

# 2 Central New Mexico 0 STEM Research Challenge

20      

## GRAND AWARD WINNERS

### MARCH 28, 2020

#### First Place & Grand Award Winner - ISEF Finalist & \$750

AnaMaria Perez ~ Albuquerque Academy

Project Title: *On a Variation of the Witsenhausen Problem Concerning Maximal  $\pi/2$ -Avoiding Spherical Sets*

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#### First Place - ISEF Finalist & \$500

- **Paulina Naydenkov** ~ Albuquerque Institute of Math & Science  
Project Title: *Hierarchically Engineered Nanotheranostic for Ovarian Cancer*
  - **Milidu Jayaweera** ~ La Cueva High School  
Project Title: *Mission-Critical Communications Planning Over Contested RF Spectrum with Deep Reinforcement Learning Aided Artificial Intelligence*
  - **George Santarpia** ~ Albuquerque Institute of Math & Science  
Project Title: *Lifestyle Determination qPCR Assays for S. Aureus Bacteriophage*
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#### Second Place - \$350

- **Nastassja Martin** ~ Rio Rancho High School  
Project Title: *Study of Antimony Alkoxy Carboxylates as Dopants for Zinc Oxide Varistors*
  - **Stephen Chu** ~ Albuquerque Academy  
Project Title: *A Sustainable and Low Operational Cost Greenhouse*
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#### Third Place - \$250

- **Maya Barrientos & Kenji Helms** ~ Rio Rancho High School  
Project Title: *Flute Angles Part 2*
- **Tristan Oper** ~ Albuquerque Institute of Math & Science  
Project Title: *Evaluating the Chemical Structures of Inorganic and Organic Compounds Alongside the Application of Mordant for its Effects on UV Absorbance*
- **Isaac Huber** ~ Eldorado High School  
Project Title: *Separation of Magnetite Nanoparticles from Oleic Acid using Partition Coefficients*
- **Gianna Nilvo** ~ School of Dreams Academy  
Project Title: *The Effect of Fermented and Cultured Supplements on a Dog's Gut Biome*
- **Jacob Sandusky** ~ The ASK Academy  
Project Title: *Rediscovering Electronegativity*
- **Gabriel Gurule** ~ Albuquerque Institute of Math & Science  
Project Title: *Applications of Photovoltaic Cells on 3D Printed Wind Turbine Blades V.2*

\*Due to restrictions placed by COVID-19 and the cancellation of Research Challenge, awards listed here reflect the results of a modified, virtual judging process. A number of high school students originally entered in Research Challenge as regional qualifiers chose to partake in this process. Students were asked to submit photos of their boards. After an initial screening and judging of the photos and other supplemental materials of all projects that submitted these items, the 12 projects listed here were chosen for virtual interviews.

The following students also submitted photos/supplemental materials for the initial screening/judging. Although we regret not being able to accommodate interviews for all of these students, we would like to recognize and congratulate them not only for their original research projects, but also for making the extra effort to participate in the modified judging process.

All students listed here will receive a \$25 prize:

<b>Student(s)</b>	<b>School</b>
Sabastian Benavidez	Albuquerque Institute of Math & Science
McKenna Collins	Albuquerque Institute of Math & Science
Eleanor Hynson	Albuquerque Institute of Math & Science
Sophie Earp	Albuquerque School of Excellence
Sherwin Thiyagarajan	Albuquerque School of Excellence
Nickolas Cummings	Amy Biehl High School
Adriano Salter & Brandon Garcia-Arviso	Amy Biehl High School
Tiara Sibley	Amy Biehl High School
Salina Vargas	Amy Biehl High School
Charles Zhou, Grace Kang & Jeffrey Yang	La Cueva High School
Delsin Jaramillo	Los Lunas High School
Isabelle Leue-Britt	Media Arts Colloaborative Charter School
Titus Sande	Rio Grande Enrichment Studies
Esther Cameron	Rio Rancho High School
Faith Lovato	Rio Rancho High School
Aiden Myerscough, Caleb Weir & Khang Phan	Rio Rancho High School
Jason Wiberg	Rio Rancho High School
Benicio Gutierrez	St. Pius High School
Ziven Lopez	The ASK Academy
Kailey McCann & Patience Martinez	The ASK Academy
Aylssa Reinchuck, James Sandusky & Rodney Reichert	The ASK Academy
Ashlyn Bartley & Brenna Wolfe	V. Sue Cleveland High School
Lucila Bermudez	V. Sue Cleveland High School
Cadence Boras	V. Sue Cleveland High School
Ashley Bradshaw	V. Sue Cleveland High School
Eliana Juarez	V. Sue Cleveland High School
Harrison Kaspar & Troy Hillmeyer	V. Sue Cleveland High School
Marguerite Kibodeaux & Tess Kirkpatrick	V. Sue Cleveland High School
Jacob Nikolai	V. Sue Cleveland High School
Alexis Nunez & Melanie Otero	V. Sue Cleveland High School
Adam Rounsville	V. Sue Cleveland High School