A special session “Federal Agencies’ Perspectives on Advanced Manufacturing” will be held during the 2018 ASME Manufacturing Science and Engineering Conference / SME North American Manufacturing Research Conference (MSEC/ NAMRC), June 18-22, 2018, College Station, TX.

The panelists at this special session are:

*AFOSR: Sofi Bin-Salamon (Program Manager, Biophysics)
DARPA: Bradley Ringeisen (Deputy Director, Biological Technology Office)
DoD: A. Adele Ratcliff (Director, Manufacturing Resiliency & Assurance and Industrial Base Analysis & Sustainment)
DoE: Rob Ivester (Director, Advanced Manufacturing Office)
NASA: John Vickers (Principal Technologist)
NIST/AMNPO: Frank Gayle (Deputy Director, Office of Advanced Manufacturing)
NSF: Steve Schmid (Program Director, Manufacturing Machines and Equipment)
(* tentatively confirmed)

The following pages have brief bios and photos of these panelists.
Sofi Bin-Salamon

Program Manager, Biophysics program
Air Force Office of Scientific Research (AFOSR)

Sofi Bin-Salamon received his PhD in Chemistry at North Carolina State University in 2005. He then served as a National Research Council Research Associate in the Chemistry Division at US Naval Research Laboratory where he developed nanoelectronic materials. Afterwards, he expanded his work on materials chemistry to include photodynamic therapy. This was initially performed in the Department of Chemistry at Texas A&M University and later continued at the Radiation Oncology Branch within the National Cancer Institute/National Institutes of Health. Sofi has served as an American Association for the Advancement of Science Fellow and Program Manager at the AFOSR International Office. He currently is the Program Manager of the AFOSR Biophysics program.
Frank W. Gayle

Deputy Director, Advanced Manufacturing National Program Office (AMNPO)
Deputy Director, NIST Office of Advanced Manufacturing
National Institute of Standards and Technology (NIST)

Frank W. Gayle is the Deputy Director of the Office of Advanced Manufacturing at the National Institute of Standards and Technology (NIST). NIST’s Office of Advanced Manufacturing is responsible for extramural advanced manufacturing programs and serves as a liaison to industry and academia. The interagency Advanced Manufacturing National Program Office coordinates Federal activities in advanced manufacturing, and is the Congressionally-designated National Program Office for Manufacturing USA – the National Network for Manufacturing Innovation. Frank spent 11 years in the aerospace industry before joining NIST. As Division Chief of the NIST Metallurgy Division, Frank developed programs in energy, microelectronics, and mechanical properties, focusing on measurement needs for industry. Frank also led the team of technical experts on the forensics of structural steel in the Congressionally mandated NIST investigation of the World Trade Center disaster on September 11, 2001. Frank earned an Sc.D. in Materials Science from MIT, and degrees in Civil and Mechanical Engineering from Duke University.
Rob Ivester

Advanced Manufacturing Office Director
Office of Energy Efficiency and Renewable Energy
Department of Energy (DoE)

Robert W. Ivester currently serves as the Director of the Advanced Manufacturing Office (AMO) in the Office of Energy Efficiency and Renewable Energy. AMO is focused on creating a fertile innovation environment for advanced manufacturing, enabling vigorous domestic development of new energy-efficient manufacturing processes and materials technologies to reduce the energy intensity and life-cycle energy consumption of manufactured products. Prior to this position, he served as the AMO Deputy Director for five years. During that time, AMO launched five Manufacturing USA Institutes, the Critical Materials Hub, and hundreds of small R&D and technical assistance projects across the Nation. He also worked at the National Institute of Standards and Technology for over 16 years, leading and performing research in advanced manufacturing. He has been an instructor for the Johns Hopkins University Engineering for Professionals program for graduate-level studies in manufacturing engineering since 2001. He is a Fellow of SME and the American Society of Mechanical Engineers. He received his doctorate in engineering, a Bachelor of Science in Mechanical Engineering, and Master of Science in Manufacturing Engineering from the University of Massachusetts at Amherst.
A. Adele Ratcliff

Director, Manufacturing Resiliency & Assurance (MRA) & Industrial Base Analysis & Sustainment (IBAS)
Office of the Deputy Assistant Secretary of Defense (ODASD) for Manufacturing and Industrial Base Policy (MIBP)
Department of Defense

Adele Ratcliff is currently the Director of the Manufacturing Resiliency & Assurance office and the Industrial Base Analysis & Sustainment Program (IBAS) within the Office of the Deputy Assistant Secretary of Defense (ODASD) for Manufacturing and Industrial Base Policy (MIBP). During her tenure in ODASD, she has focused on building strong interagency partnerships to address broad transition of manufacturing issues such as manufacturing readiness and the Advanced Manufacturing Enterprise. Her current position uses the broad authorities of the IBAS program element to enable a modern Industrial Base that integrates traditional and emerging sectors to be able to respond at will to National Security Requirements. Most recently, as the Director of the DoD Manufacturing Technology (ManTech) Program, Adele led the effort in establishing the DoD’s national Manufacturing Innovation Institutes (MIIs) outlined in the President’s 2013 State of the Union address, now known as Manufacturing USA Institutes. She has a long acquisition career, including Program Manager for the congressionally mandated Defense Acquisition Challenge Program, Deputy Program Manager for the Foreign Comparative Test Program, and more than eleven years in Air Force Test and Evaluation at Eglin Air Force Base in Florida. As Test Manager, she guided the Air Force’s Wind Corrected Munitions Dispenser test program (better known as WCMD), from prototype through the production and deployment phase of the Platform, earning her the Air Force Materiel Command Test Engineer of the Year Award. More importantly, her efforts transitioned this Platform to support the Warfighter in the initial phases of Operation Enduring Freedom. She is a proud alumnus of the Mississippi State University Bulldogs, earning a BS in Mechanical Engineering in 1988. In 2011 she graduated from the U.S. Army War College (in-residence) earning a MS in Strategic Art and graduated from the DoD’s Defense Senior Leadership Development Program (DSDLDP). She received the Secretary of Defense (SECDEF) Award for Excellence for her support of the Pilot Institute for Additive Manufacturing in March 2013.
Brad Ringeisen

Deputy Director
Biological Technologies Office (BTO)
Defense Advanced Research Projects Agency (DARPA)

Brad Ringeisen joined DARPA as the Deputy Director of BTO in December 2016. Before coming to DARPA, he was the Head of the Bioenergy and Biofabrication Section at the U.S. Naval Research Laboratory (NRL) where he oversaw diverse research programs including the development and application of laser-assisted printing approaches to biology, development of organs-on-a-chip, microbial energy harvesting and extracellular electron transfer as well as microbial discovery and microbiome characterization. His personal research focused on using a variety of novel laser-based processing tools to deposit patterns and 3D structures of biological materials including living cells, fixed tissue, solid-phase environmental samples, and biopolymers. He was also the Chief Technology Officer for the DoD’s Advanced Technology Biofabrication Manufacturing Innovation Institute. From 2012 to 2014, Brad was detailed at the Defense Threat Reduction Agency (DTRA) Joint Science and Technology Office as a science and technology manager, where he oversaw the development of field-forward diagnostic technology with wireless connectivity to the cloud. He is a pioneer in the field of live cell printing, having demonstrated the first living bacteria and mammalian cell printing experiment using modified laser-induced forward transfer (LIFT) technology in the early 2000s. He is a named inventor on thirteen patents, eight involving modifications to LIFT for biological applications. He has published over 65 peer-reviewed manuscripts and has edited a book on cell and organ printing. Throughout his career, he has worked across the Department of Defense (DoD) research enterprise having performed research for the Air Force Office of Scientific Research (AFOSR), the Office of Naval Research (ONR), DARPA, and the Defense Threat Reduction Agency (DTRA) in addition to his internal programs at NRL. Brad received a Doctor of Philosophy in physical chemistry from the University of Wisconsin-Madison and a Bachelor of Science in chemistry from Wake Forest University. He was named the DoD Lab Scientist of the Quarter in December 2015 for his achievements in applying bioprinting to the fields of tissue engineering and microbial ecology.
Steven R. Schmid

Program Director for Manufacturing Machines and Equipment
National Science Foundation (NSF)

Steven R. Schmid received his Bachelor of Science Degree in Mechanical Engineering at the Illinois Institute of Technology; Master of Science and Ph.D. degrees at Northwestern University; and is a Professor at the University of Notre Dame. He conducts research and teaches courses in the general fields of manufacturing, metal forming, tribology, and design. Of his textbooks, Manufacturing Engineering and Technology (with S. Kalpakjian) is the world's most popular manufacturing textbook. Manufacturing Processes for Engineering Materials, Fundamentals of Machine Elements and Fundamentals of Fluid Film Lubrication are some of his other books. In 2012-2013, Dr. Schmid was the first Faculty Fellow at the Advanced Manufacturing National Program Office. His is currently the Program Director for Manufacturing Machines and Equipment at the National Science Foundation, which includes research grants in the additive manufacturing area. He has won numerous best paper and teaching awards, and served as President of the North American Manufacturing Research Institute from 2015-2016. He is a Fellow of ASME and SME.
John Vickers
Principal Technologist
Space Technology Mission Directorate
National Aeronautics and Space Administration (NASA)

John Vickers serves as the principal technologist in the area of advanced materials and manufacturing within the Space Technology Mission Directorate at NASA Headquarters. He also serves as the associate director of the Materials and Processes Laboratory at the NASA Marshall Space Flight Center and as the manager of NASA’s National Center for Advanced Manufacturing with operations in Huntsville, Alabama and New Orleans, Louisiana. He has over 30 years of experience in materials and manufacturing -- research and development, engineering, and production operations for propulsion, spacecraft, and scientific space systems. As principal technologist, he leads the nationwide NASA team to develop advanced manufacturing technology strategies to achieve the goals of NASA’s missions. He is the Agency representative to the National Science and Technology Council, Subcommittee on Advanced Manufacturing and the Subcommittee on Critical and Strategic Mineral Supply Chains. He is a founding member of the Manufacturing USA - National Network for Manufacturing Innovation program and the Interagency Advanced Manufacturing National Program Office. His many awards include NASA’s Exceptional Achievement Medal, NASA’s Outstanding Leadership Medal and the AIAA Holger Toftoy award. He is a fellow of SME. He holds a Bachelor of Science in Engineering from the University of Alabama in Huntsville.