

NIST/NIBIB Symposium on Medical Metrology and Standards for American Healthcare and Commerce

Medical Imaging, Devices, Diagnostics

Sept. 24, 2026 at the joint NIST/UMD Institute for Bioscience and Biotechnology
Research (IBBR), 9600 Gudelsky Dr, Rockville, MD 20850

The Question: What future medical measurements, metrology, and
standards should be prioritized to support U.S. healthcare?

The Purpose: Generate input for a Medical Metrology and Standards
Roadmap from diverse stakeholders. Identify social and economic benefits
to the US Healthcare Infrastructure and Future Directions.

Link to
Web
Site



Preliminary Program Sept. 24, 2026

Welcome: 8:45- 9:15am (Kickoff Chair: Katy Keenan, Quantitative MRI leader, NIST)

- 8:45am Welcome
- 9:00am **Bruce Tromberg**, NIBIB Director: *Healthcare needs and challenges*

Panel 1 Clinical Perspective (Chair Afrouz Anderson, Program Officer, NIBIB/DAST)

- 9:20am **Scott Reeder**, Chair of the Department of Radiology, University of Wisconsin School of Medicine and Public Health: *Impact of medical metrology and standards in the clinic*
- 9:38am **Maryellen Giger**, Pritzker Distinguished Service Professor of Radiology, University of Chicago: *MIDRC: Contributions in Metrology and Standards*
- 9:56am **John Boone**, Distinguished Professor of Radiology, University of California at Davis: *Metrology Needs for Xray Imaging Technologies*
- 10:14am Panel Discussion

10:40am-11:00am Coffee break/ posters

Panel 2 Industry Perspective (11:00am – 12:20pm) (Chair Martin Tornai, Program Officer NIBIB/DAST)

- 11:00am **Joshua Welsh**, Senior Staff Scientist, Becton Dickinson: *Standards and Future Directions for Quantitative Flow Cytometry Assays*
- 11:18am **Kyoko Fujimoto**, Medical Device/ Safety Consultant: *US Leadership in Medical Imaging*
- 11:36am **Joseph Naegele**, Principal Software Engineer, Microsoft Research, Health Futures: *The Future of Healthcare: AI, cloud computing, big data*
- 11:54am Panel Discussion

12:20pm-1:20pm Lunch

Panel 3: Government Role (1:20pm-2:40pm) (Chair Stephen Russek, Project Leader, Magnetic Imaging, NIST)

- 1:20pm **Joshua Pfefer**, Biomedical Research Engineer, FDA/CDRH, *Performance Standardization of Emerging Biophotonic Imaging and Sensing Technologies*
- 1:38pm **Passley Hargrove-Grimes**, Program Officer, Office of Special Initiatives, NIH Tissue Chip Program: *Metrology & Standards in New Approach Methodologies for Drug Testing*
- 1:56pm NIST talks (6m):
 - **Ron Tosh**, Radiation Physicist, *Dosimetry Metrology and Standards*
 - **Katy Keenan**, Project Leader, Quantitative MRI: *Standards for Quantitative Imaging*

- **Mandy Esch**, Project Leader, Organs-on-a-Chip: *Microsystems for Medical Metrology*
- **Toni Litorja**, Senior Scientist, Sensor Science Division: *Optical Imaging Standards*
- 2:20pm Panel Discussion

2:50pm-3:10pm Coffee break and posters

Panel 4: Research Frontiers and Future Needs 3:10pm- 4:30pm (Chairperson **Mandy Esch, Project Leader, Organs-on-a-Chip, NIST)**

- 3:10pm **Paul Kinahan**, Professor of Radiology and Bioengineering, Director, Clinical PET/CT Physics, University of Washington: *Radiological Society of North America (RSNA) / Quantitative Imaging Committee (QUIC)*
- 3:28pm **Dan Sullivan**, Professor Emeritus, Dept. of Radiology, Duke University Medical Center: *Quantitative Medical Imaging Coalition (QMIC)*
- 3:46pm **Florence Hudson**, Executive Director, Northeast Big Data Innovation Hub at Columbia University, Vice Chair, IEEE Engineering in Medicine and Biology Society: *US Leadership in healthcare and medical technology: TIPSS, AI and Beyond*
- 4:04pm **Rock Mackie**, Emeritus Professor, Medical Physics and Human Oncology, University of Wisconsin: *Metrology and Standards for Proton Therapy and Beyond*
- 4:22pm **Kishore Rajendran**, Associate Professor of Radiological Sciences, UCLA: *American Association of Physicists in Medicine (AAPM) Physics of Quantitative Imaging Working Group*

4:40pm Discussion

5:00pm White paper outline

5:30pm Adjourn

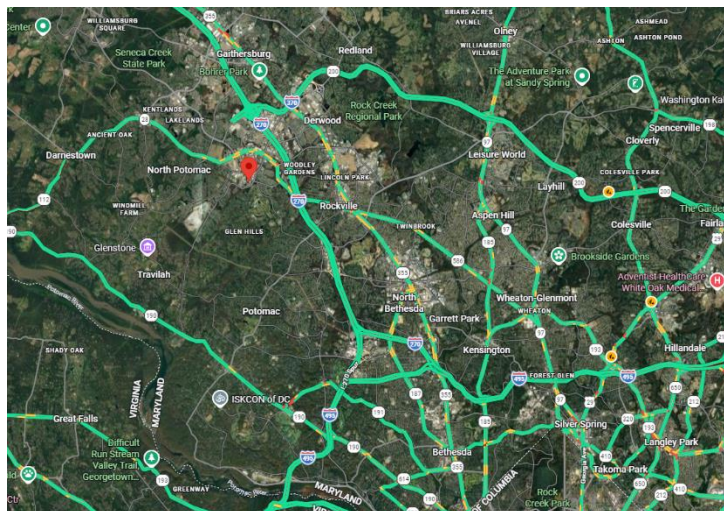
Reception

Note: breakfast, lunch, coffee/tea will be provided. There is a \$75 registration fee for in-person attendees, no registration fee for virtual attendees.

Agenda and registration can be found at:

<https://www.nist.gov/news-events/events/2026/09/nistnibib-symposium-medical-metrology-and-standards-american-healthcare>

Site: <https://www.nist.gov/ibbr>



Air Travel

Three major airports service the Washington Metropolitan area. Metro rail, bus and MARC Train services are available from each of the major airports.

Approximately 26 miles from Rockville, Maryland

Approximately 28 miles from Rockville, Maryland

Approximately 42 miles from Rockville, Maryland

Hotels

<u>Courtyard Marriott</u> 2500 Research Blvd, Rockville, MD Phone: 301-670-6700	<u>Hilton Garden Inn Rockville</u> 14975 Shady Grove Rd, Rockville, MD Phone: 240-507-1800
<u>Homewood Suites by Hilton</u> 14975 Shady Grove Rd, Rockville, MD Phone: 240-507-1900	
<u>Sheraton Rockville Hotel</u> 920 King Farm Blvd, Rockville, MD Phone: 240-912-8200	