NIST | MATERIAL MEASUREMENT LABORATORY

The 2024 MML
10th Annual
ACCOLADES GALA

September 5, 2024 ● Hybrid Celebration

1:30 PM ET ● 11:30 AM MT

10th Annual MML Accolades Gala

Welcome and Opening Remarks	Laurie Locascio, NIST Director
Presentation of Accolades	*Gaithersburg*: Jessica Staymates, assisted by Steven Choquette, Carlos Gonzalez, Robert Hanisch, Dave Holbrook, Sheng Lin-Gibson, Michael Tarlov, and Mark VanLandingham, MML Division Chiefs; Frannie Johnson, MML Executive Officer; Michael Fasolka, MML Deputy Director; Lisa Derby, MML Safety Program Coordinator
	Boulder: John Perkins, MML Division Chief; Stephanie Hooker, MML Associate Director

Technical Excellence Accolades

Collaboration and Teamwork

Christina Alexander, Michele Buckley, Tatianna Cartnail, Mark Cronise, Tracy Hayat, Devin McMillan, Nancy Parrish, Xin Zeng (640), Katrina Chavers, Kristy Dahlin, Dana Payne, Lisa Rocker, Julie Weiblinger, Cindy Whalen (OFRM)	For outstanding collaboration and teamwork between two divisions, Office of Reference Materials (Division 640) and the Financial Operations Division (Division 166), managing the incredibly complex account of a Standard Reference Material (SRM) licensed distributor.
Sierra Miller (644)	For excellent advocacy, ownership, and education of 508 compliance in MML.

Science Data Management & Capabilities

Eva Campo, Bonnie Carroll, Debra Kaiser (643), Andrea Medina-Smith (135), Alda Yuan (EPA)	For development of and community engagement with the NIST Research Data Framework, a comprehensive overview and guide to research data management.
Gary Hardin (630)	For his dedication to developing the data plumbing system/MML Data Archive.

MML Accolades

Measurement Science Excellence

Peter Bradley , Li-Anne Liew, Elizabeth Sorenson (647), Damian Lauria (OISM)

For developing the instrumentation and testing protocols to evaluate extreme-temperature structural reliability of commercial microelectromechanical systems (MEMS), for cryogenic applications such as quantum computing.

George Caceres, Monique Johnson, Antonio Montoro Bustos, Karen Murphy, Michael Winchester (646)

For a decade of outstanding contributions towards the advancement of nanomaterial measurement science with single particle inductively coupled plasma mass spectrometry (splCP-MS).

Measurement Services Excellence

Donald Burgess (646), Angela Lee, Karen Ann Price (641)

For development of the NIST Temperature Scale Database (SRD 60) providing a comprehensive set of recommended temperatures.

Hua-Jun He, Zhiyong He, Jennifer McDaniel, Nathanael Olson, Vaidehiben Patel, Justin Wagner (644)

For outstanding management of the largest, most diverse set of publicly available cancer genome data for a new broadly-consented tumor cell line

MML Early Career

Amanda Bayless (646)

For an unwavering dedication to metrological excellence in NMR and MS analyses for multiple applications.

Nicholas Derimow (647)

For remarkable contributions in heat treatment optimization of additively manufactured titanium leading to improved fatigue lifetime, revision of a material specification standard, and enabled use in critical applications.

Lauren Mullen (645)

For outstanding work designing and optimizing next-generation sequencing (NGS) methods to characterize forensic short tandem repeats (STR) in support of the NIST Variant Allele Sequencing Program.

MML Postdoctoral Fellow

Jennifer Clark (642)

For outstanding computationally-based research into quantifying the nature of the of the static and dynamic hydration layers of ions and polyzwitterion polymers and incisive analysis based on these simulations in interpreting observed specific ion effects in neutron scattering measurements.

MML Postdoctoral Fellow *cont.*

Yechan Noh (647)
For exceptional computational research in nanofluidics that sheds light on the fundamental properties of aqueous ion transport through subnanoporous two-dimensional materials and opens new avenues of application ranging from sensing and water purification to energy storage and neuromorphic computing.

Julio Pereira Dos Santos (642)
For outstanding work implementing a new phase model description for topological close-packed phases in a multicomponent Co-based superalloy thermodynamic database (Co-Al-W-Ni-Cr-Ta-Ti-Re-Ru).

Daniel Wines (642)
For outstanding computational studies of superconductors and 2D magnets with quantum and deep-learning methods.

MML Student Intern

Vaishnavi Banda and Sasanka Sreedevi-Naresh (644)
For outstanding research to develop a novel method to establish measurement metrics for AI/LLM performance.

Vamsi Krishna Bolla (UMD/IBBR)
For significant contribution to the studies of the NISTCHO cell line (RGTM 10197) and the analytical characterization of its product, the cNISTmAb.

Peter Dvorak (647)
For deploying new, advanced technology for the creation of HELP documentation for Standard Reference Databases developed at the Thermodynamics Research Center and for improvement of the HELP system for SRD 103a and 103b (ThermoData Engine).

Tam-Anh Tran (644)
For significant contribution to the development of control strategies and training data sets that have enabled label-free AI AI-driven cell viability analysis and supported key aspects of a draft international standard.

MML Technology Transfer

Carolyn Burdette, Jared Ragland, Alix Rodowa (646)
For developing a series of video tutorials for the Database Infrastructure of the Mass Spectrometry project.

Chandler Becker, Samia Benjida (641), Carelyn Campbell, Lyle Levine, Jai Won Kim, Andrew Reid (642), Gretchen Greene (ADLP), Brandon Lane, Gerard Lemson, Arik Mitschang (EL), Benjamin Long (ITL), Jordan Raddick, (JHU)
For the innovative development of the new public Manufacturing Domain for Additive Manufacturing Benchmark data system.

MML Accolades

Distinguished Associate

Darren Albert (OISM)

For developing and implementing an intuitive and robust LabVIEW-based graphical user interface application that enables visualization, curation, and management of microscopy data for an AI-enhanced materials analysis platform used by multiple external stakeholder organizations.

Susan Ballou, Richard Cavanagh, Jeffrey Horlick (SCO), Mark Stolorow (SPO)

For extraordinary national leadership in improving the scientific quality of forensic science practices through standards development.

Nathan Hotaling, Nicholas Schaub (NIH), Petru Manescu, Sarala Padi, Mylene Simon (ITL)

For developing a suite of tools used to characterize a first-of-its kind tissue engineered product for treatment of macular degeneration.

Sean Bresler (PML)

For the development of highly accurate and sensitive chip-scale optomechanical accelerometers for applications in transportation and defense.

Jeffrey Hudgens (645)

For developing novel hydrogen-exchange mass-spectrometry methods that improve understanding of the structure and activity of protein-based drugs.

Daniel Lum, Michael Mazurek, Alexander Mikhaylov, Kristen Parzuchowski (PML)

For refuting published claims about quantum-enhanced microscopy by careful measurements of molecular absorption of photon pairs.

Yong Ma (ITL)

For development and deployment of a statistical tool for experiment design and rigorous assessment of measurement uncertainty for chemical analysis.

Valeri Babushok, Piotr Domanski, Lingnan Lin (EL), Michael Hegetschweiler, Dennis Kim (UMD), Richard Perkins (MML)

For identifying non-flammable, low-global-warming-potential alternatives to the widely used refrigerant HFC-134a for U.S. military applications.

Brandi Keene (DOE)

For grassroots efforts to create a more inclusive environment for working parents by establishing NIST-wide policies and spaces for lactating moms.

The Distinguished Associate Accolade is awarded to associates who significantly contributed to work that received a 2023 DOC/NIST award, as declared by the nominators and awardees.

Excellence in MML Administration

Jill Carbaugh & Audrey Loy (645)

For providing sustained high-quality service to the Bioprocess Measurement Group and the Mass Spectrometry Data Center, often taking initiative beyond the scope of their duties to ensure smooth administrative operations.

Lori Owens (630)

For her exceptional commitment and perseverance in supporting the management team throughout the budget reduction initiative.

Excellence in MML Safety

Wendi Copello (647)

For swiftly rendering aid and assistance to a colleague experiencing a medical emergency, which enabled a timeline-critical intervention by emergency medical personnel.

MML Mentor

Carelyn Campbell (642)

For being an outstanding mentor to postdoc and early career researchers in additive materials design and computational material modeling.

Clay Davis (646)

For dedication to transferring knowledge, imparting a thorough understanding of measurement science, and fostering growth opportunities, which has significantly accelerated the learning journey for many NIST colleagues.

Yamil Simón-Manso (645)

For excellence in mentoring students and post-docs in the NIST Mass Spectrometry Data Center.

Christopher Stafford (642)

For exceptional commitment to mentoring of early career staff as the team launched a new program in carbon capture in the Materials Science and Engineering Division.

Organizational Excellence

MML Outreach

Jane Zhang (645)

For exemplary work in managing all aspects of the NIST Mass Spectrometry Data Center's trade show booth at the annual American Society for Mass Spectrometry conference over the last six years.

Service in Professional Organizations

Ben Neely (646)

For professional dedication and service to multiple proteomics organizations, demonstrating exemplary commitment to engaging and expanding the proteomics and mass spectrometry community while highlighting NIST's role in advancing proteomics measurements.

Christopher Sims (642)

For exemplary leadership and outstanding service to the NIST Chapter of Sigma Xi to promote scientific excellence and provide research career development and networking opportunities for all NIST staff and associates.

Service and Support to MML

Nune Atyan (135 Library)

For exemplary dedication to securing vital information resources via interlibrary loan and digital document fulfill-ment, ensuring MML customers receive precise and timely support, fostering positive engagements through enthusiasm and reliability.

Francisco Balicao, Timothy Day, Sherri Diaz (OFRM), Nancy Parrish (640)

For providing exceptional service to the MML labs to obtain funding for critically needed equipment and technical staff to support MML measurement services.

Keith Martin (135 Library)

For exemplary dedication to researching critical information, facilitating informed decision-making at MML, enhancing industry insight, and identifying opportunities for metrology and standardization.

David Newton (ITL)

For exceptional statistical support to MML cell counting efforts, including conceptualization of experimental designs, leadership and innovation in statistical analyses, presentation of results for international metrology groups, and critical contributions to publications communicating research results.