

SPEAKER BIOS

Sally Bruce

Ms. Sally Bruce is currently the Quality Manager for NIST Measurement Services: Calibrations and Standard Reference Materials. She previously served as the Chief of the National Voluntary Laboratory Accreditation Program (NVLAP) from 2006-2011. Ms. Bruce has developed, documented, implemented, and managed quality systems for specific NIST measurement service areas since 1992.

Ms. Bruce is the official NIST representative to the System Interamericana de Metrologia (SIM-Spanish for Inter-American Metrology System) Quality System Task Force (QSTF). SIM is the regional metrology organization for the Americas. The SIM QS TF is composed of representatives from the SIM countries that are signatories to the International Committee on Weights and Measures (Comité International des Poids et Mesures, or CIPM) Mutual Recognition Arrangement (MRA). The SIM QS TF reviews and determines the acceptance of each National Metrology Institute's (NMI) Quality System, a necessary step for final approval of NMI capabilities in the measurement areas under the CIPM MRA.

She is a peer evaluator for accreditation bodies with emphasis in calibration accreditations throughout Asia Pacific (APLAC) and a lead peer evaluator the Americas (IAAC) using the ISO/IEC 17011, the standard used for conformity assessment.

Lisa Carnahan

Lisa J. Carnahan, a computer scientist in the Standards Coordination Office at the National Institute of Standards and Technology, is currently responsible for helping to develop conformity assessment programs within the federal government and the private sector to meet key national needs. Lisa's key areas of focus include health information technology, cloud computing, cyber security and personal protective technologies. She currently serves as the NIST lead in the US Federal Risk and Authorization Management Program (FedRAMP) and serves as the lead on conformity assessment aspects of the NIST Cybersecurity Framework for Risk Management effort.

Lisa is the NIST representative to the ANSI International Committee on Conformity Assessment (ICAC) and an active member of the Conformity Assessment Working Group of the US Health and Human Services (HHS) Personal Protective Technology Laboratory.

Richard R. Cavanagh

Dr. Richard R. Cavanagh is the Acting Associate Director for Laboratory Programs and the Director of the Special Programs Office. Dr. Cavanagh supports the NIST Director and Associate Director for Laboratory Programs by coordinating and providing oversight of programs that span the mission and expertise of two or more NIST laboratories, such as the Office of Law Enforcement Standards and the Greenhouse Gas Program. He also is responsible for helping to ensure that research supporting homeland and national security projects/programs is congruent with NIST's research capabilities and overall programmatic priorities; overseeing NIST policies and procedures for human and animal subjects research, and scientific integrity and research misconduct; and directing the daily activities of the Reimbursable Agreements Coordination Office.

Dr. Cavanagh was appointed Chief of the Surface and Microanalysis Science Division in 1999, where he led a multidisciplinary staff on measurement challenges relevant to the semiconductor industry, trace explosive detection, and emerging needs in nanometrology, while simultaneously advancing microanalysis methods exploiting electrons, ions, and photons. He was responsible for multimillion dollar programs in the division with strong ties to other federal agencies. In 2008 he became the Deputy Director of the Chemical Science and Technology Laboratory, a position he held until 2009 when he assumed the role of Acting Director of the Materials Science and Engineering Laboratory. On October 4, 2010 he became the Deputy Director of the Material Measurement Laboratory and in August 2011 the Acting Director. For his achievements and service, Dr. Cavanagh received the Department of Commerce Silver Medal Award (1985); the Department of Commerce Gold Medal Award (1990); and the Samuel Stratton Award (1992).

Dr. Cavanagh has held several leadership responsibilities in addition to those at NIST. He is a Fellow of the American Vacuum Society and of the American Physical Society. He has served on the General Committee of the Physical Electronic Conference, Chaired the Gordon Research Conference on Dynamics at Surfaces, served on the Executive committee of the AVS Surface Science Division, and was a member of the Executive Committee and Governing Board of the Council for Chemical Research.

Dr. Cavanagh received his B.A. in chemistry from Wayne State University in 1972, and his Ph.D. in physical chemistry from Harvard University in 1978.

Warren Merkel

Warren Merkel serves as Chief of Standards Services in the Standards Coordination Office. He is also co-convener of ISO CASCO Working Group 44 on the revision of ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories.

Mr. Merkel was Chief of the National Voluntary Laboratory Accreditation Program (NVLAP) from 2003 to 2006. After leaving NIST for six years to teach chemistry, he returned to serve as Chief of NVLAP from 2012 to 2015.

From 1996 to 2003, Mr. Merkel was employed by the American Association for Laboratory Accreditation (A2LA), most recently as Technical Manager. From 1992 to 1996, he worked as an Investigative Chemist in the Defense Logistics Agency Analytical Product Testing Center in Philadelphia, PA.

Mr. Merkel holds a B.S. in Chemistry from Temple University and a M.Ed. in Curriculum and Instruction from Bloomsburg University.

Robert L. Watters, Jr.

Dr. Robert L. Watters, Jr. is the Associate Director for Measurement Services in the Material Measurement Laboratory (MML) at the National Institute of Standards and Technology (NIST). Dr. Watters is also the Director of the Office of Reference Materials (ORM) at the National Institute of Standards and Technology (NIST), a position he has held since 2004. Dr. Watters has over 36 years of experience at NIST in the development of Standard Reference Materials (SRMs) and international metrology comparisons.

The Office of Reference Materials is responsible for all business support and information technology resources for NIST's Standard Reference Material Program. ORM also provides IT support for NIST calibration services. These programs represent over twenty million dollars in the transfer of NIST measurement services to the public and government agencies around the world.

Dr. Watters received his B.S. in Chemistry from the University of Notre Dame in 1970 and his Ph.D. in Analytical Chemistry from the University of Wisconsin in 1976. He joined the National Bureau of Standards in 1976, and became Group Leader for Atomic and Molecular Spectrometry in 1987. He has participated in the analysis and certification of over 150 Standard Reference Materials. He was a member of the NIST Ad Hoc Committee on Uncertainty Statements, which developed the NIST policy on implementing the ISO Guide to Uncertainty in Measurement.

Dr. Watters was a founding member of the Comité International des Poids et Mesures (CIPM) Consultative Committee on Amount of Substance. He led a team that developed an international database system for comparison measurements performed by the world's National Metrology Institutes. He is also responsible for maintaining the NIST Traceability web site, wherein the NIST policy on traceability is articulated, and through which many of NIST's customers obtain answers to their traceability questions.