**Alexander Abarca** | Testing Methods of Water Decontamination

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Microbiology | IRVING ISD | IRVING HS

**Ziyad Abdullah** | The Affect of Temperature on Papaya's Enzyme

## **Beal Bank Second Prize**

Junior | Life | Biochemistry and Biomedical Engineering | PAROCHIAL | BRIGHTER HORIZONS MS

Ahmed Adookkattil | Splitting Water: Separating Water into Hydrogen and Oxygen

**Beal Bank Second Prize** 

Junior | Physical | CHEMISTRY | PAROCHIAL | ISLAMIC SCHOOL OF IRVING MS

**Rohan Aerrabolu** | Utilizing Direct Currents in order to eliminate bacterial biofilms formed on medical implants

## **Beal Bank Honorable Mention**

Senior | Life | Translation Medical Science | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Arnav Agarwal** | Machine of Energy

## **Beal Bank Honorable Mention**

Junior | Physical | Energy: Physical | PLANO ISD | HENDRICK MIDDLE SCHOOL

**Shobhit Agarwal** | Using Machine Learning to Classify Tumors and for Early Detection of Cancer

## **Beal Bank First Prize**

Junior | Physical | Robotics & Intelligent Machines | FRISCO | PEARSON MIDDLE SCHOOL

**Dev Aggarwal** | Trash To Treasure

**Beal Bank Third Prize** 

Junior | Life | Environmental Engineering | FRISCO | VANDEVENTER MIDDLE SCHOOL

Navya Agrawal | Cognition

**Beal Bank Honorable Mention** 

Senior | Life | Biomedical & Health Sciences | ALLEN | ALLEN HIGH SCHOOL

Jehan Ahmed | The Effect of Human Activity on the Ocean's Water Quality

National Oceanic and Atmospheric Administration - Taking the Pulse of the Planet Award

Senior | Life | Earth & Environmental Systems | ALLEN | ALLEN HIGH SCHOOL

**Abdullah Ahmed** | Vanishing Vandalism

**Beal Bank Honorable Mention** 

Senior | Physical | Materials Science | PAROCHIAL | ISLAMIC SCHOOL OF IRVING HS

Amrita Ajmera | Street Lamp Shade to Reduce Light Pollution

**Beal Bank Honorable Mention** 

Junior | Life | Environmental Engineering | PLANO ISD | OTTO MIDDLE SCHOOL

Amrita Ajmera | Street Lamp Shade to Reduce Light Pollution

North Texas Chapter of the Texas Master Naturalist (NTMN) - NTMN Junior Division

Junior | Life | Environmental Engineering | PLANO ISD | OTTO MIDDLE SCHOOL

Aishwarya Akella | Color-Coding Memory

**Beal Bank Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

**Eisha Alam** | How Strong Are Those Bonds?

**Beal Bank Honorable Mention** 

Junior | Physical | Mathematics and Physics & Astronomy | PAROCHIAL | BRIGHTER HORIZONS MS

**Briana Alfaro** | Converse Piezoelectric

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | PLANO ISD | ROBINSON MIDDLE SCHOOL

Nooria Ali | Solar Powered Water Desalination

**Directed Energy Professional Society - Honorable Mention** 

Junior | Physical | Energy: Physical | PLANO ISD | RENNER MIDDLE SCHOOL

**Rylie Allison** | Which foods deliver the energy promised in the nutrition label more reliably? Whole foods or protein bars?

**Beal Bank Honorable Mention** 

Senior | Life | Biochemistry | COPPELL ISD | COPPELL HIGH SCHOOL

Kanak Ambwani | "Plantables" a new way of pencils

**Beal Bank Honorable Mention** 

Junior | Life | Earth & Environmental Systems | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

Kanak Ambwani | "Plantables" a new way of pencils

# North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Junior | Life | Earth & Environmental Systems | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

**Rohan Anakal** | An Investigation In Sports Helmets

#### **Beal Bank Honorable Mention**

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

**Rohan Anakal** | An Investigation In Sports Helmets

The Cooper Institute - Exercise/Health/Nutrition, Senior, 2nd Place

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

Niharika Anand | Natural electricity

**Beal Bank Second Prize** 

Junior | Physical | Energy: Chemical | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

Nura Anbari | What is best for dry skin?

## **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | PAROCHIAL | BRIGHTER HORIZONS MS

**Angelina Arevalo** | Runoff Water Filter

# **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

Angelina Arevalo | Runoff Water Filter

# U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

**Angelina Arevalo** | Runoff Water Filter

**WEAT / TAWWA - Honorable Mention** 

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

Jenifer Argueta | Testing Methods of Water Decontamination

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Microbiology | IRVING ISD | IRVING HS

**Brendan Atok** | Correlation between Age and rank on the Hierarchy of Needs.

**Beal Bank Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | PLANO ISD | HAGGARD MIDDLE SCHOOL

**Fatima Azam** | Which skincare ingredient works best with Salicylic Acid to most effectively stop the proliferation of Gram-positive bacteria?

# **Beal Bank Honorable Mention**

Senior | Life | Microbiology | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Owen Baggett | Sound Dampening Materials That Maintain Music Quality

#### **Beal Bank Third Prize**

Junior | Life | Biomedical & Health Sciences | PLANO ISD | FRANKFORD MIDDLE SCHOOL

**Natasha Banga** | Cracking the Cocaine Code: A Retrospective, Case-Control Study to Assess Prevalence, Clinical Characteristics, and Post-Transplant Outcomes Among Recipients of Lung Donors With Cocaine Use

#### **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Ayman Bari | Synthetic Anti-Biotics vs Natural Anti-Biotics

**Beal Bank First Prize** 

Junior | Life | Microbiology | PAROCHIAL | ISLAMIC SCHOOL OF IRVING MS

Jishnu Basu | Impact of Biosynthesized Silver Nanoparticles on Bacterial Growth

**Dallas County Medical Society - 2nd Place** 

Senior | Life | Biomedical & Health Sciences | PLANO ISD | PLANO SENIOR HIGH SCHOOL

Riley Bayer | UPF clothing

**Beal Bank Honorable Mention** 

Junior | Physical | Materials Science | PLANO ISD | HAGGARD MIDDLE SCHOOL

**Erin Beall** | The Future of Rainbows

**Beal Bank Third Prize** 

Junior | Physical | Mathematics and Physics & Astronomy | PLANO ISD | OTTO MIDDLE SCHOOL

Erin Beall | The Future of Rainbows

**Directed Energy Professional Society - Junior 2nd Place** 

Junior | Physical | Mathematics and Physics & Astronomy | PLANO ISD | OTTO MIDDLE SCHOOL

Otto Beall | An Affordable Pipe Inspection Leak Detection Robot

North Texas Association of Environmental Professionals - Environmental Excellence

Senior | Life | Environmental Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Otto Beall | An Affordable Pipe Inspection Leak Detection Robot

**WEAT / TAWWA - Honorable Mention** 

Senior | Life | Environmental Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Alison Bell | The Effect of Pollution on Plant development

#### **Beal Bank Honorable Mention**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO SENIOR HIGH SCHOOL

Esha Bhandari | Water Quality Over Time

#### **Beal Bank Honorable Mention**

Junior | Life | Biochemistry and Biomedical Engineering | FRISCO | FOWLER MIDDLE SCHOOL

Harshal Bharatia | Visiboost: A Smart Surgery Sidekick

## **Beal Bank Third Prize**

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | VINES HIGH SCHOOL

**Shriya Bhat** | A Novel Nontoxic Approach to Stilting the Growth and Facilitating Antibiotic Penetration of Pseudomonas fluorescens Biofilm with Adjuvant Antioxidants

#### **Beal Bank Second Prize**

Senior | Life | Microbiology | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Manyaa Bhatia | Fighting Alzheimers: Memories Last

#### **Beal Bank Second Prize**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | FRISCO | PEARSON MIDDLE SCHOOL

**Abhinav Bichal** | Development of an Accelerometer- Based Medical Device for Posture Management

## **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | FRISCO | LEBANON TRAIL HIGH SCHOOL

**Abhinav Bichal** | Development of an Accelerometer- Based Medical Device for Posture Management

The Cooper Institute - Exercise/Health/Nutrition, Senior, 3rd Place

Senior | Life | Biomedical & Health Sciences | FRISCO | LEBANON TRAIL HIGH SCHOOL

Siddarth Bidare | Coding a Camera With Artificial Intelligence to Assist the Vision Impaired

Beal Bank First Prize

Junior | Physical | Systems Software | PLANO ISD | RENNER MIDDLE SCHOOL

Saida Bidiwala | Paper Recycling Mechanism

## **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | PRIVATE | DALLAS INTERNATIONAL MS

**Anika Bokil** | Smart Farming using Intelligent Automated Texture Analysis-based Remote Sensing System

# **Beal Bank Honorable Mention**

Senior | Physical | Systems Software | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Anika Bokil** | Smart Farming using Intelligent Automated Texture Analysis-based Remote Sensing System

# The Mars Society -DFW Chapter - Honorable Mention

Senior | Physical | Systems Software | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Anika Bokil** | Smart Farming using Intelligent Automated Texture Analysis-based Remote Sensing System

Yale Science & Engineering Association, Inc. - Most Outstanding 11th Grade Exhibit

Senior | Physical | Systems Software | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Maya Brown | Effect of Duckweed on Ammonia Levels in Water

#### **Beal Bank Second Prize**

Junior | Life | Plant Sciences | PLANO ISD | FRANKFORD MIDDLE SCHOOL

**Anjali Brown** | Combating the Opioid Epidemic: The Effects of Zanthoxylum clava-herculis and Lactuca virosa on the Pain Receptors within Dugesia tigrina

#### **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Daniel Brubaker** | The Use of a Neural Network for Skin Cancer Diagnosis

## **Beal Bank Honorable Mention**

Senior | Physical | Systems Software | PLANO ISD | THE ACADEMY HIGH SCHOOL

**Truc Bui** | The Effect of Probiotics and Metallothionein Proteins on Type II Diabetes through the change of the level of bifidobacteria, blood sugar level, insulin level, and inflammation factor

## **Beal Bank Third Prize**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | JASPER HIGH SCHOOL

**Birch Burns** | Which Insulation Works Best

#### **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | DALLAS | EDUARDO MATA MONTESSORI

Clay Caldwell | Fishing

**Beal Bank Honorable Mention** 

Junior | Life | ANIMAL SCIENCE | Sam Rayburn ISD | RAYBURN MIDDLE SCHOOL

Clay Caldwell | Fishing

**Dallas County Veterinary Medical Association - Honorable Mention** 

Junior | Life | ANIMAL SCIENCE | Sam Rayburn ISD | RAYBURN MIDDLE SCHOOL

**Lina Canales** | Are DISD Students Exposed to Contaminated Soil?

American Industrial Hygiene Association- North Texas Section - Honorable Mention

Junior | Life | Earth & Environmental Systems | DALLAS | IRMA RANGEL YOUNG WOMEN'S LEADERSHIP SCHOOL - MIDDLE SCHOOL

**Lauren Carl** | Brown Avocados

**Beal Bank Honorable Mention** 

Junior | Life | Biochemistry and Biomedical Engineering | Ennis ISD | ENNIS JUNIOR HIGH SCHOOL

**Anna Carlisle** | POREfessionals

**Beal Bank Honorable Mention** 

Senior | Physical | Materials Science | PLANO ISD | CLARK HIGH SCHOOL

**Dylan Carreau** | Another Nail Bites The Rust

**Beal Bank Third Prize** 

Junior | Physical | Materials Science | UPLIFT EDUCATION | UPLIFT SUMMIT MS

**Joshua Carroll** | Rising Sea Level, Rising Concern: The Probability of Massive Flooding of Eight of the World's Largest Cities

## **NASA - Earth System Science Award**

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Ananya Chakravarthi** | How is heat transmission correlated with light transparency?

#### **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | PLANO ISD | MURPHY MIDDLE SCHOOL

Neel Chalemela | Investigation of Microplastics in Water

# U.S. Environmental Protection Agency 6th chapter - Exemplary Achievement in Environmental Protection

Senior | Life | Environmental Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

**Shantikiran Chanal** | Scanoma: A Novel Approach to the Detection of Skin Cancer Sub-Classifications using Machine Learning

#### **Beal Bank Honorable Mention**

Senior | Life | Biomedical Engineering | FRISCO | REEDY HIGH SCHOOL

## **Keshav Chandrasekhara** | Oil Busters

## **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | CHARTER | UPLIFT NORTH HILLS HS

**Ananya Chawla** | The effect of different concentrations of benzoyl peroxide, adapalene, clindamycin, salicylic acid, and tretinoin as active ingredients in acne medication on Escherichia Coli bacteria, as measured every 24 hours over the course of 3 days.

## **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Anika Chebrolu** | In-Silico Molecular Docking Study of Novel Hemagglutinin Inhibitors to Combat Influenza Epidemic

#### **Beal Bank Third Prize**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | FRISCO | NELSON MIDDLE SCHOOL

**Kaelyn Chendana** | Which Type of Activated Carbon Filters water the Best: Powdered or Granulated?

#### **Beal Bank Honorable Mention**

Junior | Physical | CHEMISTRY | PLANO ISD | ROBINSON MIDDLE SCHOOL

**Rohan Cherukuru** | A Low-Cost Non-Invasive Method of Blood Glucose Measurement Using Capacitance and Near-Infrared Spectroscopy

#### **Beal Bank Honorable Mention**

Senior | Life | Biomedical Engineering | DALLAS | SCHOOL OF SCIENCE AND ENGINEERING AT YVONNE A. EWELL TOWNVIEW CENTER

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

#### **Beal Bank First Prize**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

# **Beal Bank Grand Prize Runner Up**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

Collins Leadership Association - Outstanding Communications Project Senior Div. 3rd Place

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

# **Directed Energy Professional Society - Senior 2nd Place**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

# National Space Society of North Texas - Honorable Mention

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

## Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Rohan Chhaya** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

## The Mars Society -DFW Chapter - Honorable Mention

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

Anusri Chinni | STOP THE FLOOD!

## **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | CHARTER | UPLIFT NORTH HILLS MS

Joshua Chio | Exploration of Martian Agriculture

**Beal Bank Third Prize** 

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Joshua Chio | Exploration of Martian Agriculture

National Space Society of North Texas - Space Exploration Scholarship 3rd Place

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Joshua Chio | Exploration of Martian Agriculture

The Mars Society -DFW Chapter - The Mars Society-Curiosity Award

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Jake Chostner** | How Does Different Water Affect the Growth of Plants?

**Beal Bank Honorable Mention** 

Junior | Life | Plant Sciences | PAROCHIAL | ALL SAINTS CATHOLIC

Jade Chu | Without a Trace of Food Allergens

**Beal Bank First Prize** 

Junior | Life | Biomedical & Health Sciences | PLANO ISD | RICE MIDDLE SCHOOL

**Pranav Civi** | High efficiency Nano Fibrillated Cellulose (NFC) incorporated with Fullers Earth clay inducing a tortuous diffusion path for a superior oxygen barrier property resulting in an organic fire retardant coating for structural wood.

## **Beal Bank Honorable Mention**

Senior | Physical | Materials Science | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

James Coffman | Catfish Cereal Bait

#### **Beal Bank Honorable Mention**

Junior | Life | Behavioral & Social Sciences | FRISCO | LAWLER MIDDLE SCHOOL

Siddhartha Das | Ferrofluids: A New Generation of Filtration

**WEAT / TAWWA - Honorable Mention** 

Senior | Life | Environmental Engineering | CHARTER | UPLIFT NORTH HILLS HS

**Ayon Das** | Mobile device accurately identifies trace toxins using an Artificial Sequential Recurrent Neural Network

#### **Beal Bank First Prize**

Senior | Physical | CHEMISTRY | PLANO ISD | JASPER HIGH SCHOOL

**Ayon Das** | Mobile device accurately identifies trace toxins using an Artificial Sequential Recurrent Neural Network

DFW Chapter of Hazardous Materials Managers - 1st Place Senior Division Best Hazardous Materials Project

Senior | Physical | CHEMISTRY | PLANO ISD | JASPER HIGH SCHOOL

**Ayon Das** | Mobile device accurately identifies trace toxins using an Artificial Sequential Recurrent Neural Network

Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | CHEMISTRY | PLANO ISD | JASPER HIGH SCHOOL

**Arman Deendar** | The Effects of Blue Light Exposure on the Antimicrobial Properties of Reactive Oxygen Species of Silver Nanoparticles in Gram Positive and Gram Negative Bacterial Organisms

## **Beal Bank Honorable Mention**

Senior | Life | Microbiology | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Akanksha Deka** | Blocking flavoprotein generation offers NEW avenues to combat vancomycin-resistant Enterococcus (VRE) infections

#### **Beal Bank First Prize**

Senior | Life | Microbiology | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Jathin Desan** | Early detection using a Novel Climatic-Ecological Niche Model in Prediction of West Nile Virus: Descriptive analysis of WNV neuro and non-neuro cases with Machine Learning

#### **Beal Bank Second Prize**

Senior | Life | ANIMAL SCIENCE | FRISCO | INDEPENDENCE HIGH SCHOOL

**Sahana Dhananjayan** | Colloidal Synthesis of Green Nanoparticles: Theranostic In Vitro Approach To Hormone Therapy

#### **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO SENIOR HIGH SCHOOL

Aaditya Dhar | IoT-Based Wireless Diaper Monitoring System

## **Beal Bank Second Prize**

Junior | Physical | Embedded Systems | PLANO ISD | RENNER MIDDLE SCHOOL

Aaditya Dhar | IoT-Based Wireless Diaper Monitoring System

Collins Leadership Association - Outstanding Communications Project Junior Div. 1st Place

Junior | Physical | Embedded Systems | PLANO ISD | RENNER MIDDLE SCHOOL

Aaditya Dhar | IoT-Based Wireless Diaper Monitoring System

Texas Instruments - Best electronics or computing project, Junior Division

Junior | Physical | Embedded Systems | PLANO ISD | RENNER MIDDLE SCHOOL

**Abhinav Divyakolu** | An Investigation In Sports Helmets

#### **Beal Bank Honorable Mention**

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

**Abhinav Divyakolu** | An Investigation In Sports Helmets

The Cooper Institute - Exercise/Health/Nutrition, Senior, 2nd Place

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

Danielle Djuandi | POREfessionals

**Beal Bank Honorable Mention** 

Senior | Physical | Materials Science | PLANO ISD | CLARK HIGH SCHOOL

Lena Doan | Immortal Roses

**Beal Bank First Prize** 

Junior | Life | Plant Sciences | PLANO ISD | OTTO MIDDLE SCHOOL

**Sriya Dommaraju** | The Combined and Individual Effects of Essential Oils on Serratia marcescens and Neisseria subflava

## **Beal Bank Honorable Mention**

Senior | Life | Biochemistry | PLANO ISD | JASPER HIGH SCHOOL

**Ivana Durcanska** | The Effects of Blue Light Exposure on the Antimicrobial Properties of Reactive Oxygen Species of Silver Nanoparticles in Gram Positive and Gram Negative Bacterial Organisms

# **Beal Bank Honorable Mention**

Senior | Life | Microbiology | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Michelle Ee** | How can therapists and medical professionals use artificial intelligence agents to increase efficiency in the workplace?

#### **Beal Bank Honorable Mention**

Junior | Physical | Robotics & Intelligent Machines | FRISCO | PEARSON MIDDLE SCHOOL

**Arshia Elahi** | The Sound of a Solution: An Affordable, Self-Calibrating Hearing Aid Via Semi-Porous Nitinol Compression and Optimization of a Novel Concave Amplification Technique

## **Acoustical Society of America - Outstanding Senior Acoustic Project**

Senior | Physical | Materials Science | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Arshia Elahi** | The Sound of a Solution: An Affordable, Self-Calibrating Hearing Aid Via Semi-Porous Nitinol Compression and Optimization of a Novel Concave Amplification Technique

ASM Materials Education Foundation - Most Outstanding Exhibit in Materials Science

Senior | Physical | Materials Science | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Arshia Elahi** | The Sound of a Solution: An Affordable, Self-Calibrating Hearing Aid Via Semi-Porous Nitinol Compression and Optimization of a Novel Concave Amplification Technique

## **Beal Bank First Prize**

Senior | Physical | Materials Science | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Arshia Elahi** | The Sound of a Solution: An Affordable, Self-Calibrating Hearing Aid Via Semi-Porous Nitinol Compression and Optimization of a Novel Concave Amplification Technique

## **Beal Bank Grand Prize**

Senior | Physical | Materials Science | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Arshia Elahi** | The Sound of a Solution: An Affordable, Self-Calibrating Hearing Aid Via Semi-Porous Nitinol Compression and Optimization of a Novel Concave Amplification Technique

Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | Materials Science | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Sushanth Elangovan** | Trash To Treasure

**Beal Bank Third Prize** 

Junior | Life | Environmental Engineering | FRISCO | VANDEVENTER MIDDLE SCHOOL

**Kyle Elms** | An investigation of the effect of natural preservatives on strawberries

**Beal Bank Honorable Mention** 

Senior | Life | Biochemistry | COPPELL ISD | COPPELL HIGH SCHOOL

**Emmanuel Elsaadany** | A better design for a cane

**Beal Bank Honorable Mention** 

Junior | Life | Environmental Engineering | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

**Arun Eswara** | BioProtect: A Phased Array Spatial Sensor for Visual Detection and Assistance

**Beal Bank Second Prize** 

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Arun Eswara | BioProtect: A Phased Array Spatial Sensor for Visual Detection and Assistance

Texas Instruments - Best electronics or computing project, Senior Division

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Catherine Everitt** | Solar Desalination

U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Junior | Life | Earth & Environmental Systems | PRIVATE | DALLAS INTERNATIONAL MS

Amalia Figueroa-Nieves | The Effects of Video Games on the Cognitive Abilities of Adolescents

Beal Bank Honorable Mention

Senior | Life | Behavioral & Social Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Katherine Forson** | The Effect of Different Roofing Shingle Materials on Air Temperature

American Meteorology Society - Outstanding Achievement in Atmospheric Science, Senior Division

Senior | Life | Earth & Environmental Systems | PLANO ISD | SHEPTON HIGH SCHOOL

**Danielle Furman** | A Portable and Cost-Effective Device Designed To Assist People To Transfer From a Walker Into and Out of a Car

#### **Beal Bank Third Prize**

Senior | Physical | Engineering Mechanics | PLANO ISD | SHEPTON HIGH SCHOOL

**Danielle Furman** | A Portable and Cost-Effective Device Designed To Assist People To Transfer From a Walker Into and Out of a Car

## **DiscoverSTEM - Honorable Mention**

Senior | Physical | Engineering Mechanics | PLANO ISD | SHEPTON HIGH SCHOOL

**Mk Futrell** | The Dangers of Chemical UV Filter Oxybenzone: A Meta-Analysis and Systematic Review

## **Beal Bank Second Prize**

Senior | Life | Earth & Environmental Systems | PAROCHIAL | BISHOP LYNCH HIGH

**Mk Futrell** | The Dangers of Chemical UV Filter Oxybenzone: A Meta-Analysis and Systematic Review

# **GENIUS Olympiad - Exceptional Genius Award**

Senior | Life | Earth & Environmental Systems | PAROCHIAL | BISHOP LYNCH HIGH

Matthew Futrell | Improving the Cost Efficiency of Bullet-Resistant Vests

**Beal Bank Second Prize** 

Senior | Physical | Materials Science | PAROCHIAL | BISHOP LYNCH HIGH

**Rohakk Gaddam** | Ferrofluids: A New Generation of Filtration

**WEAT / TAWWA - Honorable Mention** 

Senior | Life | Environmental Engineering | CHARTER | UPLIFT NORTH HILLS HS

Erika Gamboa | The Effect of Leading Edge on Lift

**Beal Bank Honorable Mention** 

Senior | Physical | Engineering Mechanics | IRVING ISD | IRVING HS

**Rishi Gandikota** | Testing the Effectiveness of Various Filtration Systems on the Removal of Fluoride from Water

**Beal Bank Honorable Mention** 

Senior | Life | Earth & Environmental Systems | ALLEN | LOWERY FRESHMEN CENTER

**Rithvik Ganesh** | Tackling Tangles: Using a Caenorhabditis elegans model along with computational screening to identify effective inhibitors to treat the progression of Alzheimer's Disease

**Beal Bank Third Prize** 

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | JASPER HIGH SCHOOL

Saketh Gangadaranellore | Using Convoluted Neural Networks to Predict Chest X-rays

State of Texas Chapter – Health Physics Society - Honorable Mention

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | SHEPTON HIGH SCHOOL

**Adith Gangalakunta** | Efficiently Inhibiting Colon Cancer with a Cumin Conjugate : An in-silico molecular docking based analysis of a unique cuminaldehyde based ligand and its binding properties to Protein Kinase A

#### **Beal Bank Honorable Mention**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | JASPER HIGH SCHOOL

**Ria Garg** | Screening for Parkinsons: Isolating Characteristic Typing Patterns with Machine Learning

#### **Beal Bank Third Prize**

Junior | Life | Behavioral & Social Sciences | FRISCO | LAWLER MIDDLE SCHOOL

Yash Garg | Overrated? Modeling Behavioral Bias in Online User Ratings

#### **Beal Bank Honorable Mention**

Senior | Life | Behavioral & Social Sciences | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Rahul Garikapati** | Synthesis and Evaluation of Carbapenem Antibiotics Targeting OXA-23 Producing Acinetobacter baumannii

#### **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | COPPELL ISD | COPPELL HIGH SCHOOL

Kaushik Gattepalli | Solution to Sand Erosion

Terracon, Inc. - Environmental Excellence Award, Senior Div. 2nd Place Individual

Senior | Life | Environmental Engineering | DALLAS | SCHOOL FOR THE GIFTED AND TALENTED AT YVONNE A EWELL TOWNVIEW CENTER

**Mrigayu Ghosh** | Deriving Cardiac Cells through Direct Reprogramming Using a Stochastic Simulation to Determine the Necessary Transcription Factors and a Suitable Starting Cell Type

#### **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | CHARTER | UPLIFT NORTH HILLS HS

**Mrigayu Ghosh** | Deriving Cardiac Cells through Direct Reprogramming Using a Stochastic Simulation to Determine the Necessary Transcription Factors and a Suitable Starting Cell Type

**Dallas County Medical Society - Honorable Mention** 

Senior | Life | Biomedical & Health Sciences | CHARTER | UPLIFT NORTH HILLS HS

**Rohan Gidvani** | Do Different Types of Containers Affect the pH of Water?

**Beal Bank Honorable Mention** 

Junior | Physical | CHEMISTRY | PLANO ISD | RENNER MIDDLE SCHOOL

Katherine Gipp | Pet Town

**Beal Bank Honorable Mention** 

Junior | Physical | Systems Software | FRISCO | PEARSON MIDDLE SCHOOL

Sarang Goel | Smart Ventilation For Vehicles Using Machine Learning

**Beal Bank First Prize** 

Junior | Physical | Embedded Systems | COPPELL | COPPELL MIDDLE EAST

Sarang Goel | Smart Ventilation For Vehicles Using Machine Learning

**DiscoverSTEM - Honorable Mention** 

Junior | Physical | Embedded Systems | COPPELL | COPPELL MIDDLE EAST

Sarang Goel | Smart Ventilation For Vehicles Using Machine Learning

Office of Naval Research - Naval Science Award, Junior Division

Junior | Physical | Embedded Systems | COPPELL | COPPELL MIDDLE EAST

Sarang Goel | Smart Ventilation For Vehicles Using Machine Learning

Texas Instruments - Best electronics or computing project, Junior Division

Junior | Physical | Embedded Systems | COPPELL | COPPELL MIDDLE EAST

**Skylar Greenman** | Converse Piezoelectric

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | PLANO ISD | ROBINSON MIDDLE SCHOOL

Jasper Grizzle | Let It Roll

**Beal Bank First Prize** 

Junior | Physical | Mathematics and Physics & Astronomy | PLANO ISD | RENNER MIDDLE SCHOOL

Jasper Grizzle | Let It Roll

Office of Naval Research - Naval Science Award, Junior Division

Junior | Physical | Mathematics and Physics & Astronomy | PLANO ISD | RENNER MIDDLE SCHOOL

**Winston Gruver** | Life Through A Tinted Glass: The Effect of School Subject on Colorblindness Accessibility in Class Textbooks

**Beal Bank Honorable Mention** 

Senior | Life | Behavioral & Social Sciences | PLANO ISD | SHEPTON HIGH SCHOOL

Gianni Guez | Cold Starts

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | PAROCHIAL | THE HIGHLANDS SCHOOL

**Manya Gummaraju** | Effect of different edible ingredients on the inheritance patterns of a sex linked trait in Drosophila melanogaster

#### **Beal Bank First Prize**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | PLANO ISD | RICE MIDDLE SCHOOL

Manya Gummaraju | Effect of different edible ingredients on the inheritance patterns of a sex linked trait in Drosophila melanogaster

#### **Beal Bank Grand Prize**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | PLANO ISD | RICE MIDDLE SCHOOL

**Yifan Guo** | Electromagnetic Transportation System

#### **Beal Bank Second Prize**

Senior | Physical | Engineering Mechanics | PLANO ISD | JASPER HIGH SCHOOL

**Yifan Guo** | Electromagnetic Transportation System

# **DiscoverSTEM - Honorable Mention**

Senior | Physical | Engineering Mechanics | PLANO ISD | JASPER HIGH SCHOOL

**Yifan Guo** | Electromagnetic Transportation System

U.S. Metric Association - Best Use of SI Units in a Project, Senior Division

Senior | Physical | Engineering Mechanics | PLANO ISD | JASPER HIGH SCHOOL

Raghav Gupta | An aPEELing Fertilizer - Effect of Banana Peel on Plant and algal growth

#### **Beal Bank Second Prize**

Junior | Life | Earth & Environmental Systems | PLANO ISD | RENNER MIDDLE SCHOOL

**Aishani Gupta** | Lead Sinkers Be Gone: Effect of Coriandrum sativum On Removal of Lead from Aquatic Environment

#### **Beal Bank Honorable Mention**

Senior | Life | Earth & Environmental Systems | PLANO ISD | SHEPTON HIGH SCHOOL

**Aishani Gupta** | Lead Sinkers Be Gone: Effect of Coriandrum sativum On Removal of Lead from Aquatic Environment

North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | SHEPTON HIGH SCHOOL

**Taran Gupta** | Combating the Opioid Epidemic: The Effects of Zanthoxylum clava-herculis and Lactuca virosa on the Pain Receptors within Dugesia tigrina

## **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Anay Gupta** | Optimizing Flexible Amorphous Dealloyed Nanoporous Metallic Glass with Hierarchical Nanostructures as External Deformations for High Performance Supercapacitors

## **Beal Bank Third Prize**

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Chloe Guyton** | Penny Power

#### **Beal Bank Honorable Mention**

Junior | Physical | Energy: Chemical | UPLIFT EDUCATION- CHARTER | UPLIFT ELEVATE MS

Aleksander Guzman | Monitoring the elderly using sensors with IoT

#### **Beal Bank Honorable Mention**

Junior | Physical | Systems Software | PLANO ISD | BOWMAN MIDDLE SCHOOL

**Lucas Hatcher** | Direct Carbon Capture

**Beal Bank Honorable Mention** 

Junior | Life | Environmental Engineering | ALLEN | FORD MIDDLE SCHOOL

Ethan Havemann | Exploration of Martian Agriculture

**Beal Bank Third Prize** 

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Ethan Havemann** | Exploration of Martian Agriculture

National Space Society of North Texas - Space Exploration Scholarship 3rd Place

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Ethan Havemann** | Exploration of Martian Agriculture

The Mars Society -DFW Chapter - The Mars Society-Curiosity Award

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Jesse He | A Heuristics-based method for Determination of Dehydration Severity

**Beal Bank Honorable Mention** 

Junior | Physical | Systems Software | PLANO ISD | RICE MIDDLE SCHOOL

Haley Hicks | Natural vs. Artificial Toothpaste

**Beal Bank Honorable Mention** 

Junior | Life | Biomedical & Health Sciences | FRISCO | VANDEVENTER MIDDLE SCHOOL

Ryan Hirasaki | The Use of a Neural Network for Skin Cancer Diagnosis

**Beal Bank Honorable Mention** 

Senior | Physical | Systems Software | PLANO ISD | THE ACADEMY HIGH SCHOOL

**Sanjana Hiremath** | A Second Year Study on the Bioremediation of Tetracycline Polluted Soils: How Antibiotic Resistance can Reduce Antibiotic Pollution in the Environment and a Solution to Groundwater Antibiotic Pollution

#### **Beal Bank First Prize**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sanjana Hiremath** | A Second Year Study on the Bioremediation of Tetracycline Polluted Soils: How Antibiotic Resistance can Reduce Antibiotic Pollution in the Environment and a Solution to Groundwater Antibiotic Pollution

# **DFW Chapter of Hazardous Materials Managers - Honorable Mention**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sanjana Hiremath** | A Second Year Study on the Bioremediation of Tetracycline Polluted Soils: How Antibiotic Resistance can Reduce Antibiotic Pollution in the Environment and a Solution to Groundwater Antibiotic Pollution

## North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Zachary Homer | Natural vs. Artificial Toothpaste

## **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | FRISCO | VANDEVENTER MIDDLE SCHOOL

**Kylee Howard** | Battling Bacteria

## **Beal Bank Honorable Mention**

Junior | Life | Microbiology | PLANO ISD | HAGGARD MIDDLE SCHOOL

Rebecca Huang | The Effect of Human Activity on the Ocean's Water Quality

National Oceanic and Atmospheric Administration - Taking the Pulse of the Planet Award

Senior | Life | Earth & Environmental Systems | ALLEN | ALLEN HIGH SCHOOL

Adil Husain | iSight 2.0: Artificial Intelligence Brings Vision to the Visually Impaired

**Beal Bank Honorable Mention** 

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | JASPER HIGH SCHOOL

Safwan Islam | Cognition

**Beal Bank Honorable Mention** 

Senior | Life | Biomedical & Health Sciences | ALLEN | ALLEN HIGH SCHOOL

Omar Ismaiel | Do Different Types of Containers Affect the pH of Water?

**Beal Bank Honorable Mention** 

Junior | Physical | CHEMISTRY | PLANO ISD | RENNER MIDDLE SCHOOL

**Sakeena Ismail** | Anxiety Alleviation

The Cooper Institute - Exercise/Health/Nutrition, Junior, 1st Place

Junior | Life | Behavioral & Social Sciences | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

**Anjali Iyer** | Moss! : The Effect of Sphagnum Moss on the Contamination of Groundwater as a Biological Remediation, Compared to Chemical Remediation's.

North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Anjali Iyer** | Moss! : The Effect of Sphagnum Moss on the Contamination of Groundwater as a Biological Remediation, Compared to Chemical Remediation's.

Stockholm Junior Water Prize - Award for Excellence in a Water-Related Project

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Anjali Iyer** | Moss! : The Effect of Sphagnum Moss on the Contamination of Groundwater as a Biological Remediation, Compared to Chemical Remediation's.

Terracon, Inc. - Environmental Excellence Award, Senior Div. 3rd Place Individual

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Anjali lyer** | Moss! : The Effect of Sphagnum Moss on the Contamination of Groundwater as a Biological Remediation, Compared to Chemical Remediation's.

WEAT / TAWWA - Senior Division, 1st Place

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Aryan Jain** | Override Carbon Dioxide- A Digital Tool for Predicting Optimal Infrastructure Conditions Based on Current City Infrastructure and CO2 Pollution Levels

## **Beal Bank Third Prize**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Paarth Jamdagneya** | Testing the Effectiveness of Various Filtration Systems on the Removal of Fluoride from Water

## **Beal Bank Honorable Mention**

Senior | Life | Earth & Environmental Systems | ALLEN | LOWERY FRESHMEN CENTER

Jacob Jander | Cold Starts

## **Beal Bank Honorable Mention**

Junior | Physical | Engineering Mechanics | PAROCHIAL | THE HIGHLANDS SCHOOL

**Sean Jannati** | An Efficient and Affordable Solution to Reduce Post-Stroke Paralysis Recovery Time

## **Beal Bank Honorable Mention**

Senior | Life | Biomedical Engineering | PLANO ISD | SHEPTON HIGH SCHOOL

Ishaan Javali | E-rrigation - A Sprinkler Design System to Minimize Water Loss

Beal Bank Second Prize

Senior | Physical | Systems Software | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Ishaan Javali | E-rrigation - A Sprinkler Design System to Minimize Water Loss

Stockholm Junior Water Prize - Award for Excellence in a Water-Related Project

Senior | Physical | Systems Software | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Ishaan Javali | E-rrigation - A Sprinkler Design System to Minimize Water Loss

WEAT / TAWWA - Senior Division, 2nd Place

Senior | Physical | Systems Software | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Parthiv Javangula | Investigation of Microplastics in Water

U.S. Environmental Protection Agency 6th chapter - Exemplary Achievement in Environmental Protection

Senior | Life | Environmental Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

**Shanmuka Jayanti** | Development of an Accelerometer- Based Medical Device for Posture Management

#### **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | FRISCO | LEBANON TRAIL HIGH SCHOOL

**Shanmuka Jayanti** | Development of an Accelerometer- Based Medical Device for Posture Management

The Cooper Institute - Exercise/Health/Nutrition, Senior, 3rd Place

Senior | Life | Biomedical & Health Sciences | FRISCO | LEBANON TRAIL HIGH SCHOOL

Vikrant Jeeva | Tofu Temptation

**Beal Bank First Prize** 

Junior | Physical | CHEMISTRY | PLANO ISD | MURPHY MIDDLE SCHOOL

Vikrant Jeeva | Tofu Temptation

Office of Naval Research - Naval Science Award, Junior Division

Junior | Physical | CHEMISTRY | PLANO ISD | MURPHY MIDDLE SCHOOL

Ellen Jitcho | Do You Hear What I Hear?

**Beal Bank Honorable Mention** 

Senior | Life | Environmental Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

**Bradley Johnson** | The Sweet Spot Solution

**Beal Bank Second Prize** 

Junior | Physical | Mathematics and Physics & Astronomy | PLANO ISD | HAGGARD MIDDLE SCHOOL

Yaamini Jois | Do You Hear What I Hear?

**Beal Bank Honorable Mention** 

Senior | Life | Environmental Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

**Pranav Joshi** | Turning Troubles

**Beal Bank Second Prize** 

Junior | Physical | Systems Software | PLANO ISD | RENNER MIDDLE SCHOOL

Rishi Kalyandurg | An aPEELing Fertilizer - Effect of Banana Peel on Plant and algal growth

#### **Beal Bank Second Prize**

Junior | Life | Earth & Environmental Systems | PLANO ISD | RENNER MIDDLE SCHOOL

**Nidhi Kalyanpur** | Comparison of Prophylactic Effectiveness of Canine Saliva and OTC Antibacterials on E. coli (K-12 Strain)

#### **Beal Bank Honorable Mention**

Junior | Life | Microbiology | ALLEN | ERECKSON MIDDLE SCHOOL

Laya Kappagantula | The Natural Sunscreen

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Sneha Kar** | Assistive Technology For the Blind Taken a Step Further

**Beal Bank Honorable Mention** 

Junior | Physical | Embedded Systems | PLANO ISD | OTTO MIDDLE SCHOOL

Arjun Karthik | Nanobots and Heat

#### **Beal Bank Honorable Mention**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | FRISCO | STALEY MIDDLE SCHOOL

Adithya Karthik | Door Latch Alarm

## **Beal Bank Honorable Mention**

Junior | Physical | Embedded Systems | PLANO ISD | ROBINSON MIDDLE SCHOOL

**Karthik Karuppiah** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

#### **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Karthik Karuppiah** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

Stockholm Junior Water Prize - Award for Excellence in a Water-Related Project

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Karthik Karuppiah** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

Terracon, Inc. - Environmental Excellence Award, Senior Div. 1st Place Individual

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Karthik Karuppiah** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

WEAT / TAWWA - Senior Division, 3rd Place

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Samreen Kaur | Speed Up Plant Growth

**Beal Bank Honorable Mention** 

Junior | Life | Plant Sciences | FRISCO | STAFFORD MIDDLE SCHOOL

Ojas Kaveeshwar | Al Therapist

**Beal Bank Honorable Mention** 

Senior | Life | Computational Biology & Bioinformatics | FRISCO | REEDY HIGH SCHOOL

Abanish Khadka | Overclocking to the extreme

#### **Beal Bank Honorable Mention**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | CHARTER | UPLIFT NORTH HILLS MS

**Abdullah Khan** | Synthetic Anti-Biotics vs Natural Anti-Biotics

#### **Beal Bank First Prize**

Junior | Life | Microbiology | PAROCHIAL | ISLAMIC SCHOOL OF IRVING MS

Rizwan Khan | Coding a Camera With Artificial Intelligence to Assist the Vision Impaired

#### **Beal Bank First Prize**

Junior | Physical | Systems Software | PLANO ISD | RENNER MIDDLE SCHOOL

**Sophia Khan** | An Innovative Technique for Restoring Environmental Damage as a result of Toxic Microcystins produced by Microcystis aeruginosa

## **Beal Bank Honorable Mention**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sophia Khan** | An Innovative Technique for Restoring Environmental Damage as a result of Toxic Microcystins produced by Microcystis aeruginosa

## DiscoverSTEM - Fahim STEM Excellence Award, Senior

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sarah Khurshid** | Tackling Public Health Concerns Over Skin Bleaching: Can Lemon Be Used As An Alternative?

#### **Beal Bank Honorable Mention**

Senior | Life | Cellular & Molecular Biology | PAROCHIAL | ISLAMIC SCHOOL OF IRVING HS

**Vivek Kogilathota** | DyslexAI: A Novel Approach for Dyslexia Diagnosis and Therapy Using A Computer Webcam via Machine Learning

#### **Beal Bank First Prize**

Senior | Life | Biomedical Engineering | FRISCO | REEDY HIGH SCHOOL

**Vivek Kogilathota** | DyslexAI: A Novel Approach for Dyslexia Diagnosis and Therapy Using A Computer Webcam via Machine Learning

## **Beal Bank Grand Prize**

Senior | Life | Biomedical Engineering | FRISCO | REEDY HIGH SCHOOL

**Harsha Kosuri** | The use of Pestalotiopsis microspora and fungi of the genus Pleurotus In the degradation of polyurethane

#### **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sophie Krajmalnik** | Optimizing Automotive Seating Position to Reduce Injury Severity in Short-Statured Drivers

## **Beal Bank Honorable Mention**

Senior | Physical | Engineering Mechanics | PLANO ISD | SHEPTON HIGH SCHOOL

**Nethra Krishnan** | A Novel Approach implementing LiDAR towards the Visually Impaired Spectrum with Active In Motion Guidance

## **Beal Bank Honorable Mention**

Senior | Physical | Embedded Systems | PLANO ISD | JASPER HIGH SCHOOL

**Nethra Krishnan** | A Novel Approach implementing LiDAR towards the Visually Impaired Spectrum with Active In Motion Guidance

**Directed Energy Professional Society - Senior 1st Place** 

Senior | Physical | Embedded Systems | PLANO ISD | JASPER HIGH SCHOOL

**Ronith Krishnaswamy** | OFCU Model vs. ICPB Model in Protecting Marine Phytoplankton from Offshore Drilling Oil Leakage

## **Beal Bank Third Prize**

Junior | Life | Earth & Environmental Systems | PLANO ISD | BOWMAN MIDDLE SCHOOL

Nikhil Kurella | Overclocking to the extreme

## **Beal Bank Honorable Mention**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | CHARTER | UPLIFT NORTH HILLS MS

Isha Kurlekar | The Secret of Sunscreen

## **Beal Bank Fourth Prize**

Junior | Life | Earth & Environmental Systems | PLANO ISD | OTTO MIDDLE SCHOOL

**Veda Kutagula** | Predicting Suicide Risk Among Teenagers

American Psychological Association - Achievement in Psychological Science

Senior | Life | Behavioral & Social Sciences | ALLEN | LOWERY FRESHMEN CENTER

**Veda Kutagula** | Predicting Suicide Risk Among Teenagers

#### **Beal Bank First Prize**

Senior | Life | Behavioral & Social Sciences | ALLEN | LOWERY FRESHMEN CENTER

Aarav Lakdawala | Sidekick Here, Your Practice Gear

## **Beal Bank Second Prize**

Junior | Physical | Engineering Mechanics | PLANO ISD | MURPHY MIDDLE SCHOOL

**Aarav Lakdawala** | Sidekick Here, Your Practice Gear

The Cooper Institute - Exercise/Health/Nutrition, Junior, 2nd Place

Junior | Physical | Engineering Mechanics | PLANO ISD | MURPHY MIDDLE SCHOOL

**Isabel Lawrence** | Dirty Birds: Which features help a basic automatic bird feeder reduce the mess and seed waste?

Dallas County Veterinary Medical Association - Junior Division, 1st Place

Junior | Life | ANIMAL SCIENCE | PLANO ISD | FRANKFORD MIDDLE SCHOOL

**Katherine Lee** | Finding an Accessible Environmentally Friendly Solution to Water Purification

U.S. Environmental Protection Agency 6th chapter - Exemplary Achievement in Environmental Protection

Junior | Life | Earth & Environmental Systems | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

**Katherine Lee** | Finding an Accessible Environmentally Friendly Solution to Water Purification **WEAT / TAWWA - Junior Division, 1st Place** 

Junior | Life | Earth & Environmental Systems | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

Louis Li | The Effect of Specific Pollutants on the Development of Alzheimer's

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Biomedical & Health Sciences | PLANO ISD | CLARK HIGH SCHOOL

**Nicole Li** | The Effect of Specific Pollutants on the Development of Alzheimer's

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Biomedical & Health Sciences | PLANO ISD | CLARK HIGH SCHOOL

Jennyfer Licona | De-Icing Ice

**Beal Bank Third Prize** 

Junior | Physical | CHEMISTRY | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

Neeka Lin | The Effect of Specific Pollutants on the Development of Alzheimer's

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Biomedical & Health Sciences | PLANO ISD | CLARK HIGH SCHOOL

Hazel Lindsey | Street Lamp Shade to Reduce Light Pollution

**Beal Bank Honorable Mention** 

Junior | Life | Environmental Engineering | PLANO ISD | OTTO MIDDLE SCHOOL

Hazel Lindsey | Street Lamp Shade to Reduce Light Pollution

North Texas Chapter of the Texas Master Naturalist (NTMN) - NTMN Junior Division

Junior | Life | Environmental Engineering | PLANO ISD | OTTO MIDDLE SCHOOL

**Lucy Lively** | A World Without Wires

**Beal Bank Fourth Prize** 

Junior | Physical | Engineering Mechanics | PAROCHIAL | THE HIGHLANDS SCHOOL

**Lucy Lively** | A World Without Wires

Collins Leadership Association - Outstanding Communications Project Junior Div. 2nd Place

Junior | Physical | Engineering Mechanics | PAROCHIAL | THE HIGHLANDS SCHOOL

**Lucy Lively** | A World Without Wires

McKinney Amateur Radio Club, Inc - Junior Division, 1st Place

Junior | Physical | Engineering Mechanics | PAROCHIAL | THE HIGHLANDS SCHOOL

**Alyssa Lo** | Plastic Crayons

## **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | FRISCO | PEARSON MIDDLE SCHOOL

Sara Losey | How does the Presence of Magnetism Affect Regeneration in Planaria?

**Beal Bank Third Prize** 

Senior | Life | ANIMAL SCIENCE | IRVING ISD | IRVING HS

Sara Losey | How does the Presence of Magnetism Affect Regeneration in Planaria?

Dallas County Veterinary Medical Association - Senior Division, 1st Place

Senior | Life | ANIMAL SCIENCE | IRVING ISD | IRVING HS

**Patrick Lu** | Tumornators: Measuring the effect of tumor grade on Cerebral Blood Flow using a novel ASL Perfusion approach

## **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | JASPER HIGH SCHOOL

Elle Madawi | Don't Let Your Brand Burn You

# **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | PLANO ISD | BOWMAN MIDDLE SCHOOL

**Grace Magavern** | The Effect of Prescribed Burning on The Population of King Ranch Bluestem **Beal Bank Honorable Mention** 

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO SENIOR HIGH SCHOOL

Grace Magavern | The Effect of Prescribed Burning on The Population of King Ranch Bluestem

North Texas Association of Environmental Professionals - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO SENIOR HIGH SCHOOL

Grace Magavern | The Effect of Prescribed Burning on The Population of King Ranch Bluestem

North Texas Chapter of the Texas Master Naturalist (NTMN) - NTMN Senior Division

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Satvik Mahendra** | KeySight: Mathematical Analysis to Optimize Computer Stereo Vision Systems

## **Beal Bank First Prize**

Senior | Physical | Mathematics | PLANO ISD | JASPER HIGH SCHOOL

**Satvik Mahendra** | KeySight: Mathematical Analysis to Optimize Computer Stereo Vision Systems

# **MU Alpha Theta - Award for Mathematics**

Senior | Physical | Mathematics | PLANO ISD | JASPER HIGH SCHOOL

**Satvik Mahendra** | KeySight: Mathematical Analysis to Optimize Computer Stereo Vision Systems

# Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | Mathematics | PLANO ISD | JASPER HIGH SCHOOL

**Shriya Majumdar** | How can a toothpaste be made less harmful and more effective in removing stains than most common toothpastes?

## **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | FRISCO | LAWLER MIDDLE SCHOOL

**Diego Mallen** | Detecting habitable exoplanets with a computer simulation

## **Beal Bank Honorable Mention**

Senior | Physical | Physics & Astronomy | ALLEN | ALLEN HIGH SCHOOL

**Diego Mallen** | Detecting habitable exoplanets with a computer simulation

National Space Society of North Texas - Honorable Mention

Senior | Physical | Physics & Astronomy | ALLEN | ALLEN HIGH SCHOOL

Madison Malson | The Secret of Sunscreen

**Beal Bank Fourth Prize** 

Junior | Life | Earth & Environmental Systems | PLANO ISD | OTTO MIDDLE SCHOOL

**Rachel Mammen** | Putting Pectin in its Place: The Effect of Extracted Pectin Placement on a Shallow-rooted Seed in a Sand Growth Medium in Relation to Soil Moisture Retention and Plant Growth

#### **Beal Bank First Prize**

Senior | Life | Plant Sciences | PLANO ISD | JASPER HIGH SCHOOL

**Rachel Mammen** | Putting Pectin in its Place: The Effect of Extracted Pectin Placement on a Shallow-rooted Seed in a Sand Growth Medium in Relation to Soil Moisture Retention and Plant Growth

# **Beal Bank Grand Prize Runner Up**

Senior | Life | Plant Sciences | PLANO ISD | JASPER HIGH SCHOOL

**Amitha Mandava** | Nanoparticle-based Superhydrophobic Coatings to Preserve Marble Stone Structures

# **Beal Bank First Prize**

Junior | Physical | Materials Science | PLANO ISD | OTTO MIDDLE SCHOOL

**Amitha Mandava** | Nanoparticle-based Superhydrophobic Coatings to Preserve Marble Stone Structures

Office of Naval Research - Naval Science Award, Junior Division

Junior | Physical | Materials Science | PLANO ISD | OTTO MIDDLE SCHOOL

**Aashna Mangal** | Investigating A Synergistic Effect Of Flavonoids And Statins As A Therapeutic Strategy In Blocking Leukemia Proliferation

## **Beal Bank First Prize**

Senior | Life | Cellular & Molecular Biology | PLANO ISD | JASPER HIGH SCHOOL

Neel Manne | Tennis Ball Machine

#### **Beal Bank Honorable Mention**

Junior | Physical | Engineering Mechanics | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

**Lino Marrero** | The Kinetic Kickz

## **Beal Bank First Prize**

Junior | Physical | Energy: Physical | FRISCO | HUNT MIDDLE SCHOOL

Lino Marrero | The Kinetic Kickz

# Office of Naval Research - Naval Science Award, Junior Division

Junior | Physical | Energy: Physical | FRISCO | HUNT MIDDLE SCHOOL

**Noah Mathai** | Microbially Induced Calcite Precipitation Phenotype of Bacillus subtilis 168 on the Reduction of Underground CO2 Efflux via Soil-consolidation

#### **Beal Bank First Prize**

Senior | Life | Biochemistry | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Noah Mathai** | Microbially Induced Calcite Precipitation Phenotype of Bacillus subtilis 168 on the Reduction of Underground CO2 Efflux via Soil-consolidation

# **Beal Bank Grand Prize Runner Up**

Senior | Life | Biochemistry | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Noah Mathai** | Microbially Induced Calcite Precipitation Phenotype of Bacillus subtilis 168 on the Reduction of Underground CO2 Efflux via Soil-consolidation

Society for In Vitro Biology - Outstanding Achievement in In Vitro Biology, 11th Grade

Senior | Life | Biochemistry | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Noah Mathai** | Microbially Induced Calcite Precipitation Phenotype of Bacillus subtilis 168 on the Reduction of Underground CO2 Efflux via Soil-consolidation

Southwestern Medical Foundation - Kathryn and Ashley H. Priddy Award

Senior | Life | Biochemistry | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Nitya Mattey | Color-Coding Memory

**Beal Bank Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

**Olivia McCoy** | A Leaf of Faith: An Investigation of Crassulacean Acid Metabolism Conditions on Photorespiration Rates in Oryza sativa

**Beal Bank Second Prize** 

Senior | Life | Plant Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Gwen Mckee** | Why do we follow the crowd?

**Beal Bank Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | FRISCO | PEARSON MIDDLE SCHOOL

Rahi Mehta | Solar Powered Oxygen Generator

**Beal Bank First Prize** 

Senior | Life | Environmental Engineering | PLANO ISD | MCMILLEN HIGH SCHOOL

Rahi Mehta | Solar Powered Oxygen Generator

Office of Naval Research - Naval Science Award, Senior Division

Senior | Life | Environmental Engineering | PLANO ISD | MCMILLEN HIGH SCHOOL

Rahi Mehta | Solar Powered Oxygen Generator

**Ricoh Americans Corporation - Ricoh Sustainable Development Award** 

Senior | Life | Environmental Engineering | PLANO ISD | MCMILLEN HIGH SCHOOL

Rahi Mehta | Solar Powered Oxygen Generator

U.S. Agency for International Development (USAID) - Science Champion Award

Senior | Life | Environmental Engineering | PLANO ISD | MCMILLEN HIGH SCHOOL

**Aaron Mendez** | A better design for a cane

**Beal Bank Honorable Mention** 

Junior | Life | Environmental Engineering | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

**Kevin Meng** | VERiCLAIM: Fighting Fake News with Artificial Intelligence

**Beal Bank First Prize** 

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Kevin Meng** | VERiCLAIM: Fighting Fake News with Artificial Intelligence

U.S. Air Force - Certificate of Achievement

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Varun Menta** | Carbon Fiber With a Twist: A Comparitive Analysis of the Various Effects of Varying Silicone Solutions on the Contraction Stroke of Carbon Fiber Artificial Muscles

## **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Nitya Mirle** | Looking Through Tinted Glasses: An Investigative Study on the Relationship between Chronic Anxiety and Cognitive Dissonance

## **Beal Bank Honorable Mention**

Senior | Life | Behavioral & Social Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Mihika Mishra | Power out of Thin Air

## **Beal Bank Second Prize**

Junior | Physical | Energy: Physical | PLANO ISD | RICE MIDDLE SCHOOL

Simran Misra | The Effect of Vocal Variation on Societal Perception

#### **Beal Bank Honorable Mention**

Senior | Life | Behavioral & Social Sciences | PLANO ISD | SHEPTON HIGH SCHOOL

Nagavenkat Modugula | Ringing Up Radiation: A Study of Cell Phone Radioactivity

# **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | PLANO ISD | OTTO MIDDLE SCHOOL

Nagavenkat Modugula | Ringing Up Radiation: A Study of Cell Phone Radioactivity

State of Texas Chapter – Health Physics Society - STC-HPS Science Fair Excellence Award

Junior | Physical | Materials Science | PLANO ISD | OTTO MIDDLE SCHOOL

**Pratyush Mohapatra** | Deriving Nanocellulose Thin Film Structures Through Utilization of P. montana and Higher Invasive Plant Sources for Design Implementation in Eco-Friendly, Energy-Efficient Electrochemical Supercapacitors

# **Beal Bank Honorable Mention**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Pratyush Mohapatra** | Deriving Nanocellulose Thin Film Structures Through Utilization of P. montana and Higher Invasive Plant Sources for Design Implementation in Eco-Friendly, Energy-Efficient Electrochemical Supercapacitors

Terracon, Inc. - Engineering Excellence Award, Senior Div. 2nd Place Individual

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Ismael Morsy | Tackle the science

**Beal Bank Honorable Mention** 

Junior | Physical | Materials Science | PAROCHIAL | BRIGHTER HORIZONS MS

Vaishnavi Moturi | Building an Al model to detect Chest Anomalies Given a Chest X-ray

Beal Bank Second Prize

Junior | Physical | Robotics & Intelligent Machines | FRISCO | FOWLER MIDDLE SCHOOL

Vaishnavi Moturi | Building an AI model to detect Chest Anomalies Given a Chest X-ray

State of Texas Chapter – Health Physics Society - STC-HPS Science Fair Excellence Award

Junior | Physical | Robotics & Intelligent Machines | FRISCO | FOWLER MIDDLE SCHOOL

**Tanaz Muhamed** | Investigating Whether the Decoy Effect can be Exploited to Nudge Cooperation in Social Dilemma Games

# **Beal Bank Second Prize**

Senior | Life | Behavioral & Social Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Maryam Muhammad | Radiation, the wrong sensation

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Physical | Energy: Chemical and Energy: Physical | PAROCHIAL | QALAM COLLEGIATE ACADEMY HS

Maryam Muhammad | Radiation, the wrong sensation

**DiscoverSTEM - Honorable Mention** 

Senior | Physical | Energy: Chemical and Energy: Physical | PAROCHIAL | QALAM COLLEGIATE ACADEMY HS

Maryam Muhammad | Radiation, the wrong sensation

State of Texas Chapter – Health Physics Society - Honorable Mention

Senior | Physical | Energy: Chemical and Energy: Physical | PAROCHIAL | QALAM COLLEGIATE ACADEMY HS

Raifa Mukit | De-Icing Ice

**Beal Bank Third Prize** 

Junior | Physical | CHEMISTRY | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

Atharv Mungale | Home Foundation Humidity Monitoring

**Beal Bank Third Prize** 

Junior | Physical | Embedded Systems | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

Atharv Mungale | Home Foundation Humidity Monitoring

**DiscoverSTEM - DiscoverSTEM Innovation Award, Junior** 

Junior | Physical | Embedded Systems | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

Atharv Mungale | Home Foundation Humidity Monitoring

Texas Instruments - Best electronics or computing project, Junior Division

Junior | Physical | Embedded Systems | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

**Nivethaa Murali** | Colloidal Synthesis of Green Nanoparticles: Theranostic In Vitro Approach To Hormone Therapy

# **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Richel-Seiko Murata** | Bioinspired Redox-Active Cu Complexes with Tunable Intermolecular Hydrogen Bonding Interactions

## **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | Duncanville ISD | DUNCANVILLE HIGH SCHOOL

Vineeth Murugan | External Skin Condition Detector

## **Beal Bank Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | COPPELL ISD | COPPELL HIGH SCHOOL

**Azeezah Mutabanna** | How do binaural beats affect a subject's speed when solving a logic puzzle?

# **Acoustical Society of America - Honorable Mention**

Junior | Life | Behavioral & Social Sciences | PLANO ISD | HAGGARD MIDDLE SCHOOL

**Azeezah Mutabanna** | How do binaural beats affect a subject's speed when solving a logic puzzle?

## **Beal Bank First Prize**

Junior | Life | Behavioral & Social Sciences | PLANO ISD | HAGGARD MIDDLE SCHOOL

**Azeezah Mutabanna** | How do binaural beats affect a subject's speed when solving a logic puzzle?

# **Beal Bank Grand Prize**

Junior | Life | Behavioral & Social Sciences | PLANO ISD | HAGGARD MIDDLE SCHOOL

Vaani Muthu | The Rule of Odds

## **Beal Bank Honorable Mention**

Junior | Life | Behavioral & Social Sciences | PLANO ISD | MURPHY MIDDLE SCHOOL

**Pranav Myana** | A Novel Transmission Line Monitoring System

## **Beal Bank Honorable Mention**

Senior | Physical | Environmental Engineering | FRISCO | CENTENNIAL HIGH SCHOOL

Satvika Nadella | Carcniogens in Rice? A Novel Method of Arsenic Reduction in Grains

#### **Beal Bank First Prize**

Junior | Life | Earth & Environmental Systems | ALLEN | ERECKSON MIDDLE SCHOOL

**Sneha Nadella** | The Combined and Individual Effects of Essential Oils on Serratia marcescens and Neisseria subflava

# **Beal Bank Honorable Mention**

Senior | Life | Biochemistry | PLANO ISD | JASPER HIGH SCHOOL

Kamran Nag | Cancelling Out Tinnitus by Sound Wave Phase Shifting

# **Beal Bank Honorable Mention**

Junior | Physical | Mathematics and Physics & Astronomy | PLANO ISD | OTTO MIDDLE SCHOOL

**Achinthya Nagarajan** | The use of Pestalotiopsis microspora and fungi of the genus Pleurotus In the degradation of polyurethane

# **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Bhavini Nair** | The Redesign of a Hard Hat With Added Cooling Features

## **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | PLANO ISD | FRANKFORD MIDDLE SCHOOL

**Shreya Nair** | FOGA - Freezing of gait assistance device

#### **Beal Bank Honorable Mention**

Senior | Life | Biomedical Engineering | ALLEN | LOWERY FRESHMEN CENTER

Vansh Nanda | Investigation of Microplastics in Water

# U.S. Environmental Protection Agency 6th chapter - Exemplary Achievement in Environmental Protection

Senior | Life | Environmental Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

**Dhruv Nanda** | Solution to Sand Erosion

# Terracon, Inc. - Environmental Excellence Award, Senior Div. 2nd Place Individual

Senior | Life | Environmental Engineering | DALLAS | SCHOOL FOR THE GIFTED AND TALENTED AT YVONNE A EWELL TOWNVIEW CENTER

Deepti Nandakumar | Glacial Solar Farm

# **Beal Bank Honorable Mention**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Harini Narayanan | Pet Town

## **Beal Bank Honorable Mention**

Junior | Physical | Systems Software | FRISCO | PEARSON MIDDLE SCHOOL

**Pranav Nathan** | Developing a Self-Contained Modular Reconfigurable Robotic System with an Inertial Actuator and Magnetic Interlocking System

## **Beal Bank First Prize**

Senior | Physical | Engineering Mechanics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Pranav Nathan** | Developing a Self-Contained Modular Reconfigurable Robotic System with an Inertial Actuator and Magnetic Interlocking System

National Space Society of North Texas - Space Exploration Scholarship 1st Place

Senior | Physical | Engineering Mechanics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Pranav Nathan** | Developing a Self-Contained Modular Reconfigurable Robotic System with an Inertial Actuator and Magnetic Interlocking System

Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | Engineering Mechanics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Bernadette Nava | The Effect of Human Activity on the Ocean's Water Quality

National Oceanic and Atmospheric Administration - Taking the Pulse of the Planet Award

Senior | Life | Earth & Environmental Systems | ALLEN | ALLEN HIGH SCHOOL

Adithi Nemalikanti | Natural electricity

**Beal Bank Second Prize** 

Junior | Physical | Energy: Chemical | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

Jack Nero | Distance Variation on Acid Rain

American Meteorology Society - Outstanding Achievement in Atmospheric Science, Senior Division

Senior | Life | Earth & Environmental Systems | PLANO ISD | CLARK HIGH SCHOOL

**Benson Ngai** | Deriving Nanocellulose Thin Film Structures Through Utilization of P. montana and Higher Invasive Plant Sources for Design Implementation in Eco-Friendly, Energy-Efficient Electrochemical Supercapacitors

## **Beal Bank Honorable Mention**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Benson Ngai** | Deriving Nanocellulose Thin Film Structures Through Utilization of P. montana and Higher Invasive Plant Sources for Design Implementation in Eco-Friendly, Energy-Efficient Electrochemical Supercapacitors

Terracon, Inc. - Engineering Excellence Award, Senior Div. 2nd Place Individual

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Case Nichols | Fishing

**Beal Bank Honorable Mention** 

Junior | Life | ANIMAL SCIENCE | Sam Rayburn ISD | RAYBURN MIDDLE SCHOOL

Case Nichols | Fishing

**Dallas County Veterinary Medical Association - Honorable Mention** 

Junior | Life | ANIMAL SCIENCE | Sam Rayburn ISD | RAYBURN MIDDLE SCHOOL

Aanya Niranjan | HORNET POTENTIAL

**Beal Bank Honorable Mention** 

Junior | Physical | Energy: Physical | PLANO ISD | RENNER MIDDLE SCHOOL

**Timothy Njuguna** | The Use of Insulative Material to slow the movement of thermal energy

**Beal Bank Honorable Mention** 

Senior | Physical | Materials Science | PLANO ISD | SHEPTON HIGH SCHOOL

**Avery Owens** | Music Under the Microscope

## **Beal Bank Second Prize**

Senior | Life | Cellular & Molecular Biology | COPPELL ISD | COPPELL HIGH SCHOOL

**Sahra Padda** | Can Different Substaces Reduce Biofilm Growth on Hydroelectric Dam Components?

#### **Beal Bank Third Prize**

Junior | Life | Microbiology | FRISCO | LAWLER MIDDLE SCHOOL

**Aditya Panda** | A Deep-learning Approach to Predict the Presence and Habitability of Exoplanets from the Kepler Space Telescope

## **Beal Bank Third Prize**

Senior | Physical | Physics & Astronomy | PLANO ISD | JASPER HIGH SCHOOL

**Aditya Panda** | A Deep-learning Approach to Predict the Presence and Habitability of Exoplanets from the Kepler Space Telescope

National Space Society of North Texas - Space Exploration Scholarship 2nd Place

Senior | Physical | Physics & Astronomy | PLANO ISD | JASPER HIGH SCHOOL

**Aditya Panda** | A Deep-learning Approach to Predict the Presence and Habitability of Exoplanets from the Kepler Space Telescope

The Mars Society -DFW Chapter - Honorable Mention

Senior | Physical | Physics & Astronomy | PLANO ISD | JASPER HIGH SCHOOL

Jayanth Pandit | Child-Alert System: A wearable device

**Directed Energy Professional Society - Honorable Mention** 

Senior | Physical | Embedded Systems | FRISCO | FRISCO HS

Manas Parashar | Automated School Car Pick Up Announcement System

#### **Beal Bank Third Prize**

Junior | Physical | Systems Software | PLANO ISD | RICE MIDDLE SCHOOL

**Varshaan Parthibannandhini** | Development of an Accelerometer- Based Medical Device for Posture Management

## **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | FRISCO | LEBANON TRAIL HIGH SCHOOL

**Varshaan Parthibannandhini** | Development of an Accelerometer- Based Medical Device for Posture Management

The Cooper Institute - Exercise/Health/Nutrition, Senior, 3rd Place

Senior | Life | Biomedical & Health Sciences | FRISCO | LEBANON TRAIL HIGH SCHOOL

Aarav Patel | Sun Protection : The Effect of Clothing Materials on UV Intensity

**Beal Bank Second Prize** 

Junior | Life | Biomedical & Health Sciences | DALLAS | JL LONG MIDDLE SCHOOL

Aarav Patel | Sun Protection : The Effect of Clothing Materials on UV Intensity

State of Texas Chapter – Health Physics Society - Honorable Mention

Junior | Life | Biomedical & Health Sciences | DALLAS | JL LONG MIDDLE SCHOOL

Ryan Patel | Robo-Arm

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | FRISCO | PEARSON MIDDLE SCHOOL

**Harsh Patel** | A Nonintrusive Device for Tremors

**Beal Bank Honorable Mention** 

Senior | Life | Biomedical Engineering | PLANO ISD | MCMILLEN HIGH SCHOOL

**Zeal Pathak** | Virtual Physical Security: An Investigation in the Implementation and Design of an Algorithm incorporating a multichannel-two way based authentication protocol, with two factor authentication and an x.509 certificate

#### **Beal Bank Third Prize**

Senior | Physical | Systems Software | COPPELL ISD | COPPELL HIGH SCHOOL

Nickhil Pattikonda | Turning Troubles

## **Beal Bank Second Prize**

Junior | Physical | Systems Software | PLANO ISD | RENNER MIDDLE SCHOOL

**Arnab Paul** | Utilizing Direct Currents in order to eliminate bacterial biofilms formed on medical implants

#### **Beal Bank Honorable Mention**

Senior | Life | Translation Medical Science | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Siri Peddinti** | ParkinsonsPredict: An Intelligent Application for the Diagnosis and Monitoring of Parkinson's Disease

# **Beal Bank Honorable Mention**

Junior | Physical | Systems Software | PLANO ISD | OTTO MIDDLE SCHOOL

**Sidhya Peddinti** | Parkinsense: A Neurofeedback Treatment and Diagnosis Application for Parkinson'S Disease Utilizing Electroencephalography and Neural Networks

# **Beal Bank Third Prize**

Senior | Life | Translation Medical Science | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Aviv Peleg** | Making Hiking Safer: The RescueTether

The Cooper Institute - Exercise/Health/Nutrition, Senior, 1st Place

Senior | Physical | Engineering Mechanics | PLANO ISD | THE ACADEMY HIGH SCHOOL

**Julian Peng** | An Investigation In Sports Helmets

**Beal Bank Honorable Mention** 

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

**Julian Peng** | An Investigation In Sports Helmets

The Cooper Institute - Exercise/Health/Nutrition, Senior, 2nd Place

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

**Sophia Perez** | Sphere Solution to Pollution: Using the Processes of Molecular Gastronomy and Spherification to Create an Alternative to Polyethylene Terephthalate

## **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | PLANO ISD | RICE MIDDLE SCHOOL

Nick Perkins | Pollution to Solution

## **Beal Bank Honorable Mention**

Junior | Life | Earth & Environmental Systems | FRISCO | PEARSON MIDDLE SCHOOL

**Shalini Petticia Petrus** | The Earth-Friendly Battery: Exchanging Electrons in Renewable Materials Through Reduction and Oxidation

## **Beal Bank First Prize**

Junior | Physical | Energy: Chemical | PLANO ISD | HENDRICK MIDDLE SCHOOL

**Shalini Petticia Petrus** | The Earth-Friendly Battery: Exchanging Electrons in Renewable Materials Through Reduction and Oxidation

#### **Beal Bank Grand Prize**

Junior | Physical | Energy: Chemical | PLANO ISD | HENDRICK MIDDLE SCHOOL

**Ruben Picon** | How does soybean oil affects plant's growth?

#### **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | IRVING ISD | IRVING HS

Shriya Polavarapu | Insulating Material vs. Change in Temperature of a 12 ounce Coca-Cola Can

## **Beal Bank Second Prize**

Junior | Physical | Materials Science | PLANO ISD | ROBINSON MIDDLE SCHOOL

**Govardhan Poondi** | Addressing the Cocktail Party Problem through a Neurological Auditory Attention Decoding Framework

# **Acoustical Society of America - Outstanding Senior Acoustic Project**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Govardhan Poondi** | Addressing the Cocktail Party Problem through a Neurological Auditory Attention Decoding Framework

## **Beal Bank First Prize**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Govardhan Poondi** | Addressing the Cocktail Party Problem through a Neurological Auditory Attention Decoding Framework

# **Beal Bank Grand Prize**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Vyshnavi Poruri** | Using Protease-activated receptors (PARs) in C. elegans as a potential therapeutic agent for inflammatory diseases

#### **Beal Bank First Prize**

Senior | Life | ANIMAL SCIENCE | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Vyshnavi Poruri** | Using Protease-activated receptors (PARs) in C. elegans as a potential therapeutic agent for inflammatory diseases

# **Beal Bank Grand Prize Runner Up**

Senior | Life | ANIMAL SCIENCE | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Venu Poruri** | The Implementation of Functionalized Gold Nanoparticle Drug Complexes to Combat Invasive Breast-to-Brain Metastases

#### **Beal Bank Third Prize**

Senior | Life | Cellular & Molecular Biology | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Shreenaya Prabu** | Plastics of the Future

## **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | CHARTER | UPLIFT NORTH HILLS HS

Jana Pulak | Whole House Water Flow Automation Using Arduino

# **DiscoverSTEM - Honorable Mention**

Junior | Life | Environmental Engineering | RICHARDSON | WESTWOOD JUNIOR HIGH

Avi Puranik | Which Propeller Design has the Greatest Efficiency?

## **Beal Bank Honorable Mention**

Senior | Physical | Engineering Mechanics | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Andy Qin** | Detecting Signature Fraud using Neural Networks

## **Beal Bank Honorable Mention**

Junior | Physical | Robotics & Intelligent Machines | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

**Derek Qin** | Analysis of Stress Development Under Ion Bombardment: Mechanisms for Silicon Nanopatterning

# **Beal Bank First Prize**

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Derek Qin** | Analysis of Stress Development Under Ion Bombardment: Mechanisms for Silicon Nanopatterning

Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Derek Qin** | Analysis of Stress Development Under Ion Bombardment: Mechanisms for Silicon Nanopatterning

## U.S. Air Force - Certificate of Achievement

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Imran Rabi | Vanishing Vandalism

# **Beal Bank Honorable Mention**

Senior | Physical | Materials Science | PAROCHIAL | ISLAMIC SCHOOL OF IRVING HS

**Arjun Raghuram** | Developing an Algorithm to Identify the Root Cause of Medical Conditions **Beal Bank Honorable Mention** 

Senior | Life | Translation Medical Science | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Luqman Rahman** | Vanishing Vandalism

## **Beal Bank Honorable Mention**

Senior | Physical | Materials Science | PAROCHIAL | ISLAMIC SCHOOL OF IRVING HS

**Aditya Rai** | LungStat: Improving Early-Stage Lung Cancer Diagnostic Accuracy through an Integrative Deep Learning Algorithm and an Analysis of NSCLC Biomarkers

## **Beal Bank Second Prize**

Senior | Life | Translation Medical Science | PLANO ISD | JASPER HIGH SCHOOL

**Carmen Rai** | A-Eye: Artificial "Eyes†For The Visually Impaired Through An Integrated System Incorporating Voice Recognition Software and Obstacle Detection

# **Texas Instruments - Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Vibhor Rajan | Plants vs. Magnets

## **Beal Bank Honorable Mention**

Junior | Life | Plant Sciences | PLANO ISD | HENDRICK MIDDLE SCHOOL

Roshan Rajan | Smart Spoon

## **Beal Bank Honorable Mention**

Junior | Physical | Engineering Mechanics | FRISCO | PEARSON MIDDLE SCHOOL

Roshan Rajan | Smart Spoon

# **DiscoverSTEM - Honorable Mention**

Junior | Physical | Engineering Mechanics | FRISCO | PEARSON MIDDLE SCHOOL

**Rohit Rajan** | A Novel Approach to Learning Robot Dexterity: Utilizing Embedded Linear-Quadratic Markov Decision Process by Projecting onto a New State Action-Space

# **Beal Bank Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | FRISCO | REEDY HIGH SCHOOL

**Rohit Rajan** | A Novel Approach to Learning Robot Dexterity: Utilizing Embedded Linear-Quadratic Markov Decision Process by Projecting onto a New State Action-Space

Collins Leadership Association - Outstanding Communications Project Senior Div. 1st Place

Senior | Physical | Robotics & Intelligent Machines | FRISCO | REEDY HIGH SCHOOL

**Aryan Raju** | Is Your Face Really Clean?

#### **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | PLANO ISD | RENNER MIDDLE SCHOOL

**Adithi Rallapalli** | The Effect of the Minimum Inhibitory Concentration of Essential Oils on Gram-positive and Gram-negative Bacteria compared to Antibiotics

## **Beal Bank Honorable Mention**

Senior | Life | Microbiology | PLANO ISD | SHEPTON HIGH SCHOOL

**Mukund Ramachandran** | A Machine Learning and Mathematical Approach to Increase the Electricity Generated by a Solar Panel Using a Dual-Axis Solar Tracker

## **Beal Bank Third Prize**

Senior | Life | Environmental Engineering | PLANO ISD | JASPER HIGH SCHOOL

**Nandini Ramachandran** | A Machine Learning and Mathematical Approach to Increase the Electricity Generated by a Solar Panel Using a Dual-Axis Solar Tracker

## **Beal Bank Third Prize**

Senior | Life | Environmental Engineering | PLANO ISD | JASPER HIGH SCHOOL

**Mukund Ramachandran** | A Machine Learning and Mathematical Approach to Increase the Electricity Generated by a Solar Panel Using a Dual-Axis Solar Tracker

# **DiscoverSTEM - DiscoverSTEM Innovation Award, Senior**

Senior | Life | Environmental Engineering | PLANO ISD | JASPER HIGH SCHOOL

**Nandini Ramachandran** | A Machine Learning and Mathematical Approach to Increase the Electricity Generated by a Solar Panel Using a Dual-Axis Solar Tracker

**DiscoverSTEM - DiscoverSTEM Innovation Award, Senior** 

Senior | Life | Environmental Engineering | PLANO ISD | JASPER HIGH SCHOOL

**Devika Ramakrishna** | Water on Trial

WEAT / TAWWA - Junior Division, 2nd Place

Junior | Physical | CHEMISTRY | PLANO ISD | RENNER MIDDLE SCHOOL

**Shakti Ramakrishna** | Shigella: Oregano vs. Antibiotics -- The Effect of Different Dilutions of Origanum vulgare on Shigella Bacteria in Comparison to the Antibiotic Gentamycin

**Beal Bank Third Prize** 

Senior | Life | Microbiology | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Navya Ramakrishnan** | A Smart Device for the Prediction of Epileptic Seizures Using Machine Learning Algorithms

**Beal Bank First Prize** 

Senior | Physical | Systems Software | PLANO ISD | JASPER HIGH SCHOOL

**Vybhavi Raman** | Do You Hear Voices? (Testing the McGurk Effect)

**Acoustical Society of America - Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | PLANO ISD | MURPHY MIDDLE SCHOOL

**Vybhavi Raman** | Do You Hear Voices? (Testing the McGurk Effect)

**Beal Bank Second Prize** 

Junior | Life | Behavioral & Social Sciences | PLANO ISD | MURPHY MIDDLE SCHOOL

Meena Ramaswamy | The Rule of Odds

## **Beal Bank Honorable Mention**

Junior | Life | Behavioral & Social Sciences | PLANO ISD | MURPHY MIDDLE SCHOOL

**Raghav Ramki** | BackTrack: A Neural Network Based Algorithm for Reconstructing Cell Lineage Trees based off of CRISPR-Cas9 Edits in Non-Coding parts of the Genome

#### **Beal Bank Honorable Mention**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | JASPER HIGH SCHOOL

**Shivani Ramkumar** | A-Eye: Artificial "Eyesâ€② For The Visually Impaired Through An Integrated System Incorporating Voice Recognition Software and Obstacle Detection

## **Texas Instruments - Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Sara Ramos | A Circuit, Produce, and Paper

# **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | CHARTER | HARMONY SCHOOL OF INNOVATION, DALLAS MS

Varun Rao | Stopping Distracted Drivers

# The Cooper Institute - Exercise/Health/Nutrition, Junior, 3rd Place

Junior | Physical | Engineering Mechanics | PLANO ISD | MURPHY MIDDLE SCHOOL

Rishmita Rao | The Use of a Neural Network for Skin Cancer Diagnosis

# **Beal Bank Honorable Mention**

Senior | Physical | Systems Software | PLANO ISD | THE ACADEMY HIGH SCHOOL

**Sharaf Rashid** | Detecting habitable exoplanets with a computer simulation

## **Beal Bank Honorable Mention**

Senior | Physical | Physics & Astronomy | ALLEN | ALLEN HIGH SCHOOL

**Sharaf Rashid** | Detecting habitable exoplanets with a computer simulation **National Space Society of North Texas - Honorable Mention** 

Senior | Physical | Physics & Astronomy | ALLEN | ALLEN HIGH SCHOOL

Saachit Rathi | Ringing Up Radiation: A Study of Cell Phone Radioactivity

**Beal Bank Honorable Mention** 

Junior | Physical | Materials Science | PLANO ISD | OTTO MIDDLE SCHOOL

Saachit Rathi | Ringing Up Radiation: A Study of Cell Phone Radioactivity

State of Texas Chapter – Health Physics Society - STC-HPS Science Fair Excellence Award

Junior | Physical | Materials Science | PLANO ISD | OTTO MIDDLE SCHOOL

Rithwik Ravi Kumar | Radio Wave Amplifier

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | FRISCO | VANDEVENTER MIDDLE SCHOOL

Rithwik Ravi Kumar | Radio Wave Amplifier

Collins Leadership Association - Outstanding Communications Project Junior Div. 3rd Place

Junior | Physical | Engineering Mechanics | FRISCO | VANDEVENTER MIDDLE SCHOOL

**Drake Reasoner** | Marine Oil Spill Clean-up using Agricultural Waste

**Beal Bank Second Prize** 

Junior | Life | Environmental Engineering | PLANO ISD | FRANKFORD MIDDLE SCHOOL

**Drake Reasoner** | Marine Oil Spill Clean-up using Agricultural Waste

# U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Junior | Life | Environmental Engineering | PLANO ISD | FRANKFORD MIDDLE SCHOOL

Ritu Reddy | Speed Up Plant Growth

# **Beal Bank Honorable Mention**

Junior | Life | Plant Sciences | FRISCO | STAFFORD MIDDLE SCHOOL

Justin Rho | An Efficient and Affordable Solution to Reduce Post-Stroke Paralysis Recovery Time

## **Beal Bank Honorable Mention**

Senior | Life | Biomedical Engineering | PLANO ISD | SHEPTON HIGH SCHOOL

**John Rho** | Addressing the Cocktail Party Problem through a Neurological Auditory Attention Decoding Framework

# **Acoustical Society of America - Outstanding Senior Acoustic Project**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**John Rho** | Addressing the Cocktail Party Problem through a Neurological Auditory Attention Decoding Framework

# **Beal Bank First Prize**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**John Rho** | Addressing the Cocktail Party Problem through a Neurological Auditory Attention Decoding Framework

# **Beal Bank Grand Prize**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Madalena Ritz-Meuret | An Economical Method for Detecting Microplastics in Soil Samples

Beal Bank Third Prize

Junior | Life | Biochemistry and Biomedical Engineering | PRIVATE | DALLAS INTERNATIONAL MS

Madalena Ritz-Meuret | An Economical Method for Detecting Microplastics in Soil Samples

**DiscoverSTEM - Honorable Mention** 

Junior | Life | Biochemistry and Biomedical Engineering | PRIVATE | DALLAS INTERNATIONAL MS

Isabelle Rose | The Effect of Heavy Metals on Aquatic Environments

**Beal Bank Honorable Mention** 

Junior | Life | Earth & Environmental Systems | Home School Co-op | KING'S HARVEST HOMESCHOOL COOP, MS

Kate Russ | The Face of Authority

**Beal Bank Third Prize** 

Senior | Life | Behavioral & Social Sciences | PLANO ISD | MCMILLEN HIGH SCHOOL

Saketh Sadhanala | Smart Spoon

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | FRISCO | PEARSON MIDDLE SCHOOL

Saketh Sadhanala | Smart Spoon

**DiscoverSTEM - Honorable Mention** 

Junior | Physical | Engineering Mechanics | FRISCO | PEARSON MIDDLE SCHOOL

**Krishna Sahay** | The Effects of 4G connectivity on Daphnia Magna heart rate in comparison to 5G connectivity

## **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | FRISCO | LAWLER MIDDLE SCHOOL

**Lola Salas** | Tapping into Water

# WEAT / TAWWA - Junior Division, 3rd Place

Junior | Life | Environmental Engineering | DALLAS | IRMA RANGEL YOUNG WOMEN'S LEADERSHIP SCHOOL - MIDDLE SCHOOL

**Abyaan Samad** | how does a raspberry pie compare to modern computers

## **Beal Bank Honorable Mention**

Junior | Physical | Systems Software | PAROCHIAL | ISLAMIC SCHOOL OF IRVING MS

**Grant Sammon** | A better design for a cane

## **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

Baani Sandhu | Plastics of the Future

## **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | CHARTER | UPLIFT NORTH HILLS HS

**Akshara Sankar** | The Use of Curcumin as a Regulator of Stress hormones (cortisol) associated with jet-lag and travel fatigue

# **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Lucas Sasaya | Sourcing Power From Microwave Frequencies

# McKinney Amateur Radio Club, Inc - Honorable Mention

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | MCMILLEN HIGH SCHOOL

**Tulio Sasaya** | Sourcing Power From Microwave Frequencies

# McKinney Amateur Radio Club, Inc - Honorable Mention

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | MCMILLEN HIGH SCHOOL

Aditya Satrasala | The Tech we never think about

#### **Beal Bank Third Prize**

Junior | Physical | Energy: Chemical | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

**Anushri Saxena** | The Effect of Substances' pH on Probiotic Bacterial Growth

## **Beal Bank Honorable Mention**

Senior | Life | Microbiology | COPPELL ISD | COPPELL HIGH SCHOOL

**Sofia Serrano** | Solar Desalination

# U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Junior | Life | Earth & Environmental Systems | PRIVATE | DALLAS INTERNATIONAL MS

**Arjun Sethumathavan** | Utilizing Direct Currents in order to eliminate bacterial biofilms formed on medical implants

## **Beal Bank Honorable Mention**

Senior | Life | Translation Medical Science | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Thomas Sfikas** | Overclocking to the extreme

**Beal Bank Honorable Mention** 

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | CHARTER | UPLIFT NORTH HILLS MS

Krishna Shah | Direct Carbon Capture

**Beal Bank Honorable Mention** 

Junior | Life | Environmental Engineering | ALLEN | FORD MIDDLE SCHOOL

Sonya Shah | Know-gurt: Effects of Yogurt on Gastrointestinal Bacteria

**Beal Bank Second Prize** 

Junior | Life | Microbiology | PLANO ISD | RENNER MIDDLE SCHOOL

Pujan Shah | Radio Wave Amplifier

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | FRISCO | VANDEVENTER MIDDLE SCHOOL

Pujan Shah | Radio Wave Amplifier

Collins Leadership Association - Outstanding Communications Project Junior Div. 3rd Place

Junior | Physical | Engineering Mechanics | FRISCO | VANDEVENTER MIDDLE SCHOOL

**Alay Shah** | Low-Cost Eye Tracking Biomarker for Psychological Evaluation of Neuropsychiatric Attention Disorders

**Beal Bank First Prize** 

Senior | Life | Translation Medical Science | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Alay Shah** | Low-Cost Eye Tracking Biomarker for Psychological Evaluation of Neuropsychiatric Attention Disorders

**Beal Bank Grand Prize Runner Up** 

Senior | Life | Translation Medical Science | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Aniq Shaikh | Magnetic Electricity

**Beal Bank Honorable Mention** 

Junior | Physical | Energy: Physical | PAROCHIAL | ISLAMIC SCHOOL OF IRVING MS

Sarim Shaikh | Split It To See It

**Beal Bank Honorable Mention** 

Junior | Physical | Mathematics and Physics & Astronomy | CHARTER | UPLIFT NORTH HILLS MS

Sarim Shaikh | Split It To See It

**Directed Energy Professional Society - Junior 1st Place** 

Junior | Physical | Mathematics and Physics & Astronomy | CHARTER | UPLIFT NORTH HILLS MS

**Diya Shanthi** | A simple way to detect microplastics in commonly available drinking water.

**Beal Bank Fourth Prize** 

Junior | Life | Environmental Engineering | COPPELL | COPPELL MIDDLE EAST

Faaiz Shaphy | Eco-crete: An Environmental Friendly Concrete

**Beal Bank Honorable Mention** 

Senior | Life | Environmental Engineering | PAROCHIAL | ISLAMIC SCHOOL OF IRVING HS

Ayan Sharma | Acceleration Polythene Degradation by Microorganisms

**Beal Bank Honorable Mention** 

Junior | Life | Biochemistry and Biomedical Engineering | PLANO ISD | RICE MIDDLE SCHOOL

Nayonika Sharma | Plastic Crayons

**Beal Bank Honorable Mention** 

Junior | Physical | Materials Science | FRISCO | PEARSON MIDDLE SCHOOL

Anushka Sharma | Voice Controlled Robot

#### **Beal Bank Third Prize**

Junior | Physical | Robotics & Intelligent Machines | FRISCO | LAWLER MIDDLE SCHOOL

Mary Sherey | Runoff Water Filter

## **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

Mary Sherey | Runoff Water Filter

# U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

Mary Sherey | Runoff Water Filter

# **WEAT / TAWWA - Honorable Mention**

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

Roni Shir | Converse Piezoelectric

## **Beal Bank Honorable Mention**

Junior | Physical | Engineering Mechanics | PLANO ISD | ROBINSON MIDDLE SCHOOL

**Shreyas Shridharan** | Mobile device accurately identifies trace toxins using an Artificial Sequential Recurrent Neural Network

**Beal Bank First Prize** 

Senior | Physical | CHEMISTRY | PLANO ISD | JASPER HIGH SCHOOL

**Shreyas Shridharan** | Mobile device accurately identifies trace toxins using an Artificial Sequential Recurrent Neural Network

DFW Chapter of Hazardous Materials Managers - 1st Place Senior Division Best Hazardous Materials Project

Senior | Physical | CHEMISTRY | PLANO ISD | JASPER HIGH SCHOOL

**Shreyas Shridharan** | Mobile device accurately identifies trace toxins using an Artificial Sequential Recurrent Neural Network

Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | CHEMISTRY | PLANO ISD | JASPER HIGH SCHOOL

**Neha Shyamsunder** | Analyzing the Heat Absorption in Various Flooring Materials

**Beal Bank Honorable Mention** 

Junior | Life | Earth & Environmental Systems | FRISCO | FOWLER MIDDLE SCHOOL

Nawal Siddiqui | What is the Best Defense Against Rising Water Levels?

**Beal Bank Honorable Mention** 

Junior | Life | Earth & Environmental Systems | PLANO ISD | RENNER MIDDLE SCHOOL

**Chad Sievert** | Transmitter Tracking

**Beal Bank Honorable Mention** 

Senior | Physical | Mathematics | PLANO ISD | WILLIAMS HIGH SCHOOL

**Sayuri Sigdel** | Why do we follow the crowd?

**Beal Bank Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | FRISCO | PEARSON MIDDLE SCHOOL

**Ankur Sikder** | The Percussionscope

**Acoustical Society of America - Honorable Mention** 

Senior | Life | Biomedical Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

Nabil Sikora | Overrated? Modeling Behavioral Bias in Online User Ratings

**Beal Bank Honorable Mention** 

Senior | Life | Behavioral & Social Sciences | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Micaela Silva | Which Burns the Longest

#### **Beal Bank Honorable Mention**

Junior | Life | Plant Sciences | PLANO ISD | BOWMAN MIDDLE SCHOOL

**Hana Sim** | How can therapists and medical professionals use artificial intelligence agents to increase efficiency in the workplace?

## **Beal Bank Honorable Mention**

Junior | Physical | Robotics & Intelligent Machines | FRISCO | PEARSON MIDDLE SCHOOL

Siddhant Singh | Developing an Artificial Pancreas

### **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | FRISCO | TRENT MIDDLE SCHOOL

**Hardik Singh** | An efficient mathematical model for the detection of various diseases and cancers

### **Beal Bank Honorable Mention**

Senior | Physical | Mathematics | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Umangi Singh** | Formulating a Data Driven Mathematical Algorithm to Reduce Insulin Dependency for Type-2 Diabetic Patients

### **Beal Bank Second Prize**

Senior | Physical | Mathematics | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Prisha Singh** | To Boldly Locate What No Man Has Located Before

**Beal Bank Second Prize** 

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Prisha Singh | To Boldly Locate What No Man Has Located Before

National Space Society of North Texas - Honorable Mention

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Prisha Singh** | To Boldly Locate What No Man Has Located Before

**U.S. Air Force - Certificate of Achievement** 

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Anika Sinha | Do You Hear What I Hear?

**Beal Bank Honorable Mention** 

Senior | Life | Environmental Engineering | COPPELL ISD | COPPELL HIGH SCHOOL

Abby-Claire Smith | How do RF waves from an electronic device affect a humans memory?

American Industrial Hygiene Association- North Texas Section - Junior Division, 1st Place

Junior | Life | Biomedical & Health Sciences | PLANO ISD | WILSON MIDDLE SCHOOL

**Abby-Claire Smith** | How do RF waves from an electronic device affect a humans memory? **McKinney Amateur Radio Club, Inc - Honorable Mention** 

Junior | Life | Biomedical & Health Sciences | PLANO ISD | WILSON MIDDLE SCHOOL

Evan Smith | Blame It On The Rain

North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Junior | Life | Earth & Environmental Systems | DALLAS | BARACK OBAMA MALE LEADERSHIP ACADEMY MIDDLE AT A. MACEO SMITH

**Connor Smith** | Knocking the Dye out of Water

**Beal Bank Honorable Mention** 

Junior | Life | Earth & Environmental Systems | FRISCO | PEARSON MIDDLE SCHOOL

**Chloe Smith** | What activity increases a pigs heart rate.

Dallas County Veterinary Medical Association - Senior Division, 2nd Place

Senior | Life | ANIMAL SCIENCE | Sam Rayburn ISD | RAYBURN HIGH SCHOOL

**Kaustubh Sonawane** | LungStat: Improving Early-Stage Lung Cancer Diagnostic Accuracy through an Integrative Deep Learning Algorithm and an Analysis of NSCLC Biomarkers

## **Beal Bank Second Prize**

Senior | Life | Translation Medical Science | PLANO ISD | JASPER HIGH SCHOOL

Nishi Soni | Pesticides - Worldwide Acute and Chronic Epidemic Illnesses

### **Beal Bank Honorable Mention**

Junior | Life | Cellular & Molecular Biology and Computational Biology & Bioinformatics | FRISCO | LAWLER MIDDLE SCHOOL

**Andrei Spiride** | Limb Movement Rehabilitation Using Orthoses Controlled by Surface Electroencephalography

**Beal Bank Second Prize** 

Senior | Life | Biomedical Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Anushka Sridhar** | SPARKS: Mitigating the Hand Tremors of Parkinsons Patients

**Beal Bank First Prize** 

Junior | Life | Biochemistry and Biomedical Engineering | PLANO ISD | OTTO MIDDLE SCHOOL

**Anushka Sridhar** | SPARKS: Mitigating the Hand Tremors of Parkinsons Patients

**DiscoverSTEM - Fahim STEM Excellence Award, Junior** 

Junior | Life | Biochemistry and Biomedical Engineering | PLANO ISD | OTTO MIDDLE SCHOOL

Ananya Sridhar | 4D- Distracted Driver Detection Device

**Beal Bank Second Prize** 

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Nikita Srinivas | Color-Coding Memory

**Beal Bank Honorable Mention** 

Junior | Life | Behavioral & Social Sciences | FRISCO | PIONEER HERITAGE MIDDLE SCHOOL

**Dhruv Srivastava** | To Boldly Locate What No Man Has Located Before

**Beal Bank Second Prize** 

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Dhruv Srivastava** | To Boldly Locate What No Man Has Located Before

**National Space Society of North Texas - Honorable Mention** 

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Dhruv Srivastava | To Boldly Locate What No Man Has Located Before

### U.S. Air Force - Certificate of Achievement

Senior | Physical | Physics & Astronomy | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

#### **Beal Bank First Prize**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

## **Beal Bank Grand Prize Runner Up**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

Collins Leadership Association - Outstanding Communications Project Senior Div. 3rd Place

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

# **Directed Energy Professional Society - Senior 2nd Place**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

**National Space Society of North Texas - Honorable Mention** 

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

## Office of Naval Research - Naval Science Award, Senior Division

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Walter Stark** | UltraSolar: Increasing Photovoltaic Efficiency Via a Novel Low-Cost Add-on of Fluorescent and Phosphorescent Solutions

# The Mars Society -DFW Chapter - Honorable Mention

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO SENIOR HIGH SCHOOL

**Kevin Su** | From Plastic to Productivity Biodegradable Plastics

## **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | FRISCO | MAUS MIDDLE SCHOOL

Krithika Subramanian | The Novel Production of Magnetite Nanocrystals

## **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | PLANO ISD | CLARK HIGH SCHOOL**Kevin Sun** | Elucidate the Engineering Solution by Using Zinc Oxide Nanofertilizer on Simultaneous Reduction of the Accumulation of Arsenic and Cadmium in Rice

## **Beal Bank Honorable Mention**

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Kevin Sun** | Elucidate the Engineering Solution by Using Zinc Oxide Nanofertilizer on Simultaneous Reduction of the Accumulation of Arsenic and Cadmium in Rice

North Texas Association of Environmental Professionals - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Kevin Sun** | Elucidate the Engineering Solution by Using Zinc Oxide Nanofertilizer on Simultaneous Reduction of the Accumulation of Arsenic and Cadmium in Rice

North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | JASPER HIGH SCHOOL

**Devika Sunil** | Scope of Molecular Screening Integrated with Machine Learning in Drug Design for Nipah Virus (NiV) via Explicating Interaction Sites of NiV-G Proteins and Ephrin B2 and B3

#### **Beal Bank Second Prize**

Senior | Life | Computational Biology & Bioinformatics | PLANO ISD | JASPER HIGH SCHOOL

**Rajiv Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

#### **Beal Bank First Prize**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rekha Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

## **Beal Bank First Prize**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rajiv Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

## **Beal Bank Grand Prize**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rekha Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

### **Beal Bank Grand Prize**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rajiv Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

Collins Leadership Association - Outstanding Communications Project Senior Div. 2nd Place

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rekha Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

Collins Leadership Association - Outstanding Communications Project Senior Div. 2nd Place

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rajiv Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

# **Directed Energy Professional Society - Senior 3rd Place**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rekha Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

# **Directed Energy Professional Society - Senior 3rd Place**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rajiv Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

Terracon, Inc. - Engineering Excellence Award, Senior Div. 1st Place Individual

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rekha Swamy** | See Through the Rubble: A Multimodal Bioradar Life Detection System for Search and Rescue Applications

Terracon, Inc. - Engineering Excellence Award, Senior Div. 1st Place Individual

Senior | Physical | Embedded Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Kate Tadeja | Damage Control

### **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | PLANO ISD | ARMSTRONG MIDDLE SCHOOL

**Bhavik Tadigotla** | Nature's Power: Utilizing Phenolic Compounds to Synthesize a Natural Supplement to Prevent Bacterial Growth in Neisseria subflava

### **Beal Bank Honorable Mention**

Senior | Life | Microbiology | PLANO ISD | JASPER HIGH SCHOOL

**Vedant Tapiavala** | Solution to Sand Erosion

Terracon, Inc. - Environmental Excellence Award, Senior Div. 2nd Place Individual

Senior | Life | Environmental Engineering | DALLAS | SCHOOL FOR THE GIFTED AND TALENTED AT YVONNE A EWELL TOWNVIEW CENTER

**Kunj Tapiawala** | TiO2 and Fruit Powered Dye-Sensitized Organic Photovoltaic Gratzel Solar Cell **Beal Bank Second Prize** 

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Kunj Tapiawala** | TiO2 and Fruit Powered Dye-Sensitized Organic Photovoltaic Gratzel Solar Cell **GENIUS Olympiad - Exceptional Genius Award** 

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Daniel Tauhert | Making An Answer Buzzer System

#### **Beal Bank Honorable Mention**

Junior | Physical | Embedded Systems | PLANO ISD | RENNER MIDDLE SCHOOL

Helina Tedros | Solar Desalination

# U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Junior | Life | Earth & Environmental Systems | PRIVATE | DALLAS INTERNATIONAL MS

**Sriya Teerdhala** | A Second Year Study on the Bioremediation of Tetracycline Polluted Soils: How Antibiotic Resistance can Reduce Antibiotic Pollution in the Environment and a Solution to Groundwater Antibiotic Pollution

### **Beal Bank First Prize**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sriya Teerdhala** | A Second Year Study on the Bioremediation of Tetracycline Polluted Soils: How Antibiotic Resistance can Reduce Antibiotic Pollution in the Environment and a Solution to Groundwater Antibiotic Pollution

## **DFW Chapter of Hazardous Materials Managers - Honorable Mention**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sriya Teerdhala** | A Second Year Study on the Bioremediation of Tetracycline Polluted Soils: How Antibiotic Resistance can Reduce Antibiotic Pollution in the Environment and a Solution to Groundwater Antibiotic Pollution

# North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sridatta Teerdhala** | Thermal Crosslinking of Organic Polymer Blend Membranes for H2/CO2 Separations

### **Beal Bank Honorable Mention**

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Sridatta Teerdhala** | Thermal Crosslinking of Organic Polymer Blend Membranes for H2/CO2 Separations

# The Mars Society -DFW Chapter - Honorable Mention

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Rishit Thakkar** | Override Carbon Dioxide- A Digital Tool for Predicting Optimal Infrastructure Conditions Based on Current City Infrastructure and CO2 Pollution Levels

### **Beal Bank Third Prize**

Senior | Life | Earth & Environmental Systems | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Archit Thanikella | Developing an Artificial Pancreas

### **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | FRISCO | TRENT MIDDLE SCHOOL

Emma Thoms | Does Temperature Affect The Growth of Borax Crystals?

## **Beal Bank Honorable Mention**

Junior | Physical | CHEMISTRY | CHARTER | HARMONY SCHOOL OF INNOVATION, DALLAS MS

Aithreya Thoppay | A Novel Boat Propellor Design To Reduce Oceanic Noise Pollution

Beal Bank First Prize

Junior | Life | Environmental Engineering | PLANO ISD | RICE MIDDLE SCHOOL

Aithreya Thoppay | A Novel Boat Propellor Design To Reduce Oceanic Noise Pollution

Office of Naval Research - Naval Science Award, Junior Division

Junior | Life | Environmental Engineering | PLANO ISD | RICE MIDDLE SCHOOL

**Shreya Tirumala Kumara** | Utilizing Oil and Water Polymers in the Rehabilitation of Contaminated Soil

**DFW Chapter of Hazardous Materials Managers - Honorable Mention** 

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

Alonso Toji | BLISS

**Beal Bank Honorable Mention** 

Senior | Physical | Engineering Mechanics | PAROCHIAL | BISHOP LYNCH HIGH

Alonso Toji | BLISS

**DiscoverSTEM - Honorable Mention** 

Senior | Physical | Engineering Mechanics | PAROCHIAL | BISHOP LYNCH HIGH

**Rohan Tolia** | Trash To Treasure

**Beal Bank Third Prize** 

Junior | Life | Environmental Engineering | FRISCO | VANDEVENTER MIDDLE SCHOOL

Ronit Totlani | Robo-Arm

**Beal Bank Honorable Mention** 

Junior | Physical | Engineering Mechanics | FRISCO | PEARSON MIDDLE SCHOOL

**Yash Totlani** | A Novel Approach to Learning Robot Dexterity: Utilizing Embedded Linear-Quadratic Markov Decision Process by Projecting onto a New State Action-Space

**Beal Bank Honorable Mention** 

Senior | Physical | Robotics & Intelligent Machines | FRISCO | REEDY HIGH SCHOOL

**Yash Totlani** | A Novel Approach to Learning Robot Dexterity: Utilizing Embedded Linear-Quadratic Markov Decision Process by Projecting onto a New State Action-Space

Collins Leadership Association - Outstanding Communications Project Senior Div. 1st Place

Senior | Physical | Robotics & Intelligent Machines | FRISCO | REEDY HIGH SCHOOL

Julien Toussaint Dang | Don't Forget-Bit

**Beal Bank Third Prize** 

Junior | Physical | Engineering Mechanics | PLANO ISD | OTTO MIDDLE SCHOOL

Kenneth Tran | Another Nail Bites The Rust

**Beal Bank Third Prize** 

Junior | Physical | Materials Science | UPLIFT EDUCATION | UPLIFT SUMMIT MS

**Elena Tran** | Removing BPA from Water : Using a Revised Version of Terrence J. Collins Method on Radish Seeds

**Beal Bank Third Prize** 

Senior | Life | Biochemistry | PLANO ISD | MCMILLEN HIGH SCHOOL

**Khang Tran** | Synthesis and Evaluation of Carbapenem Antibiotics Targeting OXA-23 Producing Acinetobacter baumannii

**Beal Bank Honorable Mention** 

Senior | Physical | CHEMISTRY | COPPELL ISD | COPPELL HIGH SCHOOL

Megan Trieu | Biodegradable Plastics

**Beal Bank Honorable Mention** 

Senior | Physical | Materials Science | PLANO ISD | MCMILLEN HIGH SCHOOL

Michael Tsimberg | Inspiration Germination

**Beal Bank Honorable Mention** 

Junior | Life | Plant Sciences | CHARTER | UPLIFT NORTH HILLS MS

Brandon Tuttle | Screen or Swelter

**Beal Bank Honorable Mention** 

Junior | Physical | Energy: Physical | FRISCO | PEARSON MIDDLE SCHOOL

Brandon Tuttle | Screen or Swelter

**Directed Energy Professional Society - Junior 3rd Place** 

Junior | Physical | Energy: Physical | FRISCO | PEARSON MIDDLE SCHOOL

**Kavin Umasankar** | Green Cleaners

**Beal Bank Third Prize** 

Junior | Life | Plant Sciences | PLANO ISD | ROBINSON MIDDLE SCHOOL

Akshay Unnikrishnan | A Non-Invasive Water Usage Detector II

**Beal Bank Honorable Mention** 

Senior | Life | Environmental Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Akshay Unnikrishnan | A Non-Invasive Water Usage Detector II

**DiscoverSTEM - Honorable Mention** 

Senior | Life | Environmental Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Pranav Uttarkar** | The Impact of Sunn Hemp on the Fertility of Soil

**Beal Bank Honorable Mention** 

Junior | Life | Plant Sciences | FRISCO | FOWLER MIDDLE SCHOOL

Pranav Uttarkar | The Impact of Sunn Hemp on the Fertility of Soil

North Texas Chapter of the Texas Master Naturalist (NTMN) - Honorable Mention

Junior | Life | Plant Sciences | FRISCO | FOWLER MIDDLE SCHOOL

Muhammad Uzair | Using Ships to Harness Tidal Power

**Beal Bank Third Prize** 

Junior | Physical | Energy: Physical | PLANO ISD | RICE MIDDLE SCHOOL

Risha-Dianne Valera | Intelligent Rice Planting Robot

**Beal Bank Second Prize** 

Senior | Life | Environmental Engineering | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Vishnu Vasudev** | A Novel Communication System for Stroke Survivors Using an Electronic Glove

### **Beal Bank Third Prize**

Senior | Life | Biomedical Engineering | FRISCO | LIBERTY HIGH SCHOOL

**Tom Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

## **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Zach Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

### **Beal Bank Honorable Mention**

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Tom Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

Stockholm Junior Water Prize - Award for Excellence in a Water-Related Project

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Zach Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

Stockholm Junior Water Prize - Award for Excellence in a Water-Related Project

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Tom Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

Terracon, Inc. - Environmental Excellence Award, Senior Div. 1st Place Individual

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Zach Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

Terracon, Inc. - Environmental Excellence Award, Senior Div. 1st Place Individual

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Tom Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

WEAT / TAWWA - Senior Division, 3rd Place

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Zach Vazhekatt** | Plant Based Bioremediation in Water: The Antibacterial and Flocculating Capabilities of Moringa Oleifera Lam. Seed Extracts in Combination with Oligodynamic Metal as a Purifier for Polluted Water

# WEAT / TAWWA - Senior Division, 3rd Place

Senior | Life | Plant Sciences | COPPELL ISD | COPPELL HIGH SCHOOL

**Parisa Vaziri** | Overexpression of FOXO in PINK1 Drosophila melanogaster to Prevent Neurodegeneration

#### **Beal Bank Second Prize**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Parisa Vaziri** | Overexpression of FOXO in PINK1 Drosophila melanogaster to Prevent Neurodegeneration

## **Dallas County Medical Society - 1st Place**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Saanvi Veera Bomma** | How Does Aging Potato Impact the Sensory Attributes of Fried Chips? **Beal Bank Honorable Mention** 

Junior | Physical | CHEMISTRY | PLANO ISD | ROBINSON MIDDLE SCHOOL

**Swetha Velayutham** | Using Protease-activated receptors (PARs) in C. elegans as a potential therapeutic agent for inflammatory diseases

### **Beal Bank First Prize**

Senior | Life | ANIMAL SCIENCE | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Swetha Velayutham** | Using Protease-activated receptors (PARs) in C. elegans as a potential therapeutic agent for inflammatory diseases

# **Beal Bank Grand Prize Runner Up**

Senior | Life | ANIMAL SCIENCE | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Smaran Velidi | BioProtect: A Phased Array Spatial Sensor for Visual Detection and Assistance

#### **Beal Bank Second Prize**

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Smaran Velidi | BioProtect: A Phased Array Spatial Sensor for Visual Detection and Assistance

Texas Instruments - Best electronics or computing project, Senior Division

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Ishan Vemireddy | AQUEOUS TWO PHASE EXTRACTION SYSTEMS WITH ORGANIC SOLVENTS AND THE DISTILLATION PROCESS TO EXTRACT A NEUTRAL SOLUTION FROM ACID WHEY

## **Beal Bank Honorable Mention**

Junior | Life | Environmental Engineering | PLANO ISD | RICE MIDDLE SCHOOL

**Akshay Vemulapalli** | Testing the Effectiveness of Various Filtration Systems on the Removal of Fluoride from Water

## **Beal Bank Honorable Mention**

Senior | Life | Earth & Environmental Systems | ALLEN | LOWERY FRESHMEN CENTER

**Aryan Vemuri** | A novel approach to using AI to better allow for the blind navigate in a variety of settings

### **Beal Bank Honorable Mention**

Senior | Life | Biomedical Engineering | FRISCO | REEDY HIGH SCHOOL

**Arnold Venter** | A Low-Cost, Remotely-Controlled, and Programmable Hand Tracking Device and Imitative Robotic Arm for Software Assisted Telesurgery and Burdenous and Hazardous Tasks

### **Beal Bank Third Prize**

Senior | Physical | Embedded Systems | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Arnold Venter** | A Low-Cost, Remotely-Controlled, and Programmable Hand Tracking Device and Imitative Robotic Arm for Software Assisted Telesurgery and Burdenous and Hazardous Tasks

Terracon, Inc. - Engineering Excellence Award, Senior Div. 3rd Place Individual

Senior | Physical | Embedded Systems | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

Aayush Verma | External Skin Condition Detector

## **Beal Bank Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | COPPELL ISD | COPPELL HIGH SCHOOL

**Desiree Verver** | Runoff Water Filter

### **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

**Desiree Verver** | Runoff Water Filter

## U.S. Environmental Protection Agency 6th chapter - Honorable Mention

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

**Desiree Verver** | Runoff Water Filter

**WEAT / TAWWA - Honorable Mention** 

Senior | Life | Environmental Engineering | CARROLLTON-FARMERS BRANCH | R L TURNER HIGH SCHOOL

Umang Vinayaka | External Skin Condition Detector

#### **Beal Bank Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | COPPELL ISD | COPPELL HIGH SCHOOL

**Aditya Vishnubhotla** | BioProtect: A Phased Array Spatial Sensor for Visual Detection and Assistance

#### **Beal Bank Second Prize**

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Aditya Vishnubhotla** | BioProtect: A Phased Array Spatial Sensor for Visual Detection and Assistance

# Texas Instruments - Best electronics or computing project, Senior Division

Senior | Physical | Robotics & Intelligent Machines | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Rochan Viswanadhapalli | Developing an Artificial Pancreas

## **Beal Bank Honorable Mention**

Junior | Life | Biomedical & Health Sciences | FRISCO | TRENT MIDDLE SCHOOL

**Ananth Vivekanand** | A Novel Approach to Learning Robot Dexterity: Utilizing Embedded Linear-Quadratic Markov Decision Process by Projecting onto a New State Action-Space

# **Beal Bank Honorable Mention**

Senior | Physical | Robotics & Intelligent Machines | FRISCO | REEDY HIGH SCHOOL

**Ananth Vivekanand** | A Novel Approach to Learning Robot Dexterity: Utilizing Embedded Linear-Quadratic Markov Decision Process by Projecting onto a New State Action-Space

Collins Leadership Association - Outstanding Communications Project Senior Div. 1st Place

Senior | Physical | Robotics & Intelligent Machines | FRISCO | REEDY HIGH SCHOOL

**Brian Vo** | HydroCity: Renewable Hydroelectric in the Modern City

### **Beal Bank Third Prize**

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Kayla Vu** | Removing BPA from Water : Using a Revised Version of Terrence J. Collins Method on Radish Seeds

### **Beal Bank Third Prize**

Senior | Life | Biochemistry | PLANO ISD | MCMILLEN HIGH SCHOOL

**Hassan Wajid** | Detecting habitable exoplanets with a computer simulation

### **Beal Bank Honorable Mention**

Senior | Physical | Physics & Astronomy | ALLEN | ALLEN HIGH SCHOOL

**Hassan Wajid** | Detecting habitable exoplanets with a computer simulation

National Space Society of North Texas - Honorable Mention

Senior | Physical | Physics & Astronomy | ALLEN | ALLEN HIGH SCHOOL

**Sophia Wang** | The Effect of Probiotics and Metallothionein Proteins on Type II Diabetes through the change of the level of bifidobacteria , blood sugar level, insulin level, and inflammation factor

# **Beal Bank Third Prize**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | JASPER HIGH SCHOOL

**Kaylie Wang** | Using probability and statistics to control risk levels in the stock market

#### **Beal Bank Honorable Mention**

Senior | Physical | Mathematics | PLANO ISD | SHEPTON HIGH SCHOOL

**Richard Wille** | The Great Harvest 2: Using Multiple RF Energy Harvesting Antennas to Prolong the Battery Life of a Smartphone

# McKinney Amateur Radio Club, Inc - Senior Division, 1st Place

Senior | Physical | Energy: Chemical and Energy: Physical | PLANO ISD | MCMILLEN HIGH SCHOOL

**Vivian Winton** | Into The Woods

### **Beal Bank Honorable Mention**

Junior | Physical | Materials Science | DALLAS | JL LONG MIDDLE SCHOOL

**Greyson Wong** | come meet Mo: Augmented Environmentally Conservative Remote Control Lawn Mower

### **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | PLANO ISD | WILLIAMS HIGH SCHOOL

**Noah Wong** | Effect of Temperature Increase on Spring Constant in Thermal-Actuating Nylon Fishing Line Artificial Muscles

## **Beal Bank Third Prize**

Senior | Physical | Materials Science | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Daniel Xie** | An Intraterrestrial Obstacle

# National Space Society of North Texas - Honorable Mention

Senior | Physical | Physics & Astronomy | COPPELL ISD | COPPELL HIGH SCHOOL

**Jason Xu** | Starvation for Salvation

**Beal Bank First Prize** 

Senior | Life | Biomedical & Health Sciences | PLANO ISD | JASPER HIGH SCHOOL

Andersen Yanelli | To Bee or Not to Bee

**Beal Bank First Prize** 

Junior | Life | ANIMAL SCIENCE | PLANO ISD | OTTO MIDDLE SCHOOL

Andersen Yanelli | To Bee or Not to Bee

Dallas County Veterinary Medical Association - Junior Division, 2nd Place

Junior | Life | ANIMAL SCIENCE | PLANO ISD | OTTO MIDDLE SCHOOL

**Samira Yang** | One Fish, Two Fish, Red Fish, Blue Fish - WiFi Edition - Improving the Customizable Automatic Fish Feeder

## **Beal Bank First Prize**

Junior | Physical | Engineering Mechanics | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

**Samira Yang** | One Fish, Two Fish, Red Fish, Blue Fish - WiFi Edition - Improving the Customizable Automatic Fish Feeder

## **Beal Bank Grand Prize**

Junior | Physical | Engineering Mechanics | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

**Samira Yang** | One Fish, Two Fish, Red Fish, Blue Fish - WiFi Edition - Improving the Customizable Automatic Fish Feeder

Office of Naval Research - Naval Science Award, Junior Division

Junior | Physical | Engineering Mechanics | PLANO ISD | SCHIMELPFENIG MIDDLE SCHOOL

Ella Yarborough | Beach Buddy

### **Beal Bank Honorable Mention**

Senior | Physical | Engineering Mechanics | PLANO ISD | MCMILLEN HIGH SCHOOL

Nathan Yarborough | Beach Buddy

#### **Beal Bank Honorable Mention**

Senior | Physical | Engineering Mechanics | PLANO ISD | MCMILLEN HIGH SCHOOL

Lillian Ye | Nanoparticle Fluorescence Intensity for Glutathione Deficiency Detection

### **Beal Bank Second Prize**

Senior | Life | Biochemistry | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL

**Arjun Yedavalli** | The Effects of Dilutions of NSAIDs (aspirin; nonsteroidal anti-inflammatory drugs) on the Regeneration of Dugesia tigrina

### **Beal Bank Honorable Mention**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Arjun Yedavalli** | The Effects of Dilutions of NSAIDs (aspirin; nonsteroidal anti-inflammatory drugs) on the Regeneration of Dugesia tigrina

# **Dallas County Medical Society - Honorable Mention**

Senior | Life | Biomedical & Health Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Amith Yedavalli** | Developing a Cost Efficient and Environmentally Friendly Air Filter To Reduce Carbon Dioxide Emissions

### **Beal Bank Honorable Mention**

Senior | Life | Environmental Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

**Amith Yedavalli** | Developing a Cost Efficient and Environmentally Friendly Air Filter To Reduce Carbon Dioxide Emissions

# **DFW Chapter of Hazardous Materials Managers - Honorable Mention**

Senior | Life | Environmental Engineering | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Jasper Yin | Does The Market Timing Strategy Outperform Buy and Hold?

**Beal Bank Third Prize** 

Senior | Physical | Mathematics | PLANO ISD | CLARK HIGH SCHOOL

Aariz Zaki | Splitting Water: Separating Water into Hydrogen and Oxygen

**Beal Bank Second Prize** 

Junior | Physical | CHEMISTRY | PAROCHIAL | ISLAMIC SCHOOL OF IRVING MS

Sheila Zhang | The Effects of Sidestream Electronic Cigarette Chemicals on Genetic Mutations

American Industrial Hygiene Association- North Texas Section - Senior Division, 1st Place

Senior | Life | Biomedical & Health Sciences | PLANO ISD | PLANO EAST SENIOR HIGH SCHOOL

Alysa Zhao | The Tea on Tea: Antimicrobial Effects of Camellia Sinensis

**Beal Bank Honorable Mention** 

Junior | Life | Microbiology | PLANO ISD | MURPHY MIDDLE SCHOOL

Ethan Zhao | Cost-Effective and Facile Production of Foamed Aerogel by Pressurized Gelation

DFW Chapter of Hazardous Materials Managers - Honorable Mention

Senior | Life | Earth & Environmental Systems | ALLEN | ALLEN HIGH SCHOOL

Nicholas Zhong | Cancerous Cell Response to Treatment by Organoiridium Catalysts

Beal Bank Second Prize

Senior | Physical | CHEMISTRY | PLANO ISD | PLANO WEST SENIOR HIGH SCHOOL