

# 2018 Rising Scientist Awards

October 18, 2018

Advanced Science Research Center

City University of New York

8:00 AM – 9:00 AM

presented by



CHILD MIND®  
INSTITUTE

ADVANCED SCIENCE  
RESEARCH CENTER  
THE GRADUATE CENTER  
CITY UNIVERSITY OF NEW YORK



## PROGRAM

- 8:00 AM** **Welcome: Joshua Brumberg, PhD**  
Dean of the Sciences, The Graduate Center, CUNY; Professor of Psychology and Biology at Queens College and The Graduate Center, CUNY
- 8:05 AM** **Introduction: Harold S. Koplewicz, MD**  
President, the Child Mind Institute
- 8:10 AM** **Special Remarks: Felton “Tony” Earls, MD**  
Professor of Social Medicine, Emeritus, Harvard Medical School; Professor of Human Behavior and Development, Emeritus, Harvard T.H. Chan School of Public Health; 2018 Child Mind Institute Sarah Gund Distinguished Scientist
- 8:20 AM** **Presentation of Awards**
- 8:45 AM** **Program Concludes**
- 9:00 AM** **On the Shoulders of Giants Scientific Symposium**

## 2018 RISING SCIENTIST AWARD WINNERS



**Ellen Amico**  
Byram Hills High School

Ellen Amico is an honors student and a leader in Byram Hills High School’s Authentic Science Research Program. For two years she has been designing and developing a project to study the use of technology as a therapeutic tool for children with autism. After teaching herself to code in C# and Unity, Ellen created a virtual reality intervention using avatars to teach emotion recognition. Last summer, she implemented her intervention and measured its efficacy at the Treatment and Research Institute for Autism Spectrum Disorders Lab at Vanderbilt University.

Ellen also participated in an introductory medical program at UCLA and she volunteers regularly at the White Plains Hospital in the pediatric surgical recovery unit. Ellen has a leadership role in a school club that brings science lessons to the second grade students in her district and she has been selected to act as a Regents Chemistry class teaching assistant this year.

Ellen has volunteered both in and out of school to work with sick and disabled children. At school, Ellen designed and taught lessons to a special class of students with ASD (autism spectrum disorder) and learning disorders. She believes that technology will have a huge impact on increasing the accessibility of therapies to ASD individuals.



**Julia Morneau**  
Wilton High School

Julia Morneau is described as being “on fire” about biology, pediatrics, and mental health. Last summer, she attended the Summer Medical Program at Georgetown University and also shadowed the director of oncology at Norwalk Hospital in Connecticut. She continues to shadow an OB GYN/prenatal doctor several times each month.

Julia has volunteered in the hematology and chemistry labs at Stamford Hospital, where she took a special interest in blood serum tests and their storage protocols. She turned this into her AP biology research project, proving that some lab and hospital recommendations were not optimal. Her work has influenced how Stamford Hospital handles and stores specimens for testing. In addition, Julia has worked as a research assistant at the Yale Pulmonary Research Lab with Dr. Maor Sauler. She has become a master of genotyping procedures and technologies. Her work will earn her a publication, as co-author, in the European Respiratory Journal on the topic of DNA repair variations in severe COPD.

Julia runs a medical club for women interested in medical careers and participates in several mentoring programs. She created a foundation called “Little Minds” that aims to erase the stigma associated with mental illnesses and raise money for families who cannot afford mental health services. Julia also organized a school district “Mental Health” week, coordinating activities between two elementary schools, a middle school and a high school.



**James Rogers**  
Smithtown High School West

James Rogers is one of the leaders of his high school Science Research group and mentors groups working on neurochemical questions. He also works with special needs students. James created the “Lunch Buddies Club,” which launched in the fall of 2018, pairing DECA students with special needs students to meet monthly for lunch and conversation.

James joined the school science research program during his freshman year to study the role of glutamate in neurotoxicity. Despite many set-backs, James has finally made some important findings which reveal the role of glycine as a co-agonist for glutamate excitation in *Nematostella*.

In addition to his biochemical and behavioral research, James is studying how glutamate neurotransmission has evolved with biologist Dr. Josh Rest at Stony Brook University. Ultimately James’ work will utilize biochemical, behavioral and genomic studies to demonstrate how glutamate receptors work. Furthermore, he is hoping to be able to make *Nematostella* a model system for understanding the role of excitotoxicity.



**Arsam Shaikh**  
High School for Youth and Community Development

In his freshman year, Arsam moved with his family to the United States from Pakistan, working extremely hard to overcome initial challenges.

In the fall of his junior year, Arsam discovered the Health Professions Recruitment and Exposure Program (HPREP), which provides motivated and underrepresented minority students with exposure to the field of medical science. For his research project at Weill Cornell Medical College, Arsam examined neural stem cell transplantation as a potential cure for neurodegenerative diseases such as Alzheimer’s.

Arsam is the first student from his school to attend Harvard’s Secondary School Program on full merit-based scholarship. One of only nine students accepted into the course “Becoming a Brain Scientist: Neuroscience and Psychology Research,” Arsam worked at McLean Hospital with Dr. Sabina Berretta, Associate Professor of Psychiatry, who focuses on the pathophysiology of schizophrenia and bipolar disorder.

Arsam’s inspiration for studying neuroscience is in part due to a desire to help people in Pakistan, where, he said, mental health disorders are considered “nonexistent and fictional.” His goal is to attain a doctorate in neurosurgery, and build a hospital in Pakistan.



**John Sukumar**  
Ossining High School

John Sukumar is an outstanding student leader and a member of his school’s 3-year science research program and the Engineering and Robotics club. Passionate about promoting STEM opportunities for students, John helped to plan two local science fairs, the Westchester Science & Engineering Fair and the Westchester-Rockland Junior Science & Humanities Symposium (each attended by over 500 students).

Following a diagnosis of ADHD in his freshman year, John challenged the DSM-5 criteria describing difficulty sustaining attention. He found the opposite to be true; it was sometimes difficult to break his attention from tasks that interested him. This served as the motivation for John’s research into hyper-focus, a poorly understood characteristic associated with ADHD that defies the stereotype. He hopes his research will help other children by bringing greater awareness and understanding to hyper-focus.

## ABOUT THE RISING SCIENTIST AWARDS

The Rising Scientist Awards are given annually to five local high school students who show exceptional promise in the fields of child and adolescent mental health and/or pediatric neuroscience. The Awards are presented by the Child Mind Institute, joined this year by the Advanced Science Research Center at The Graduate Center of The City University of New York. Past recipients have gone on to study at the nation's most prestigious universities, and the award is broadly recognized as a sign of exceptional student promise.

## ABOUT THE ADVANCED SCIENCE RESEARCH CENTER AT THE GRADUATE CENTER OF THE CITY UNIVERSITY OF NEW YORK (ASRC)

The ASRC at The Graduate Center elevates scientific research and education at CUNY and beyond through initiatives in five distinctive but increasingly interconnected disciplines: environmental sciences, nanoscience, neuroscience, photonics, and structural biology. The ASRC promotes a collaborative, interdisciplinary research culture with renowned researchers from each of the initiatives working side-by-side in the ASRC's core facilities, sharing equipment that is among the most advanced available.

## ABOUT THE CHILD MIND INSTITUTE

The Child Mind Institute is an independent, national nonprofit dedicated to transforming the lives of children and families struggling with mental health and learning disorders. Our teams work every day to deliver the highest standards of care, advance the science of the developing brain, and empower parents, professionals and policymakers to support children when and where they need it most. Together with our supporters, we're helping children reach their full potential in school and in life. We share all of our resources freely and do not accept any funding from the pharmaceutical industry. Learn more at [childmind.org](https://childmind.org).



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