

DR. JOHN MORGAN



Biography

Dr. John S. Morgan conducts research and education related to forensic science, organizational improvement, and expert errors. He brings decades of experience conducting and directing research programs across the federal government and private sector. His current work includes development of the National Association of Forensic Science Boards and wrongful convictions research and training.

Dr. Morgan's government positions include service as Command Science Advisor for the US Army Special Operations Command, Deputy Director for Science and Technology at the Counter-Terrorism Technical Support Office, and Director of the Office of Science & Technology in the Department of Justice's National Institute of Justice (NIJ). While at NIJ, he received the Service to America medal for his work to expand the nation's capacity to perform DNA analyses. He has also chaired the Interagency Council on Applied Homeland Security Technology.

Dr. Morgan has conducted scientific research and development for the Johns Hopkins Applied Physics Laboratory, RTI International, and the Department of Justice. His work has encompassed forensic science, law enforcement technology, defense against weapons of mass destruction, optoelectronics, and the root causes of expert errors.

Dr. Morgan served eight years in the Maryland House of Delegates, representing Howard and Prince George's counties and serving on the Judiciary, Ethics, and Commerce and Government Matters Committees. He also served as the Congressional Science Fellow of the American Physical Society.

He received his Ph.D. in Materials Science and Engineering from Johns Hopkins University in 1990; his B.S. in Physics is from Loyola University in Maryland, where he is currently an instructor in the Forensic Studies program.

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Plenary Title

Forensic Science Improvement Strategies: Lessons from Miscarriages of Justice in the Northeastern United States

Abstract

The experience of wrongful convictions demonstrates that the misapplication of forensic science may involve individual and system factors relating to organizations and boundaries between organizations. Forensic science improvement should emphasize the development and adoption of standards and the strengthening of governance to ensure consistency and reliability.

Miscarriages of justice may involve errors by forensic examiners related to gaps in quality assurance, technical review, training, or standards. The increasing complexity and specialization of scientific expertise may lead to uncertainties regarding the scope of expert opinion and the reliable use of scientific expertise by the criminal justice system. In some cases, examiners may provide testimony that exceeds the limits of their expertise or method. In other cases, the probative value of evidence may be misconstrued due to poor communication or errors in statistical interpretation.

Problems often arise from broader system factors, including: misuse or discounting of forensic science by investigators or officers of the court; organizational dysfunction; and crime scene or police investigation mistakes. These system factors are exacerbated when forensic experts practice outside the scope of current governance and organizational frameworks associated with accredited laboratories.

These issues will be elucidated using case examples from the northeastern United States and placed into the context of current issues, including: statistical interpretation frameworks (such as probabilistic genotyping); bias mitigation strategies; novel methods and technologies; and report and testimony language. The emphasis will be on lessons learned and improvement strategies. The development of forensic science governance will also be discussed, including the new National Association of Forensic Science Boards.