

The 70th Annual GSDSEF

GRAND AWARDS

2024

Junior Division

**Grand Awards
Runners-Up**

Junior Division

Grand Award Runner Up - Life Sciences

Belle Schere

The Children's School

Advisor: D. Quincannon

Does the Use of Motivational Interviewing Affect Student Effort?

Junior Division

Grand Award Runner Up - Life Sciences

Omar Abdulaziz

Anabia Ehsan

Thurgood Marshall Middle School

Advisor: A. Abdulaziz

*Early Detection of Bradykniesia and Tremors in Parkinson's
Disease Using a Wearable Inertia Measurement Unit*

Junior Division

Grand Award Runner Up - Physical Sciences

Samuel Sternson

The Rhoades School

Advisor: R. Hunker

Passive Cooling with Infrared Reflective Crystals

Junior Division

Grand Award Runner Up - Physical Sciences

Yusra Salem

Bright Horizons Academy

Advisor: N. Naserelddin

A Vibrating Exercise Band for the Deaf

Senior Division

Grand Awards
Runners-Up

Senior Division

Grand Award Runner Up 1 - Life Sciences

Zinia Khattar

Del Norte High School

Advisor: A. Kosla

***Integrated Stress Response Activation Discovered to be
Predominant Response to Mitochondrial Dysfunction***

Senior Division

Grand Award Runner Up 2 - Life Sciences

Sydney Zhang

Westview High School

Advisor: S. Halander

***Design and Usability Study of a Point of Care mHealth App for arly
Dry Eye Screening and Detection***

Senior Division

Grand Award Runner Up 1 - Physical Sciences

Sarah Gao

Canyon Crest Academy

Advisor: E. Gerstein

*From Trash to Treasure: Fighting Desertification with Sustainable Soil
Amending Hydrogels Synthesized from Food Waste*

Senior Division

Grand Award Runner Up 2 - Physical Sciences

Alex Battikha

Westview High School

Advisor: J. Silberman

*Using Artificial Intelligence and Unmanned Aerial Vehicle for
Aid on Environmental Remediation*

The Taiwan Award

**A Grand Award presented by the
Taiwanese American Foundation of San Diego**

The Taiwan Award

Alex Battikha

Westview High School

Advisor: J. Silberman

*Using Artificial Intelligence and Unmanned Aerial Vehicle for
Aid on Environmental Remediation*



Junior Division
GRAND AWARDS

Junior Division

Grand Award – Life Sciences

**Yaalini Kathiravan
Arunachalam Vinayagam**

Pacific Trails Middle School

Advisor: M. Mareth

*Early Detection of Scalp and Facial Diseases Using Selfies and
Artificial Intelligence*

Junior Division

Grand Award – Life Sciences

Steven Chen

Pacific Trails Middle School

Advisor: M. Mareth

Synthesizing Living Materials for Coral Reef Regeneration

Junior Division

Grand Award - Physical Sciences

Declan Henckels

Guhan Senthil

Pacific Trails Middle School

Advisor: M. Mareth

Smart Walker

Junior Division

Grand Award - Physical Sciences

Oliver Cottrell

La Jolla Country Day School

Advisor: N. Parker

Automatic Hockey Puck Passer

Senior Division

GRAND AWARDS

Senior Division

Grand Award - Life Sciences

Leanne Fan

Westview High School

Advisor: D. McMartin

*Photobiomodulation on In-Vivo and In-Vitro Wound Models
Under Simulated Microgravity for Future Space Travel*

Senior Division

Grand Award - Life Sciences

Nithika Vivek

Del Norte High School

Advisor: K. Ramesh

Deep Learning Multi-Modal Melanoma Detection

Senior Division

Grand Award - Physical Sciences

Angelina Kim

The Bishop's School

Advisor: A. Pelletier

*An Autonomous Unmanned Aerial Vehicle (UAV) System for
Ocean Hazard Recognition and Rescue*

Senior Division

Grand Award - Physical Sciences

Arnav Dagar

Canyon Crest Academy

Advisor: K. Hare

ARFSNet- Deep Learning for Amblyopia Risk Factor Screening

The 70th Annual GSDSEF

ISEF Finalists
2024

ISEF Finalists:

Leanne Fan

Nithika Vivek

Angelina Kim

Arnav Dagar

ISEF Finalists:

Sarah Gao

Zinia Khattar

Congratulations to our
2024

GRAND AWARD
Winners