

PEER 10th Anniversary Celebration

Biographies of Speakers and Moderators

KELLY ROBBINS is a Senior Program Officer in PGA's Development, Security, and Cooperation program. Since coming to the National Academies in 1992, she has managed several exchange grant programs with the former Soviet Union and Eastern Europe and worked on studies of the role of science and technology in U.S. diplomacy, the Armenian science and education sectors, and technology commercialization in Russia, among others. From 2005 through 2012 she managed the Pakistan-U.S. Science and Technology Cooperation Program, and in 2011 she helped to initiate the USAID-funded Partnerships for Enhanced Engagement in Research (PEER) Science Program, which she has managed since then. Prior to joining the Academies, she worked as an international marketing specialist for Sigma Chemical in St. Louis and as a translator and editor for Context Corporation in Minneapolis. Kelly graduated from Grinnell College with a degree in Russian.

TICORA V. JONES is the Acting Director for the Innovation, Technology & Research (ITR) Hub; Managing Director for Research in the ITR Hub; and Chief Scientist of the US Agency for International Development. She manages research and development programs for the Agency that build bridges between development professionals and universities through a multidisciplinary lens on science, technology, innovation and entrepreneurship. Beginning in 2009 as a AAAS Diplomacy, Security, and Development Fellow, she helped manage the establishment of an Agency-wide agenda for science and technology through policy and programming designed to elevate USAID's presence in this area.

Prior to joining USAID, Dr. Jones served as the 2008-2009 Materials Societies Congressional Fellow for Senator Russell D. Feingold (D-WI) where she worked on energy and environment issues. Before beginning her congressional fellowship, Dr. Jones conducted post-doctoral research focused on creating and characterizing nanoparticle/composite-based functional materials at Lawrence Livermore National Laboratory. Dr. Jones earned her B.S. degree in Materials Science and Engineering from MIT and her Ph.D. in Polymer Science and Engineering from the University of Massachusetts at Amherst.

KARL FICKENSCHER is the Acting Assistant Administrator of the Bureau for Development, Democracy and Innovation (DDI), which is the central resource for providing world-class technical assistance to USAID's field missions. Previously, he oversaw DDI's Private Sector Engagement Hub, the Center for Economics and Market Development, and managed the agency's relationship with the U.S. International Development Finance Corporation. Prior to that, Karl served as the Deputy Assistant Administrator in the Bureau for Economic Growth, Education and Environment (E3) where he led the Offices of Private Capital and Microenterprise, and Development Credit. He is a career member of the U.S. Senior Foreign Service.

Before arriving in E3 in October 2017, Mr. Fickenscher was the Deputy Coordinator for USAID's Power Africa initiative based in Pretoria, South Africa, where he led the initiative's energy technical, policy, and transaction teams. Prior assignments with the U.S. Government include Millennium Challenge Corporation Resident Country Director for Tanzania, USAID Mission Director and Deputy Mission Director in Armenia, and USAID Regional Legal Advisor covering several countries in East and Southern Africa.

Before moving to a career in international development, Mr. Fickenscher worked for several years in the private sector as an attorney with the firm of Morrison & Foerster in San Francisco, London, and Tokyo. In this capacity, his focus was on international business transactions and intellectual property rights, with a significant amount of pro bono litigation for the poor as well as legal advice for non-profit organizations.

Mr. Fickenscher received his J.D. from Harvard Law School and holds a master's degree in African Area Studies from the University of California at Los Angeles. He also studied under a Rotary International fellowship in the M.Sc. in International Relations program at the University of Zimbabwe, and has a bachelor's degree in Government and Politics (Soviet Studies) from the University of Maryland at College Park.

VAUGHAN TUREKIAN is the executive director of the National Academies of Sciences, Engineering, and Medicine's Policy and Global Affairs Division. Prior to joining the National Academies, he served as the fifth science and technology adviser to the U.S. secretary of state. In this capacity, he advised the secretary of state and other senior State Department officials on emerging science, technology, and health matters affecting the foreign policy of the United States. He is currently the co-chair of the 10 member group of advisers to the United Nations Secretary General on the role of science, technology, and innovation to advance the achievement of the Sustainable Development Goals. He has affiliations with Georgetown University School of Foreign Service and the University College London. Previously, Dr. Turekian was chief international officer for the American Association for the Advancement of Science and the founding director of its Center for Science Diplomacy. Dr. Turekian holds a B.S. from Yale University and an M.S. and Ph.D. from the University of Virginia, where he focused on the transport and chemistry of atmospheric aerosols in marine environments.

KENDRA SHARP has been a faculty member in mechanical engineering at Oregon State University since 2010 and held the Richard and Gretchen Evans Professorship of Humanitarian Engineering from 2015 to 2020. Her research and teaching interests include design for international development, applications of technology in humanitarian engineering, and sustainable water and energy systems. Sharp founded and directed the school's humanitarian engineering program until 2020. She also served as the university's Senior Advisor for Global Affairs, providing leadership for the development and implementation of strategic initiatives in internationalization and global engagement at OSU, and as Associate Vice Provost for Faculty Development, prior to joining NSF as Head of the Office of International Science and Engineering (OISE) in February 2021.

"Dr. Sharp's commitment to strong global partnerships to address grand challenges and the belief that international collaboration is important to solve humanitarian issues fit perfectly with the mission of the Office of International Science and Engineering," NSF Director Sethuraman Panchanathan said. "Her commitment to applying science and engineering expertise to create a better future for all will strengthen NSF's role as a national and international leader in fundamental research."

OISE collaborates internationally to advance the U.S. economy; enhance the nation's security; give the U.S. the competitive edge to remain a global leader; and advance knowledge and global understanding. In addition, the office provides expert analysis and policy recommendations by leveraging a diverse network of relationships with interagency and international partners.

In her role as OISE head, Sharp will focus on increasing access for U.S. principal investigators to engage in global research that addresses pressing challenges; building greater capacity for U.S.-based students and faculty to access training and other opportunities in science diplomacy; developing and supporting robust collaborations between international universities or university consortia; and collaborating with other federal agencies.

"I have long been driven to address challenges such as access to clean water or clean energy, climate change, food security and more through my own international research, education and engagement efforts," Sharp said. "Leading an internationally focused organization at NSF offers an opportunity to continue my service on a truly national and international scale."

Sharp has extensive international research and teaching experience, including as a visiting researcher at the Delft University of Technology in The Netherlands; a Visiting Erskine Fellow at the University of Canterbury in New Zealand; and as part of the organizing and instructional teams at multi-week international development design summits in India, Pakistan and Thailand. Sharp also led OSU's participation in the United States Agency for International Development-funded Partner Center of Advanced Studies in Energy with Arizona State University and two universities in Pakistan.

COLE DONOVAN (he/him/his) is the Assistant Director for International Science and Technology in the White House Office of Science and Technology Policy (OSTP), on detail from the U.S. Department of State. Cole also serves as co-chair of the National Science and Technology Council (NSTC) International

Subcommittee. In his role as a foreign affairs officer at State, Cole covered a variety of regions and international organizations including (but not limited to) Canada, the European Union, Sub-Saharan Africa, and the Association of Southeast Asian Nations (ASEAN). His portfolio also included mega-science facilities including the Large Hadron Collider and ITER fusion reactor. Cole also represented State as a voting member of the NSTC Physical Science Subcommittee and the Research and Development Infrastructure Subcommittee. He holds a Master's degree in the liberal arts from St John's College in Annapolis after attending the University of Maryland.

PEER Video

ALEX DEHGAN is the CEO of Conservation X Labs. He is also Professor of the Practice of Sustainability at Arizona State University (currently detailed to the White House). CXL builds novel technologies through its labs, and harnesses open innovation, to create transformative solutions to prevent the sixth mass extinction. Alex previously served as the Chief Scientist of USAID, with rank of Assistant Administrator, and created the Agency's "DARPA for Development", and worked in multiple positions in the Office of the Secretary at the State Department. Alex was also the founding country director of the Wildlife Conservation Society's Afghanistan Program and helped create Afghanistan's first national park. Alex is the author of the book, *The Snow Leopard Project*, which describes the effort, which won the Gold 2020 Nautilus Book Prize. Alex has won multiple awards from the Departments of State and Defense, was named an Icon of Science, the World Technology Award, and in 2020, was given the University of Chicago's Medical and Biological Alumni Association's highest honor.

USAID team presentation

KAREN FOWLE is a monitoring and evaluation specialist and activity manager in the Innovation, Technology, and Research (ITR) hub at USAID. She has 12 years of experience providing knowledge management, monitoring, evaluation, and policy analysis for international organizations. She got started at the Inter-American Development Bank where she designed projects and oversaw evaluations for social entrepreneurship programs in Latin America and the Caribbean. Currently at USAID, Karen manages the performance monitoring, evaluation, and reporting for 14 research and higher education awards and around 40 buy-ins. Karen especially enjoys overseeing complex and/or innovative evaluations such as Randomized Control Trials and Quasi-experimental studies. Karen earned her Master of Arts in Political Economy and International Business Diplomacy from Georgetown University.

PEER Panel

ANNICA WAYMAN is the Associate Dean for Shady Grove Affairs in the College of Natural and Mathematical Sciences at University of Maryland, Baltimore County. In this role, she is primarily responsible for directing the undergraduate Translational Life Science Technology Bachelor of Science program and the Master's of Professional Studies in Biotechnology program. Prior to this, she spent over eight years at USAID, first as AAAS Science & Technology Policy Fellow and later as Division Chief of the Research Partnerships for Development Unit in the Global Development Lab focusing on policies related to science for development including the Partnerships for Enhanced Engagement in Research (PEER) Program. Dr. Wayman also worked at Becton, Dickinson & Co. (BD) where she served in various R&D engineering roles ranging from advanced technology development to new product development for their anesthesia platform. Dr. Wayman received her B.S. in Mechanical Engineering from UMBC and Ph.D. and M.S. in Mechanical Engineering from the Georgia Institute of Technology. She is on the board for Harford Community College's BIOTEC Pathways program and Passion for Learning, a nonprofit focused on developing technology creation skills of low income students.

DOLORS ARMENTERAS is a biologist and a Full Professor at the Landscape Ecology and Ecosystem Modelling Lab, National University of Colombia. Her research focuses on sustainability and biodiversity conservation of tropical forests. Her research in fire ecology, spatial analysis and modelling at landscape has led to better understanding of ecological processes across multiple organizational levels in Latin America. This experience encompasses both fauna and flora, and includes ecosystem structure, modelling, and

landscape processes. Dr. Armenteras has over two decades of experience in the science policy interface needed to advance towards the sustainability of the planet. Since 2015 she has been contributing as an expert in several deliverables of the Intergovernmental Platform on Biodiversity and Ecosystem Services-IPBES. Currently, she serves as Vice-President International Association of Landscape Ecology IALE and is an active member of the Science Panel for the Amazon. Dr. Armenteras holds a M.S. in Environmental Forestry from the University of Wales and a Ph.D. in Geography from King's College London, UK.

JOANNA DOUMMAR is an Associate Professor of Groundwater Hydrology in the Department of Geology at the American University of Beirut. Her various research projects focus on the assessment of recharge and flow in karst aquifers via integrated numerical modelling, as well as the investigation of transport using contamination indicators. For this purpose, she is gradually building a high-resolution monitoring network of water resources and climatic parameters in poorly investigated sites in Lebanon partly supported by the PEER Science Project. Her research in the framework of internationally funded collaborative projects is specifically centered around the characterization of karst aquifers in the Mediterranean region (KARMA), the relationship between snow melt and flow (SNOWFLOW), the testing of Managed Aquifer Recharge potential in Lebanon on a pilot scale (MAR and FEMAR). Dr. Doummar is the Vice President of the International Association of Hydrogeologists for the MENA region, and she has been selected by the World Economic Forum Young Scientists Community- Class of 2020. Dr. Doummar aims to apply her research outcomes at a local scale to overcome national water quality and quantity problems and make science accessible to non-technical audiences. Dr. Doummar holds a Ph.D. in Hydrogeology from Georg-August University Göttingen (Germany), and a M.S. in Hydrogeology from the University of Neuchâtel (Switzerland).

CLIVERY TUNGARAZA is an Associate Professor and Researcher at the Sokoine University of Agriculture, Tanzania. Dr. Tungaraza specializes in environmental chemistry and climate change disciplines with over 19 years of experience in research, training, and advisory services. He has been conducting research on environmental pollution and climate change impacts in the United Republic of Tanzania, the East African Region, and Europe. He has coordinated several national and Inter-institutional projects including monitoring of the Kilimanjaro climate dynamics and part of the WHO Thematic Advisory Group on plans for climate change adaptation in the health sector. Since 2004, Dr. Tungaraza has been involved in addressing mercury pollution problems in Tanzania that are caused by artisan and small-scale mining activities mainly in the Lake Victoria region. He has published several papers on this issue supported by various funding agencies, and in his role as PEER PI, he has been exploring the fate of mercury in artisanal gold mining in Tanzania. Dr. Tungaraza earned his Ph.D. in Applied Environmental studies, M.S. in Applied Marine Ecology, and B.S. in Chemistry and Marine Biology and Oceanography.

HADI PRATOMO is Professor Emeritus from the Department of Health Education & Behavioral Sciences, Faculty of Public Health, Universitas Indonesia (UI). During 1991-2006, he was the Executive Director of the Indonesian Society for Perinatology (Perinasia) and one of the experts who introduced Kangaroo Mother Care (KMC) in Indonesia. During the period of 2002-2004 he served as the Deputy Director of Research of the Development of the Faculties of Public Health in Indonesia (Ministry of Education & USAID). During 2010-2012, he took on the role as HSP/USAID consultant for development of KMC services and policies. Thereafter, during 2015-2018 Hadi Pratomo worked as the principal investigator of the PEER project entitled “Development of the Referral for Low Birth Weight Infants (LBWI) using the KMC in Kojas District Hospital, North Jakarta and Karawang District Hospital, West Java”. He and his team published four articles, a book, and patented KMC education materials as a result of the PEER project. Hadi Pratomo holds a medical doctor degree from UI and M.S. and Ph.D. degrees from the School of Public Health & Trop. Med. Tulane University, New Orleans, USA. Hadi received an award as the Best Senior Researcher in Medicine and Public Health (Rector Universitas Indonesia, 2001).