MATERIAL MEASUREMENT LABORATORY

The 2022 MML

ACCOLADES GALA

September 7, 2022 ● Virtual 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	Eric Lin, MML Director
Presentation of Accolades	*Gaithersburg*: Jessica Staymates, assisted by Steven Choquette, Robert Hanisch, Dave Holbrook, Sheng Lin-Gibson, Michael Tarlov, and Mark VanLandingham, MML Division Chiefs; Roger Van Zee, Deputy Division Chief, Neil Alderoty, MML Executive Officer; Michael Fasolka, MML Deputy Director; Frannie Johnson, MML Senior Management Advisor; Andrea Szakal, MML Safety Program Coordinator *Boulder*: John Perkins, MML Division Chief

MML Accolades

• Collaboration and Teamwork •

Edward Sisco (643)	For leading several new collaborative projects that have resulted in practical tools, innovative programs, and improved outcomes in forensic chemistry and public health.
Jennifer Berry, Kavita Jeerage, Tara Lovestead (647), Jennifer Carney, Christina Cecelski, Cassie Goodman, Christina Jones, Jacolin Murray (646), Katrice Lippa (PML), and Paulina Piotrowski (FDA)	For establishing a multidisciplinary research team between the Applied Chemicals and Materials Division and the Chemical Sciences Division to advance the metrology of exhaled breath through the development of calibration standards.

• MML Early Career •

Benjamin Caplins (647)	For significant, insightful, and proactive scientific contributions to two disparate material characterization projects in the Applied Chemicals and Materials Division: transmission scanning electron microscopy (t-SEM) and extreme ultraviolet atom probe tomography (EUV APT).
Edward Erisman (645)	For significant contribution to several projects in the mass spectrometry data center, including the building of seized drug and general mass spectral libraries, the development of software tools for utilizing mass spectral libraries, and the onboarding of cutting-edge instrumentation.
Elizabeth Robinson (643)	For leading and developing critical quantitative measurement capabilities to support internal and external challenges in the fields of homeland security and forensics.
Stephanie Servetas (644)	For Exceptional Contributions in Microbial Science Program Development.

MML Accolades

• MML Measurement Science Excellence •

Melis Kant (645)	For the outstanding measurements of the inhibition of a major human DNA repair enzyme by potential anticancer drugs, the products in DNA irradiated by Ne-22 ion beams in relation to cancer therapy, DNA lesions in cooked food associated with cancer.
Maria Vega Martinez (646)	For outstanding experimental support and design of sample preparation methods for glass materials evaluated by Instrumental Neutron Activation Analysis (INAA) and Inductively Coupled Plasma Mass Spectroscopy (ICP-MS).
Samantha Maragh (644)	For leadership in two key outputs in 2021: 1) Publication of the first ISO standards document for Genome Engineering; 2) the first and largest successful deployment of human DNA and cells for a NIST ILS.

• MML Measurement Services Excellence •

Jennifer Dootz, Samuel Forry, Monique Hunter, Scott Jackson, Jason Kralj, Stephanie Servetas (644)	For coordinating an international interlab study (The Mosaic Standards Challenge) designed to assess the impact of the methodological variability used for NGS-based microbiome measurements and understanding their impact on the results.
Karen Murphy (646)	For continuous, outstanding leadership in the development of new analytical methods for the determination of elemental content in NIST SRMs consisting of food/dietary supplements, biological and environmental samples, and advanced materials, and for building the ICMG nanoparticle metrology research program.

• MML Science Data Management and Capabilities •

Yannick Congo (642)	For the development of the NIST Code Portal that enables NIST open source code, made public in github, to be automatically published to the code.nist.gov and accessible via https://code.gov

• MML Postdoctoral Fellow •

Greta Babakhanova (644)	For developing cutting-edge metrology to introduce traceability into one of the most common of all biological measurements: trypan blue dye-exclusion test for measuring cell viability.
Robert Ivancic (642)	For outstanding modeling of polyolefins in support of the circular economy.

Technical Excellence

• MML Postdoctoral Fellow *cont.* •

Evan Jahrman (646)	For outstanding work developing x-ray metrology for speciation analysis and materials characterization, and for extraordinary leadership developing and refining the concepts, coordinating the technical team, and shepherding an IMS proposal through the FY21 NIST level presentation.
Newell Moser (647)	For extraordinarily creative achievements in the acquisition, analysis, and application of X-ray computed tomography scans to a wide range of important additively-manufactured materials.

• MML Student Intern •

Aura Salazar (Montgomery College)	For automating microbial cell enumeration methods to develop a routine measurement capability for the NIST Microbial Metrology Team and to support characterization of microbial cell-based reference materials for microbiome measurements and pathogen detection.
Jiaxi Tang	For development of a Cython, multiprocessor version of a radial distribution function (RDF) code for the COMSOFT Tools Python library that led to speed improvements over 100 times faster than the original code, as well as numerous other individual contributions.
Stephen Tennyson (643)	For leading the development of the NIST/NIJ DART-MS Data Interpretation Tool (DIT) and providing MML/NIST with a practical example of how implementing research algorithms as user-friendly software can greatly benefit the scientific community.

• MML Distinguished Associate •

Adolfas Gaigalas	For the rapid development and deployment of new quantitative serological and neutralization assays critical for supporting COVID-19 response.
Elyssia Gallagher , Yves Aubin, Geneviève Gingras, Houman Ghasriani	For accelerating adoption of precision methods to determine protein structure, supporting the biopharmaceutical industry and regulatory authorities.
Gail Porter and Edward Vicenzi	For characterization of the performance and usage of facemasks used to slow the spread of COVID-19, and communication of the results to the public.

**The Distinguished Associate Accolade is awarded to associates who significantly contributed to work that received a 2021 DOC/NIST award, as declared by the nominators and awardees*

MML Accolades

• MML Distinguished Associate *cont.* •

Zhengzhi Wang and Sri Vikram Palagummi	For developing a suite of tools and a documentary standard to support advancements and improved clinical longevity for dental composite restorations.
Sara Riman (645)	For development and characterization of a next-generation forensic DNA Standard Reference Material using a diverse suite of molecular techniques.
Fan Zhang (643) and Jarred Heigel	For establishing the AM Bench Test Series to increase the reliability of simulations of additive manufacturing processes that are critical to industry.
Nathan Hotaling	For development and transfer of tools to reliably quantify quality attributes of manufactured fiber-based scaffolds for the regenerative medicine industry.
Olle Heinonen	For establishing the crucial infrastructures and community buy-in supporting benchmark challenges for phase field modeling efforts.

• Excellence in MML Administration •

Wendi Copello (647)	For exemplary administrative support as Supervisory Division Office Manager for the Applied Chemicals and Materials Division, including the swift and effective administrative management surrounding the Marshall Fire and commendable customer service during staff shortages and ongoing COVID-19 challenges.
Erica Romsos (645)	For supporting the Applied Genetics Group with bank card ordering while Division 645 was undergoing administrative support staffing changes.

• Excellence in MML Safety •

Kevin Kiesler (645)	For creating a Laboratory Operations (Lab Ops) group in the Applied Genetics Group that has transformed safety and laboratory workflow and for leading bimonthly meetings to discuss and resolve laboratory issues and concerns.
Ross Rentz (647)	For fast and effective re-opening of labs during COVID.

Organizational Excellence

• MML Mentor •

Samuel Forry (644)	For providing outstanding mentorship to junior staff and postdoctoral fellows in NIST microbial metrology.
Kavita Jeerage (647)	For exceptional mentorship of postdocs, peers, and leaders at NIST in research planning, execution, dissemination, and developing strategic partnerships.
Jessica Reiner (646)	For excellence in mentorship and support of an early career scientist.
Jason Widegren (647)	For the exceptional mentorship of early career, postdoctoral, and graduate student researchers in vapor pressure measurements by dynamic vapor microextraction (DVME), vapor-liquid equilibrium (VLE) through nuclear magnetic resonance spectroscopy, and a new IMS for acoustic spectroscopy research.

• MML Outreach •

Meghan Burk-Harris (645)	For significant leadership in the field of mass spectrometry-based proteomics through delivery of nationally recognized short-courses in protein bioinformatics, co-chairing the regional mass spectrometry discussion group and improving the utility of NIST reference data by developing the 'Hybrid Search' algorithm.
Kelsea Schumacher (642)	For her critical role in producing high-value workshops and NIST reports for the Circular Economy Program, including a Congressionally-mandated report, and a joint workshop with the American Society for Testing and Materials (ASTM International).

• Service in Professional Organizations •

Tracey Schock (646)	For integrating rigorous measurement standards into the metabolomics community and for making metabolomics accessible to early career scientists through dedicated service as vice president of the Metabolomics Association of North America.

Organizational Excellence

• Service and Support to MML •

Christy Alonge and Rita Varela (IBBR)	For providing exceptional human resources support to the NIST research program at IBBR through hiring and management of IBBR personnel, management of IBBR appointments for NIST staff and visitors and outstanding leadership of IBBR student internship programs.
Nina Alperovich and Olga Vasilyeva (644)	For outstanding technical support in developing and implementing laboratory automation protocols that resulted in a continued, high level of experimental achievement through the Covid pandemic.
Anne Andrews (RPO), Laura Baxter, Rajesh Nair, Henry Wixon (DO), Jeff DiVietro, J'aime Maynard, Patrick McCue (TPO), Andrea Parekh Randy Schroyer (AMD), Linda Beth Schilling	For outstanding multi-year support of complex procurement and agreements enabling MML to begin biomanufacturing standards activities with the NISTCHO material.
Chuck Barber, Christina Cecelski, David Duewer, Regina Easley, Christina Jones, Jacqueline Mann, John Molloy, Michael Nelson (646), Chandler Becker (641), Sally Bruce (SCO), Samuel Forry (644), Katrice Lippa (PML), Sara Orski (642), Jeanita Pritchett (IAAO), Mary Satterfield, Robert Vocke, Jr.	For developing the MML Metrology Quick Start Guide, a collaboratively-developed resource applicable to all in our pursuit of excellence in measurement science.
Kristen Gilbert (OHRM)	For outstanding support of MML Leadership in the direction and performance of critical personnel actions.

A special thanks to: The MML Accolades Committee, The MML Accolades Champions, the NIST AV Team, Becky Steffen, Matt Staymates, Carolyn Burdette, Greta Babakhanova, Teresa Cronise, Wendi Copello, LaQuetta Fields, Mark Cronise, Mike Williamson, Donald Windover, all nominators and cheerers, the MML People Council, and the MML management team for helping to make this MML Accolades Program a success!