

RANDALL S. MURCH, PhD

Randall S. Murch, Ph.D. is the Associate Director, Research Program Development, National Capital Region, Virginia Tech. He also holds Adjunct Professorships in the School of Public and International Affairs and the Department of Plant Pathology and Physiology, and is Associate Director, Center for Technology, Security and Policy in Alexandria. He joined Virginia Tech in December, 2004, where he develops and conducts research programs with special emphasis in topic areas in which science and technology, operations, law, policy and security converge. Currently, his funded research activities are focused on advancing forensic science, biosecurity and microbial forensics. He teaches graduate courses and advises PhD students in the School of Public and International Affairs/Center for Public Administration and Policy, and the Science and Technology Studies Program, and teaches science and technology policy for a Master of Science program in the College of Engineering. He also holds a Visiting Professorship in the Science and Security Program, Department of War Studies, King's College London, UK.

Following completion of the PhD and brief service in the U.S. Army Reserve, Dr. Murch's first career was with the Federal Bureau of Investigation (FBI), where he was a Special Agent. In his early years with the FBI, he was assigned to the Indianapolis and Los Angeles Field Offices where he performed counterterrorism, counterintelligence and other investigations. During his career, he was assigned to the FBI Laboratory as a forensic biologist, research scientist, department head and deputy director at various times. While department head and deputy director, he was instrumental in leading the overhaul of the FBI Laboratory and navigating various investigations and inquiries of Laboratory science, operations, personnel and services. Interspersed with his Laboratory assignments were four assignments in the Bureau's technical investigative program: as a program manager for complex operations planning, FBI Headquarters; chief of a technology development and deployment unit, Investigative Technology Division, Quantico, Virginia; technical squad supervisor, New York Field Office; and, deputy director, Investigative Technology Division (now Operational Technology Division), Quantico, Virginia. These assignments, which had increasing responsibility and authority, involved the development and application of sensitive technologies in complex, high-risk investigative and operational situations and environments.

While in the FBI he created the FBI's and US's WMD forensic investigative program, served as the FBI's science advisor to the 1996 Olympic Games, led forensic investigative aspects of a number of major terrorism cases, and initiated a number of new and innovative programs for both the FBI Laboratory and technical investigative program. In 1996, Dr. Murch created the FBI's Hazardous Materials Response Unit, the nation's focal point for the forensic investigation of WMD threats, events and hoaxes; this laid the foundation for the creation of new fields in nuclear, chemical and biological weapons forensics and national programs in several U.S. Government departments and agencies. Since that time, he has published and presented extensively in the field of microbial forensics and has recently presented in several high-level international fora on this topic.

Throughout his FBI career, he also was involved with extensive liaison at the national and international levels in furthering science and technology for law enforcement, counterterrorism and national security purposes. Between his last two FBI assignments, he was detailed to the Defense Threat Reduction Agency (DTRA),

Department of Defense (DoD), where he was the director of the Advanced Systems and Concepts Office, where he led advanced studies on complex current and future challenges dealing with weapons of mass destruction. He retired from the FBI in November, 2002 after nearly 23 years of service, and as a member of the Senior Executive Service for the last seven years with that agency.

From December 2002-December 2004, Dr. Murch was employed as a Research Staff Member, Institute for Defense Analyses (IDA), a leading Federally Funded Research and Development Center, where he led and participated in studies for the defense, intelligence and homeland security communities. While there, he led the first-ever comprehensive baseline study of microbial forensics for the US Intelligence Community.

From February 2007 to January 2008 he was on loan from Virginia Tech to the Department of Homeland Security (DHS), Directorate of Science and Technology, Office of Research, as Senior Principal Counselor for Science and Technology, with wide ranging duties and responsibilities.

He has member of or advised several study and standing committees of the US National Academy of Sciences (NAS) and the Institute of Medicine (IOM). Two of the NAS studies he has been part of have focused on strategic assessments of national forensic capabilities, one focused on emerging science and technology and global biosecurity and the other on a science and technology roadmap for DHS. He served for six years on the Board of Life Sciences, National Research Council, and is currently on the NAS Division of Earth and Life Sciences Advisory Committee.

Dr. Murch has also advised the US Department of Defense's (DoD) Defense Science Board (DSB), the DTRA Threat Reduction Advisory Committee, and is currently a member of a DoD senior science advisory panel.

Dr. Murch began membership on the US National Science Advisory Board for Biosecurity (NSABB) in December 2009. He was part of a recent, high-level task force convened for the National Nuclear Security Administration (NNSA), Department of Energy (DOE), on the future of the science and technology programs at the three DOE national "nuclear weapons laboratories" and the structure and function of the NNSA and its relationship with those laboratories. He also recently worked on a study to shape the future of the US Department of Defense's Cooperative Threat Reduction Program. He is also a member of the Interagency Microbial Forensics Advisory Board which is overseen by the Office of Science and Technology Policy, Executive Office of the President. Dr. Murch is also a member of the President's Advisory Board of the Research Corporation for Science Advancement.

Murch received his Bachelor of Science degree in Biology from the University of Puget Sound, Tacoma, Washington in 1974, his Master of Science degree in Botanical Sciences from the University of Hawai'i in 1976 and his Doctor of Philosophy degree in Plant Pathology from the University of Illinois, Urbana-Champaign in 1979.