

STEM 2023 NYC ISEF Finalists

The regional winners of the Terra NYC STEM Fair have brought home prizes from the Regeneron International Science and Engineering Fair (ISEF) competition held in Dallas, Texas. Sixteen of NYC's top high school researchers represented the NYC region and competed for a grand total of \$9 million in prizes. This prestigious competition showcased over 1,600 young scientists from 49 states and 64 countries worldwide. Among the participants, three Terra NYC finalists emerged as winners, securing Grand and/or Special Awards with a total value of \$82,600!



photographed above is the Terra ISEF Team composed of students from NYC, Buffalo, North Country, Rochester, Potsdam and North Jersey. Below click on the names of the students from NYC for access to their project board.

<u>Asuka Koda</u>, BRONX HIGH SCHOOL OF SCIENCE, **2nd Place Grand Award – cash prize: \$2000** ISEF Category: Behavioral and Social Sciences - BEHA056

Project title: Auditory Acuity and Auditory Feedback Response in Children With and Without Residual Speech Sound Disorder

Kiele Morgan, BRONX HIGH SCHOOL OF SCIENCE, 3rd Place Grand Award – cash prize: \$1000

ISEF Category: Cellular and Molecular Biology - CELL056

Project title: The Effect of NMDA Receptor Blockade on Neurogenesis and Neural Crest Development.

<u>Aaron Kim</u>, BRONX HIGH SCHOOL OF SCIENCE, Special Award winner of the Lawrence Technological University STEM Scholar Award, a tuition scholarship of \$19,650 per year, renewable for up to four years, and National Security Agency Research Directorate Third Place Award, Mathematics-cash prize \$1000

ISEF Category: Mathematical Sciences - MATH040

Project title: On Numbers whose Integer Parts are Always Composite







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Tara Isabel Lago and Mariella Reynoso, STATEN ISLAND TECHNICAL HIGH SCHOOL

ISEF Category: Animal Sciences - ANIM047T

Project title: Can SLEAP be used to track and quantify octopus arm movement?

Rommy Sasson, BROOKLYN TECHNICAL HIGH SCHOOL

ISEF Category: Biochemistry - BCHM033

Project title: Development of a Short Peptide to Prevent Non-Thrombogenic Clot Formation on

Hydrophobic Surfaces

Kiera Chan, STATEN ISLAND TECHNICAL HIGH SCHOOL

ISEF Category: Computational Biology and Bioinformatics (CBIO) - CBIO057

Project title: Coupling the Cybernetic Model with Flux Balance Analysis for Dynamic Simulation

of Overflow Metabolism in Escherichia coli

Angel Huang and Erica Yu, STATEN ISLAND TECHNICAL HIGH SCHOOL

ISEF Category: Earth and Environmental Sciences - EAEV074T

Project title: The Effect of Drought on Grassland Bird Species in an Urban Reclaimed Landfill

Siddig Mohammed, BRONX HIGH SCHOOL OF SCIENCE

ISEF Category: Biomedical Engineering - ENBM079

Project title: Investigating the Production of Gelatin Methacryloyl Polymerized Microspheres

with Breast Cancer Cells Using Microfluidic Devices

Kun-Hyung Roh, BRONX HIGH SCHOOL OF SCIENCE

ISEF Category: Biomedical and Health Sciences/Genetics and Molecular Biology of Disease - BMED061

Project title: Novel pharmacogenomic methodology for the identification of the first-in-class mechanisms of phenothiazine derivatives to delay and rescue Alzheimer's Disease pathology and extend lifespan in C. elegans

Bailey Howe, BROOKLYN TECHNICAL HIGH SCHOOL

ISEF Category: Microbiology - MCRO058

Project title: Intra and Interspecies Control of Bacterial Growth Through Quorum Sensing

Molecules

Lucas Libshutz, COLUMBIA GRAMMAR PREPARATORY SCHOOL

ISEF Category: Physics and Astronomy (PHYS) - PHYS065

Project title: Results of Synthetic High-Resolution Spectra from Titan Surface Observations

Alana Falter and Benjamin Kwait-Gonchar, BROOKLYN TECHNICAL HIGH SCHOOL

ISEF Category: Plant Sciences - PLNT054T

Project title: The combined effects of varying gravity levels and light exposures on garden cress

development using a low cost 3D printed clinostat.







Taj Jethwani-Keyser, BRONX HIGH SCHOOL OF SCIENCE

ISEF Category: Robotics and Intelligent Machines - ROBO063

Project title: "The truth will come out": Defending Against the Viral Spread of Misinformation by

Characterizing User Responses to Fake News.

The Terra NYC Preliminary and Finals Round

A total of 440 students from around NYC presented 304 projects during the Terra NYC Preliminary Round held online.

Out of these, 106 students and 81 projects successfully advanced to the Finals Round held at the NYU Tandon School of Engineering where they had the opportunity to present their research to judges.



