

**UCDAVIS**

**COLLEGE OF AGRICULTURAL  
AND ENVIRONMENTAL SCIENCES**

# OUTLOOK

A photograph of a young woman with long brown hair, wearing a dark t-shirt with yellow text, smiling and gently petting the head of a black and white cow. The cow has a yellow ear tag with the number 2785. They are in a wooden barn setting.

**MAGAZINE**

SPRING/SUMMER 2018

**THE FUTURE IS  
BRIGHT**

Students and society benefit  
from hands-on learning





In Tulare, Aggie Ambassadors Regina Gutierrez (left), Madison Zamaroni and Kiara Cuevas quiz World Ag Expo visitors about UC Davis trivia for college swag including hats, shirts, cow bells and more.

## Speaking up for science

Science Says, a group created by UC Davis graduate students to build public understanding of science through events, social media, blog posts, a book club and other activities, continues to make science accessible to the general public.

In March, the group hosted a screening of *Food Evolution*, a documentary about the debate surrounding Genetically Modified Organisms (GMOs). One of their most popular events is Sac Science Distilled, a science cafe held monthly in Sacramento that regularly draws 50 to 90 people.

"Science Says activities are great for stimulating that innate curiosity in everyone," said program coordinator Shannon Albers. Reach her at [snalbers@ucdavis.edu](mailto:snalbers@ucdavis.edu) or visit [DavisScienceSays.com](http://DavisScienceSays.com).



SHANNON ALBERS/UC Davis

## Smiles and swag at World Ag Expo

UC Davis faculty in everything from grapes to livestock to irrigation management joined staff and students at the World Ag Expo in Tulare in February to chat with farmers, prospective students, alumni and leaders throughout the agriculture industry. A steady stream of people stopped by the CA&ES booth to say hello, win some swag and catch up with what's happening at UC Davis.

Plans are already underway for next year's event at the sprawling World Ag Expo fairgrounds in Tulare, where 1,500 exhibitors display the latest in agricultural equipment and technology.

CORRIE HAWES/UC Davis

## Olive Center celebrates 10 years

A crowd gathered in January at the Robert Mondavi Institute for Wine and Food Science to toast a decade of success for the UC Davis Olive Center. It's been 10 years since the operation first began with a single great idea—to eliminate a slippery mess on the bike paths by harvesting olives and turning them into UC Davis olive oil.

Since then, the Olive Center has evolved into a self-funded research and education center led by Executive Director Dan Flynn. The center seeks to increase the quality, viability and sustainability of the olive industry. Learn more and find out how to order Olive Center products at [olivecenter.ucdavis.edu](http://olivecenter.ucdavis.edu).



ALANA JOLDERS/UC Davis



Courtesy photo

## Risk and Resilience

A UC Davis expert in human development is weighing the unique, daily challenges and stresses that affect young parents and babies of Mexican origin in California.

The novel research, funded by a \$2.7 million grant from the National Institutes of Health, could improve the well-being of thousands of families in this growing yet underserved population.

"We want to better understand how stress affects daily parent-child interactions, and how that influences a child's physical and mental health and school readiness," said Leah Hibel, an associate professor with the Department of Human Ecology who is leading the five-year experiment. Read more at [tinyurl.com/UCDavisResilience](http://tinyurl.com/UCDavisResilience).

## Ag shines in world rankings

UC Davis is first in the world in veterinary science and second in agriculture and forestry, according to the 2018 World University Rankings released in February.

The rankings consider reputation among academics, reputation among employers, and the citations of academic papers. More than 1,130 institutions were included.

UC Davis also was in the top 50 for seven other disciplines. The rankings are prepared by Quacquarelli Symonds, one of the most influential international university rankings providers. Read more at [tinyurl.com/UCDavisranking](http://tinyurl.com/UCDavisranking).

BY ROBIN DERIEUX

# The Real World

Four students venture off campus  
for hands-on experience



## On-time Deliveries

**BUS. TROLLEY. TROLLEY. BUS.**  
Two hours door-to-door in one direction. Two hours back home. That was the daily commute to a summer internship at Andrew & Williamson (A&W) Fresh Produce for undergraduate Evelyn Ponce, which she happily embraced for the opportunity to explore career options in agriculture.

As a freshman, Ponce came to UC Davis with an interest in science, agriculture and the environment, but she was undecided on a specific direction. Once she settled on a major in sustainable agriculture and food systems, she wanted to know more about jobs.

"It's daunting to think about what you want to do for the rest of your life," said Ponce, whose family lives near San Diego.

Through a connection made by her academic counselor and UC Davis alumni, Ponce landed a paid internship with A&W. The family business sells and distributes tomatoes and berries grown in California and Mexico to major retailers and restaurants throughout the nation and Canada. Ponce worked for A&W at one of their

distribution hubs, located east of San Diego on the California side of the Mexican border. In the summer, there might be 30 truckloads a day of produce moving in from growers and out to customers.

**“Getting all that product from there to somewhere else, it’s amazingly complex, and that happens every day.”**

Although A&W has no formal internship program, employees mentored Ponce and she covered for regulars on vacation. Being bilingual was a necessity, since many of the people she dealt with were Spanish speakers.

"In my classes, I had learned about the biology and the chemistry behind growing food, but I hadn't really learned about the distribution process," said Ponce. "When they gave me a tour of the warehouse, and I saw all those pallets of tomatoes and strawberries—it was just breathtaking. Getting all that product from there to somewhere else, it's amazingly complex, and that happens every day."

GRIGORY URQUIAGA/UC Davis



**MARISSA RODRIGUEZ** grew up in the Central Valley and is looking for a career that will help to address inequities in her home region. During fall quarter, she tried a job in policymaking, interning for the California State Assembly through the UC Center Sacramento program.

"You're juggling a lot of projects for a legislative job—it's fast-paced and can be stressful," said Rodriguez, a senior majoring in community and regional development.

"But I enjoyed it because I was doing something to benefit the Central Valley, a disadvantaged region that doesn't have the wealth and resources that Northern and Southern California have."

Rodriguez grew up in an area with poor air and water quality, and she knows what it's like to have fewer educational opportunities and other circumstantial disadvantages. Her extended family remains in the Central Valley, except for her older sister, who also left

home to attend college. Although it's less than 200 miles from home to UC Davis, it can feel like a long way for Central Valley residents who are the first generation in their close-knit family to attend college.

"In a sense, I had to leave my hometown to try and give back to it, to provide a better life for my family and community," said Rodriguez.

At the UC Center Sacramento, Rodriguez was part of a cohort of approximately 30 students from various University of California campuses who earn academic units by interning at the Capitol. Rodriguez worked for Assemblymember Rudy Salas, who represents a Central Valley district that includes Bakersfield and Hanford.

"I learned a lot about the length and complexity of the process of getting a bill passed," said Rodriguez. "I got exposure to how I can make the most impact on policy and outreach."

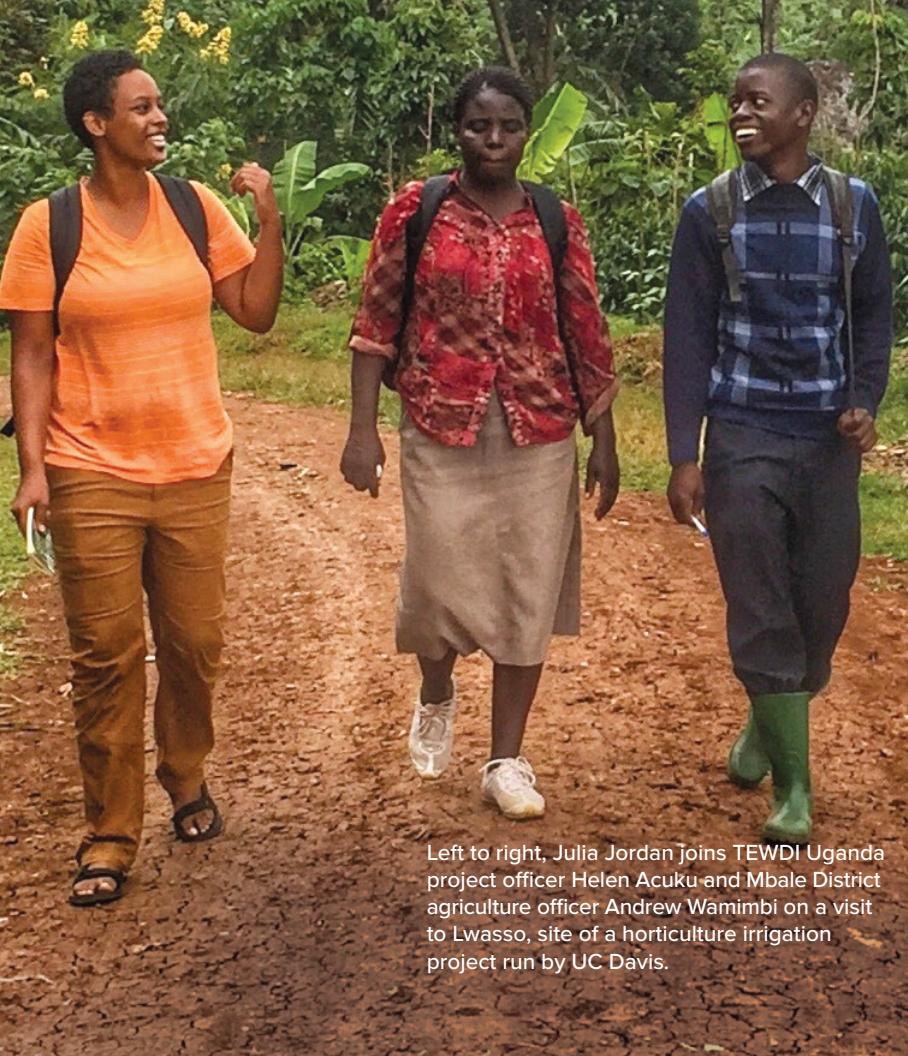
**"In a sense, I had to leave my hometown to try and give back to it, to provide a better life for my family and community."**



# DIGGING DEEP

**Master's student works with Ugandans to illuminate gender roles and improve farming practices**

By John Stumbos



Left to right, Julia Jordan joins TEWDI Uganda project officer Helen Acuku and Mbale District agriculture officer Andrew Wamimbi on a visit to Lwasso, site of a horticulture irrigation project run by UC Davis.

**JULIA JORDAN, A UC DAVIS STUDENT** who is studying for a master's degree in international agricultural development, recently spent six months in Uganda helping smallholder farmers improve irrigation practices with an approach that went beyond technology development.

"I was searching for an opportunity to work on a project in East Africa that focused on gender, social equity and engaged directly with farmers," she said. "My interest is in helping develop practical solutions in a collaborative, sustainable and community-focused way."

Jordan became a fellow with the Research and Innovation Fellowship for Agriculture (RIFA) in 2017. RIFA is designed to give graduate students throughout the UC system an opportunity to plan, engage and implement projects in developing countries.

Through this program, Jordan teamed up with soil science professor Kate Scow, who oversees an irrigation improvement project in eastern Uganda that is funded by the Horticulture Innovation Lab at UC Davis. Called the Horticulture Irrigation Project (HIP), it seeks to facilitate development of farmer-led irrigation solutions through participatory methods.

Jordan worked closely with the Teso Women Development Initiative (TEWDI), a nongovernmental community organization addressing poverty in Uganda, to explore how gender and other social factors constrain or encourage farmer participation. Through in-depth interviews, project records review and focus group analysis, her goal is to define what makes participation meaningful in the development of irrigation systems.

"This work helped me focus my interests and expand my understanding of both small-scale irrigation and the realities of participatory development," she said. "I didn't want to just look at the differences between women and men farmers. I wanted to explore how gender norms and dynamics intersect with age, marital status and other social factors to influence how farmers access irrigation technologies."

HIP already had a strong focus on gender when Jordan arrived. The farmer irrigation committees are required to have at least 50 percent women members, and women are also



Julia Jordan leads a workshop with student interns in Soroti, Uganda, to write down the gender norms, roles or expectations of women and men in their communities.

encouraged to learn how to dig furrows, start pumps, assemble pipes and so on. Feedback on the effectiveness of irrigation innovations includes both mixed-gender and women-only focus groups.

"Participation in this process encouraged many women to become engaged in trainings usually considered the domain of men," Jordan says.

Her work with female and male crop science, agricultural mechanization and engineering students from Busitema University was particularly rewarding. Jordan led workshops where students, many of them from rural farm families and villages throughout Uganda, were asked to examine assumptions about gender roles in agriculture and in the home. For instance, why is it that women tend to collect firewood and water, while men are more likely to manage cattle.

"These students started thinking about gender issues they had never considered before," she said. "They started to think how they could engineer a tool or encourage a new practice that will be accessible to farmers across gender, age, cultural beliefs, physical ability and other factors."

Busitema students, interns and project assistants played a significant role in the development of low-cost, easy-to-use, small-scale irrigation technologies for the six vegetable-growing sites in the HIP project. They work directly alongside farmers and other project team members in the fields, putting into practice what they learn in the classroom to design and implement innovations such as a zero-energy water wheel pump, a low-cost land leveling tool and an efficient canal system.

"While I had knowledge of gender in agriculture prior to my time in Uganda, being able to observe and practice how to realistically address gender in the implementation of an agricultural development project was probably the most valuable experience for me," said Jordan, who is now back in Davis analyzing her research. She has written about her experiences on [AgriLinks.org](#), an online community for food security and agricultural development practitioners.

"In order for farmers to develop sustainable, appropriate irrigation systems in Uganda, the researchers and practitioners who support them need the language and tools to address gender and other social dynamics," Jordan said. "A young generation of irrigation engineers and scientists is now engaged in a process of positive social change and gender equity through irrigation design." ●

## Building support for RIFA

The Research and Innovation Fellowship for Agriculture was originally funded by the U.S. Agency for International Development and is currently supported by the University of California Global Food Initiative. The CA&ES International Programs Office is committed to building an endowment that will make the program sustainable by 2020. This effort has already begun with the generous support of Rita and James Seiber. James Seiber is UC Davis Professor Emeritus of Environmental Toxicology.

# Community connection: Changing lives, including your own

**ALL STUDENTS WHO MAJOR IN** sustainable environmental design at UC Davis take a course called “community participation,” where they work in groups to develop projects with partners in Davis and Sacramento.

Some students design school gardens, for example, or redesign a space for youth programs in low-income housing. The class, LDA 141, is very hands-on. And to be honest, going into it, some students are wary.

“I was hesitant at first,” said Terence Wu, who participated in LDA 141 in 2017, the year he graduated with a degree in sustainable environmental design. “It didn’t seem like it would be that easy for an introvert like me. I just liked to do the sketching and concept design.”

But something magical happened for Wu and many other students who have taken the course since human ecology professor Sheryl-Ann Simpson started teaching it five years ago. They

discovered that landscape and environmental design can change lives, including their own.

“Sheryl-Ann taught me how to really listen and understand the issues people are facing, and how sustainable design can help,” said Warwin Davis, a sustainable environmental design graduate from UC Davis who took the course in 2016. “The class even helps you understand yourself—how to translate your passion into action.”

## The invisible hand

Warwin Davis gravitated to landscape design early in his college career as a way to address social inequality.

“For generations, landscape design has been the invisible hand that affects the way people live, for better and for worse,” said Davis, who is now a graduate student in landscape architecture at Harvard University. “It can keep people oppressed, like redlining and denying services

based on race and ethnicity. Good landscape design can shift an environment. You can help reduce obesity, for example, by integrating healthy food sources into neighborhoods.”

In LDA 141, Davis worked in Sacramento with Mercy Housing California, which revitalizes neighborhoods by providing safe, quality, service-enriched housing. Davis’ team helped turn a small, dilapidated room into an inviting space where young people could gather after school to talk, play games and explore ways to solve problems in their community.

“It was just an old junk room with boarded up windows, and Warwin’s group helped us reimagine it,” said Ashlei Hurst, associate director of resident services for Mercy Housing who received her master’s degree in community development from UC Davis in 2015. “They surveyed 100 youths and came up with very cool concepts on how to design the space.”

LDA 141 students continue to work with Mercy Housing, and the benefits extend beyond improving physical space.

“Sheryl-Ann’s classes get out into the community and work directly with our students,” Hurst said. “Her classes tend to be diverse, and it’s good for our students to see people who look like them go to college and be successful.”

## The garden grows

Environmental design graduate Terence Wu has long appreciated the power of plants. When he was enrolled in LDA 141, Wu and five other students worked with staff and students at Marguerite Montgomery Elementary School in Davis to plant a native garden.

“Some of us designed the maps, others helped the school refine its grant proposal for the project and others worked with students to paint signs so the garden could be a community effort that was educational, ecologically beneficial and visually appealing.”

Each year, the garden grows. Sage and goldenrod bloom, birds and butterflies dine, and

Warwin Davis

Working with students and staff at Mercy Housing in Sacramento, the UC Davis team designed concepts for how to turn a small, dilapidated room into an inviting space where young people could gather after school.

a new class of elementary and college students join forces to tend the plot.

“It feels good to create something that can live on,” said Camille Altschuld, a sustainable environmental design graduate who participated in the project with Wu.

Altschuld is now coaching soccer for college and youth teams and working as a research specialist in Simpson’s lab. She’s not sure what her next career step will be, but she will take it with confidence.

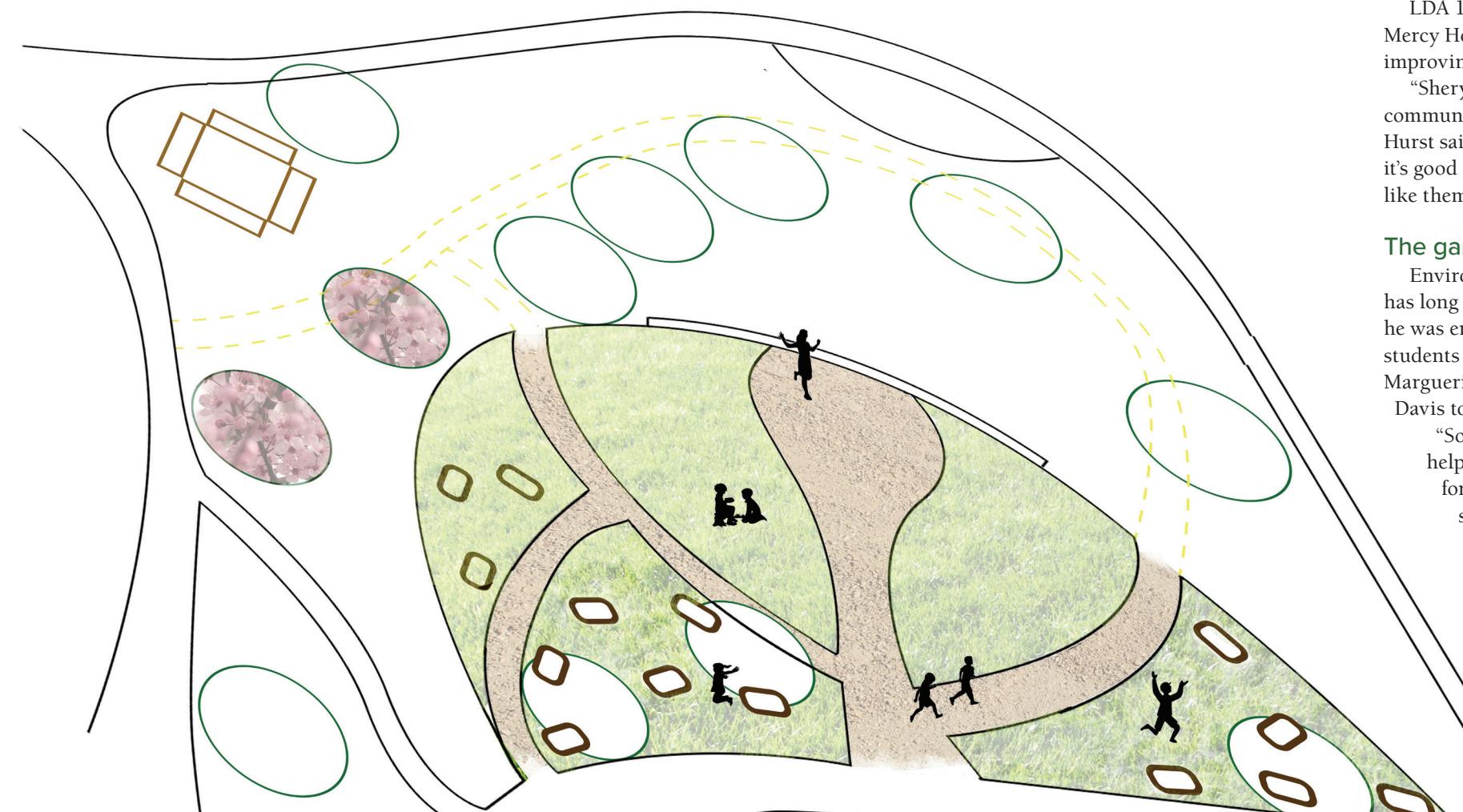
“That’s what I learned most from Sheryl-Ann—that I have the power to affect change,” Altschuld said. “I’m an athlete and have been in leadership roles, but this class empowered me to own my knowledge and experience in a professional setting.”

Wu has gone on to work in urban forestry in West Sacramento and in the city of Davis and also currently directs Project Invigorate, a group of volunteers and student interns who renew drought-tolerant landscapes in the community.

He is no longer hesitant about working in the community.

“The class connected me with real-world experience, and taught me how rewarding community projects can be,” Wu said. ●

**“Her classes tend to be diverse, and it’s good for our students to see people who look like them go to college and be successful.”**



Students produced maps throughout their project at Marguerite Montgomery Elementary School, including this activity map that shows how kids could interact with a native garden.



## A CLOSER LOOK



As a senior majoring in human development, Andi Vilaboy works with preschoolers at the Early Childhood Lab School on the UC Davis campus. The Center for Child and Family Studies gives undergraduates an opportunity to experience what it's like to work with young children and to develop skills in translating theory and research into effective interactions.

Photo by KARIN HIGGINS/UC Davis

# A barn good place to live

**AT AN HOUR WHEN SOME COLLEGE STUDENTS** are just going to bed, animal science major Teresa Greenhut is feeding cows. It's 4 a.m.—one of four times a day that the herd gets fed at the UC Davis Dairy Teaching and Research Center. Greenhut awakens before dawn in her dairy dorm room, bundles up, puts on a headlamp and rubber muck boots, and heads out to the barn to shovel feed.

As a student resident at the dairy barn, Greenhut takes the 4 a.m. feeding shift a couple of days a week as part of her internship duties. In exchange for 10 hours a week of work, student residents get free housing at the dairy.

No, not in the stalls. In dorm rooms much like any other, though the doors are decorated with a black and white pattern like a Holstein, and the rooms are located just a few feet away from the milking parlor. Greenhut is one of four students who live at the dairy to help keep things running when facility manager Doug Gisi goes home at night.

"There are many ways to get experience with animals on campus, but the barn residency is much more in-depth," said Greenhut, a sophomore from Wilton, California, who was involved with livestock through FFA in high school. "You really get a taste for managing a herd."

## Life on the farm

The Barn Residency Program, which has been around for more than 50 years, lets students live up to two years at a single campus animal facility and apply to a different barn when their tenure is up. There are eight facilities on campus that provide housing in exchange for animal husbandry, giving students the opportunity to work with cows, pigs, goats, horses, birds and sheep.

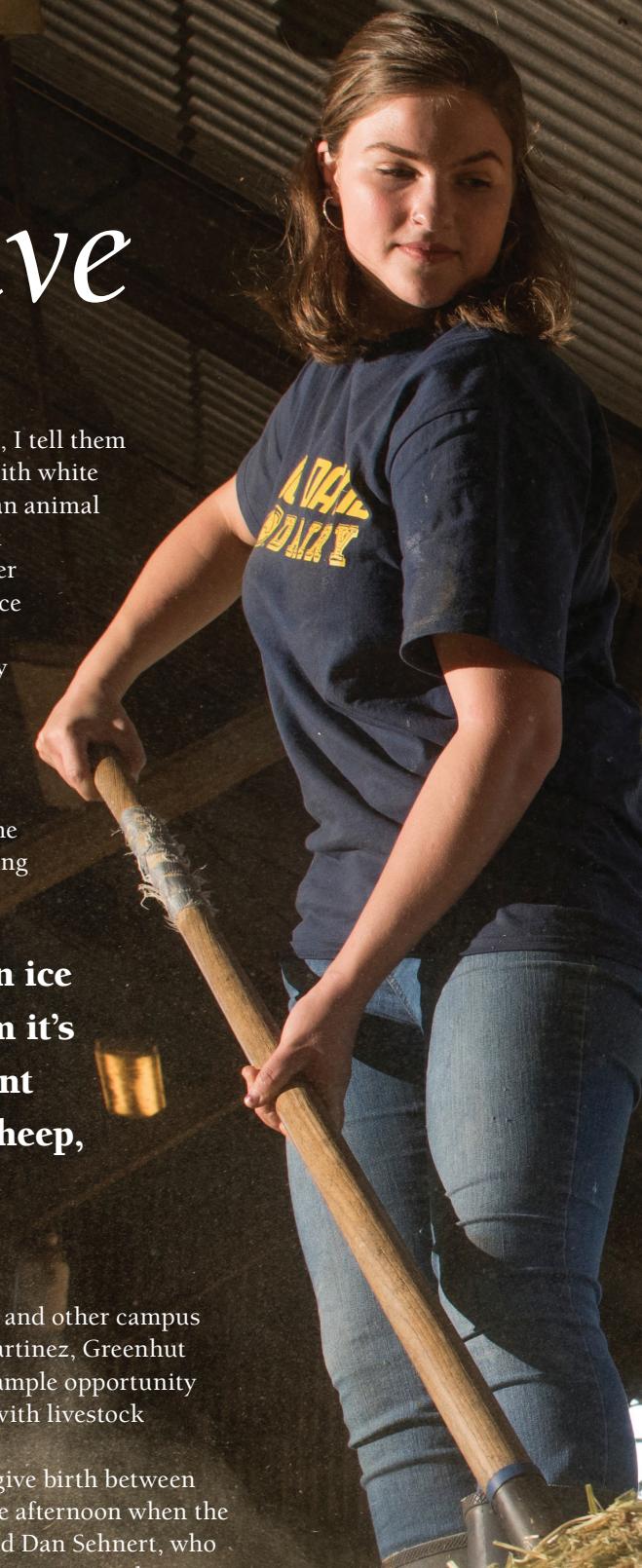
"When I meet new people, I tell them I live in an actual red barn with white trim," said Pedro Martinez, an animal science junior who resides at the sheep barn with two other interns. "It's a conversation ice breaker. I tell them it's like being a resident advisor, only for sheep, not students." Martinez, who grew up in Porterville, California, plans to become a livestock veterinarian and learns on the job by shadowing and assisting veterinarians at the barn.

**"It's a conversation ice breaker. I tell them it's like being a resident advisor, only for sheep, not students."**

## Late-night deliveries

The sheep barn, the dairy and other campus animal facilities also give Martinez, Greenhut and other student residents ample opportunity to get hands-on experience with livestock reproduction and births.

"Animals normally don't give birth between 8 in the morning and 5 in the afternoon when the barn manager is around," said Dan Sehnert, who oversees all animal facilities on campus that are managed by the Department of Animal Science. "These animals give birth in the middle of the



night. So our barn residents are the ones who are assisting and seeing it through, or calling for help in emergencies."

At the sheep barn, lambing season runs from about October through February, but most of the babies are born in November, when sheep barn residents might handle up to a dozen births per night. "Some of the first-time mothers are lousy moms," said Martinez. "So we put the mother and the lamb in a small pen together where they can bond. We make sure the lambs are getting milk, because the first milk has lots of antibodies that help protect the babies from infection."

Midwifing during the wee hours can make it hard to get up for classes the next day, but barn residents think the experience is worth it. "It's definitely rewarding," said Greenhut, who has spent many sleepless nights helping cows give birth at the dairy. "But you need to know what you're in for."

## To vet school, industry and beyond

Former animal science students who were barn residents have gone on to careers in veterinary medicine, the livestock industry, as well as dentistry, firefighting and more. Sehnert considers the program good for everyone involved—students get experience, parents get a price break on the

Dairy resident Teresa Greenhut shovels feed.

cost of college, and the herds get round-the-clock supervision.

"Being a resident has helped me meet lots of people and make connections in industry," said Martinez. "When I go to a conference, people already know my name, and they know I'm a resident at the UC Davis sheep barn." ●

*Get an inside look into the barn residency program, visit [caes.ucdavis.edu/news/barngood](http://caes.ucdavis.edu/news/barngood).*



# Could prenatal stress benefit babies?

BY DIANE NELSON

Newly minted Ph.D. graduate Sarah Hartman holds newborn prairie voles, a rodent with human-like qualities.

GREGORY URQUAGA/UC Davis

**PREGNATAL STRESS MIGHT NOT BE SO BAD FOR BABIES** after all, depending on how they are raised.

New research from child development scholars at UC Davis suggests that prenatal stress promotes developmental plasticity in babies, making them especially likely to benefit from good parenting as well as suffer from negligent care.

"It looks like prenatal stress can be good for us if we are lucky enough to have a supportive environment postnatally," said Sarah Hartman, a newly minted Ph.D. graduate in human ecology who conducted the research under the supervision of human development professor Jay Belsky and psychology professor Karen Bales.

"Most notably, our research challenges the prevailing view that prenatal stress undermines children's health and development," said Belsky, the holder of the Robert M. and Natalie Reid Dorn Endowed Chair on Infancy.

Hartman, Belsky and Bales' work appeared recently in the journal *Psychological Science*.

#### TESTING STRESS ON PRAIRIE VOLES

Most experts believe prenatal stress is harmful to children's development because children of mothers who experience stressors like domestic violence or poverty during pregnancy are more likely to develop behavioral difficulties such as Attention Deficit Hyperactivity Disorder. But is prenatal stress really to blame?

# stress?

## benefit babies

"Often times, the same conditions that led to prenatal stress are present after the baby is born, so it may be the continuation of stress that accounts for poor functioning later in life," Hartman said. "We explored whether prenatal stress—rather than leading to certain outcomes—influences a child's sensitivity to postnatal care, for better and for worse."

Evidence shows that babies whose mothers experienced high levels of stress in pregnancy tend to be more emotionally and physiologically reactive to their environment—they are often harder to soothe and more easily distressed, for example. Science also indicates that those very characteristics lead children to develop more poorly in negative environments but

progress better than others when reared in supportive homes.

"Of course, it wouldn't be ethical to stress pregnant women to test the resulting proposition that prenatal stress promotes susceptibility to postnatal experiences," Belsky said.

So the team tested their theory with 78 pregnant prairie voles, a rodent with human-like qualities such as the ability to develop emotional attachments. For 10 minutes a day during the last week of pregnancy, the team placed half of the voles in visual contact with an aggressive female vole—a stressful situation for a pregnant vole. The other half did not experience that stress.

Within 24 hours of birth, the team placed all the newborn voles with adoptive parents, half who were known to be attentive caregivers and half who were negligent. After 75 days, the voles were evaluated for anxious behavior and levels of the stress hormone corticosterone.

The results were striking and unequivocal, Belsky said.

"The voles that experienced prenatal stress proved to be the most and least anxious adults depending on the quality of their postnatal care," Belsky said. "The voles that didn't experience prenatal stress fell somewhere in between, and it made no difference whether they had good or bad parents."

#### NEXT STEPS

Belsky and Hartman are not recommending women increase their levels of stress during pregnancy, of course. And there is still a lot to learn about the biological mechanisms that increased the stressed voles' sensitivity to postnatal care.

But the findings could relieve anxiety for women who experience temporary stressful situations during pregnancy.

"Prenatal stress might actually promote child wellbeing when children are reared in supportive environments," Belsky said. ●

Graduate student Mitch Hinton helps mentor undergraduate interns as they learn about wood ducks and field biology.



Wood ducks give students a

# wild experience

**AT UC DAVIS, WOOD DUCKS** are known among students majoring in wildlife, fish and conservation biology as the wildlife model for an internship program run by Professor John Eadie. Each year, from 50 to 90 interns learn how to check nests, measure eggs, band birds, collect blood samples and conduct field research on waterfowl behavior, reproduction and survival.

Over the course of nearly two decades, Eadie has led the wood duck internship for hundreds of students seeking hands-on experience. "It's a remarkable opportunity for undergraduates to learn field biology in our own backyard," said Eadie, who holds the Raveling Endowed Professorship in Waterfowl Biology. "For many, it's the first time they've ever handled a wild bird. The impact is transformational."

Known for their showy plumage, wood ducks also have unusual reproductive behavior. Female wood ducks lay eggs in multiple nests, though why is not fully understood. Are they sneaky and duplicitous, hoping to get another female to do the hard work of incubating and raising offspring? Or are they communal and cooperative, helping to raise the offspring of close relatives?

To answer these questions and more, Eadie and his research team put tiny transponders in the birds (like the identification chip that veterinarians use for pets) and erect scanners at each nest site. Wood ducks prefer to nest in tree hollows along native waterways, which have

largely been lost in California due to development. Fortunately, the birds are adaptive and will nest in manmade wooden boxes that simulate a tree cavity.

Most wildlife students intern during the spring quarter, when ducklings are hatching. Bailey Higa—a recent wildlife, fish and conservation biology graduate now working at Wildlife Associates in Half Moon Bay—interned for two quarters during her undergraduate years. "The wood duck experience is really great for learning how to collect accurate data in the field," said Higa. "We were outside the whole time, and we had to carry all our instruments with us and work in different weather conditions."

To provide duck habitat, several generous Sacramento-area landowners have spent millions restoring former agricultural fields to native wetlands along the Pacific Flyway. The owners of Bird Haven Ranch, Roosevelt Ranch, Conaway Ranch and Hedgerow Farms allow Eadie to erect nest boxes and monitor wood duck activity on their lands. The research is funded by the National Science Foundation.

—Robin DeRieux

To view more photos of wood ducks and student interns, visit [caes.ucdavis.edu/news/WoodDucks](http://caes.ucdavis.edu/news/WoodDucks).

## Collegiate winemaker produces millennial favorite

**DEREK BALJEU WAS STILL AN UNDERGRADUATE** in viticulture and enology last spring when a guy called and asked if he wanted to help launch a wine company.

"Who is this?" was Baljeu's first question.

The guy was Parker Reuter, a colleague of Baljeu's uncle who heard Derek was studying winemaking at UC Davis. Reuter was versed in the business aspect of starting a company and needed help with wine production. Baljeu had hoped to one day create his own wine label, so he found the idea intriguing.

"We talked, and I said, 'Yes, this is awesome, please include me.'"

Six months later, Color Wine was born. Baljeu used the contacts, science and hands-on training he received at UC Davis to help the company secure grapes from Alexander Valley, line up a production facility in Healdsburg and dial in the right blend to create a label geared especially for millennials.

"We have a Chardonnay, red blend and rosé that are super light and fun to drink," Baljeu says. "It's a wine you can put on ice and enjoy at, say, a pool party."

Color Wine is available online and served at restaurants and wine bars throughout Southern California and beyond.

Baljeu initially thought he would study business when he started at UC Davis in 2013, but a winemaking class turned his head.

"I liked the organic chemistry and microbiology—I'm kind of a nerd—as well as the marketing and social science aspects of viticulture and enology," Baljeu says.

Thanks to two winery internships and his undergraduate education, Baljeu gleaned a great overview of the art and science of making wine. And he did it all while playing fullback and tight end for the UC Davis Aggies football team.

"Every Saturday night when we had an away game, I would be typing away on the plane ride back and be up until 4 o'clock in the morning to finish my assignments," Baljeu remembers. "It wasn't easy."

But it was worth it.

"The program taught me both the how and why of winemaking, which is why I could say yes when Parker called," Baljeu says.

Baljeu is now working on his master's degree in viticulture and enology at UC Davis. He hopes to one day become a winemaker of high-end wines.

—Diane Nelson

Watch a video of Derek's experience at [bit.ly/DerekBaljeu](http://bit.ly/DerekBaljeu).





New and early career faculty met with deans and senior staff in November 2017 to be officially welcomed into the CA&ES family and to learn more about the workings of the college.

## New faculty bring knowledge and experience

**FOLLOWING EXTENSIVE**, international searches, CA&ES has hired many new faculty members who bring a wealth of knowledge and experience in a broad range of fields. Additional recruitments are underway.

Here is a quick look at some of our latest additions. Visit [caes.cdfa.ca.gov](http://caes.cdfa.ca.gov) and click on New Faculty Profiles to learn more.



**GEOFFREY ATTARDO**

Assistant Professor  
Department of Entomology and Nematology

Studies the reproductive biology of insect vectors of human disease in order to disrupt reproduction of insects that spread diseases like malaria and African Sleeping Sickness



**NOLI BRAZIL**

Assistant Professor  
Department of Human Ecology

Studies the connections between people and places to better understand the factors that link geography and inequality



**PAT J. BROWN**

Associate Professor  
Department of Plant Sciences

Integrates genomic and imaging data into applied breeding programs for California tree nuts



**THOMAS BUCKLEY**

Assistant Professor  
Department of Plant Sciences

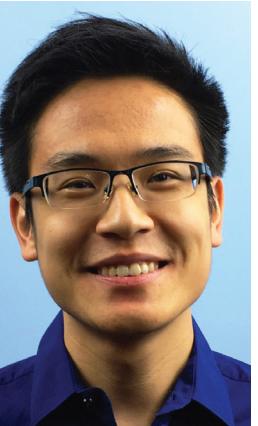
Studies the biology of plant responses to environmental stressors such as drought and heat to better manage crops in a changing climate



**CLARE CANNON**

Assistant Professor  
Department of Human Ecology

Applies cutting-edge theories of social inequality to empirically analyze environmental problems, such as how society produces waste and distributes landfills



**HAO CHENG**

Assistant Professor  
Department of Animal Science

Uses genomic, pedigree and other sources of big data in various livestock species for more accurate and efficient genetic evaluations to better predict desired traits



**ANDRE DACCACHE**

Assistant Professor  
Department of Biological and Agricultural Engineering

Explores irrigation engineering and management solutions for efficient and sustainable use of water in agriculture



**JOANNE EMERSON**

Assistant Professor  
Department of Plant Pathology

Analyzes soil and plant-associated viruses to discover what viruses are present in soil, what organisms they infect, and how viruses affect plant health and productivity



**JENNIFER FALBE**

Assistant Professor  
Department of Human Ecology

Researches programmatic, policy and environmental interventions that can prevent obesity and chronic disease, promote healthy diets and reduce health disparities across the lifespan



**BULAT GAFAROV**

Assistant Professor  
Department of Agricultural and Resource Economics

Develops new statistical methods to analyze and forecast reaction of commodity prices to disruptions in supply and demand



**JACKSON GROSS**

Assistant Cooperative Extension Specialist  
Department of Animal Science

Focuses on three distinct areas of research involving aquatic resources, including aquaculture, invasion biology and environmental/ecological toxicology



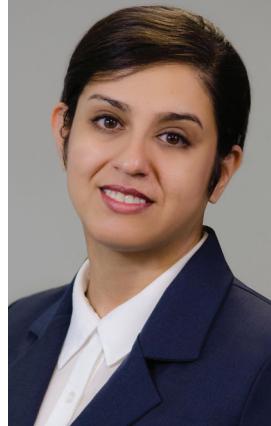
**PENG JI**

Assistant Professor

Department of Land, Air and Water Resources

Department of Biological and Agricultural Engineering

Develops irrigation management strategies and technologies to help farmers optimize water productivity and profitability with limited water supplies



**FARZANEH KHORSANDI**  
Assistant Cooperative Extension Specialist  
Department of Biological and Agricultural Engineering  
Addresses agricultural safety and health by designing and testing the safety structures of agricultural machines and off-road vehicles



**VIKRAM KOUNDINYA**  
Assistant Cooperative Extension Specialist  
Department of Human Ecology  
Specializes in evaluation research, helping Cooperative Extension programs accurately and effectively evaluate the success of their outreach efforts



**TRAN NGUYEN**  
Assistant Professor  
Department of Environmental Toxicology  
Studies how environmental pollution caused by human activity affects oxidation chemistry in the atmosphere



**ELIZABETH PRADO**  
Assistant Professor  
Department of Nutrition  
Evaluates the impact of nutritional and caregiving interventions for pregnant women and young children in low-income countries, examining developmental outcomes



**PATRICIA ROBERSON**  
Assistant Professor  
Department of Human Ecology  
Studies the interplay between the social determinants of health, such as poverty and the characteristics and stability of romantic relationships and how that impacts wellbeing



**ANDREW RYPEL**  
Associate Professor  
Department of Wildlife, Fish and Conservation Biology  
Examines relationships among species in freshwater ecosystems with the goal of making better conservation management decisions for cold-water fish



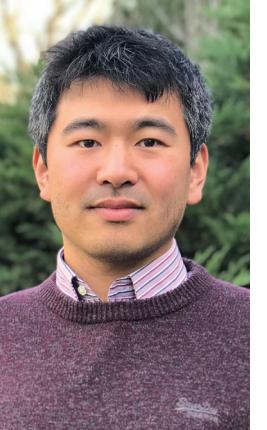
**CASSANDRA SWETT**  
Assistant Cooperative Extension Specialist  
Department of Plant Pathology  
Seeks to understand the ecology of soil-borne plant pathogenic fungi to improve co-management of disease-soil health and address pathogen management challenges associated with drought



**GAIL TAYLOR**  
Professor and Department Chair  
Department of Plant Sciences  
Works on producing the first genomic information on watercress, improving the shelf life of lettuce and understanding the molecular basis of plant adaptation to climate change



**KEITH TAYLOR**  
Assistant Cooperative Extension Specialist  
Department of Human Ecology  
Specializes in development strategies to help marginalized communities have greater access to economic and political capacity through cooperatives



**DA YANG**  
Assistant Professor  
Department of Land, Air and Water Resources  
Works to understand moist convection—cumulus clouds and thunderstorms—in order to develop a unified understanding of how tropical atmosphere works

## A LIVING TRIBUTE

Aggie grad finds heartfelt way to remember friend and fellow student athlete

**DEWAYNE QUINN AND DAVID CAMBOIA ('92)** met playing defense for the Aggie football team more than 25 years ago.

"We became even better friends after college," Quinn said. "We both liked to snowboard and began traveling to different places together. We would go everywhere. We spent a lot of time snowboarding in Canada and at Lake Tahoe."

Camboa passed away in 2015, and Quinn wanted to memorialize his friend. So he reached out to their alma mater and decided to contribute to the "Adopt an Acre" program at Russell Ranch, a research farm west of campus.

"The Camboias are farmers from Gustine, so this gift seemed to resonate with his life and his background," Quinn said. "He never forgot where he came from. It just seemed like a very fitting tribute to Dave and his family."

A one-acre research section of the century-long sustainability experiment at Russell Ranch now bears Camboa's name.

Quinn, who heads up a global information systems department at Apple Inc., graduated from UC Davis with a bachelor's degree in political science. He has many fond memories from his time as a student athlete and all the friends, coaches, educators and other mentors who influenced his life.

"It was an honor to attend UC Davis and to have the experiences that I did," Quinn said.

"I look at my life today and I wouldn't change a thing. I feel very fortunate."

Over the years, Quinn has found many ways to stay involved. He has been a board member of the Cal Aggie Alumni Association and an ex-officio trustee of the UC Davis Foundation Board.

He also has financially supported programs such as the Mondavi Center for the Performing Arts, the Mondavi Institute for Wine and Food Science, the UC Davis Athletic department and the MIND Institute.

"Over time I've tried to give back as much as possible, so as opportunities arose I would take them," Quinn said. "Dave was a dear friend and a really wonderful guy. Part of me wants to make sure his name echoes out there as long as possible."

A proud Aggie, Quinn encourages his fellow alumni to engage with their alma mater: join the alumni association, reconnect with a department, contact the career center or seek out other opportunities.

"UC Davis is one of the top public universities in the country. If there are parts of UC Davis you believe in and care about, just do it," Quinn said. "Every little bit helps—and it creates a pattern of giving. I say, just start."

—John Stumbos



DeWayne Quinn (top) adopted an acre at the UC Davis Russell Ranch research farm to honor his late friend and fellow student athlete David Camboa (below).



# GOOD MEDICINE

Physician and alumna Judy Lamberti traces her success to supportive faculty

**LIKE MANY COLLEGE FRESHMEN**, Judy Lamberti ('73, animal physiology) entered UC Davis full of youthful enthusiasm yet uncertain about a career path. But several faculty members saw her potential and encouraged her to dream big.

Now, after concluding a successful career as a medical doctor, she is taking stock and choosing to give back to the university that created so much opportunity for her. Lamberti recently established an endowed scholarship for students majoring in global disease biology, environmental science and management or wildlife, fish and conservation biology.

"Of all my life experiences, attending UC Davis was the most pivotal influence," she said. "To give today's students the same opportunities we had is one of the greatest gifts we can give."

When Lamberti was beginning her education at UC Davis, a bacteriology instructor—

Professor Wiltraud Pfieffer—asked about her career plans. "I mentioned laboratory science or medical technology," Lamberti said. "She told me, 'I think you could do more than that. You should think about going to medical school.'"

Lamberti hadn't planned on that much additional education, but the idea was planted. "Professor Pfieffer truly wanted to guide us and encourage us to do the most that we could: to shoot high rather than to shoot for something comfortable."

Pfieffer referred her to animal physiology professor Harry Colvin, who also became a valued mentor—and faculty advisor. After earning her bachelor's degree, she considered pursuing a Ph.D. with Colvin and possibly a career in veterinary medicine. But the calling to become a physician was strong, so she was thrilled when she was accepted into medical school at UC San Francisco.

"I'm the first person in my family to go into



PAUL KURODA PHOTOGRAPHY

Alumna Judy Lamberti established an endowed scholarship for UC Davis students majoring in global disease biology, environmental science and management or wildlife, fish and conservation biology.

medicine," Lamberti said. "My parents were just thrilled that my brother and I were good students and wanted to go to college. And we went to a place that didn't break the bank."

Lamberti already included UC Davis in her estate plans but wanted to do more. She chose areas to support that reflect her own passions. "It's about health, and at the root of our health is our environment," she said.

Dr. Lamberti encourages her fellow alumni to help provide support for the next generation. "If students are willing to work hard, they deserve the opportunity to go to school," she said. "These young people are the future. I want them to get a great education. I want them to go to UC Davis."

—John Stumbos



PHOTO BY VAL ATKINSON

## A Fish Story

On her first fish tagging expedition, undergraduate Dana Myers (left) holds a hefty rainbow trout. Myers is a junior majoring in environmental science and management who interns at the UC Davis Center for Watershed Sciences. Researcher Carson Jeffres (right) serves as field and lab director for the center. Jeffres and other UC Davis researchers are working in partnership with CalTrout, California Department of Fish and Game, Fall River Conservancy and others to investigate the native rainbow trout fishery on the Fall River north of Mt. Lassen.

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