November 2015

Message from the Dean



The holidays are quickly approaching and we will again draw closure to another productive fall quarter at the Ayala School.

This quarter has been filled with memorable events, from celebrating our 50th anniversary, to the excellent lecture we sponsor for our community. Closing out the month of Anniversary October was our 50th Academic Symposium Series lecture featuring Nobel Laureate and former UCI postdoctoral researcher, Dr. Mario Molina.

Dr. Molina is a Distinguished Professor of Chemistry & Biochemistry at UC San Diego and has a large body of work addressing the issues of climate change. It is an honor to be part of an institution that played such a pivotal role in recognizing the substantial global climate threat. You can read more about Professor Molina's work and talk later in the newsletter.

We will continue this quarter with our community outreach efforts featuring our highly popular Allergan Lecture series with the keynote address by Dr. Mitchell Brin. Dr. Brin will discuss the history and therapeutic applications of Botox. This should be a very informative lecture and I highly recommend attending.

News and Highlights

Nobel Laureate Mario Molina Returns for UCI 50th Anniversary Academic Symposia



1995 UCI professor Sherwood Rowland and Mario Molina were awarded the Nobel prize in chemistry for their discovery that chlorofluorocarbons contribute to ozone depletion. Dr. Molina was postdoctoral а with Professor researcher Rowland during the 70's when they conducted their

groundbreaking research. On October 28, 2015, Dr. Molina returned to UCI to give a talk on climate change to a packed audience at the Irvine Barclay Theatre. Read more.

Allergan Lecture Series in Modern Biology



BOTOX (onabotulinumtoxinA): 25+ Years of Scientific and Therapeutic **Innovation**

December 3, 2015 at 7 p.m.

Presented by Mitchell Brin, M.D., F.A.A.N. Senior Vice President, Global Drug Development and Chief Scientific Officer, Botox, Allergan, LLC and Professor of Neurology, UC Irvine

Register Here

Ayala School Professor Steven Frank Awarded Distinguished Professor Title

Steven Frank, Ph.D. is a professor in the department of Ecology & Evolutionary Biology. Professor Frank's research utilizes mathematical, computational, and conceptual models to study natural selection and the evolution of organismal design. Professor Frank was recently awarded the title of Distinguished Professor. The Distinguished Professor title is the highest distinction awarded at the



campus level and is reserved for faculty who have an outstanding record of scholarship while at UCI, and who have reached a level of national and international preeminence within their field.

Ayala School Professor James Hicks elected to the American Physiological Society (APS) Fellows Status



Dr. James W. Hicks joined the department of Ecology and Evolutionary Biology at the Ayala School of Biological Sciences in 1992. In addition, Dr. Hicks has served on many departmental, school, and campuswide committees, including as the Chair of the Institutional Animal Care and Use Committee, and Associate Vice Chancellor for Research.

Ayala School Professor Awarded Climate Action Champion Award

UC President Janet Napolitano created a special climate action fellowship to be awarded to one faculty member at each UC campus for the 2015-2016 academic year. Dr. Steven Allison, professor in the department of Ecology and Evolutionary Biology, and Earth System Science, was awarded a \$25,000 Climate Action Champion Award. Dr. Allison will use this award to develop an integrated training



program for graduate students with career interests in climate sustainability. Read more.

STUDENT CORNER



Calling all Bio students! Send us your selfie representing the Ayala School with pride in a lab, out with friends, where you study, etc. and you could be featured in our next newsletter! Send photos to biowebinfo@uci.edu or tag the Ayala School page on Facebook #ayalaschool.

STUDENT SPOTLIGHT



Ryan Ripperdan

Ryan Ripperdan is an undergraduate majoring in Biological Sciences at the Ayala School. Ryan is on schedule to graduate in Spring 2016 with plans on applying to medical school shortly thereafter. Prior to transferring to UCI, Ryan attended Mt. San Antonio Community College for two years.

Throughout his undergraduate career,

Ayala Faculty Member Writes New Textbook to Better Instruct His Students



Seven years ago, Dr. Georg Striedter, a professor in the department of Neurobiology and Behavior, began working on a new textbook to help teach the difficult concepts of functional neuroanatomy to his students. What began as a simple reworking of his course curriculum soon morphed into the complex generation of a new textbook. Read more.

Regenerating a New Limb with the HEAL Project

The University of Connecticut will be launching a revolutionary scientific project aimed at helping individuals who have lost limbs or experienced severe nerve damage by regenerating new nerves cells or entire extremities. The project, known as the Hartford Engineering A Limb Project (HEAL), will be headed by University of Connecticut professor Cato Laurencin, a medical doctor with a Ph.D. in biochemical



engineering / biotechnology. In order to help reach the project's goals of regenerating a new limb within 15 years, professor Laurencin has reached out to a cohort of preeminent regenerative scientists, including UCI professor David Gardiner. Read more.

2015 Sigma Xi Scientific Research Society's Student Research Conference Award Winners





The Scientific Research Society (Sigma Xi) is an international honor society of scientists and engineers that has maintained a distinguished history of service to science and society for over 100 years. There are Sigma Xi chapters throughout the world that can be found at universities, government laboratories, and

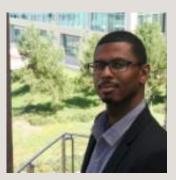
industry research centers alike. During the 2015 Sigma Xi student research conference in Kansas City, two outstanding Minority Science Program (MSP) students received honors for their research, Priscilla San Juan and Michal Emami. Read more.

Ryan has made it a top priority to participate in extracurricular activities to further both his personal and professional development. He has served as an officer in a pre-health organization and participated in a physician shadowing program to name but two. Both of these activities

Both of these activities were critical in channeling his initial interest in pursuing a career in medicine.

Read more.

STAFF SPOTLIGHT



Rahasson Ager Communications Associate

Rahasson Ager has been at UCI for over 12 years. Rahasson first arrived at the Avala School as a graduate student in the department of Molecular Biology and Biochemistry. It was during that time he began form to relationships with the faculty and staff at the Ayala School that still benefit him today. After completing his doctoral thesis, he went on to work at the UCI Institute for Memory Impairments and Neurological Disorders before joining the Office of the Dean. Read more.

GPS-BIOMED Host Networking Event

On a warm evening in October, graduate students and postdoctoral scientists gathered at the University Club to learn about careers in the biotech and pharmaceutical industries, and network with alumni and professionals from local companies including: Allergan, Alphaeon, Caladrius Biosciences and Research Diagnostics. Read more.



Molecular Biology and Biochemistry Graduate Students Wins NIH Training Award



Heather Wright is the recipient of an National Institutes of Health (NIH) Ruth L Kirschstein Predoctoral National Research Service Award (F31). The purpose of the F31 award is to enable promising graduate students to obtain individualized research training from faculty sponsors while conducting their own dissertation research. The proposed research should enhance the student's potential to develop into a productive independent research scientist. Read

more.

UC Irvine Arboretum Recognized by the Irvine Award Program

The UCI Arboretum has been awarded a 2015 Best of Irvine Award from the Irvine Award Program. Each year, the Irvine Award Program honors companies that have achieved exceptional marketing success in their local community and business category. The UCI Arboretum was grouped in the gardens category and selected for the award based on the information gathered both internally by the



Irvine Award Program and data provided by third parties. It is the belief of the program that their stand out companies help to make the Irvine area a great place to work and live. Read more.

COMMUNITY SPOTLIGHT



Nikki Iravani, O.D. Class of '82, '86

Dr. Nikki Iravani completed her undergraduate degree in Biological Sciences at UC Irvine before pursuing a career as an optometrist.

"It was important for me to gain some professional experience while attending my classes at the Ayala School. The time I spent both in the classroom, and working in an optometrist's office helped to solidify my decision to pursue a career in optometry." Read more.

UPCOMING EVENTS



Allergan Lecture Series in Modern Biology

December 3, 2015
Featuring Mitchell F.
Brin, M.D., F.A.A.N.,
Senior Vice President of Global Drug
Development at Allergan

Research in the News

University of California Scientists Create Malaria-blocking Mosquitoes



For nearly 20 years, Professor Tony James has focused on engineering anti-disease mosquitoes. His anti-dengue fever models have been tested in cage trials in Mexico. In 2012 he helped show that antibodies that impair the parasite's biology adapted from the immune systems of mice can be introduced into mosquitoes. Using a groundbreaking

gene editing technique, Professor James and colleagues have created a strain of mosquitoes capable of rapidly introducing malariablocking genes into a mosquito population through its progeny, ultimately eliminating the insects' ability to transmit the disease to humans. Read more.



In a review of the recent literature on the microbiome and it's role in human health, Dr. Jennifer Martiny, a professor of Ecology and Evolutionary Biology, presents a farreaching assessment of microbiomes that could affect efforts to improve human health and the health of all the Earth's ecosystems. Read more.



Limited Funding Need Not Limit Success for Ecological Restoration Projects



Working with the nonprofit Irvine Ranch Conservancy in the foothills of northern Irvine, Drs. Kimball, Huxman and colleagues evaluated over 110 different approaches to restoring coastal sage scrub and California grassland, the globally-rare and dominant ecosystem types in Southern California. The researchers discovered that with careful attention to implementation strategy and approaches to managing non-

native species, land managers can enhance their restoration efforts by cutting their costs up to 90 percent. Read more.





UCI Study Sheds New Light on Emperor Penguins

Dr. Cassondra Williams, a postdoctoral researcher in the laboratory of professor Jim Hicks in the department of Ecology and Evolutionary Biology, has published data that sheds new light onto the complexity of the emperor penguins coat. Dr. Williams first became interested in the question when she and her colleagues read in popular media that penguins had the highest feather density among birds, but they couldn't find an original source for that statement. Read more.



UCI Ayala School of Biological Sciences 5120 Natural Sciences II Irvine, CA 92697-1450