

# California Science & Engineering Fair, 2019

## Special Awards

**Cheryl Saban Self-Worth Foundation Scholar Prizes** – For the top projects by a female scholar providing a positive impact to her community. Two Junior Division place awards of \$1,500 and \$1,250 and two Senior Division place awards of \$2,000 and \$1,500. Presented by the Cheryl Saban Self-Worth Foundation for Women and Girls.

**Junior Division, First Place:** J1019, Julia MacAvoy, Hillsborough, San Mateo County

**Junior Division, Second Place:** J1318, Allison S. Quan, Walnut Creek, Contra Costa County

**Senior Division, First Place:** S1111, Eshani Jha, San Jose, Santa Clara County

**Senior Division, Second Place:** S2201, Nadia Ansari, Newport Coast, Orange County

**Herbalife Nutrition Award** – For excellence in Microbiology. One \$1,500 Senior Division award. Presented by Herbalife Nutrition.

**Award:** S1518, Abbie K. Maemoto, Palos Verdes Estates, Los Angeles County

**LA BioMed Awards for Excellence in Biochemistry and Molecular Biology** – For excellence in the fields of Biochemistry and Molecular Biology. Two \$1,250 Senior Division awards. Presented by the Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center.

**Award:** S0507, Jessie L. Gan, San Diego, San Diego County

**Award:** S0525, Katherine A. Wedekind, Rolling Hills Estates, Los Angeles County

**Math Teacher's Awards for Achievement** – For achievement in mathematics and computer science studies as a tribute and to show appreciation for all mathematics teaching professionals. Two \$1,250 Senior Division awards. Presented anonymously by a generous donor.

**Mathematical Sciences:** S1408, Andrei Mendelshtam, Irvine, Orange County

**Computational Systems & Analysis:** S0807, Cynthia Chen, San Jose, Santa Clara County

**Past Chairpersons' Humanitarian Awards** – For the projects with the highest potential for positive humanitarian impact. Two \$1,250 Junior Division awards. Presented by past CSEF Co-Chairs, Liz Snyder, Keller Williams Realty, and Hal Snyder.

**Award:** J0420, Ainsley E. Savant, Encinitas, San Diego County

**Award:** J0422, Eden E. Stambaugh, Solana Beach, San Diego County

**Southern California National BioGENEius Award** – For outstanding original and independent research in the biosciences. One \$1,250 Senior Division award and the opportunity to participate in the International BioGENEius Competition at the June Biotechnology Innovation Organization meeting. Presented by the Southern California Biomedical Council (SoCalBio).

**Award:** S2201, Nadia Ansari, Newport Coast, Orange County

**SoCalGas Energy Awards** – For outstanding scientific research and/or engineering in energy production. One \$1,250 Junior Division Alternative Energy award and one \$1,500 Senior Division Environmental Engineering award. Presented by the Southern California Gas Company (SoCalGas).

**Junior Division, Alternative Energy:** J0202, the team of Breann M. Amarante and Jacqueline D. Rocha, Fowler, Fresno County

**Senior Division, Environmental Engineering:** S1109, the team of Jonghyun Hong and Jad Soucar, La Crescenta, Los Angeles County

## 2019 CSEF Special and Recognition Awards

**South Coast AQMD Air Quality Awards** – For projects that explain measurement or reduction of air pollution and health effects thereof. Two \$1,500 awards, one in each division. Presented by the South Coast Air Quality Management District.

**Junior Division:** J0904, Cameron J. Conner, Beaumont, Riverside County

**Senior Division:** S0915, Yoonji A. Kwon, Fresno, Fresno County

**USC Center for Economic and Social Research Special Award** – For the best project in the social sciences. One \$1,250 award. Presented by the USC Center for Economic and Social Research.

**Award:** S0408, the team of Brianna M. Camero and Bhjan Kaur, Bakersfield, Kern County

**2019 CSEF Special and Recognition Awards**  
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**Recognition Awards**

**A&WMA Environmental Leadership Awards** – For exceptional projects that enhance the knowledge and understanding of environmental issues. One \$250 Junior Division award and two \$250 Senior Division awards. Presented by the Air and Waste Management Association, West Coast Section.

**Junior Division, Environmental Engineering:** J1127, Landon T. Pretre, Woodside, San Mateo County

**Senior Division, Environmental Engineering:** S1108, Dimple Amita Garuadapuri, Eastvale, Riverside County

**Senior Division, Environmental Science:** S0906, James Y. Chen, Irvine, Orange County

**AACC Clinical Chemistry Awards** – For interesting and original projects that impact the future of clinical chemistry. Three \$200 awards in each division. Presented by the Southern California Section of the American Association for Clinical Chemistry (AACC).

**Junior Division, Biochemistry/Molecular Biology:** J0612, Ingrid J. Feague, Santa Cruz, Santa Cruz County

**Junior Division, Chemistry:** J0501, Haya M. Belbese, San Diego, San Diego County

**Junior Division, Toxicology:** J2115, Noah J. Patterson, Fresno, Fresno County

**Senior Division, Biochemistry/Molecular Biology:** S0605, Anushree Chaudhuri, San Diego, San Diego County

**Senior Division, Chemistry:** S0510, Alexander Guh-Siesel, Los Altos, Santa Clara County

**Senior Division, Toxicology:** S2106, Adriana Golden, Ross, Marin County

**AIPG Geoscience Awards** – For excellence in geological science projects. Three place awards of \$250, \$150, and \$100. Presented by the American Institute of Professional Geologists, California Section.

**First Place:** S0917, Ellery B. McQuilkin, Lee Vining, Mono County

**Second Place:** S0904, the team of Justin H. Cai and Iris X. Xia, San Jose and Cupertino, Santa Clara County

**Third Place:** J0921, Margherita F. Scussat, Goleta, Santa Barbara County

**Biophysics Award** – For the best biophysics-related project. One \$100 Senior Division award. Presented by the Biophysical Society.

**Award:** S0501, Sabreen Alam, Irvine, Orange County

**Biosero Innovation Award** – For the most innovative project in the fields of robotics, biotech, and automation One \$500 Senior Division award. Presented by the Biosero, Inc.

**Award:** S0829, Anish Singhani, Danville, Contra Costa County

**Bone Clones Research Award** – For the Junior Division project that best demonstrates the use of the scientific method in original research. One \$200 Junior Division award. Presented by Bone Clones Osteological Reproductions.

**Award:** J1221, John C. Page, Carmel, Monterey County

## 2019 CSEF Special and Recognition Awards

**CAPS Science Achievement Award** – For the project that best illustrates good scientific methodology in physics, chemistry, biological sciences, biochemistry, environmental sciences, plant sciences, or energy resources. One \$100 award for a student in grades 7-11. Presented by the California Association of Professional Scientists (CAPS).

**Award:** J0619, Alexis T. MacAvoy, Hillsborough, San Mateo County

**Center for Plant Cell Biology Awards** – For scientific achievement in the fields of cell and molecular biology, genomics, bioinformatics, or technology development that will impact our understanding of plant cell biology. Two Senior Division place awards of \$500 and \$100. Both awards include an invitation to the Annual CEPCEB Award Symposium at the University of California, Riverside. Presented by the Center for Plant Cell Biology (CEPCEB), UC, Riverside.

**First Place:** S1804, David L. He, San Diego, San Diego County

**Second Place:** S1506, Daniel Feng, Irvine, Orange County

**CSBPA Best Coastal Science Awards** – For achievement in coastal and ocean science. One \$250 Junior Division award and one \$500 Senior Division award. Both awards include student membership in the American Shore and Beach Preservation Association (ASBPA). Presented by the California Shore and Beach Preservation Association (CSBPA).

**Junior Division:** J2120, Nora C. Thompson, El Cerrito, Contra Costa County

**Senior Division:** S1123, Ayushi Srivastava, Union City, San Francisco County

**Director's Award for Most Innovative Alternative Energy Project** – For the project that incorporates the most innovative alternative energy concept and usage. One \$200 Junior Division award. Presented by Bob Anderson, CSEF Director of External Awards.

**Award:** J0205, the team of Catalina I. Interiano and Johanna F. Perez, Newark, Alameda County

**Doctors Sushila and Chandi Charan Kar Award** – For excellence in original ideas and scientific thinking, a passion for a career in the healthcare field, in-depth knowledge, and presentation of the science project. Two \$500 Senior Division awards. Presented by the Sheila Kar Health Foundation.

**Award:** S0513, Shreya K. Kamra, Pebble Beach, Monterey County

**Award:** S1203, Adolat Beshimova, Los Angeles, Los Angeles County

**Lemelson Early Inventor Prize** – For the best young inventor creating a promising solution to real-world problems. One \$100 Junior Division award. Presented by The Lemelson Foundation in partnership with the Society for Science and the Public.

**Award:** J1117, Katherine H. Humphrey, Los Angeles, Los Angeles County

**Plug In America EV Excellence Awards** – For the best projects demonstrating the benefits of plug-in vehicles or advancing the science of vehicle electrification or electric mobility. One \$100 Junior Division award and two \$100 Senior Division awards. Presented by Plug In America.

**Junior Division:** J1015, Braedyn D. Hutchison, Irvine, Orange County

**Senior Division:** S0809, Andrew K. Chu, San Mateo, San Mateo County

**Senior Division:** S1013, Arya P. Joshi, Cypress, Orange County

**SoCalBio R&D Scholar Awards** – For outstanding original and independent research in the biosciences. Presented by the Southern California Biomedical Council (SoCalBio).

**Honorable Mention:** S1523, Sasha L. Ronaghi, Newport Coast, Orange County

**Honorable Mention:** S1211, Elisha D. Johnson, Rolling Hills Estates, Los Angeles County

**Honorable Mention:** S0523, Asna Tabassum, Chino Hills, San Bernardino County

**Honorable Mention:** S0501, Sabreen Alam, Irvine, Orange County

## 2019 CSEF Special and Recognition Awards

**South Coast AQMD Air Quality Awards** – For projects that explain measurement or reduction of air pollution and health effects thereof. Presented by the South Coast Air Quality Management District.

**Honorable Mention:** J1127, Landon T. Pretre, Woodside, San Mateo County

**Honorable Mention:** S0909, Vivian S. Gerstein, Arcata, Humboldt County

**Honorable Mention:** S0920, Mia A. Placencia, Santa Maria, Santa Barbara County

**SPIE Optics and Photonics Recognition Awards** – For the projects best demonstrating scientific research and engineering applications in optics, photonics, and related fields. Three Junior Division place awards of \$350, \$250, and \$200 and three Senior Division place awards of \$800, \$500, and \$400, and. Presented by SPIE, the International Society for Optics and Photonics.

**Junior Division, First Place:** J1725, Dana A. Soibel, South Pasadena, Los Angeles County

**Junior Division, Second Place:** J1719, Arsh Muhib, Mountain House, San Joaquin County

**Junior Division, Third Place:** J1717, Roxy Luster, Auburn, Placer County

**Senior Division, First Place:** S1705, Isaac A. Broudy, Chula Vista, San Diego County

**Senior Division, Second Place:** S1103, the team of Francisco C. Catanzaro and Isabella J. Catanzaro, San Diego, San Diego County

**Senior Division, Third Place:** S0315, Andrew T. Land, Belmont, San Mateo County

**STEM World Visionary Award** – For demonstrating a distinctive and/or exceptional vision in science or technology for the future of mankind. One \$250 Junior Division award. Presented by STEM World.

**Award:** J1119, Shant Koutnouyan, Glendale, Los Angeles County

**UCLA Brain Research Institute Awards** – For research achievement, innovation, and interpretation in any area related to the brain in health and sickness. Three place awards in each division of \$250, \$150, and \$100. Presented by the Brain Research Institute (BRI), University of California, Los Angeles.

**Junior Division, First Place:** J0718, Ananya Vinay, Fresno, Fresno County

**Junior Division, Second Place:** J0418, Ayla C. Richland, Los Angeles, Los Angeles County

**Junior Division, Third Place:** J0714, Lydia M. Richards, Aptos, Santa Cruz County

**Senior Division, First Place:** S0425, Rhitishah Yuva Raju, Sacramento, Sacramento County

**Senior Division, Second Place:** S1003, the team of Om Anavekar, Tarun R. Chichili, and Arnab Gupta, Danville, Contra Costa County

**Senior Division, Third Place:** S0401, Luke T. Anderson, Concord, Contra Costa County

**USC Center for Economic and Social Research Recognition Award** – For the best project in the social sciences. One \$250 award. Presented by the USC Center for Economic and Social Research.

**Award:** J0415, Rinoa J. Oliver, Santa Cruz, Santa Cruz County

## 2019 CSEF Special and Recognition Awards

### ISEF Affiliate Awards

#### **American Meteorological Society Awards**

S0923, Joyce Hee Sung, Oxnard, Ventura County

#### **American Meteorological Society Awards**

S0915, Yoonji A. Kwon, Fresno, Fresno County

#### **American Meteorological Society Awards**

S0918, Tai L. Michaels, North Hollywood, Los Angeles County

#### **American Psychological Association Award**

S0412, Audrey Y. Ha, Atherton, San Mateo County

#### **Association for Women Geoscientists Award**

J1108, Melia P. Crimaldi, Solana Beach, San Diego County

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

S0904, the team of Justin H. Cai and Iris X. Xia, San Jose and Cupertino, Santa Clara County

#### **NOAA's 2019 Taking the Pulse of the Planet Award**

S1020, Isabel Sperandio, Palo Alto, Santa Clara County

#### **The Yale Science & Engineering Association Award**

S0323, Tyler E. Robertson, Fresno, Fresno County