Microscopy Society of America Announces 2025 Society Awards Recipients

Awardees to be honored at Microscopy & Microanalysis 2025 meeting held July 27 – July 31 in Salt Lake City, UT.

WAKEFIELD, Massachusetts – March 20, 2025 – The Microscopy Society of America (MSA) announced today its 2025 Society Awards Recipients. Nine individuals will be honored on July 28, 2025, at the Microscopy & Microanalysis 2025 meeting. The Society Awards honor distinguished scientific contributions to the field of microscopy and microanalysis by technologists and by scientists at various career stages, as well as distinguished service to the Society. One of the awards is the Distinguished Scientist Award, which honors preeminent senior scientists, for a long-standing record of achievement in the field of microscopy and microanalysis.

Here are the awards and recipients:

The **Albert Crewe Award** has been conferred annually since 2012 to a single individual of not more than six years since doctoral graduation who has made distinguished contributions to the field of microscopy and microanalysis in the physical sciences during this period.

This year's recipient is **Sandhya Susarla, Arizona State University.**

Sandhya Susarla is an Assistant Professor at the Materials Science and Engineering Program within the School for Engineering of Matter, Transport and Energy in Arizona State University. Her research interests lie in directly imaging the structural-property effects in quantum materials. Her seminal works include imaging moiré excitons at the single supercell, visualizing atomic-level orbital interactions in perovskite oxides, and imaging topological disorder pairs/chiral domain walls in oxide superlattices. She has published peer-reviewed articles in Science, Science Advances, Nature Materials, Advanced Materials, Nature Communications, Nano Letters, ACS Nano, ACS Applied Materials and Interfaces, Physical Review Materials, Physical Review Letters, and 2D Materials. Her past work has been recognized with postdoctoral awards from MSA and American Physical Society. She is also active in conference organization at the Microscopy Society Meetings.

The **Distinguished Scientist Award** has been conferred annually since 1975 to two individuals – one in the area of biological sciences and one in the area of physical sciences – to recognize a long-standing record of achievement in the field of microscopy and microanalysis.

This year's recipient in the physical sciences is **Marc De Graef, Carnegie Mellon.**

After completing his PhD studies in Belgium in 1989, Marc De Graef worked for three and a half years as a postdoctoral researcher in the Materials Department at the University of California at Santa Barbara. He then joined the Department of Materials Science and Engineering at Carnegie Mellon University in Pittsburgh, PA, where he is currently the John and Claire Bertucci Distinguished Professor of Engineering. His current research interests include the modeling of SEM-based diffraction techniques, 3D microstructure reconstruction, and Lorentz microscopy.

This year's recipient in the biological sciences is **Lucy Collinson, The Francis Crick Institute.**

Dr. Lucy Collinson FRMS is an electron microscopist with a background in medical microbiology and cell biology. She has 20 years' experience building and running biomedical electron microscopy facilities and currently runs the Electron Microscopy Science Technology Platform at the Francis Crick Institute in London. Her team uses light, X-ray, electron and ion microscopes in correlative workflows to image biological samples across scales, from cells to model organisms and human tissues. She leads a technology development programme to break through barriers in advanced imaging, building new hardware and software solutions where commercial solutions do not exist. Her technology development work incorporates volume EM, correlative imaging, X-ray microscopy, AI algorithm development, citizen science and democratization of advanced imaging technology.

The **George Palade Award** has been conferred annually since 2012 to a single individual of not more than six years since doctoral graduation who has made distinguished contributions to the field of microscopy and microanalysis in the life sciences during this period.

This year's recipient is **Ellen D. Zhong, Princeton University.**

Ellen Zhong is an Assistant Professor of Computer Science at Princeton University, where she is also affiliated with the Princeton Laboratory for Artificial Intelligence, the Center for Statistics and Machine Learning, and the Omenn-Darling Bioengineering Institute. Her research interests lie at the intersection of AI and biology with a focus on structural biology and image analysis algorithms for cryo-electron microscopy (cryo-EM). Previously, she worked at Google DeepMind on the AlphaFold team and at D. E. Shaw Research on molecular dynamics for drug discovery. She obtained her B.S. from the University of Virginia in 2014 and her Ph.D. from MIT in 2022 before joining the Princeton faculty.

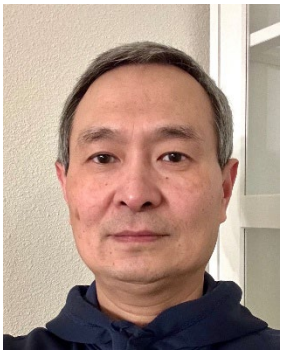
The **Chuck Fiori Award for Outstanding Technologist in the Physical Sciences** annually honors a technologist from the physical sciences who has made significant contributions, such as the development of new techniques that have contributed to the advancement of microscopy and microanalysis.

This year's recipient is **Kim Kisslinger, Brookhaven National Laboratory.**

Kim Kisslinger is an Advanced Technical Associate at Brookhaven National Laboratory's Center for Functional Nanomaterials, specializing in electron microscopy. With over 12 years of experience in the semiconductor industry, including at Intel Corporation, he excels in Transmission Electron Microscopy (TEM) sample preparation and analysis. His research interests include nanomaterials, thin films, and material characterization, with contributions to over 160 scientific publications, including studies on lithium-ion batteries, photovoltaics, catalysis, microelectronics, and super conductors.

The **Hildegard H. Crowley Award for Outstanding Technologist in the Biological Sciences** is awarded annually to honor a technologist from the biological sciences who has made significant contributions, such as the development of new techniques that have contributed to the advancement of microscopy and microanalysis.

This year's recipient is **Shawn Zheng, Chan Zuckerberg Imaging Institute.**



Dr. Shawn Zheng has dedicated his career to advancing cryoEM/ET techniques. Over the past two decades, he has developed several widely used software packages, including UCSFTomo, MotionCor2, AreTomo, and most recently, AreTomoLive. He currently serves as a technology team leader at the CZ Imaging Institute. Before this, he was a staff scientist at the Howard Hughes Medical Institute and the University of California San Francisco. Dr. Zheng received his PhD from the University of Utah in 1999. In his spare time, he enjoys jogging, hiking, and reading. He rewards himself with fish and chips for making significant progress.

The **Burton Medal** has been awarded annually since 1975 to individuals under the age of forty– one in the area of biological sciences and one in the area of physical sciences – who have made distinguished contributions to the field of microscopy and microanalysis.

This year's recipient in the area of biological sciences is **Dmitry Lyumkis, Salk Institute for Biological Studies.**

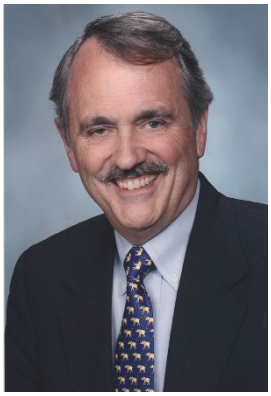
Dr. Dmitry Lyumkis' research has led to impactful contributions furthering our mechanistic understanding of infectious diseases through the lens of protein biophysics and structural biology. His lab revealed how nucleoprotein complexes from the human immunodeficiency virus (HIV) are assembled, defined how clinically used drugs block viral infection, and elucidated mechanisms by which HIV evolves resistance to therapy. Ongoing work in the lab is broadly focused on deciphering the structure, function, inhibition, and evolution of protein complexes that are involved in pathogen/host interactions.

This year's recipient in the area of physical sciences is **Steven Spurgeon, National Renewable Energy Laboratory.**

Dr. Steven R. Spurgeon, a Senior Materials Data Scientist at the National Renewable Energy Laboratory and Colorado School of Mines, is recognized as a leader in leveraging artificial intelligence to transform materials discovery and design. His innovative research in autonomous microscopy is reshaping materials characterization and accelerating critical technologies across diverse fields spanning microelectronics, quantum information science, and advanced energy systems. His seminal contributions to the field have earned numerous accolades, including an R&D 100 Award and commendations from the Department of Energy, Department of Defense, and the Materials Research Society. He is a scientific innovator and passionate architect of the microscopy community's future.

The **Morton D. Maser Distinguished Service Award** is awarded annually to honor an MSA member who has provided significant volunteer service to the Society over a sustained period of time.

This year's recipient is **Stephen Carmichael, Retired, Mayo Clinic.**



Stephen Carmichael enjoyed writing "Carmichael's Concise Reviews" to accompany each issue of *Microscopy Today* for the last 20 years. Stephen went to Kenyon College as an undergraduate and Tulane University as a doctoral student in Anatomy. He spent most of his career in the Anatomy Department at Mayo Clinic, including 14 years as Professor and Chair, retiring in 2007. Teaching was his major career emphasis; he taught gross anatomy, microscopic anatomy (histology and cytology) and developmental anatomy (embryology) to medical students, residents and others who needed to know the structure of the human body. His major research interest was the adrenal medulla and was best known for his books reviewing all the literature on this subject over a given period. Stephen is particularly proud of his article on the adrenal chromaffin cell published in *Scientific American* in 1985.

About the Microscopy Society of America

The Microscopy Society of America was founded as the Electron Microscope Society of America in 1942, a time of rapid development for an instrument that promised, for the first time, better resolving power than that of the traditional light microscope. The Society adopted its current name on its 50th anniversary, to reflect the diversity of microscopy techniques represented by its membership. Today, a variety of microscopes are capable of imaging individual atoms, and providing chemical information to identify what kind of atom is being imaged, while a variety of microscopes of lower resolving power continue to play an enabling role in understanding the world around us at a microscopic scale. The Microscopy Society of America champions all forms of microscopy and the development of new imaging technologies through its annual meeting, its publications, and its educational outreach.

Microscopy & Microanalysis (M&M) is the annual meeting of the Microscopy Society of America and the Microanalysis Society (MAS). M&M 2025 will be held July 27- July 31 in Salt Lake City, UT.

The Microscopy Society of America is an affiliate society of the American Institute of Physics (AIP) and the American Association for the Advancement of Science (AAAS).

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For promotional purposes, photographs, and biographic profiles of the 2024 Society Awards Recipients can be found on the MSA website.

Information on previous award winners can also be found on the MSA website.