

Dr. Sean L. Jones Assistant Director, Directorate of Mathematical and Physical Sciences National Science Foundation

Dr. Sean L. Jones is the Assistant Director (AD) for the Directorate of Mathematical and Physical Sciences (MPS), a \$1.6B enterprise with over 180 employees and contractors, comprising of the Divisions of Astronomy (AST), Chemistry (CHE), Mathematics (DMS),

Materials Research (DMR), and Physics (PHY). Prior to being selected as the AD, he served as the Deputy Assistant Director (DAD) for MPS, Deputy Division Director (DDD) for DMR, and program director for DMR. Sean joined NSF in 2009 and was a member of the DMR Materials Research Science and Engineering Centers (MRSEC) and Partnership for Research and Education in Materials (PREM) management teams. He was also the division's Major Research Instrumentation (MRI) coordinator. Dr. Jones transitioned from leading the MRSEC program to co-managing DMR's National Facilities portfolio, with primary programmatic responsibility for the creation and development of the new Materials Innovation Platform (MIP) program. In addition to MIP, he co-managed the National High Magnetic Field Laboratory (NHMFL) facility, the Cornell High Energy Synchrotron Source (CHESS) facility, the National Institute of Standards and Technology (NIST) Center for High Resolution Neutron Scattering (CHRNS), and the Division's Major Research Instrumentation (MRI) program. In addition, Dr. Jones has co-led a NSF agency reform effort for IT leading to new governance structures and IT tools, co-developed the Sustainable Chemistry, Engineering, and Materials (SusChEM) program in response to Congress, led Broadening Participation efforts resulting increased funding to underrepresented groups, been an instructor in the Program Director Academy, participated as a Directorate's representative for the NSF-wide NSF graduate Research Traineeship (NRT) and the Innovation Corps (I-Corps) programs, and most recently served as the Chief Negotiator for successfully bargaining a 37 year old Collective Bargaining Agreement.

Dr. Jones also served on a 14-month detail as the Assistant Director for Physical Sciences and Engineering for the White House Office of Science and Technology (OSTP). His OSTP portfolio included graduate education reform, grant reform, aquaculture, plant genomics, and broadening participation of underrepresented groups in STEM. Prior to joining NSF, Dr. Jones served as the Director of Engineering for Applied Plasmonics, Chair and Professor for both the optical and electronic engineering departments at Norfolk State University, Technical Manager and Distinguished Member of Technical Staff at Bell Laboratories of Lucent Technologies, Senior Scientist for Luxcore Networks, and lead line engineer for Hoechst Celanese. He has authored numerous publications and has been awarded 9 U.S. patents. He is an industry-recognized expert in luminescent materials and the fabrication of optical waveguides. He is the co-inventor of Lucent's high bandwidth multimode optical fiber used in today's Fiber-To-The-X (FTTX) applications such as FiOS cable television and Fiber-to-the-Home applications. His work led to the IEEE standards for 10G multimode optical fiber as well as the lasers and detectors employed in these systems. Dr. Jones received his B.S. in Ceramic Engineering (now Materials Science and Engineering) from Clemson University and his Ph.D. in Materials Science and Engineering from the University of Florida.