# 2021

Department of Biological Science Students Awards Celebration

Wednesday, 21 April 2021

https://fullerton.zoom.us/j/88152515546 Meeting ID: 881 5251 5546

# With Gratitude to:

The Bright Family The Cobb Family Mr. Claude Coppel Friends of the Fullerton Arboretum Mrs. Nancy Goodhue-McWilliams Dr. Stanley Hillman Dr. Stanley Hillman Dr. Michael Horn Dr. Lon McClanahan The Pellegrini Family Dr. Marvin J. Rosenberg Titan Shops The Wilson Family

Master of Ceremony Dr. Merri Lynn Casem, Department Chair

# **Recognition of Graduated and Graduating Research Scholars**

# BRIDGES TO STEM CELL RESEARCH PROGRAM (BSCR)

The Department of Biological Science at CSUF was awarded \$1.28 million from the California Institute for Regenerative Medicine (CIRM) to place 10 undergraduate students as interns in stem cell research laboratories at Children's Hospital of Orange County, UC Irvine, UC Riverside, University of Southern California, and Stanford University. The Stem Cell Scholars enroll in a special, 3-unit laboratory course during summer, volunteer full-time in one of the selected laboratories during summer, and receive a stipend for working at their internship sites full-time for seven months. (For more information on the program and scholars, please visit www.fullerton.edu/stemcells/)

#### Presented by: Dr. Alison Miyamoto and Dr. Nilay Patel

**Veronica Batallones,** Class of 2020, worked in Cohen Lab in the Department of Biological Science and completed an internship with Dr. Brian J. Cummings in 2020. Veronica plans to pursue a career in research and development.

**Jaclyn Hanamoto,** Class of 2020, worked in Linder Lab in the Department of Chemistry & Biochemistry and completed an internship with Dr. Lisa Flanagan at University of Irvine in 2018.

**Susan Hipkins,** Class of 2020, worked in Jimenez Ortiz Lab in the Department of Biological Science and completed an internship with Dr. Julien Sage at Stanford University in 2019. Susan plans to enter an MSN Program and "hopefully eventually into an NP Program".

**Doo Kyun "Ellie" Kim,** Class of 2020, worked in Miyamoto Lab in the Department of Biological Science and completed an internship with Dr. Katja G. Wienacht at Stanford University in 2018.

**Kaitlyn Manh,** Class of 2020, worked in Eernisse Lab in the Department of Biological Science and completed an internship with Dr. Medha Pathak in 2020. Kaitlyn plans to pursue a career in clinical research or genetic counseling.

**Eric Fung,** Class of 2021, worked in Cohen Lab in the Department of Biological Science and completed an internship with Dr. Aileen Anderson at University of Irvine in 2020.

**Logan Kasper,** Class of 2021, worked in Patel Lab in the Department of Biological Science and completed an internship with Dr. Brian Cummings. Logan plans to pursue a career in medicine with the focus on holistic care and preventative medicine.

**Amber Keith,** Class of 2021, worked in Miyamoto Lab in the Department of Biological Science and completed an internship with Dr. Thompson at University of Irvine in 2020. Amber plans to pursue a Ph.D. or MD degree.

# MAXIMIZING ACCESS TO RESEARCH CAREERS TRAINING PROGRAM (MARC)

The Maximizing Access to Research Careers (MARC) training program offers an extraordinary opportunity for minority students seeking careers in biomedical research. The goals of the program are to provide first-rate research training of undergraduate participants, to place undergraduates into respected graduate programs, and to ensure their success in those programs. (For more information on the program and scholars, please visit www.fullerton.edu/marc/)

#### Presented by: Dr. Amybeth Cohen

**Yasmine Alam,** Class of 2020, was in the Linder Lab in the Department of Chemistry & Biochemistry. She entered the Cellular and Molecular Biosciences PhD Program at the University of California, Irvine in fall 2020.

**Amanda Golden Eddy,** Class of 2020, was in the Peissig Lab in the Department of Psychology. She was accepted into the Psychology Master's program at CSUF for fall 2021.

**Elizabeth Hitch,** Class of 2020, was in the Keppetipola Lab in the Department of Chemistry & Biochemistry. She entered the Molecular, Cellular, and Structural Biology Ph.D. program at the University of Minnesota in fall 2020.

**Jesus Ortega,** Class of 2020, was in the Chen Lab. He began his PhD studies in the Driskill Graduate Program in Life Sciences at Northwestern University Feinberg School of Medicine in fall 2020.

**Gerado Sandoval,** Class of 2020, was in the Roberts Lab in the Department of Psychology. He began his PhD studies in the Interdepartmental Neuroscience Gateway Program at the University of California, Irvine in fall 2020.

**Kendra (Paquette) Wyant,** Class of 2020, was in the Blandon Gitlin Lab in the Department of Psychology. She entered the Clinical Psychology Doctoral Program at the University of Wisconsin – Madison in fall 2020.

**Vanessa Bruno**, Class of 2021, was in the Lukaszewski lab in the Department of Psychology. Vanessa plans on working with Dr. Lukaszewski in the coming year and apply to the Master's program in Psychology in 2022.

**Kellen Henning, C**lass of 2021, was in the Sacco Lab. Kelly was accepted into the Microbiology and Immunology PhD program at the University of Texas Medical Branch in Galveston. Her career objective is to be a researcher for an agency like the Centers for Disease Control and Prevention.

**Shereen Lam,** Class of 2021, was in Forsgren Lab. Shereen was accepted into the PhD program in Animal and Comparative Biomedical Sciences at the University of Arizona. She would like to pursue a research career in reproductive biology.

**Kimberly Lopez-Zepeda**, Class of 2021 was in Robson Lab in the Department of Mechanical Engineering. Kim was accepted into the Ph.D. program in Materials Science and Engineering at the University of Minnesota. Her career objective is to become a faculty member at an R1 institution.

**Shaina Nguyen,** Class of 2021, was in the Salzameda Lab in the Department of Chemistry & Biochemistry. Shaina will take a gap year and apply to MD/PhD programs in the spring of 2022.

**Trevor Zimmerman-Thompson,** Class of 2021, was in the Roberts Lab in the Department of Psychology. Trevor was accepted into the PhD program in Neuroscience at the University of California, Riverside. He would like to pursue a career researching neurological processes.

#### SOUTHERN CALIFORNIA ECOSYSTEMS RESEARCH PROGRAM (SCERP)

The Southern California Ecosystems Research Program (SCERP) offers undergraduate biology students opportunities to perform independent research and prepare for careers in ecology and environmental biology. SCERP provides up to two years of support for students to pursue their own research in conjunction with a faculty mentor, travel to scientific conferences to present their research, and develop a plan to reach their career goals. (For more information on the program and scholars, please visit www.fullerton.edu/scerp/)

#### Presented by: Dr. William Hoese

**Shannon Chou,** Class of 2020, worked in Burnaford Lab and Walter Lab to investigate the differences between derived species richness and diversity levels in tide poos as interpreted from visual surveys versus environmental DNA analysis.

**Brittany Cook,** Class of 2020, worked in Der Lab identifying genetic differences between Granny Smith and Golden Delicious apples. Brittany is pursuing a Ph.D. in Horticulture at Cornell University.

**Sydnee Dunn,** Class of 2020, worked in Hoese lab and as an intern for USGS. She is working for Leatherman Bioconsulting Inc. as a brown-headed cowbird trap monitor.

**Jennifer Ibarra,** Class of 2020, worked in Hoese Lab and is currently working as a field technician studying Mojave Desert Tortoises in Nevada.

**Jacob Javier,** Class of 2020, worked in Paig-Tran Lab modeling the morphology and filtration efficiency of whale shark filter pads.

**Taylor Naquin,** Class of 2020, worked in Forsgren Lab, in Burnaford Lab with the Multi-Agency Rocky Intertidal Network grant, and as a research technician at the Carrizo Plain National Monument. Taylor plans to attend graduate school in the fall of 2021.

**Holly Suther,** Class o 2020, worked in Forsgren Lab and is currently a research technician for the Multi-Agency Rocky Intertidal Network (MARINe) with Dr. Jennifer Burnaford.

**Kevin Whittemore,** Class of 2020, worked in Abraham Lab and currently works in a lab, conducting PCR COVID-19 tests.

**Madison Panzino,** Class of 2021, works in Hoese Lab and Zacherl Lab. Maddy is interested in attending graduate school and pursuing a career in conservation and wildlife management. After graduation, Maddy will start a year-long internship with USGS focused on climate change.

**Mayra Silva**, Class of 2021, worked in Burnaford Lab and conducted her SCERP research in Zacherl Lab. Mayra won an Outstanding Research Presentation in Marine Sciences at the 2019 SACNAS conference in Hawaii.

**Jada Smith,** Class of 2021, is conducting her SCERP research in Burnaford Lab and continues to have strong interest in a number of different ecosystems and organisms and is currently exploring fields of science communication and environmental justice.

**Julia Teeple,** Class of 2021, is working in Paig-Tran Lab. Julia went abroad for BIOL482 with Dr. Sandquist where she investigated effectiveness of soil retention dams and sea turtle conservation in Baja California Sur, Mexico.

# **Recognition of Scholarship Recipients**

#### COPPEL GRADUATE SCIENCE AWARD

Established in the fall of 1995 by retired CSUF science reference librarian Lynn Coppel and her husband, Claude. The Coppel Graduate Science Award is given annually to an outstanding biology graduate student.

**Rachel Altman** is a M.S. student in the laboratory of Dr. Nikolas Nikolaidis where she is investigating the translocation pathway of the heat-shock protein, HspA1A, across the plasma membrane. She has distinguished herself both in the laboratory and as a graduate teaching associate for the department. Her goal is to pursue a career in biotechnology.

**Chelsea Bowers** is pursuing her M.S. degree in the laboratory of Dr. Paig-Tran. Chelsea's research addresses the critical issue of microplastic pollution in marine ecosystems and contamination of fish humans consume. She hopes to share her passion for science and the environment with others through teaching and participation in policy making for oceanic, coastal, and freshwater management systems.

**Daniel (Ty) Frantz** is a M.S. student in Dr. Danielle Zacherl's laboratory. Ty is investigating how native and non-native marine communities are impacted by the timing of deployment of artificial reefs; a conservation project associated with the U.S. Navy. Ty's passion for teaching extends beyond the classroom to his work as an education interpreter at the Aquarium of the Pacific.

#### DAVID L. WALKINGTON MEMORIAL SCHOLARSHIP

Awarded annually by the Friends of the Fullerton Arboretum to a biology student who will be pursuing a career in botany. Named in memory of Dr. David L. Walkington, Professor of Biology, renowned science educator, and director of the Fullerton Arboretum from 1985-1993. Award will be presented at the annual meeting of the Friends of the Fullerton Arboretum.

**Nicholas Torres** is a Plant Biology concentration and SCERP scholar working with Dr. Abraham investigating the effects of soil nitrogen on fennel herbivory. Nicholas is the national liaison for the CSUF chapter of SACNAS. He has prior experience monitoring wildlife in Puente Hills and measuring climate change in the rocky intertidal. Nicholas plans to become a high school science teacher.

#### DHARM VIREO PELLIGRINI MEMORIAL RESEARCH GRANT

This grant was established by Laura Pellegrini, William Pellegrini, and Nancy Rinebold in 2007 in memory of Dharm Vireo Pellegrini, a self-taught ornithologist. It is intended to provide financial assistance to undergraduate or graduate biological science students undertaking ornithological field research.

**Katherine Biardi** is a M.S. student in the laboratory of Dr. Stapp and is a TA in the Department. Her thesis project isfocused on interactions among rodents and songbirds as a function of vegetation structure. Katherine is interested inpursuing a career in conservation. She hopes to use the skills and knowledge she has gained in her MS to conduct research to better understand the impact of climate on ecosystems.

#### DR. AND MRS. DONALD B. BRIGHT ENVIRONMENTAL SCHOLARSHIP

Established in summer 1994 in memory of the late Donald B. Bright, former faculty member and chair of the Departmentof Biological Science. Dr. Bright's professional energy in the latter part of his career was devoted to his consulting firm, which assisted both the private and public sectors in solving various problems associated with the environment, including biological studies, habitat restoration, and issues of hazardous waste, air quality, and land use planning.

**Valerie Goodwin** is a M.S. student in the laboratory of Dr. Zacherl. Her thesis research is part of the Upper NewportBay Living Shoreline's project. She is investigating how proximity to human visitors, eelgrass beds, and planktonic larvae impact native oyster bed restoration. Valerie plans to extend this training to pursue a career in marine conservation, restoration, and environmental science.

#### DR. AND MRS. MARVIN J. ROSENBERG SCHOLARSHIP

Established by Emeritus professor Dr. Marvin J. Rosenberg in 2007 in cherished memory of his wife, Shayna I. Rosenberg, and in commemoration of his 35 years at CSUF as faculty member, chair of the Department of Biological Science, and Associate Dean and Acting Dean of the College of Natural Sciences & Mathematics. This award supports a continuing student in the fields of cellular and molecular biology.

**Alison Cher** is a Biology major and University Honors student. Her professors note that Alison is an excellent and hard-working student. She studied the role of manganese in the biogeochemical cycle in Dr. Johnson's laboratory, was involved in the Pre-Health Professions club on campus, and the Civitan club in her community. Alison's goal is topursue a career in pharmacology.

# HILLMAN AND MCCLANAHAN SCHOLARSHIP IN PLANT OR ANIMAL PHYSIOLOGICAL ECOLOGY

Established by Dr. Stanley Hillman and Dr. Lon McClanahan to support a graduate student in physiological ecology. Dr. Hillman, Emeritus Professor of Biology and former Chair of the Department of Biology at Portland State University, graduated from CSUF with a master's degree under Dr. Lon McClanahan, his thesis advisor and Emeritus Professor, and former chair of the CSUF Department of Biological Science. Dr. Hillman's gift is a token of his appreciation to the department. Dr. McClanahan's contribution continues his commitment to the importance of physiological ecology research.

**Jessica Garcia Mora** is a M.S. student in the laboratory of Dr. Schenk. Her thesis project aims to determine the effects of amphiphilic lipids in plant xylem on transporting water and the formation of embolism. Jessica aims to teachscience education upon obtaining her M.S. degree or further pursue a Ph.D. degree to get a faculty teaching position.

**Joseph Michaud** is a M.S. student in the laboratory of Dr. Schenk. His thesis project focuses on determining the mechanism of positive xylem pressure in bamboo. His interest in plant physiology motivates him to either enter the workforce as a researcher after his M.S. degree, or pursue an academic career upon obtaining a Ph.D. degree.

#### JEROME WILSON MEMORIAL SCHOLARSHIP

Established in memory of former Biological Science faculty member, Dr. Jerry Wilson. It is awarded annually to an undergraduate or graduate biology student with an interest in genetics.

**Emilio Hernandez** is a biology major conducting research at Dr. Parvin Shahrestani's lab where he is working in a collaborative project to explore *Drosophila melanogaster* as a model organism to study bacterial infections. Emilio enjoys photography, soccer and other sports. He is a member of LMSA, plans to pursue a career in medicine and hopes to become a child psychiatrist.

#### JEWEL PLUMMER COBB SCHOLARSHIP

Established in the name of former CSUF President Jewel Plummer Cobb, a cell biologist, to support and encourage students who have demonstrated outstanding scholarship in biological science.

**Alejandro Moran** is an undergraduate in the Biological Science major, Molecular Biology and Biotechnology concentration. He performs research in Dr. Parvin Shahrestani's laboratory, using fruit flies to model the evolution of longevity. Alejandro has been a Supplemental Instruction leader in the Biological Science department for two years. His long-term career goal is to become a medical doctor.

**Deanna Tuong** is an undergraduate in the Biological Science major with a minor in Creative Writing. She works in Dr. Parvin Shahrestani's laboratory, using *Drosophila* to model immunity. Deanna is a certified EMT, a Master Water Safety Instructor, and a volunteer for many organizations, including Team Kid Power OC. Her career goals include becoming a pediatric surgeon and published author.

#### KENNETH GOODHUE-MCWILLIAMS METAMORPHOSIS AWARD FOR TEACHING EXCELLENCE

Emeritus Biological Science faculty member, Kenneth Goodhue-McWilliams, passionately supported active learning, curricular innovation, and high-quality teaching. He established this award to recognize a graduate teaching associate (TA) who demonstrates a continuing focus on student learning as evidenced by their efforts to implement effective teaching methods, innovations, or assessments in their courses. Recipients are nominated by faculty and have served as role models for their peers as they seek to improve their ability to positively influence student learning in biology.

**Pedro Cesar Anguiano** is being recognized for his outstanding work as a TA for BIOL 302 General Microbiology lab. Cesar is a dedicated educator whose self-reflection has resulted in significant improvement over time. Cesar has made substantial contributions to the microbiology lab curriculum, served as a mentor to other TAs, and has developed novel resources to help his students succeed.

#### **OUTSTANDING MARC STUDENT AWARD**

Given to a graduating Maximizing Access to Research Careers (MARC) scholar who has demonstrated commitment to a biomedical research career, has performed high quality research and course work at CSUF, and will be attending a high-quality Ph.D. program in the fall. This award is funded through the Titan Shops Scholarship Program.

**Shereen Lam** works in the laboratory of Dr. Kristy Forsgren elucidating the female reproductive tract of internally fertilizing surfperches. Shereen has been an active volunteer, served as a MARC Diversity Chair, and participated in the 2020 UCSD STARS summer research program. In fall 2021, Shereen will enter the Animal and Comparative Biomedical Sciences PhD program at the University of Arizona

# RACHEL CARSON SCHOLARSHIP IN CONSERVATION BIOLOGY

Established in 1990 by Emeritus Biological Science faculty member, Michael Horn, to encourage Biological Science majors (one undergraduate and one graduate student) to pursue a career in conservation biology with the goal of contributing to the preservation of the Earth's dwindling biological diversity and restoring its damaged habitats and communities.

**Alisa Hernandez**, an undergraduate researcher and SCERP fellow, works in the Hoese lab to understand factors influencing the geographic range of the African pin-tailed whydah. Her work will help shed light on the history and potential impact of this invasive bird on native CA species. After graduation, she plans to pursue a Ph.D. in preparation for a career in conservation.

**Brandon Quintana**, an MS student in the Zacherl lab, is committed to supporting conservation and environmental justice. His thesis work focuses on measuring ecosystem services provided by living shoreline restoration. Brandon is also fostering partnership with local conservation organizations, with an eye towards engaging undergraduate students and local community members in the preservation and restoration of endangered habitats.

# Breakout Rooms--Student and Donor Meet and Greet

The Department of Biological Science thanks all our donors for their ongoing support! Your generosity makes a difference in the lives of these talented students!

The Department also thanks students, families, and friends for attending our event!

CONGRATULATIONS TO ALL OUR STUDENTS FOR THEIR ACHIEVEMENTS!

# TITANS ALWAYS REACH HIGHER!