## Beal Bank 2024 Awards Program





Today, as we honor the accomplishments of all the extremely bright, talented students who months or even years ago started researching some basic questions about this great universe of ours, we also honor the process of discovery — this process we call science.

At Beal Bank, our strong commitment to science led us to begin sponsoring the Dallas Regional Science and Engineering Fair, first by funding prizes and trips, and now for over ten years as sole title sponsor. The foundation of this commitment is our belief that the next generation of scientists, with the proper nurturing and encouragement, will ultimately answer those many unanswered questions, and in doing so push the science and research envelope to the edge and beyond.

Young people are fueled by a free-thinking ability that enables them to see the world, and indeed, the universe, in terms of just two questions: Why? And why not? This year's Science Fair participants have again shown that in all disciplines of science much work remains to be done. They have asked their questions and gone about the painstaking process of research and testing. In some cases, hypotheses were confirmed; in others, they were disproved. But in all cases the questions were worthwhile. Some students are so passionate about their research they are into their third, fourth, even fifth year of study on the same topic — showing that they will not rest at "good enough." They want to discover the answers they feel certain are attainable.

As a Texas-owned, Dallas-based company, we could not be prouder of these young scientists from our very own region. To every participant who dared to go beyond the genius of previous generations, we congratulate you and wish you the best. We hope to see you next year, still asking those questions.

Sincerely,

Andy Beal

Andrew Beal Chairman of the Board, Beal Bank

## Thank You to Our Fair Sponsors



**Beal Bank** is the title sponsor of the Beal Bank Dallas Regional Science and Engineering Fair. The bank is pleased to reward the work of these bright students through support of student prizes, the Awards Banquet, and the winners' trip to the Regeneron International Science and Engineering Fair.



**Southern Methodist University** has sponsored the Dallas Regional Science and Engineering Fair since the Fair's inception in 1957. Faculty and staff from the University have always played significant roles, and the awards banquet is traditionally held on the SMU campus.





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## About the Dallas Regional Science & Engineering Fair

Started in 1957, the Dallas Regional Science & Engineering Fair is a volunteer non-profit affiliated to the International Science & Engineering Fair (ISEF), the world's largest precollege science competition. Around 100 people volunteer their time to administer the fair. This year, over 500 students advanced to the Regional Fair in grades 6-12 from public, private and charter middle and high schools within the Texas Education Agency Region 10.

#### The 2024 DRSEF Steering Committee

| Michael Adams<br>Plano ISD<br>Safety Co-Chair | Nathan Eaton<br>Community Volunteer     | Fred Olness<br>SMU<br>Vice-President |
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| JC Chiao                                      | Andrew Milburn                          | Evan Whitfield                       |
| SMU Lyle School                               | Community Volunteer                     | Coppell ISD                          |
| Rebecca Clark<br>Beal Bank                    | Treasurer                               |                                      |

Beth Collins Frisco ISD

## The 2024 Judging

This year, approximately 200 local scientists and engineers volunteered to judge at the Regional Fair. Judges assess students' projects based on creative ability, scientific thought, engineering goals, skill, thoroughness, clarity, and other criteria.

#### **Beal Bank Prizes**

Student projects are judged over two rounds in different science categories in junior and senior divisions based on specific ISEF criteria. In the first round, judges interview all students, narrowing the selection of projects to be assessed next. In the second round, judges designate over 100 projects as the first-, second-, third- and, in large categories, fourth-place winners. These win a cash prize from Beal Bank and qualify for the Texas State Science & Engineering Fair.

#### Beal Bank Grand Prizes

A new set of expert judges interview the top projects in category and award grand prizes to the top eight projects at the Fair—two per division for both life and physical sciences. Beal Bank sponsors the trip for the senior-division winners and runners-up to compete in the Regeneron International Science and Engineering Fair.

#### Special Awards

Members of local and national organizations attend the Fair to judge projects which fit a specific area of interest to them, using their own criteria to determine winners. This year, students received over 60 special awards from many different organizations.

## **Beal Bank Grand Prize Junior**

Life Science

## **Daniel Rutnam - Grand Prize Winner**

Rice Middle School | Plano ISD

The Coyote - Coyote Vocalization Classifier to Avert Negative Human-Coyote Interactions

## **Chloe Ni - Grand Prize Runner Up**

Rice Middle School | Plano ISD

Efficacy of Different Methods of Sun Protection

**Physical Science** 

## Iliana Lega - Grand Prize Winner

Travis Vanguard | Dallas ISD

Spectral properties of smartphone facial recognition

## Pranavi Chatrathi - Grand Prize Runner Up

Pioneer Heritage Middle School | Frisco ISD

Side Impact Car Crash - An External Airbag SRS system focused on proactive deployment, energy dissipation to reduce injury severity

#### **Animal Sciences**

**Daniel Rutnam** Beal Bank First Prize North Texas Chapter of the Texas Master Naturalist Junior Division Rice Middle School | Plano ISD

**Gavin Keith** Beal Bank Second Prize Renner Middle School | Plano ISD

William Triplett Beal Bank Second Prize Renner Middle School | Plano ISD

Sagie Cohen Rotenberg Beal Bank Third Prize Haggard Middle School | Plano ISD

Behavioral & Social Sciences

**Ryleigh Diggs** Beal Bank First Prize (tie) Murphy Middle School | Plano ISD

**Pranati Arni** Beal Bank First Prize (tie) Pioneer Heritage Middle School | Frisco ISD

**Bhavna Devanand** Beal Bank First Prize (tie) Pioneer Heritage Middle School | Frisco ISD

**Rishaan Raghavnath** Beal Bank Second Prize Lawler Middle School | Frisco ISD

## **Biochemistry & Cellular and Molecular Biology**

**Amogh Barath** Beal Bank First Prize Curtis Middle School | Allen ISD

**Srisaiamaraditya Kona** Beal Bank First Prize Curtis Middle School | Allen ISD

#### Roshan Ranganathan Beal Bank First Prize

Curtis Middle School | Allen ISD

Annika Wong Beal Bank Second Prize Otto Middle School | Plano ISD

#### Shreyas Kolan Beal Bank Third Prize

Rice Middle School | Plano ISD

## **Biomedical & Health Sciences**

#### Chloe Ni Beal Bank First Prize

State of Texas Chapter – Health Physics Society STC-HPS Science Fair Excellence Award Rice Middle School | Plano ISD

#### Vaibhavi Kabra Beal Bank Second Prize

Vandeventer Middle School | Frisco ISD

#### Aditi Bhaskar Beal Bank Third Prize

Lawler Middle School | Frisco ISD

## Biomedical Engineering and Computational Biology & Bioinformatics

#### Akansh Karthik Beal Bank First Prize

The Lemelson Foundation Lemelson Early Inventor Prize Rice Middle School | Plano ISD

#### **Shruti Paul** Beal Bank Second Prize Schimelpfenig Middle School | Plano ISD

#### **Masouda Khan** Beal Bank Third Prize Pioneer Heritage Middle School | Frisco ISD

## Chemistry

**Musa Elahi** Beal Bank First Prize Harmony School of Innovation Dallas Middle School | Charter

Sarah Elahi Beal Bank First Prize Harmony School of Innovation Dallas Middle School | Charter

**Yusuf Elahi** Beal Bank First Prize Harmony School of Innovation Dallas Middle School | Plano ISD

#### **Keshav Giridhar** Beal Bank Second Prize Schimelpfenig Middle School | Plano ISD

## Sophia Whitney Beal Bank Third Prize

All Saints Catholic School | Diocese Of Dallas

## Earth & Environmental Sciences

#### Nidhi Ajmera Beal Bank First Prize

National Oceanic and Atmospheric Administration Taking the Pulse of the Planet Individual Award Otto Middle School | Plano ISD

#### Abhinav Agarwal Beal Bank Second Prize

WEAT / AWWA Junior Division, 1st Place Pioneer Heritage Middle School | Frisco ISD

#### Saloni Khanna Beal Bank Second Prize

WEAT / AWWA Junior Division, 1st Place Pioneer Heritage Middle School | Frisco ISD

#### Violet Whittenburg Beal Bank Third Prize

Renner Middle School | Plano ISD

#### Kashwi Budhwar Beal Bank Fourth Prize

Vandeventer Middle School | Frisco ISD

#### Hasini Kalidindi Beal Bank Fourth Prize

Vandeventer Middle School | Frisco ISD

#### Shivani Acharya

WEAT / AWWA Junior Division, 2nd Place Lawler Middle School | Frisco ISD

#### Anvesha Nigam

WEAT / AWWA Junior Division, 2nd Place Lawler Middle School | Frisco ISD

#### Saani Vyas

WEAT / AWWA Junior Division, 2nd Place Lawler Middle School | Frisco ISD

#### Luisa Lopez

McKinney Amateur Radio Club, Inc. Junior Division, 1st Place Uplift Ascend Middle School | Charter

#### **Embedded Systems**

#### Jason Pi Beal Bank First Prize

Texas Instruments Best electronics or computing project, Junior Division Rice Middle School | Plano ISD

#### Aaron Castro Beal Bank Second Prize

Rice Middle School | Plano ISD

#### Elim Wong Beal Bank Third Prize

Schimelpfenig Middle School | Plano ISD

#### Energy: Sustainable Materials and Design

#### **Ayush Singh** Beal Bank First Prize Coppell Middle East | Coppell ISD

#### **Aarav Thilop** Beal Bank First Prize Coppell Middle East | Coppell ISD

#### Sushanth Velineni Beal Bank First Prize

Coppell Middle East | Coppell ISD

Aryan Sharma Beal Bank Second Prize Lawler Middle School | Frisco ISD

Rohan Kartikeya Nakkina Beal Bank Third Prize Vandeventer Middle School | Frisco ISD

Matthew Kuo Beal Bank Fourth Prize Renner Middle School | Plano ISD

#### **Ameerah Bello**

Trinity Chapter of The Links, Incorporated So SMAART Award, 2nd Place Harmony Science Academy Dallas | Charter

## Engineering Technology: Statics and Dynamics

#### Pranavi Chatrathi Beal Bank First Prize

Directed Energy Professional Society Junior 2nd Place Pioneer Heritage Middle School | Frisco ISD

#### Gautam Esvar Manikandan Beal Bank Second Prize

Society of American Military Engineers (SAME) Best Engineering Project Imagine International Middle School | Charter

#### Oliver Esch Beal Bank Third Prize

Otto Middle School | Plano ISD

#### **Pranav Thoppay**

National Space Society of North Texas Space Exploration Scholarship 3rd Place Pearson Middle School | Frisco ISD

#### **Environmental Engineering**

#### Hiruni Wansapura Beal Bank First Prize

Robinson Middle School | Plano ISD

**Sathwik Gopu** Beal Bank Second Prize Lawler Middle School | Frisco ISD

**Siddartha Kodithyala** Beal Bank Second Prize Lawler Middle School | Frisco ISD

**Nuaym Zain** Beal Bank Third Prize Brighter Horizons Middle School | Parochial

**Richa Rai** Beal Bank Fourth Prize Fowler Middle School | Frisco ISD

**Taniya Tinnachardwanit** Beal Bank Fourth Prize Fowler Middle School | Frisco ISD

**Sonarka Das** WEAT / AWWA Junior Division, 3rd Place Uplift North Hills Preparatory Middle School | Charter

## **Materials Science**

**James Davis** Beal Bank First Prize Otto Middle School | Plano ISD

**Akshaya Bollu** Beal Bank Second Prize Fowler Middle School | Frisco ISD

**Anika Tiwari** Beal Bank Second Prize Fowler Middle School | Frisco ISD

Sahasra Valluripalli Beal Bank Third Prize Fowler Middle School | Frisco ISD

## Mathematics

#### Anumita Pandit Beal Bank First Prize

American Statistical Association ASA Award for Statistical Excellence - Junior Division Pioneer Heritage Middle School | Frisco ISD **Aayush Dua** Beal Bank Second Prize Pioneer Heritage Middle School | Frisco ISD

**Aarav Nirmal** Beal Bank Second Prize Pioneer Heritage Middle School | Frisco ISD

**Ayush Sharma** Beal Bank Second Prize Pioneer Heritage Middle School | Frisco ISD

**Pranav Singhal** Beal Bank Third Prize Pioneer Heritage Middle School | Frisco ISD

## Microbiology

Abigail Siswanto Beal Bank First Prize Rice Middle School | Plano ISD

**Alma Zubi** Beal Bank Second Prize Harmony School of Innovation Dallas Middle School | Charter

## **Devansh Singh** Beal Bank Third Prize

Pioneer Heritage Middle School | Frisco ISD

## Physics and Astronomy

**Iliana Lega** Beal Bank First Prize Directed Energy Professional Society Junior 1st Place Travis Vanguard | Dallas ISD

Sabarish Saravanan Beal Bank Second Prize Roach Middle School | Frisco ISD

Jumana Kasim Beal Bank Third Prize Harmony School of Innovation Dallas Middle School | Charter

#### Katy Dearing Beal Bank Fourth Prize

Wilson Middle School | Plano ISD

#### Vidhi Desai

National Space Society of North Texas Space Exploration Scholarship 2nd Place Hunt Middle School | Frisco ISD

#### Parthavi Peddina

National Space Society of North Texas Space Exploration Scholarship 2nd Place Hunt Middle School | Frisco ISD

## **Plant Sciences**

Harileen Kaur Beal Bank First Prize Uplift North Hills Preparatory MS | Charter

**Olivia Kim** Beal Bank Second Prize Ereckson Middle School | Allen ISD

Haojun Zhang Beal Bank Second Prize Ereckson Middle School | Allen ISD

**Ibaadullah Syed** Beal Bank Third Prize Brighter Horizons Middle School | Private

**Ishfa Aalia** Beal Bank Fourth Prize Haggard Middle School | Plano ISD

#### **Desire Akannimohammed**

Trinity Chapter of The Links, Incorporated So SMAART Award, 1st Place Murphy Middle School | Plano ISD

#### Leah Shelema

Trinity Chapter of The Links, Incorporated So SMAART Award, 3rd Place Harmony School Of Innovation Garland Middle School | Charter

## **Robotics and Intelligent Machines**

#### Hiba Taimoor Beal Bank First Prize

Texas Instruments Best electronics or computing project, Junior Division Islamic School of Irving Middle School | Private

#### Tejas Parashar Beal Bank Second Prize

Texas Instruments Best electronics or computing project, Junior Division Rice Middle School | Plano ISD

#### Shotaro Takagi Beal Bank Third Prize

Rice Middle School | Plano ISD

#### Dan Xie Beal Bank Third Prize

Rice Middle School | Plano ISD

#### Systems Software

#### **Krishiv Lamba** Beal Bank First Prize Uplift North Hills Preparatory MS | Charter

#### **Abhay Harika** Beal Bank Second Prize Directed Energy Professional Society Junior 3rd Place Vandeventer Middle School | Frisco ISD

#### Prahas Kumar Beal Bank Second Prize

Directed Energy Professional Society Junior 3rd Place Vandeventer Middle School | Frisco ISD

#### Adhiti Murthy Beal Bank Third Prize

Robinson Middle School | Plano ISD

## **Translational Medical Science**

**Apoorva Gautham** Beal Bank First Prize Uplift North Hills Preparatory MS | Charter

**Jonathan Shen** Beal Bank Second Prize Pearson Middle School | Frisco ISD

Anjani Chebrolu Beal Bank Third Prize Nelson Middle School | Frisco ISD

## **Beal Bank Grand Prize Senior**

Life Science

## **Katherine Lee – Grand Prize Winner**

Plano West Senior High School, Plano ISD

Finding an Accessible, Environmentally Friendly Solution to Water Purification II

## Vaani Chellamuthu – Grand Prize Runner Up

Plano East Senior High School, Plano ISD

Diagnosing Neurodegenerative Pathologies using Image-Recognition in CNN

**Physical Science** 

## **Chloe Lee - Grand Prize Winner**

Plano East Senior High School, Plano ISD

Chemical Modification of Acetaminophen (Tylenol®) to Decrease Liver Toxicity

## Ryan Xu – Grand Prize Runner Up

Jasper High School, Plano ISD

GIVS: A Novel, Generative Artificial Intelligence Vision System for the Visually Impaired

## **Congratulations to the DRSEF students** who qualified for Regeneron ISEF 2024

**Keshav Anand** Plano East Senior High School | Plano ISD

Viren Bankapur Independence High School| Frisco ISD

**Vaani Chellamuthu** Plano East Senior High School | Plano ISD

**Arya Gurumukhi** Plano East Senior High School | Plano ISD

**Zehra Jaffery** Plano West Senior High School | Plano ISD

**Chloe Lee** Plano East Senior High School | Plano ISD

**Katherine Lee** Plano West Senior High School | Plano ISD

**Nishi Soni** Centennial High School | Frisco ISD

**Ryan Xu** Jasper High School | Plano ISD

## Behavioral and Social Sciences

#### Santosh Patapati Beal Bank First Prize

American Psychological Association Achievement in Research in Psychological Science Panther Creek High School | Frisco ISD

#### Evelyn Ding Beal Bank Second Prize

Southwestern Medical Foundation Kathryn and Ashley H. Priddy Award Plano West Senior High School | Plano ISD

#### Siri Peddinti Beal Bank Third Prize

Plano East Senior High School | Plano ISD

#### Ryana Velani

Southwestern Medical Foundation Kathryn and Ashley H. Priddy Award Reedy High School | Frisco ISD

## Biochemistry

#### Shivani Nathan Beal Bank First Prize

Plano West Senior High School | Plano ISD

## **Yazed Chavez** Beal Bank Second Prize

Harmony Science Academy Dallas | Charter

#### Madai Marquez Hernandez Beal Bank Second Prize

Harmony Science Academy Dallas | Charter

#### Hedayah Hafid Beal Bank Third Prize

Harmony School of Innovation Garland High School | Charter

#### Hatice Karaca Beal Bank Third Prize

Harmony School of Innovation Garland High School | Charter

#### Jada Nelson Beal Bank Third Prize

Harmony School of Innovation Garland High School | Charter

## **Biomedical and Health Sciences**

Artina Belivan Beal Bank First Prize Shepton High School | Plano ISD

Krish Tadigotla Beal Bank Second Prize Centennial High School | Frisco ISD

**Chikasi Nwachukwu** Beal Bank Third Prize Harmony School of Innovation Garland High School | Charter

#### Mihir Dharmadhikari

Dallas County Medical Society 2nd Place Coppell High School | Coppell ISD

#### Deepali Kanchanavally

Dallas County Medical Society 2nd Place Coppell High School | Coppell ISD

#### Kartik Koranne

Dallas County Medical Society 2nd Place Coppell High School | Coppell ISD

#### Manshi Swain

Southwestern Medical Foundation Kathryn and Ashley H. Priddy Award Wakeland High School | Frisco ISD

## **Biomedical Engineering**

**Ellie Chong** Beal Bank First Prize Highland Park High School | Highland Park ISD

## **Sravya Pilla** Beal Bank Second Prize Jasper High School | Plano ISD

A design I in Deal Deals Thind De

#### Adrian Lin Beal Bank Third Prize Allen High School | Allen ISD

#### Ashwika Ala

Dallas County Medical Society 1st Place Centennial High School | Frisco ISD

#### Sanjana Rajaram

Dallas County Medical Society 1st Place Centennial High School | Frisco ISD

#### **Trishay Naman**

McKinney Amateur Radio Club, Inc. Senior Division, 1st Place Coppell High School | Coppell ISD

#### Anish Kalra

McKinney Amateur Radio Club, Inc. Senior Division, 1st Place Coppell High School | Coppell ISD

#### Ananya Javali

State of Texas Chapter – Health Physics Society STC-HPS Science Fair Excellence Award Plano East Senior High School | Plano ISD

## Cellular and Molecular Biology

#### Zehra Jaffery Beal Bank First Prize

Regeneron and the Society for Science Regeneron Biomedical Science Award Plano West Senior High School | Plano ISD

#### Manya Gummaraju Beal Bank Second Prize

Plano East Senior High School | Plano ISD

#### Rashmiya Hasan Beal Bank Third Prize

Memorial High School | Frisco ISD

#### Arjun Karthik Beal Bank Third Prize

Memorial High School | Frisco ISD

#### Ashoke Yogaratnam Beal Bank Third Prize

Memorial High School | Frisco ISD

#### **Jacqueline Nunez Martinez**

Southwestern Medical Foundation Thomas and Libby Mathai Scholarship for Women in STEM Harmony Science Academy Dallas | Charter

## Chemistry

**Chloe Lee** Beal Bank First Prize Plano East Senior High School | Plano ISD

**Akshay Bhaskar** Beal Bank Second Prize Plano West Senior High School | Plano ISD

**Jerusha Abraham** Beal Bank Third Prize Plano West Senior High School | Plano ISD

**Raina Hasan** Beal Bank Third Prize Plano West Senior High School | Plano ISD

## **Computational Biology and Bioinformatics**

Vaani Chellamuthu Beal Bank First Prize Plano East Senior High School | Plano ISD

Vaishnavi Moturi Beal Bank Second Prize Centennial High School | Frisco ISD

**Kaitlyn Fan** Beal Bank Third Prize Jasper High School | Plano ISD

#### Dhakshata Sathyamurthy

Southwestern Medical Foundation Kathryn and Ashley H. Priddy Award Centennial High School | Frisco ISD

#### Sanjay Sundaram

Southwestern Medical Foundation Kathryn and Ashley H. Priddy Award R.L. Turner High School | Carrollton-Farmers Branch ISD

#### William Xie

Southwestern Medical Foundation Kathryn and Ashley H. Priddy Award Plano West Senior High School | Plano ISD

## Earth and Environmental Science

#### Katherine Lee Beal Bank First Prize

DFW Chapter of the Alliance Hazardous Materials Managers 1st Place Senior Division -Best Hazardous Materials Individual Project NASA Earth System Science Award Association for Women Geoscientists (AWG) AWG Student Award for Geoscience Excellence Plano West Senior High School | Plano ISD

#### Chad Martin Beal Bank Second Prize

North Texas Chapter of the Texas Master Naturalist (NTMN) NTMN Senior Division Terracon, Inc. Terracon Environmental Excellence Award, Senior Div. 3rd Place U.S. Agency for International Development (USAID) Science Champion Award Plano Academy High School | Plano ISD

#### Vihaan Dhanapalaksha Beal Bank Third Prize

Coppell High School | Coppell ISD

#### Aarav Munjal Beal Bank Third Prize

Coppell High School | Coppell ISD

#### Lakhisha Balaji

WEAT / AWWA Senior Division, 1st Place Uplift North Hills Preparatory HS | Charter

#### Tanaya Apte

WEAT / AWWA Senior Division, 2nd Place Coppell High School | Coppell ISD

#### **Isabelle Hou**

Terracon, Inc. Terracon Environmental Excellence Award, Senior Div. 1st Place Clark High School | Plano ISD

## **Embedded Systems**

#### Ryan Xu Beal Bank First Prize

U.S. Air Force Certificate of Achievement Texas Instruments Best electronics or computing project, Senior Division Jasper High School | Plano ISD

#### Trisha Desai Beal Bank Second Prize

Jasper High School | Plano ISD

#### Andrew Ye Beal Bank Third Prize

St. Mark's School of Texas | Private

#### Anushka Sridhar

Texas Instruments Best electronics or computing project, Senior Division Plano East Senior High School | Plano ISD

#### Victor Xu

Texas Instruments Best electronics or computing project, Senior Division Jasper High School | Plano ISD

## Energy: Sustainable Materials and Design

#### Arya Gurumukhi Beal Bank First Prize

Directed Energy Professional Society Senior 1st Place Terracon, Inc. Terracon Engineering Excellence Award, Senior Div. 3rd Place U.S. Air Force Certificate of Achievement Plano East Senior High School | Plano ISD

#### Krishn Virani Beal Bank Second Prize

Terracon, Inc. Terracon Engineering Excellence Award, Senior Div. 1st Place Plano East Senior High School | Plano ISD

#### Charvi Vohra Beal Bank Third Prize

Coppell High School | Coppell ISD

## Engineering Technology: Statics and Dynamics

**Keshav Anand** Beal Bank First Prize U.S. Metric Association Best Use of SI Units U.S. Air Force Certificate of Achievement Plano East Senior High School | Plano ISD

#### Madeline Lopez Beal Bank Second Prize

Vines High School | Plano ISD

#### William Zhou Beal Bank Third Prize

Jasper High School | Plano ISD

#### **Jacob Castro**

Society of American Military Engineers (SAME) Best Engineering Project Plano Academy High School | Plano ISD

#### Joseph Goh

Society of American Military Engineers (SAME) Best Engineering Project Plano Academy High School | Plano ISD

#### Nawal Siddiqui

Society of American Military Engineers (SAME) Best Engineering Project Plano Academy High School | Plano ISD

## **Environmental Engineering**

#### Aneesh Mootha Beal Bank First Prize

North Texas Association of Environmental Professionals Environmental Excellence Terracon, Inc. Terracon Environmental Excellence Award, Senior Div. 2nd Place Greenhill School | Private

#### Anika Mootha Beal Bank First Prize

North Texas Association of Environmental Professionals Environmental Excellence Terracon, Inc. Terracon Environmental Excellence Award, Senior Div. 2nd Place Greenhill School | Private

#### Anusri Chinni Beal Bank Second Prize

WEAT / AWWA Senior Division, 3rd Place Ricoh USA, Inc Ricoh Sustainable Development Award Uplift North Hills Preparatory HS | Charter

#### Piyush Budagavi Beal Bank Third Prize

Plano West Senior High School | Plano ISD

#### **Micah Alter-Meeker**

National Space Society of North Texas Space Exploration Scholarship 1st Place Plano Academy High School | Plano ISD

#### **Matthew Huang**

National Space Society of North Texas Space Exploration Scholarship 1st Place Plano Academy High School | Plano ISD

#### Jacob Phan

National Space Society of North Texas Space Exploration Scholarship 1st Place Plano Academy High School | Plano ISD

## **Materials Science**

#### **Shreya Halbe** Beal Bank First Prize Plano West Senior High School | Plano ISD

#### Aika Saadiq Beal Bank Second Prize

Vines High School | Plano ISD

#### Graeham Cheshkov-Drandov Beal Bank Third Prize

Shepton High School | Plano ISD

#### Neo Cheshkov-Drandov Beal Bank Third Prize

Shepton High School | Plano ISD

## Mathematics

#### **Meryl Zhang** Beal Bank First Prize Plano Senior High School | Plano ISD

#### Albert Jiang Beal Bank Second Prize

Plano West Senior High School | Plano ISD

#### Pranavanath Balamurali Beal Bank Third Prize

Independence High School | Frisco ISD

#### Adit Khandelwal Beal Bank Third Prize

Independence High School | Frisco ISD

#### Armaan Sharma Beal Bank Third Prize

Independence High School| Frisco ISD

#### Vivian Pang

American Statistical Association ASA Award for Statistical Excellence - Senior Division Clark High School | Plano ISD

## Microbiology

Zaynab Abbas Beal Bank First Prize Plano West Senior High School | Plano ISD

**Yizhen Zhang** Beal Bank First Prize Plano West Senior High School | Plano ISD

**Elgin Tawiah** Beal Bank Second Prize Plano East Senior High School | Plano ISD

**Vijay Shivnani** Beal Bank Third Prize Shepton High School | Plano ISD

#### Physics and Astronomy

Sanjith Chandran Beal Bank First Prize Reedy High School | Frisco ISD

**Rohan Kumar** Beal Bank First Prize Reedy High School | Frisco ISD

#### Aarini Sen Beal Bank Second Prize

Jasper High School | Plano ISD

#### Neel Marripalapu Beal Bank Third Prize

Jasper High School | Plano ISD

#### Amitha Mandava

Directed Energy Professional Society Senior 2nd Place Plano East Senior High School | Plano ISD

#### **Hawking Newcomer**

U.S. Metric Association Best Use of SI Units Clark High School | Plano ISD

#### Ananya Srivatsan

U.S. Metric Association Best Use of SI Units Plano East Senior High School | Plano ISD

## **Plant Sciences**

#### Prisha Bhat Beal Bank First Prize

Society for in Vitro Biology Outstanding Achievement in In Vitro Biology Plano East Senior High School | Plano ISD

#### Jessica Zhang Beal Bank Second Prize

Jasper High School | Plano ISD

#### Arundhati Vankayalapati Beal Bank Third Prize

Plano East Senior High School | Plano ISD

## **Robotics and Intelligent Machines**

#### **Anirudh Narayanan** Beal Bank First Prize Directed Energy Professional Society Senior 3rd Place Plano East Senior High School | Plano ISD

#### **Kirubel Atsmegiorgis** Beal Bank Second Prize Harmony School of Innovation Garland High School | Charter

#### Talha Mohammed Beal Bank Second Prize

Harmony School of Innovation Garland High School | Charter

#### Allen Thomas Beal Bank Second Prize

Harmony School of Innovation Garland High School | Charter

#### Dev Arora Beal Bank Third Prize

Plano West Senior High School | Plano ISD

#### Anika Gopal

Terracon, Inc. Terracon Engineering Excellence Award, Senior Div. 2nd Place The Learning Journey | Homeschool

#### **Dhanush Bala**

The Mars Society - DFW Chapter The Mars Society Curiosity Award Shepton High School | Plano ISD

#### **Ayush Biswal**

Yale Science & Engineering Association, Inc. Most Outstanding 11th Grade Exhibit Coppell High School | Coppell ISD

#### **Aayush Shah**

Yale Science & Engineering Association, Inc. Most Outstanding 11th Grade Exhibit Coppell High School | Coppell ISD

#### Systems Software

**Viren Bankapur** Beal Bank First Prize U.S. Air Force Certificate of Achievement

Independence High School | Frisco ISD

#### **Andy Qin** Beal Bank Second Prize Plano West Senior High School | Plano ISD

#### Smeeth Talasila Beal Bank Third Prize

Jasper High School | Plano ISD

## **Translational Medical Science**

**Nishi Soni** Beal Bank First Prize Centennial High School | Frisco ISD

**Shashank Gangaram** Beal Bank Second Prize Plano East Senior High School | Plano ISD

**Alanna Polyak** Beal Bank Third Prize Plano West Senior High School | Plano ISD

## 2024 Special Award Donors

Students receive additional recognition from the following organizations, who have provided over 60 Special Awards this year.

American Statistical Association American Psychological Association Association for Women Geoscientists DFW Chapter of the Alliance Hazardous Materials Manager **Dallas County Medical Society Directed Energy Professional Society** McKinney Amateur Radio Club, Inc. National Aeronautics and Space Administration National Oceanic and Atmospheric Administration National Space Society of North Texas North Texas Association of Environmental Professionals North Texas Chapter of the Texas Master Naturalist Regeneron and the Society for Science Ricoh USA, Inc. Society for In Vitro Biology Society of American Military Engineers Southwestern Medical Foundation, Kathryn & Ashley H. Priddy Award Southwestern Medical Foundation, Thomas & Libby Mathai Scholarship for Women in STEM State of Texas Chapter-Health Physics Society Terracon Consultants, Inc. **Texas Instruments** The Lemelson Foundation The Mars Society - DFW Chapter Trinity Chapter of The Links, Incorporated U.S. Air Force U.S. Agency for International Development **U.S.** Metric Association Water Environment Association of Texas and American Water Work Association Yale Science and Engineering Association

## 2024 Teacher Awards

Each day, great science teachers guide, encourage, and motivate students. Teachers impress curiosity in their students, which enables growth and learning. Over 100 teachers entered their students in the Regional Fair.

The Science Fair Teacher Award Committee recognizes the top teacher in each division for their dedication and commitment to students. These top teachers were selected by the number, performance, and success rate of their students at the fair.

Southern Methodist University and the Dallas Regional Science and Engineering Fair are proud to honor these teachers.

#### Junior Division Teacher

#### Sarah Baldwin

Pioneer Heritage Middle School | Frisco ISD

#### Senior Division Teacher

#### Julie Baker

Plano East Senior High School | Plano ISD

## Congratulations, winners!



We celebrate big thinkers like you who ask why, how and what if. Your bold questions lead to creative solutions for our global community's challenges now and in the future.

> Ready to do more? Visit smu.edu/admission







# Inspiring the next generation through STEM education

Qorvo Cares is our commitment to cultivating good – goodwill, good connections and good fun – to build strong communities among Qorvo<sup>®</sup> employees and the world around us. A pillar of Qorvo Cares<sup>®</sup> engagement is our support for STEM education, inspiring the next generation of young people: our future employees and customers.





**Beal Bank** is proud to salute all participants in the 67<sup>th</sup> Annual Dallas Regional Science and Engineering Fair.

At Beal Bank we strongly believe that the next generation of scientists will answer long-unanswered questions and produce unprecedented breakthroughs to benefit humankind. Through the Science Fair, we encourage all young scientists to learn to think for themselves, to develop and test their own ideas – and, most importantly, to keep asking questions.

