

## Christine Mirzayan Science and Technology Policy Graduate Fellows 2007 Winter Biographical Sketches



Albert Einstein Memorial Statue © 1978 by Robert Berks



**Rima Adler** (Winter 2007, DELS/BLS) completed her PhD in genetics at The George Washington University, in Washington, D.C. in December 2006. Her dissertation research was conducted at the National Institutes of Health. She evaluated adult blood stem cell contributions, via retroviral gene insertion site analysis, to better understand hematopoiesis and gene-therapy. She worked on clinical guidelines and in labs for the New York State Department of Health. Volunteer activities during graduate school (including work with the Student Society for Stem Cell Research, the International Society of Stem Cell Research, and instructor at various levels of education: OASIS, FAES, and Hands on Science) have given her a unique perspective on communicating science, to both scientific peers and lay audiences. After her Mirzayan Fellowship and a traditional post-doctoral research fellowship, in a gene-therapy focused lab at the NIH (NCI), she entered the private sector communicating science to scientist. In her role at Miltenyi Biotec, she enjoys learning about many research topics while providing tools to researchers in the DC area interested in cell separation, regenerative medicine, and genetic analysis solutions and is now also the regional Stem Cell Specialist. She still remains involved in her volunteer activities surrounding science and policy. Rima is a hobby-linguist, loves to travel, likes to learn about people and cultures, is interested in playing the violin again, and enjoys exploring D.C. on warm sunny days! (Updated 10/2011)

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**Kristin Agopian** (Winter 2007, PGA/GUIRR) graduated from Harvard University with a PhD in virology in 2006. During her graduate work, she developed an interest in the commercialization of science and technology as a way to bridge lab discoveries with societal need. During her time with GUIRR, she was excited to learn about ways to improve collaboration between industry and academia. Her Mirzayan Fellowship at the National Academies provided an exciting opportunity to learn about science policy and to explore Washington, D.C. After completing her Fellowship, Kristin spent a year as a management consultant at Health Advances, a firm in the Boston area specializing in solving business problems for biotech, pharmaceutical, and medical device and diagnostic companies. Kristin is currently a licensing associate at the University of California, San Francisco where she works daily to transfer technology from academia to industry. (Updated 3/2010)



**Tylisha Baber Brown** (Winter 2007, NAE/CASEE) is a National Science Foundation (NSF) postdoctoral research fellow at the University of Michigan. She graduated from Michigan State University with a PhD in chemical engineering in December 2005. Her doctoral research focused on the product development and characterization of a novel ozone-mediated treatment of biodiesel derived from soybean oil for fuel quality improvement. During her graduate tenure at Michigan State University, Tylisha received certification in college teaching as a participant in the College Teaching Certification (CTC) program. Teaching and mentoring activities included being a chemistry faculty member at Lansing Community College, a guest lecturer for an undergraduate thermodynamics course, a research mentor for undergraduate students, and a participant in the Future Faculty Career Exploration Program at Rochester Institute of Technology. She also holds a BS in chemical engineering from North Carolina State University. In her free time, Tylisha enjoys reading, exercising, attending performing arts events, and watching professional sports. (Updated 10/2011)



**Tiffani Bailey Lash** (Winter 2007, NAE/CASEE) completed her PhD in chemistry from North Carolina State University in December 2006. Her interdisciplinary research focus was on modifying chemical and physical properties at the liquid/solid interface to address optimizing surface chemistry applications. This research was a collaborative effort in both chemistry and chemical engineering departments. While in graduate school, Tiffani was selected as a Southern Regional Education Board Doctoral Scholar (AGEP), a NASA Harriet Jenkins Predoctoral Fellow and was a recipient of the American Chemical Society YCC Leadership Development Award. Her undergraduate studies were conducted at Hampton University, where she earned her BS in chemistry. During her time as a Mirzayan Fellow at the National Academies, Tiffani was interested in enhancing her knowledge on the impact of science and technology policy in higher education. She gained insight on assessing and evaluating grants or funds disseminated for research and development. Upon completion of her Fellowship, Tiffani became a AAAS Science and Technology Policy Fellow at the National Institutes of Health. She is an analyst at the National Institute of General Medical Sciences in the

Office of the Director.(Updated 3/2010)

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**Pamela Bradley** (Winter 2007, IOM/VSRT) received her PhD from The Johns Hopkins School of Medicine in developmental biology and genetics. After postdoctoral research at Harvard Medical School and the National Institutes of Health, Pam followed her curiosity about health science policy to the Mirzayan Fellowship. Her interest in the translation and application of basic science research to medicine was reinforced during this fellowship, where she supported the Institute of Medicine's Roundtable of Value & Science-Driven Health Care (formerly the Roundtable on Evidence-Based Medicine). Inspired by this experience, Pam accepted the Genetics and Public Policy Fellowship, sponsored jointly by the American Society of Human Genetics and the National Institute of Human Genome Research. As a fellow, she worked in the NHGRI Office of the Director Policy and Program Analysis Branch focusing on policy issues such as genetic testing, pharmacogenomics and personalized medicine. For the legislative year of the fellowship, Pam worked with the U.S. Senate Committee on Health, Education, Labor, and Pensions, Subcommittee on Children and Families for Chairman Christopher Dodd, where she covered a wide range of issues related to health, health science, and health care. Currently, Pam is Director of Science Policy at the American Association for Cancer Research. (Updated 10/2011)



**Hannah Brenkert-Smith** (Winter 2007, DBASSE/CHDGC) is currently a Research Associate with the Environment and Society Program of the Institute of Behavioral Science at the University of Colorado. Hannah has a Ph.D. in Environmental Sociology, and an M.A. and B.A. in Women Studies. (Updated 2/2011)



**Susan Burke** (Winter 2007, PGA/COSEPUP) was a 2009-2010 AAAS Science and Technology Policy Fellow in the Office of Transportation and Air Quality at the U.S. Environmental Protection Agency. Susan also served as a 2008-2009 AAAS Congressional Fellow in the Office of Senator Richard J. Durbin where she focused on energy and environmental issues. Previously, she was a postdoctoral research associate at the Fermi National Accelerator Laboratory in Batavia, IL. There, her research involved searching through trillions of collisions of protons and antiprotons traveling at nearly the speed of light for evidence of the Higgs boson--a particle whose discovery could help explain why objects have mass. Susan completed her PhD in experimental high-energy physics at the University of Arizona. While in graduate school, she served as a Mirzayan Fellow with the National Academies' Committee on Science, Engineering, and Public Policy, participating in follow-up activities related to the "Rising Above the Gathering Storm" report on U.S. competitiveness in science and engineering and conducting background research for studies focusing on underrepresented groups in the scientific workforce. (Updated 9/2010)



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**Nida Corry** (Winter 2007, IOM/HPDP) works with the domestic health division of Abt Associates. She holds a PhD in clinical psychology from Purdue University in 2008. She completed her pre-doctoral clinical internship at Duke University Medical Center and a post-doctoral fellowship at the Johns Hopkins University School of Medicine. Her research and clinical services focused on the evaluation of predictors of functioning and disability following serious injury, assessment and treatment of prevalent conditions among trauma survivors, and determinants of preventative and risky health behaviors. Nida was the recipient of the American Burn Association 2009 Clinical Research Award for her study of posttraumatic stress, pain, and disability following major burn injury. She developed an interest in the contributions of psychological research to health care policies and determination of best practices while providing clinical services in medical settings. She thoroughly enjoyed her Mirzayan Fellowship at the National Academies and learned a great deal about the role scientists can play in the development and implementation of public policy. Nida was a 2009-2010 AAAS Science and Technology Policy Fellow at the National Institutes of Health. She is currently an Associate with Abt Associates in the Domestic Health Division, where she conducts policy-relevant research in the areas of behavioral health and PTSD with a focus on military and veteran populations. In her free time, Nida enjoys visiting new cities, live music, biking along the D.C. trails, and spending time with family and friends. (Updated 10/2011)



**Albert Epshteyn** (Winter 2007, DELS/BCST) is a research scientist at the Naval Research Laboratory working on development of multifunctional nanomaterials and nanocomposites for a variety of applications such as fuel cell catalysis, hydrogen storage, batteries, superconductors and energetics. He graduated from the University of Maryland, College Park with a PhD in chemistry in December 2006. In his graduate research, Albert explored the fundamental reactivity of early transition metals as pertaining to small molecule activation and catalyst development. Albert's undergraduate studies were also at Maryland where he was a Banneker-Key scholar. In the long term Albert hopes that his varied interests will lead him on a career path to improving science education and general interest in science, as well as opportunities in green/renewable energy entrepreneurship. (Updated 10/2011)



**Nagla Fetouh** (Winter 2007, NAS/Koshland) completed her MA in education from the University of Michigan in 2003. She holds a BS in biology from the University of Michigan. Nagla taught middle and high school science/biology prior to beginning the Fellowship. She was a Fellow at the Marian Koshland Science Museum, where she developed educational materials for the infectious disease exhibit and other museum programs. Nagla has experience in curriculum design and development from her prior teaching experiences, which helped in creating interesting, relevant, and intellectually stimulating lessons for others to use or adapt. After completing the Fellowship, Nagla worked as the Education Program Manager at the Koshland Science Museum for two years. She now works with the museum as a part-time education consultant and enjoys time at home with her two children. When she has time, Nagla enjoys volunteering with different community service programs, playing sports, and reading. (Updated 10/2011)

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**Patrick Foley** (Winter 2007, PGA/COSEPUP) is currently completing his PhD at the University of Arkansas at Little Rock in applied physics. His research is focused upon optimization of active sound cancellation components through interactive visualization. He received a bachelor's degree in physics at Hendrix College with a minor in classics. He has worked for the Virtual Reality Center at UALR, programming and demonstrating a CAVE Automatic Virtual Environment for university guests. During the summers, he has also worked under a NASA EPSCOR grant funding research on a hybrid rocket. He is excited to gather information to help Arkansas adapt to the rapidly changing needs of scientific inquiry. Patrick enjoys fishing, Frisbee, and games of all sorts.



**Friederike Haass** (Winter 2007, NAS/PNAS) currently is an associate with McKinsey & Co. She holds a PhD in neuroscience from the University of California, San Francisco where she worked in Lily Jan's laboratory. For her thesis work she studied how potassium channels (proteins in the cell membrane that act as gates to regulate the flow of potassium ions) are assembled and trafficked to the right location within the cell. She grew up in Germany and studied biology at the University of Wuerzburg. For her Diplome research thesis, Friederike worked in Ed Kravitz's lab at Harvard Medical School on fighting behavior in lobsters. During her PhD work, Friederike volunteered for BioTeach for three years, planning and implementing hands-on science experiments for 7th graders. She has also interned with the California Council on Science and Technology. In her spare time, she likes to run, read (particularly newspapers and books on history and politics) play the violin, visit museums, and attend classical music/opera performances. (Updated 9/2010)



**Jonathan Hickman** (Winter 2007, DELS/PRB & BASC) graduated from SUNY at Stony Brook with a PhD in ecology and evolution in May 2009. He became interested in biogeochemistry and ecophysiology in his first two years of grad school, and for his dissertation he examined how relatively unique aspects of the physiology of kudzu, an invasive vine, are leading to substantial impacts on ecosystems and atmospheric chemistry. During college and for several years afterward, Jonathan's focus was distinctly non-scientific. He completed a BA in English and studio art from Vassar College in 1995, and then worked as a researcher first at the Council on Economic Priorities and then for Fortune. Since completing his Mirzayan Fellowship, Jonathan worked as a AAAS Mass Media Fellow at WOSU, an NPR member station in Columbus, Ohio. Jonathan is currently a postdoctoral fellow at the Earth Institute at Columbia University, where he is working with climate and agricultural models to study the resiliency of small holder agricultural systems in sub-Saharan Africa to climate change. He is also examining the impacts of increased fertilizer use on emissions of nitrous oxide (a greenhouse gas) and nitric oxide (a precursor to ozone pollution) in an experimental site in western Kenya. (Updated 10/2011)

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**Marc Humphrey** (Winter 2007, PGA/CISAC) is the Team Leader for Analytical Services at the International Atomic Energy Agency (IAEA) Department of Safeguards. He is responsible for the Agency's Network of Analytical Laboratories as well as all logistical aspects of safeguards samples. Prior to this, he was a physical scientist in the Office of Nuclear Safeguards at the National Nuclear Security Administration (DOE/NNSA) and the State Department's Office of Nuclear Energy, Safety and Security, which he joined in 2007 as a AAAS Diplomacy Fellow. Marc earned his Ph.D. in physics from Harvard in 2003 and his B.S. in physics and applied mathematics at Western Michigan University in 1997. He also served as a Peace Corps volunteer in Mali and is co-author of *Idiot's Guides: Quantum Physics* and *Idiot's Guides: Physics*. (Updated 2/2016)



**Sabrina Jedlicka** (Winter 2007, PGA/COSEPUP) has been completing her PhD in agricultural and biological engineering at Purdue University. Her highly interdisciplinary doctoral research is focused on the functional modulation of neuronal phenotype and neurotransmitter release via induction by rationally designed novel biomaterial peptide surfaces. Currently her materials are being applied to novel cell-silicon therapies for epilepsy. She holds dual bachelor's degrees from Kansas State University in chemical science and biological & agricultural engineering; while performing research in a variety of areas, including veterinary diagnostics, biomaterials, bioremediation, and developmental physiology. Sabrina has always been multidisciplinary in her research, academic, and career interests and hopes that her Mirzayan Fellowship would allow her to utilize her talents in science, while challenging her to cultivate an understanding of ethics and policy development. In her free time, she enjoys running, hiking, exploring art museums, and reading.



**Laura Levit** (Winter 2007, IOM/NCPF) is a program officer at the Institute of Medicine, where she has worked with the Board on Health Care Services and the National Cancer Policy Forum. She started at the IOM as a Christine Mirzayan Science and Technology Graduate Fellow in winter 2007, and that year received the IOM rookie award. Her previous work at the IOM has focused on topics that include the HIPAA Privacy Rule, comparative effectiveness research, the oncology workforce, and personalized medicine. She graduated from the University of Virginia School of Law in May 2006, and was admitted into the Virginia Bar Association in October 2006. She completed her undergraduate studies at the College of William and Mary, receiving a B.S. with honors in psychology. In law school, Ms. Levit worked for several different nonprofit organizations that focused on health and mental health care policy, including the Treatment Advocacy Center, the National Research Center for Women & Families, the Bazelon Center, and the World Federation for Mental Health. (Updated 10/2011)



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**Jeremy Mark** (Winter 2007, PGA/COSEPUP and DEPS/BEES) works on analysis and development of power plant air pollution regulations at the US Environmental Protection Agency. He previously worked as a Presidential Management Fellow at the Department of Energy in the Office of Program Analysis and Evaluation. He holds a master's in public policy from The George Washington University and a bachelor's in materials science and engineering from Case Western Reserve University. Originally interested in developing materials for renewable energy sources, Jeremy found that supporting policies were as important as the technologies themselves. He is passionate about improving communication between scientists and policy makers, particularly in the development and deployment of clean, renewable energy technologies. Jeremy is an avid swing and ballroom dancer and enjoys live theatre. (Updated 10/2011)



**Sandra N. Ottensmann** (Winter 2007, PGA/CSTL) earned her master's degree in chemistry from Stanford University, where her graduate work focused on the synthesis of glycosyltransferase transmembrane domains for use in studying carbohydrate synthesis pathways. She received a bachelor's degree in chemistry from the California Institute of Technology in 2005. As an undergraduate, she performed research on liquid crystalline polymers at Caltech and on thermoelectric materials at NASA's Jet Propulsion Laboratory. She is currently a project leader at Landec Corporation in Menlo Park, Calif., where she is developing biodegradable polymers for drug delivery technologies. In her free time, she enjoys great food and wine, reading, rollerblading and cooking. (Updated 9/2010)



**Laila Parker** (Winter 2007, PGA/DSC) completed a dual master's degree in water resource policy & management and water resource engineering at Oregon State University, and holds a bachelor's degree in biology from Carleton College. Her master's research involved developing a volunteer groundwater monitoring network as part of a larger effort in community-based groundwater management. She also developed a image processing model to study vapor-phase flow in soils. Laila is interested in working at the science-policy interface in environmental management, and saw her fellowship as an opportunity to gain a greater understanding of science policy at the national level. Laila currently works on water and natural resource policy issues in the Pacific Northwest, for Cascadia Consulting Group. In her spare time she usually enjoys exploring the outdoors. (Updated 7/2010)

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**Florence Roan** (Winter 2007, IOM/BGH) received a combined MD/PhD degree from Emory University in May 2003, where her graduate research focused on the regulation of cellular cytokines by human herpesvirus 8 (HHV-8; KSHV), the viral etiologic agent of Kaposi's Sarcoma. She holds a bachelor's degree in biology and biochemistry from Rice. She has recently completed a residency in internal medicine at Washington University in Saint Louis and will be starting a fellowship in infectious diseases at the University of Washington in July 2007. While she ultimately intends to be involved in research in infectious disease immunology and clinical practice in an academic setting, she is also very interested in the social challenges that the infectious disease field presents and hopes to be an active participant in the dialogue on public health and health policy. In her free time, she enjoys technical scuba diving, good food, wine and

music. (Updated 7/2010)



**Simil (Roupe) Ragavan** (Winter 2007, NAW/DEW) is an associate program officer with the National Academy of Engineering. She manages both the EngineerGirl! website and the Online Ethics Center (OEC) for Engineering and Research. She received her PhD in biomedical engineering from Johns Hopkins University in 2008, and her thesis focused on neural and vocal plasticity as a result of deafness in primates. Simil took a varied path into science and engineering. She grew up on the Pine Ridge Indian Reservation and worked in an elementary school for three years before going to college. She explored several undergraduate majors before discovering engineering, including social work and Spanish language, and she is passionate about improving education in science, technology, engineering and mathematics (STEM) particularly for under-represented groups and those who may not normally consider a technical career. (Updated 3/2010)

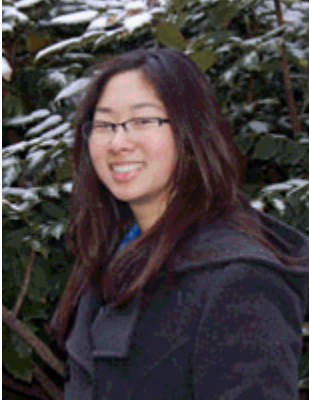


**Lisa Troy** (Winter 2007, IOM/FNB) is a visiting scientist with the Nutritional Epidemiology Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University. She holds a PhD in nutrition at the Friedman School of Nutrition Science and Policy at Tufts University. As part of her dissertation research, Lisa developed an index to measure adherence to the 2005 Dietary Guidelines for Americans. This Index has been used to examine associations between adherence to the 2005 Dietary Guidelines and bone mineral density, risk of hip fracture, insulin resistance, and metabolic syndrome. Lisa's extensive course work in epidemiology and public health at both Harvard and Tufts has prepared her well for a career in science. Additionally, she comes with a broad background of experiences including work in nutrition program evaluation, both in the U.S. and abroad, and teaching. Teaching and mentoring

are, in fact, of particular importance to Lisa, as is evidenced by her past work as lecturer for several university-level courses, and her work on committees focused on curriculum development. (Updated 10/2011)



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**Carolyn Williams** (Winter 2007, NAE/NAE EO) completed her MS in Chemical Engineering at the University of California, Los Angeles. Her thesis research focused on the use of synthetic gene-circuits in *Escherichia coli* for improved precursor and cofactor availability during secondary metabolite production. She completed her BS in Biomedical Engineering at Johns Hopkins University in 2003. Carolyn enjoyed working at the NAE, where she was involved in a project to evaluate the success of different organizations at incorporating engineering concepts into standard K-12 curricula. During her fellowship, she felt that she gained insight into the process of science and engineering curriculum development and the formulation of education policy. Carolyn enjoys reading, singing, snowboarding, and theater. (Updated 7/2010)