



## ScieGen pharmaceuticals

89 Arkay Drive Hauppauge, NY 11788





Dr. Pailla Malla Reddy is a successful pharmaceutical entrepreneur with over 30 years of experience in the industry. He began his career working in various positions in pharmaceutical companies in India, Nigeria, and the United States. In 1995, Dr. Reddy founded Bactolac Pharmaceutical Inc, which is known today as an industry-leading contract manufacturer of vitamins and supplements. He went on to found ScieGen Pharmaceuticals, Inc. in 2009. Under Dr. Reddy's eminent leadership, ScieGen continues to grow and become a leader in the generic manufacturing space.

Dr. Reddy is a graduate of Osmania University in India where he earned a BS degree in Chemistry with concentrations in genetics and botany. He later earned his Masters and Ph.D. in Organic Chemistry from Kanpur University.

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Anila Midha
Founder & President



**Subash Midha** Chairperson, Science Fair

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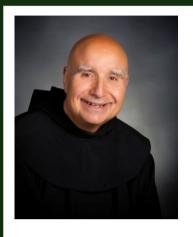


**Bina Sabapathy** 



Shashi Malik





### CHIEF GUEST AND KEYNOTE SPEAKER

Brother David Migliorino
Principal
St. Anthony's High School

Brother has been a Member of the Franciscan Brothers of Brooklyn for the past 49 years. He is currently the principal of St, Anthony's High School, he was the principal of Notre Dame Regional HS in Cape Girardeau, Missouri for 20 Years prior to being names principal at St. Anthony's. Brother David is currently on the General Council for his Religious Congregation: the Franciscan Brothers of Brooklyn. Brother received his undergraduate degree in History and Secondary Education from St. Francis College, Received his Master's Degree in Administration from St. John's University and his Educational Specialist Degree from St. Louis University. He holds New York State Certification in History and Administration. Brother has taught Elementary and Secondary school for the past 48 years in Brooklyn, Connecticut and Missouri. He has been an administrator for the past 30 years at St. Joseph's High School in Connecticut, St. John the Baptist High School in St. Louis, Notre Dame Regional High School, Cape Girardeau, Missouri and now at St. Anthony's High School. He loves teaching History to High school students and enjoys working with High school students on a daily basis. He has served on various Councils of Religious for the Dioceses of Bridgeport, Springfield-Cape Girardeau, the Archdioceses of Washington, D.C. and St. Louis. He believes very much in the mission of Franciscans, especially as Francis Loved the Poor, the Eucharist and the Church.





#### **DISTINGUISHED TEACHER AWARD 2022**

Mr. Paul Paino Director of Student Research St. Anthony's High School

Mr. Paul Paino began his career teaching physics at St. Anthony's High School in Smithtown, NY in 1977. Four years later, began a successful thirty-year career as a science teacher and science research director at The Wheatley School in Old Westbury, NY. There he founded and directed one of the most successful science research programs on Long Island. He mentored hundreds of students in the Westinghouse/Intel Science Talent Search, The Siemens Competition for Math, Science and Technology, The Junior Science and Humanities Symposium and The International Science and Engineering Fair. Many of his students advanced to the status of National Semifinalist in these prestigious competitions and a select few have been recognized as National Finalists. His reputation as a research mentor is well known on the local and national level. Mr. Paino returned to St. Anthony's High School in 2011. Under Mr. Paino's leadership, FriarQuest, the St. Anthony's Science Research Program, has grown from a dozen to over one hundred fifty students during its first ten years of existence. Additionally, Mr. Paino has been instrumental in the development of The Science Scholars Program. To date, FriarQuest has produced five Intel/Regeneron National Semifinalists, three Siemens National Semifinalists and a National Finalist in the Junior Science and Humanities Symposium, two Regional and one National winning team in the Toshiba ExploraVision Competition and two National Finalists in the Regeneron International Science and Engineering Fair. As a science teacher, Mr. Paino has received the "Distinguished Teacher Award" from the Harvard Club of Long Island, "Teacher of the Year" at Wheatley, "Simmons Award" from East Williston School District, "RITEC Award" for outstanding accomplishments in science and the Junior Science and Humanities "Research Teacher of the Year" award. A lifelong advocate of cooperative learning, Mr. Paino has written several papers on the subject and has delivered presentations at local and national conferences, including a seminar at Columbia Teachers College.



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## Thanks

We are grateful to our Supporters, Sponsors, and Judges without whose help we could not have organized the Science Fair, Essay Contest, Community Service Award and Presidential Volunteer Service Award.

## **Judges of Science Fair and Essay Contest**

Amanda Peterson, Kristina Barbari, Sean Mahoney, Tami Cruz, Paraskevy Zaferiou, Jeanine Cupo, Mary Simons, Paul Paino, Ray Tesar, Dr. Steven Gordon, Charles Vessalico, Dr. Arunabh Talwar, Dr. David McCulloh, Dr. Unni Mooppan, Kathleen Mcauley, Terence Bissoondial, Andrea Betty, Jeanette Collette, Sreenadh Jonnavithula, Zachary Englis, Dr. Ellen McCulloh, Elizabeth Thomas, Brianna Kelly, Carol Hersh, Gerard Wykes, Dr. Bret Bennington, Rick Caskey, Tina Gallagher, Deepa Pasricha, Tracy Wenzler, Nainesh Shah, Dr. Stephanie Piscitelli, Kaitlyn Thompson, Dr. Bhavna Mehta Kohli, Erin Garland, Vivek Nelanuthala, Frank Maniscalco, Meredith Foley

#### **Advisors**

Dr. Ellen McCulloh, Erin Garland, Dr. Steven Gordon, Paul Paino, Dr. Paraskevy Zaferiou, Sean Mahoney, Tami Cruz

## **Supporters of SAAWA**

Shaker Nelanuthala, Jitendra Chichara, Soni Midha, Saumya Chhabra

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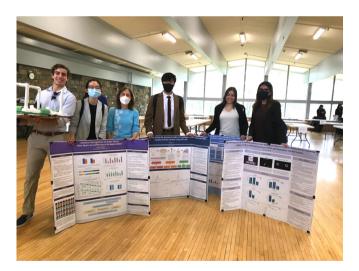
ScieGen Pharmaceuticals, Netrovert, BCB Bank, Dr. Sunita Saini, Rekha Chichara, Aruna Saxena, Bina Sabapathy

Technical Support and Journal by Shreya Pasricha

**Photos by Akshat Kaul** 









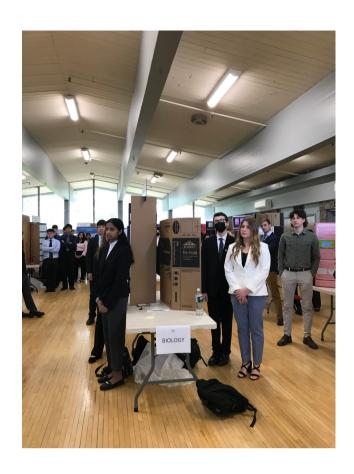
















## SAAWA High School Science Fair 2022 Award Winners

### **Biology**

#### First Place:

Camryn Neches - Paul D. Schreiber Senior High School

Quantifying the Structural and Biochemical Differences in p53 Mutations

#### **Second Place:**

Matthew Martorana - Seaford High School

The Effect of CINK4 on the Regeneration of Planaria (Dugesia dorotocephala)

#### Second Place:

Andrew Randazzo - Seaford High School

The Effects of stress and Chamomile (Matricaria chamomilla) on the Regenerative Abilities of Planaria (Dugesia dorotocephala)

#### **Third Place:**

Allen Qian - Manhasset High School

Artemisinin and Artesunate Exhibit Potent Effect Against Sars-Cov-2 Virus Spike Protein Induced Cytotoxic Effects on U937 Cells

#### **Third Place:**

Minjun An - Great Neck South High School

Optimizing an expression system for the structural studies of Arabidopsis thaliana glutamate-like receptor channels using SF9 cells

#### **Honorable Mention:**

Sidrah Ashrafi and Tauba Ashrafi - G.W. Hewlett High School

Investigating the Role of the TOR Signalling Pathway in Development of Gametophytes of Ceratopteris richardii

#### Ryan Baldwin and Jimmy Ren - Seaford High School

Exploration of Cryptobiosis in Tardigrades (Hypsibius exemplaris) within the High School Classroom

Saman Khalil - Bay Shore High School

The Effect of Herbal Infusions on Solanum lycopersicum plant

David Liu - Manhasset High School

Non-essential amino acid beta-alanine and beta-cyano-alanine exhibit anti-cancer effect on colorectal and neuroblastoma cancers

Chloe Moskowitz - Lynbrook Senior High School

Analyzing Social Isolation Induced Depression in Drosophila melanogstra Oregon R strain using a climbing assay



#### Shreya Sriram and Defne Aktuna - Commack High School

The Effect of Bisphenol-A on the Locomotion Rate of Future Generations of C. Elegans

#### **Behavioral and Social Sciences**

#### First Place:

Alexandra Shapiro and Chloe Zhai - Plainview-Old Bethpage JFK High School

The Impact of Overconfidence Bias on the Origination of Political Misinformation

#### Second Place:

Rena Chen - Great Neck South High School

Emotion Recognition of Asian Faces: How Do Masks Affect Emotion Recognition and Confidence?

#### **Third Place:**

Isabel Lagnado - Plainview-Old Bethpage JFK High School

The "Food Mood" Project: An Exploration of the Connections Between Flavor and Happiness

#### **Third Place:**

Victoria Lee - Plainview-Old Bethpage JFK High School

The Impact of Fear-induced Activation of the Amygdala on the Formation of Implicit Racial Bias

#### **Honorable Mention:**

Jessica Layton - Plainview-Old Bethpage JFK High School

Using Loss Aversion and Construal Level Theory to Overcome Cognitive Biases in Public Safety Messages

Alexander Berko and Abigail Nacht - Plainview-Old Bethpage JFK High School Measuring the Impact of Time Pressure on Ethical Decision Making

Yanni Saridakis and Shriya Vaddigirl - Plainview-Old Bethpage JFK High School The effects of musical tempos on the attentiveness of high school students while taking reading comprehension exams

#### Arnav Shah - Mineola High School

The Effect of Academic Grading Scales on Student Stress

Ariel Reiss - North Shore Hebrew Academy High School Effect of Stress on Short Term Memory

#### Earth and Environmental Sciences

#### First Place:

Harrison Weinberg - Great Neck South High School Examining ultraviolet light wavelength effect on the ability of a user-friendly buoy to detect oil pollution in water



#### Second Place:

Matthew Johnston and Manav Gupta - Manhasset High School

The Effect of pH on the Power Output and Desalination Potential of Microbial Desalination Cells

#### Third Place:

Gursimran Vasir - Plainview-Old Bethpage JFK High School

Proposed solution to current pricing in Chlorella vulgaris biofuel production process through the use of pre-existing water sources and optimization of lipid production

**Honorable Mention:** 

Matthew Shao and Jordan Li - Manhasset High School

Moringa oleifera as a Successful Treatment for Remediation of Methylene Blue Contaminated Water

Hannah Rubin and Lilly Pantelogianis - Manhasset High School

Comparing the Use of Lactuca sativa var. capitata and Medicago sativa in a Green Roof and Their Ability in Cooling Roof Temperatures and Water Retention

Kevin Zhang and Jack Lenga - Great Neck South High School

Improving Microplastic Electrocoagulation Through Co-Coagulant Moringa Oleifera

Caitlyn McCourt - St. Anthony's High School

Cellular Growth of Tetraselmis Chui in Natural and Controlled Environments

Rishin Chatterjee, Aareb Jatoi, and Grace Kim - Commack High School

The Effect of Earthen Materials on Soil Absorbance

**Environmental Excellence Award:** 

Quinn Murphy - St. Anthony's High School

An Analysis of Biodiversity in Cedar Beach

## **Physical Science**

#### First Place:

Dylan Yoon, Adam Yeo and Jack Voelker - Manhasset High School

The Effect of Charge on the Removal of Azo Dyes from Water using Plant-Based Coagulants

Second Place:

Kailly Nocera - Seaford High School

Glacial and Fluvial Activity During Periods of High Obliquity in Arabia Terra

Third Place:

William Cascio - Seaford High School

An Investigation of the Close Contact, Eclipsing Binary System, PS Vir



**Honorable Mention:** 

Maddox Nesterczuk and Paul Park - Manhasset High School Pumped Hydro Energy Storage Applications: Assessing Optimal Blade Count and Length on Pelton Turbines

Justin Li - Paul D. Schreiber Senior High School Applying Bernoulli's Principle to Find Ideal Airfoil Shape to Maximize Lift Force

Austin Eigen - Paul D. Schreiber Senior High School Analyzing Insurance Claims from Hurricane Ida to Predict Future Wind Damage

Stefania Spallino and Smriti Rout - H. Frank Carey High School The Optimization of Knee Brace Design For Treatment of Patellar Subluxation

#### **STEM**

First Place:

Rebecca Alara - Copiague High School
The Effectiveness of Phragmites australis on the Strength and Resilience of Concrete

Second Place:

Frances Kloska - Sayville High School Reducing Heat Stroke Related Deaths and Injuries Through Automotive Safety Technology

Third Place:

Mannat Jain - Garden City High School An algorithmic means of parsing, comparing and verifying information

**Honorable Mention:** 

Yoervin Espinal Francisco - Copiague High School The Effect of Brassica oleracea var. sabellica Extract on the Ability to Inhibit Steel Corrosion

Cathrine Sakin, Myra Mendoza-Rodriguez and Klara Thelusma - Copiague High School The Efficacy of a Chitosan-Paramylon Blend on the Construction and Function of Compostable Wind Turbine Blades

Humanity in Science Award: Karishma Patel and Michael Pitre - Sayville High School Hybrid Wrist Functionality for Affordable 3D Printed Prosthetics



## **SAAWA Middle School Science Fair 2022 Award Winners**

### Biology

#### **First Place:**

Salvatore LoBrutto - Grand Avenue Middle School Nitrogen-Fixing Bacteria Vs. Fertilizer on Pea Plant Growth

#### **Second Place:**

Tristan Bissoondial - Grand Avenue Middle School
Investigating the effects of ozone on the gametophytes of Ceratopteris richardii

#### **Third Place:**

Katie Schneider, Mackenzie Molloy and Taylor Maguire - Garden City Middle School Effect of Fertilizer on the Growth of Wheat Grass Seeds

#### **Honorable Mention:**

Daniel Lin and Joseph Litman - Grand Avenue Middle School

Comparing man-made and natural erosion control methods in a scaled model of a hill

Hallie Gillison and Tamidire Oladeji - Grand Avenue Middle School What is the Effect of Hyaluronic Acid on the Regeneration Rate of Planaria?

Kyle Johnson - Commack High School
Can we stop Algal blooms with aquatic plants?

#### Earth and Environmental Sciences

#### First Place:

Sarah Phinney and Allyson Hsieh - Garden City Middle School
The Effect of Sound Waves on Bioluminescence

#### **Honorable Mention:**

Molaschenvsly Jean Mary, Brandon Barnaby and Logan Marlin - Lawrence Road Middle School How do different solutions affect the effectiveness of bug repellants on 3D printing?

#### **Behavioral and Social Sciences**

#### **Honorable Mention:**

Amishi Sharma and Grace Kumpel - Garden City Middle School Reactions to Extreme Situations

## **Physical Science**

#### **Honorable Mention:**

Josiah Sanasie and Austin Wang - Garden City Middle School Surface Topology and Its Effects on Velocity



## **SAAWA Essay Contest 2022 Award Winners**

First Place: Isabel Taveras - Garden City High School

First Place: Caitlyn McCourt - St. Anthony's High School

Second Place: Tathiana Fineus - Baldwin High School

Second Place: Zein Mera - St. Anthony's High School

Second Place: Patrick Quilty - St. Anthony's High School

Third Place: Karl Leudesdorff - Seaford High School

Third Place: Mikaeel Zohair - Ward Melville High School

**Honorable Mention:** 

Sadaf Farid - Hicksville High School

Julia Moosikasuwan - Manhasset High School

Larissa LoBello - St. Anthony's High School

Anthony Martin - St. Anthony's High School

Jordan Spencer - St. Anthony's High School

Michael Turner - St. Anthony's High School

Michelle Zheng - H. Frank Carey High School

# SAAWA Community Service 2022 Award Winners

First Place:

Thais Rody - St. Anthony's High School

**Second Place** 

Julia Therassi - Mineola High School

**Third Place** 

Tyler Evangelista - Seaford High School

# Presidental Volunteer Service Award Winners

**Gold Medal:** 

Michael Turner - St. Anthony's High School

Gold Medal:

Pranav Mukhi - Nassakeag Elementary School

Silver Medal:

Aryan Wadhwa - Greenwich High School

**Bronze Medal:** 

Urja Patel - Mineola High School



#### SOUTH ASIAN AMERICAN WOMEN'S ALLIANCE

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# One of the greatest challenges facing the next generation is the degradation of our environment.

We at SAAWA strongly feel that the solution to this problem will come from this generation of scientists and engineers and it is our duty to encourage the brightest of them to pursue careers in these fields.

In order to challenge, motivate and encourage these students, we at SAWAA propose to give mini grants to Middle and High School students willing to do research in any environmental field.

We invite research project proposals from all the students (7-11 grade in the 2022 Academic Year) to be considered for these grants.

We look forward to partnering with you and your students in their research to help solve some of society's greatest challenges.

For further information, please contact

Prof. Subash Midha
516-851-2792
subash.midha@gmail.com
www.saawa.org

Information on registration will be sent in September 2022