

For Immediate Release

Microscopy Society of America Announces 2017 Major Award Winners

Awardees to be honored at 75th anniversary meeting in St. Louis, Missouri.

RESTON, Virginia – Apr. 24, 2017 – The Microscopy Society of America (MSA) announced today its 2017 major award winners. Eight individuals will be honored on August 7 in St. Louis at Microscopy & Microanalysis 2017, which will be the 75th anniversary meeting of MSA. The major awards of the Society 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.

The Society's **Distinguished Scientist Awards** annually honor preeminent senior scientists, one each in the biological and physical sciences, for a long-standing record of achievement in the field of microscopy and microanalysis during his or her career. The 2017 MSA Distinguished Scientists are:

David W. Piston, *Washington University* (biological sciences); and
Nestor J. Zaluzec, *Argonne National Laboratory* (physical sciences).

“Dave Piston’s research accomplishments demonstrate how the development and innovative application of microscopy techniques can promote significant advances in biomedical research” said Christine Brantner, biological sciences co-chair of the MSA Awards Committee. “His work imaging live cells with a novel combination of fluorescence microscopy, microfluidic devices, and quantitative analysis techniques has illuminated the complex relationships between diabetes, blood glucose and secretion of pancreatic hormones.”

“Nestor Zaluzec has made numerous research contributions to the microscopy and microanalysis field, particularly in the areas of analytical electron microscopy and the science of radiation damage” said Molly McCartney, MSA Awards Committee physical sciences co-chair. “Nestor’s early recognition of the prospective role of the internet in science, particularly in his establishment of the TelePresence Microscopy Collaboratory, established remote instrument operation and related on-line collaboration as key enabling technologies for scientific investigation.”

The **Burton Medal** annually honors the distinguished contributions in the field of microscopy and microanalysis thus far in the career of a scientist of not more than 40 years of age. The 2017 Burton Medalist is:

Christopher J. Russo, *MRC Laboratory of Molecular Biology*.

“Chris Rosso’s accomplishments during his young career exemplify the synergy between the physical and biological sciences that is a hallmark of the microscopy field” remarked Brantner. “His development of novel graphene and gold specimens supports has solved important problems in the cryogenic electron microscopy (cryo-EM) imaging of biological specimens, and promises to make this technique the method of choice for structural molecular biology.”

The **Hildegard H. Crowley Award** and the **Chuck Fiori Award** annually honor technologists, one each in the biological and physical sciences, respectively, for significant contributions in the field of microscopy and microanalysis. The 2017 Crowley Award winner is:

Patricia S. Connelly, *National Heart, Lung and Blood Institute, National Institutes of Health* (retired);

the 2017 Fiori Award winner is:

Richard L. Martens, *University of Alabama*.

“Pat Connelly has made significant contributions to the projects and missions of many labs throughout her extensive career, as well as to the microscopy community through the sharing of her knowledge of sample preparation, microscopy imaging and cell ultrastructure” said Brantner. “Her volunteer activities in the Facilities Operation and Management Focused Interest Group and in the Society’s educational outreach activities have been exemplary.”

“Rich Martens’ background and training in electron and atom probe microscopies, as well as FIB-based specimen preparation techniques for these microscopies, has helped to establish the facility he manages a leading microscopy and microanalysis facility in the Southeast region” noted McCartney. “Rich has also made significant service contributions to the Society, as leader of the Society’s Atom Probe Field Ion Microscopy Focused Interest Group, and particularly as Editor of the M&M Program Guide.”

The **Morton D. Maser Distinguished Scientist Award** honors outstanding volunteer service over a sustained period of time by a member of the Society. The 2017 Maser Award winner is:

David W. Tomlin, *Azimuth Corporation*.

“David Tomlin exemplifies the kind of service without which a society such as MSA cannot function effectively” said McCartney. “He has performed

many service roles for the Society in the past, including as Chair of the Education Committee during the critical time when it was partitioned into the current Educational Outreach and Educational Resource Committees. Dave currently oversees the MSA Megabooth at the annual M&M meeting and serves as Chair of the Society's Placement Office, which matches job seekers with opportunities posted by prospective employers.”

The **George Palade Award** and the **Albert Crewe Award** annually honor early career scientists, one each in the biological and physical sciences, respectively, for significant contributions in the field of microscopy and microanalysis during the first six years since doctoral graduation. The 2017 Palade Award winner is:

Rengasayee Veeraraghavan, *Virginia Tech Carilion Research Institute*;
the 2017 Crewe Award winner is:

Pinshane Y. Huang, *University of Illinois, Urbana-Champaign*.

“Rengasayee (Sai) Veeraraghavan has used his diverse background in engineering and mathematics to study a complex biological system in the imaging of cardiac junctions” said Brantner. “Sai’s publications of mathematical models and algorithms to determine the distribution of gap junctions and to localize molecules that are close together have been widely cited and will be of great use to many investigators in the field.”

“Pinshane Huang has used aberration-corrected microscopy and spectroscopy to reveal the structure and chemistry of two dimensional (2D) structures, including single atomic layers of graphene and silica glass” said McCartney. “Her research efforts seek to leverage these insights to develop novel structures for next generation electronic and energy applications.”

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 order of one micrometer) of the traditional light microscope. The Society adopted its current name on the occasion of 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, and the development of new technologies. As it celebrates its 75th anniversary this year, the Microscopy Society of America champions all forms of microscopy 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 2017, to be held August 6-10 in St. Louis, Missouri, will be cosponsored for the first time by the International Field Emission Society (IFES). M&M 2017 marks significant anniversaries for all three societies: the 75th anniversary of MSA, the 50th anniversary of MAS, and the 50th anniversary of the invention of the atom probe field ion microscope, an instrument based on high-field science, the scientific emphasis of IFES.

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 biographic profiles of individual major award winners can be found on the MSA web site:

<http://www.microscopy.org/awards/society.cfm>

For a given award, click on the "List of Recipients" link, then on the name of the individual award winner in the list.

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