

**2021**

# Rising Scientist Awards

**OCTOBER 6, 2021**

**PRESENTED BY**



**Child Mind  
Institute**

**HUNTER**  
The City University of New York

## **PROGRAM**

### **INTRODUCTION**

**Jennifer Raab**  
President, Hunter College

**Harold S. Koplewicz, MD**  
President, Child Mind Institute

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### **SPECIAL REMARKS**

**Yasmin Hurd, PhD**  
Ward-Coleman Chair of Translational Neuroscience and  
the Director of the Addiction Institute at Mount Sinai

Recipient of the 2021 Sarah Gund Prize for Research  
and Mentorship in Child Mental Health

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### **PRESENTATION OF AWARDS & RISING SCIENTIST STUDENT RESEARCH PRESENTATIONS**

## 2021 RISING SCIENTIST AWARD WINNERS



### Natalie Calman

Natalie is a senior at Ossining High School in Ossining, New York. She is interested in mindfulness training and how to improve adolescent well-being.

She conducted a research project that investigated the effect of mindfulness-based stress reduction training on the mental health of high school students during the COVID-19 pandemic. She has worked with her mentor from Virginia Commonwealth University for the past two years to develop an effective mindfulness contact-less training intervention to deliver to high school adolescents. The goal of her research was to determine if participants' mindfulness and student well-being increase while depression symptoms and stress decrease from pre to post intervention.

Natalie created eight unique mindfulness audio recordings that focused on four specific mindfulness techniques: deep breathing, mindfulness meditation, body scan, and distress tolerance skills. She found that after a four-week intervention, students' feelings of stress and depression decreased while their mindfulness and student well-being increased, signifying an improvement in student mental health.

Outside of school, Natalie is a high level USAG competitive gymnast and state champion, and serves as captain of her club gymnastics team, captain of the varsity ski racing team, member of the Peer Mentor Program, and a writer for her school's newspaper.

## 2021 RISING SCIENTIST AWARD WINNERS



### Jason Cui

Jason is a senior at Fairview High School in Boulder Colorado. His research interests focus on neurodegenerative diseases, prevention research, and the gut-microbiome-brain.

Jason is currently working on an internship with University of Colorado Boulder where he is studying neurodegeneration and the gut-microbiome and nervous system axis. Previously, he completed an internship with the NASA Ames Research Center and was a Research Science Institute (RSI) Scholar at the Massachusetts Institute of Technology. He also worked as a Medical Assistant at the SpineWest clinic where he helped patients with neurodegenerative disorders and orthopedic conditions. Jason has presented his research in numerous local, national, and international science fairs including the Corden Pharma Regional Science and Engineering Fair, the Colorado State Science and Engineering Fair, the International Science and Engineering Fair, and the American Junior Academy of Science. His work has won numerous awards at these fairs including 1st place in Medicine and Health and 2nd place Best in Show at the Corden Pharma Regional Science and Engineering Fair. He is currently preparing two manuscripts for publication in peer-reviewed journals. Jason hopes to pursue a career in medicine as a physician-scientist and plans to study biology in college.

Outside of research and academics, Jason is actively involved in the National Science Honor Society and various leadership roles at his school.

## 2021 RISING SCIENTIST AWARD WINNERS



### Jeremy Kotlyar

Jeremy is a senior at William A. Shine Great Neck South High School, in Great Neck, New York. He is interested in understanding the role of neurodegenerative memory loss in common neurological disorders.

His most recent research study has focused on the application of Epileptic anticonvulsants in targeting Epilepsy-associated memory loss. Jeremy integrated multiple planarian models of neurodegenerative disease to evaluate a novel treatment's efficacy in inhibiting multiple Epilepsy-like symptoms simultaneously. During his junior year, the promise of this study was recognized by the WAC Lighting Invitational Science Fair with a first-place award in their General Biology Category. For his senior year, Jeremy is planning to continue his research through a deeper investigation of the metabolic pathways that anticonvulsant therapies target. As a student at Columbia University's Science Honors Program in 2020 and 2021, Jeremy credits his coursework with enhancing his background in neurology and biochemistry, fueling his research ideas. Jeremy planned and executed his research as part of the Great Neck South High School Honors Science Research Program. His previous study, conducted in 2019 and 2020, drew on the established efficacy of azo-dyes as dissociators of Alzheimer's-related plaques, and worked to establish a less hazardous form of this therapy.

At his high school, Jeremy has won several gold medals in Science Olympiad competitions and has been recognized as a top 10 finalist in two national HOSA events. He has served as Captain of the Debate team and competed in multiple national-level math team events. Jeremy is also a three-time National Spanish Exam Gold medalist. Outside of school, Jeremy enjoys volunteering as the Director of Finance and Fundraising of Learning for a Cause, a 501(c)3 nonprofit dedicated to tutoring underprivileged youth.

## 2021 RISING SCIENTIST AWARD WINNERS



### Zoe Pyne

Zoe is a senior at the Berkeley Carroll School in Brooklyn, New York. She is passionate about conducting research focused on human behavior, psychology, and neuroscience.

She is a member of her school’s rigorous and selective Science Research and Design program where she has been studying the impact of personality on coping response to COVID-19. She hypothesized that the collective trauma of the pandemic would motivate student participation and offer a unique lens to investigate personality and coping strategies. She also recognized that establishing a link between personality and maladaptive coping would be useful for school psychologists and administrators to support students navigating COVID-19 related trauma.

With a belief that everyone should be able to read, she co-founded a literacy program called Reading is Essential (RISE) with her family. This program provides literacy resources to underserved individuals in Brooklyn, New York and Belize, Central America. Her love of languages has led to fluency in Spanish and French. She is a classical music enthusiast and has studied the violin for over ten years. When she is not reading, listening to music, or spending time with her friends, you can find her painting.

## 2021 RISING SCIENTIST AWARD WINNERS



### Vivek Sreejithkumar

Vivek is a senior at Florida Atlantic University High School in Boca Raton Florida. He is studying Biochemistry and Interdisciplinary Mathematical Sciences at the Wilkes Honors College of FAU.

In the past few years, he has involved himself with multiple research projects in the fields of computational biology and the application of machine learning in healthcare and neuroscience. He has conducted epidemiological projects to investigate how mathematical models can be used to represent the spread of infectious diseases such as H1N1 influenza and COVID-19, worked in the MPCR Lab at FAU on a project using machine learning to detect falls in the geriatric population, and worked at the Max Planck Florida Institute for Neuroscience using machine learning to characterize fear behaviors in a mouse model of autism spectrum disorders.

Through his research, Vivek has presented at multiple undergraduate-level research conferences and symposia, authored 2 publications in scientific journals, and was awarded funding from research grants and competitions for his projects. In school, Vivek serves as the Student Government Association President, overseeing the planning of schoolwide events such as spirit weeks, game nights, dances, and informative panels on the topics of mindfulness, mental wellbeing, and mental health in the foster care system. When he is not conducting research or studying, Vivek enjoys practicing the drums and piano and he is also a black belt in taekwondo.

## **ABOUT THE RISING SCIENTIST AWARDS**

Since 2012, the Rising Scientist Awards have been awarded annually to high school students who demonstrate exceptional early achievement in research in child and adolescent mental health and/or pediatric neuroscience. The Rising Scientist Award is a broadly recognized sign of student excellence, and recipients have gone on to study at the nation's most prestigious universities and have been awarded significant scientific prizes.

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## **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](http://childmind.org).

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## **ABOUT HUNTER COLLEGE**

Located in the heart of Manhattan, Hunter College is the largest senior college in the City University of New York (CUNY). Founded in 1870, Hunter is also one of the oldest public colleges in the country. More than 23,000 students currently attend Hunter, pursuing undergraduate and graduate degrees in more than 170 areas of study. Hunter's student body is as diverse as New York City itself. For nearly 150 years, Hunter has provided educational opportunities for women and minorities, and today, students, including men, from every walk of life and every corner of the world, attend Hunter. In addition to offering a multitude of academic programs in its prestigious School of Arts and Sciences, Hunter offers a wide breadth of programs in its preeminent Schools of Education, Nursing, Social Work, Health Professions, and Urban Public Health.



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