## NATIONAL ACADEMIES

# Assessment of the SBIR and STTR Programs at DOE

Meeting of the Committee (January 30-31, 2025)

**Biographies of Guest Speakers** 

In order of appearance

#### January 30 DOE Lessons from Academia Panel:

#### **KYLE MYERS**

Kyle Myers is an assistant professor of business administration in the Technology and Operations Management unit. He teaches the first-year Technology and Operations Management course.

Professor Myers studies the economics of innovation. His research is at the intersection of science, business, and public policy. More specifically, Professor Myers is interested in the strategic choices and performance of scientists, the supply and demand of innovation in high-tech sectors, public versus private funding of R&D, and the management of innovation in high-tech organizations. His work has received funding from the Alfred P. Sloan Foundation and the Kauffman Foundation.

Professor Myers holds a Ph.D. from the Wharton School's Department of Health Care Management and Economics. He has a M.S. in Health Policy and Management and a B.S. in Biology from Penn State University. Prior to joining HBS, he served as a post-doctoral fellow at the National Bureau of Economic Research and worked at the Centers for Disease Control and Prevention.

#### **BENJAMIN JONES**

Benjamin F. Jones is the Gordon and Llura Gund Family Professor of Entrepreneurship and a Professor of Strategy. An economist by training, Professor Jones studies the sources of economic growth in advanced economies, with an emphasis on innovation, entrepreneurship, and scientific progress. He also studies global economic development, including the roles of education, climate, and national leadership in explaining the wealth and poverty of nations. His research has appeared in journals such as *Science*, the *Quarterly Journal of Economics* and the *American Economic Review*, and has been profiled in media outlets such as the *Wall Street Journal*, the *Economist*, and *The New Yorker*.

A former Rhodes Scholar, Professor Jones served in 2010-2011 as the senior economist for macroeconomics for the White House Council of Economic Advisers and earlier served in the U.S. Department of the Treasury.

Professor Jones is a non-resident senior fellow of the Brookings Institution, a research associate of the National Bureau of Economic Research, where he co-directs the Innovation Policy Working Group, a senior fellow of the Institute for Progress, and a member of the Council on Foreign Relations.

### AMOL JOSHI

Amol M. Joshi, PhD, is the Thomas H. Davis Professor in Business at Wake Forest University (WFU). He holds a joint appointment as Associate Professor of Strategic Management in the WFU School of Business and as Associate Professor of Innovation & Commercialization in the Wake Forest Institute for Regenerative Medicine at the WFU School of Medicine.

Joshi's research studies how inventors create and commercialize new technologies. With a 13-year prior career as an engineer and entrepreneur in venture capital-funded startups in Silicon Valley, Joshi co-invented two patents for AI-based voice assistant products. He co-founded BeVocal, a speech recognition software startup acquired by Nuance Communications, and served as VP of Sales & Marketing from 1999 to 2003.

Joshi's current research includes analyzing the emergence and adoption of AI technologies by health systems for the early detection and diagnosis of chronic diseases. He was appointed to four National Academies of Sciences Study Committees for evaluating the small business R&D grant programs at NASA (2023-Present), the NSF (2020-2023), National Institutes of Health (2020-2021), and the U.S. Department of Energy (2018-2020).

Joshi earned a PhD in Business Administration from UNC, an MBA and MS in Engineering Sciences from Dartmouth College, and a BS in Electrical Engineering from Georgia Tech with highest honors.

#### January 30 Perspectives from DOE SBIR/STTR Awardees Panel:

#### **OLGICA BAKAJIN**

Olgica Bakajin is the CEO and Founder of Porifera, Inc. She has led the company's strategic direction, developing the team and technology from early-stage R&D to international commercial sales by global Fortune 500 brands. Under her leadership, Porifera has grown into a global provider of unique membrane processing solutions for a variety of industries, with many accolades including the Small Business Administration Program's 2020 Tibbetts Award.

Dr. Bakajin is a physicist by training and was elected Fellow of the American Physical Society in 2011. She received her B.A. in Physics and Chemistry from the University of Chicago and her Ph.D. in Physics from Princeton University. Before founding Porifera in 2009 she was a staff scientist at the Lawrence Livermore National Laboratory.

Olgica is a named inventor on more than 20 patent families and her scientific work, including peerreviewed publications in Nature and Science, have been cited more than 20,000 times. With over 20 years of experience in developing novel technologies, she has a proven track record of delivering innovative solutions that address some of the most pressing challenges facing our world today.

## **BASUDEB SAHA**

Basudeb Saha is serving as a CEO and President at RiKarbon Inc. Prior to founding RiKarbon, he served as an Associate Director in Catalysis Center for Energy Innovation at the University of Delaware and worked as a senior research scientist at Dow Chemical Company. He received the Technology Center award from the Dow Chemical Company, the Team award from Purdue University, Save the Environment international achiever award, and served as a Technical Advisory Committee member for the U. S. Biomass Research and Development Initiative, an honorary position appointed by the Secretaries of the U.S. Department of Energy and the U.S. Department of Agriculture. He published over 150 peerreviewed journal articles and patents (granted or pending), an edited book, and several book chapters. His total citation is over 10300 and h index 54. His leadership at RiKarbon has led to the formation of the BASF partnership and several other partnership opportunities. His research focuses catalysis, bioproducts and biofuels, plastic circularity, clean energy, Green chemistry, and chemical kinetics.

## SERGEY V KUTSAEV

Sergey V Kutsaev, Ph.D. is a Senior Scientist and Vice President of R&D at RadiaBeam. Dr. Kutsaev's twodecade experience in RF and Accelerator science includes work in Moscow Engineering-Physics Institute (MEPhI), ScanTech Sciences and Argonne National Laboratory. At RadiaBeam, Dr. Kutsaev leads R&D programs and oversees companywide efforts on industrial accelerator systems designs. Dr. Kutsaev initiated, proposed and managed dozens of DOE and DOD SBIR/STTR grants on RF linear accelerator technologies, systems and components, which resulted in several commercial products, including medical and industrial accelerators, sold by RadiaBeam, and thermionic RF gun, installed in APS injector at ANL. For this development RadiaBeam received the Small Business of the Year award from U.S. Department of Energy in 2022. For his achievements in accelerator physics, Dr. Kutsaev was elected as an IEEE Senior Member in 2020. From 2021, Dr. Kutsaev serves as an Expert for the International Atomic Energy Agency (IAEA) in questions of radioactive sources development. He published more than 70 papers in peer-reviewed journals, including invited and topical reviews, served as Guest Editor in Applied Sciences journal, as well as Session Chairman and Topic Organizer at several International Conferences and Workshops.

## January 31 Multifaceted Perspective on SBIR/STTR at the Department of Energy Panel:

## **KRISTINA JOHNSON**

Kristina Johnson is a leader in higher education, as well as a distinguished engineer, public servant, and entrepreneur. Dr. Johnson believes leadership is about developing a shared vision, building a world-class

team and garnering the resources to carry out the vision with compassion, operational efficiency, and a focus on excellence.

In leadership roles at the Ohio State University, State University of New York, Johns Hopkins, and Duke University, faculty and students praised Dr. Johnson's ability to steer their institutions with courage, vision, passion, and foresight. She has a strong record of growing research and scholarly programs, along with an ability to make an immediate impact on a university's most pressing challenges. Dr. Johnson has an unwavering commitment to equity and believes everyone should have an opportunity to achieve their own American Dream through access to post-secondary education.

Dr. Johnson is an international expert in optoelectronics, three-dimensional display technology, and energy. She's founded several successful companies including ColorLink, Inc. (sold to RealD) and Cube Hydro, LLC (sold to Ontario Power Group). She is a member of the National Academy of Engineering, the National Academy of Inventors, and the U.S. Inventors Hall of Fame. In 2008, Dr. Johnson was the first woman to receive the prestigious John Fritz Medal from the American Association of Engineering Societies—the Association's highest award, for outstanding scientific or industrial achievement.

In 2009, President Barack Obama appointed Dr. Johnson Under Secretary for the U.S. Department of Energy (DOE). During this service, Dr. Johnson and her team developed a Strategic Technology Energy Plan (STEP) to reduce U.S. carbon emissions to 83% of 2005 levels by 2050. After her tenure at the DOE, Dr. Johnson helped the country achieve STEP's goals by starting a clean power company that built and upgraded hydroelectric power plants throughout the U.S. When the company was sold, Dr. Johnson returned to academia, in part because she believes education and research are the best way to achieve positive changes in the world.