

Christine Mirzayan Science and Technology Policy Graduate Fellows  
2006 Winter Biographical Sketches



**Katherine Bowman** (Winter 2006, PGA/BISO) is a senior program officer with the Board on Life Sciences in the Division on Earth and Life Studies at the National Academies. She was previously a program officer with the Board on International Scientific Organizations (BISO) in the Policy and Global Affairs Division, supporting U.S. national committees to international unions in the biological sciences, chemistry, and radio science. Prior to becoming a program officer, she was a Christine Mirzayan Science and Technology Policy Fellow with BISO working on biosecurity issues. She received her bachelor's degree in biology from Amherst College and her Ph.D. in biomedical engineering from Johns Hopkins University. Between college and graduate school, she worked as a legal assistant in Washington, D.C. and Boston. (Updated 9/2010)

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**Kristin Bullok** (Winter 2006, NAS/ONPI) was expected to receive her PhD in chemical biology from Washington University in St Louis in January 2006. She received a BS in chemistry from Southwest Baptist University. Her thesis research involved development of an activatable, quenched fluorescence peptide for noninvasively imaging apoptosis *in vivo*. During her studies, she determined that her main scientific interests lay in learning and communicating scientific principles and new discoveries to a diverse audience. She obtained experience in communicating fundamental scientific principles to middle and high school students as co-leader of the Chemistry Teaching Team branch of the Young Scientist Program, a science outreach initiative at Washington University. As a participant, Kristin presented interactive chemistry demonstrations to city high school students as a supplement to the science curriculum of the school. This experience impressed her with the tremendous need to improve scientific knowledge and enthusiasm within the classroom and beyond. She looks forward to understanding the process of science policy development and how the results can affect society. Kristin plans to pursue a career in scientific communications.



**Catheryne Chen** (Winter 2006, PGA/CSTL) earned a PhD concentrating in cancer biology from Wayne State University. She did her post-doctoral training with the National Institute of Aging in Baltimore. Her research involved programmed cell death in leukemia and human aging based on the Cockayne Syndrome cell lines. At Whittier Law School in Costa Mesa, Calif., she received her JD in December 2005. Catheryne clerked for Judge Arthur Alarcon of the U.S. Court of Appeals, Ninth Circuit in Los Angeles. While in graduate school, she volunteered at the Children's Center of Wayne County and tutored inner city children with learning disabilities in math and reading. Catheryne volunteered at the Legal Aid Society of Orange County where she assisted the poor and elderly. After her Mirzayan Fellowship, she passed the New York bar exam. Currently, she is a patent examiner at the U.S. Patent and Trademark Office. (Updated 2/2016)



**Ian Christensen** (Winter 2006, PGA/COSPEUP) is a program analyst with Futron Corporation, an aerospace consultancy based in Bethesda, Md. He holds a master's degree in international science and technology policy from the Elliott School of International Affairs at George Washington University. He received his bachelor's degree in biochemistry and political science from the University of Nebraska-Lincoln, where he conducted research on the policy implications of genetically modified food products. At Futron, Ian supports a range of projects for commercial and government clients, including serving for 1.5 years on a NASA team tasked with managing the retirement of the Space Shuttle and the transitioning of resources to NASA's then-planned Constellation Program. At Futron, Ian has managed or served in lead analyst roles for several competitiveness benchmarking projects for clients in Australia, Europe and Israel. He currently manages a science and technology benchmarking project for a bi-lateral U.S.-Israel science and technology foundation. Prior to Futron, Ian worked as a research assistant at the Space Policy Institute at George Washington University, was a Mirzayan Fellow at the National Academies, interned in the Office of Senator Chuck Hagel (R-Neb.) and worked as a research assistant at the University of Nebraska Public Policy Center. During his time as a Mirzayan Fellow, Ian supported the *Rising Above the Gathering Storm report*. (Updated 10/2011)



**Melissa Dupree** (Winter 2006, NAE/CASEE) is a government relations consultant in the Bio-Life Sciences practice of Fabiani & Company. Prior to joining Fabiani & Company, she served as a contractor with Booz Allen Hamilton in the U.S. Department of Homeland Security (DHS) Science and Technology Directorate in the Chemical and Biological Research & Development Branch. Her primary responsibilities at DHS were to provide technical and program management assistance for bioassay development and validation programs designed to advance the identification, characterization and standardization of biothreat detection systems. Melissa earned a bachelor's degree from Brown University and a PhD in bioengineering from the University of

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Pennsylvania. Her dissertation topic was in the field of orthopedic tissue engineering. Melissa recently completed an MBA at Johns Hopkins University. (Updated 10/2011)



**Eleanore Edson** (Winter 2006, IOM/HSP) is an Associate at Booz Allen Hamilton's Seattle office, and currently provides technical, programmatic and strategic support to the Bill & Melinda Gates Foundation's Global Health Discovery Program. Prior to making the move to Seattle, she worked as a program manager of biomedical research for casualty care at the Office of Naval Research (ONR) during a Defense Science & Technology Policy Fellowship sponsored by the American Association for the Advancement of Science (AAAS). Ellie also spent a year working as a health legislative aide for Senator Hillary Rodham Clinton during a Congressional Fellowship through AAAS, the Optical Society of America (OSA), and SPIE. Prior to receiving the Congressional Fellowship, she was a Christine Mirzayan Science and Technology Policy Graduate Fellow at the Institute of Medicine. Ellie was awarded a Ph.D. in neurobiology from Harvard University and holds a B.S. in biology from Stanford University. (Updated 2/2011)



**Paul J. Fowler** (Winter 2006, PGA/STEP) is currently the Director of Life Cycle Management at the Aerospace Industries Association (AIA) after serving as the Director of Research at the National Council for Advanced Manufacturing (NACFAM). Paul came to Washington through the Christine Mirzayan Science and Technology Policy Graduate Fellowship and assisted with a Congressionally-mandated study to assess the SBIR program. Previously, Paul worked in various manufacturing engineering positions within the industrial controls, automotive, and chemical industries. Paul received a master's degree in political science at the University of Wisconsin-Milwaukee and a bachelor's degree in mechanical engineering from Clarkson University. (Updated

10/2011)



**Erin Fry** (Winter 2006, PGA/COSEPUP) is the Government Affairs Officer at PATH where she focuses on child health on the Advocacy and Public Policy team. Previously, she worked for a small, woman-owned strategic communications firm, the Starfish Group, where she focused on business development and health communications. For four years, Erin worked in government relations at Fabiani & Company, where she designed and executed legislative and executive branch strategies to secure federal resources and achieve policy priorities for a breadth of clients in the life science and non-profit health sectors. Her range of experience includes infectious diseases, global health, patient safety, obesity prevention, and military and veterans health. Previously, she worked in government relations at AIDS Project Los Angeles. She holds a master's of public health with a health policy concentration from The George Washington University and a bachelor's in bioethics from Scripps College in Claremont, Calif. (Updated 10/2011)



**Jeff Gore** (Winter 2006, DBASSE/BOSE) graduated from the University of California, Berkeley with a PhD in physics in December 2005, just before starting his Mirzayan Fellowship. In his graduate research, Jeff developed new experimental techniques for manipulating and studying single biological molecules. He is now an Assistant Professor in the Physics Department at the Massachusetts Institute of Technology, where his lab uses microbes to test fundamental theories in evolution. In his free time Jeff enjoys tennis, hiking, reading, and discussing politics. (Updated 9/2010)

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**Giovanna Guerrero-Medina** (Winter 2006, DELS/BLS) is the executive director of Ciencia Puerto Rico, an international network of scientists, students and educators committed to promoting scientific outreach, education and careers among Latinos. She is also Director of the Yale Ciencia Initiative at Yale University, where studies the impact of scientific networks like Ciencia Puerto Rico in improving access and participation in science and works to promote diversity through the Yale Provost's Office. Under her leadership, CienciaPR has become one of the largest networked communities of Hispanic scientists in the world, has secured over millions in federal and foundation grants to support diversity in science education and career development, and in 2015 received recognition as a Bright Spot in science education by the White House. Dr. Guerrero-Medina serves as Principal Investigator of the NIH-funded Yale Ciencia Academy, a national program to provide graduate students with opportunities for professional development, outreach, and networking. She also leads "Seeds of Success", an Amgen Foundation-supported program to promote the participation of Latina middle school girls in STEM. Prior to her current position, Dr. Guerrero-Medina worked as head of science policy at the Van Andel Research Institute and as health science policy analyst at the National Institutes of Health. She has a B.A. in biology from the University of Puerto Rico, Rio Piedras, a Ph.D. in molecular and cell biology from the University of California, Berkeley, and was a 2005 Mirzayan Fellow. (Updated 2/2016)



**Loraine Lundquist** (Winter 2006, DBASSE/HDGC) has been pursuing her PhD in physics at the University of California, Berkeley. While her research focuses on theoretical understanding of the Sun's corona, she has always had an interest in energy and the environment. As an undergraduate, she led her school's effort to design, build, and race a solar-powered car across the United States. While at Berkeley, she became involved in the University's Energy and Resources Group with a particular interest in the intersection between climate change science and policy decisions. Loraine is also passionate about education and enjoys bringing math and science to a broad audience. She has served as a guest scientist in elementary schools and taught remedial math for several years as a volunteer at San Quentin State Prison.



**Kathryn Miller-Jensen** (Winter 2006, PGA/STEP) is currently an Assistant Professor of Biomedical Engineering at Yale University. Her research focuses on computational modeling and experimental testing of intracellular signaling network dynamics in response to viral infection. She received her Ph.D. from the Massachusetts Institute of Technology in Chemical Engineering and A.B. and B.E. degrees in Engineering Sciences from Dartmouth College. As a Mirzayan fellow and later as an NSF Young Scholar, she explored various aspects of US-China Science and Technology policy. (Updated 9/2010)



**Nicole Ann Reynolds** (Winter 2006, NAE/CDEW) now works at American Institute of Biological Sciences working as a program associate. She has a MS in pharmacology & experimental therapeutics from Tufts University. Her thesis research focused on the proteolytic cleavage of Pro-Cholecystokinin by Prohormone Convertase 5. She received her BS in biochemistry from University of Maryland-Baltimore County. Her hobbies include reading, taking dance classes and going to the movies. (Updated 4/2009)

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**Scott Rowan** (Winter 2006, DELS/BCST) earned an MA in security studies with a concentration in technology and security from Georgetown University in December 2005. His primary research effort at Georgetown involved assessing the deployment of radiation portal monitoring technology to U.S. ports of entry. Scott earned a BS in forensic chemistry from the University of Mississippi in May 2004. While at Ole Miss, he researched the organic synthesis of the natural product acarnadine, and also assisted in the analysis of seized drug samples. In 2002, Scott was selected to the Federal Bureau of Investigation's Honors Internship Program. As an honors intern, he developed a strong appreciation for the role of scientists in government service through his work in the FBI Laboratory. Scott furthered his interest in science and security issues as an intern with the American Association for the Advancement of Science. While at AAAS, he contributed to the Center for Science, Technology, and Security Policy's efforts to establish links among scientists, policy analysts, and policymakers. As a fellow with the Board on Chemical Sciences and Technology, Scott provided research support to The National Academies' Committee on Basic Research for Defeating Improvised Explosive Devices. Scott is currently serving as an intelligence analyst with the United States Department of Justice. (Updated 4/2009)



**Praveen R. Shanbhag** (Winter 2006, PGA/CISAC) is completing an interdisciplinary master's degree in philosophy and physics at Columbia University, where he has focused on the philosophy of space and time. He received a joint BA in history of science and philosophy from Harvard University, where he conducted thesis research on the theoretical reducibility of biology to physics and related debates over funding for the Superconducting Supercollider. Through extracurricular work on the ethics of biotechnology and an internship at the White House Office of Science and Technology Policy, in which he conducted research on energy-efficient technologies, he has come to see science policy as crucial to making science work for the common good. Prior to graduate school, he studied the impact of medical innovations on the health care industry as a senior analyst for the Advisory Board Company. After completing a PhD in the history and philosophy of science, he will continue to pursue academic research on the nature and implications of science, and believes that the perspective of philosophy will prove useful in informing science advisory bodies. He enjoys learning new games and sports—most recently, poker and skiing. (Updated 4/2009)



**Jessica D. Tenenbaum** (Winter 2006, IOM/IOM EO) earned her bachelor's in biology from Harvard University in 1996. She then worked as a program manager at Microsoft for 6 years before returning to academia. She earned her PhD in biomedical informatics from Stanford University in 2007. She is now associate director for bioinformatics for the Duke Translational Medicine Institute and lives in Raleigh, N.C. (Updated 3/2010)

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**Julie Vano** (Winter 2006, DELS/WSTB) earned her master's degree in environmental studies (land resources) from the University of Wisconsin-Madison in December 2005. She received a bachelor's degree in biology from Luther College in Decorah, Iowa. Her graduate research at the Center for Sustainability and the Global Environment in Madison focused on land surface hydrology in temperate forests. Specifically, she used an ecosystem model to investigate how climatic variability and land cover change alter water balance, work which was a part of an interdisciplinary project on hydrologic and biogeochemical fluxes in lake-rich landscapes. Before graduate school, Julie spent a year in Americorps participating in community service projects, which ranged from event coordinating for the Special Olympics World Games-Alaska to invasive species monitoring with the Oregon Nature Conservancy. This was followed by studying wild salmon with the Alaska Department of Fish and Game and managing transportation for the Utah Winter

Olympics. Through these graduate and work experiences, she gained an appreciation for the connections between terrestrial, freshwater, and human systems and has become increasingly interested in society- science interactions. She hopes to investigate ways to improve how science and policy intersect surrounding water resource issues. Julie also enjoys biking, kayaking, and exploring new places. (Updated 4/2009)