

2024 CSEF Sponsored Award Winners 2nd Revision

The 2024 California Science and Engineering Fair (CSEF) provides two types of awards. Category Awards are given in each of the Fair's Junior Division and Senior Division Categories, through judging by several dozen panels of experts recruited by CSEF. Concurrent with these Category Awards, Sponsored Awards are presented by outside Sponsor organizations ranging across universities, nonprofits, and commercial groups interested in supporting scientific and engineering accomplishments among California students.

These Sponsors provide monetary awards and their own expert judges who study projects and interview students. Sponsors determine their award criteria and recipients, subject only to the overriding requirement that award selection must be based on bona fide scientific merit.

For the 2024 California Science and Engineering Fair, 15 Sponsors presented 34 Sponsored Awards valued at \$20,525. The Fair thanks our Sponsors for their generosity and commitment.

For information about Sponsored Awards or becoming a Sponsor, contact Chris Gould at csef@usc.edu.

A&WMA Environmental Leadership Awards – For exceptional projects that enhance the knowledge and understanding of environmental issues. Sponsored by the Air and Waste Management Association, West Coast Section (https://wcsawma.org). A&WMA's core purpose is improving environmental knowledge and decisions by providing a neutral information-exchange forum. Its mission is assisting in professional development and critical environmental decision-making to benefit society.

\$500 Junior Division Environmental Engineering Award: J-13-36, the team of Adhiban Arulselvan and Vishwanathan Vinayagam

\$500 Senior Division Environmental Science Award: S-11-16, Remi Morgan

ADLM Diagnostics and Laboratory Medicine Awards – For innovative projects that impact diagnostic testing in healthcare. Sponsored by the Association for Diagnostics and Laboratory Medicine, Southern California Local Section (https://www.myadlm.org/community/local-sections/southern-california). ADLM is a global scientific and medical professional organization dedicated to clinical laboratory science and its application to healthcare.

\$200 Junior Division Biochemistry/Molecular Biology Award: J-05-05, Delainey Guenther

\$200 Junior Division Chemistry Award: J-06-11, Alyssa Mastroianni

\$200 Junior Division Toxicology Award: J-10-29, Sarina Haque

\$200 Senior Division Biochemistry/Molecular Biology Award: S-05-15, Snow Cameron

\$200 Senior Division Chemistry Award: S-06-10, Serina Cao

\$200 Senior Division Toxicology Award: S-23-01, Annika Chatterjee

Broadcom Coding with Commitment Award – For the project that best demonstrates a combination of STEM knowledge, computation/coding, and passion for helping the community, including a Raspberry Pi Foundation Official RP400 Pico Kit. Sponsored by the Broadcom Foundation (https://broadcomfoundation.org). The foundation is focused on coding and computational thinking to expand the digitally literate workforce. Their goal is expanding diversity, equity, and inclusivity in science fairs and inspire others to try their hand at project-based science, engineering, and coding.

\$250 Coding with Commitment Award: J-14-09, the team of Anabia Ehsan and Omar Abdulaziz



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Cadence Excellence Awards – For the projects that incorporate the most innovative software. Sponsored by Cadence (www.cadence.com), a pivotal leader in electronic systems design, building upon more than 30 years of computational software expertise. The company applies its underlying Intelligent System Design strategy to deliver software, hardware, and IP that turn design concepts into reality.

\$500 Junior Division Cadence Excellence Award: J-03-15, the team of Lavernie Chen, Ruhi Kelkar, and Adwita Ram

\$500 Senior Division Cadence Excellence Award: S-19-10, Gauri Todur

CSBPA Best Coastal Science Awards – For achievement in coastal and ocean science. Sponsored by the California Shore and Beach Preservation Association is a state chapter of the American Shore and Beach Preservation Association (https://asbpa.org/california/). CSBPA seeks to foster dialogue and cooperation on shore and beach issues.

\$250 Junior Division Best Coast Science Award: J-10-05, Jackson Rutner **\$500 Senior Division Best Coast Science Award**: S-03-21, Angelina Kim

Director's Most Innovative Alternative Energy Project Award – For the project that incorporates the most innovative alternative energy concept and analysis. Sponsored by Bob Anderson, Director of Sponsored Awards for the California Science and Engineering Fair (http://csef.usc.edu/Sponsorship/).

\$200 Most Innovative Alternative Energy Award: J-02-04, Audrey Kim

Drs. S. & C.C. Kar Award – For the student having excellence in original ideas and scientific thinking, passion for a career in a healthcare field, in-depth knowledge, and superior presentation of the science project. Sponsored by the Sheila Kar Health Foundation (https://skhf.net). The foundation's mission is improving community health by spreading and promoting information about health practices and disease prevention.

\$1,000 Drs. S. & C.C. Kar Award: S-23-04, the team of Aanya Amin, Yuki Matsumura, and Cassandra Mapano

Kindeva Innovative Awards – For outstanding projects in science and engineering that demonstrate excellence with innovative ideas making a positive contribution. Sponsored by Kindeva Drug Delivery (https://www.kindevadd.com). Kindeva tackles complex drug delivery challenges – from cutting-edge to established therapies – with the infrastructure and experience to handle an extensive range of drug classes, therapies, and target delivery areas.

\$200 Kindeva Innovative Award: S-12-03, Avni Agarwal **\$200 Kindeva Innovative Award**: S-03-28, Shripriya Kalbhavi

Lemelson Early Inventor Prize – For the best young inventor creating a promising solution to real-world problems. Sponsored by The Lemelson Foundation (https://www.lemelson.org) in partnership with the Society for Science. The foundation focuses on nurturing invention-based businesses that are developing unique, physical products to address global and community challenges and are destined for high growth.

\$100 Early Inventor Award: J-10-23, Tina Jin

Math Teacher's Achievement Awards – For achievement in mathematics and computer science studies as a tribute and to show appreciation for all mathematics teaching professionals. Sponsored anonymously by a generous donor who was inspired by teachers.

\$1,000 Junior Division Mathematical Sciences Award: J-16-17, Sophie Tong

\$1,000 Senior Division Mathematical Sciences Award: S-16-04, Riya Mehrotra

\$1,000 Senior Division Computational Systems & Analysis Award: S-08-34, Carter Capetz



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Regeneron Biomedical Sciences Award – For the project best demonstrating an impressive command of biomedical sciences and Regeneron's five core values: lead with science; take on big ideas; make it happen; be great together; and do what's right. Sponsored by Regeneron (https://www.regeneron.com). Regeneron is the only biopharma company founded and led by physician-scientists for its entire 35-year history. From its first days, science was and remains its central guiding principle.

\$375 Biomedical Sciences Award: J-05-11, Julianne Wu

Saban Family Foundation Scholar Prizes – For the top projects by a female scholar providing a positive impact to her community. Sponsored by the Saban Family Foundation, a nonprofit independent foundation established in 1999, primarily providing grants to support health research and social welfare.

\$1,500 Junior Division First Place Award: J-10-23, Tina Jin

\$1,250 Junior Division Second Place Award: J-12-28, Ishani Bhola

\$2,000 Senior Division First Place Award: S-05-20, Ariana Motaghiannezam

\$1,500 Senior Division Second Place Award: S-03-10, Zirui (Julie) Zhu

SoCalBio Southern California National BioGENEius Awards – For outstanding original independent research in the biosciences. The award opens student participation in the International BioGENEius Competition among 20 very select US and international student researchers at the Biotechnology Innovation Organization meeting. Sponsored by the Southern California Biomedical Council (https://socalbio.org), a nonprofit, member-supported trade association that serves the biotech, med tech, IVD, and digital health communities across six Southern California counties.

\$1,000 Southern California BioGENEius Award, First Place: S-05-11, Juliann Wu \$300 Southern California BioGENEius Award, Second Place: S-19-02, Katelyn Gan \$200 Southern California BioGENEius Award, Third Place: S-06-08, Zhehao Zhang

South Coast AQMD Air Quality Awards – For projects that explain measurement or reduction of air pollution and health effects thereof. Sponsored by the South Coast Air Quality Management District (http://www.aqmd.gov). The South Coast AQMD is the regulatory agency responsible for improving air quality for large areas Los Angeles, Orange, Riverside and San Bernardino counties. The region is home to more than 17 million people – 44 percent of the population of the entire state of California.

\$1,500 Junior Division Air Quality Award: J-10-10, Ione McLain

\$1,500 Senior Division Air Quality Award: S-13-07, Benjamin Schwartz

UCLA Brain Research Institute Awards – For research achievement, innovation, and interpretation in any area related to the brain in health and sickness. Sponsored by the Brain Research Institute, University of California, Los Angeles (https://bri.ucla.edu). BRI is a catalyst for education, outreach, and research collaborations among scientists, engineers and clinicians who seek to understand the healthy and diseased brain. Formed in 1959, the BRI is one of the first neuroscience research collectives established in the United States.

\$250 Senior Division First Place Award: S-14-04, David Rodrigo Backer Peral

\$150 Senior Division Second Place Award: S-04-18, Andrew Liang

\$100 Senior Division Third Place Award: S-14-10, Cloris Shi