

News Release 18-043

OSTP and NSF to honor 140 individuals and organizations with highest US award for teachers and mentors, June 25, 2018

# Leo Michael Romero, Tufts University



# Presidential Awards for Excellence in Science, Mathematics & Engineering Mentoring (PAESMEM)

The Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring PAESMEM honors U.S. citizens or permanent residents and U.S. organizations that have demonstrated excellence in mentoring individuals from groups that are underrepresented in STEM education and workforce. Individuals and organizations in all public and private sectors are eligible including industry, academia, primary and secondary education, military and government, non-profit organizations, and foundations. Nominations are encouraged from all geographical regions in the U.S., its territories or possessions, particularly jurisdictions designated by Congress under NSF's Experimental Program to Stimulate Competitive Research (EPSCoR). Each year's awardees add to the recognition of a widening network of outstanding mentors in the United States, assuring that tomorrow's scientists and engineers will better represent the nation's diverse population. This award is managed by the Directorate for Education and Human Resources. Send inquiries to [PAESMEM@nsf.gov](mailto:PAESMEM@nsf.gov).

## AWARDEE



[L. Michael Romero Profile](#)

**Award Number: 1500450**

**Year: 2015**

**Location: Medford, MA 02153**

The official biography below was current at the time of the award. Awardees may choose to provide their latest biographical information on their profile page.

As the sixth Hispanic-American to attend Swarthmore College in 1988, Michael Romero reflects that "I figured I would eventually end up in law school." Improbable as it may seem, his first declared major was Philosophy. But fate intervened: His first mentor, Dr. Gregory Florant (an African-American Biology Professor) changed his life forever. Romero remembers " ... he reached out to me personally, took me under his wing, and encouraged me to pursue a career in

research. He took me into his lab, put me on a project, and kindled a fire that lasts to this day."

Dr. Romero's mentoring proceeds from the belief that one should not spoon feed projects to students, but conversely one should not allow students to struggle as the result of too little support. Romero's mentoring eschews use of the typical one-semester research experience for undergraduates in favor of intensive counseling and year-long immersion in laboratory work that enables his undergraduates to develop technical skills for completing big projects.

Importantly, his undergraduate students also learn quickly that manuscript writing is essential for analysis, presentation, and communication of knowledge.

Michael Romero uses his endocrinology course to target talented minority undergraduates with the drive to succeed on a long trajectory through graduate school. Tufts has a strong commitment to admitting women and students of limited means-and since 1997, he has mentored 64 undergraduates (40 women and twelve from minority groups underrepresented in science fields). Twenty-three of his undergraduates are co-authors of published papers. Half of his undergraduates are co-authors on 44 abstracts presented at national or international meetings.

His graduate students are mentored not merely for success in research and grant writing, but for teaching excellence as well. All graduate students must give a number of lectures in Romero's undergraduate classes-both on their thesis research as well as general topics. Graduate students are also paired with undergraduate students for peer mentoring activities. Dr. Romero also mentors graduate students academically, professionally and personally in areas of career-life balance for example.

Fourteen of his undergraduates have entered prestigious graduate university programs. Three of his ten graduate students have published 12 or more papers in professional journals, and two of his graduate students are post-docs ( one at a renowned lab in Belgium and one at Yale University.) Remarkably, his graduate students have raised nearly \$250,000 for their stipends, travel, and research supplies.

Dr. Romero is the recipient of a Mellon Foundation Research Semester Fellowship, the Tufts University Faculty Research Award and Award for Curricular Innovation, a National Science Foundation Post-doctoral Fellowship and a Graduate Research Fellowship, the American Psychological Association Post-doctoral Fellowship, and the National Institutes of Health Minority Graduate Fellowship Grant. He is a member of the Sigma Xi Honor Society.

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**Presidential awards express nation's gratitude for dedication to teaching and mentoring.**



Awards recognize excellence in STEM teaching and mentoring.

**June 25, 2018**

The White House Office of Science and Technology Policy (OSTP), with the National Science Foundation (NSF), announced today that more than 140 individuals and organizations will be honored with presidential awards for their excellence in teaching or mentoring in science, technology, engineering and mathematics (STEM).

Kindergarten through sixth grade teachers will receive the Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST), and mentors will receive the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM).

"On behalf of the White House I am honored to express the nation's gratitude for the tireless dedication that these men and women bring to educating the next generation of

scientists, engineers and mathematicians," said Michael Kratsios, deputy assistant to the president for Technology Policy. "Each day more and more jobs require a strong foundation in STEM education, so the work that you as teachers and mentors help ensure that all students can have access to limitless opportunities and the brightest of futures."

Awardees represent schools in all 50 U.S. states, Department of Defense Education Activity schools and schools in the U.S. territories American Samoa, Guam, the Commonwealth of the Northern Mariana Islands and the U.S. Virgin Islands.

During a visit to the nation's capital, award recipients will each receive a presidential citation at an awards ceremony and participate in discussions on STEM and STEM education priorities led by OSTP and NSF. Recipients will also receive \$10,000 from NSF, which manages the PAEMST and PAESMEM programs on behalf of the White House.

### **Presidential award for K-12 teachers**

Established in 1983, PAEMST is the highest award kindergarten through 12th grade mathematics and science (including computer science) teachers can receive from the U.S. government. The award alternates years between kindergarten through sixth grade and seventh-12th grade teachers. This year, on the award's 35th anniversary, kindergarten through sixth grade teachers will be honored.

Nominees complete a rigorous application process that requires them to demonstrate their excellence in content knowledge and ability to adapt to a broad range of learners and teaching environments.

A panel of distinguished mathematicians, scientists and educators at the state and national levels assess the applications before recommending nominees to OSTP.

Teachers are selected based on their distinction in the classroom and dedication to improving STEM education.

### **Presidential award for STEM mentors**

PAESMEM recognizes the critical roles mentors play outside the traditional classroom in the academic and professional development of the future STEM workforce.

Colleagues, administrators, and students nominate individuals and organizations for exemplary mentoring sustained over a minimum of five years. Since 1995, PAESMEM has honored the hard work and dedication mentors exhibit in broadening participation in the STEM pipeline.

Mentors support learners from the kindergarten through collegiate levels, as well as those who recently have started their careers in STEM. They share their expertise and guidance with learners, sometimes through formal mentoring programs. Learners are often from traditionally underrepresented groups in STEM.

For more information about [PAEMST](#) and [PAESMEM](#), please visit their websites.

-NSF-

*The National Science Foundation (NSF) is an independent federal agency that supports fundamental research and education across all fields of science and engineering. In fiscal year (FY) 2018, its budget is \$7.8 billion. NSF funds reach all 50 states through grants to nearly 2,000 colleges, universities and other institutions. Each year, NSF receives more than 50,000 competitive proposals for funding and makes about 12,000 new funding awards.*

