



601 Light Street • Baltimore, Maryland 21230-3812
410.685.2370 Fax 410.545.5974 <http://marylandsciencecenter.org>

Maryland Science Center Announces 2019 Outstanding Young Scientists and Outstanding Young Engineers

Awards Ceremony To Be Held Wednesday, May 8

March 11, 2019 (Baltimore) – The Maryland Academy of Sciences and the Maryland Science Center have selected the recipients of the 2019 Outstanding Young Scientist (OYS) and Outstanding Young Engineer (OYE) awards. The recipients will be honored at a ceremony at the Maryland Science Center on Wednesday, May 8.

The honorees are:

Outstanding Young Scientist Award Recipients

Yifei Mo, Ph.D. — Assistant Professor, Department of Materials Science and Engineering and Department of Physics, University of Maryland, College Park

Samantha Maragh, Ph.D. — Human Geneticist and Molecular Biologist, National Institute of Standards and Technology

Outstanding Young Engineer Award Recipients

Muyinatu Bell, Ph.D. — Assistant Professor, Department of Electrical and Computer Engineering, Johns Hopkins University

Jason Hattrick-Simpers, Ph.D. — Materials Research Engineer, National Institute of Standards and Technology

(more details of the honorees' work is below)

The OYS and OYE awards recognize young Maryland residents who have distinguished themselves with accomplishments in science and engineering. The nominations are open to scientists and engineers 35 years old or younger working in academia and 40 or younger working in other sectors.

The OYS award was established in 1959 with the OYE award inaugurated in 1988. Award recipients are chosen by members of the Maryland Academy of Sciences' Scientific Advisory Council.

"These awards are an annual reminder that Maryland is home to amazing young scientific and engineering talent, as well as the notable institutions that host and empower them," said Mark J. Potter, President and CEO of the Maryland Science Center. "The 2019 OYE/OYS honorees are an inspiration to the next generation of STEM pioneers, as well as anyone who seeks to make the world a better place through hard work, determination and collaboration."

“Our 2019 OYE and OYS recipients are making great strides in technologies that will improve the health of people and the health of our planet,” said Dr. Stephen Schenkel, Chair of the Maryland Academy of Sciences’ Scientific Council. “It’s our responsibility to make sure Maryland remains a welcoming place for young STEM leaders to thrive.”

The 2019 Outstanding Young Scientists

Dr. Yiefo Mo is an Assistant Professor in the Department of Materials Science and Engineering at the University of Maryland, College Park

Professor Mo belongs to the new breed of theoretical scientists who wield the tools of quantum mechanics and the first principles calculations to tackle everyday problems such as how long batteries can last in laptops and how to extract more electricity from solar cells.

Professor Mo has spearheaded a new research group in advanced renewable energy materials, including next-generation fuel cells and Li-ion batteries, making a mark as a preeminent materials scientist addressing the pressing issue of designing novel energy storage materials.

His publications have appeared in the highest impact factor journals including Nature, Nature Materials, and Nature Communications. Two of his papers have been recognized by Thomson Reuters as among the top 1% most cited papers in the entire field of materials science.

Dr. Samantha Maragh leads the Genome Editing Program at the National Institute of Standards and Technology

Dr. Maragh recognized the need for, established and is now leading the National Institute of Standards and Technology Genome Editing Consortium. In this highly competitive field, each company and institute was attempting to address daunting measurement challenges independently but did not have the resources or ability to do so.

By establishing the Genome Editing Consortium, Dr. Maragh has brought together competing entities in the public, private and academic arenas to address measurement challenges that are insurmountable by any one institute alone.

Dr. Maragh was one of only 25 U.S. experts invited by the Director of the National Institutes of Health to discuss if NIH should develop a program to support accelerating genome editing therapies into the clinic. NIH has since moved forward with the \$190 million NIH Somatic Cell Genome Editing program that is collaborating with the NIST Genome Editing Consortium led by Dr. Maragh.

The 2019 Outstanding Young Engineers

Dr. Muyinatu Bell is an Assistant Professor in the Department of Electrical and Computer Engineering at Johns Hopkins University

Dr. Bell is carving new research directions in photoacoustic imaging, ultrasound imaging and image-guided surgery. Her research in photoacoustic-guided surgery has significant potential to introduce new technology that will reduce the risk of death during surgery.

Her research breaks new ground in the fundamental understanding of technology designs, image quality requirements and innovative light delivery systems that attach to surgical tools to transmit laser energy directly to the surgical site.

Dr. Bell was recognized by MIT Technology Review as one of the world's top 35 innovators under the age of 35, and she was selected by the National Academy of Engineering to participate in the U.S. Frontiers of Engineering Symposium.

Dr. Jason Hattrick-Simpers is a Materials Research Engineer at the National Institute of Standards and Technology

Dr. Hattrick-Simpers' pioneering materials science research is aimed at the optimization of properties and processing of novel materials through the integration of machine-learning, artificial intelligence and high-throughput experiment methodologies.

Several critical technologies are currently materials-limited, awaiting novel materials solutions for advancement. Dr. Hattrick-Simpers is an outstanding researcher at the vanguard of the emerging Materials Genome Initiative paradigm which will enable a sea-change in the way materials research development and manufacturing will be carried out.

He has been awarded three patents and has delivered about 40 invited talks and seminars. He is the Associate Editor of ACS Combinatorial Science.

For more information about the Outstanding Young Scientist and Engineer Awards, visit <https://www.mdsci.org/learn/awards-scholarships/oys-oye/>