CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO

OFFICE OF STUDENT RESEARCH

Fall 2018

NEWSLETTER

Issue 02

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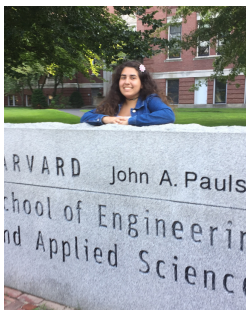
NEWSLETTER



CSUSB

OFFICE OF STUDENT RESEARCH

Academic Research (AR), 111
909-537-3728 | osr@csusb.edu
www.csusb.edu/student-research

ACADEMIC CALENDAR

Workhops

Zotero: Citation Management Made Free and Fun
Date: October 1st , 2018
Time: 10:00 pm-12:30 pm
Location: PL 2005

Getting Involved in Research
Date: October 9th, 2018
Time: 4:00 pm-5:00 pm
Location: CE 108

Evaluating Resources
Date: October 23rd, 2018
Time: 12:00 pm-12:45 pm
Location: PL 5005

Grant Proposal Writing
Date: November 8th, 2018
Time: 4:00 pm-5:00 pm
Location: Eucalyptus Room

Research Ethics and Integrity
Date: November 15th, 2018
Time: 10:00 am-11:00 am
Location: Eucalyptus Room

Preparing for Undergraduate Research
Date: February 12th, 2019
Time: 2:00 pm-3:00 pm
Location: Eucalyptus Room

Steps to Graduate School
Date: March 19th, 2019
3:00 pm- 4:00 pm
Location: Eucalyptus Room

Presenting an Oral and Poster Presentation
Date: April 16th, 2019
Time: 3:00 pm- 4:00 pm
Location: TBA

Events

Taste of Research
(Palm Desert Campus)
Date: November 28th, 2018
Time: 11:00 am -1:00 pm
Location: RG 307

"Meeting of the Minds" Information Session
Date: January 30th, 2019
Time: 1:00 pm-2:00 pm
Location: Eucalyptus Room

CSUSB Student Research Competition
Date: February 1st, 2019
Time: 9:00 am – 2:00 pm
Location: SMSU Fourplex

Research Week
Faculty Mentors Brunch
Date: May 13th
Time: 11:00 am-1:00 pm
Location: PL 4005

"Meeting of the Minds" Student Research Symposium
Date: May 16th
Time: 9:00 am -4:30 pm
Location: SMSU Event Center

Principal Investigators Reception
Date: May 16th
Time: 4:00 pm- 6:00 pm
Location: SMSU Event Center

Recognition of Student Researchers Luncheon
Date: May 17th
Time: 12:00 pm- 2:00 pm
Location: Yasuda Center

Deadlines

Now accepting applications for the following programs:

- Faculty/Student Grants
- Undergraduate Student Grants
- SSI Graduate Student Culminating Project Fund
- Peer Lab/Peer Research Consultant

Deadline: November 2nd

Should additional funding become available spring application dates will be announced.

WELCOME

Dear Campus Community,

Welcome back to what we hope will be another exciting year at the Office of Student Research (OSR)! We hope you all had a productive and restful summer. We have been busy here at the OSR hosting our 5th annual Undergraduate Student Summer Research Program and preparing for the workshops, activities, and programs we will be offering this upcoming year. We hope that this year we will be able to support and even greater number of 'Yotes as you engage in compelling and groundbreaking research and creative activities. We judge the success of the OSR by the success of those we support and know that as our campus grows, so too do your needs. As a result, we hope you will see the OSR is committed to offering a growing array of program and activities to support your goals.

In this issue of the OSR newsletter I am delighted to share with you just a few of the many recent accomplishments of our students.

Our newsletter features two exceptional students who have been active in research and creative and research activities; Mariah Armstrong (p.5) and Ericka Gutierrez (p.12). Also, we are proud to introduce CSUSB's first cohort of Mellon Mays fellows on p. 7. In addition, we highlight the faculty mentors and their student teams from this year's summer research program (p.14). Additionally, on page 8, you will find our first faculty spotlight - entitled 'Leading the Pack' - featuring Dr. Rick Addante from the Psychology Department. On page 2, you will also find a listing of deadlines for our upcoming grant programs, as well as important dates to remember for the our workshops and events the OSR will be hosting this year.

As we embark on this next academic year, we would like to express our sincere gratitude for your continued and enthusiastic support of our office, and the students and faculty we serve. We hope this year will be our most successful yet, as we continuously strive to enhance our ability to support and recognize student and faculty research and creative activities on campus. We look forward to seeing you all and supporting your research and creative activities this year!

Sincerely,
Dr. Christina Hassija
Director of Student Research

BENEFITS OF RESEARCH

Are you a curious person? Do you like tackling challenges? Are you driven to seek out the truth? Do you enjoy working with others who are—and aren't—like you? Do you thrive on sharing and getting constructive feedback on your efforts? Do you like being recognized for your accomplishments?

If you answered "YES" to any of these questions, then chances are you are the kind of person that will love engaging in undergraduate research!

Getting involved in an undergraduate research experience means making original contributions to knowledge as an undergraduate student through research, scholarship, or creative activity. You can either work on a faculty member's research project or develop your own independent project with faculty guidance.

Undergraduate research is for everyone - for art, English, and sociology majors, not just science and engineering majors, for freshmen and sophomores as well as juniors and seniors. Research can take place almost anywhere at CSUSB - in all colleges, and with local community agencies through the integration of a research project into a service learning experience or internship.

Thousands of undergraduate students nationwide are doing it, enjoying it, and learning from it. At CSUSB, involving students in research is part of our strategic plan for improving the quality of education.

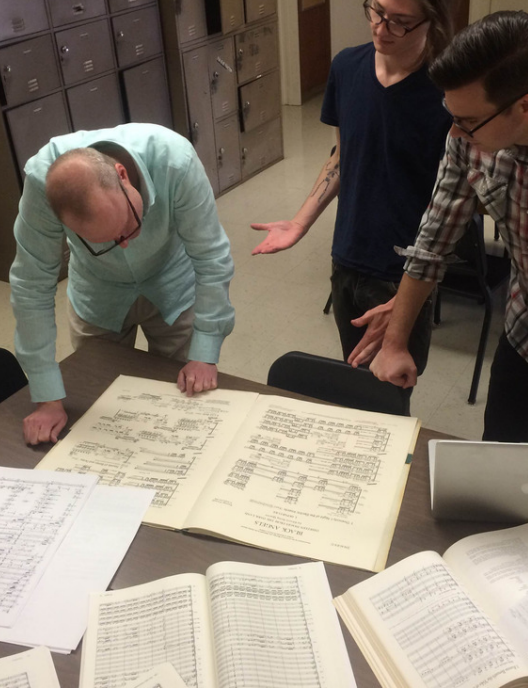
The OSR provides resources to help students get involved in research or creative activities, such as pairing students with faculty conducting research in their field, workshops, funding, and more. Students interested should contact our office (909) 537-3728.

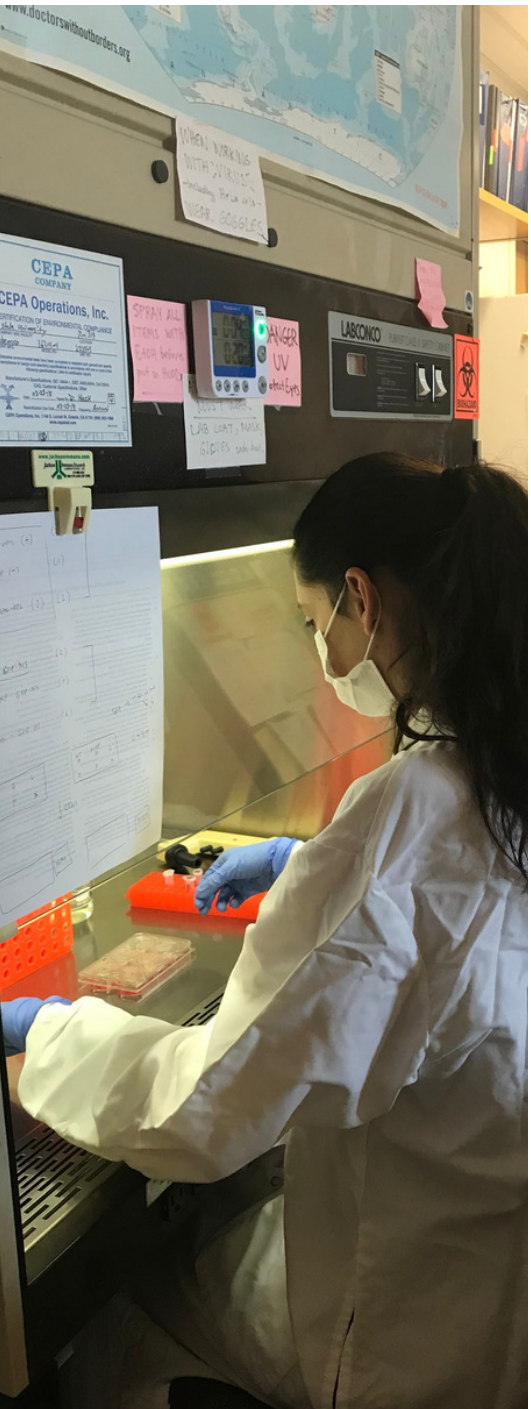
Grow Academically:

- Understand not what is known in your field, but how it came to be known.
- Gain in-depth knowledge of the topic you investigate.
- Be challenged, stretched, and made to think in new ways.
- Take advantage of diverse learning opportunities.
- You may get to present your work at a professional conference or be a co-author on a publication.
- Feel more a part of the intellectual life of the University.
- Develop a relationship with a faculty mentor.
- Help your faculty mentor advance knowledge in his or her field.

Grow Professionally:

- Hone skills employers look for such as oral and written communication, teamwork, and problem-solving.
- Help clarify your career goals.
- Improve your chances of being accepted into a graduate program by highlighting your research experience in your applications. Most graduate programs, doctoral programs especially, expect applicants to have research experience.
- Increase your chances of obtaining a fellowship or assistantship to support your graduate education.
- Improve your chances of getting a good job.
- Contribute to solving some of society's pressing problems.
- Be part of a national movement to enrich undergraduate education through meaningful involvement in scholarly inquiry.

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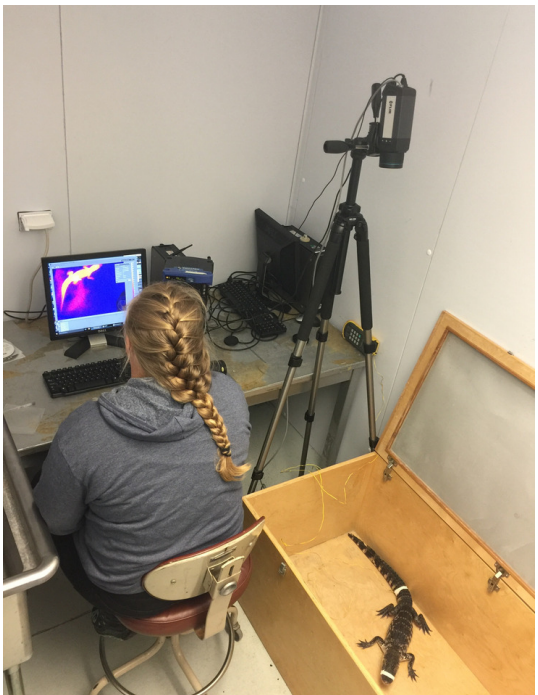
LABCONCO



COYOTE

SPOTLIGHT

ARTISTIC DEPICTIONS OF THE PLASTICOZOIC ERA

MARIAH ARMSTRONG
MASTER OF FINE ARTS

1. Tell us about yourself! Where did you grow up? What was your field of study and what influenced you to pursue this path?
I grew up in Idaho and made frequent visits to Southern California and Baja, Mexico. I spent a lot of time exploring outdoors, and the exposure to various landscapes and ecosystems- forest, desert, and marine- sparked my interest in their geological histories and ecological systems. My undergraduate majors were Art, Business Language & Culture, and Spanish, but I also took courses in Geology and Anthropology. I chose to pursue a Master of Fine Arts degree at CSUSB because art gives me an opportunity to visually explore the human relationship to nature, and to question how our economic and social systems are impacting the planet that sustains us. I hope that expressing these issues through art can make them more approachable, spark discussion, and help inspire more conscientious practices.

2. Tell about your involvement in creative activities at CSUSB?
I'm really thankful for how much I have had the opportunity to do during my time at CSUSB! Some of the highlights have been teaching art at a Boys and Girls Club, giving an artist talk in a prison through the Community Based Arts Project, teaching an undergraduate class in glass and curating an exhibition for my students, creative research and travel to conferences supported by ASI and OSR, participating in the "Meeting of the Minds", taking workshops at Pilchuck Glass School and Urban Glass in New York through scholarships, and helping to bring art-world lecturers to campus through Graduate Studio Art Club. I've also been involved in about a dozen art exhibitions, both on and off campus, and the SSI Graduate Student Culminating Project Grant helped me acquire the supplies I needed to put on my Master's Project Exhibition at the RAFFMA museum.

3. Tell us about your recent exhibition on campus.
My exhibition at RAFFMA was called Plasticozoic, after a quote from Oceanographer Sylvia Earle, who declared "Future geologists will be able to precisely mark our era as the Plasticozoic, the place in the sands of time in which bits of plastic first appeared." The works included 111, Tipping Point Project, consisting of a pile of 111 (one for each year since plastic was invented) hand-blown glass rock forms containing thousands of pieces of color-sorted

plastic trash that I collected from the California coast over a two-year span. Tidings of the Tossed and the Lost, which incorporated bottles of marine plastic collected and sent by participants from across the U.S. and around the world. Optical Delusions, made of suspended glass bags and lenses which optically distorted a projected video of marine debris, and Artifacts of the Anthropocene, a series of plastic detritus specimens crystalized in disodium tetraborate. I reference geological forms and the disciplines of archaeology and anthropology in the works because I want to consider plastic trash as the legacy of our time, and to present pieces of it as artifacts for close examination. Just a month following Plasticozoic, National Geographic's cover story was Plastic or Planet, (June 2018) and stated that "18 billion pounds of plastic ends up in the ocean each year." I'm glad to see the issue of plastic pollution becoming mainstream, as more people realize that the disposable plastic items we might use just once are not only damaging marine ecosystems, but also have the potential to outlive us by hundreds of years.

4. What do you think best prepared you to be successful in your field of study?

I think that curiosity is important in creative, or any other type of research, and I have always been curious about how the world works. I read a lot, on topics from contemporary art and ecology, to physics and philosophy, to historical and current events. To an extent, art is about making, but what you are observing, thinking about, and why you are making it, can be even more important. Another thing I have learned is that failure is inherent in life and in any creative endeavor. Accepting failure has made it possible for me to try new ways of creating unconventional materials, (like plastic trash) and to see critical feedback as an opportunity for growth. I've also applied for scholarships, grants, and exhibitions- and gotten plenty of "no's," but have learned to look at applications like throwing spaghetti at the wall to see if it sticks. Eventually, some of it does, and a few "yes's" can make all the difference in the world.

5. What are your career/educational future plans?

Besides maintaining my practice as an artist and creating work for exhibitions, I would like to teach Art at a college or university. I'm also interested in starting a business that makes sustainable/plastic-free living more accessible, and in working with nonprofits that are protecting the ocean and other ecosystems from plastic pollution and further harm.

6. What advice do you have for students who wish to be successful and engage in creative activities on campus?

My best advice is to see your education as an incredible opportunity to explore something that interests you, to pursue a passion and to make the most of your resources! Besides working with some really great faculty and having access to facilities, there is a lot of information and funding available to students. I used the Visual Resource Center, for example, to find art-specific information, and checked out one of their projectors to help create pieces involving video installation. RAFFMA brings really high-quality art exhibitions and programming onto campus, and Community Based Arts offers numerous opportunities to get involved in local projects. You can join or start a student club and get ASI funding for bringing in guest speakers you admire to campus or for putting on events. You can apply for ASI/OSR grants to support your individual and group research endeavors. Work study in your area of interest is also a good way to gain real-world experience and build your resume. It is hard to find this kind of support outside of an academic setting, so make the most of it!

MELLON MAYS UNDERGRADUATE FELLOWSHIP


Natassja Martin, History


Jasmine Colorado, History and English


Scott Romo, Communications


Marmar Zakher, History and Arabic Language

For the first time ever, a four-year, five-campus consortium grant from The Andrew W. Mellon Foundation was awarded to local California State Universities to establish the Mellon Mays Undergraduate Fellowship (MMUF) program. CSUSB joined with CSU Fullerton, Dominguez Hills, Long Beach, and Los Angeles to implement this unique program designed to prepare undergraduate students for future graduate work in the humanities.

The MMUF grant was implemented to increase academic opportunities and provide financial support to underrepresented students who will pursue a doctorate in the humanities after completing their studies at CSUSB. The program is the centerpiece of the Andrew W. Mellon Foundation's initiatives to increase diversity in the faculty ranks of institutions of higher learning. This program is an incredible opportunity for students at CSUSB, and we are thrilled to join a prestigious group of universities from across the world as part of this fellowship.

Students in the MMUF program at CSUSB will develop their research and other transferable skills, prepare for the transition into a graduate program, and improve their understanding of what it means to be a faculty member at a four-year institution.

They will be given the opportunity to enhance their knowledge and skills through various workshops, structured programming, faculty and peer mentoring, financial support, peer interactions, academic presentations, symposia and social events. This summer, fellows had the opportunity to spend a month at one of the consortium campuses (CSU Fullerton) with the 16 fellows from the four other CSUs where they, as a cohort, began their various research projects.

This past spring, four fellows were welcomed into the program as CSUSB's first cohort.

Jasmine Colorado, History
Faculty Mentor: Dr. Chad Luck
Marmar Zakher, History and Arabic Language & Literature
Faculty Mentor: Dr. Kate Liszka
Natassja Martin, History
Faculty Mentor: Dr. Ryan Keating
Scott Romo, Communications- Media Studies
Faculty Mentor: Dr. Charles Metts

Students interested in the fellowship should contact Dr. Ryan Keating, rkeating@csusb.edu.

The 2018-19 application deadline is April 15th, 2019.

LEADING THE PACK

REACHING NEW DEPTHS AND EXPANDING LIMITATIONS

RICHARD ADDANTE, PH.D.
PSYCHOLOGY

1. Tell us about yourself! Where did you go to graduate school and what do you study?
I went to graduate school at UC-Davis and earned a Ph.D. in Neuroscience and was supported as a Diversity Fellow of the American Psychological Association. My dissertation work focused on physiological measures of memory impairments in clinical brain-damaged patients with amnesia, and linked deficits to a region of the brain called the hippocampus that got damaged due to a lack of oxygen. We also discovered pre-stimulus brain states that were accurately predicting memory in healthy people; that is, the brain state of a person prior to seeing a stimulus predicted if they were going to remember this upcoming information. It was really fun.

2. How did you spend your summer?
The summer was spent doing a lot of different activities. First, I got to work with Aerospace Education and STEM Academy Cadets at Edwards Air Force Base and give the keynote speech for their banquet, which was a real honor to join them. We got to see some pioneering airplanes and do various STEM projects. I got to share with them stories from my NASA mission with the Human Exploration Research Analog, and the cadets even got to try on my flight suit from it. Second, I traveled to Florida to do research on a very unique project that studies astronauts who are confined underwater for a few weeks, which is called NASA Extreme Environment Mission Objective (NEEMO), hosted by Florida International University's Aquarius Research Station. For this project, I was researching the specific operational details of this mission, so that we can optimally design a series of scientific studies exploring the interaction of physical activity and cognitive load. It was an important step to learn how to get it just right so that it can be properly implemented in the future, and hopefully get students involved in the project too. I got to see how the missions are carefully set up on-site, see the equipment, the constraints, parameters, mission control, and learn about the precise mission research needs, as well as built important relationships with the FIU team members there.

This mission itself has suffered setbacks due to hurricane damage, but this work on-site was an essential building block that is now being developed into a NASA grant I am currently writing, which would support expanding this study and including it on future missions.

Third, my lab had a nice milestone in collecting our first physiological recordings of memory from awake humans during brain surgery done by colleagues at Emory University, which was a project that I've been working on perfecting with a student, Lindsey Sirianni, for several years. This is a really delicate and difficult research to do, so it was exciting to achieve, and we are now even more excited to analyze the results. Students from the lab also got to attend a European Research Conference in the Netherlands and a Ph.D. program at the University of Hawaii, and we worked on analyzing data we will be

presenting to the Society for Neuroscience Meeting this upcoming Fall. Fourth, I earned a Commercial Pilot License from the Federal Aviation Administration (FAA), which will help me to search and rescue flights in the Inland Empire's civil air patrol unit, learned how to do aerobatic spins, and visited the FAA High Altitude Oxygen Chamber for endorsement on high-altitude flights, which studies the dangerous effects of low oxygen on pilots at high altitudes. This was really interesting in how it coincides with the hypoxic amnesia research we do in the laboratory with EEG.

Fifth, I got to keep busy by reviewing a manuscript for the European Journal of Neuroscience, and also just had a new paper published reporting a discovery that memory can be improved by entraining different frequencies of brain waves using non-drug visual stimulation. It's called "Entrainment enhances theta oscillations and improves episodic memory" and is coming out in a special issue of the journal Cognitive Neuroscience.

3. What was the most exciting part about working with NASA Extreme Environment Mission Objective (NEEMO)?

As a diver, my favorite part was seeing the cool diving gear used in the NEEMO Mission. As a scientist, it was really exciting to see the science develop from a concept/idea I had a long time ago into something which can be implemented for a real-life mission. Seeing an idea come to fruition through perseverance is always exciting to me, and we don't often see it when things are tougher in the middle times of development. It's exciting to think about the prospects for the future if we can get everything lined up successfully. I'm hopeful that our proposal will be considered for the future mission, and that if adopted, it can make a substantive contribution to the work that their program is doing to understand human behavioral health and countermeasures for space flight.

4. Apart from the obvious, what attracted you to this program and how has it shaped your research?

I got attracted to this program after I participated as a crew member in another 'analog' mission for NASA last summer (they're called analogs because they are environments that are 'analogous' to space), the Human Exploration Research Analog (HERA), mission XIV. As a crew member, I got to experience the various different scientific studies being conducted to prepare for to space trips to Mars, and as a scientist it got me thinking of several follow up studies that I thought we be important to do. This has shaped my research because it opened up a whole new area of applied work beyond the standard laboratory and drove me to branch out with new collaborators to build a team to tackle these new directions we are taking in psychological research. Sometimes that's tough because it means learning new things at fast speeds, but that is also part of the fun and excitement of getting to do science.

5. Tell us about your research interests and your current work at CSUSB.

I'm broadly interested in cognitive neuroscience. In our lab at CSUSB, we study that in the form of learning, memory, and brain states. I have a great team of students who are both graduate students and undergraduate students, and they each lead their own experiments and

help with everyone else's. Some of the studies look at conscious memory, others look at non-conscious memory, and still, others look at how pre-existing brain states lead people to remember or forget. We've begun new work branching out in social cognitive neuroscience, and together with clinical colleagues are looking at brain activity during neurosurgery recordings of memory. The students have had the chance to attend conferences in Europe, Ph.D. Programs at UC Davis and Hawaii, summer programs at UC-San Diego, and attended scientific meetings with Nobel prize winners last year. So we try to create a lot of opportunities for students to find success and grow into their own research career goals.

6. What advice do you have for students with similar research and professional interests?
The best advice for students interested in cognitive neuroscience is to get involved with scientific research as early as possible in your college career. This means working in a professor's research lab as a freshman or sophomore, so that you have a head start, and can guide your interests to change labs if you find yourself interested in something different. Too many students find themselves behind the ball later in their college careers and wish they would have gotten involved earlier. I'd also say that, in reality, it's really tough work because the brain is a very difficult thing to understand; so that means one of the most important things is to persevere and never give up, because there are going to be challenging times when it is tough to keep a good attitude and you will doubt yourself. But that is normal in the scientific process and it's really important not to give up in those times. You've got to believe in yourself: keep trying, keep a good attitude, and you'll eventually succeed at your dreams.

FINDING A FACULTY MENTOR

Finding a faculty mentor to guide you through your research experience is the first and most challenging step in your research journey. Choosing a mentor is an important decision, so take the time necessary to find someone who feels like a good match for your research interests, learning style, and personality. A well-chosen mentor can also help you narrow and choose a topic for your research. Below you will find some tips that may help:

- List faculty members with whom you have taken courses and whose work has inspired or influenced your intellectual interests.
- Attend lectures on campus to familiarize yourself with the work of other faculty members
- Don't be limited to the department of your major.
- Check departmental websites for up-to-date information on faculty research interests and publications.
- Explore the Database of Research and Creative Activities on the OSR's webpage to view both past and current projects.
- Talk with your peers, especially seniors, TAs, and graduate students involved in research, to find out which faculty members specialize in areas relevant to your interest.

Once you have identified 3-4 faculty members you may want to work with, write a professional and personalized email to request a meeting to discuss your interests. However, don't go empty-handed: prepare a paragraph summarizing your research interests, your transcripts, resume, and a list of specific questions/requests for guidance.

Once you have identified a faculty member with whom you wish to work on your research or creative project, clearly communicate what kind of time commitment you are expecting and make sure you understand the professor's expectations as well.

If a faculty member declines to serve as your mentor, don't be discouraged and begin the process again.

"MEETING OF THE MINDS" STUDENT RESEARCH SYMPOSIUM

CSUSB students will present their research and creative activities at this year's 8th annual "Meeting of the Minds" Student Research Symposium on May 16th, 2019 in the Santos Manuel Student Union.

The annual conference will include both graduate and undergraduate students from all disciplines. Last year, more than 200 students participated in the symposium and we are hopeful that this number will increase this academic year. A panel of faculty will judge student's oral and poster presentations, and awards will be given to the best oral and poster presenters for their category who will be acknowledged during the Recognition of Student Researchers Luncheon on May 17th.

Students interested in participating are encouraged to submit an online application by March 8th at 11:59 pm. An information session will be held on January 30th at 1:00 pm in the Lower Commons Eucalyptus Room.

"This event is an opportunity to celebrate and acknowledge the innovation, scholarship, and creativity that our undergraduate and graduate students bring to their research and place for sharing their discoveries and insights with the campus community".

-Dr. Dorota Huizinga
Associate Provost for Research and Dean of Graduate Studies

Congratulations to the 2018 Best Oral and Poster Presenters!

Best Oral Presenters- Undergraduate
McKenzie Gamble and Kathleen Sanchez (Kinesiology)
Gurnoor Kaur, Vianey Zavala, and Alex Vasquez (Biology)
Graciela Troche (Communications)
Raquel Elias (Biology)

Best Oral Presenters- Graduate
Andy Acosta (Communications)
Bryan Castillo (Geology)
Sam Worral (Psychology)
Victoria Luckner (Communications)
Janae Koger (Psychology)
Gia Macias (Psychology)
Qi Guo, Tong Feng, and Lu Jia (Instructional Technology)

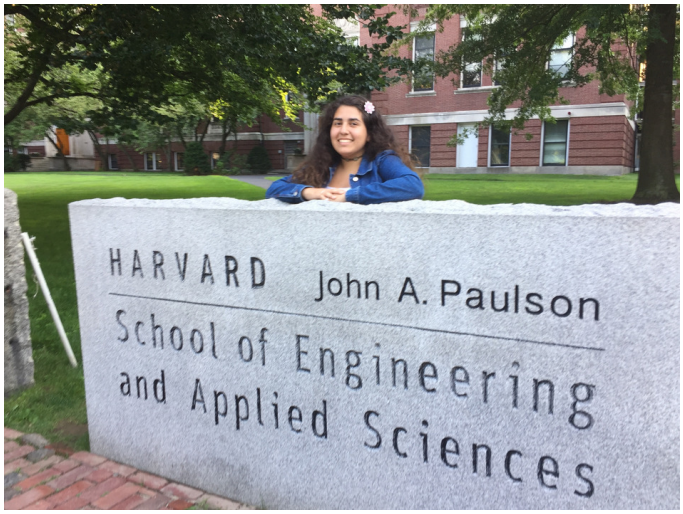
Best Poster Presenters- Undergraduate
Manuel Arredondo (Liberal Studies)
Kristen Morrish (Business Administration)
Jeniree Martinez (Biology)
Miranda Reid (Kinesiology)
Yvette Diaz (Sociology)

Best Poster Presenters- Graduate
Sean Maulding (Communications)
Maulik Ankolia (Business Administration)
Fernando Villalpando and Maria Domingo (Educational Leadership)
Joshua Dimapilis (Biology)
Britney Boyd and Citalik Ibarra (Criminal Justice)

COYOTE

SPOTLIGHT

Experiencing Harvard through Undergraduate Research Experiences in STEM



ERIKA GUTIERREZ
COMPUTER SCIENCE

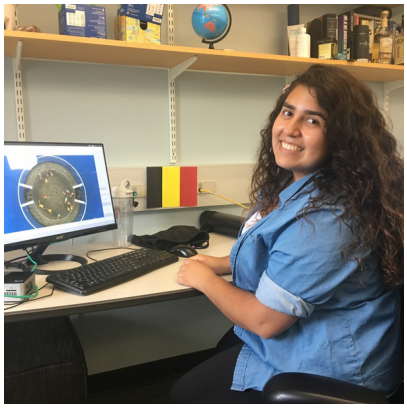
1. Tell us about yourself! Where did you grow up? What is your field of study and what influenced you to pursue this path?
My parents, both immigrants from Mexico, came to this country in hopes of a better life. My two sisters, Monica and Angelica (both CSUSB students), and I were born and raised in San Bernardino, California and have made it our task to make our parents hopes when coming to this country come true. I am a first-generation college student. Going into my fourth year at CSUSB with a major in Computer Science and a minor in Mathematics, my freshman-self did not know I had an interest in STEM majors, and I initially drifted away from them because of my fear that I would fail in STEM classes due to the heavy workload they are known for. I initially enrolled at CSUSB in Fall 2015 as a Business Administration student with a concentration in Management. After about two quarters in the Business major, I knew it was not the right fit for me. Knowing I was good at math, I wanted a major that allowed me to advance my math capabilities.

A lot of trial-and-error came in as I started looking for a major I enjoyed while taking General Education classes. I challenged my fear and began taking STEM courses. I found my interest in technology and engineering during Winter 2017 after taking my first programming class.

2. Tell about your research interests and involvement in research at CSUSB?
My first research experience was this past summer when I participated in Harvard University's Research Experiences for Undergraduates (REU) program for my first time. Through this unique experience, I learned I not only have an interest in Computer Science and Mathematics, but also in Mechanical Engineering, Electrical Engineering, Biology, and Robotics. One day, after attending a professor's talk on the Harvard campus, I learned about my current research interest and career choice: biomechatronics. Biomechatronics is a subfield of Robotics that crosses biology, engineering, and computer science to create robots that help disabled individuals. My interest in biomechatronics stems from wanting to help disabled individuals further advance and achieve the goals they have for themselves. I have yet to conduct any research at the CSUSB campus due to a heavy school and work schedule, however, there is a professor whose research interests coincide very closely to mine. Although I have yet to contact her, I hope to conduct research with her soon.

3. What do you think best prepared you to apply for the National Science Foundation REU?
I am part of the SAIL Program on-campus; a program meant to assist students of low-income and first-generation college students. They are basically my second home; my second family. I run to them when I have good news, or when I have a bad day, or even when I just want to have a conversation with someone.

It is the endless amount of support, guidance, and help that they give that helped build the confidence I needed to apply to summer programs.



4. Tell us about your placement and research activities this summer.

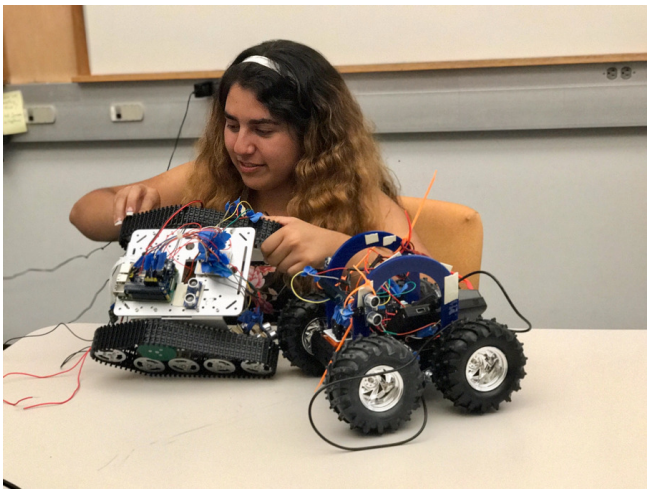
This summer I worked in the Self-Organizing Systems Research (SSR) Lab of Professor Radhika Nagpal, who is very known for her work in swarm robotics. Last year, I participated in robotic research in her lab, whereas, this year, my research was more aimed towards computational biology. This summer, I was given the task to create a software using MATLAB designed to "track" termites; "track" meaning, giving each termite their own identity that will be utilized for determining their motion trajectories. Our research revolved around learning about social interactions amongst different colonies of termites within different environments. Our research will be utilized by the SSR lab to help them write their upcoming publication on the social interactions amongst termites.

5. What do you plan to do next?

I made a very good friend this summer at Harvard. She and I have made it our next move to apply to summer programs together. Our research interests are very similar, therefore, we started looking for programs together. So far, we have found programs at schools, such as MIT and Stanford. These two are schools I am considering applying for my last summer as an Undergraduate. As of right now, I do not know where I find myself next summer, I may even come back to Harvard, but its that uncertainty that makes me even more excited to see where I will end up.

6. What advice do you have for students who are interested in gaining research experience and participating in summer research programs at other university campuses?

If there's anything you take away from this advice, please know life's greatest experiences come after you learn to take risks and challenge your fears. It's tough and scary applying for programs. Not only applying for programs but accepting an offer after you received your acceptances. Leaving from home and going to an unknown place; it's filled with many conflicting emotions. However, don't let that uncertainty stop you from experiencing the joy of traveling and conducting research. Do not let the fear of rejection stop you from applying. You know more than you think you do and you are far more capable than you think you are. And if there is ever anyone that tells you "you can't" or "you're not good enough" keep your head high and ignore those comments because those same people that brought you down, will be the same people that ask you how you did it later.



UNDERGRADUATE SUMMER RESEARCH PROGRAM

For the last five years, each summer, the OSR welcomes roughly 30 undergraduate students and 11 faculty mentors to participate in our annual Undergraduate Summer Research Program. These students are selected by their faculty mentors to work for 10-weeks on a research or creative project with topics ranging from "Examining Organizational Social Responsibility" to "Obese Yeast: Genetic, Biochemical and Microscopic Investigation of How a Hyperactive Signal Protein at Endosomes Disrupts Regulation of Lipid Metabolism".

Summer undergraduate research experiences have proved to be quite successful. Undergraduate students involved in summer research have reported an increased confidence in conducting research, increased knowledge and skills, increased preparation for future career and education plans, and an increased positive attitude towards responsibility, learning, and working (Tatum and Schwartz, 2009).

Students within the program not only work with their faculty on research projects, they participate in skill-building workshops that help prepare them for graduate school and develop their presentation skills. A social event is held to allow students to network with other faculty and get to know their peers, and the program concludes with a conference where they share their research findings with the campus community.

Congratulations to this year's faculty and student teams!

College of Arts & Letters

Faculty Mentor: Dr. Ed Gomez
Students: Paul Garcia, Ryan Clark, and Melora Garcia
Project Title: *CALAFIA: Manifesting the Terrestrial Paradise*

College of Business & Public Administration

Faculty Mentor: Dr. Marc Fudge
Students: Shimese Peresuh and Matthew Cyr
Project Title: *The Impact of Eliminating RDAs on the Socioeconomic Condition of California Residents*

Faculty Mentor: Dr. Alexandru Roman
Students: Yajhaira Castillo and Rachel Krowel
Project Title: *Examining Organizational Social Responsibility*

College of Education

Faculty Mentor: Dr. Nancy Acevedo-Gil
Students: Hector Garcia, Yesenia Casas. and Edit Cebreros
Project Title: *From Aspirations to Expectations: Parents and Students Developing a Critical College Consciousness before Middle School*

College of Natural Sciences

Faculty Mentor: Dr. Jeremy Mallari
Students: Jeffrey Chance and Nikolay Maslov
Project Title: *Development and Optimization of Selective Click Chemistry Probes to Investigate the Function of Falcilysin, an Essential Malarial Protease*

Faculty Mentor: Dr. Tomasz Owerkowicz
Students: Jonathan Arnette, Sarah Handy, and Maria Ceja
Project Title: *Every Breath You Take*

Faculty Mentor: Dr. Laura Newcomb
Students: Cinthia Gazca, Cory Atkins, and Joscelyn Berumen
Project Title: *Characterize NP Interaction Domains as Antiviral Targets*

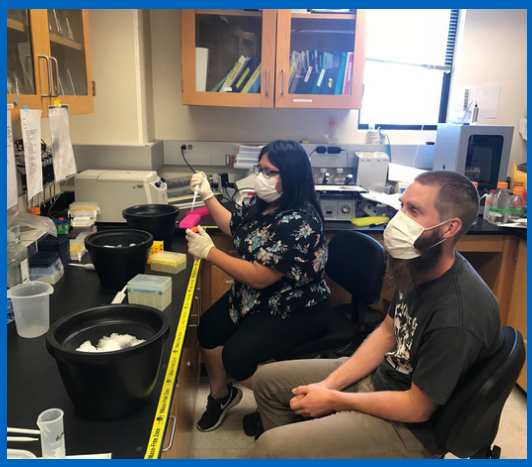
Faculty Mentor: Dr. Daniel Nickerson
Students: Ariel Lin, Beatriz Delgado, and Chau Vuong
Project Title: *Obese Yeast: Genetic, Biochemical and Microscopic Investigation of How a Hyperactive Signal Protein at Endosomes Disrupts Regulation of Lipid Metabolism*

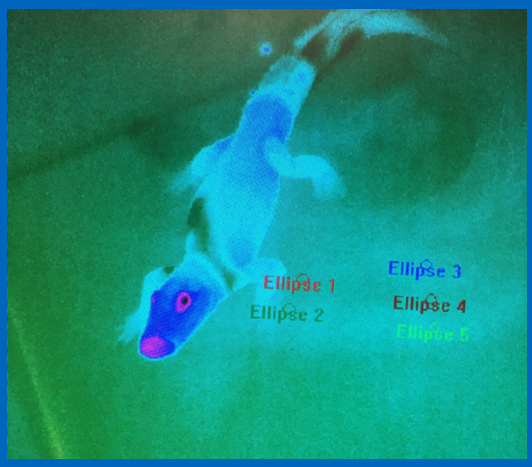
College of Social & Behavioral Sciences

Faculty Mentor: Dr. Yvette Saavedra
Students: Sara Ledesma and Sofia Benitez
Project Title: *Living la Mala Vida: Transgressive Femininities, Morality, and Nationalism in Mexican Los Angeles, 1810-1850*

Faculty Mentor: Dr. Ryan Keating
Students: Lixsaden Felix and Natassja Martin
Project Title: *Southern California's Civil War Veterans, 1865-1930*

Faculty Mentor: Dr. Isabel Huacuja
Students: Danny Cervantes and Jacquelyne Anton
Project Title: *The Noise Complaint and the Politics of Sound: A Case Study in Southern California*





WHO WE SERVE

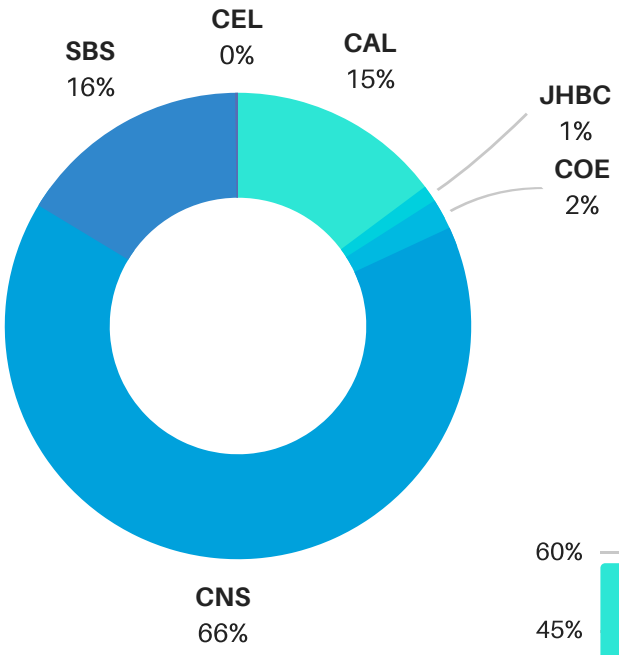
2043

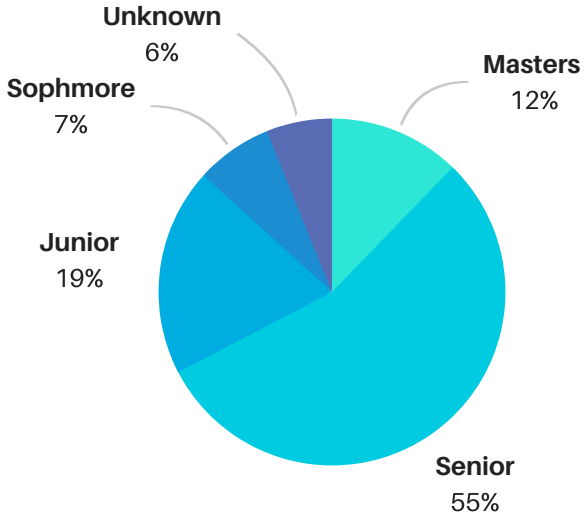
Students Served during 2017-2018 academic year

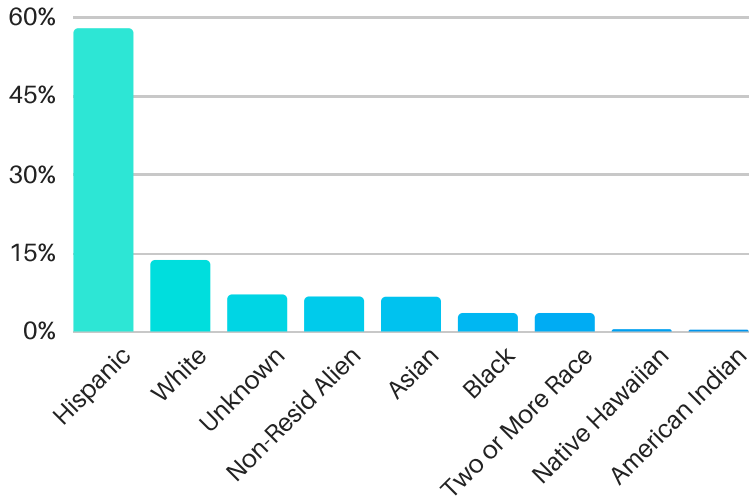
Total Annual Participation										
Programs	2013 - 2014		2014 - 2015		2015-2016		2016-2017		2017-2018	
	Student	Faculty	Student	Faculty	Student	Faculty	Student	Faculty	Student	Faculty
CSUSB Competition	28	22	27	22	20	15	34	21	29	23
Faculty/Student Grants	6	6	24	24	26	24	26	22	30	22
Student Grants	12	12	10	10	16	16	21	21	23	18
Peer Research Consultant Program	146	13	270	12	350	14	550	8	507	10
Peer Lab Program	209	12	635	22	661	32	1925	24	1018	22
Summer Research Program	35	16	32	12	33	13	28	9	28	11
Symposium "Meeting of the Minds"	109	23	188	12	220	12	299	17	283	17
Workshops	83	--	108	--	32	--	145	--	91	--
SSI Graduate Thesis Grant	N/A	N/A	N/A	N/A	N/A	N/A	6	6	21	13
SSI Innovative Grant	N/A	N/A	N/A	N/A	N/A	N/A	7	7	13	8
Total	**628**	**104**	**1294**	**114**	**1326**	**126**	**3041**	**135**	**2043**	**144**

62% Female

38% Male







WHAT'S NEW

Institutional Review Board

The Federal Policy for the Protection of Human Subjects commonly referred to as the Common Rule has been revised and be effective January 21, 2019. The common rule has not been revised since 1991 where the new revised common rule intends to reduce regulatory burden, strengthen the protection of human participants in research, facilitate the research process, and remove ambiguity in the regulations. The revised rules take into account advances in technologies that facilitate the collection, storage, and analysis of data. New terms have been added (i.e., clinical trial, public health authority, written or in writing) and terms have been revised (i.e., vulnerable, human subjects, research, legally authorized representative). New requirements for informed consent have been added to ensure human participants in research have all the required Information they need to make an informed decision whether to choose to participate or not participate in research. Further information on the revised common rule changes can be found on the CSUSB IRB website homepage by visiting the CSUSB IRB Home Page at https://www.csusb.edu/institutional-review-board.

The European Union (EU) has approved new regulations called the General Data Privacy Regulation (GDPR) effective as of May 25, 2018. The new regulation intent is to harmonize data privacy rules across the EU and give individuals better control in the use of their Personal Data. The GDPR defines "personal data as any information relating to an person who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that person. The regulations apply to all EU citizens and those that travel to the U.S. It also applied to citizens of United States traveling including students traveling abroad. The Secretary's Advisory Committee on Human Research Protections (SACHRP) works with the Federal Department of Health and Human Services and advises various US agencies including the Department of Human Research Protections (OHRP).

The committees have provided guidance on how the enactment of the GDPR may affect research with human subjects both in the US and abroad. The guidance can be found at the following website by selecting this link https://www.hhs.gov/ohrp/sachrp-committee/recommendations/attachment-b-implementation-of-the-european-unions-general-data-protection-regulation-and-its-impact-on-human-subjects-research/index.htm

Research Incentives

In order to effectively meet the research needs of student scholars and faculty mentors, the OSR will oversee the use of OSR funds awarded and utilized to provide monetary incentives to research participants. Providing gift cards in exchange for research participation using state funds is allowable according to the draft general CSU policy Business Meals and Hospitality 1301.00 code 701.

In lieu of cash, research participants can receive gift cards or Amazon e-gift cards of up to total value of $100 per participant. Gift cards will be purchased by OSR staff. Once purchased, the gift cards will be provided to the student scholar/faculty mentor, who will be responsible for tracking and reporting of the disbursement of gift cards to the OSR.

Travel Liability Waivers

Important news! ALL students traveling for academic purposes (e.g., conference, field trip, research , performance, etc.) MUST complete a Student Travel Waiver/Release of Liability form prior to their travel. The Student Travel Waiver is typically completed as part of Student Research and Travel Grant application process. However, it must be completed prior to the date of your travel! If you do not have a waiver on file, you will NOT be eligible to receive reimbursement. Also, waivers must be on file regardless of whether your travel is support by the OSR, a faculty member, or another funding source. For more information or to access the form, please visit www.csusb.edu/risk-management/travel.

CALL FOR SUBMISSIONS

Have Great News to Share?

Please submit student research and creative activities success stories, photos, and publications to **osr@csusb.edu** so that we may highlight them in our newsletters and webpage.

Research and Creative Activity Opportunities Database

The Database of Research and Creative Activities connects students with faculty involved in research and creative activities across campus.

Faculty are encouraged to post their opportunities by emailing the following information to **osr@csusb.edu** and we will share with students looking to get involved.

- Your contact information
- Project title
- Description of research/creative activity
- Role of student(s)
- Minimum requirements
- Hours per week
- Position type (Course credit, pay, volunteer)

NOTES

OFFICE OF STUDENT RESEARCH

The mission of the Office of Student Research is to facilitate the engagement of students in scholarly and creative activities related to their disciplines by providing resources that support both student scholars and faculty mentors.

Dr. Dorota Huizinga
Associate Provost for Research
Dean of Graduate Studies

Dr. Christina Hassija
Associate Professor of Psychology
Director, Office of Student Research

Danielle White
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