



CSUSM SUMMER SCHOLARS 2017 ORIENTATION AT VIA SAT

CSUSM Summer Undergraduate Research Newsletter

August 2017

UPCOMING STUDENT PRESENTATIONS

Summer Research was booming at CSUSM!

Summer Undergraduate Research at CSUSM consisted of: 1) students volunteering in laboratories and with professors in a multitude of disciplines, 2) College of Science and Math's "Summer Scholars Program" (above) and 3) CHABSS "APA Psychology Summer Research Program." Although summer research is coming to a close, many of these students will continue their work during the academic year. Empirical work suggests undergraduate research increases student retention, persistence, and success in the classroom while instilling confidence, and encouraging innovation and leadership. Let's support the accomplishments of these amazing students!

*James Oakley
in Dr. Iafe's
chemistry
laboratory*



ACCOMPLISHMENTS OF FORMER SUMMER RESEARCHERS AT CSUSM

Amiel Maldonado, Child and Adolescent Development (mentor Kimberly D'Anna-Hernandez), will be entering a MPH program at UC Berkeley, fully funded.

Jesse Howe, Chemistry (mentor Kambiz Hamadani), is now working Germany in an advanced single molecule spectroscopy lab and published with Dr. Hamadani in *Journal of Biological Chemistry* as second author.

James Oakley (see left inset), Chemistry (mentor Robert Iafe), is entering his second year of research investigating microwave-assisted gold-catalyzed reaction to prepare 1,1-dialkylmethanes. He has gained an advanced set of lab techniques and will apply to chemistry PhD programs in the Fall.

Calling ALL Student Researchers



Fall Poster Showcase

The Fall Student Poster Showcase is hosted at the end of the fall semester to promote student research and creative activity accomplishments. This free research activity is open to all CSUSM students, and provides a valuable opportunity for students to present their work in a non-competitive environment. Dates TBD, but have your abstracts ready for submission in Oct/Nov.

Symposium on Student Research, Creative Activities and Innovation

The Symposium is a competitive oral presentation open to ALL disciplines.
Abstracts due Feb 2018

WHO IS DOING SUMMER RESEARCH at CSUSM?

Faculty from many departments worked with students over summer and will continue to do so in the academic year. Read some of their work!

If your department is not listed, please contact CUGR



<https://www.csusm.edu/gsr/student/cugr.html>

NEUROSCIENCE PROJECT

The D'Anna-Hernandez lab is studying the role of arousal-related peptides on maternal behavior in the postnatal period using immunohistochemistry to identify activity in the brain.

HUMAN DEVELOPMENT PROJECT

The Tokoyama research team investigates how family relationships are associated with psychological well-being during the adulthood and how cultural contexts play roles for the association.

ORGANIC CHEMISTRY PROJECT

The lafe lab is developing new methodology using gold catalysts to prepare organic frameworks found in bioactive compounds

CHILD EMOTION PROJECT

The Bufferd lab is studying the development of anxiety and mood dysregulation in children using daily diaries, parental surveys, behavioral assessments as well as biological markers of acute and chronic stress of children.

Spotlight on Summer Research in the Arts

[Lucy HG Solomon](#) and her students have teamed up with the League of Imaginary Scientists (her art collective) to create an interactive art installation about humanity's role in animal extinction for Balance-Unbalance 2017 in Plymouth, UK. The exhibition is this August. Kodie Gerritsen and Sarai Silva Carvajal (middle) are working on creative data visualization, while John Konno (bottom) is working on sculptural interactive components. The students' work will come together in the collective's meta-narrative about the ecosystem and our role in it. The result is a playful game-like video-enhanced sculpture that people interact with by attempting to save animals (and themselves) from extinction!

For more information visit <https://www.csusm.edu/csm/points-of-pride/scholars/index.html>

[Dr. Judy Baurlein's](#) theatre student Dwaine Collier appeared in Ion Theatre's production of Ballad of Emmet Till. For more read: <http://www.sandiegouniontribune.com/entertainment/theater/>



[Professor Merry Goldberg](#) is working with students in Center ARTES. Raven Sansano is working on the ART = OPPORTUNITY campaign focused on tracking distribution and use of the project's custom art trading cards. Each card is a teaser for research into how students' experience of art in K-12 education impacts students' later success. Vicky Camacho is working on freshman survey (CIRP) data to build a data narrative about how arts education in K-12 impacts CSUSM students' retention and critical thinking skills (quite positively!)

Elani Labo was among the team of assistants for the PADL WEST DANCE FESTIVAL. Held at and with SD City Heights Performance Annex, festival featured technical research with dance legend Sara Shelton Mann, somatic practice [Professor Karen Schaffman](#), and contact improvisation classes with Anya Cloud.

APA PSYCHOLOGY SUMMER RESEARCH PROGRAM



2017 selected
APA
Undergraduate
Research
Program
Participants
(left to right, Kristin
Nelson, Varavit
Chinnapong, Jhair
Torres, Evelyn Sarsar,
Ashley Varela, Jessica
Solis)

The 8 week APA Summer Research Program was successfully renewed for a 2nd year and included 8 students (2 more than last year!). The goal of the program is to increase student's interest in and to gain skills in psychological research. Students gained hands on research experience in 5 active labs at CSUSM, including neuroscience, animal behavior, developmental psychology and health/clinical psychology. Research projects included behavioral and social cognitive risk factors among smokers switching to electronic cigarettes, tail lateralization in elephants and if young children consider authors when judging accuracy of written sources.

CSUSM SUMMER SCHOLARS PROGRAM



Above: Summer Scholars at Via Sat
Summer 2017. Below: Summer Scholars
poster session August 2017



The Summer Scholars Program is a 10-week intensive research program with 21 students at CSUSM sponsored by the San Diego Foundation, Via Sat, & Genentech. The program has over students working in the laboratories of 21 STEM faculty at CSUSM, including Math, Biology, Chemistry and Physics. By connecting students' research experiences to their overall course of study, the Summer Scholars Program is helping to develop the future STEM workforce needed in our region. In August, to mark the end of the program, students presented in a poster session attended by CSUSM faculty and community members alike.

FEATURED UNDERGRADUATES



Alejandro Zafra

Alejandro is a Chemistry major/Physics minor working in Dr. Tsui's physics laboratory. He has been synthesizing a new orthoferrite compound and performing X-ray diffraction measurements to characterize its crystal structure. His dream is to pursue a research career in materials science.



Jenni Narvanto

Jenni works with Dr. Kim in Biology investigating repetitive DNA sequences relevant for genetic diseases. They use budding yeast to investigate CCTG repeat instability and how it affects Myotonic Dystrophy 2. She

enjoys learning more about the molecular mechanisms of repeat expansion behind genetic diseases and getting hands-on experience to improve her lab skills.



Iliana Levesque

Iliana is a biochemistry student and works with Dr. Iafe in organic chemistry methodology research. Iliana is investigating a microwave-assisted gold-catalyzed reaction to prepare amide bonds. She has

gained vast experience with purification techniques and spectroscopic methods. She is currently planning on applying to chemistry PhD programs this Fall.