MATERIAL MEASUREMENT LABORATORY

The 2023 MML

ACCOLADES GALA

September 6, 2023 ● Hybrid Celebration

1:30 PM ET ● 11:30 AM MT

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

Welcome

Welcome and Opening Remarks	Stephanie Hooker, MML Associate Director
Presentation of Accolades	*Gaithersburg*: Steven Choquette, Carlos Gonzalez, Robert Hanisch, Dave Holbrook, Sheng Lin-Gibson, and Michael Tarlov, MML Division Chiefs; John Bonevich, Deputy Division Chief; Stephanie Hooker, MML Associate Director; Frannie Johnson, Acting MML Executive Officer; Lisa Derby, MML Safety Program Coordinator *Boulder*: Michael Fasolka, MML Deputy Director; John Perkins, Division Chief; Nicholas Barbosa, MML Senior Scientific Advisor *Charleston*: Rebecca Pugh, Group Leader

MML Accolades

• Collaboration and Teamwork •

Jamie Baker, Valentina Coppola, Lyschelle Mitchell (643), LaQuetta Fields, Christine Kuenzli, Laurell Phillips (646), Jody Sandel, Andrew Uribe (647)	For supporting the Biomolecular Measurement Division (645) and the Applied Chemicals Division (647) with numerous time-critical bankcard purchases.
Michael Bergman (NIOSH), Kumiko Lippold (BARDA), Matthew Staymates (643)	For the collaboration and leveraging of expertise from NIST, BARDA, and NIOSH in a strategic partnership for the Mask Innovation Challenge, helping to advance innovative and scientifically validated mask designs for future pandemics and public health emergencies.

• MML Measurement Science Excellence •

Jeffrey Manion and Sean McGivern (646)	For outstanding work developing new instrumentation that fills a key measurement gap and enables dynamic column breakthrough measurements at the critical, atmospherically relevant conditions needed to study carbon dioxide adsorption/desorption phenomena of candidate direct air capture sorbents.
Timothy "Dash" Weeks (647)	For designing state-of-the-art instrumentation to enable mechanical testing in extreme environments coupled with key advancements regarding uncertainty quantification in fatigue and fracture.

Technical Excellence

• MML Measurement Services Excellence •

Mark Cronise, Michael Williamson (640), Debra Ellisor, Jennifer Hoguet, Amanda Moors, Jennifer Ness (646)

For the development and transport of seven large quantity, high-quality, and homogenous candidate SRMs/RMs/RGTMs that were produced at NIST-Charleston and transported safely and securely to NIST-Gaithersburg.

Aaron Rowane (647)

For highly accurate and timely measurements of the thermophysical properties of low-GWP refrigerants, contributing to the replacement of fluids with high global-warming potential.

• MML Science Data Management and Capabilities •

June Lau, Joshua Taillon (641), Ryan White (647)

For optimization of MML Laboratory Information Management Systems for instrument and experiment operations with the implementation of MARLIN, an innovative tool for scheduling, configuration, and acquisition of sample and activity data critical to production of research data and its analysis.

Tytus Mak (645)

For developing software tools essential to the operation of the NIST Mass Spectrometry Data Center, including an automated pipeline to extract, process and visualize raw mass spectral data for both metabolomics- and proteomics-based experiments.

Benjamin Place & Jared Ragland (646)

For development of a Web-based user interface for the the collection and analysis of PFAS mass spectra and the associated metadata.

• MML Postdoctoral Fellow •

Avery Baumann (642)

For outstanding contributions to the high-throughput measurements of polymer/MOF composite membrane structure using x-ray scattering, as well as being an integral leader and contributor to the MML DAC program.

Zack Buck (647)

For outstanding measurements of physical properties of steel microstructures in the presence of hydrogen, which led to the discovery of a previously unknown strain-induced phase transition.

MML Accolades

• MML Postdoctoral Fellow *cont.* •

Zachary Goecker (645)	For exceptional contributions to the NIST Mass Spectrometry Data Center, including but not limited to expanding the scope and applications of Glycopeptide Abundance Distribution Spectra (GADS) to study critical viruses such as Influenza.
Orion Kafka (647)	For outstanding creative achievements in the novel experimental testing and three-dimensional analysis of metal additive manufacturing materials to be used in critical applications.
Thomas Kolibaba (647)	For outstanding advancements in resin chemistry for photopolymer additive manufacturing ranging from novel coatings to reference materials.
Meredith Seeley (646)	For outstanding method development of qualitative and quantitative microplastic pollution measurements using pyrolysis-GC/MS that will serve a network of international researchers.

• MML Early Career •

Jake Benzing (647)	For leading the implementation of new mechanical testing capabilities at extremely low temperatures, to enable safer design of cryogenic piping and welded pressure vessels used in green energy power plants and aerospace applications.
Jennifer Berry (647)	For inventive and collaborative experimental designs that maximize the forensic information extracted from complex samples such as simulated fire debris and one-of-a-kind breath samples from study participants who use cannabis.
Alexander Landauer (643)	For contributions to the field of mechanics through the advancement of digital image correlation methods, digital volume correlation methods, and data frameworks for nonlinear soft materials.

Technical Excellence

• MML Student Intern •

Megha Jasti & Katalina Li (644)	For developing AI tools for the Integrated NIST Knowledge Portal and Cord-19 webpage.
Amrit P. Kafle (643)	For exceptional performance and outstanding accomplishments in the synthesis, characterization, and analysis of Li-containing garnet-type solid state electrolytes for energy storage applications.

• MML Distinguished Associate •

Jolene Splett (ITL) & David McColskey (647)	For increasing cardiac device reliability through improved measurements and standards and therefore bettering the quality and length of life for the millions of Americans who suffer from cardiac arrythmias.
Marcus Cicerone (Georgia Inst. of Technology)	For development of broadband coherent anti-Stokes Raman scattering microscopy for quantitative, comparable chemical imaging in complex samples.
William MacCrehan (646)	For developing analytical methods used to characterize the safety and effectiveness of hand sanitizers used to slow the spread of COVID-19.
Matthias Thommes (Univ. Erlangen-Nuremberg)	For determining the first-ever, high-pressure reference isotherms using nanoscale-porous reference material adsorbents.

**The Distinguished Associate Accolade is awarded to associates who significantly contributed to work that received a 2022 DOC/NIST award, as declared by the nominators and awardees*

MML Accolades

• Excellence in MML Administration •

Heather Blache (645)	For outstanding support performing year-end close for the Biomolecular Measurement Division as Acting Administrative Officer.
Arden Coogan (630)	For excellent administrative support in facilitating the MML awards process and student onboarding for the SURF program.
Cynthia Giaquinto (640)	For outstanding support, assuming ODI administrative functions while continuing her 640 duties during a period of increased administrative needs (the post COVID return to work period).
Shaswat Koirala (644)	For excellence in administrative support of both NIST flow cytometry standards and rapid microbial testing methods consortiums.

• Excellence in MML Safety •

Joy Dunkers, Laura Pierce, Carl Simon (644)	For their selfless work to support the research activities of everyone in the biomaterials group, their role in minimizing disruption during building 224 power outages and renovations, and their willingness to help whenever needed.

• MML Outreach •

Sara Yang (645)	For founding and chairing the "Mass Spectral Libraries Working Group" with the American Society for Mass Spectrometry and greatly expanding the reach and impact of NIST Mass Spectral Libraries.

• Service in Professional Organizations •

Christopher Soles (642)	For tireless commitment and exceptional service to the ACS PMSE Division and for being a steadfast ambassador for measurement science and technology within the PMSE community.

• MML Mentor •

Matthew Connolly (647)	For his leadership, tenacity, and support of all team members, postdocs, and students involved with the Materials Testing in Hydrogen Gas Project, which has facilitated a productive working environment while increasing the safety and measurement capabilities of the facility.

Organizational Excellence

• MML Mentor *cont.* •

Diana Ortiz-Montalvo (643)	For excellence in mentoring peers and postdocs both technically and professionally.
Laura Pierce (644)	For excellent mentorship in guiding two MC-PREP interns. Mrs. Pierce has prepared and guided her interns to understand the complexity of their project and taught hands-on laboratory skills that could only be learned in a real-world research experience.
Yan Zhu (630)	For the mentorship and career development of junior software developers.

• Service and Support to MML •

Abhimanyu Ambastha (CTL)	For exemplary work on designing, optimizing, and developing the NIST Admin Portal web application.
Amanda Forster, Russel Maier, Joshua Martin, Mark McLean, Marcela Najarro, Diana Ortiz-Montalvo, Elizabeth Robinson, Scott Wight (643)	For developing a questionnaire for 643 Feds to survey their feelings and views towards their group/division dynamics and workplace culture, evaluating the results, and making recommendations to the management team.
Kim Goode, Maisha Lewis-Ceaser (OHRM), Jody Sandel (630)	For designing high quality Contracting Officer Representative refresher training courses that directly address NIST needs and concerns.
Michael LaRue (630)	For quickly preparing and distributing laptops and YubiKeys for summer students in the SURF and SHIP programs.
Nicole Tenly (UMD-IBBR)	For providing exceptional Event Program Coordination to the NIST-UM joint research program at IBBR through planning and running of weekly seminars, workshops, lab tours and conferences; maintaining events virtually during the pandemic shutdown; and continued flexible support for hybrid options.

A special thanks to: The MML Accolades Committee, The MML Accolades Champions, the NIST AV Team, Becky Steffen, Alshae' Logan, Melis Kant, Gerette Jacobson, Teresa Cronise, Wendi Copello, Rebecca Pugh, Kim Stavish, Donald Windover, Shelby Bowers, all nominators and cheerers, and the MML management team for helping to make this MML Accolades Program a success!