

# The 2023 Hawaii State Science & Engineering Fair Special Awards

# 'Aina Haina Community Association

#### \$100 Cash Award - Harold Jay Cacal, Waipahu High School

"Incorporation of Green Roofs in Residential Buildings: Exploring Sustainability and Ecological Benefits on Oahu" (Project ID: ENEV 169)

# **American Association of Physics Teachers**

Hawaii AAPT/Paul Hewitt Physics Award - Kehau Kalili, Kamehameha Schools, Hawai'i Campus (For Project ID: PHYS 195)

# **American Chemical Society, Hawaii Chapter**

#### **Exemplary**

1st Exemplary Chemistry Project, \$25 Cash Award - Mattis Niggemann, Kalāheo High School "Neutralizing Polyethylene Microplastics" (Project ID: BCHM 118)

# 2nd Exemplary Chemistry Project, \$25 Cash Award - Tani-Lei Nishikawa, Kailua High School

"Measuring the Presence of Chlorophyll: The Best Solvent" (Project ID: CHEM 132)

#### 3rd Exemplary Chemistry Project, \$25 Cash Award - Vincent Grillo, Kalani High School

"Chemical Reclamation of Rare Metals in E-Waste to Reduce Environmental Contamination" (Project ID: CHEM 128)

#### 4th Exemplary Chemistry Project, \$25 Cash Award - Denali Chun, St. Theresa School

"A Hidden Sugar" (Project ID: BMED 414)

#### **Best in JR Division**

1st Best Chemistry Project, \$100 each Cash Award - Dylan Cashman, Sunset Beach Elementary School "Carbon Catchers" (Project ID: BCHM 412)

#### 2nd Best Chemistry Project, \$50 Cash Award - Sarina Lam, Hilo Intermediate School

"Hair Tensile Strength: Which Hair Lightening Method will Preserve the Strength of Hair?" (Project ID: CHEM 435)

3rd Best Chemistry Project, \$25 each Cash Award - Melokia Johnson, Kahuku High & Intermediate School "Fantastic Flour" (Project ID: CHEM 432)

#### **Best in SR Division**

#### 1st Best Chemistry Project, \$100 Cash Award - Jaxyn Cable-Treadwell, Kauai High School

"Creating Perfusable Tissue Scaffolds from Decellularized Plant Leaves" (Project ID: BCHM 117)

#### 2nd Best Chemistry Project, \$50 Cash Award - Alanna Sun, Waiākea High School

"The Chemical Profiling and Antibacterial Evaluation of Extracts from Garcinia xanthochymus" (Project ID: CHEM 133)

#### 3rd Best Chemistry Project, \$25 Cash Award - Beatrice Kim-Lee, Waiākea High School

"Effects of Chitosan-Essential Oil Coatings on the Post-Harvest Preservation of Guava (Psidium guava)" (Project ID: CHEM 130)

Teacher Award in Chemistry, \$100 Cash Award - Kevin Johnson, Kauai High School (For Project ID: BCHM 117)

# **American Public Works - Hawaii Chapter**

#### **JR Division**

#### \$100 Cash Award - Liana Reyes, St. Joseph Parish School, Waipahu

"Edible Power" (Project ID: BMED 420)

#### \$100 Cash Award - Ian Jun, Punahou School

"Anti-Fouling Surfaces for Improved Self-Cleanability" (Project ID: ENBM 425)

#### \$100 Cash Award - Saya Schramko, Dole Middle School

"Extracting DNA from Strawberries" (Project ID: CELL 426)

#### \$100 Cash Award - Sofia Manoukis, St. Joseph School Hilo

"When Insects Attack!" (Project ID: EAEV 456)

#### \$100 Cash Award - Noah Ling, Kailua Intermediate School

"Un-bee-lievable" (Project ID: MATH 485)

#### \$100 Cash Award - Lennon Nakada & Kymrie Eguchi, Kamehameha Schools Kapālama

"Hands vs. Germs and Germs Around Campus" (Project ID: MCRO 490V)

#### **SR Division**

#### \$100 Cash Award - Armand Baril, Honoka'a High & Intermediate School

"Coqui Frog Locator" (Project ID: EBED 155)

#### \$100 Cash Award - Andrew Lee, Kalani High School

"Predicting a Swimmer's Future Rank (500 Freestyle USA 2014-18 Season)" (Project ID: MATH 183)

# **American Water Works Association - Hawaii Chapter**

#### \$300 Cash Award, Senior Individual Project - Cassidy Ibanez, Mililani High School

"Biomass Powered Desalination Year III: Combustion Tuning by Closed Loop Control System" (Project ID: ETSD 159)

#### \$300 Cash Award, Senior Team Project - Alexandra Ver & Ethan Reece Pascua, Aiea High School

"Fueled Up: Identifying the Impacts of the Redhill Fuel Leak Through 16S Metabarcoding" (Project ID: EAEV 145)

#### \$150 Cash Award, Junior Individual Project - Noah Thompson, Kailua Intermediate School

"Water Water Everywhere" (Project ID: ENEV 476)

#### \$150 Cash Award, Junior Team Project - Maya Gonsowski, Andrew Li, & Summer Hall, Kaimuki Middle School

"Phytoremediation of Water Contaminants Using Aquatic Moss" (Project ID: MCRO 492)

# **Associated Chinese University of Women**

#### **JR Division**

#### \$200 Cash Award - Humi Yoshizawa, Jarrett Middle School

"The Effect of Background Colors to the Shell Selection of Hawaiian Hermit Crabs" (Project ID: ANIM 403)

#### \$200 Cash Award - Sky Bardell-Jones, Hilo Intermediate School

"Hot or Not? Heat Change of Three Different Materials of Filament Wire Over Five Minutes" (Project ID: PHYS 500V)

#### \$200 Cash Award - Lillian Tao, Waiākea Intermediate School

"Study of the Mechanisms of Noni, a Traditional Hawaiian Herb - A Safer Alternative to Treating Cardiovascular Disease" (Project ID: TMED 527)

#### **SR Division**

#### \$200 Cash Award - Ming-Hao Lee, 'Iolani School

"Possible Use of MicroRNA-488 as a Biomarker for Bad Prognosis in Type 2 Diabetes" (Project ID: CELL 126)

#### \$200 Cash Award - Parker Wong, Pearl City High School

"Improving the Efficiency of an Electrolyzer by Manipulating the Electrolyte, Measuring Efficiency through Battery Voltage Output" (Project ID: CHEM 131)

#### \$200 Cash Award - Adeline Bechard, Kauai High School

"Solar Power Water Gravity Battery" (Project ID: ENEV 173)

#### **CTAHR Alumni Association Award for Excellence in Research**

#### \$300 Cash Award - Amara Martin, Kamehameha Schools Kapālama

"Identifying and Mitigating Renal Toxicity of Lithium on Bipolar Disorder Using HEK293 Cells" (Project ID: BMED 123)

# **Emergency Amateur Radio Club**

#### \$300 Cash Award - Jed Teagarden, Hawaii Technology Academy Maui

"Building and Using a Radio Telescope" (Project ID: PHYS 196)

#### \$200 Cash Award - Mayo Nakajima, Hilo Intermediate School

"Which Material Will Create The Most Amount of Static Electricity?" (Project ID: EGSD 465)

#### \$100 Cash Award - David Summers & Serena Uchima-Pyun, Kaimuki Middle School

"Portable Car Charger" (Project ID: EGSD 461)

#### \$50 Cash Award - Adeline Bechard, Kauai High School

"Solar Power Water Gravity Battery" (Project ID: ENEV 173)

#### **Environ Control, Inc.**

#### \$100 Cash Award - Lauryn Hashimoto, Kauai High School

"Lure Comparison for Capturing Male Culex Mosquitoes" (Project ID: ANIM 102)

#### \$100 Cash Award - Mila Chow, St. Andrew's Schools

"Sweet Tooth" (Project ID: ANIM 402)

# **Friends of Hanauma Bay**

#### **JR Division**

\$100 Cash Award, Certificate, and Book - Lilikoi DeMartini, Kahuku High & Intermediate School

"Dissolving Sea Shells" (Project ID: EAEV 444)

Teacher Award in Junior Division, \$50 Cash Award, Certificate, and Letter - Amber O'Reilly Kahuku High & Intermediate School (For Project ID: EAEV 444)

#### **SR Division**

\$150 Cash Award, Certificate, and Book - Sydney Yamamoto, Mililani High School

"The Effect Ocean Acidification Has on Shellfish" (Project ID: EAEV 152)

**Teacher Award in Senior Division, \$100 Cash Award, Certificate, and Letter - John Sandvig, Mililani High School** (For Project ID: EAEV 152)

# **Hawaii Academy of Science Director's Award**

#### \$100 Cash Award - Alton Goo, Aiea High School

For your outstanding leadership skills at the HSSEF

#### \$100 Cash Award - Harold Cacal, Waipahu High School

For your character and dedication reflected not only on the judging floor but amongst your peers

# **Hawaii Botanical Society**

#### **JR Division**

#### \$150 Cash Award - Lauren Gerber, Mililani High School

"The Use of Moss as a Cover Crop and Bio-filter for Excess Sodium Chloride (NaCl) in Hawaiian Coastal Farm Soil" (Project ID: PLNT 210)

#### **SR Division**

\$150 Cash Award - Destiny Nguyen, Tehya Lipman, & Ella Kimura, Kaimuki Middle School

"Aeroponics vs Hydroponics" (Project ID: PLNT 512)

#### Hawaii Association of Environmental Professionals

#### JR Earth and Environmental Science

#### \$100 Cash Award - Austyn Bugado, Hilo Intermediate School

"pH and Conductivity in Catchment and County Water" (Project EAEV 451)

#### **SR Earth and Environmental Sciences**

#### \$100 Cash Award - Kian Sanchez, University Laboratory School

"Effectiveness of the Hawaiian Feather Duster Worm as a Potential Bioremediator" (Project ID: EAEV 142)

#### \$100 Cash Award - Ethan Abraham, Kamehameha Schools Kapālama

"Global Fire Prevention: Developing an Effective Environmentally-Safe Fire-Extinguishing Agent" (Project ID: EAEV 146)

#### \$100 Cash Award - Madison Murata, Kamehameha Schools Kapālama

"Studies on Gracilaria salicornia: Zinc Oxide (ZnO) Sunscreen Exposure and Use as Agricultural Fertilizer" (Project ID: EAEV 151)

#### JR Chemistry, Microbiology, and Cellular and Molecular Biology

#### \$100 Cash Award - 'Ānelalani Suapaia, St. Andrew's Schools

"Can Native Hawaiian Remedies be as Effective as Commercial Antibiotics?" (Project ID: MCRO 486)

#### SR Chemistry, Microbiology, and Cellular and Molecular Biology

## \$100 Cash Award - Parker Wong, Pearl City High School

"Improving the Efficiency of an Electrolyzer by Manipulating the Electrolyte, Measuring Efficiency through Battery Voltage Output" (Project ID: CHEM 131)

#### JR Energy (Chemical/Physical) and Environmental Engineering

#### \$100 Cash Award - Enoch Casey, Kahuku High & Intermediate School

"Active Charcoal and Sand Coconut vs Filters" (Project ID: ENEV 472)

#### SR Energy (Chemical/Physical) and Environmental Engineering

#### \$100 Cash Award - Kenneth Yi, Mililani High School

"Decontamination of Heavy Metals Through Phytoremediation by Native Hawaiian Plants" (Project ID: ENEV 168)

#### Hawai'i Dental Service

#### \$600 Cash Award - Steven Inouye, Kailua High School

"Diet and Dental Health" (Project ID: BMED - 121)

#### \$200 Cash Award - Liana Alefosio/Leisia Alefosio, Our Lady of Good Counsel

"Dental Care" (Project ID: BMED - 417)

#### \$200 Cash Award - Casey Iwata, Kawananakoa Middle

"Does toothpaste Affect Tooth Decay?" (Project ID: BMED - 419)

#### \$200 Cash Award - Bryn Abe, Kailua Intermediate

"Go Away Tooth Decay" (Project ID: BMED - 421)

# **Hawai'i Optometric Association**

#### \$100 Cash Award - 'Ānelalani Suapaia, St. Andrew's Schools

"Can Native Hawaiian Remedies be as Effective as Commercial Antibiotics?" (Project ID: MCRO 486)

#### Teacher Award in Senior Division, \$100 Cash Award - Jay Hamura, St. Andrew's Schools

(For Project ID: MCRO 486)

#### **Hawai'i Water Environment Association**

#### \$100 Cash Award - Priscilla Matthews, Kauai High School

"Developing a model for Determining the Impact on Plastics/Debris on Ocean Temperatures" (Project ID: EAEV 140)

#### \$100 Cash Award - Kian Sanchez, University Laboratory School

"Effectiveness of the Hawaiian Feather Duster Worm as a Potential Bioremediator" (Project ID: EAEV 142)

#### \$100 Cash Award - Brie-Ann Fukutomi & Penelope Tupou, Baldwin High School

"Erosion" (Project ID: EAEV 143)

#### \$100 Cash Award - Hubert Yang, Mililani High School

"Freshwater Acidification and its Effects on Land-Based Flora" (Project ID: EAEV 144)

#### \$100 Cash Award - Claire Masquida, Kealakehe High School

"Inhibiting Cyanobacteria Growth in Aquaculture Systems through Sustainability" (Project ID: EAEV 148)

#### \$100 Cash Award - Daisy Reyes & Aiza Krizelle Mabuhay, Waipahu High School

"Investigating the Efficiency of a Net-Like Delivery Method with Different Concentrations of Effective Microorganisms in the Restoration of Aquatic Ecosystems" (Project ID: ENEV 170)

#### \$100 Cash Award - Kiora Rosario, Kailua High School

"Sink or Swim: Which Method of Coir Treatment in a Water Filtration System for the REmoval of Microplastics?" (Project ID: ENEV 171)

#### \$100 Cash Award - Sean Roy, Iolani School

"Determining the Effects of Microplastics on Vibrio vulnificus populations in the Ala Wai Canal" (Project ID: MCRO 186)

# **Hawaii Astronomical Society**

#### JR Division:

#### Certificate & Subscription to Astronomy Magazine - Ryder Tokuoka, Iao Intermediate School

"Comparison of Exoplanet Transits" (Project ID: PHYS 497)

#### **SR Division**

# \$75 Cash Award, Certificate & Subscription to Astronomy Magazine - Caleb Vogt & Christian Lee, Christian Liberty Academy

"Estimating Dark Matter Content in Galaxy J010419.02+143012.3" (Project ID: PHYS 197V)

# **Honua Scholars**

#### Book & Presentation Invitation - Alden Mazo, Hawai'i Preparatory Academy

"Habitat Use Assessment of Green Sea Turtles (Chelonia mydas) in Puakō, Hawai'i" (Project ID: ANIM 101)

#### **Book & Presentation Invitation - Lauryn Hashimoto, Kauai High School**

"Lure Comparison for Capturing Male Culex Mosquitoes" (Project ID: ANIM 102)

#### Book & Presentation Invitation - Claire Sorge & Ralph Uy, Castle High School

"Using Artificial Intelligence to Facilitate and Enhance Personal Safety" (Project ID: SOFT 214)

#### Presentation Invitation - Sparrow Davis, Sunset Beach Elementary School

"Oil Be Gone" (Project ID: MATS 481)

# Illuminating Engineering Society, Hawaii

#### **JR Division:**

#### \$50 Cash Award - Breeana Ladia, Sunset Beach Elementary School

"Tree Hugging" (Project ID: EAEV 455)

#### \$50 Cash Award - Myla Camilon, Hanalani Schools

"Up on the Roof Top" (Project ID: EGSD 463)

#### \$50 Cash Award - Ryan Casem, Hanalani Schools

"Photo-Sun-Thesis" (Project ID: PLNT 522)

#### **SR Division**

#### \$50 Cash Award - Eli Wolfe, University Lab School

"Capturing Carbon Dioxide Gas with a Calcium Hydroxide Solution and Magnesium Hydroxide Solution and Magnesium Hydroxide Solution" (Project ID: CHEM 127)

#### \$50 Cash Award - Paul Varricatt, Waiākea High School

"Modification of Induction Motor Designs for Higher Efficiency and Starting Torque" (Project ID: ETSD 163)

#### \$50 Cash Award - Harold Jay Cacal, Waipahu High School

"Incorporation of Green Roofs in Residential Buildings: Exploring Sustainability and Ecological Benefits on Oahu" (Project ID: ENEV 169)

# Institute of Electric and Electronic Engineers (IEEE-Hawaii Section)

#### JR Division:

#### \$100 Cash Award - Lia Baker & Sophia Hu, Washington Middle School

"Can this Drone Solve World Pandemics?" (Project ID: EBED 457)

#### \$100 Cash Award - Mayo Nakajima, Hilo Intermediate School

"Which Material Will Create The Most Amount of Static Electricity" (Project ID: EGSD 465)

#### \$100 Cash Award - Jace Bartimus, Pearl Harbor Christian Academy

"Cars of the Future" (Project ID: ETSD 467)

#### \$100 Cash Award - Sadie Leong & Sherry Taguchi, Kaimuki Middle School

"The Medicine Manager" (Project ID: SOFT 526)

#### **SR Division**

#### \$200 Cash Award - Aysa Jones, Kanoaomauloakai Da Silva, & Sebastian Rojas, Kailua High School

"The Use of Electrohydrodynamic Thrust in Marine Propulsion Systems" (Project ID: EGSD 157)

#### \$200 Cash Award - Michael Quinn, Castle High School

"Into the Deep-Designing, Building, Testing, and Refining an ROV for the Mesophotic Zone" (Project ID: ETSD 160)

#### \$200 Cash Award - Paul Varricatt, Waiākea High School

"Modification of Induction Motor Designs for Higher Efficiency and Starting Torque" (Project ID: ETSD 163)

## **Nalu Studies**

#### JR Division:

#### Framed Artwork - Ashley Bishop, Kamehameha Schools Kapālama

"Kilo Mahina" (Project ID: EAEV 448)

#### **SR Division:**

#### Framed Artwork - Trenton Tanigawa, Colten Dela Cruz, & Kaden Itamura, Kauai High School

"A Survey of Fish Populations in Alakoko Fishpond Using EDNA" (Project ID: MCRO 184)

#### Framed Artwork - Jeanine Longboy, Olivia Chamlee, & Shyan Hughes, Kauai High School

"Identifying Microbial Organisms in the Alekoko Fishpond using eDNA" (Project ID: MCRO 187)

#### **Honorable Mention:**

#### Framed Artwork - Sage Andrews, Kailua High School

"The Effect of Anthropocentric Noise on Coral Bleaching" (Project ID: ANIM 103)

#### Framed Artwork - Kana Palmer, Kailua High School

"Do Endemic Benthos Support the Ethnic Environment in a Traditional Hawaiian Fishpond" (Project ID: CBIO 134)

# **National Oceanic and Atmospheric Administration (NOAA)**

#### \$2,000 Scholarship Award & NOAA Tour - Madison Murata, Kamehameha Schools, Kapālama

"Studies on Gracilaria salicornia: Zinc Oxide (ZnO) Sunscreen Exposure and Use as Agricultural Fertilizer" (Project ID: EAEV-151)

#### \$1,000 Scholarship Award - Trenton Lau / Maddux Springer, 'Iolani School

"Distribution of Wastewater Indicating δ15N in Gracilaria salicornia and Codium edule in Kāne'ohe Bay and its Effect on Fibropapillomatosis Rates in Chelonia" (Project ID: ANIM-100)

#### \$1,000 Scholarship Award - Aiden Ankrum, Kealakehe High School

"Classifying Coral Species Using Machine Learning Algorithms" (Project ID: ROBO-212)

#### \$1,00 Scholarship Award - Ethan Abraham, Kamehameha Schools Kapālama

"Global Fire Prevention: Developing an Effective Environmentally-Safe Fire-Extinguishing Agent" (Project ID: EAEV-146)

#### \$1,000 Scholarship Award Award - Trenton Tanigawa / Colten Dela Cruz / Kaden Itamura, Kauai High School

"A Survey of Fish Populations in Alakoko Fishpond Using EDNA" (Project ID: MCRO-184)

#### \$400 Honorable Mention - Kian Sanchez, University Laboratory School

"Effectiveness of the Hawaiian Feather Duster Worm as a Potential Bioremediator" (Project ID: EAEV-142)

#### \$400 Honorable Mention - Alden Mazo, Hawaii Preparatory Academy

"Habitat Use Assessment of Green Sea Turtles (Chelonia mydas) in Puakō, Hawai'i" (Project ID: ANIM-101)

#### \$400 Honorable Mention - Aysa Jones / Kanoaomauloakai Da Silva / Sebastian Rojas, Kailua High School

"The Use of Electrohydrodynamic Thrust in Marine Propulsion Systems" (Project ID: EGSD-157)

#### \$100 Junior Division Winner Award & NOAA Tour - Nicolas Nishimura, Waipahu Intermediate School

"Making Plastic Biodegradation a Viable Option Through Larvae Form Tenebrio Molitor" (Project ID: EAEV-450)

#### \$100 Junior Division Winner Award - Austyn Bugado, Hilo Intermediate School

"pH and Conductivity in Catchment and County Water" (Project ID: EAEV-451)

#### \$100 Junior Division Winner Award - John Phillips / Cade Nakata, Kaimuki Middle School

"Efficient Removal of CO2 from H2O: Agitation versus Chemical Reactions" (Project ID: EAEV-445)

#### \$100 Junior Division Winner Award - Brayden Cowan, Kailua Intermediate School

"An Environmentally Friendly Storm Defense System" (Project ID: EAEV-442)

#### \$100 Junior Division Winner Award - Lilikoi De Martini, Kahuku High & Intermediate School

"Dissolving Sea Shells" (Project ID: EAEV-444)

# **Purple Mai'a**

#### \$100 Cash Award - Kana Palmer, Kailua High School

"Do Endemic Benthos Support the Ethnic Environment in a Traditional Hawaiian Fishpond" (Project ID: CBIO 134)

#### \$100 Cash Award - Hope Rosenbush, Kamehameha Schools Kapālama

"The Effects of Lower pH Levels on Marine Microbes in Hawaiian Fishponds" (Project ID: EAEV 153)

#### \$100 Cash Award - Kenneth Yi, Mililani High School

"Decontamination of Heavy Metals Through Phytoremediation by Native Hawaiian Plants" (Project ID: ENEV 168)

#### \$100 Cash Award - Bryson Kau, Kamehameha Schools Kapālama

"Antibacterial Studies on Naupaka Kahakai (Scaevola taccada)" (Project ID: PLNT 202)

#### \$100 Cash Award - Christian Roy, Kamehameha Schools Kapālama

"Cytotoxicity of Māmaki on LNCaP Cells" (Project ID: PLNT 203)

#### \$500 Cash Award - Trenton Tanigawa, Colten Dela Cruz, & Kaden Itamura, Kauai High School

"A Survey of Fish Populations in Alakoko Fishpond Using EDNA" (Project ID: MCRO 184)

#### \$500 Cash Award - Jeanine Longboy, Olivia Chamlee, & Shyan Hughes, Kauai High School

"Identifying Microbial Organisms in the Alekoko Fishpond using eDNA" (Project ID: MCRO 187)

#### \$500 Cash Award - Jasmine Alip, Kealakehe High School

"Using Native Hawaiian Species of Algae as a Biofilter to Improve Water Quality in West Hawaii" (Project ID: PLNT 211)

#### \$1,000 Cash Award - Aiden Ankrum, Kealakehe High School

"Classifying Coral Species Using Machine Learning Algorithms" (Project ID: ROBO 212)

# **Society of American Military Engineers (SAME)**

#### **JR Division:**

#### \$50 Cash Award - James Logan Pereira, St. Theresa School

"Is Kauai's Schools Drinking Water Dirty" (Project ID: EAEV 447)

#### \$50 Cash Award - David Summers & Serena Uchima-Pyun, Kaimuki Middle School

"Portable Car Charger" (Project ID: EGSD 461)

#### \$50 Cash Award - Maiara Dutra Elliott & Rylee Newbold, 'Āhuimanu Elementary School

"Fecal Coliforms and How Residential Population Affects Them" (Project ID: MCRO 488)

#### \$50 Cash Award - Cole Aragaki, Waiākea Intermediate School

"Lunar Eclipse Photometry to Determine Transparency of Earth's Atmosphere on November 8, 2022" (Project ID: PHYS 502)

#### **SR Division**

#### \$150 Cash Award - Brie-Ann Fukutomi & Penelope Tupou, Baldwin High School

"Erosion" (Project ID: EAEV 143)

#### \$150 Cash Award - Adeline Bechard, Kauai High School

"Solar Power Water Gravity Battery" (Project ID: ENEV 173)

# The Queen's Health Systems

#### \$500 Cash Award - Mackenna Tamanaha, 'Iolani School

"Using the Practice of Art to Help Reduce Stress and Anxiety in College Preparatory Students" (Project ID: BEHA - 116)

#### \$500 Cash Award - Ming-Hao Lee, 'Iolani School

"Possible Use of MicroRNA-488 as a Biomarker for Bad Prognosis in Type 2 Diabetes" (Project ID: CELL - 126)

#### \$500 Cash Award - Amara Martin, Kamehameha Schools, Kapālama

"Identifying and Mitigating Renal Toxicity of Lithium on Bipolar Disorder using HEK293 Cells" (Project ID: BMED -123)

#### \$500 Cash Award - Alanna Sun, Waiākea High School

"The Chemical Profiling and Antibacterial Evaluation of Extracts from Garcinia xanthochymus" (Project ID: CHEM - 133)

#### \$500 Cash Award - Cindy Mo / Freddie Liang, Roosevelt High School

"Expressing the BDNF Gene Expression with Focus on Alzhemier's and Increasing Neuroplasticity" (Project ID: CBIO - 136)

#### \$250 Cash Award - Mia Bonner, St. Andrew's School

"How did the Pandemic Affect People's Comfort Levels?" (Project ID: BEHA - 406)

#### \$250 Cash Award - Maelo Ingley, La'ie Elementary

"Do Name-Brand vs. Generic-Brand Cereals Differ in How Much Iron the Actually Contain?" (Project ID: BMED - 418)

#### \$250 Cash Award - Sadie Leong / Sherry Taguchi, Kaimuki Middle School

"The Medicine Manager" (Project ID: SOFT - 529)

#### \$250 Cash Award - Maiara Dutra Elliot / Rylee Newbold, Ahuimanu Middle School

"Fecal Coliforms and How Residential Populations Affect Them" (Project ID: MCRO - 488)

#### \$250 Cash Award - Lillian Tao, Waiākea Intermediate School

"Study of the Mechanisms of Noni, a Traditional Hawaii Herb - A Safer Alternative to Treating Cardiovascular Diseases" (Project ID: TMED - 527)

# University of Hawaii at Mānoa, College of Engineering

#### JR Division:

#### \$100 Cash Award - Kamakoa Kaluhiwa, Robert Silva, & Jakob Daly, Kamehameha Schools Kapālama

"Red Hill: Problems and Solutions?" (Project ID: EAEV 452)

#### \$100 Cash Award - Lia Baker & Sophia Hu, Washington Middle School

"Can this Drone Solve World Pandemics?" (Project ID: EBED 457)

#### \$100 Cash Award - Sadie Leong & Sherry Taguchi, Kaimuki Middle School

"The Medicine Manager" (Project ID: SOFT 526)

#### **SR Division**

#### \$300 Cash Award - Brie-Ann Fukutomi & Penelope Tupou, Baldwin High School

"Erosion" (Project ID: EAEV 143)

#### \$300 Cash Award - Cassidy Ibanez, Mililani High School

"Biomass Powered Desalination Year III: Combustion Tuning by Closed Loop Control System" (Project ID: ETSD 159)

#### \$300 Cash Award - Claire Sorge & Ralph Uy, Castle High School

"Using Artificial Intelligence to Facilitate and Enhance Personal Safety" (Project ID: SOFT 214)

# **University of Hawaii Foundation**

#### Four-Year Full Tuition Scholarship at the University of Hawaii - Jaxyn Cable-Treadwell, Kauai High School

"Creating Perfusable Tissue Scaffolds from Decellularized Plant Leaves" (Project ID: BCHM-117)