

## Christine Mirzayan Science and Technology Policy Graduate Fellows 2006 Summer Biographical Sketches



**Athena Abdullah** (Summer 2006, DBASSE/BCYF) received a BA in Hispanic studies from Vassar College and a JD from Boston University School of Law. Athena worked in Congress as a CBCF fellow for Congressman Charles B. Rangel and as health counsel to the Late Congresswoman Stephanie Tubbs Jones. She is currently the director of government relations at the Physician Assistant Education Association. Athena is particularly interested in studying health care and health disparities in vulnerable populations as well as health workforce issues. In her free time, Athena enjoys watching HGTV, cooking, travel and reading. (Updated 10/2011)



**Dara Aisner** (Summer 2006, IOM/EBM) completed a combined MD/PhD program at the University of Texas Southwestern Medical School in June 2004. She earned her PhD in cell and molecular biology. Her dissertation focused on telomerase, an enzyme found in most cancer cells, which allows them to bypass normal cellular aging. After completing medical school, Dara began a residency in anatomic pathology at the National Institutes of Health in Bethesda, Md. This experience gave her a greater understanding of disease diagnosis as well as clinical trials. Her main areas of interest are in health care policy as it relates to preventive services, diagnostics and disparities. During her Mirzayan Fellowship, Dara worked with the Roundtable on Evidence-Based Medicine and continued with the Roundtable as a program officer after her Fellowship before completing residency in Anatomic Pathology, followed by fellowship training in Surgical

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Pathology and Molecular Genetic Pathology. Dara is currently an Assistant Professor in the Department of Pathology at the University of Colorado in Denver. (Updated 7/2010)



**Yvonne Bennett** (Summer 2006, NAE/NAEPO) is a Scientific Review Officer (SRO) at the Center for Scientific Review at the National Institutes of Health (NIH), where she manages the review of grants in the Neuroscience and Ophthalmic Imaging Technology Panel, which is comprised of brain imaging, informatics, electrophysiology, and related areas. She has been an SRO since August 2009 and career highlights include managing a Patient Centered Outcomes Centered Research study section and assisting with reviews at the National Science Foundation. Her previous positions at the NIH involved research in brain imaging, hereditary hearing loss and auditory electrophysiology in the NIDCD Intramural Program. She was Chief of Audiology in the NIH Clinical Center in 2002. Yvonne's academic background includes a bachelor's degree in electrical engineering from Union College and a Ph.D. in bioengineering from the University of Pennsylvania. She is a licensed audiologist in the state of Maryland. Yvonne is married with two children and enjoys going to the Eastern Shore in the summer months and is

saving up for a sailboat. (Updated 2/2016)



**Jessica Cohen** (Summer 2006, IOM/FNB) is pursuing a doctorate in cardiovascular epidemiology at the Harvard School of Public Health. She currently holds an MS in Food Policy and Applied Nutrition from Tufts University's Friedman School of Nutrition and an MPH from the Tufts School of Medicine. Her graduate research projects focus on the relationship between nutrition policy, health policy, and economic issues. While at the IOM, she worked on the report Progress in Preventing Childhood Obesity: How Do we Measure Up?. She has also worked for the USDA-Economic Research Service in Washington, DC and Abt Associates in Cambridge, MA. (Updated 7/2010)



**Asha S. Collins** (Summer 2006, PGA/CSTL) is a senior consultant in the Life Sciences and Health Care practice of Deloitte Consulting. She specializes in the analysis and development of innovative health and life science solutions. Dr. Collins' expertise spans both chronic and infectious diseases, as well as project and grants management. Throughout her research career, she focused on understanding the cellular and molecular biology of viruses and cancer. Dr. Collins has published peer-reviewed scientific articles and book chapters on animal and human viruses, as well as breast and cervical cancer models. In addition to her research, Dr. Collins has also helped initiate and manage domestic and international science policy and public health education programs. In 2006, she led an HIV/AIDS community health education program in Belize. As part of her Mirzayan Fellowship with the Committee on Science, Technology, and Law, Dr. Collins contributed background materials to the National Academies' report, Science and Security in a Post-9/11 World. At the National Institutes

of Health and the National Cancer Institute (NCI), Dr. Collins helped manage and led the successful launch of the database for The Cancer Genome Atlas (TCGA), a \$100 million trans-NIH initiative. Additionally, she led an NCI collaboration with the US Food and Drug Administration (FDA) and helped author, review, and manage contracts and grants for nanotechnology, cancer genomics, biorepositories, and biospecimen science. Dr. Collins received her PhD in cancer biology from the University of Wisconsin-Madison and her bachelor of science in biological sciences from the University of Pittsburgh. During her academic career she was also the recipient of numerous national research awards including a Howard Hughes Research Fellowship and a Ruth Kirschstein Post-Doctoral Award. (Updated 7/2010)

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**Ivy Estabrooke** (Summer 2006, DBASSE/BOSE) is Executive Director of the Utah Science, Technology and Research (USTAR) Agency. USTAR is the technology based economic development innovation engine for the State of Utah. She earned her Ph.D. from the interdisciplinary program in neuroscience at Georgetown University, an M.S. in national security strategy and resource management from the National Defense University, and a B.A. from Smith College. Estabrooke has been a AAAS Science and Technology Policy Fellow at the Office of Naval Research Global and a science and technology program manager for the Office of Naval Research where she founded the Human, Social, Cultural and Behavioral Sciences portfolio. (Updated 4/2016)



**Diane Hannemann** (Summer 2006, NAS/Koshland Science Museum) received her PhD in biophysics & biochemistry from Yale University in December 2005. She received her BA in chemistry from Purdue University. Her doctoral research involved kinetics studies to refine the mechanical mechanism used by a motor protein, myosin V, to transport cellular cargo along the actin cytoskeleton. Prior to becoming a scientist, Diane enjoyed a career in marketing and communications for more than six years. It was her experience working with biomedical diagnostic and pharmaceutical clients that inspired her to change careers and return to college full-time to study science. Applying her career experience, she created professional development seminars at Yale, and with the New York Academy of Sciences. Her passion for communicating science earned her a teaching award for engaging non-science students in molecular biology, and led her to found the community health education organization, "That Makes Me Sick!" In addition, as a member in the Yale Bioethics Project, she wrestled with ethical issues related to public health emergencies. Diane believes that scientific outreach is critical to the development of sound public policy. In her free time, she looks for excuses to sail and volunteers for a feline rescue organization.



**Margaret Horton** (Summer 2006, PGA/COSEPUP) completed her PhD in chemical engineering at the Massachusetts Institute of Technology in 2007. For her thesis research she studied synthetic cellular membranes to understand protein and lipid ordering in biological membranes. Margaret's PhD research was supported by a graduate research fellowship from the National Science Foundation and prior to graduate school, she received an undergraduate chemical engineering degree from Purdue University. As part of her doctoral research, Margaret spent several months at the biophysics department of the Ludwig-Maximilians-Universität in Munich, Germany and worked on an interdisciplinary research team at the European Synchrotron Radiation Facility in Grenoble, France. After completing her PhD, she continued her research in Munich as an EU-Marie Curie Research Training Network Fellow. Following her postdoc, she chose to stay in Europe to pursue an industry career in Hamburg, Germany. Through her experiences conducting research abroad, Margaret has developed an interest in international scientific collaboration and she believes that pursuing international research programs and welcoming foreign scholars are critical steps for ensuring the nation's continued success in the global scientific community. As a Mirzayan Fellow, Margaret supported the Committee on Women in Academic Science and Engineering. (Updated 9/2009)

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**Stephanie Jaros** (Summer 2006, DBASSE/CNSTAT) is a behavioral research scientist with Northrop Grumman contracted to the Department of Defense's Personnel and Security Research Center (PERSEREC) in Seaside, Calif. Prior to joining Northrop Grumman, she successfully created and implemented the Insider Threat Program for U.S. Customs and Border Protection, the largest federal law enforcement agency in the nation. Stephanie has an M.A. in sociology, a minor in social statistics and a certificate in women studies from the University of Washington; an M.A. in the social sciences from the University of Chicago; and a B.A. in sociology with a minor in Latin American studies from Grinnell College. (Updated 4/2016)



**Keren Ladin** (Summer 2006, IOM/BGH) is pursuing a PhD in health policy at Harvard University. Keren graduated with General and Departmental Honors from the University of Chicago with an AB in history and philosophy of science and medicine in 2005, and received an MSc in Population and International Health from the Harvard School of Public Health in 2007. Her research interests include health disparities, inequality and social policy, and priority setting for resource allocation. Particularly, Keren's research examines ways by which social inequality affects health and well-being in later life, and the role of social networks in health care decision-making, especially in the context of renal transplantation. In 2006, Keren served as a Christine Mirzayan Science and Technology Policy Fellow at the National Academies, where she contributed to the evaluation of PEPFAR with the Board on Global Health. Her time at the Academies provided excellent opportunities for understanding the intersection of the political process and science, particularly ways by which science informs current health policy. At the

Academies, Keren enjoyed learning about how national policies for global health are informed and the long term implications of such policies for vulnerable populations. Her current research interests include ethical resource allocation and priority setting in health policies affecting vulnerable populations. (Updated 10/2011)



**Erin Lamos Sparks** (Summer 2006, PGA/COSEPUP) is a senior policy analyst at the National Governors Association's Center for Best Practices, where she works on economic competitiveness and postsecondary education policy issues. Her current work involves advising governors and their policy staff on how to boost state economic growth, leverage universities and university-industry partnerships, and promote entrepreneurship and innovation. Her current work focuses on assisting states as they develop and implement economic development strategies with a focus on advanced manufacturing industries. She graduated from the Georgia Tech School of Public Policy with an MS in public policy in August 2007. While at Georgia Tech, she worked as a research assistant in the Science, Technology and Innovation Policy research group. She has a bachelor's degree in international politics and economics from Vesalius College in Brussels, Belgium. During her Mirzayan Fellowship at the National Academies she worked with the Committee on Science, Engineering, and Public Policy (COSEPUP) on

the policy implementation and follow-up activities related to the recommendations of the *Rising Above the Gathering Storm* report. In her spare time, Erin enjoys exploring D.C. by bike and checking out the local music scene. (Updated 8/2011)

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**Burton H. Lee** (Summer 2006, DEPS/CSTB) currently serves as Director of the Stanford University European Entrepreneurship and Innovation Program, based out of the School of Engineering. He was appointed in July 2009 to Ireland's national Innovation Taskforce by Irish Prime Minister Brian Cowen. Burton's professional credentials span over 15 years of senior executive leadership and advisory positions with venture-backed startups, global technology corporations, venture capital and private equity firms, federal S&T agencies, state economic development offices, leading research universities, foreign governments and industry associations. His management and technical experience includes senior executive and research positions with Hewlett Packard, GE Global Research, DaimlerChrysler AG in the United States, Europe and Japan; and advisory positions with the NSF, NIH, NASA and the European Commission. Burton's research interests include Failure Modes and Effects Analysis (FMEA), diagnostics, prognostics, maintenance and customer support for complex industrial systems; artificial intelligence (Bayesian networks, ontologies, knowledge representation); unmanned vehicles, robotics, electric transportation systems, design-for-sustainability and -environment, and open innovation in mechatronic systems. Dr. Lee is Managing Director of Innovarium Ventures, a strategic, financial and technical advisory services firm based in Silicon Valley. He also served as Principal and co-founder of Space Angels Network, a professionally managed national network of accredited investors focused on seed- and early-stage aerospace-related ventures. During 2006-2008, Burton served as Innovation Policy Advisor to Governor Bill Richardson's presidential campaign; as a Science and Technology Policy Fellow at the National Academy of Sciences Computer Science and Telecommunications Board in Washington DC; and as innovation cluster development policy advisor to the state of New Mexico. Previous S&T and economic policy assignments include a tenure at US labor union federation AFL-CIO headquarters, and serving as a senior tourism advisor to Jamaican Prime Minister Edward Seaga and the Central Bank of Jamaica. Burton holds a PhD in Mechanical and Electrical Engineering (minor) from Stanford University (2002), and an MBA in Finance and Entrepreneurship (Cornell, 2004). (Updated 2/2011)



**Nicole Lockhart** (Summer 2006, PGA/BHEW) received her PhD in molecular and integrative physiology from the University of Michigan; she holds a bachelor's degree in biology from Brown University. Her dissertation research investigated contraction-induced skeletal muscle injury and the cellular processes necessary to reduce injury. During her Mirzayan Fellowship, Nicole supported the Research Doctorate Programs at BHEW. Following the Mirzayan Fellowship, she completed the Science and Technology Policy Fellowship with the American Association for the Advancement of Science working at the NIH in the National Cancer Institute in the Office of Biorepositories and Biospecimen Research. Nicole is currently working as a federal employee at the NCI focusing on the ethical, legal, and policy implications of research using human biospecimens. (Updated 7/2010)



**Jessica Manning** (Summer 2006, TRB/SAIS & IOM/BGH) is a 1st year resident physician at Brigham and Women's Hospital and a clinical fellow at Harvard Medical School in Boston, Massachusetts. Born and raised in Baton Rouge, Louisiana, she attended the University of Georgia for her BS Honors in Genetics. After graduation in 2002, Jessica lived and worked in New York City and San Francisco for an international pharmaceutical marketing firm. She then pursued graduate school abroad in the biomedical sciences, and as an International Ambassadorial Rotary Scholar in New Zealand, gave talks on Louisiana Lagniappe while learning about Maori and Pakeha cultures. In 2005, she returned to the US to start medical school at Emory University in Atlanta, Georgia. Here, she held various leadership positions in the University Senate and the American Medical Association addressing issues related to domestic healthcare access and health inequities. Her interests in global health and public policy led to her

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Mirzayan fellowship in 2006. In addition to developing a joint PGA/TRB/IOM project on road safety in developing countries, Jessica also worked with the IOM's Board on Global Health on a congressionally mandated evaluation of the President's Emergency Plan for AIDS Relief (PEPFAR). This experience led her to become a 2008-09 NIH Fogarty International Clinical Research Scholar in Mali, West Africa, where she conducted vaccine research at the Malaria Research and Training Centre. In her spare time, Jessica loves exploring new restaurants and continents, reading the New Yorker, making jambalaya, and indulging her enthusiasm for good red wine. (Updated 7/2010)



**Toni Mizerek** (Summer 2006, DELS/OSB) is a Ph.D. student at Macquarie University in Sydney, Australia. Her project focuses on understanding and predicting coral distributions and persistence, especially in the face of climate change using species traits. Toni has gone back to academic research with a revised perspective on research after working as a science/policy coordinator for COMPASS, a marine resources manager with the U.S. Navy and a California Sea Grant Fellow with the California Natural Resources Agency. Prior to that, Toni completed her master's degree at San Diego State University in the Quantitative Conservation Ecology lab. She used population models to assess the combined effects of both harvesting and habitat fragmentation on blue crab populations in Chesapeake Bay. With the Ocean Studies Board, she worked on *A Review of the JSOST Ocean Research Priorities Plan*, *International Capacity Building*, and *Mitigating Shoreline Erosion*. She has been happily working at the science/policy intersection since her Mirzayan Fellowship. (Updated 2/2016)



**Andrew Page** (Summer 2006, PGA/DSC) completed his PhD in molecular biology and genetics from The Johns Hopkins University School of Medicine in 2004, followed by a short postdoctoral fellowship. His doctoral research focused on the identification and characterization of novel cell cycle regulatory proteins. Using budding yeast as a model organism, he studied the proteolytic machinery responsible for chromosome segregation and initiation of anaphase. Andrew received a BS in chemistry and environmental studies from Tufts University. While at Tufts, he also indulged his interest in Russian language and culture and on two occasions studied abroad in Russia. Prior to entering graduate school, Andrew worked as a research assistant at the Dana-Farber Cancer Institute in Boston. After completing his doctoral thesis, Andrew temporarily sated his wanderlust with a five-month trip to Eastern Europe, Turkey, the Southern Caucasus, Morocco, and Spain. During his Mirzayan Fellowship, he supported the Committee on Scientific Communication and National Security within Development, Security, and

Cooperation. Andrew's interests include travel, reading, hiking, geography, Turkish language and culture, international affairs, politics, ultimate Frisbee and Iyengar yoga. He currently works at the Department of Homeland Security. (Updated 9/2009)

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Ben



**Roberts** (Summer 2006, PGA/STEP) currently works as an examiner in the Office of Management and Budget (OMB) covering international trade, intellectual property, and entrepreneurship issues for the Executive Office of the President. He holds a BA in economics from Carleton College, a JD from the University of Michigan, and an MPP in science and technology policy from the Kennedy School of Government at Harvard University. While in college and law school, Ben worked for a wide variety of organizations, including the State Department, the Environmental

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Protection Agency, the office of a U.S. Representative, and a northern Michigan public interest law firm. After obtaining his law degree, Ben moved to Honolulu, where he clerked for an appellate judge and practiced environmental law on behalf of the State of Hawaii as a Deputy Attorney General. He later spent a year with Deloitte Consulting in California before returning to Washington to join OMB. (Updated 10/2011)



**Lily Tong** (Summer 2006, NAE/CASEE) completed her Ph.D. in Chemical Engineering from the Massachusetts Institute of Technology in 2008. Her research, supported by an NSF graduate fellowship, focused on the measurement and modeling of serum metabolites using gas chromatography-mass spectrometry. In 2006, Lily served as a Mirzayan Fellow in supporting the CASEE PR2OVE-IT project due to her longstanding interest in education. Lily now works as an associate in the Business Technology office of McKinsey & Company in New York, with a focus on disruptive healthcare technologies and innovation. (Updated 9/2010)



**José L. Zambrana, Jr.** (Summer 2006, DELS/BCST) is a physical scientist at the EPA's National Center for Environmental Research where he was also a AAAS Science and Technology Policy Fellow from 2007-2009. He received a PhD in inorganic chemistry in 2007 from the Graduate Center of the City University of New York, where he was both an NSF Graduate Research and GK-12 Fellow, and had been supported by the Louis Stokes Alliance for Minority Participation. His degree was supplemented by a certificate in interactive technology and pedagogy. José studied the excited state coordination chemistry of ruthenium diimines, and in particular, the unusual photochemical formation of transition metal exciplexes in aqueous solution. José has served in several elected leadership positions of the Graduate Center's Doctoral Student's Council, including Co-Chair for Business, Steering Committee member, and chemistry representative. As a former Mirzayan Fellow at the National Academies, he assisted with preparing the report *The Future of U.S. Chemistry Research: Benchmarks and Challenges*. José

enjoys pursuing music as a composer, arranger, singer, professional organist and choir director. (Updated 9/2010)