Dear Colleagues and Friends,

Time flies! It’s hard to believe that summer vacation is over, our students are back on campus, and we are already a month into the fall semester. With that in mind, let me express a warm welcome to our new students and wish all of you a very successful semester and academic year ahead. We have had a busy summer and to name a few highlights, we have hired three new faculty: Dr. Crista Coppola (Assistant Professor of Practice, Companion Animal Behavior Science), Dr. Margarethe Cooper (Assistant Professor of Practice, Microbiology), Dr. Kerry Cooper (Assistant Professor, Food Safety/Microbiology), and two new staff: Ms. Amber Hubbell (Feedlot Manager) and Ms. Kaitlin “Dari” Trujillo (Senior Academic Advisor and Graduate Coordinator for Microbiology). We welcome Amber, Crista, Dari, Margarethe, and Kerry to our ACBS family. We are very fortunate to have all of you here. More information on Amber, Crista, Dari, Margarethe, and Kerry can be found inside.

We also hired five part-time lecturers for our new Animal and Biomedical Industries (ABI) graduate program, which kicked off this semester with 21 new Master of Science (MS) students from across the country. Welcome to Dr. Bonnie Buntain, Dr. Scot Waterman, Dr. Dan Engeljohn, Ms. Netzin Steklis, and Mr. Doug Reed (Lecturer Emeritus). We also thank the following UA faculty for being part of our ABI teaching faculty: Dr. Akrum Tamimi (Agricultural and Biosystems Engineering), Dr. Mike Anderson (Arizona Veterinary Diagnostics Laboratory), Dr. Lingling An (Agricultural and Biosystems Engineering), and Dr. Walt Klimecki (Pharmacology & Toxicology). In addition to those just mentioned, special thanks to our ACBS faculty: Dr. Fiona McCarthy, Dr. Dan Faulkner, Dr. Peder Cuneo, and Dr. Dieter Steklis, for developing and teaching courses in this new program. Welcome to our 21 new MS students in ABI, 2 new MS students in Animal Science, and a new PhD graduate student in Microbiology.

Congratulations to our grant and award winning faculty, staff, and graduate students, including Dr. Lisa Shubitz (page 3) and Dr. Ben Renquist (page 9) for receiving significant federal funds; Ms. Aurora Plascencia for receiving the CALS Outstanding Staff Award for this quarter; Post-Doctoral Associate, Dr. Leticia Camacho, for winning the Pfizer President’s Presenter Award for most meritorious abstract (page 11); Dr. Amy Kelly for receiving the 2017 Best New Investigator Poster Award (see page 11); Ms. Aishwarya Rao for first place in the poster competition and for winning the Best in Show Award (page 9); and to graduate, Sarah Slaughter, for receiving the Kathryn Anne Governal Perseverance Award. Our ACBS team members have also been busy giving talks across the country (California, Florida, Maryland, Minnesota, Texas) and overseas (Canada, China, India, Malaysia, South Africa, Spain).

I hope you enjoy your newsletter, it is packed full of exciting news and information about our dedicated faculty, staff, students, and our growing academic programs. Thank you to all our readers for your continued support. I hope to see you at our ACBS Homecoming Tailgate Tent on Oct 28.

Kindest regards and Bear Down!
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.
This past summer two aspiring research scientists had the opportunity to perform research in Dr. Koenraad Van Doorslaer’s laboratory which culminated in presenting their findings during a poster session. These promising scientists were sponsored by two different fellowship programs offered through the University of Arizona. Dr. Van Doorslaer is an Assistant Professor in the School of Animal and Comparative Biomedical Sciences. His research focuses on human papillomaviruses (HPV) and uses a combination of biochemical assays and computational analyses to understand why evolutionarily related viruses differ in their ability to cause cancer in humans.

**Jayme Jackson - MARC Fellowship**

Jayme Jackson is entering her fourth year at the University of Arizona. She is majoring in Microbiology and is fascinated by how much of human health and lifestyles are dictated by such tiny organisms. She will complete five years at the UA to meet the requirements of the MARC program and then intends to go directly to graduate school to work towards her doctorate in either microbiology or immunobiology. Jayme’s goal is to attend either UCLA or UC Berkeley and study the human microbiome and its impact on human health.

In Dr. Van Doorslaer’s lab, Jayme is looking at Human Papillomavirus (HPV) recombination and investigating the ability for HPV18 to readily recombine with other versions of its own genome and potentially other HPV types. About her experience Jayme says, “It has introduced a plethora of techniques that I’d previously never even heard of. Even as my specific interests diverge, the training I’ve received from Dr. Van Doorslaer will prove valuable throughout my scientific career.”

The MARC Fellowship, which stands for Maximizing Access to Research Careers, provides unique research, mentoring, financial and academic opportunity for undergraduates belonging to a group considered underrepresented in biomedical research and who have the interest and potential to pursue a PhD or combined PhD (e.g. MD/PhD) degree. The expectation is that students who participate in the MARC program will be well-prepared to take the next step in pursuing their graduate education and a future research career in the biomedical sciences.

Jayme is honored to have been selected to receive a MARC Fellowship and feels that without it she would not have had the opportunity to gain laboratory experience.

For more information on the MARC Fellowship http://cbc.arizona.edu/education/undergrad/research/marc

**Gabrielle Russell - KEYS Fellowship**

Gabrielle Russell is a senior at Empire High School in the Vail School District just east of Tucson. Gabrielle was selected to participate in the KEYS Fellowship Program. The KEYS program is a 7-week long internship sponsored by the UA BIOS Institute and the College of Pharmacy, which gives high school students the opportunity to work in a university lab and conduct research that has real world application.

In Dr. Van Doorslaer’s lab, Gabrielle worked on optimizing protocol for viral genome delivery. She focused on the production of minicircle DNA, and determined the most efficient and viable method of cellular transfection. Her work will become a foundational component of Dr. Van Doorslaer’s lab as he pursues his studies of the viral life cycle in the oncongenic progression of HPV related cancers.

After graduating from High School, Gabrielle plans to attend the University of Arizona and major in microbiology. She has known from an early age that she was interested in research and feels very fortunate to have discovered the KEYS program and been able to begin her hands-on laboratory experience early in her career. She was matched with Dr. Van Doorslaer through her research interests and an interview process.

About working with Dr. Van Doorslaer, Gabrielle says “I cannot imagine my KEYS experience without Dr. Van Doorslaer in it. His kindness, patience, and willingness to help me in whatever ways I needed to ensure my success in the program made my KEYS experience as memorable as it was. It was a privilege and pleasure to work in his lab.”

For more information on the KEYS Fellowship Program: https://keys.arizona.edu/content/about

**Being a part of the KEYS Program was an absolute blessing. It has furthered my aspirations to be a young scientist, and because of the program, I am so excited for what my future holds.**

– Gabrielle Russell

Senior, Empire High School
$4.8M to Valley Fever Center for Work on Canine Vaccine

Funding to accelerate development of a Valley Fever vaccine for dogs, that one day may lead to a successful human vaccine.

The Valley Fever Center for Excellence, has been awarded a four-year, $4.8 million grant for research to speed development of a vaccine to combat Valley Fever, the sometimes-deadly respiratory illness caused by Coccidioides spores found in soils of the Southwest.

The multidisciplinary team of co-investigators is lead by Dr. John N. Galgiani, a UA Professor of Medicine and the center’s founding and current director. The team also includes Dr. Lisa Shubitz, an Associate Research Professor at the center with a dual appointment in the College of Medicine – Tucson and the CALS School of Animal and Comparative Biomedical Sciences, Dr. Marc J. Orbach, a Fungal Geneticist and Professor of Plant Sciences, and Dr. Jeffrey Frelinger, Professor of Immunobiology.

The funding comes from the National Institute of Allergy and Infectious Diseases (NIAID), a unit of the National Institutes of Health (NIH), and aims to enable development of a live, yet safe, vaccine to prevent this fungal disease, also known as coccidioidomycosis, or coccidioidomycosis.

The research goal is to test and possibly license the vaccine in dogs to protect them from contracting Valley Fever. Anivive Lifesciences Inc., a California-based biotechnology company, has licensed the vaccine from the UA through Tech Launch Arizona and will provide additional investment and expertise to fully develop the dog vaccine.

Scientists at Colorado State University also are collaborating on the project through CSU’s College of Veterinary Medicine and Biomedical Sciences and the lab of Dr. Richard A. Bowen. If proved safe and effective in dogs, the next step would be evaluation and possible approval of a vaccine to prevent Valley Fever in humans.

Assistant Professor of Food Safety and Epidemiology

Research to focus on the genomics, pathogenesis, and epidemiology of bacterial foodborne pathogens.

Dr. Kerry Cooper grew up in Pinetop/Lakeside and moved to Kansas to attend Sterling College, on a basketball scholarship, where he earned a BS in Biology and a BS in Chemistry. He spent a few years working as a health inspector at the Navajo County Health Department in Holbrook, AZ, then came to the University of Arizona to work on his PhD in Pathobiology with Dr. Glenn Songer studying the pathogenesis of necrotic enteritis in broiler chickens. After receiving his PhD, he had the opportunity to conduct his post-doctoral work in Dr. Lynn Joens’ laboratory, also at the UA.

After serving as a post-doctorate researcher at the Agricultural Research Service (ARS) of the USDA in Albany, CA, and Assistant Professor of Biology at California State University, Northridge, Dr. Cooper has returned to Tucson to serve as an Assistant Professor of Food Safety and Epidemiology.

In his new position Dr. Cooper will focus predominately on food safety research. He will also be heavily involved in developing and teaching courses for the newly approved Food Safety Program in the School of Animal and Comparative Biomedical Sciences.

About the new Food Safety Program, Dr. Cooper says, “Being a part of the food safety program in the very early stages of its launch is very exciting, as I will be able to really work to make the program grow and become a success.”

Dr. Cooper’s research focuses on the genomics, pathogenesis, and epidemiology of bacterial foodborne pathogens. Specifically, he is working on methods to improve using whole genome sequencing for source tracking pathogens during outbreaks. His lab is also looking at the genomics and pathogenesis of Campylobacter jejuni, particularly the mechanisms that produce different types of disease and studying the bacterial communities or microbiome of various types of tree fruit. Additionally, he is researching the role DNA methylation has in controlling gene expression in various types of bacterial foodborne pathogens and the effect this can have on colonization and virulence of the pathogens.

Dr. Cooper will continue his research on a USDA seed grant that he was awarded as Primary Investigator (PI) while at CSU, Northridge. The project, includes a collaborator at UC, Davis, and is studying the bacterial communities of various types of tree fruit and how they shift during the growth and harvest of the fruits. He will also continue collaborating with several other University of Arizona and Texas A & M researchers on a recently funded USDA grant to look at developing healthier and safer melons in the U.S. In particular, he is looking at the food safety aspect of the melons and investigating the epidemiology of several foodborne pathogens in the melon fields and during processing.

Dr. Cooper is excited about the opportunity to return to the UA and expand his research in the process. About returning to Tucson he says, “The biggest thing is that this is returning home for my family and I, and it is really exciting to be returning home as a faculty member in the place that I began my career as a scientist.”

Dr. Cooper is currently recruiting graduate students to work in his research laboratory. Contact him for more information. His office is in the Shantz Building, room 208, and he can be reached at 520-621-3342 or kcooper@email.arizona.edu.
Dr. Crista Coppola joins ACBS Faculty

Assistant Professor of Practice in Companion Animal Behavior Science

Dr. Crista Coppola is a PhD Board Certified Applied Animal Behaviorist (CAAB) that specializes in the treatment of behavior problems in dogs, cats and horses. As an Assistant Professor of Practice in ACBS, she will be teaching ACBS 311 Applied Companion Animal Behavior. She will team-teach ACBS 102L Introduction to Animal Science Lab, and ACBS 469B/569B Ethology, Evolution, Ethics and Animal Handling. In addition, she will develop and teach two new senior-level courses in Companion Animal Behavior Science.

Dr. Coppola graduated with her Bachelor of Science in Zoology from North Carolina State University, her Master of Science in Animal Sciences from the University of Arizona under Drs. Bob Collier and Bill Schurg, and her PhD from Colorado State University under the guidance of internationally renowned animal behaviorist Temple Grandin, PhD. After receiving her PhD, she completed a 2 year fellowship at the American Society for the Prevention of Cruelty to Animals in New York City and was then promoted to Lifeline Behaviorist for the ASPCA.

In 2007, Dr. Coppola started her own private practice, Dog and Company – Behavior Consulting (www.dogandco.com). She currently sees private clients in Southern Arizona and is a behavior consultant to animal control facilities and shelters across the United States, including the American Society for the Prevention of Cruelty to Animals in New York City and was then promoted to Lifeline Behaviorist for the ASPCA.

Dr. Coppola currently serves on the ABS Board for Professional Certification and has been the Chairman since 2010.

Dr. Coppola has been involved in many high profile cases, including evaluation of the seized dogs from the Michael Vick Estate and continues to serve as an expert witness in animal litigation cases.

Dr. Coppola has a keen interest in preventing behavior problems through proper socialization and helping parents maintain healthy interactions between children and animals. The latter having become especially relevant after her first son was born in 2008. Dr. Coppola and her family share their home with one dog (Casey), three cats (Tia, Jack and Olive), and a Missouri Fox Trotter named Two Socks.

Dr. Coppola can be reached at clcoppola@email.arizona.edu.

New Staff Appointments

Kaitlin “Dari” Trujillo - Senior Academic Advisor I (Microbiology)

Dari was born and raised in Nogales, AZ. In May 2014, she graduated from the University of Arizona with a Bachelor of Science degree in Nutritional Sciences and minors in Chemistry and Biochemistry. During her undergraduate studies, she played on the University of Arizona Women’s rugby team. Recently, she completed her Master’s degree in Administration with a Leadership emphasis at Northern Arizona University in May 2017. As a CALS alumnai, she is very proud and honored to work with School of Animal and Comparative Biomedical Sciences faculty and staff as their new Microbiology Advisor.

As an Advisor, she will have the primary responsibility of helping students succeed throughout their undergraduate career and ultimately succeed in their endeavors for the rest of their lives. Dari is excited about working with students and to be able to see how they grow throughout their undergraduate careers. In addition, she is looking forward to working with the ACBS faculty and learning more about their diverse backgrounds and wide breadth of knowledge.

The ACBS academic advising office is located in Saguaro Hall, Suite 106. Dari can be reached at kdtrujil@email.arizona.edu or 520-621-3058.

Amber Hubbell - Feedlot Manager

Amber Hubbell is a graduate of ACBS’s Animal Sciences program, earning her Bachelor of Science in 2012. She also earned her Master of Science in Agriculture Education - Professional Agriculture, from the University of Arizona in 2014, where her thesis was titled “Cooperative Extension Curriculum Needs for Cattle Reproduction Management in Arizona.”

After graduating with her Master’s, Amber worked on a ranch in Northeastern Arizona and the Western part of New Mexico which raises 600+ Brangus and Angus Plus cattle across all locations. She later married into the family and continues to participate in branding, working cows, and weaning calves. She worked for the Arizona Department of Agriculture as a Livestock Inspector for Navajo and Northeastern Gila Counties in 2015, and as a Veterinary Technician for the Casa Grande Animal Hospital in 2016-2017. Last year, she was also an Instructional Specialist for Pinal County Cooperative Extension, where she assisted in the implementation of SNAP-ED program goals relating to nutrition and physical activity education.

Amber enjoys ranching and being a part of the cattle industry. About returning to Tucson she says, “I am excited to come back to the University where my love of cattle truly began.” After becoming a student of the late Dr. Roy Ax, she instantly fell in love with cattle and knew from then on, she needed cattle in her life.

In her new position as Feedlot Manager, Amber hopes to share some of her real-world experiences with the students at the UA. About her new position she says, “the farm and the feedlot have extraordinary potential to grow and provide top quality hands-on education relating to cattle and sheep production. The cattle industry needs young enthusiastic people, and I hope I can be a bridge for some students as so many were for me.”

Amber’s office is located at the UA Feedlot. She can be reached at ahruska@email.arizona.edu.
The University of Arizona Livestock Judging Team hosts golf competition at Arizona National.

Now that the “Par Tee” is over, the 2017 UA Livestock Judging Team is happy to announce the success of the Inaugural Livestock Judging Cup. This past May, community members came out to support the UA Livestock Judging Team and to play a little golf at the Arizona National Golf Course. The UA Livestock Judging team is greatly appreciative of all the support from teams and sponsors. Be sure to watch for next year’s golf tournament announcement so that you can mark your calendars and join us!

The winners of the Inaugural Livestock Judging Cup were:

1st Place: Tanner Herbert, Jason Tadeo, Cody Rathbun, and Tony Zepeda, Representing Meridian Group at Coldwell Bankers

2nd Place: Dr. Sean Limesand, Dr. Shane Burgess, Dr. Parker Antin and Jim Davis

3rd Place: Dr. Dan Faulkner, Wendy Wise, Dave Wise and John Rowe

This fall, the UA Livestock Judging Team will first head off to Kansas in October to compete at the American Royal. Then, we will be headed to Louisville, KY in November to compete at the North American International Livestock Exposition.

The current 2017 Livestock Judging Team members are, Siena Wolverton, Baraquiel Molina, Evelyn Martinez, Chachi Bitsoi, and Montana Arnold.

For more information on the 2018 golf tournament or the UA Livestock Judging Team, contact Carmen McConnel at mcconnel@email.arizona.edu or 520-621-2658.

Assistant Professor of Practice to Work on New Food Safety Program

Dr. Margarethe Cooper joins the ACBS faculty as an Assistant Professor of Practice in Microbiology. In her new position, Dr. Cooper will teach the online Microbiology 205 course beginning in Spring 2018, develop a Food Toxicology course, and develop other online and face-to-face Food Safety and Microbiology classes for the new Food Safety program.

Dr. Cooper’s family was in the mining industry, and she spent her formidable years in Arizona, Nevada and South America. She received both her Bachelor of Science in Microbiology and her PhD in Pathobiology from the University of Arizona. After graduation, she stayed on at the UA as a postdoctoral researcher in malaria and foodborne bacteria and a senior lecturer in the former Department of Veterinary Science and Microbiology. She then worked as a Research Affiliate at the USDA Produce Safety and Microbiology Unit in Albany, California and as an Assistant Professor in the Life Sciences Department at Los Angeles Pierce College in Woodland Hills, California.

About returning to Tucson, Dr. Cooper says, “I love Tucson and the UA. I am so happy to be back in Wildcat Country!”

Dr. Cooper’s office is located in the Shantz Building, room 233. She can be reached at 520-621-3290 or cooperma@email.arizona.edu.
All nine students who finished their studies in the Race Track Industry Program at the University of Arizona in May 2017 are heading out to their new careers in the equine industry. Where are they now and how did they get there?

Hillary Neese’s passion for horse racing was sparked by Rachel Alexandra’s victory in the 2009 Preakness Stakes. While a student, she managed the social media accounts and website updates for the RTIP. She also worked at Rillito Park, first in the admissions department, then as a track handicapper and interned at Lane’s End Farm, preparing horses for the Keeneland September Yearling Sale. Hillary has taken a position as a marketing assistant at Stonestreet Farm, the home of the horse that got her into racing, Rachel Alexandra.

Alexa Ravit completed her undergraduate degree at Cornell University prior to enrolling in the RTIP Master’s program. During her time in Tucson, Alexa was the social media manager for Rillito Park, blogged for America’s Best Racing, and interned at Belmont Park, where she rotated through various departments such as horsemen’s relations, the racing office, horse ID, and racing operations. She also spent time in The Jockey Club’s communications department. Alexa is working in communications at The Jockey Club in the New York office for the summer.

Joe Longo is a passionate racing fan who switched careers from accounting and finance to join the RTIP Master’s program to fulfill his dream of working in racing. While completing his degree, he worked at Rillito Park as chief financial officer and simulcast manager, and interned for the New York Racing Association, Inc. (NYRA). Joe has taken a position as a financial analyst at NYRA.

Julia Depugh found her way to racing by way of the show horse world in which she was an active competitor at the national level with Arabian horses. While a student in the RTIP, Julia completed a KEMI Program internship at Juddmonte Farm and also volunteered at Old Friends Thoroughbred Retirement Farm and the Maker’s Mark Secretariat Center. In addition, she expanded her racing knowledge through her participation in the Racing Officials Accreditation Program.

Julia has accepted a position at Breffni Farm in Lexington where she’ll be involved with yearling sales preparation, breaking horses to be ridden, and caring for mares and foals.

Kevin Schnoor’s interest in horse racing was sparked through family trips to Monmouth Park and Saratoga Racecourse. He decided to join the RTIP and earn a Master’s degree to turn his passion into a career. While in Tucson, Kevin worked at Rillito Park as a track handicapper, morning line odds maker and in the racing office. He interned at Santa Anita Park, where he shadowed staff in a variety of departments; he also spent three weeks at Monarch Content Management, where he learned more about simulcasting. Kevin, whose interest is in analyzing the wagering behavior of horseplayers, has accepted a position with WatchandWager.

Kassidie Hulse came to the RTIP with experience in foaling, sales preparation, and training at her family farm, as well as an associate’s degree from The North American Racing Academy (NARA). While at the UA, Kassidie worked in the Rillito Park racing office, was a chart caller for Equibase, and interned at The Downs of Albuquerque where she worked with the racing office, the stewards and the test barn. Kassidie has joined NYRA’s Racing Department and looks forward to working her first Saratoga meet.

Nathan Grossman grew up in a family immersed in the horse business. He’d been exposed to the horse industry through the racing and jumping divisions of Blue Chip Farms. While completing his education with the RTIP, Nathan continued to compete and will now focus his full attention on competing professionally on the major show circuits on the east coast and Florida.

James Traester graduated from Tufts University in 2016 with a B.A. in Economics, but found his passion for racing amid boisterous crowds who swarmed Belmont Park to watch California Chrome and American Pharoah race for the Triple Crown.

He joined the RTIP as a Master’s student to find a new career direction. A fortuitous guest selection at the Symposium’s Mentor Luncheon turned into an excellent career move; James accepted an offer to join the team at Hoosier Park as the Race Marketing and Operations Administrator. Jason Wittler’s love for racing started with trips to Longacres Racetrack, but his passion was put on hold when he joined the United States Army in 1990. After a 24 year career, he retired from the military and joined the RTIP. While at the RTIP, Jason interned with Emerald Downs, LLC, working within the marketing and sales department. His experience quickly spread to include event coordination, corporate sponsorship, group events, customer service, and daily operations. Jason has accepted a position with the Virginia Equine Alliance as the Director of OTB Operations.
Congratulations Recent ACBS Graduates!

8 Graduate and 142 Undergraduate Degrees awarded across three majors.

Fall 2016

Animal Sciences
Monique A Torres, MS
Kassi Marie Appenzelle, BS
Antonio De Jesus Ballesteros, BS
Melissa Marie Barbera, BS
Morgan Elise Browning, BS
Stephanie Celina Corral, BS
Alexis Victoria Diaz, BS
Aaren Rose Glick, BS
Laura Hernandez, BS
Brianna Nichole Schwanenberger, BS

Microbiology
Shylaja Ramamurthy, MS
Niasha Ena Abaglo-Grant, BS
Claire Marie Applegate, BS
Maverick John Buckley, BS
Kasey Martinez Busick, BS
Francisca Josie Grill, BS
Sarah Marie Hernandez, BS
Carolina Constance Larkin, BS
Cort J Lawrence, BS
Hung Chi Ly, BS
Scott Andrew Mogavero, BS
Lindsey C O’Heron, BS
Caitlin Ann Smith, BS
Rhiannon Tiffany Smith, BS
Ricardo Urcadez III, BS
Veronica Irene Zielinski, BS

Veterinary Science
Jacci Rose Amaral, BS
Anahi Ivan, BS
Dionna Dolores Lopez, BS
Alison Jayne Luzier, BS
Kelli Alexandra Neufeld, BS
Ryan Ng, BS
Ashleigh Anne Orr, BS
Jiwen Ou, BS
Olivia K Reeves, BS
Salazar Abigail Roman, BS
Ashley Lynn Sanders, BS
Nikki Nicole Tune, BS
Natasha Vucetich, BS
Emily Belknap Walsh, BS
Ashley Marie Wilke, BS
Jose Luis Oviedo, BS

Spring 2017

Animal Sciences
Amy Kelly, PhD
Joseph Longo, MS
Victoria H Lowe, MS
Alexa Kari Ravit, MS
Kevin Peter Schnoor, MS
Sawyer Hannah Butterfield, BS

Microbiology
Jose Alejandro Carranza, BS
Corrin Haley Davis, BS
Julia Nicole Depugh, BS
Alba Marina Dominguez, BS
Nathan Leo Grossman, BS
Ali Loree Hall, BS
Tess Marie Hatfield, BS
John Michael Haywood, BS
Yaritza A Jimenez, BS
McKenna Morgan Mackey, BS
Mallory Myra Mejia, BS
Hillary Patricia Neese, BS
Martinez Erika Rodriguez, BS
Alejandro Miguel Sauseda, BS
Kaitlynn Ann Verheyden, BS
Emily Catherine Wiegmann, BS
Jason Myles Wittler, BS
Katherine Eleanor Woolley, BS

Microbiology
Jared A Aldor, BS
Morgan Mackenzie Brown, BS
Manuel Camacho Jr, BS
Kathryn Lynn Cruice, BS
Patricia Marie Diaz, BS
Drew Harrison Dinsmore, BS
Cody Alan Eccles, BS
Melissa Nicole Gardner, BS
Daniela Fernanda Gutierrez-Munoz, BS
Vivian Huang, BS
David Arthur Kroppe, BS
Don Jacob Lee, BS
Jason Matthew Lindsey, BS
Ashley Taylor Lykins, BS
Wes Robley MacDonald, BS
Michael Kerry Mills, BS
Taeler Ashlee Motta, BS
Andrew Barasa Muse, BS
Valerie Pena, BS
Vesna Pepic, BS
Chantal Marie Riba, BS
Jordyn R Rippberger, BS
Elizabeth Rivard, BS
Halina Miroslawa Siewiora, BS
McKenzie Quinn Stratton, BS
Cham Stacy Suarez, BS
Johnny Minh Trinh, BS
Ashley Vega, BS
Mika Christine Watanabe, BS
Lillian Pilar Webb, BS
Joyce Kwai Lau, BS

Veterinary Science
Joshua Luis Aguirre, BS
Jennifer Nicole Baker-Miller, BS
Olivia Julienne Belliveau, BS
Marina Bissette, BS
Casey Grey Bottomley, BS

Summer 2017

Animal Sciences
Yafei Xu, MS
Ryan Manuel Cavazos, BS
Alexus Marshae Spriggs, BS

Microbiology
Kristy Lynn Bonham, BS
Amrutha Doniparthi, BS
Dillon Jacob McCrife, BS
Andrew K Sprute, BS
Kaci Alexis Tabor, BS
Max Lowell Zelikovsky, BS

Veterinary Science
Megan Courtney Camp, BS
Cheyenne Christine Macias, BS
Extension Traveling Near and Far

*It has been a busy spring and summer at the local, state, and national level for extension.*

**Disaster Days:** A highlight this summer was the culmination of work resulting from an extension-funded Fusion Grant. This grant involved partnerships between 4-H and Family Consumer Health Sciences (FCHS) agents, program coordinators, and specialists from three counties, and revolved around Disaster Preparedness for youth and their families. The grant focused on building pilot curriculum and testing it in the form of a 4-H type SPIN (Special Interest) Club formats in two AZ counties. “Disaster Days” pilot programs were held in Safford and Flagstaff, AZ in June with 25 4-H and other youth participating at each location. Topics included Pet and Livestock Care Plans, for 72-hour Bug-Out Bag with survival supplies, Family Evacuation plans, and more. The events were extremely successful, and organizers came away with ideas for improvements. Disaster Days organizers included Kim Horn, Trish Zilliox, Brian Moody (Coconino Co.), Lori Knight and Cindy Pearson (Graham Co.), and Josh Moore and Betsy Greene (Pima Co.).

**State 4-H Horse Show:** The committee, headed by Alesha Henderson (Pinal Co.), is hard at work to organize the 50th Annual State 4-H Horse Show to Horseshoe Park Equestrian Centre in Queen Creek, AZ on November 3-5, 2017. This event allows qualified competitors to compete with their 4-H peers from across the state. In addition, there will be several events for 4-Hers, including the 2nd Annual Groom Squad Contest, Poster and Photo Contests, Shirt and Program Cover Design Contests, and more.

**Arizona Agriculture Extension Association:** As the incoming president of the organization, Dr. Greene is currently working with other officers to plan the AAEA Winter meetings in Tucson, AZ. AAEA spearheaded a successful live and silent auction at the statewide extension meetings held in early August. The proceeds will support projects and travel of AAEA and sister organizations (4-H and FCHS)

**National Association of County Agricultural Agents:** Dr. Greene finished her first year as the National Vice Chair for the 4-H and Youth Committee. Two equine extension publications received recognition at the national meetings, The Barn Smarts for Biosecurity Poster (Regional Winner) and the Rabies in Arizona: Equine Risk and Prevention (State Winner).

Finally, Dr. Greene and a Washington colleague published their final report/article for their NACAA Scholarship Award Tour and interaction with Hawaii Extension Agents and 4-Hers.

**Presentations and Symposia**


Pub Continued on page 11

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*Photo provided by B. Greene*

**Dr. Greene demonstrates how to evaluate the body condition score of a horse during the Song of the Horse Day Camp in Page, AZ. Photo provided by B. Greene**

**Disaster Days group in Flagstaff, Arizona. Photo provided by B. Greene**
Mass Media Coverage of Research:
Dr. Ravishankar was interviewed by Maria Powell of Bienvenidos a “Su Casa” TV show/Azteca Tucson 14 regarding preventing cross-contamination in the kitchen, produce safety and cantaloupe cutting, etc., for consumers. This was a bilingual show with translation done in Spanish.

Awards:
Stacy Suarez, an undergraduate student in the Ravishankar Lab, won the Outstanding Senior in Microbiology award which was presented at the Outstanding Senior Luncheon organized by the CALS on May 4, 2017.
Aishwarya Rao, a graduate student in the Ravishankar Lab won first place in the poster competition and the Best in Show Award at the Cactus Section- Institute of Food Technologists (IFT) Student Poster Session held on March 28, 2017 in Phoenix as part of the Cactus Section IFT- Supplier’s Night event. Aishwarya also received the Spring 2017 Meritorious Award for Graduate Teaching Assistant in the School of Animal and Comparative Biomedical Sciences (SACBS).}

Outreach Activities:
Dr. Ravishankar and her research group participated in the One Health STEM Discovery Camp-Pathway to College Program for San Carlos Apache and Globe high school students in March 2017 organized by Dr. Gerardo Lopez. The students were given a demonstration of various food safety projects including, bioluminescent imaging, natural interventions for organic leafy greens, sensory analysis of organic leafy greens, and antimicrobial/anticarcinogenic activities of plant compounds in grilled meats.

Dr. Ravishankar’s research group participated in the USDA Ag Discovery Tour for Arizona high school students in June 2017 organized by Dustin Sandberg and Tanya Hodges. Apart from food safety demonstrations of antimicrobial washes for produce, the students conducted hands on activities such as Gram staining and visualized bacteria under a microscope. They also tasted organic romaine lettuce packed in salad bags with edible films and filled out survey questionnaires.

New Faces:
Jocelyn Rossette, an undergraduate student joined the Ravishankar lab in Winter 2017.

Renquist Lab Receives $1.4M to Improve Prostate Cancer Treatment
Dr. Benjamin Renquist has been awarded $1.4 million dollars for three years from the Prostate Cancer Research Program, which is administered through the Department of Defense. The proposal uses a cell ablation strategy developed in the Renquist laboratory through two previous Michelson Grants in Reproductive Biology and aims to improve treatment for prostate cancer.

Other than skin cancer, prostate cancer is the most common cancer in American men and about 1 man in 39 will die of prostate cancer. The American Cancer Society estimates in the United States in 2017 about 161,360 new cases of prostate cancer will be diagnosed and about 26,730 men will die from prostate cancer.
The vision of the Prostate Cancer Research Program is to conquer prostate cancer. To achieve this vision, the program prioritizes research that will 1) distinguish aggressive from indolent disease in men newly diagnosed with prostate cancer, 2) develop strategies to prevent progression to lethal prostate cancer, 3) develop effective treatments and address mechanisms of resistance for men with high risk or metastatic prostate cancer, and 4) develop strategies to optimize the physical and mental health of men with prostate cancer.

For more information on the Prostate Cancer Research Program go to http://cdmrp.army.mil/pcrp/.
Recent Activities of the UA Aquaculture Pathology Laboratory

Shrimp Pathology Short Course
The 27th session of “Shrimp Pathology Short Course” was conducted on July 17-22, 2017. Altogether, 19 participants from nine different countries including France, Spain, South Korea, Thailand, Australia, the West Indies, Ecuador, Canada and the US, attended the course. Participants included researchers and professionals from universities, government institutions and industries worldwide.

Aquaculture America Conference
The American Chapter of the World Aquaculture Society held its yearly meeting in San Antonio, Texas, February 20-23, 2017. Aquaculture Pathology Laboratory members, Dr. Luis Fernando Aranguren and Dr. Kathy F. J. Tang presented three papers. During the conference, Dr. Arun K. Dhar, then newly appointed Director of the Aquaculture Pathology Laboratory, was interviewed by Mr. Bob Rosenberry of Shrimp News International, an on-line news magazine dedicated to shrimp aquaculture and shrimp industry news worldwide (http://www.shrimpnews.com/). During the interview, Dr. Dhar discussed the challenges shrimp aquaculture is facing globally and outlined his vision on addressing these issues in the years ahead.

World Aquaculture Society Meeting
Dr. Arun K. Dhar attended the World Aquaculture Society Meeting in Cape Town, South Africa, June 26-30, 2017. Dr. Dhar chaired a Session of “Shrimp Diseases and Genetics” and presented two papers in the session.

Visiting International Scientists
The UA Aquaculture Pathology Laboratory had the pleasure of hosting two visiting international scientists. First was Dr. Mohamed E. Megahed from the National Institute of Oceanography and Fisheries (NIOF), Gulfs of Suez and Aqaba’s Branch, Attaka, Suez, Egypt, visited the Aquaculture Pathology Laboratory April 01-14, 2017. on validating a disease detection kit for major viral pathogens of shrimp. Viral diseases remain a major threat to sustainable shrimp farming in Egypt and elsewhere in the world.

The second international visitor was Dr. Kay Lwin Tun from the Laboratory of Aquatic Bioscience, Department of Zoology, at the University of Yangon. The University of Yangon is located in Yangon, Myanmar. Dr. Tun traveled to Tucson to work on the molecular detection of major viral and bacterial pathogens of shrimp found in Myanmar aquaculture. This visit was part of a USAID Funded Project on “Sustainable Seafood Industry Development Project” led by Professor Kevin Fitzsimmons, Director of the University of Arizona College of Agriculture and Life Sciences International Programs. Dr. Tun presented her findings at the Asian Pacific Aquaculture Conference in Kuala Lumpur, Malaysia, July 24-27, 2017.

Developed Functional Feed to Control a Major Bacterial Disease in Marine Shrimp
Dr. Arun K. Dhar and Dr. Luis Fernando Aranguren were invited to give a series of talks in Guayaquil and Machala, Ecuador at a conference focused on developing functional feed in shrimp and organized by Skretting, Norway. Skretting is currently one of the leading shrimp feed producing companies in the world. The company developed a functional diet to control Acute Hepatopancreatic Necrosis Disease (AHPND), an emerging bacterial disease that is causing enormous losses to shrimp farming globally. The functional feed is named “Lorica.” The experimental trials to developing the feed were conducted in the UA Aquaculture Pathology Laboratory by Ms. Brenda Noble, along with Paul Schofield and Tanner Padilla. Dr. Aranguren also visited Peru and gave talks on biosecurity, field sampling and disease diagnostics in shrimp aquaculture.


Publications


Intellectual Property


ACBS Homecoming Tailgate Tent

Join ACBS on October 28th in the Tents on the Mall before the University of Arizona Wildcats take on the Washington State Cougars!

Animal Sciences, Microbiology and Veterinary Science, alumni this is the place to meet current students, learn about new programs and meet up with old friends.

Tents on the Mall begins 5 hours prior to kick off.
Game time will be announced one week prior to Homecoming.

To RSVP or for more information: Debbie Reed dlreed@email.arizona.edu or 520-626-7107

For general homecoming information: http://arizonaalumni.com/homecoming

UPCOMING EVENTS

October 13 - 15
Family Weekend
The University of Arizona
familyweekend.arizona.edu

October 22 - 28
Homecoming Weekend
The University of Arizona
arizonaalumni.com/homecoming

October 28
ACBS Homecoming Tailgate Tent
The University of Arizona Mall
RSVP dlreed@email.arizona.edu

December 4 - 6
44th Annual Global Symposium on Racing & Gaming
Loews Ventana Canyon Resort
Tucson, AZ
ua-rtip.org/symposium/

December 16
College of Agriculture and Life Sciences Convocation
The University of Arizona
Centennial Hall
commencement.arizona.edu/

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The ACBS Newsletter is published three times a year for alumni and friends of the University of Arizona School of Animal and Comparative Biomedical Sciences.

Stories in this print edition have been edited for length. Visit the ACBS Newsletter online at acbs.cals.arizona.edu/news for past issues.

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