

REGENERON

SCIENCE
TALENT SEARCH

A program of
SOCIETY FOR SCIENCE
& THE PUBLIC

Since 1942

CONGRATULATIONS 2022 REGENERON STS SCHOLARS & FINALISTS

The
WESTCHESTER COUNTY BOARD OF LEGISLATORS
celebrate

THE 2022 REGENERON SCIENCE TALENT SEARCH SCHOLARS & FINALISTS



Monday, April 11, 2022 | 7:00 p.m.

PROGRAM

Welcoming Remarks & Acknowledgements
Chair Catherine Borgia

**Video Presentation of Certificates for
SCHOLARS and FINALISTS**

(see more on back)

Catherine Borgia
Board Chair
Legislator, 9th District

Colin D. Smith
Legislator, 1st District

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Legislator, 2nd District

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Minority Leader
Legislator, 3rd District

Vedat Gashi
Legislator, 4th District

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Legislator, 5th District

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Vice Chair
Legislator, 6th District

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Jewel Williams Johnson
Legislator, 8th District

Damon R. Maher
Legislator, 10th District

Terry Clements
Legislator, 11th District

MaryJane Shimsky
Legislator, 12th District

Tyrae Woodson-Samuels
Legislator, 13th District

David J. Tubiolo
Legislator, 14th District

James Nolan
Minority Whip
Legislator, 15th District

Christopher A. Johnson
Majority Leader
Legislator, 16th District

José I. Alvarado
Majority Whip
Legislator, 17th District



STUDENT AWARD RECIPIENTS, SCHOOLS AND PROJECTS

CHAIR CATHERINE BORGIA - DISTRICT 9

- Ossining H.S.:** **Natalie Calman** - *Mindfulness-Based Stress Reduction Training Improves the Emotional Well-Being of Adolescents*
Rose Cioffi - *Chronic Exercise Paired With Immersive Virtual Reality Reduces Stress and Improves Cognitive Performance in Adolescents*
Nyasha Nyoni (FINALIST) - *Unhealthy Scrolling: Instagram Influencers Endorse More Unhealthy Food and Beverage Products Compared to Celebrities*
Aaron Song - *Elucidating Terrestrial Optical Refrigeration through Transpiration in Rhizophora mangle and Chlorophyll a Fluorescence in Low-Polarity Mediums*
Cameron Takmil - *Effects of Virtual Learning on Education: Disparities*

VICE CHAIR NANCY E. BARR - DISTRICT 6

- Harrison H.S.:** **Mai Blaustein** - *Identification of Chemical Contaminants in Spiked Beverages With the Use of Infrared Spectroscopy through Development of an Inexpensive and Inconspicuous Device to Identify Date Rape Drugs*
Katherine Pflieger - *The Addition of Functional Groups to the BNM-III-170 Molecule to Improve the Efficiency of its Inhibitory Abilities by Decreasing the Effectiveness of the CD4 Receptors on the gp-120 Molecule*
Keelan Vaswani - *Patterns in Cognitive Distortions Among High School Students: An Analysis of How Social and Achievement Situations Influence Types of Thinking*

MINORITY LEADER MARGARET A. CUNZIO - DISTRICT 3

- Byram Hills H.S.:** **Derek Araki-Kurdyla** - *Elucidating the Role of Environmental Context in Carbon Sequestration and Preservation of Seagrass Sediment Carbon through Analysis of Sediment Grain Size and Carbon Lability*
Edith Bachmann - *Tell Me a Story: The Effects of Storytelling vs. Story-Reading on the Executive Functions of Fourth Graders*
Sydney Levy - *Revealing the Mechanosensitive-ATP-Purinergic Signaling Pathway that Underlies Fibrosis Resulting From Mitral Valve Prolapse*
Emily Pizzorusso - *Color My World: Identifying Differences Between Females and Males in Types and Clusters of Synesthesia*

LEGISLATOR ERIKA L. PIERCE - DISTRICT 2

- North Salem H.S.:** **Mark Takken** - *Transferring Go AI to New Topological Surfaces Without Additional Training*
Somers H.S.: **Emily Dodd** - *Altered Homer1b/c and mGluR1/5 Volumes and Colocalization in Parkinson's Disease Linked LRRK2 G2019S Mice*

LEGISLATOR VEDAT GASHI - DISTRICT 4

- Horace Greeley H.S.:** **Anika Puri** - *EISa: A Novel Real-Time Wildlife Poacher Detection Solution Leveraging Machine Learning-Driven Spatio-Temporal Analysis of Nighttime UAV Thermal Infrared Videos*

LEGISLATOR BEN BOYKIN, II - DISTRICT 5

- Scarsdale H.S.:** **Armaan Ahmed** - *Design of a SHERLOCK-Based Low Resource Screening Assay for HIV-1 Drug Resistance*

LEGISLATOR CATHERINE F. PARKER - DISTRICT 7

- Rye H.S.:** **Maggie Graseck** - *Oysters and Crabs: Comparing the Eating Habits of Hemigrapsus sanguineus and Panopeus herbstii*
Mamaroneck H.S.: **Jerry Orans** - *Development of a Multi-Terrain RHex Leg for Swimming, Running, and Climbing*

LEGISLATOR DAMON R. MAHER - DISTRICT 10

- Eastchester H.S.:** **Riley Keating** - *Simulating the Impacts of Climate Change on Hurricanes Using the Columbia Hazard (CHAZ) Model*
Ava Tsapatsaris - *Project ScanVan: Mobile Mammography Services to Decrease Socioeconomic Barriers and Racial Disparities Among Medically Underserved Women in New York City*

LEGISLATOR TERRY CLEMENTS - DISTRICT 11

- Pelham Memorial H.S.:** **Andrew Kelly** - *The Purification of Oleic Acid and the Effect of Oleic Acid Purity on the Size of CdSe Nanocrystals*
Ann Liu - *Investigating Strategies for Retinal Regeneration in Mammals via a Meta-Analysis of Single-Cell RNA Sequencing Datasets*

LEGISLATOR MARYJANE SHIMSKY - DISTRICT 12

- Hastings H.S.:** **Oliver Walsh Fuchs** - *Examining the Associations Between Historical Redlining Maps and Asthma Emergency Department Visits Across New York City*
Edgemont H.S.: **Nishi Uppuluri** - *Developing the Writing Skills of Elementary Schoolers Using Computational Linguistics Techniques*
Irvington H.S.: **Brooke Anne Dunefsky (FINALIST)** - *A Novel Device that Utilizes Neuroplasticity for the Rehabilitation of Stroke Victims*