

RESEARCH | SAN DIEGO STATE UNIVERSITY



Student Research Symposium a Success

Nearly 500 students (including 250 undergraduates and 246 graduate students) participated in the 2019 SRS, highlighting research in science, engineering, public health, education, humanities and the arts. SDSU awarded prizes to 68 presenters, including \$16,150 in cash prizes. Ten students will advance to a system-wide competition. Thank you to the 180 judges who participated! [The 2019 SRS winners are posted here.](#)



Discovery May Lower Cost of Making Drugs

Chemistry professor Yong Yan and his team of student researchers have discovered that a hybrid material, perovskite, can be used as a catalyst to spur the chemical

reactions necessary to make pharmaceutical drugs. The material, previously used primarily for solar power cells, is exponentially cheaper and more efficient than other catalysts used in drug synthesis. [Read more.](#)



Understanding Imperial Valley's Water Supply

Professors in Imperial Valley are using satellite imagery to monitor groundwater levels and water quality in the area, and then surveying the community to learn how water changes have affected residents. [Read more.](#)

In the News



SDSU Hosts Kyoto Prize Laureates

The Associated Press reports that SDSU hosted neuroscientist Karl Deisseroth, the 2018 Kyoto Prize Laureate in Advanced Technology. Deisseroth discovered optogenetics, a new discipline in which cellular activity is controlled by light.



Phages: A promising alternative in the age of antibiotic resistance?

Dwayne Roach, SDSU's Conrad Prebys Chair in Virology, talks to *Infectious Disease News* about the use of phages to treat bacterial infections that are not responding to traditional antibiotics.

Featured Video

Nutrition professor Amanda McClain researches how to improve health of the food-insecure. She has found that by participating in food assistance and community service programs, the food insecure can reduce stress.



Research Horizons: Working to Reduce Food Insecurity

Events

The 2019 Albert W. Johnson University Research Lecture will be delivered by biology professor Chris Glembotski. Glembotski's lecture "Don't Gamble with Heart Disease: You've Got to Know When to Fold 'Em" will take place Friday, March 29, at 3 p.m. in Storm Hall West, Room 11, with a reception to follow.

[Learn More](#)

The inauguration of SDSU president Adela de la Torre is set for Thursday, April 11. The day-long community celebration will be held on campus and will include a series of events, including a Student Research Symposium Showcase held at the Parma Payne Goodall Alumni Center.

[Learn More](#)

Recent Grants

Sabia, Joseph J
Center for Health Economics & Policy Studies Health & Public Policy Projects
Troesh Family Foundation
\$245,000
College of Arts & Letters

Tsou, Ming-Hsiang
GIS and Data Visualization Enhancement with the Data Mart Infrastructure in the California
Teachers Study (CTS)
University of California at San Diego
\$78,951
College of Arts & Letters

Sax, Caren
Cal Promise Initiative: California's Proposal for Promoting the Readiness of Minors in
Supplement Security Income
California Department of Rehabilitation
\$602,492
College of Education

Esquinca, Alberto
Asset-based Practices in Engineering Design (APRENDE): Formation of Engineers through a
Funds of Knowledge Approach
University of San Diego
\$19,086
College of Education

McDaniels, Corinne
Tobacco Control Resource Program - Evaluation Services
San Diego County Health and Human Services Agency
\$35,000
College of Health & Human Services

Dodder, Nathan G
Non-Targeted Analysis of Stormwater Runoff Post Wildfires
San Francisco Estuary Institute
\$14,400
College of Health & Human Services

Emmorey, Karen
An Open Science Platform for the Neurobiology of Language Community
University of California at Irvine
\$2,680
College of Health & Human Services

Arredondo, Elva
Fee Implementation Pilot
Washington University in St. Louis
\$1,000
College of Health & Human Services

Hovel, Kevin
Biology A multifaceted approach to enhance the sustainability of the California spiny lobster
fishery
California Sea Grant College Program
\$249,169
College of Sciences

Matt, Georg
Contribution of Thirdhand Smoke to Overall Tobacco Smoke Exposure in Pediatric Patients
Cincinnati Childrens Hospital
\$52,675
College of Sciences

Glembotski, Christopher
Biology ATF6 is Required for ANP Secretion from the Heart
DHHS National Institutes of Health
\$376,250
College of Sciences

Soto, Osvaldo D
Discrete Math Project - Red Oak Community Schools
Red Oak Community School District
\$4,200
College of Sciences

Fuentes-Ferreiro, Suzanna
2019 Migrant Summer Institute
Imperial County Office of Education
\$147,537
Imperial Valley Campus

Crockett, John
Development of Electrogenic Bacterial Consortia to Enhance Power Performance of Benthic

Microbial Fuel Cells
DOD Space and Naval Warfare Systems Command
\$51,441

Graduate and Research Affairs

Crockett, John
Energy and Water Recovery through Microbial Fuel Cells
DOD Space and Naval Warfare Systems Command
\$135,492

Graduate and Research Affairs

Crockett, John
Instruction and Certification in Ag-tech Resources for Unmanned Systems (ICARUS)
US Department of Agriculture
\$29,699

Graduate and Research Affairs

Sussman, Mark / Gude, Natalie A
Resolving Myocardial Regeneration by Tracking Commitment of C-Kit+Cells
DHHS National Heart Lung and Blood Institute
\$376,250

College of Sciences

Gilles, Jerome
Image Processing Algorithms for Imaging through Atmospheric Turbulence
DOD Air Force Office of Scientific Research
\$40,478

College of Sciences

Zink, Thomas A
Pond Turtle Habitat Restoration Plan and Site Preparation
Judith Ann Wheatley
\$19,999

College of Sciences

Weersing, Vanessa Robin / Amir, Nader
Effectiveness Trial of Cognitive Bias Modifications (CBM) for Adolescent Anxiety
Kaiser Foundation Research Institute
\$49,648

College of Sciences

Malcarne, Vanessa
Creating Scientists to Address Cancer Disparities
Regents of the University of California
\$101,403

College of Sciences

Shafter, Allen
The Super-Remnant of the Recurrent Nova M31N 2008-12a - A Signpost to Type Ia
Supernovae?
Space Telescope Science Institute
\$37,601

College of Sciences

Flores Renteria, Lluvia H / Vanderplank, Sula
Species with binational distributions as a means for engaging Hispanic students into forestry and
natural resources
US Department of Agriculture
\$275,000

College of Sciences

Yan, Yong
Center for Hybrid Organic-Inorganic Semiconductors for Energy
DOE National Renewable Energy Laboratory

\$75,000

College of Sciences

Fuentes-Ferreiro, Suzanna

Basic Computer & Interpersonal Skills & Employment Empowerment Training

Imperial County Department of Social Services

\$301,737

Imperial Valley Campus

Hushen, W Timothy

Student Support Services

DOD Space and Naval Warfare Systems Command

\$40,448

Graduate and Research Affairs

Hushen, W Timothy

Student Support Services

DOD Space and Naval Warfare Systems Command

\$69,989

Graduate and Research Affairs

Hushen, W Timothy

Student Support Services

DOD Space and Naval Warfare Systems Command

\$15,438

Graduate and Research Affairs

Hushen, W Timothy

Student Support Services

DOD Space and Naval Warfare Systems Command

\$14,664

Graduate and Research Affairs



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The footer image this week is of Anca Segall, co-founder of SDSU's Viral Information Institute. The institute was [featured](#) in the most recent edition of *360: The Magazine of San Diego State University*.