Dear Colleagues and Friends,

Another academic year has come to an end and a new group of ACBS graduates will prepare for a future of opportunities. On behalf of our faculty, staff and graduate students, we wish our new graduates all the best as they take on the world.

The Spring Semester may be over, but our faculty and students are still very active conducting research and ramping up our extension and outreach activities. Thank you to our dedicated Faculty, Staff, and Graduate Students for their continued hard work and significant contributions to our school, CALS, and the University of Arizona. Have a great summer, stay safe, and I look forward to seeing you in August when we will welcome our returning students and a new group of first year students into Animal Science, Veterinary Science, Microbiology, and the Race Track Industry Program. We will also welcome new students into three new degree programs. These include Bachelor and Master of Science degrees in Animal and Biomedical Industries, and a Bachelor of Science degree in Food Safety.

Thank you to our readers for your support and I wish you and your families all the best for a safe and fun-filled summer.

Kindest regards,

André Wright, PhD

Support ACBS

There are many ways you can support the School of Animal and Comparative Biomedical Sciences. Gifts of any size help to propel ACBS closer to its goals and have an immediate and lasting impact on our programs. Your generosity provides outstanding educational opportunities for our students and helps to attract and retain the brightest faculty. With your support, ACBS research gives back to the state of Arizona community through our extension programs, as well as the nation and the world, through the discoveries we make and the products we develop.

Gifts may be made online at the University of Arizona Foundation website:

www.uafoundation.org/give/cals  Be sure to designate the funds by selecting other and typing in ACBS.

Or contact our school business office to discuss specific ways your contribution can be made or dispersed. Whether you choose to give to a specific project or program, or simply donate to the school overall, we thank you.
In mid-January 2017, Dr. Arun Dhar moved to Tucson to begin his duties as an Associate Professor in the School of Animal and Comparative Biomedical Sciences and Director of the Aquaculture Pathology Laboratory. Dr. Dhar earned his PhD from the Indian Agricultural Research Institute, New Delhi, India and conducted post-doctoral research in Agriculture Canada, Fredericton, New Brunswick, and Tufts University School of Veterinary Medicine, Massachusetts. Dr. Dhar has worked in start-up, as well as in multinational biotech companies in California and Maryland. He has spent much of his professional career working on developing diagnostics, oral vaccines and therapies, and genetic markers for viral disease resistance in fish and shellfish. Over the years while working in biotech companies, Dr. Dhar has also been actively involved in teaching and mentoring graduate students at several colleges and universities including MIT, University of Maryland-Baltimore County, Towson University and Hood College. He also teaches in the AQUAVET® Program at Cornell University.

The Arizona Aquaculture Pathology lab serves as the World Organization for Animal Health (OIE) Reference lab for crustacean diseases and was developed and led by Dr. Donald Lightner for many years before his recent retirement. As Director, Dr. Dhar leads a world class research and development team with expertise in diagnostics, treatment and biosecurity against virtually all classes of pathogens and parasites of shrimp and other crustaceans. The lab personnel are active with competitive research grants, assist the global aquaculture industry as a service lab, collaborate on research projects with national and international organizations, as the OIE reference lab, and as a teaching center. The lab team provides the summer shrimp pathology short course in Tucson, which has been attended by virtually every shrimp pathologist in the world, and a plethora of short courses held on-site and in all the active shrimp farming regions of the world. As a research center, the lab also hosts visiting scientists and trains graduate and undergrad students.

The School of Animal and Comparative Biomedical Sciences and Dr. Dhar plan to add additional research capabilities and staff to the lab while maintaining the outstanding services and training that have been so critical to the global shrimp farming industry. With continued growth of shrimp farming around the world, the lab will continue to grow and add cutting-edge technologies that will allow it to maintain its pre-eminent position in the world.

Dr. Dhar assumes leadership of the University of Arizona Aquaculture Pathology Lab

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Hanh Do
Manager, Finance and Administration

Hanh Do is a University of Arizona Eller College of Management graduate who went on to earn her Certified Public Accountant (CPA) and Certified Government Financial Manager (CGFM) credentials.

Hanh comes to ACBS with years of experience managing financial and administrative operations within many of the University’s systems. Before joining ACBS, she worked as the Business Manager at the Eller’s Department of Management Information Systems (MIS), a top five nationally ranked program, where she oversaw staff and all business functions. Prior to that, she worked at the UA’s Financial Services Office (FSO).

Hanh’s experiences involve a broad range of responsibilities including budgeting, accounting and reporting, research proposal and post-award management, payroll monitoring, recruitment and employment issues, hiring and training business office staff, process improvement, and other activities to ensure a high level of financial integrity and operation effectiveness.

Hanh can be reached at 520-621-8472 or htdo@email.arizona.edu.

Andres (Andy) Carrasco
Systems Administrator

Andy Carrasco has many years of technical experience, managing multiple versions of Windows Servers and Desktop end points, and in all facets of troubleshooting various desktop/server operations, hardware, and software. For the past 2 years, Andy has been the IT Director at the Willcox Unified School District, where he and an associate were responsible for all the IT upgrades and maintenance of over 600 end-points, 150 phones, and 30 servers.

Andy can be reached at 520 - 621 - 4430 or acarrasco@email.arizona.edu.
Human-Animal Interaction Research Initiative (HAIRI)

Understanding and promoting the health and wellbeing of both human and non-human animals in symbiotic relationships.

The Human-Animal Interaction Research Initiative or HAIRI, is a collaboration of University of Arizona faculty and students, along with community members, that have come together to understand and promote the health and well-being of both human and non-human animals in symbiotic relationships through research, education, and outreach.

The relationship between humans and non-human animals is a rapidly growing focus of multidisciplinary research and clinical application. Much of this growing interest is focused on domesticated pet animals (especially mammals like dogs and cats) and select other species (especially horses) who have been our steady companions and important to our survival for thousands of years. Some of the major areas of research include the following:

• The discovery of how our long evolutionary connection to particular animals has shaped human psychology—our feelings and behavior toward other animals.
• The impact of animals on human health, such as the effects of pets on stress reduction or improved psychological wellbeing.
• The use of therapy animals, especially dogs and horses, to improve human health and well-being. Because this area has only recently been subject to well-controlled scientific study, there is still much to learn about the effectiveness and manner of influence of therapy animals.

Through collaborative research, education, and outreach, HAIRI works to enhance understanding of our diverse connections to other animals, especially those species with whom we have co-evolved, developed a co-dependence, or that provide companionship for us today. Our goal is that this increased understanding will lead to improved treatment and management of other animals, both domestic and wild, to our mutual benefit.

HAIRI, co-directed by Netzin Steklis and Dr. Dieter Steklis, began in 2014 in the Norton School of Family and Consumer Sciences. We were pleased to welcome the initiative and co-directors to ACBS in the Fall of 2016.

For more information on HAIRI contact Netzin Steklis at nsteklis@email.arizona.edu.

Dr. H. Dieter Steklis and Netzin G. Steklis join ACBS Faculty

Renowned husband and wife team co-teaching ACBS class of 1,000 students.

H. Dieter Steklis, Ph.D., Professor of Practice in ACBS, also holds affiliated faculty appointments in Psychology, Program in Ethology and Evolutionary Psychology, and in Family Studies and Human Development. Dr. Steklis’ present research, much of it done in collaboration with his wife and UA colleague Netzin Steklis, is focused on evaluating the effectiveness of horse or dog therapy for improving human wellness. In addition, his research interests include the evolution and neurobiology of cognition and social behavior, primate behavior and conservation, the evolution and nature of human-animal relationships, the history of animal domestication, and the comparative study of primate family systems, with a particular focus on mountain gorilla paternal behavior as a way of understanding the evolution of human fatherhood. Dieter and Netzin Steklis co-direct ACBS’ Human-Animal Interaction Research Initiative (HAIRI), and co-lead a summer Primate Studies Field School (administered by the UA Office of Study Abroad) in Rwanda, Africa.

In addition to his academic career, Dr. Steklis has held several leadership positions in the private not-for-profit sector, including serving in science and conservation leadership positions with the Dian Fossey Gorilla Fund International. Dr. Steklis’s many years of collaborative research with his wife on mountain gorilla behavior and conservation has been featured in scholarly journals and books, national and international magazines, radio programs, and numerous television broadcasts (including National Geographic). In recognition of their collaborative conservation work, in 2002, he and his wife received the Explorers Club “Champions of Wildlife Award.”

Netzin G. Steklis serves as Lecturer for ACBS and for Family Studies and Human Development. She also holds Affiliate Faculty positions in the Department of Psychology's Program in Ethology & Evolutionary Psychology. Netzin holds a B.A. in Anthropology and Biology from the University of Chicago and an M.A. in Ecology and Evolutionary Biology from Princeton University. She also earned a UA Graduate Certificate in College Teaching, reflecting her abiding commitment to excellence in undergraduate teaching. For more than 10 years, Netzin served as the Director of Scientific Information Resources for the Dian Fossey Gorilla Fund International, a non-profit organization dedicated to gorilla research and conservation in Africa.

Together the Steklis’s are co-teaching the ACBS class, Human and Animal Interrelationships from Domestication to the Present, which fills to a capacity of 1,000 students. The course examines the relationships of humans with animals throughout the ages. From evolution through domestication, the class explores relationships of animals with humans throughout Europe and the New World.
ACBS welcomes Dr. Katherine (Kate) Ellingson, Assistant Professor of Epidemiology. Dr. Ellingson will hold a primary appointment in the UA College of Public Health and a cross-appointment with the School of Animal and Comparative Biomedical Sciences. As Assistant Professor, she will conduct grant-funded research, teach courses for Public Health and ACBS, mentor students, and support One Health at the University of Arizona.

Dr. Ellingson grew up in rural Sonoma County, California and was an avid 4-Her. She graduated with a BS in Biology and Psychology from UCLA and went on to complete her PhD in Epidemiology and Public Health from Yale University. Prior to coming to the University of Arizona, she served as the Senior Epidemiologist at the Oregon Health Authority. Her previous seven years were spent with the Centers for Disease Control and Prevention (CDC), first as Epidemic Intelligence Service Officer and then as Healthcare Epidemiologist.

The research component of Dr. Ellingson’s appointment will focus on healthcare settings and includes investigating healthcare-associated infection transmission and prevention, antimicrobial resistance and stewardship, and transfusion safety. Through her public service work, Dr. Ellingson has worked on state and federal foodborne outbreak investigations and will utilize this experience as a member of the University of Arizona’s One Health consortium and in her teaching. The courses she will be teaching include Healthcare Epidemiology, Epidemiology Seminar, and Outbreak Investigation.

About joining the University of Arizona, Dr. Ellingson says, “After 10 years in public service, I’m excited to develop a collaborative research program that seeks innovative solutions to protect patients and the public from increasingly virulent, and resistant, infections.”

Dr. Ellingson can be reached at kellingson@email.arizona.edu or 520-626-3118.

Dr. Ron Allen Retires from Distinguished Career

Scientific contributions include ground breaking discoveries in the field of muscle stem cell research.

After 36 years of dedicated service to the University of Arizona, Dr. Ron Allen has retired. On the evening of January 20, 2017, a group of colleagues, industry supporters, family and friends gathered to celebrate and congratulate him on his remarkable career.

Beginning in the late 1970’s, Dr. Allen pioneered the study of skeletal muscle stem cells, long before stem cells hit the radar screen of most other scientists or the general public. Dr. Allen’s research led to an understanding of how the body signals satellite cells to multiply, form muscle fibers and self-renew to maintain the satellite cell population.

In fact, Dr. Allen was first to demonstrate that this valuable population of muscle stem cells is retained throughout the lifespan of an animal or person. His research also revealed that anabolic hormones act through satellite cells by increasing their sensitivity to normal growth regulators in the body. He further discovered the first endogenous growth factor that can activate quiescent muscle stem cells to re-enter the division cycle to repair muscle fibers following injury.

Dr. Allen has served the animal sciences as a founding member of the first ASAS Growth and Development Program Committee (1982), the group that organized the first International Symposium on Current Concepts of Animal Growth (1984). In addition, he was co-organizer of the first international meeting to focus on satellite cells, Postnatal Myogenesis: Satellite Cells in Action (1998, Boston, MA). This meeting was the first to bring together scientists from agriculture, medicine and exercise science to talk about muscle satellite cells.

His awards include Outstanding Young Animal Scientist Award of the ASAS (Western Section, 1987), the 2000 ASAS Animal Growth and Development Award, the University of Arizona College of Agriculture and Life Science Research Faculty of the Year Award in 2004, and in 2011 he was named a Fellow of the American Society of Animal Science. Dr. Allen was the Roy R. and Phyllis Ede Hislop and William J. and Rosina Ede Endowed Chair in Animal Sciences.

Over his distinguished career, Dr. Allen has been a PI, Co-PI, and Co-Investigator on 36 awards, totaling nearly $5.7 million dollars of extramural funding, and he has advised and mentored 3 PhD students, 6 MS students, and 8 Post-Doctoral Fellows. Moreover, he has published 75 peer-reviewed papers, 3 book chapters and books, 4 conference proceedings, and 66 presentations around the world.

Dr. Allen’s contributions reach beyond basic research. As Head of the Department of Animal Sciences (2006-2011), he was a strong advocate for undergraduate education, continuing to teach animal science undergraduate students and serving as advisor for the Collegiate Cattle Growers Club. He was also founding member of the organizing committee for the Physiological Sciences Interdisciplinary Graduate Program and served on the first executive committee.

From 2012 to 2013, Dr. Allen served as Associate Dean for Research and Director of the Agriculture Experiment Station for the College of Agriculture and Life Sciences.

Join ACBS in thanking Dr. Allen for his tremendous contributions to the University of Arizona and the scientific community. We wish him all the best in his future endeavors.
Dr. Carlos Reggiardo has been a veterinary microbiologist with the Arizona Veterinary Diagnostic Laboratory for 27 years. His career began as an Instructor position in the Veterinary Diagnostic Laboratory at the University of Arizona, and back to Universidad de la Republic as a Professor in Infectious Diseases in the College of Veterinary Medicine. He came to the University of Arizona in 1990 and served as the Director of the Veterinary Diagnostic Laboratory for 8 years and as Senior Research Scientist for 19 years.

Dr. Reggiardo received his Doctor of Veterinary Medicine from the University of the Republic of Uruguay, the largest and oldest university in Montevideo, Uruguay. He then completed his PhD in Veterinary Microbiology at Iowa State University and is an American College of Veterinary Microbiologists diplomate. He has 28 publications in refereed journals, one book chapter, two chapters in scholarly monographs and many abstracts, research reports, and conference positions. He has served on numerous graduate student committees, the editorial board of the Journal of Veterinary Diagnostic Investigation and as associate editor of the Journal of Veterinary Diagnostic Investigation.

John (Jack) Schmitz, DVM, PhD, DACVP

Dr. Jack Schmitz came to the University of Arizona 11 years ago from the University of Nebraska-Lincoln, where he was Professor and Department Head of the Department of Veterinary and Biomedical Sciences and the Executive Director of the Nebraska Veterinary Diagnostic System for 10 years and then Professor of Veterinary and Biomedical Sciences for 2 years. Prior to Nebraska, he developed his career at Oregon State University first working up through Associate Professor, then to Assistant to the Dean for Research, and finally Director of the Veterinary Diagnostic System.

He received his Doctorate of Veterinary Medicine from Colorado State and then served as First Lieutenant and Captain in the U.S. Army Veterinary Corps. In 1971, he completed his PhD in Pathology from the University of Missouri, and he is a Diplomate of the American College of Veterinary Pathologists.

At the University of Arizona, Dr. Schmitz served as Department Head of Veterinary Science and Microbiology (2006-2010) and then Professor (2010-Present). As a veterinary pathologist he has produced 64 publications, 21 non-refereed publications and 2 book chapters. His research contributions include studies on the control of bovine viral diarrhea virus (BVD) in beef cattle herds. BVD is considered one of the most significant infectious diseases in the livestock industry, worldwide, due to its high prevalence, persistence and clinical consequences.

Throughout his career, Dr. Schmitz has advocated for the recruitment and retention of rural and food animal veterinarians and worked to convey the importance these veterinarians have on the communities they serve.
It’s been a productive year for Dr. Betsy Greene, Extension Horse Specialist with the University of Arizona. She’s been taking time to get to know Arizona horse owners and learning more about what they need from extension. Here’s a sampling of some of the events and activities she’s been involved in that have helped bring science, knowledge, and university resources to Arizona horse owners.

Livestock and Equine Survey
In order to get an updated idea of what types of needs were perceived by the Arizona equine industry, Dr. Greene partnered with Ashley Wright (Area Livestock Agent), Dr. Dan Faulkner (Extension Beef Specialist), and Dr. Duarte Diaz (Extension Dairy Specialist) to conduct a statewide Livestock and Equine Survey. The last time a similar survey was conducted was in 2002, two years before Facebook was founded. The survey was disseminated through multiple avenues, including social media, listservs, email, personal connections, and was available in hard copy, as well. The topics receiving the greatest “moderate to critical need” responses for the equine portion included toxic plants in AZ, vaccination programs, basic nutritional management of horses, utilizing forages in AZ, and more. This information has already begun to be incorporated into programming focuses. In addition, posters presenting results in Equine (Greene), Beef (Wright), and Dairy (Diaz) survey data were presented at the Western Regional National Association of County Agricultural Agents Annual Meeting and Professional Improvement Conference in October, 2016.

Survey results indicated that only 9% of the equine respondents received their horse information from UA Cooperative Extension. In an effort to remedy that, Dr. Greene has initiated a new series of peer-reviewed extension publications under the heading: The Informed Arizona Equestrian: Horse Health Series. The first article on rabies was reviewed extension publications under the heading: The Informed Arizona Equestrian: Horse Health Series. The first article on rabies was chosen due to a high number of animals testing positive for rabies in southern Arizona. This article received attention from the press when a horse in Nogales, AZ tested positive. The next topic (article and poster) addressed Biosecurity (practices to prevent disease spread) in a simple and humorous way. With reports and quarantines of AZ horses due to Equine Herpes Virus and a case of West Nile Virus, it is important to help horse industry members take action to protect their horses. Both the article on Biosecurity and on rabies can be found under the publication tab on the Horse Extension page of the Arizona Cooperative Extension website at https://extension.arizona.edu/horse-extension. Also be sure to check out the Biosecurity poster under the resources tab.

Workshops & Seminars for Tribes in Apache, Coconino County and beyond
At the Navajo Nation Equine Expo (Window Rock, AZ), Dr. Greene presented on understanding the results of Chemical Analysis of hay samples followed by a hands-on look at the physical characteristics of the actual hay samples in the afternoon. She taught youth to body condition score their horses at the 8th Annual Willow Spring Youth Horse Expo and Pow Wow (Besh Bii Toh, AZ). Hualapai cattle ranchers (Peach Springs, AZ) learned about AZ recommended vaccinations and what the equine extension program had to offer for their adult and 4-H youth programs.

Dr. Greene has also presented at the Cattlemen’s College (Tucson, AZ) with Ashley Wright on Vaccinations for AZ Horses, Equine Activity Statutes, Workman’s Compensation, Tack Safety and at a Rancher’s Round Table (Safford, AZ) touching on many similar topics.

State 4-H Horse Shows
The 2016 4-H State Horse Show was held at the Horseshoe Park and Equestrian Centre on November 11-13, 2016 in Queen Creek, AZ. Arizona 4-H members from across the state participated in events including Ranch Sorting, Gymkhana, Western, Showmanship, Hunt Seat Equitation, and even Bareback Equitation. We added a new opportunity for 4-H youth to demonstrate their ability to work together in a safe manner by grooming and preparing an assigned horse to perform in a showmanship pattern. With the help of many folks providing horses, judging, and more, eight teams of four youths competed, had fun, and did a great job!

County Office Visits
Drs. Greene and Lopez have been tag-teaming across the state, meeting with Ag, 4-H, and STEM agents, program coordinators, and county directors at their county offices to determine needs within the counties and how they can collaborate with and support the cooperative extension personnel. Some of their carpooling trips have included Mohave, Yavapai, Yuma, and Coconino counties. Other stops for Dr. Greene have included Apache, Graham, Greenlee, and several meetings with many of the FRTEP (tribal) agents throughout the state.

Equine Health Care Symposium
The University of Arizona Cooperative Extension Equine Program partnered with Reata Equine Veterinary Group and Adobe Veterinary Center to host the 2017 Southern Arizona Equine Health Care Symposium on January 28, 2017, at the UA Campbell Avenue Farms. It featured educational lectures and live horse demonstrations for Arizona horse owners and industry members. Designed to provide accurate, relevant, and applicable knowledge and skills to Arizona horse owners, this event brought back the Southern Arizona Equine Health Care Symposia previously organized by Reata Equine Veterinary Group. Symposium presenters included UA Cooperative Extension personnel, local veterinarians, and industry professionals speaking on topics that include emergency care, colic, hay quality, and feeding the older or special needs horse. In addition, live horse demonstrations covered equine acupuncture, equine first aid, and more. During lunch, attendees enjoyed a demonstration by Lanny Leach, a renowned trainer featured in the 2015 documentary “Unbranded.”

CONGRATULATIONS - Dr. Betsy Greene was awarded the status of Fellow of the Equine Science Society (ESS). The Fellow Award recognizes distinguished service to the horse industry and contributions to the field of equine science and the society over a long period of time. The award was presented at the annual ESS meetings in Minneapolis, MN at the end of May.

Productive Year for Extension Horse Specialist
Dr. Betsy Greene excited to be back in Arizona and helping horse owners throughout the state.
Preparing the Next Generation of Native American and Hispanic STEM Innovators

**Team led by Dr. Jerry Lopez, UA assistant extension specialist, won the second $600,000 challenge grant from the Agnese Nelms Haury Program.**

A team of educators providing STEM support to American Indian and Hispanic students has won a $600,000 challenge grant from the Agnese Nelms Haury Program in Environment and Social Justice at the University of Arizona.

Gerardo Lopez, assistant extension specialist in the UA School of Animal and Comparative Biomedical Sciences, leads the team in partnership with the San Xavier District of the Tohono O’odham Nation, the Pascua Yaqui Tribe, Sunnyside Unified School District, Pima Community College and Pima County 4-H Youth Development.

The project, STEM RISE Arizona, encourages students to explore science, technology, engineering and mathematics through “project-based learning activities that are culturally relevant to their backgrounds, pulling from their personal experiences and relating it to environmental issues that are faced in the Southwest,” Lopez said. Team members focus on creating culturally relevant STEM support programs and mentorship for K-12 students in predominantly American Indian and Hispanic schools.

The challenge grant calls on interdisciplinary teams of UA and community members to create systemic and transformational changes for society and the environment. The grant funds one project for up to $200,000 per year for three years.

“The Haury program’s panel of judges selected this great project because it embodies the values of social justice and education, which were very close to Mrs. Haury’s heart,” said Anna Spitz, who directs the Haury program. “STEM RISE promises to incorporate environment, social justice and cultural elements into effective education through authentic collaboration between dedicated UA and community members.”

Each of the three finalists made a 10-minute presentation April 25 at the UA’s Environment and Natural Resources 2 building before a panel of judges in the overflowing Agnese Nelms Haury Lecture Hall.

Parents, teachers and students from affected schools were present for the STEM RISE Arizona presentation. Charlene Martinez attended San Xavier Mission School and came to the presentation with her youngest son, who is a student at the school now.

“He’s all about science. For this program to come at a time when he’s excited about science, I was so glad that this would benefit him,” Martinez said.

- Abby Dockter, UA Institute of the Environment
Reprinted from UA News April 27, 2017
For full article go to https://uanews.arizona.edu/story/community-impacts-ripple-challenge-grant-winners
ACBS Invited Speakers


Ravishankar, S. Plant Essential Oils: Clean and Green Applications. Featured Speaker; Live Bare Conference Organized by YOR Health. August 28, 2016. Las Vegas, NV.


ACBS Publications


Microbiology Fellowship Program

Upon successful completion of his PhD program at the University of Arizona, Dr. Andrew Clark, has accepted a two-year clinical microbiology fellowship with the National Institute of Health (NIH) Department of Laboratory Medicine. The laboratory serves as the clinical laboratory of the NIH Clinical Center and provides laboratory support for patient care and research protocols, as well as performs research and training in disciplines of Clinical Pathology. This postgraduate residency program in medical and public health laboratory microbiology is designed to develop knowledge and skill in diagnostic microbiology, clinical consultation related to microbiology and infectious diseases, and clinical laboratory management. A strong emphasis is also placed on laboratory research, particularly on the development of new diagnostic tests and on collaborative projects performed in conjunction with clinical protocols ongoing at the NIH.

Ravishankar Lab

Mass Media Coverage of Research:

Research on methods of application of plant antimicrobials on/ in various foods conducted in Dr. Sadhana Ravishankar’s lab was featured in the Arizona PBS Channel 8 Cronkite News on Wednesday 11/28/16, evening edition. The story also covered sensory analysis of organic leafy greens. Link to the story: https://www.youtube.com/watch?v=R36KCR1vTC4

Awards:

Aishwarya Rao, a graduate student in the Ravishankar Lab was given the best Graduate Student for Teaching award in the School of Animal & Biomedical Sciences on December 7, 2016. Dr. Sadhana Ravishankar was given the Outstanding Faculty in Research award in the School of Animal & Biomedical Sciences on December 7, 2016.

Stacy Suarez, an undergraduate student in the Ravishankar Lab, was honored at the Hispanic Women’s Corporation benefit luncheon on Sept 30, 2016, in Phoenix, Arizona, as a UA Hispanic alumni (UAHA) scholar for receiving a $16,000 scholarship from UAHA during her freshman year and maintaining a good GPA.

Outreach Activities:

Dr. Ravishankar’s research team participated in various outreach activities in which demonstrations of the ongoing food safety projects were conducted for the following groups: Arizona Indian Education Association (AIEA) Youth Tour South Gateway Academy Students Tour UA Yuma Ag Students Field Trip

New Faces:

Alba Dominguez, an undergraduate student joined the Ravishankar lab in Winter 2016.
National Cattlemen’s Beef Association Annual Convention

ACBS students gain valuable industry insights and contacts while attending NCBA convention.

ACBS students, Madalyn Zambrano and Nicole Van Eerd, represented the University of Arizona at the National Cattlemen’s Beef Association (NCBA) Annual Convention February 1st - 3rd in Nashville, Tennessee. The Convention is the oldest and largest convention for the cattle business and attracts both cattle ranchers and ranching businesses. Cattle industry members come together to network, learn, and create policy for the industry. The convention boasted record breaking attendance for this year’s event with over 9,300 participants! ACBS is already gearing up for 2018 when the NCBA Convention will be held in Phoenix, Arizona. Here’s what the students had to say about this year’s experience.

Nicole Van Eerd
This opportunity was a wonderful experience for a student. First, I participated in the Cattlemen’s College, allowing me to learn more about the beef industry including new technologies and challenges currently facing production, marketing, and the industry as a whole. Second, I was able to network with businesses as well as graduate schools to gain insight on future possibilities and receive beneficial advice and preparation. Finally, by hosting a booth for the University of Arizona’s School of Animal and Comparative Biomedical Sciences, I was given the opportunity to develop my communication and other soft skills by speaking with potential students, industry members, alumni, and guests while advocating for the University’s programs and opportunities.

My favorite part of the conference was gaining direct insight into every aspect of the beef industry while being surrounded by producers from every background and from across the globe. This experience helped me develop professionally and gain excitement and a better plan for my future goals and career pathways. I would recommend this experience to other students, including other networking and personal development opportunities, as it is a critical component of development as a student and also provides an opportunity to deepen relationships with University faculty. There is no experience like engaging directly in the industry and attending national conventions. I am extremely grateful to Dr. Faulkner, Dr. Wright, and the University of Arizona for giving me this once in a lifetime opportunity and for helping to prepare me for a successful and satisfying future.

Maddie Zambrano
I’m very grateful for the opportunity to represent the School of Animal and Comparative Biomedical Sciences (ACBS) at the 2017 Cattle Industry Convention and National Cattlemen’s Beef Association Trade Show in Nashville, Tennessee. As students, we attended the Cattlemen’s College which offered multiple workshops on diverse topics related to the beef industry. I greatly enjoyed the workshop titled, “Turning Loss into Gain: Managing Genetic Risk to Improve Fertility” with world known geneticists, Dr. Van Eenennaam and Dr. Rolf. They discussed new genetic technologies and software that allow producers to review expected progeny differences and make better educated genetic decisions when breeding cattle.

My main role at the convention was hosting the ACBS booth, where we networked with industry professionals and producers, University of Arizona alumni, as well as recruited potential students.

For future students attending the NCBA Convention, I would highly recommend networking with companies at the trade show and with cattle producers attending the convention. Through these discussions students will learn more about the infinite possibilities of career paths available to them. Not only can you make connections which could last a lifetime, but also possible internships or job interviews can occur. It is very important to dress appropriately and professionally, as well as have updated resumes containing experience related to your passions and career interests. If possible, I would also recommend attending the general sessions, regional meetings and the Cattlemen’s College to learn about all aspects of the cattle industry from genetics, nutrition, management and economics. The NCBA Convention is a wonderful opportunity to learn, network, and of course have fun! Thank you to the University of Arizona School of Animal and Comparative Biomedical Sciences for this amazing opportunity to learn and recruit!

#BEEFMEET

Masters in Animal & Biomedical Industries

ACBS is now offering a Masters of Science (Non-Thesis Option) in Animal & Biomedical Industries. This new degree program will prepare students for new and evolving career paths in Animal and Biomedical Industries. Upon graduation, students may pursue medical or veterinary school, or they may enter careers in growing fields such as biomedical research, extension, food safety, health care, public policy and more.

Through enhanced education in the Three Foundational Pillars: Animal-Human Interdependence, One Health, and Commerce, students will develop their critical thinking and professional skills. Scientific principles will be emphasized through the integration of biomedical sciences, and engage students in an active learning environment using a variety of teaching methods and educational resources.

Currently, the UA is working with the accrediting agency to develop a School of Veterinary Medicine. This MS in ABI is a stand-alone graduate degree program within the School of Animal and Comparative Biomedical Sciences that will become part of the UA Veterinary Medicine admission process when the new School is approved.

The first class of Animal and Biomedical Industries students will begin in the Fall of 2017. For more information on the ABI program contact Graduate Program Coordinator, Christina Garcia at jcb3@email.arizona.edu or 520-626-3526.
The UA CALS Dean’s Leadership 50 is a student leadership program dedicated to the development of management and entrepreneurial skills. Members of the program are outstanding students representing all majors in the College of Agriculture and Life Sciences at the University of Arizona.

Through the program, this group of extraordinary students, works to develop and apply the skills required to undertake their own startup venture or lead an existing organization. Members are selected through a stringent application and interview process every Fall semester. The program is generously supported by a grant from CoBank.

The 2016 - 2017 Dean’s Leadership 50 class of members included ten students representing majors from the School of Animal and Comparative Biomedical Sciences.

For more information on the Dean’s Leadership 50, including a full list of members and past presentations, go to https://cals.arizona.edu/students/cals-career-center.

**Stephanie Ibarra**  
Major: BS in Veterinary Sciences  
Career Goal: To become a Veterinarian and open up my own practice  
Hometown: Santa Clarita, CA

**Priscilla Jayassi**  
Major: BS in Veterinary Science  
Career Goal: To become a small animal Veterinarian specialized in surgery  
Hometown: Nogales, AZ

**Rylie Lewis**  
Major: BS in Microbiology  
Career Goal: Medicine or Plant research  
Hometown: Chandler, AZ

**Heidi Markel**  
Major: BS in Microbiology  
Career Goal: To become a Pediatric and Adolescent OB/GYN  
Hometown: Castle Pines, CO

**Megan McWherter**  
Major: BS in Animal Science  
Career Goal: To become a Zookeeper  
Hometown: Casa Grande, AZ

**Marilyn Mews**  
Major: BS in Microbiology  
Career Goal: To become a Large Livestock & Exotic Veterinarian  
Hometown: Queen Creek, AZ

**Kali Miller**  
Major: BS in Animal Science  
Career Goal: To become an Equine Specialist  
Hometown: Phoenix, AZ

**Arizona Parker**  
Major: BS in Animal Sciences - Business Emphasis  
Career Goal: A career in business within the animal/agricultural industry  
Hometown: Cave Creek, AZ

**Hannah Porter**  
Major: BS in Veterinary Science  
Career Goal: To work as a mixed practice Veterinarian  
Hometown: Kuna, ID
RTIP Students Spend Their Summer on the Job

*Internships allow Race Track Industry students to experience the careers they’re training for.*

**Joe Longo**

The “Summer of ’16” was one that I will never forget. I interned with the New York Racing Association (NYRA) in the racing office for both the Belmont Spring meet and Saratoga meet. I have been a fan of the NYRA circuit ever since I became interested in horse racing, and my internship provided me with the unique perspective of being on the other side of the operation. The interactions with the trainers and jockey’s agents were extremely rewarding, and I took pride in seeing the overnights produced on a daily basis.

The racing itself was second to none, and it seemed like champions were running almost daily. Day in and day out, I actually looked forward to coming to work the next day, and it cemented my decision to pursue a career in horse racing. Arriving at the track in the morning hours and experiencing the “calm before the storm” is something I would recommend for any racing fan.

In addition to the racing office, I was also able to explore and participate in several departments such as television, hospitality, marketing, and group sales. There are many facets to putting on the racing card that go unnoticed, and I was fortunate to gain experience in several of them.

Working with the NYRA employees was far and away the best part of my internship. Many of them graduated from the Race Track Industry Program and are some of the brightest people I have encountered. More importantly, I can now call many of them my friends.

The “Summer of ’16” was a tremendous experience and affected me in more ways than one. When I think back on it while writing this, I can do nothing but smile.

**Mitchell Gerson**

I spent the summer of 2016 interning with Eclipse Award-winning trainer and RTIP graduate Todd Pletcher. From late May to early August, I worked as a hot-walker for Pletcher at Saratoga Race Course. My daily tasks included leading horses to and from the track for their morning exercises, cooling them out once they came back from the track, and holding them for baths. During the live racing season at Saratoga, I brought several runners to the paddock and track for their respective races. I was even lucky enough to lead over Comfort before his second-place finish in the Whitney Stakes. The work was tiring and the days were long, but I wholeheartedly enjoyed my time as a part of Pletcher’s team. It was a great experience and allowed me to get my foot in the door of the racing industry. I made contacts and forged relationships that will last the rest of my life.

- Article and photos provided by RTIP

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**Applied Companion Animal Behavior Course**

*New class to focus on communication with cats and dogs.*

Animals such as our beloved pets can’t linguistically communicate with us, but there are other ways in which these household companions can communicate with us.

Applied Companion Animal Behavior 311 is a three-unit, animal and comparative biomedical sciences elective course that was offered to students during the 2016 winter session. This course ultimately gives students the unique opportunity to examine and learn about companion animal behavior, as well as the implicit messages cats and dogs produce for humans to receive and interpret.

Certified applied animal behaviorist, Crista Coppola PhD led the class. Dr. Coppola said that the class is solely focused around feline and canine applied animal behavior, but that there could potentially be more companion animal focused courses down the road.

Since the actions and reactions of cats and dogs are at the core of what this class is about, Dr. Coppola truly wants her students to try and put themselves in a companion animal’s perspective to be able to understand their reality, something crucially important when studying animal behavior.

“Just about everybody either owns a dog or a cat in their lifetime or interacts with a dog or cat in their lifetime, and maintaining the welfare for those animals in all of the different settings where people encounter animals is really important,” Dr. Coppola said.

Dr. Coppola believes that by being able to detect when an animal is feeling afraid and/or threatened, individuals can deal with serious and potentially dangerous animal encounters in a more informed and appropriate manner, which in turn will produce safer interactions for everyone, something she hopes her students will be able to learn.

- Alex Gonzalez

Reprinted from the Daily Wildcat November 19, 2016
The UA Equestrian Team advanced 3 hunt seat riders to the Intercollegiate Horse Show Association (IHSA) Zone 8 Region 2 Championship with two 1st place finishes and one 2nd place finish at the IHSA Regionals competition. The Zones competition was held in Stanford on April 8th. Competing for the UA - Emily Lorenz, a sophomore in Sustainable Built Environments, showing in Novice Fences placed 4th; Arizona Parker, a junior in Animal Sciences, showing in Walk Trot Canter placed 7th; and Emma Kropinski, a junior in Equine Science, showing in Novice Flat placed 1st. With her first place finish, Emma Kropinski, advanced to Nationals which were held May 4 - 7 in Lexington, KY, where she placed 8th in the nation in Novice Flat. Congratulations UA Equestrian Team!