John J. Kasianowicz is the Leader of the Nanobiotechnology Project in the Semiconductor Electronics Division/Electronics and Electrical Engineering Laboratory at NIST. He previously served as the Leader of the Biomolecular Materials Group in the Biotechnology Division/Chemical Sciences and Technology Laboratory at NIST and as Chair of the NIST US Measurement System Nanobiotechnology Committee.

Dr. Kasianowicz has degrees in Physics (B.A. with Distinction, Boston University and M.A., SUNY at Stony Brook) and in Physiology & Biophysics (Ph.D., SUNY at Stony Brook). He was a recipient of the U.S. Department of Commerce Silver Award (2006) and was named a *Best of Small Tech Researcher of the Year Finalist* (2007). His research interests include protein structure-function, biological transport phenomena, electrostatic effects in proteins, electronic-based biosensors, biowarfare agent detection/characterization, DNA-protein interactions, and single-molecule detection techniques. The author of 60 publications (with over 1,600 citations) and 3 U.S. patents, Dr. Kasianowicz also co-edited a book on the "Structure and Dynamics of Confined Polymers" (Kluwer Press, 2002). He has described the results of his research programs in over 160 presentations worldwide. His research was highlighted in *C&E News, Scientific American, Science,* and *Analytical Chemistry*.

Dr. Kasianowicz's work on bacterial pore-forming toxins opened new fields of investigation, which include the detection and quantification of a wide range of analytes (e.g., proteins, anthrax toxins, and nucleic acides) and nanopore sequencing of DNA. His work is the basis of two international conferences: "Electronic Recognition of Biomolecules" (held in Liege, Belgium and Urbana, Illinois) and "Biosensing with Channels" (held in Bremen, Germany and the Isle de Berder, France). In a recent publication of the *Proceedings of the National Academies of Science (USA)*, Dr. Kasianowicz and his colleagues recently described a novel electronic method for solution-based mass spectrometry.

Dr. Kasianowicz served as a co-organizer of the 9th International Meeting on Chemical Sensors (Boston, MA) and director of a NATO Advanced Research Workshop "Biological, Biophysical and Theoretical Aspects of Polymer Structure and Transport" (Bikal, Hungary).