The National Academies of SCIENCES ENGINEERING MEDICINE

CHRISTINE MIRZAYAN SCIENCE & TECHNOLOGY POLICY GRADUATE FELLOWSHIP PROGRAM

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

Samantha Arnett (Winter 2011; IOM/BPH) received her PhD in bio-organic chemistry from The Johns Hopkins University. Samantha's doctoral work focused on the enzyme mechanisms used to produce novel penicillin-like antibiotics for the manipulation of next generation antimicrobials. She also holds a MS and BS in chemistry from The Johns Hopkins University and Vanderbilt University, respectively. Over the past decade, Samantha has been heavily involved with the HIV/AIDS community by volunteering at local health centers organizing fundraising events, advocating for STD testing and implementing education programs. These non-scientific pursuits sparked her desire to apply her biochemical and protein chemistry knowledge to the field of HIV vaccine development. In 2008, Samantha was awarded an NIH National Research Service Award and is currently a post-doctoral fellow at The Scripps Research Institute where she is developing immunogens for a global HIV vaccine. As a Mirzayan Fellow, Samantha hopes to explore the architecture of science policy and gain experience with policy analysis. In her spare time, Samantha enjoys trail running, backpacking, yoga, heckling during adult kickball games, and wine with her friends.

Christopher Avery (Winter 2011; PGA/STEP) is a senior advisor at the National Council for Science and the Environment. Chris leads NCSE's communications and outreach work. Prior to NCSE, Chris spent four years working in the Department of Energy's Energy Efficiency and Renewable Energy Office leading stakeholder engagement and outreach efforts. Before DOE, Chris was a AAAS/American Chemical Society Congressional Fellow for Senator Chris Coons working on energy, environment and innovation issues. As a Mirzayan Fellow, Chris participated in multiple projects with the STEP Board related to intellectual property, energy technology, greenhouse gases, tax codes, standards setting and water rights. He received his Ph.D. in analytical chemistry at the University of Michigan, where his research focused on the interaction mechanisms of synthetic compounds with lipid bilayer systems. Chris received a bachelor's degree in chemistry with a minor in environmental science from Hope College, where he worked on a research related to understanding anthropogenic effects on a closed watershed system. During his doctorate, Chris earned a graduate certificate in science, technology and public policy through the Ford

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

School of Public Policy at the University of Michigan.(Updated 2/2016)

Erin Boyd (Winter 2011; DEPS/BPA) is the 2011-2012 AAAS/APS (American Physical Society) Congressional Science and Engineering Fellow. Erin is looking forward to working in a Congressional office on energy and environmental policy. As a Mirzayan Fellow on the Board of Physics and Astronomy (BPA), Erin worked on projects for the prospect of inertial fusion energy and on an assessment of undergraduate physics education research. Some of her responsibilities included researching past reports to synthesize concise summaries for committee members and assisting small subgroups of the committees. In the fall of 2010, Erin defended her PhD thesis in semiconductor physics at Harvard University. Her graduate research used scanning probe imaging to characterize the electrical properties of semiconductor nanowires for use as potential building blocks for future quantum devices. During graduate school, Erin served on the executive board of Harvard Graduate Women in Science and Engineering. Working with deans of the graduate school, she designed programs to further the professional and personal development of graduate students. She designed and implemented a mentoring program, which matched female graduate students in science and engineering with female faculty mentors in technical disciplines. Erin holds bachelor degrees from Carnegie Mellon University in physics and in electrical and computer engineering. (Updated 10/2011)

Thomas Burnett (Winter 2011; NAS/CPNAS) is ABD Thomas Burnett (Winter 2011; NAS/CPNAS) is ABD in his PhD program in the history of science at University of California, Berkeley. As an undergraduate at Rice University, he studied philosophy and evolutionary theory, and in graduate school, focused on the origins of modern biology. With a passion for foreign languages and cultures, Thomas spent two years in Innsbruck, Austria as a Rotary Ambassadorial Scholar and Fulbright Teaching Assistant. He also lived in Nicaragua, both in Matagalpa and the rural town of Siuna. Thomas originally moved to Washington, D.C. to teach high school physics and environmental science, but since then he has found his true calling in science writing and communications. He was a Mirzayan fellow in Spring 2011, working with J.D. Talasek in CPNAS, and now he is a Communications Associate in the Office of Communications at NAS. (Updated 1/2013)

Genya Dana (Winter 2011; DBASSE/CHDGC) completed her PhD in ecological risk assessment and her MSc in science, technology and environmental policy from The University of Minnesota's Conservation Biology Program and Humphrey Institute of Public Affairs, respectively. She focuses on stakeholder engagement in risk analysis and governance, particularly in relationship to emerging technologies such as synthetic biology, nanotechnology, and genetically engineered organisms. She conducted her dissertation research in South Africa, and continues to work internationally to train scientists and policy makers on participatory methods for evaluating ecological risks of introduced species and genotypes, often as part of agriculture and aquaculture development projects. She is AAAS Science & Technology Fellow with the U.S. Department of State, in the Office of Ecology and Conservation. Prior to this position, Genya was a postdoctoral fellow at the US EPA working on nanotechnology risk assessment, as well as a Public Policy Scholar with the Woodrow Wilson Center's Synthetic Biology Project. Genya was a Mirzayan Fellow with the National Academies' Committee on Human Dimensions of Global Change. Genya's career goal is to facilitate stakeholder engagement in processes that inform and support policy decisions for the sustainable use of emerging technologies such as synthetic biology. (Updated 10/2011)

The National Academies of SCIENCES ENGINEERING MEDICINE

CHRISTINE MIRZAYAN SCIENCE & TECHNOLOGY POLICY GRADUATE FELLOWSHIP PROGRAM

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

Julia Dooher (Winter 2011; IOM/NCPF) is currently a postdoctoral fellow at Johns Hopkins University, Division of Pediatric Oncology, where she researches biochemical mechanisms underlying pediatric leukemia. Julia was raised in Boston, Mass. and lives in Baltimore, Md. She earned her PhD in pathobiology from the University of Washington School of Public Health in Seattle where she studied the biochemistry of HIV capsid assembly. Since 1999 she has tutored middle school and high school students in biology and other subjects. Julia enjoys explaining scientific principles to lay people and expanding her own knowledge of science, medicine, and national and international affairs. She has worked with the Johns Hopkins Postdoctoral Association and the Vasculitis Foundation, and is a dedicated volunteer with the Incentive Mentoring Program in Baltimore, where she mentors disadvantaged teens. As a Mirzayan Fellow, Julia thoroughly enjoyed gaining hands-on experience in how the data that guide science policy are collected, analyzed, and disseminated in ways that benefit and inform the scientific community and general public. She is an NPR junkie and in her spare time enjoys music, film, the visual arts, and a good laugh with friends and colleagues. (Updated 10/2011)

Elizabeth Ferriss (Winter 2011; DELS/NRSB) received her Ph.D. in geological sciences from the University of Michigan. Her doctorate included work on the corrosion of uranium dioxide, plutonium incorporation into the mineral zircon, and determining temperatures experienced by metamorphic rocks. After completing her Christine Mirzayan Fellowship, Elizabeth moved to Columbia University, where she is now an associate research scientist focused on understanding why some volcanic eruptions are more explosive than others. Prior to graduate school, Elizabeth attended the University of Louisiana at Lafayette, where she completed two bachelor's degrees in geology and chemistry. Elizabeth's long-term career goal is to contribute to society's knowledge of the natural world and ability to make responsible decisions on science-related issues. (Updated 2/2016)

Mary Beth Ficklin (Winter 2011; DBASSE/BBCSS) holds an MD and a PhD from Duke University completed as part of the Medical Scientist Training Program. Her medical electives focused on developmental and behavioral pediatrics and her graduate work on neurodevelopment and plasticity, with dissertation work specific to neuronal receptor trafficking. After receiving her BS in biology from Stanford, and prior to entering medical/graduate school, she worked at a biotechnology company and took nine months to travel the world, culminating in a public health internship in rural Uganda. This travel along with past travel and living abroad allows her to lay claim to visiting all continents except Antarctica. During her Mirzayan Fellowship, Mary Beth worked with BBCSS and was given the opportunity to apply her clinical and basic science training to public health and policy arenas. She is currently on staff with BBCSS/BOHSI and hopes to continue to broaden her experience in order to pursue her career goal of advising, developing, or implementing public health programs that integrate clinical services, basic science, and health policy to best address health disparities. In the meantime, she is rediscovering the basics in science (and life) through her two young daughters who inform her planets and dinosaurs have come a long way from the “olden” days. (Updated 10/2011)

Kellie Green (Winter 2011; NAE/CASEE) is a native of White Castle, La., a rural community approximately twenty-six miles south of Baton Rouge. She attended Southern University and A&M College in Baton Rouge, where she majored in chemistry and mathematics. Her interest in science education motivated her to obtain a master's degree in chemical education at Purdue University. Kellie's master's project investigated the differences between online and face-to-face dialogue in chemistry. In addition to writing a master's thesis, she earned a teaching certificate to teach chemistry. Kellie recently completed her doctoral work in science education at Purdue University in the Department of Curriculum and Instruction. Her dissertation focused on the assessment of a research-based laboratory designed by the Center for Authentic Science Practice in Education (CASPiE). Her research project explored

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

whether this type of laboratory intervention influenced students' understanding of the nature of science and experimental design. Kellie is currently working as an adjunct professor at Prince George Community College. (Updated 10/2011)

Alison Hottes (Winter 2011; PGA/CISAC & DELS/BLS) holds PhD and MS degrees in electrical engineering from Stanford University and a BS in electrical engineering and mathematics from Utah State University. As a Stanford graduate student and later as a Princeton University postdoctoral researcher, she developed experimental and computational methods to investigate how bacterial cells are "wired." Her work, which was supported by a New Jersey Commission on Cancer Research Postdoctoral Fellowship, examined how the individual components of a cellular circuit contribute to a bacterium's ability to resist antibiotics, survive in high-concentrations of ethanol, and interact with other bacteria to cause disease. At Princeton, she also lectured for a genomics and computational biology course for biology and computer science students. As a Mirzayan Fellow and consultant at the National Academies, Alison designed the scientific program for an international biosecurity workshop that assembled 68 participants from 32 countries in Istanbul, Turkey in July 2011. She also wrote the workshop report for the meeting, which described biosecurity challenges associated with the worldwide increase in high biological containment laboratories. Alison is currently a AAAS fellow at the Department of Homeland Security. (Updated 9/2012)

Michael Ingerson-Mahar (Winter 2011; PGA/CSTL) received his PhD in molecular biology from Princeton University in September 2010. As a graduate student he studied the bacterial cytoskeleton, a diverse class of proteins that organize the intracellular components of bacteria. His work led to the discovery of a new cytoskeletal protein conserved not only in bacteria, but all organisms, including human beings. Michael also holds a BS from Rutgers University in biotechnology with a focus on applied microbiology and microbial technology. He has volunteered for American Public Radio, the American Society for Microbiology, and local community colleges to speak to lay audiences about emerging issues in science. As a Mirzayan Fellow at the National Academies, he worked with CSTL on a variety of topics including trends in international research institutions, the effect of drugs on the development of the brain, and microbial forensics. After the Fellowship he took a position at the American Society of Microbiology, in the public and governmental outreach branch. There he works to develop reports regarding issues in microbiology for the public and government officials. Ultimately, he hopes to help bridge the gap in communication between scientists, policy makers, and the general public. In his spare time, Michael enjoys participating in organized sports, specifically softball and soccer, and cheering on his Rutgers Scarlet Knights. (Updated 10/2011)

Katherine Kortum (Winter 2011; TRB/SASP) is a program officer at the Transportation Research Board where she creates and guides committees analyzing transportation policy topics, including regulation of new mobility options (including Uber and Lyft), transit asset management, development of federal research plans, and intercity passenger travel. In 2015 and 2016, she was also a Robert Bosch Fellow, working with the Innovationszentrum für Mobilität und gesellschaftlichen Wandel GmbH (InnoZ) in Berlin on shared and integrated mobility research projects. She chaired the international nonprofit organization Young Professionals in Transportation from 2012 through 2015, and was appointed to the boards of the Institute of Transportation Engineers and ASCE's Transportation & Development Institute. In addition, she has spoken in a number of settings on the development of the next generation of the transportation workforce and on innovations facing the industry. Her long-term career goals include freeing people from their cars by improving travel options both within and among metropolitan areas. Katherine holds an M.S. and Ph.D. in transportation engineering from The University of Texas at Austin and a B.S. in civil engineering from the University of Pittsburgh, and is a Professional Engineer in the District of Columbia. (Updated 2/2016)

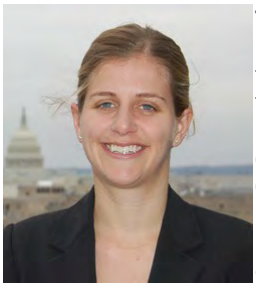
The National Academies of SCIENCES ENGINEERING MEDICINE

CHRISTINE MIRZAYAN SCIENCE & TECHNOLOGY POLICY GRADUATE FELLOWSHIP PROGRAM

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

Shin-Yi Lin (Winter 2011; PGA/COSEPUP) is a postdoctoral fellow studying evolutionary developmental biology in nematodes with Ron Ellis at Rowan University, in Stratford, N.J. She is currently funded by an American Cancer Society Postdoctoral Fellowship. She received her PhD in molecular biology and neuroscience from Princeton University in September 2011. She obtained her A.B. in biology and English from Amherst College in 2000. Her interest in policy developed from her positive experiences as a graduate student leader. She was active as an undergraduate mentor and teacher in her department and served as a student advocate at the university level as Chair of the Graduate Student Government. She co-founded the Princeton Research Symposium, an annual multi-disciplinary event that communicates Princeton's research with the public. As a Mirzayan Fellow, she appreciated the opportunity to explore her interests in science policy and public service and to discover how valued Ph.D.-trained individuals are by the "outside" (i.e., non-academic) world. Outside of the lab/office, Shin-Yi is a mom of two, a bibliophile, a foodie and an addict of National Public Radio and associated podcasts. She occasionally tweets as @shinyilin. (Updated 2/2016)

Erica Lively (Winter 2011; NAE/NAEPO) is currently completing a PhD in electrical and computer engineering at the University of California, Santa Barbara (USCB). She holds an MS and BS in electrical engineering from UCSB and the University of Idaho, respectively. Her thesis research focuses on nano-scale patterned metals for integrated lasers and optical telecommunications applications. Erica also served as a science fellow with the Center for Nanotechnology in Society at UCSB. She researched several topics related to nanotechnology including government and NGO [non-governmental organization] discourse, media coverage and framing, and how comparisons can affect judgment and acceptance of emerging technology. Erica's long term career goals are to stay connected with the science and technology community while working on solving problems that overlap with policy, business, and society. In her free time, Erica enjoys golf, skiing, and good food.



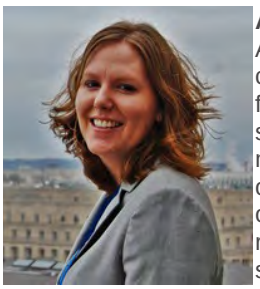
Tracy Moore (Winter 2011; DEPS/AFSB) recently completed her PhD in physics at the University of Maryland, specializing in nano-fabrication and material science. Her dissertation focused on building and characterizing energy-efficient novel transistors from single atom thick layers of graphite known as graphene. Prior to her graduate studies, Tracy obtained a bachelor's degree in physics with a studio art minor from Allegheny College, where she obtained membership in Phi Beta Kappa National Honor Society. Tracy enjoys solving quantitative as well as qualitative problems and enjoyed applying her skills to issues important to the Air Force Studies Board while gaining valuable policy experience. Tracy's long-term career goal is to use her technical background to positively affect science funding and policy, particularly regarding energy production and conservation and the responsible utilization of nanotechnology. In her spare time Tracy enjoys playing soccer and making ceramics. (Updated 10/2011)

The National Academies of SCIENCES ENGINEERING MEDICINE

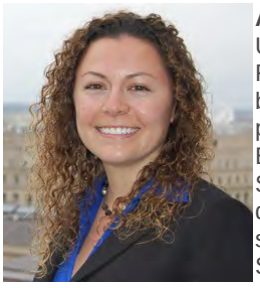
CHRISTINE MIRZAYAN SCIENCE & TECHNOLOGY POLICY GRADUATE FELLOWSHIP PROGRAM

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

Dalal Najib (Winter 2011; DEPS/ASEB) is a senior program officer at the Development, Security and Cooperation (DSC) in the of Policy and Global Affairs (PGA) Division of the U.S. National Academies of Sciences, Engineering and Medicine, working mainly on international development and capacity building through science and technology. She is the program director for the Arab-American Frontiers program of Science, Engineering and Medicine at NAS in partnership with MENA based S&T institutions such as King Abdullah University of Science and Technology (KAUST), The Research Council of Oman and the Kuwait Institute for Scientific Research. She also currently manages the USAID-funded program in partnership with the Indonesian Academy of Sciences to establish an Indonesian Science Fund (ISF) and build institutional capacity in grants management and review process. Dalal also works on the PEER (Partnership for Enhanced engagement in Research) program where she oversees the MENA (Middle East and North Africa) and Central Asia regions portfolio. Dalal first joined the National Academies as a Mirzayan Science and Technology policy fellow at the Aeronautics and Space Engineering Board (ASEB). She holds a PhD in space physics and engineering from University of Michigan, under the NASA Earth and Space Sciences Fellowship (NESSF). She also completed a master's degree in public policy (MPP) from the Gerald Ford School of Public Policy at the University of Michigan with focus on Science and Technology policy in developing countries. Prior to that, Dalal received her undergraduate degree in aerospace and aeronautical engineering from Supaero (Toulouse, France). She is fluent in French, Arabic, English and Spanish. (Updated 01/2016)



Amber D. Nelson (Winter 2011; IOM/BCYF) is currently a research fellow at the Institute for Advanced Studies on Science, Technology & Society (IAS-STS) in Graz, Austria. S he is also completing a PhD in sociology at the University of Maryland. She holds an MA in sociology from Maryland and BAs in sociology and English from the University of Nebraska. Amber studies the social determinants of health and the social and cultural aspects of medicine, the medical and mental health professions, technologies and policy. She recently published work on the social aspects of the Human Papillomavirus Vaccine and is currently finishing research on an NSF-funded grant study designed to evaluate the socioeconomic benefits of medical research on six different morbidities conducted at NIH. Her PhD thesis is an analysis of the social aspects of the technoscientific classification, measurement and clinical interventions of adolescent mental health and illness. As a Mirzayan Fellow, Amber worked with the Board on Children, Youth and Families in the Institute of Medicine. She organized a planning meeting on integrating childhood and adolescent mental health services in primary care settings and worked on a project to start a new IOM forum on childhood and adolescent mental health issues. She also assisted Jennifer Gootman in organizing a 10 year follow-up meeting to the 2002 consensus study Community Programs to Promote Youth Development. Finally, she researched and developed a proposal for a consensus study on how to go about evaluating college mental health education and outreach programs such as Active Minds, Inc. In her free time Amber enjoys baking, hiking, gardening, reading, attending musical performances and spending time with friends and family. (Updated 10/2011)

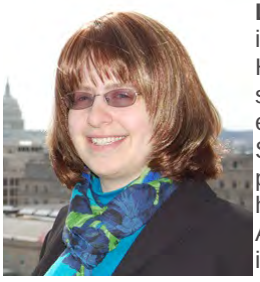


Angela Olson (Winter 2011; DELS/BCST) completed a PhD in organic chemistry at the University of California, Irvine. Funded by a National Institutes of Health (NIH) Predoctoral Fellowship, her research focused on the development of new synthetic methods to access biologically active small molecules. During graduate school, she was active in educational public outreach activities, programs focused on promoting diversity in higher education, and Big Brothers Big Sisters of Orange County. Angela began her scientific studies at Northern State University in South Dakota, where she graduated summa cum laude with a bachelor's degree in chemistry and biology. As a Mirzayan Fellow, she enjoyed learning about the role scientists play in the policy-making process. She worked with the Board on Chemical Sciences and Technology to explore the broader impacts of chemical processes and the policies that govern them. In the future, she hopes to use the knowledge gained as a Mirzayan Fellow to address important matters pertaining to national security or energy policy. In her free time, Angela enjoys traveling, snowboarding, rock-climbing, backpacking, and softball. (Updated 10/2011)

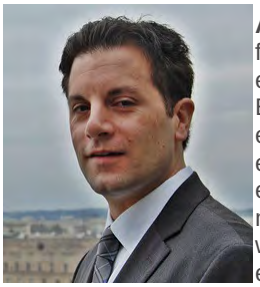
The National Academies of SCIENCES ENGINEERING MEDICINE

CHRISTINE MIRZAYAN SCIENCE & TECHNOLOGY POLICY GRADUATE FELLOWSHIP PROGRAM

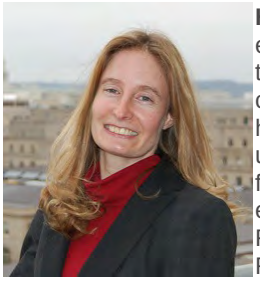
Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches



Leah Rosenfeld Leah Rosenfeld (Winter 2011, DELS/ILAR) earned her PhD in August 2010 in the Department of Environmental Health Sciences, Division of Toxicology at the Johns Hopkins Bloomberg School of Public Health in Baltimore, Md. She received her bachelors of science in biology with a minor in biomedical engineering from MIT. For her dissertation, she examined the influence of phosphate overload on metal homeostasis and toxicity using Saccharomyces cerevisiae as a model system. Her interest in the influence of science in policy derived from the risk assessment and public policy classes she took while completing her PhD. She looks forward to her upcoming Mirzayan Fellowship with the National Academies to increase her understanding of how science influences the development and implementation of public policy. Leah is an ORISE Fellow [Oak Ridge Institute for Science and Education] at the Food and Drug Administration and plans to pursue a career in regulatory toxicology or policy. (Updated 2/2012)



Arman Shehabi (Winter 2011; DEPS/BICE) received his PhD in environmental engineering from the University of California, Berkeley in December 2009, with an emphasis in building energy and indoor air quality. For his dissertation, Arman collaborated with the Energy and Environmental Technologies Division at Lawrence Berkeley National Laboratory to evaluate energy demands and efficiency strategies in data center buildings. His research showed that economizers combined with improved filtration can save energy and protect computer equipment in data centers. As a postdoc, Arman is using life-cycle assessment (LCA) methods to estimate the embodied energy associated with alternative utility infrastructure for water, wastewater, and electricity. Prior to returning to graduate school, Arman worked as an engineering consultant and LEED Accredited Professional to strengthen building energy guidelines and implement sustainable building metrics. He is looking for ways to include environmental performance into the balance of good design and is excited to work with BICE to learn how a combination of science and policy can be used to increase renewable energy use in buildings. When not working on environmental issues, Arman enjoys talking about politics over good coffee and avoiding large rocks (with questionable success) while snowboarding in Tahoe.



Heather Smith (Winter 2011; DEPS/SSB) recently completed her PhD in biological engineering from Utah State University. After earning a bachelor's degree in psychology from the University of North Texas, Heather moved to California to work as a Space Camp counselor. While at Space Camp she volunteered at NASA Ames Research Center and was hired as a research associate for The SETI Institute at NASA Ames upon completion of an undergraduate degree in physics from The Evergreen State College. After working at Ames for several years she decided to go back to graduate school. Prior to her doctoral degree she earned an MSc in space studies from International Space University. After her Mirzayan Fellowship she worked as a postdoc on a oxidative analytical chemistry project at Desert Research Institute in Las Vegas, before beginning her current postdoc at Ames Reseach Center in Mountain View, Calif. (Updated 10/2011)

The National Academies of SCIENCES ENGINEERING MEDICINE

CHRISTINE MIRZAYAN SCIENCE & TECHNOLOGY POLICY GRADUATE FELLOWSHIP PROGRAM

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

Brandon Stratford (Winter 2011; IOM/BGH) is currently completing a PhD in public health at the Johns Hopkins University Bloomberg School of Public Health. He holds a master's of social work from the University of Maryland and a BA in elementary education from Linfield College. His PhD thesis focuses on how school health promotion efforts affect student health and academic performance, using a sample of rural and semi-rural schools. Brandon has worked as an elementary school teacher and a clinical social worker in community and school-based settings. He was also a Peace Corps volunteer in Paraguay in 1998-2000, where he served as a primary education consultant. Brandon is fluent in Spanish and has traveled extensively in Latin America. He currently lives in Washington, D.C., and enjoys visiting local wineries, travel, and his newfound interest in running. (Updated 10/2011)

Michelle Tangredi (Winter 2011; PGA/BHEW) received her PhD in neuroscience from Tufts University in August 2010. Her doctorate work focused on the internal biological clocks in the brain that regulate the timing of numerous physiological processes, including the sleep/wake cycle. Michelle's interest in science education arose during her undergraduate career at the College of the Holy Cross in which she spent a year abroad at Trinity College, Dublin, immersed in an alternative approach to undergraduate scientific training. Passionate about promoting science education and science careers, Michelle founded a community science event called the Boston Regional Brain Bee. Now in its sixth year, the Boston Bee brings together PhD professionals, high school students, teachers and parents to encourage interest in the science field. Through her participation in the Mirzayan Fellowship, Michelle hopes to gain an in-depth understanding of government decision-making as well as a broader appreciation for how science impacts our nation, and vice versa. Her overarching career goal is to improve science and society by serving as an effective liaison between the two. In her spare time, Michelle enjoys trying new forms of exercise, concerts and dinner with friends. (Updated 10/2011)

Peter Thompson (Winter 2011; DELS/OSB) completed his PhD in behavior, ecology, evolution, and systematics at the University of Maryland in December 2010. Pete's dissertation research used genetics to study the natural history, dispersal, and deep evolutionary history of a single-celled parasite that is interfering with efforts to restore oyster populations in the Chesapeake Bay. Prior to enrolling in graduate school, Pete was a research technician for ten years with the U.S. Food and Drug Administration where he studied virus-cell interactions and the development of novel hepatitis vaccines. His ongoing interest in public use of marine and estuarine habitats guides his search for a position in science-based marine policy and advocacy. He is currently working as a freelance writer. In his free time, Pete enjoys playing soccer and volleyball, motorcycling, traveling to any location with tide pools, and brewing his own beer. (Updated 10/2011)

Rochelle Urban (Winter 2011; DBASSE/BOSE) is currently the Student Education Specialist at the California Academy of Sciences in San Franciso. She earned her BA from Barnard College and her PhD in neuroscience at the University of California, San Francisco (UCSF). Her doctoral work focused on understanding mechanisms of chronic pain, in particular finding a better way to model human pain conditions in mice. In addition to research, Rochelle has a long history of bringing science to a broad audience, starting with a project in college where she examined how science is conveyed through theatre. While at UCSF, she spent a good deal of time teaching, from undergraduates at the University of San Francisco to working alongside teachers in public schools. She brought her love of teaching science into the broader context of education policy in her work as a fellow at the Board of Science Education. She is now dedicated to demonstrating the joys of science and the natural world to the youngest generation. (Updated 10/2011)

Christine Mirzayan Science and Technology Policy Graduate Fellows
2011 Winter Biographical Sketches

Marissa Weiss (Winter 2011; NAS/Koshland) recently defended her PhD in ecology at Cornell University, where she studied the effects of nitrogen pollution on decomposition in northeastern forest soils. She became interested in science communication and science outreach in graduate school, and worked with a fellow graduate student to start a science communication class for fellow grad students. The course has been continuing for several years, now taught by a Cornell faculty member from the Department of Communication. After defending her dissertation, Marissa was an American Association for the Advancement of Science Mass Media Science and Engineering Fellow. During her fellowship, she was a science reporter at KUNC radio, an NPR affiliate serving northern Colorado. Marissa has a BS from Cornell University and an MS from the University of Minnesota, both in ecology. She is passionate about environmental science and the importance of public outreach and public communication of science. Marissa was a Mirzayan Fellow at the Koshland Science Museum, where she worked on educational materials for the Climate Change Exhibition. She is currently a post-doc in an agricultural ecology lab at Cornell University, studying strategies for using legume cover crops to maintain soil fertility and crop yields without chemical fertilizers. (Updated 4/2012)