayan Fellowship, Brian hoped to serve as a bridge between those conducting laboratory research and the policymakers shaping and driving the broader national strategy of scientific advancement, and to gain a better understanding of how planners and policymakers interact with research leaders. Brian loves new foods, martial arts, and travel, and is a former travel writer for the Let's Go travel guides in Bolivia and Australia. (Updated 10/2011)



Tim Kochanski (Fall 2010, TRB/SASP) is a program associate in the Research Competitiveness Program at AAAS. There, he works on a diverse portfolio of science and technology based development projects. These projects frequently involve data management and analytic reporting, managing peer-review processes for grant competitions, and other research and development activities. Projects are often associated with the regional and national development plans of various governments and institutions both domestic and international. Tim holds a B.A. in economics from Kansas University, an M.S. in economics from the University of Oregon, an M.S. in systems science from Portland State University, and a graduate certificate in computer modeling and simulation which he also received from Portland State University. In addition to his formal education, he has worked as a research assistant with the National Policy Consensus Center at Portland State University, served as a Mirzayan Science & Technology Policy Fellow with the Transportation Research Board of the National Academies, served twice as an Oregon Fellow with state and local government agencies in Oregon, and held a position as a term assistant professor of economics at the University of Alaska Southeast located in Juneau, Ala. He has presented his research at various international conferences, and published reports and papers on several topics ranging from

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches

research capacity development, to sustainable local and state government financial systems, to computational economics and simulation in higher education. (Updated 2/2016)



Eli Leland (Fall 2010, DEPS/BEES) is a postdoctoral researcher at the Energy Institute of the City University of New York, working on ARPA-E-funded energy technology projects. Eli received his PhD in mechanical engineering with a designated emphasis in energy science and technology and a certificate in engineering and business for sustainability from the University of California, Berkeley in December 2009. As a graduate student at Berkeley, Eli studied alternative energy technologies, as well as energy and environmental policy, and served as liaison to the College of Engineering for the Berkeley Energy & Resources Collaborative. Eli was a 2004 recipient of the ASEE/NDSEG fellowship, and is a member of Sigma Xi, the scientific research society. Prior to graduate school, Eli spent five years working as a business strategy consultant and an enterprise software systems architect. He holds a bachelor's degree in mechanical engineering from Princeton University, and a

master's degree in mechanical engineering from UC Berkeley. During his Mirzayan Fellowship, Eli explored the challenge of getting new energy technologies deployed widely in society. He enjoys cooking and eating, traveling internationally, snowboarding, and watching basketball and soccer. (Updated 10/2011)



Carrie Lucas (Fall 2010, PGA/COSEPUP) earned a PhD in biomedical sciences from Harvard Medical School in 2010. Her research in immunology, funded largely by the National Defense Science and Engineering Graduate (NDSEG) Fellowship, focused on safely manipulating the immune system to prevent unwanted responses to transplanted tissues. While a graduate student, Carrie was active in teaching, science policy activities, and graduate student organizations. Prior to moving to Boston, Carrie earned a BS in biology with highest honors from the University of North Carolina at Chapel Hill. Carrie is particularly interested in pursuing ways in which she, as a scientist, can help mold and improve the outlook of her profession through national policy development. As a Mirzayan Fellow, she gained substantial insight into the approaches taken by the National Academies to provide a support system and a reliable source of information to our nation's top science policy

leaders. Upon completion of the Fellowship, Carrie finished teaching the Fall 2010 undergraduate immunology course at Georgetown University before beginning a new research position as an immunologist at the National Institutes of Health. Her long-term goal is to establish a career in science that includes active participation in science policy and teaching. In her free time, Carrie enjoys traveling, hiking, and playing tennis with her husband. (Updated 10/2011)



Chelsea Martinez (Fall 2010, NAE/NAE PO) earned her PhD in bioorganic chemistry from The University of Texas at Austin, where she synthesized tiny bio-inspired aromatic molecules that display interesting behavior in water. She graduated from Oberlin College with majors in biochemistry and chemistry and taught high school science and math from 2002 to 2004. At UT Austin, she founded a science news talk show at student-run radio station that continues to this day. Chelsea spent also spent a summer interning at the Los Angeles Times' health desk. While a Mirzayan Fellow, she worked on the NAE Program Office's Changing the Conversation: From Research to Action workshop and its accompanying website (<http://www.engineeringmessages.org>). Chelsea then worked as a Congressional Hispanic Caucus Institute Graduate STEM Fellow at the White House OSTP. Chelsea is currently a visiting assistant professor of chemistry back at Colorado College. She swims at the

Washington Park Pool in Denver. (Updated 2/2016)

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches



Lee Pearson (Fall 2010, NAE/NAE PO) recently completed an MPhil in engineering for sustainable development at the University of Cambridge on a Marshall Scholarship. Working with the economic regulator for Scottish Water, his research focused on water demand reduction. Last year, he developed a model to optimize national water footprints through trade while reading an MSc in ecological economics at the University of Edinburgh. In December 2010, he will begin his PhD studies in the Centre for Environmental Policy at Imperial College London. He has eclectic interests: he published research in pipeline dynamics from an NSF program at Dalian University of Technology in China and conducted fungicide research with Bayer CropScience in Germany. Lee received his BSE in civil engineering from Duke University. As president of the Duke chapter of Engineers Without Borders (EWB-USA), he led development projects in Peru and Uganda. While in England, he volunteered as a Project Manager for EWB-UK initiating placements for British students with a rural Ugandan NGO. Lee is passionate about nature; he greatly enjoys camping and hiking. Complementing his research interests, Lee hopes to gain a better understanding of and experience with the policy making process as a Mirzayan Fellow in the NAE Program Office.



Elizabeth Rach (Fall 2010, IOM/VSRT) is currently a scientist in clinical trials at Cato Research in Rockville, Md. She enjoys writing and reviewing regulatory, clinical, and scientific documents; assisting with clinical trial management, pharmaceutical development, and project management; providing scientific consulting; and assisting with the preparation of strategic development plans. Before coming to Cato Research, she worked on building the digital infrastructure for a learning health system as a Christine Mirzayan Science and Technology Policy Fellow at the Roundtable for Value and Science-Driven Healthcare within the Institute of Medicine, the medical arm of the National Academies. Elizabeth completed her PhD in Computational Genetics from Duke University in 2010 and her BA in Mathematics from Cornell University in 2004. Her dissertation research focused on modeling the spatiotemporal regulation of transcription initiation in the fruit fly *Drosophila melanogaster*. While a Burroughs Wellcome Young Investigator recipient, she developed *in situ* expression profiles at the Max Planck Institute for Molecular Cell Biology & Genetics in Dresden, Germany. At Duke, Elizabeth spent much time volunteering in the Neonatal Intensive Care Unit at Durham Regional Hospital. She took care of infants with neurological and gastrointestinal problems and contributed to the publication of a novel microlipid treatment. The experiences that she has had at Durham Regional Hospital, as a Christine Mirzayan fellow, and as a scientist at Cato Research have shown Elizabeth how advancements in medicine and science policy can directly impact the lives of others and improve clinical outcomes. She aspires to continue this work throughout the duration of her career, as genetics and technology give rise to personalized medicine. In her free time, Elizabeth enjoys horseback riding, dancing, and playing with her chocolate lab and two finches. (Updated 2/2011)



John Rancourt (Fall 2010, IOM/ORAC) is a program analyst and Presidential Management Fellow (PMF) with the Office of the National Coordinator for Health Information Technology (ONC) within the U.S. Department of Health and Human Services (HHS). He received his master's degree in public administration from American University in December 2010. During his studies, he was a Christine Mirzayan Science and Technology Policy Fellow at the Institute of Medicine and was a health care analyst graduate student intern at the Government Accountability Office (GAO). He previously worked as a legislative fellow for Congressman Steve Rothman and before that as a field organizer on the Obama campaign. John also served as the government affairs manager for the National Sleep Foundation, where he worked to implement the recommendations made by the Institute of Medicine report, *Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem*. His interest in health policy began during his tenure as a reporter and editor for *The Pink Sheet*, a trade publication that covers FDA and the pharmaceutical industry. John went to Georgetown for his undergraduate studies, and is originally from Chicago. He lives with his wife, Anne, in Washington, D.C. (Updated 10/2011)

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches



Bruno Sánchez-Andrade Nuño (Fall 2010, DEPS/SSB) is the director of science and technology at the Global Adaptation Institute, a non-profit guided by a vision of building resilience to climate change as a key component to sustainable development. Bruno, originally from Spain, joins the Institute from The National Academies, where he was a Mirzayan Science and Technology Policy Fellow. He previously worked, for 2 years, as a space and rocket scientist at the Department of Defense Naval Research Laboratory. His work focused on the sun and project planning for NASA rockets and satellites. He obtained his PhD in astrophysics at the Max Planck Institute for Solar System Research in Goettingen, Germany. He has also contributed in science outreach in several countries, including peer reviewed articles, webpages, workshops and conferences. Bruno has a strong passion for science and technology and its practical applications for a better world. In 2011 he was the project manager for an application that received an award from the World Bank's competition "Apps for Development" for its contribution to raise awareness to the Millennium Development Goals. (Updated 12/2011)



Jennifer C. Shieh (Fall 2010, NAS/Koshland) is a AAAS Fellow at the National Institutes of Health (NIH) where she works to help small businesses turn research on cancer technology into commercial products with the National Cancer Institute (NCI) Small Business Innovation Research (SBIR) Development Center. She studied brain and cognitive sciences as an undergraduate at MIT, then earned her PhD in neurosciences from Stanford University. Funded by a National Defense Science and Engineering Graduate (NDSEG) fellowship, her dissertation research focused on the way newborn neurons move as the brain develops. During that time, Jennifer was fortunate enough to get many opportunities to combine her professional and personal interests: working (and playing) at the Tech Museum of Innovation, co-authoring a neuroscience techniques textbook, and dancing her dissertation. Being immersed in the entrepreneurial spirit of Silicon Valley, after graduate school Jennifer became a Jill-of-all-Trades (except programming) at a mobile games startup and a cloud-based enterprise software startup called Syapse that makes applications for scientists. She also found her way to the Koshland Science Museum of the National Academy of Sciences as a Mirzayan Science and Technology Policy Fellow, where she thoroughly enjoyed (and hopes to continue) her pursuit of engaging the public with science, improving education, and generally learning how scientists can make the world a better place through policy. When she is not attached to a computer (or sometimes even when she is), you are likely to find Jennifer on the dance floor, at a live performance of some sort, exploring new places and ideas, at <http://jcshieh.com>. (Updated 10/2011)



Valerie Soza (Fall 2010, NAS/Koshland) completed her PhD in biology at the University of Washington. Her research used DNA to reconstruct evolutionary relationships in the coffee family to understand the evolution of breeding systems and species relationships in this group, and the implications for management of rare species within this group. As a doctoral student, Valerie also enjoyed teaching the public about plants and leading tours through the greenhouse and medicinal herb garden on campus, as well as teaching workshops to native plant enthusiasts on the use of native plants for restoration. Before entering graduate school, Valerie worked at a botanic garden as a botanical field studies coordinator for rare plant surveys, rare plant reintroductions, and botanical inventories in California. She received her BA in environmental studies and anthropology at Pitzer College, where she participated in a Getty internship and became interested in the museum profession. After completing her PhD, Valerie hopes to work with a government agency in applying science to management of natural resources. She gained valuable experience working at the Koshland Science Museum in developing public education about climate change and learning how science informs policy on current, national issues. (Updated 10/2011)

Christine Mirzayan Science and Technology Policy Graduate Fellows 2010 Fall Biographical Sketches



Mike Specian (Fall 2010, DEPS/DEPS EO) received his Ph.D. in theoretical cosmology from Johns Hopkins University in 2015. His research focused on simulating model universes as a way to improve data quality. Mike has served as a JHU graduate student government representative, held a number of teaching positions including as an instructor for the CTY program, been an EARA Fellow at the Max Planck Institute for Astrophysics and a consultant on the National Climate Assessment. Prior to graduate school Mike received his BA in physics and astronomy from Boston University and was a noted parliamentary debater, earning numerous public speaking awards including being the 8th-ranked debater in North America in 2003. He currently runs MikeSpecian.com, a website dedicated to science, energy, climate, public policy, photography from around the world, and other personal miscellany. He can be followed on Twitter @mspecian. (Updated 4/2016)



Will Tyburczy (Fall 2010, DELS/OSB) is currently working toward a PhD in ecology and evolution at the University of Chicago. He graduated from Stanford University with a BS in biological sciences and a minor in computer science, and worked on ecological data management at the National Center for Ecological Analysis and Synthesis. His thesis research centers on the effects of reproductive timing and synchrony on patterns of abundance in predator-prey systems. As a Mirzayan Fellow with the Ocean Studies Board, he hopes to help address the science underlying current marine policy issues while increasing his knowledge of how policy makers use research findings to inform their decisions. When he's not working, he likes to enjoy the outdoors by climbing, hiking, skiing, scuba diving, and playing soccer.



Adam Winkleman (Fall 2010, DEPS/NMMB) is currently an Operations Research Analyst at OSD (CAPE). He completed his PhD in chemistry from Harvard University under the guidance of Prof. George Whitesides. Although he worked in diverse fields from cells to microfluidics; his thesis focused on the interaction of materials with magnetic and electrostatic fields. Upon completion of his degree, Adam spent a year at the Weizmann Institute of Science as a post-doctoral fellow in the Department of Chemical Physics. He has spent the last two years as a senior scientist at Nano Terra, a start-up company in Cambridge, Mass., where he developed solutions for several Fortune 500 companies. Adam enjoys exploring the cultural of his surrounding city, puzzles, and a good book as well as has a passion for photography and travel. (Updated 10/2011)