A Message from the Director

Dear Colleagues and Friends,

It’s another year which means new challenges and opportunities are ahead. It’s hard to believe that 2017 is over and we are into 2018. I hope that you find yourselves well rested and ready to tackle the challenges of the year ahead.

We welcome two new staff members to our ACBS family: Ms. Angelica Aros (Program Coordinator, Senior) and Ms. Courtney Sams (Senior Research Specialist). We are very fortunate to have you both here. More information on Angelica and Courtney can be found on page 11.

Congratulations to our outstanding faculty, staff, and graduate students, including Dr. Zelieann Craig (page 5) who was awarded a $2.28M Grant from the National Institute of Environmental Health Sciences; Ms. Aishwarya Rao for defending her MS degree; and our students Christine Bradshaw, Isabel Forlastro and Alexandra Roder for sweeping awards at the 50th Annual Meeting of the Society for Invertebrate Pathology in La Jolla, California (page 5). I am very proud of the huge achievements made by our faculty, staff, and students. Well done team!!

Finally, huge thanks and well wishes to Dr. Robert Collier, who retired in May after 18 years of research, teaching and service to the UA community and 46 years of research contributions to the US Dairy Industry (page 4); and to Wanda McCormack, for 27 years of service to the UA (page 11). We also extend our condolences to the family of former Animal Science faculty member Dr. Frank M. Whiting, who passed away November 26, 2017, at the age of 84 (see page 8 for more information).

To our valued stakeholders, faculty, staff, graduate students, and friends, thank you for your support. I wish you and your families all the best for a happy, healthy, and safe New Year. I’ll see some of you at the National Cattlemen’s Beef Association Annual Convention in Phoenix January 31st to February 2nd.

Kindest regards and Bear Down!
André Wright, PhD
Animal and Biomedical Industries Degrees Merge Science, Business

The new program in the School of Animal and Comparative Biomedical Sciences provides a strong foundation in science while building skills in commerce, marketing, and management.

For more information
- Undergraduate major: https://biomedicalsciencemajor.arizona.edu
- Graduate program: https://acbs.cals.arizona.edu/degrees/grad_animalindustries

Career options for students in the School of Animal and Comparative Biomedical Sciences are expanding with the introduction of a new animal and biomedical industries bachelor’s and master’s program. The mix of specifically designed science and business courses will prepare graduates for job entry immediately after the B.S. or M.S. degree, or serve as a foundation for further academic study and research.

The curriculum is based on three core concepts — Animal-Human Interdependence, One Health (that the health of humans, animals and the environment are all related) and Commerce — combined with applied business and management principles.

“The 10 core courses in the ABI major were created from scratch, designed specifically for this program,” said André-Denis Wright, ACBS professor and director. “It fills the gap between animal sciences and the industries that need people with a business and leadership background.”

The goal is for ABI graduates to think like scientists while leading and managing successful businesses in a variety of fields.

Coursework includes a solid scientific base of physical sciences for One Health, disease principles, biomedical computation, and animal evolution, behavior and animal handling, along with a focus on managing the bioeconomy, marketing and business, animal and human interaction with the environment, and risk management and assessment.

“It’s a well-rounded program that will qualify people to get a variety of jobs throughout the animal industry. A lot of the feed and pharmacology industries are struggling to find people with a little more experience in business,” said Dan Faulkner, ACBS professor and beef extension specialist, who is teaching the nutrition and range management portions of a course on interactions of animals, humans and ecosystems.

“I think the program did an amazing job finding the different professors to instruct these courses,” said Michael Dunn, ABI graduate student. “There is a huge amount of knowledge from several different fields that they are all wanting to share with us. They are really taking an all-encompassing approach.”

For example, microbiologist Michael Anderson, of the UA Veterinary Diagnostic Laboratory, devotes his course on principles of disease to bringing real-life scenarios into the classroom. Students will study the nomenclature of creating a diagnosis, rather than material that primarily emphasizes memorization.

In their class on animal behavior (ethology) and related issues, Professor of Practice Dieter Steklis and Lecturer Netzin Steklis focus on the evolutionary, physiological and developmental causes of behavior — how adaptive an animal is. They emphasize that knowing the ethology means understanding what’s good for the animal and what improves not only its productivity but also its welfare. It’s also about the treatment and well-being of animals.

Doug Reed, lecturer and former director of the Race Track Industry Program, and Scot Waterman, veterinarian and lecturer, are teaching a course on marketing and business. Their materials will cover accounting, how to read a balance sheet, and the types of corporate structure that work for bioeconomy-related professions.

“It can be applied to all sorts of businesses in the farm world,” Waterman said. “If there is one thing I could change about my veterinary experience, it would have been to have more business training.”

ABI master’s students enrolled in the fall semester already have noted possibilities for careers and even some career changes. Santana Nez, who plans to go into food animal production, health or research, said the advantage of the ABI M.S. program is that it encompasses many different curricula and can be completed quickly: “It’s a one-year program. You get in and get out.”

Elizabeth Carranza intends to apply to veterinary school, but enrolled in ABI to explore her options. She is now interested in pursuing a Ph.D. in animal behavior.

Alyssa Pires completed a chemistry degree with a minor in math, but decided that wasn’t what she wanted to do. She has applied to veterinary school, but said if that doesn’t happen, “This program is a good step in changing my life.”

- Susan McGinley
UA College of Agriculture and Life Sciences
Reprinted from UA News 11/6/2017
UA Offers New Food Safety Undergraduate Degree

An interdisciplinary program offered through ACBS will prepare students to handle the evolving safety challenges facing the food industry.

A breach in food safety can be catastrophic to individuals and businesses. The Centers for Disease Control and Prevention estimates that one in six Americans gets sick from contaminated foods or beverages and 3,000 die each year. The U.S. Department of Agriculture estimates that foodborne illnesses cost $15.6 billion annually.

Education in the food industry is becoming increasingly important as companies realize they can’t just assign food safety duties to someone already on staff who may not have a background sufficient for the job. The stakes are too high. In one of the worst cases, 33 people died and 147 were sickened from a 2011 listeria outbreak traced to cantaloupe grown near Rocky Ford, Colorado. The cantaloupe had been shipped to 28 states. Even without the health implications, a serious recall alone could put a company out of business.

The need for employees trained in food safety will continue to grow as challenges to food safety continue to change. Tanya Hodges is the regional academic coordinator for the University of Arizona in Yuma and La Paz counties in Arizona and Imperial County in California. She says the demand for educated, skilled food safety professions exceeds the number of qualified individuals in those areas and across the U.S. in general. With the food production and supply chain becoming more global as foods are moved around the world, qualified graduates will be needed in all facets of the industry.

To meet this demand, the UA has created a new bachelor’s degree program in food safety, which will begin in fall 2018. The program is housed in the School of Animal and Comparative Biomedical Sciences within the College of Agriculture and Life Sciences. The interdisciplinary program includes faculty and courses from the Mel and Enid Zuckerman College of Public Health, ACBS and four other units in CALS: the Department of Nutritional Sciences; Department of Soil, Water and Environmental Science; School of Plant Sciences; and Department of Entomology.

By bringing together experts and educators already working on food safety and its applications in each of these fields, students graduating from the program will gain knowledge of the entire food safety domain.

In her letter of support for the program, Hodges states: “The new food safety degree is vitally important in the educational preparation and workforce development that will lead students into the agriculture

food safety industry. What most don’t realize is that most jobs involved in food safety require advanced and very specific science and math competencies that can only be gained through very specific coursework. Food safety is a relatively new concept and profession.”

In addition to the UA’s general education requirements, the curriculum includes 10 core courses that make up the basis of food safety education. Students will develop an all-around perspective in food safety, epidemiology, food toxicology and legalities in the food industry.

With the help of their adviser, students also will select food safety electives based on their area of interest. Areas of specialization might include produce, animal production, public health, food science and microbiology.

“This new food safety program presents students with an opportunity to gain an education with an integrated food safety curriculum designed to provide them with the necessary knowledge and problem-solving skills to thrive in tomorrow’s food safety-related ‘food industry’ workplace,” said ACBS Director André-Denis Wright. “Students completing this program will have a unique and highly desirable credential, which will likely provide them a competitive edge in the marketplace. Careers can be found in local, state and federal agencies, public health, academia, and industry.”

To address the acute need for food safety professionals, a distance learning program in food safety will be offered in Yuma. Yuma County is the nation’s third-largest vegetable producer and supplies 90 percent of the nation’s leafy vegetables between November and March. The area produces more than 175 different crops and seeds, and accounts for more than a third of Arizona’s total agricultural revenue. The distance learning class format is designed to accommodate working professionals in the Yuma area who want to further their careers by obtaining a food safety degree.

Distance learning students will attend UA classes in real time using Adobe Connect and D2L, giving them the same class experience as Tucson students without having to relocate. Arrangements are being made to offer classes with hands-on components at local community college facilities in Yuma.

“We are excited to be the first to offer a major that looks at overall food safety in Arizona,” said Sadhana Ravishankar, ACBS associate professor and chair of the Food Safety Academic Program Planning Committee. “This program will produce scientists who can be a part of the workforce in Arizona, the U.S. and the world.”

Advantages for students

- Access to growers, producers, distributors and manufacturers of a wide variety of products.
- Proximity to the U.S.-Mexico border for further understanding of cross-border procedures and compliances with the new Food Safety Modernization Act (FSMA) regulations.
- Preparation to work across a range of environments and locations.

Applications available for Fall 2018 start

- Food safety degree: https://foodsafety.arizona.edu/
- Careers: https://foodsafety.arizona.edu/careers

Debbie Reed Photo
Yuma County’s leafy greens serve as the winter salad bowl for the U.S.
Produce safety is one of the components of the UA’s new food safety undergraduate degree program curriculum.
Distinguished Professor, Dr. Robert J. Collier Retires

Symposium held to celebrate world-renowned researcher in lactation biology and heat stress.

On October 7th, 2017, colleagues, former students, family and friends from far and wide gathered to celebrate the retirement of Dr. Robert J. Collier. The festivities included a research symposium with presentations from some of Dr. Collier’s associates and former students.

Dr. Collier has actively contributed to research and publications in the area of lactation biology and heat stress in dairy cows for over 46 years (1971-2017). He has served as Department Head, Director of the William J. Parker Agricultural Research Center, and as a mentor to over 20 graduate students and 4 post-doctoral fellows. His research and career has improved the dairy industry and established his reputation as a frontrunner in heat stress physiology in dairy cattle.

After graduate school at the University of Illinois and a brief post-doctoral program at Michigan State University, Dr. Collier became an assistant professor at the University of Florida (1976) where he trained 9 graduate students and 1 post-doctoral fellow. In 1985, he began work at Monsanto where he was promoted to Dairy Research Director in 1987. His research at Monsanto helped revolutionize the dairy industry with a product known as Posilac. In 1999, Dr. Collier returned to academia at the University of Arizona.

Dr. Collier has served on numerous committees and has been an active part in publications and the careers of those he has mentored. He has published 137 peer-reviewed journal articles and 30 review papers. Additionally, he has authored 27 book chapters and has been the editor for the textbook “Environmental Physiology of Livestock”. It is difficult to find a publication in the topic of heat stress in dairy cattle without his name as an author or one of his publications cited in the text. In 2013, Dr. Robert Collier was the recipient of the American Dairy Science Association (ADSA) Fellow Award. He was recognized for his contributions to the dairy industry that are widely known in both the national and international communities.

Beyond an impressive CV, Bob has always offered help to any student. He has been an exceptional advisor and friend. His most influential work has been in the personal training and confidence that he has invested in those he has mentored. His trainees smile at the mention of his name and attribute much of their success to their time spent with him. Congratulations Dr. Collier, best wishes in the next chapter of your life, and thank you for your contributions and influence.

1. Dr. Collier with ACBS Director, Dr. André Wright
2. Dr. Collier with Arnaldo Burgos - Dairy Nutrition Services (left), and Frank Boyce - Shamrock Farms (right)
3. Dr. Collier with wife, Jayne and sons Michael and Jason
4. Dr. Collier with former PhD student, Dr. Laura Hernandez, Associate Professor Lactation Biology Alfred Toepfer Faculty Fellow, Department of Dairy Science, University of Wisconsin
5. Dr. Collier with former PhD student, Dr. Rosemarie Burgos Zimbelman
6. Dr. Collier with Dr. Lance Baumgard Distinguished Professor, Dairy Cattle Nutrition, Michigan State University

Photos provided by Jayne Collier
ACBS Students Sweep Awards at SIP Meeting

This past August, students from the Microbiology and Veterinary Sciences Programs in the School of Animal and Comparative Biomedical Sciences attended the 50th Annual Meeting of the Society for Invertebrate Pathology in La Jolla, California. The international society consists of about 500 members and focuses on the diseases of insects and other beneficial invertebrates.

Dr. Patricia Stock, Joint Professor of Entomology, ACBS, and Plant Sciences had four members of her laboratory present their research findings at the meeting. UA meeting presenters included, Christine Bradshaw (Senior Undergraduate, ACBS-Microbiology), Isabel Forlastro (Junior Undergraduate, ACBS-Veterinary Sciences), Alexandra Roder (Graduate Students, ACBS-Microbiology) and alumnus Dr. Rebecca McQuade (currently PERT Postdoctoral Fellow).

Christine gave a poster presentation on her research on “A novel Type Six Secretion System in the entomopathogenic bacterium Xenorhabdus bovienii” (Gamma-Proteobacteria: Enterobacteriaceae) which may impact insect virulence and bacterial competition. She was the only undergraduate student in this competition and won 1st place.

Isabel Forlastro presented her work on “Galleria mellonella (Lepidoptera: Pyralidae) as a complementary model organism to study enteropathogenic E. coli”. This was the first time Christine and Isabel attended an international scientific meeting. Credits for this work also go to Dr. Rebecca McQuade, alumnus of the UA ACBS Microbiology Program and current PERT postdoctoral associate in Dr. Stock’s laboratory, who supervised and co-mentored Christine and Isabel. Rebecca also gave an oral presentation on “The role of T6SS on Xenorhabdus bacteria”. Additionally, she won the second place in the women’s category 5K race that took place at this meeting.

Alexandra Roder, a current Master’s student in Microbiology won a Travel Award by the Nematode Division of SIP and received an honorable mention for her oral presentation “Influence of Xenorhabdus symbionts on ascaroside production and development of first generation adults of their Steinernema hosts.”

Phthalates and Ovarian Function

$2.28M Grant from the National Institute of Environmental Health Sciences.

Dr. Zelieann Craig, Assistant Professor in the School of Animal and Comparative Biomedical Sciences, has been awarded a $2.28 million dollar grant from the National Institute of Environmental Health Sciences to study the effect of phthalate exposure on ovarian function. Approximately 6.7 million American women are unable to become pregnant or carry a baby to term. Any environmental exposure that causes damage to the ovary has the potential to cause infertility in women. Infertility is a worldwide concern and exposure to endocrine-disrupting chemicals is thought to increase its incidence. This work is aimed at identifying and characterizing the interactions between phthalates, a family of endocrine-disrupting chemicals, and the ovary, the main reproductive organ in the female. Phthalates represent a significant concern for human fertility because they have been associated with early menopause, decreased hormone levels, and early pregnancy loss in women. Studies in animal models suggest that phthalates may impair fertility through their ability to disrupt ovarian function. These studies will use environmentally relevant exposures to identify which signaling pathways, follicle types and individual ovarian cell compartments are most sensitive to phthalates and establish the phenotypes that result from these relevant exposures. By doing so, this work will facilitate the characterization of the risks of phthalate exposure and provide leads for potential biomarkers and therapeutic targets to detect and treat phthalate-induced reproductive disorders.
Established in 2005, the Collegiate Livestock Growers Association (CLGA) is a University of Arizona club housed within the School of Animal and Comparative Biomedical Sciences, in the College of Agriculture and Life Sciences. CLGA works to bring hands-on livestock experience to students from all backgrounds, while developing students’ professional skills and industry connections. CLGA balances a variety of events, including working with livestock, business and industry tours, workshops, hosting a SAILA show, working with the Arizona Cattle Growers and other professional organizations, performing community service, and hosting campus-wide events such as WTF Day: Where’s the Food Without the Farmer, and hosting the CALS Alumni tailgate at the homecoming game. This 2017-2018 year, CLGA has already participated in a variety of events, and has plans for next semester as well.

On November 18-20, eleven CLGA members were able to visit the University of Arizona V Bar V Ranch in Rimrock, AZ. Hosted by Bopper and Keith Cannon, members learned about ranching in Arizona, including the relationship with wildlife, drought, and agencies such as Arizona Game and Fish. Members from all backgrounds learned to identify cattle with ear tags and brand, vaccinate to improve herd health and prevent the need for antibiotics, check pregnancies through palpation and ultrasound, and more about how the cattle industry works to provide the best care for their cattle, while sustainably managing the environment, and feeding a growing population. “Ranching is turning grass and land unusable for traditional agriculture into healthy, safe protein,” relayed Keith (Bopper) Cannon.

CLGA members visited the UA Feedlot and Vaquero Feeds and Livestock Supply this year. At the feedlot, members learned the importance of developing rations and feeding cattle, including its history of development in Arizona. At Vaquero, members met owner Barbara Jackson and learned more about the feedlot industry, and pharmaceuticals, as well as overall history of the cattle industry and what to look for in the future. All 18 members attending were able to ask questions regarding their future and careers in the cattle industry.

Coming up next semester, February 17th will mark the 6th annual SAILA sanctioned livestock show hosted by CLGA. Over 200 kids come from around the state to show their livestock, and in turn learn more about CLGA and the University of Arizona. Also in spring, we will again begin the tradition of the annual WTF Day, a day to set up on the UA Mall and share with all students how the agriculture industry provides them with food, clothing, and everything they use everyday. We will also participate in additional business and industry tours.

For more information on joining CLGA or helping support this important student club, contact Nicole Van Eerd, nicolevaneerd@email.arizona.edu.
RTIP Students Intern at Breeders’ Cup

2017 World Thoroughbred Championships Held Where the “Surf Meets the Turf”

The 2017 Breeders’ Cup World Thoroughbred Championships, held for the first time at beautiful Del Mar Thoroughbred Club, featured huge longshots, heart-pounding finishes, and the opportunity of a lifetime for many Race Track Industry Program students. In Thoroughbred racing, the Breeders’ Cup World Championships, is the culmination of the horse racing season worldwide and the $6 million Breeders’ Cup Classic is the defining event of the international racing season. The event drew horses from all over the world to contest 13 races for total of $26,000,000 in prize money. Eight students - Jade Eisenzimmer, Zach Taylor, Mitch Gerson, Trisha Scholle, Ash Hentges, Jayson Campbell, Morgan Edwards and Leo Ko - participated in a week long intern program and carried out a variety of duties. The early morning hours were spent transporting owners, trainers and other officials around the Del Mar facility as the participants attended events and checked on their horses. Students also helped with several operational aspects of the Breeders’ Cup, such as preparing the owner’s boxes and checking saddle towels. They were able to experience some of the activities themselves, most notably the post position draw and reception.

During the Breeders’ Cup races, the students were stationed in the paddock directing the connections to their assigned areas. Once the connections were ushered back out to the track for their race, the students had the opportunity to watch the big races. Being able to put this experience on a resume is very valuable for students; a huge thank you goes out to the Breeders’ Cup organization for giving them the opportunity.

“The highlight for me was just being around such top tier horses. Whether it was in the paddock before the races or heading back to the barns to feed them carrots.” - Jade Eisenzimmer

“It was so awesome meeting the connections of Gunnevera, Battle of Midway, and Lady Eli. I also got a selfie with jockey Joe Talamo.”

“I stood beside Todd Pletcher as he gave instructions to John V in the paddock. I also had a nice long chat with Dale Romans and Tammy Fox. They are super nice people.” - Zach Taylor

RTIP Students Benefit from Foreign Outreach

The Race Track Industry Program’s Executive in Residence Program has hosted foreign participants for many years, and this semester the RTIP has enjoyed having two representatives from the Korea Racing Authority (KRA) in residence. Kiwon Cho and Byungun (Leo) Ko take full advantage of their time at the UA by attending the racing classes as well as the Global Symposium on Racing and traveling to racetracks and important racing events such as the Breeders’ Cup.

Kiwon arrived in January 2017 and will finish his class work in December 2017, whereas Leo arrived in August 2017 and will be in residence through May 2018. All KRA executives have different areas of expertise. Most recently, Kiwon worked in wagering development and global marketing, and Leo was the chief of the Busan horsemen’s business center.

Not only does this program offer continuing education opportunities to the foreign participants, but it allows RTIP students a chance to get to know these racing executives personally while learning first-hand their racing rules, structure and culture.

Faculty and students alike benefitted tremendously from a visit by former senior vice president and chief operating officer New York Racing Association and Hong Kong executive director of racing, Bill Nader. Just prior to Bill’s Arizona trip, he attended the Korea Cup races in Seoul, which featured two U.S. runners, illustrating the continually expanding international nature of the sport. Bill spoke in RTIP classes discussing diverse topics such as the Hong Kong Jockey Club’s operational and regulatory structure, the way horses are evaluated by class ratings and how races receive group ratings in Europe. The week was highlighted by an informal dinner with Bill during which the students were able to visit with him one-on-one, and discuss any topic on their mind.

These international networking opportunities create life-long connections and help RTIP students expand their professional network even before graduation.
Preparing the Next Generation of STEM Innovators

Dr. Gerardo U. Lopez has been participating in a Faculty-Directed undergraduate research program in partnership with the National Science Foundation (NSF) funded Western Alliance to Expand Student Opportunities (WAESO) program supported in part by a grant from the Louis Stokes Alliance for Minority Participation (LSAMP) program of the NSF (Award number:1101728). With the help of Daniela Cabrera, research technician and outreach coordinator, graduate student Andy Diaz and more experienced WAESO students, Dr. Lopez is providing environmental microbiology and food safety research experiences to his 3rd cohort of undergraduate students majoring in STEM fields from four colleges. Thanks to Donna Treloar, Director of the Undergraduate Research Opportunities Consortium (UROC) many of our students had the opportunity to participate in the 22nd annual UROC Research Conference (Poster Session) on August 7, 2017.

University of Arizona Food Day

Dr. Sadhana Ravishankar and her team participated at the University of Arizona Food Day Fair 2017 organized by the Department of Nutritional Sciences on November 1, 2017 and educated the community about foodborne illnesses and foodborne pathogens. They also conducted demonstrations regarding prevention of cross contamination in the kitchen and using plant based antimicrobials for improving the safety of salads and grilled meats.
Recent Activities of Aquaculture Pathology Laboratory

Dr. Arun K. Dhar, visited Bangladesh from July 25 - August 04, to conduct workshops in shrimp disease diagnostics using molecular tools. The training was attended by participants from academia, industry, government and non-governmental organizations. The workshop was funded by the John Ogonowski and Doug Bereuter Farmer-to-Farmer Program-Asia F2F, Winrock International, Virginia, USA. He also gave a talk on “Emerging Diseases in Shrimp Aquaculture” in the Department of Marine Sciences in Khulna University, Khulna.

Dr. Dhar and Dr. L. Fernando Aranguren Caro were invited by the National Commission on Aquaculture, Ecuador to give talks at the AQUAEXPO-2017, September 25-29, in Guayaquil, Ecuador. Dr. Dhar gave a talk entitled “Emerging Diseases in Shrimp Aquaculture: Diagnostics and Management” and Dr. Aranguren Caro gave a talk on “Enterocytozoon hepatopenaei (EHP) is a risk factor for acute hepatopancreatic necrosis disease (AHPND) and septic hepatopancreatic necrosis (SHPN) in the Pacific white shrimp Penaeus vannamei”.

During their Ecuador trip, Dr. Dhar and Dr. Aranguren Caro were invited by DianaAqua, Nutrition a company which specializes in feed additives, to give talks. Dr. Dhar gave a talk on defense mechanism against microbial pathogens in shrimp and Dr. Aranguren Caro gave a talk on how to diagnose shrimp disease in the field.

Dr. Dhar visited Yangon University, Myanmar from Aug 29 - Sept 06, 2017 to conduct training on shrimp disease detection in the Zoology Department of Yangon University funded by an USAID Project of The University of Arizona. Prof. Kevin Fitzsimmon, Director - CALS International Programs leads this project. During this trip Dr. Dhar had an opportunity to interact with the shrimp industry leaders in Myanmar, visit shrimp farms and hatcheries and provide hands-on training on sample collection for disease diagnostic. Dr. Dhar also gave a talk on “Diagnostics & Management of Major Diseases in Penaeid Shrimp” in the Zoology Department, Yangon University, Myanmar.

In July of 2017, researchers in the University of Arizona Aquaculture Pathology Laboratory detected the presence of an emerging bacterial disease called acute hepatopancreatic necrosis disease (AHPND), also known as Early Mortality Syndrome in shrimp samples originated in Texas. This is the first documented case of AHPND in the United States. The disease is caused by a bacterium, Vibrio parahaemolyticus, which produces a binary toxin. The detection of AHPND in the US was reported to the USDA and World Organization of Animal Health, Paris, France. The detection of AHPND in the US has an enormous implication in the export of live shrimp (broodstock, post-larvae), shrimp feed and feed ingredients from the US to elsewhere in the world especially to Asia and Latin America.

UA Aquaculture Pathology Laboratory Detects Early Mortality Syndrome in US Shrimp

Dr. Frank M. Whiting passed away November 26, 2017, at the age of 84. A native of Tucson, Frank was the son of F. Marion and Jean (Barringer) Whiting. Frank earned a Master’s and a Doctorate in Animal Science from the University of Arizona. He worked for United Dairymen of Arizona before joining the UA faculty in 1965. He was a dedicated advisor, helping students further their education and fulfill life goals. He was recognized with the A+ Advisor Award and a Lifetime Achievement Award from the College of Agriculture and Life Sciences. A lifelong cowboy, Frank loved working round-ups and participating in ranch work on the UA’s V Bar V Ranch and family ranches. He enjoyed camping, hunting, fishing, welding and leather work. But what he enjoyed most of all was spending time with family and friends. Frank was known for always helping a friend in need, and will be remembered for his witty charm and his knack for storytelling. He is survived by his wife of 59 years, Pat (Lacy); daughters, Jamie Holehan (Patrick) and Linda Bylina (John); grandchildren, Sterling, Megan, Ian Holehan; Lea and Andrea Bylina; sister, Shirley Scheier; brother, Bill Whiting (Marty) and many nieces, nephews, aunts and cousins. A Celebration of Life was December 2, 2017. Donations may be made to UA College of Agriculture Animal Science Scholarship, c/o University of Arizona CALS, Forbes Building Room 325, P.O. Box 325, Tucson, AZ 85721.
Presentations and Symposia


Riggs, M.W. and Schafer, D.A. Invited Members - Controlled Human Infection Models Consortium (CHIM), Cryptosporidium Study Group. Member institutions/organizations: University of Vermont, University of Maryland, University of Arizona, Pace University, Bill and Melinda Gates Foundation, PATH Drug Solutions and EMMES Clinical Research and Trials Organization.


Publications


Wanda McCormack Retires After 27 Years of Service

Thank you, Wanda McCormack, for 27 years of service to the University of Arizona.

Wanda has been with the University for 27 years and has held several positions. She began working in the Family & Consumer Resources Department as an Accountant Specialist. Wanda came to Vet Sciences as an Accounting Specialist, then moved into Dr. Lightner’s Lab (Aquaculture Pathology Lab) as an Administrative Assistant for 12 years. She was invited to join the business office in Vet Sciences as an Administrative Assistant and during that time was promoted into her current position of Program Coordinator, Senior. Also during that time, she assisted with the merge of the Animal Sciences and Veterinary Sciences and Microbiology Department, which formed what is now known as the School of Animal and Comparative Biomedical Sciences (SACBS). Her knowledge of our school and her hard work will be missed.

Wanda’s favorite part of working with the University and SACBS? “My favorite experience has been working with all of the people in our school. We have a very diverse team of individuals in ACBS. This has given me the opportunity to get to know about many cultures from around the world. I have also been able to learn so much about all the research being conducted by our various labs. Our school has always had an emphasis on quality programs for our students and continued growth that I really enjoyed being involved in.”

Wanda will enjoy her retirement, she will be spending more time with her family and her grandchildren. She also plans to travel, take a few classes, remodel some of her home and do volunteer work.

Thank you again Wanda for your service and a job well done. Good luck from all of us at SACBS.

New Staff Appointments

Angelica Aros - Program Coordinator, Senior (ACBS Business Office)

Angelica Aros joined our ACBS family on October 30, 2017. Her major responsibilities include being in charge of hiring, payroll, and personnel-related matters to support all members of our School.

Angelica is a native Tucsonan. She earned her Bachelor’s degree in Business Management from Northern Arizona University. Angelica has been with the University of Arizona for the last 15 years including SALT Center, Biosphere 2, and the Mathematics Department before joining ACBS.

While working at her last position, Angelica served as departmental point of contact for recruitment, payroll, benefits and personnel-related matters. She processed a bi-weekly payroll of 300+ employees and coordinated all payroll functions for the Mathematics Department. Angelica has gained great experience in working on all phases of the hiring process including development of job descriptions, position postings, search committee responsibilities, offer letters, and assisting new employees with the on-boarding process. Throughout her career with the University, she has developed a strong foundation of University business policies and procedures.

Angelica enjoys spending free time with her family, two dogs (Suki and Khaleesi), traveling and the occasional arts and crafts. She looks forward to working with all ACBS faculty, staff, and students.

The ACBS business office is located in Saguar Hall, Room 217. Angelica can be reached at aros@email.arizona.edu or 520-621-4731.

Courtney Sams - Senior Research Specialist

ACBS welcomes Courtney Sams, Senior Research Specialist in Dr. Kerry Cooper’s laboratory. In her new position, Courtney will train and supervise undergraduate and graduate students, monitor and participate in research activities, including Bioinformatics, Molecular Biology, Microbiology, and Next Generation Sequencing, and travel to collect samples for foodborne pathogen and microbiome analysis. She will also oversee the daily operations of the laboratory including assisting with writing publications, proposals and train students to make sure the laboratory is reaching its research goals.

Prior to coming to the University of Arizona, Courtney received her Bachelor of Science degree in Chemistry from UCLA and taught high school Chemistry in Los Angeles and Northridge for 5 years. After obtaining her masters in Computational Chemistry from Cal State Northridge (CSUN) she served as an Adjunct Professor and Lab Manager at CSUN.

About her move to Tucson and the University of Arizona she says, “I’m excited to be in a new city and I love the research that I am doing. The best part of this job is that I can focus on my time in the lab instead of having to split time between teaching and research.”

Courtney is located in the Shantz building, room 622 and can be reached at csams@email.arizona.edu.
Renovations Begin on the Animal and Comparative Biomedical Sciences Building

Governor Doug Ducey and University of Arizona President Dr. Robert Robbins attended a news conference at the Animal and Comparative Biomedical Sciences Building, also known as Building 90, on Wednesday, Oct. 4. The event marked the official start of the 51-year-old building’s renovation, which was made possible by the newly approved state bonding plan signed by the governor earlier this year. The renovations on Building 90 will include replacing the mechanical, plumbing and electrical systems, which have not been updated since the building opened.

UPCOMING EVENTS

January 31 - February 2
National Cattlemen's Beef Association Annual Convention
Phoenix, Arizona
convention.beefusa.org

February 17
SAILA Livestock Show hosted by UA Collegiate Livestock Growers
The University of Arizona, Agricultural Research Complex
Tucson, Arizona

February 20 - 22
Southwest Ag Summit
Yuma, Arizona
Centennial Hall
www.swagsummit.com

March 5 - 9
Spring Break
The University of Arizona

ACBS Newsletter

Volume 3 : Issue 3 Fall 2017
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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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