

## 2020 Public Policy and Nuclear Threats Virtual Mini-Series

### Speaker Bios

**Dr. Susan J. Koch** is an independent consultant, specializing in weapons of mass destruction arms control and proliferation issues. She is a Distinguished Research Fellow at the National Defense University Center for the Study of Weapons of Mass Destruction, a Senior Scholar at the National Institute for Public Policy, and an associate faculty member in the Department of Defense and Strategic Studies at Missouri State University.

From 1982 until 2007, Dr. Koch held a series of senior positions in the White House National Security Council Staff, the Office of the Secretary of Defense, the Department of State and the U.S. Arms Control and Disarmament Agency, focused on nonproliferation and arms reduction policy. Dr. Koch began her government career in the Directorate of Intelligence of the Central Intelligence Agency, analyzing West European political issues.

Dr. Koch has received the Presidential Distinguished Executive Award, the Presidential Meritorious Executive Award, the Department of Defense Distinguished Civilian Service Medal five times, the Department of Defense Nunn-Lugar Trailblazer Award, the Arms Control and Disarmament Agency Distinguished Honor Award, the Department of State Meritorious Honor Award, and the Mount Holyoke College Alumnae Achievement Award. Dr. Koch received a B.A. from Mount Holyoke College and an M.A. and Ph.D. in political science from Harvard University.

**Dr. John Scott** started at Los Alamos National Laboratory in 1998 as a postdoctoral research associate studying challenges related to Inertial Confinement Fusion physics. He became a staff member in the secondary design group in 2000 and began in earnest working on nuclear weapon problems as part of the broader stockpile stewardship program. John was the secondary physics lead for the W88 and B61 weapons and was the lead secondary designer for the RRW project during the second half of the 2000s. John became the group leader for the secondary design group in 2014 and later moved to deputy division leader for stockpile for the weapons design division. Currently, John is leading the National Security and International Studies Office helping LANL to engage appropriately on policy issues associated with nuclear weapons and he leads the Director's Strategic Resilience Initiative, an effort aimed at understanding how we ensure the efficacy of the stockpile in light of a rapidly changing world.

**Dr. Massimiliano Fratoni** is Associate Professor in the Department of Nuclear Engineering at the University of California, Berkeley (UCB). He received a Laurea in Nuclear Engineering from Sapienza Università di Roma (Italy), and a MSc and a PhD from the University of California, Berkeley. Prior to joining the Nuclear Engineering Department at UCB, he held a Research Scientist position at the Lawrence Livermore National Laboratory and a faculty position at The Pennsylvania State University. Prof. Fratoni's main research interests are in sustainable nuclear energy through advanced reactors and advanced fuel cycles that maximize natural resource utilization and minimize nuclear waste. Among other concepts, Prof. Fratoni is actively investigating solid and liquid fuel molten salt reactors, accident tolerant fuels, and fast spectrum systems. Prof. Fratoni's group also develops computational methods to support reactor analysis, and in particular multi-physics modeling and uncertainty quantification.

**Laura Rockwood** is the Director of Open Nuclear Network, a program of One Earth Future. Laura has over 30 years of experience in non-proliferation and international safeguards. In July 2012, she was honoured with the Distinguished Service Award by the Institute of Nuclear Materials Management (INMM) for long-term noteworthy accomplishments in, and service to, the nuclear materials management profession.

Laura retired from the International Atomic Energy Agency (IAEA) in November 2013 as the Section Head for Non-Proliferation and Policy in the Office of Legal Affairs after 28 years of service. During her employment with the IAEA, she was the senior legal advisor on all aspects of the negotiation, interpretation and implementation of IAEA safeguards, and was the principal author of the document that became the Model Additional Protocol. She participated in high-level negotiations on Iran, Iraq and the DPRK and in the IAEA/US/Russian Federation negotiations on the Trilateral Initiative and the Plutonium Management and Disposition Agreement.

Ms. Rockwood came to ONN from her position as Executive Director of the Vienna Center for Disarmament and Non Proliferation between 2015 and 2019. Prior to joining the VCDNP, she served as a resident Senior Research Fellow at Harvard University's Kennedy School Belfer Center Managing the Atom Project.

She received her BA degree from the University of California, Berkeley, and her Juris Doctor from the University of California's Hastings College of Law in San Francisco.

**Dr. Scott D. Sagan** is the Caroline S.G. Munro Professor of Political Science, the Mimi and Peter Haas University Fellow in Undergraduate Education, and Senior Fellow at the Center for International Security and Cooperation and the Freeman Spogli Institute at Stanford University. Before joining the Stanford faculty, Sagan was a lecturer in the Department of Government at Harvard University and served as special assistant to the director of the Organization of the Joint Chiefs of Staff in the Pentagon. Sagan has also served as a consultant to the office of the Secretary of Defense and at the Sandia National Laboratory and the Los Alamos National Laboratory.

Sagan is the author of *Moving Targets: Nuclear Strategy and National Security* (Princeton University Press, 1989); *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton University Press, 1993); and, with co-author Kenneth N. Waltz, *The Spread of Nuclear Weapons: An Enduring Debate* (W.W. Norton, 2012). Recent publications include "On Reciprocity, Revenge, and Replication: A Rejoinder to Walzer, McMahan, and Keohane" with Benjamin A. Valentino in *Ethics & International Affairs* (Winter 2019) and "Armed and Dangerous: When Dictators Get the Bomb" in *Foreign Affairs* (November/December 2018).

In 2018, Sagan received the Andrew Carnegie Fellowship from the Carnegie Corporation of New York. In 2017, he received the International Studies Association's Susan Strange Award. Sagan was also the recipient of the National Academy of Sciences William and Katherine Estes Award in 2015 for his work addressing the risks of nuclear weapons and the causes of nuclear proliferation.

**Celeste Wallander** is President and CEO of the U.S.-Russia Foundation. She served as Special Assistant to the President and Senior Director for Russia/Eurasia on the National Security Council (2013-2017), as the Deputy Assistant Secretary of Defense for Russia/Ukraine/Eurasia (2009 to July 2012), professor at American University (2009-2013), visiting professor at Georgetown University (2006-2008), Director for Russia/Eurasia at the Center for Strategic and International Studies (2001-

2006), Senior Fellow at the Council on Foreign Relations (2000- 2001), and professor of Government at Harvard (1989-2000).

She is the author of over 80 publications on European and Eurasian security issues, focused on Russian foreign and defense strategy. She received her Ph.D. (1990), M.Phil. (1986) and M.A. (1985) degrees from Yale University, and her B.A. (1983 – summa cum laude) from Northwestern University.

She is a member of the Council on Foreign Relations, the Atlantic Council of the United States, and the International Institute for Strategic Studies.

**Ambassador Linton Brooks** is an independent consultant on national security issues, a non-resident Senior Advisor at the Center for Strategic and International Studies, a Distinguished Research Fellow at the National Defense University, a member of the National Academy of Sciences Committee on International Security and Arms Control, one of the Board of Managers overseeing the operations of the Sandia National Laboratories, and an advisor to two other Department of Energy national laboratories. Ambassador Brooks has six decades of experience in national security, much of it associated with nuclear weapons. He served from July 2002 to January 2007 as Administrator of the U.S. Department of Energy's National Nuclear Security Administration, where he was responsible for the U.S. nuclear weapons program and for the Department of Energy's international nuclear nonproliferation programs. His government service includes service as Deputy Administrator for Nuclear Nonproliferation at the National Nuclear Security Administration, Assistant Director of the United States Arms Control and Disarmament Agency, Chief U.S. Negotiator for the Strategic Arms Reduction Treaty, Director of Defense Programs and Arms Control on the National Security Council staff and a number of Navy and Defense Department assignments as a 30-year career naval officer.

Ambassador Brooks holds degrees in Physics from Duke University and in Government and Politics from the University of Maryland and is a Distinguished Graduate of the U.S. Naval War College. He is the author of a number of articles and book chapters on national and nuclear strategy and speaks frequently on these and related issues. Since 2008 he has served as an Expert in Residence during the annual Public Policy and Nuclear Threats program.

**Dr. Mark Schanfein** joined Idaho National Laboratory (INL) in 2008, as their senior nonproliferation advisor, after a 20-year career at Los Alamos National Laboratory (LANL) where, in his last role, he served as program manager for Nonproliferation and Security Technology. During those 20 years, Mark also spent 10 years working in the LANL Plutonium Facility. He served as a technical expert on the ground in the DPRK during the disablement activities resulting from the 6-Party Talks under the Bush administration. He has previously worked for Pacific Northwest National Laboratory (PNNL) for 3 years also as senior advisor working on a wide variety of technical and policy challenges in the nonproliferation regime. With 40 years of experience in international and domestic safeguards, his current focus is on conducting R&D to strengthen the IAEA State Level Concept, develop the foundation for effective international safeguards on advanced reactors, and other novel safeguards challenges in support of the IAEA.

**Dr. Heather Williams** is a Lecturer in the Centre for Science and Security Studies (CSSS) at King's College London where she teaches on arms control and deterrence. She is also an Associate Fellow at the Royal United Services Institute (RUSI) and a Senior Associate Fellow with the European Leadership Network. From 2018 to 2019 Dr. Williams served as a Specialist Advisor to the House of Lords International Relations Committee inquiry into the Nuclear Non-Proliferation Treaty and

Disarmament. She is also an adjunct Research Staff Member in the Strategy, Forces, and Resources Division of the Institute for Defense Analyses in Alexandria, Virginia, where she has worked since 2008 on U.S. nuclear policy for the U.S. Department of Defense. She currently leads projects on emerging technology and the future of arms control, risks of social media to conflict escalation, and the Nuclear Non-Proliferation Treaty. Her research is supported by the MacArthur Foundation, Carnegie Corporation of New York, U.S. Department of Defense, and U.S. Department of Energy.

Until January 2015, Heather was a Research Fellow on Nuclear Weapons Policy at Chatham House and led research on the Nuclear Non-Proliferation Treaty and the Humanitarian Impacts of Nuclear Weapons Initiative. Dr. Williams completed her PhD in the Department of War Studies at King's College London in December 2014. She has a BA in International Relations and Russian Studies from Boston University, and an MA in Security Policy Studies from The George Washington University. Her most recent publication is, "Asymmetric Arms Control: Scenarios for Hypersonic Glide Vehicles" in *Journal of Strategic Studies* (autumn 2019).

**Christopher P. Twomey** is an associate professor in the Department of National Security Affairs at the Naval Postgraduate School, where he focuses on Chinese foreign policy and East Asian security issues in his teaching and research. He authored *The Military Lens: Doctrinal Differences and Deterrence Failure in Sino-American Relations* (Cornell University Press, 2010) and articles in journals such as *Security Studies*, *Journal of Contemporary China*, *The Washington Quarterly*, and *Asian Survey*. He has worked in support of the Office of the Secretary of Defense, the State Department, INDOPACOM, RAND, NBR, and others; he has led a track 2 diplomatic engagement with China centering on strategic issues since its inception in 2005. Dr. Twomey received his BA and Master's from the University of California San Diego, his Ph.D. in Political Science from the Massachusetts Institute of Technology, and conducted postdoctoral research at Harvard.