

2022 Rising Scientist Awards

Presented by



Child Mind
Institute

HUNTER
The City University of New York

THURSDAY, OCTOBER 20, 2022

3:30 PM – 5 PM EST

PROGRAM

Introduction

Jennifer Raab

President, Hunter College

Harold S. Koplewicz, MD

President, Child Mind Institute

Special Remarks

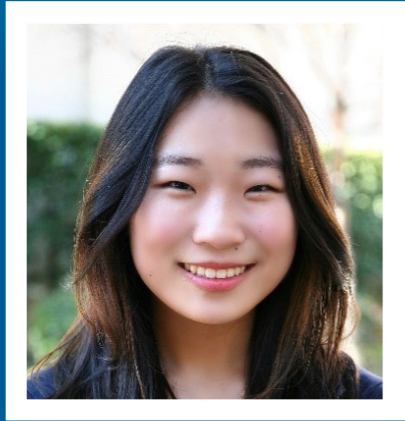
Margaret M. McCarthy, PhD

James and Carolyn Frenkil Dean's Professor, Chair for the Department of Pharmacology and
Director for the Program in Neuroscience (PIN) at the University of Maryland School of Medicine

Recipient of the 2022 Sarah Gund Prize for Research and Mentorship in Child Mental Health

Presentation of Awards & Rising Scientist Student Research Presentations

2022 RISING SCIENTIST AWARD WINNERS



Hannah Cho

Hannah is a senior at North Hollywood High School in California with an interest in neuroscience and biomedical engineering. She developed a passion for these fields when she first started working at the USC Brain and Creativity Institute almost two years ago. At the lab, she managed physiological data collection from teachers struggling through the pandemic and independently analyzed various meditations' effects on their autonomic nervous systems. She then found that teachers consistently benefitted from focus meditation practices that conferred long-lasting heart health benefits. Her research paper has been recognized at the LA County Science Fair and as an international finalist (Top 42) for the Journal of Young Explorers Meta Competition.

Hannah was one of 48 students in the world invited by the Board of Directors at the Global Health Leaders Conference to speak live at John Hopkins University. She is now preparing her second research investigation for publication. In her research, she has found correlations between IQ, developed emotional processing, and cortical thickness of Brodmann's areas, regions associated with those functions. She also enjoys expressing her research passions at school. As a qualified USABO semifinalist and Oracle certified Java 8 programmer, she leads her school's Science Research Club and the American Computer Science Leaders club and founded the Women in Tech Club, in hopes of synthesizing biological sciences and computer science to engineer cures for neurological disorders. In her free time, Hannah volunteers as a crisis counselor for the California Youth Crisis Line and enjoys writing poetry and peer-editing literature as the editor-in-chief of her school's literature publication.

2022 RISING SCIENTIST AWARD WINNERS

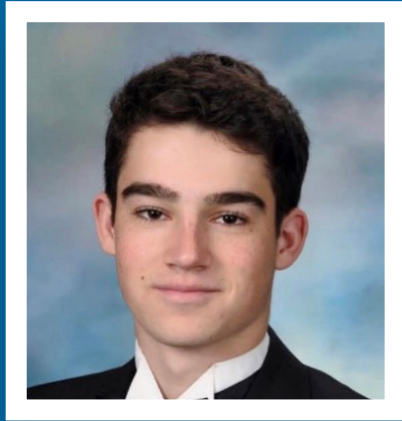


Noemie Durand

Noemie (she/they) is a high school senior at BASIS DC, a charter school in Washington, DC. They are passionate about mental health and sexual health, and they truly enjoy seeing how their work helps their peers. This is their third year working at the Young Women's Project, where they compiled mental health resources for their peers into a Virtual Wellness Center and advocated for better mental health supports in schools. In 2021, they started a nonprofit called Carna, which provides mental health and wellness resources, information, and products to teens. They worked with American University students in spring 2021 to learn about the research process and used surveys to evaluate and make suggestions for the Latin American Youth Center's teen health program.

Noemie has written research articles for Each Mind, a teen-led mental health magazine, since 2020. They're currently an intern research assistant at Child Trends, a child psychology research organization, where they're working on analyzing survey results and researching best practices for school mental health supports. Outside of their work in mental health, they are captain of their school's Policy Debate Team and they were quarterfinalists at the national tournament in 2022. They're also president of their school's National Honor Society, with which they've led the tutoring and mentoring program, supply drives, trash clean-ups, and many other community service projects. They play on their school's varsity basketball team and run track. They're looking forward to continuing to use this leadership and research experience in college and beyond!

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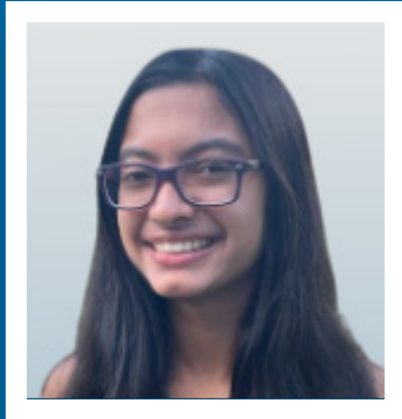


Ty Gelman

Ty is a senior at John F. Kennedy High School in Bellmore, New York. He has been a part of the selective Advanced Science Research program (ASR) at his high school for the last three years, where he has completed two independent research studies. As a lover of animals and competitive soccer player, Ty chose to research deleterious effects of activity in canines. Under the guidance of Dr. Emily Leary from the University of Missouri, Ty completed a data analysis project on the identification of biomarkers in canines with post-traumatic osteoarthritis. Most recently, taking inspiration from his internship with a neurosurgeon in 2021, Ty conducted another project on the effects of dietary restriction and exercise on a *Drosophila melanogaster* model of spinal muscular atrophy, a neuromuscular degenerative disorder. This past summer, Ty has researched his topic at Long Island University, and he looks forward to submitting his research to Regeneron Science Talent Search in the near future.

Ty is also an avid coder, completing independent projects and participating in internships with large companies such as United Pet Care. He is also a part of his school's robotics club, hackathon team, and varsity soccer team.

2022 RISING SCIENTIST AWARD WINNERS



Lina Iyer

Lina is a senior at Novi High School in Novi, Michigan. She is an aspiring medical professional and programmer interested in the intersection of mental health, epigenetics, and computer science.

In 2020, Lina and a team of other students worked with Heartfulness Meditation tools to develop and implement an IRB-approved 4-week self-care program for high school students and staff at three high schools, and to evaluate its impact on anxiety, satisfaction with life, and loneliness. She found a significant decrease in the participants' loneliness scores in pre- and post-comparison. The study details are published in a peer-reviewed journal, *Applied Psychology: Health and Well-being*.

Lina co-founded two nonprofits aimed at addressing mental health and wellness, Code for Nonprofit in 2018 and Student Wellness and Leadership (SWL) Movement in 2020. An app she developed with the former, HFNMeditate, is collecting preliminary data for a 2023 NIH grant submission. Lina leads the Student Mental Health Committee at her school, and she has participated in the Health Occupations Students of America (HOSA) Health Education event to showcase mental wellness and research data. She placed first regionally in 2021. She also received the AP Scholar award in both 2020 and 2021.

Outside of research and academics, Lina is rated a superior pianist by the National Guild of Piano and Federation Festival, and she is a member of her high school swim team. She enjoys meditating daily, listening to Taylor Swift, and spending time with her family and her five-year-old golden retriever, Luke!

2022 RISING SCIENTIST AWARD WINNERS



Amith Vasantha

Amith is a senior at Basis Independent Silicon Valley, San Jose, California. Neuroscience fascinates him as he believes that there is so little we know and so much left to be discovered about the brain. For Amith, neuroscience research is a privilege that can help him find a cure for people suffering from neurological diseases. He is extremely passionate about making a difference in their lives as a future physician.

Amith has been pursuing research as a path to innovation since his freshman year, when he worked on developing a Bash script to process SARS-CoV-2 genetic sequences at UC Santa Cruz's Summer Internship Program. Last year he researched functional connectivity in the default mode network and dorsolateral prefrontal cortex in autism spectrum disorder. He also analyzed functional magnetic resonance imaging using Matlab packages and statistical methods to determine brain regions that could indicate signs of autism spectrum disorder. Additionally, Amith has researched a connection between lucid dreaming and diminishing addictive behaviors. Currently, he is working with his mentor to research bradykinesia in Parkinson's disease. Amith has completed several Stanford clinical research internships and been invited to present at national and international student research conferences. Amith has also authored publications in science journals. In his free time, Amith enjoys reading (current favorite: *The Fountains of Paradise*), listening to music, traveling, and watching movies.

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.

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.

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.