2013

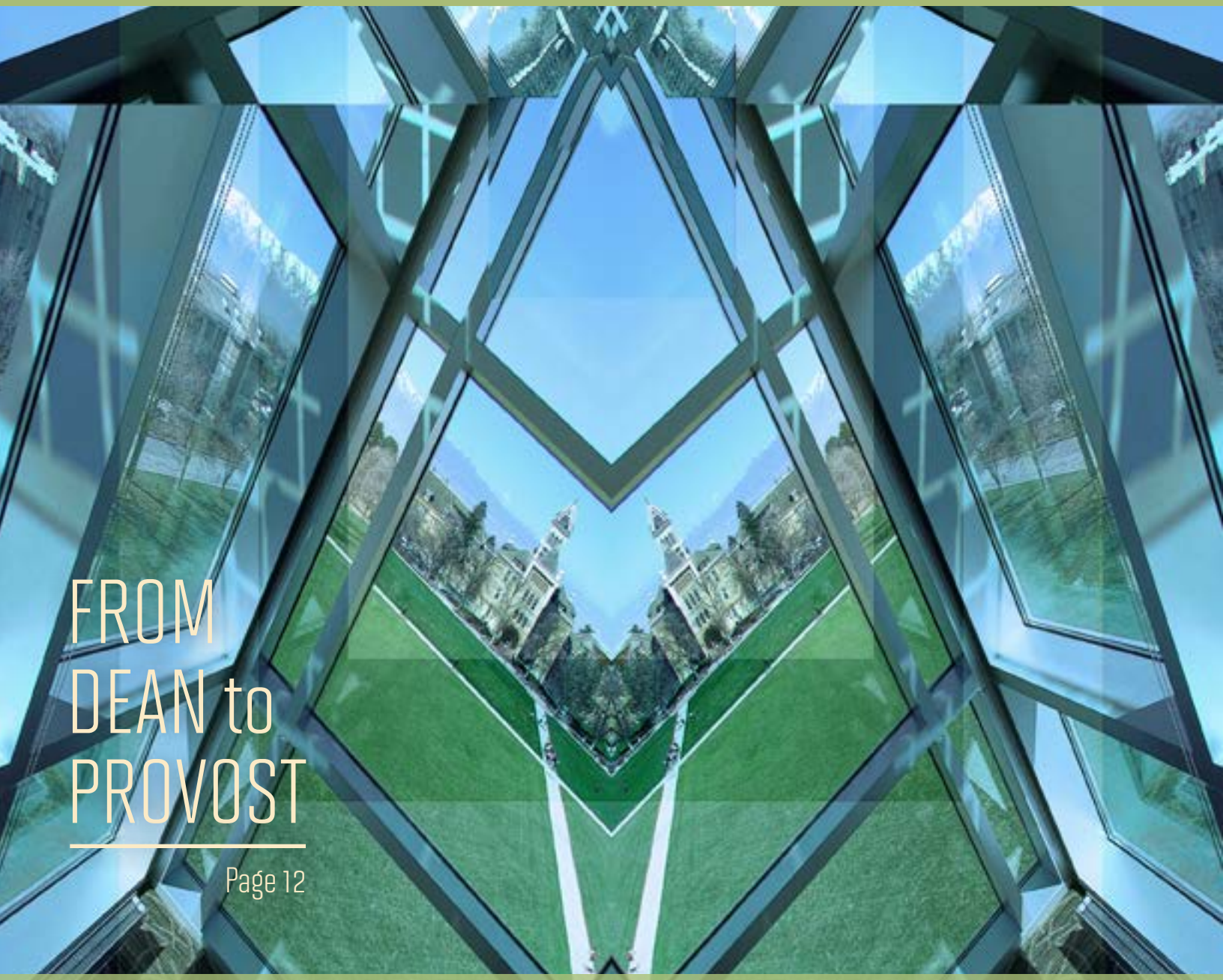
Cultivate Summer 2013

Utah State University

The magazine for the College of Agriculture and Applied Sciences • UtahStateUniversity

cultivate

CONNECTIONS • MINDS • INNOVATIONS



FROM DEAN to PROVOST

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Summer 2013

LETTER FROM THE DEAN

As many of you know,

I will be entering my new role as Utah State University's executive vice president and provost on July 1. While I am excited to expand my service to the university, I will greatly miss being a part of the College of Agriculture and Applied Sciences.

The past years as dean have been incredibly fulfilling. I have greatly enjoyed serving the college and have appreciated the opportunity to work with an incomparable group of faculty, students, staff, alumni and friends of the college. We have enjoyed a great amount of change and success as the college has moved forward.

I believe that the college is on an incredibly strong path. As provost you have my commitment to continue to support all that makes our college the very best at USU. I am confident the new dean will continue to guide the college in the right direction.

Noelle Cockett, Dean

COLLEGE OF AGRICUTURE AND APPLIED SCIENCES

LETTER FROM THE CAAS ALUMNI COUNCIL PRESIDENT

The College of Agriculture and Applied Sciences Alumni Council has been busy this last year.

We were pleased to honor Dr. Allen C. Christensen with the prestigious Alumni Hall of Honor Award at the Awards Banquet in September. For details about the nomination procedure, see the college's website and click on the "Alumni" tab.

2012's Utah Agricultural Products Barbeque featured a booth hosted by the Alumni Council where we debuted our "I'm an Aggie" ribbons, which are intended to promote a sense of alumni pride.

Also, this past spring the council, along with the Utah Farm Bureau, hosted a senior recognition luncheon, honoring the college's newest alumni.

Additionally, the council has created an account within the college to receive tax-deductible donations from alumni, which will fund promotional activities and possibly scholarships.

The association bylaws were recently amended to encourage more opportunities to serve on the council. If you desire to serve in this capacity, please contact Brandon Monson, development director for the College of Agriculture and Applied Sciences.

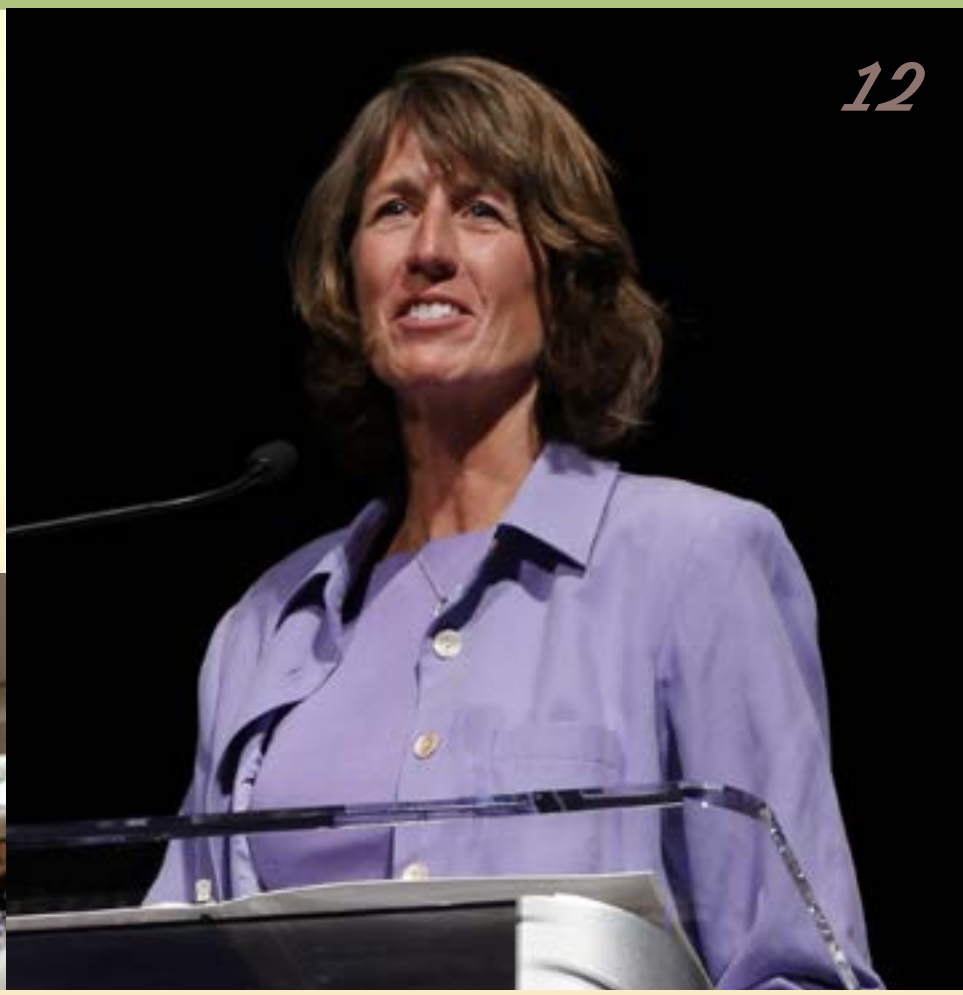
It has been an honor to serve as your president. My thanks go to those who have served alongside me. The recent growth and profile of the college has been phenomenal. As alumni, we have much to be proud of.

Kim Christy

CAAS Alumni Council President

Turn to page 20 for the Alumni Corner, a section dedicated completely to CAAS alumni.

contents



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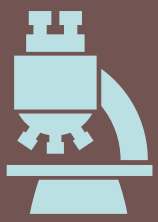
ON THE COVER

Featured on the cover is a close-up of "Transitions" by Michael Bingham. The artwork is a composite of photos taken in Noelle Cockett's office in the Agricultural Sciences building looking across the university's Quad to her new office in Old Main. This piece was presented to Cockett during "United by the Land."

by the numbers

63%

The percentage of CAAS faculty actively engaged in research (including Abby Benninghoff, who wrote this edition's Last Word column on page 23.)



$541,620

The amount of scholarship and fellowship money awarded to students in the college for 2013-2014.

313

The number of alumni who donated to CAAS in 2012.

314

The number of CAAS undergraduate degrees awarded at the 2013 spring graduation.

2168

The number of attendees at "United by the Land." Learn more about the re-naming event on page 8.

welco

THE 2012-2013 ACADEMIC YEAR BROUGHT MANY CHANGES TO THE C
AND APPLIED SCIENCES, INCLUDING THE ADDITION OF EIGHT

CHRIS BRACKEN

"I enjoy flying because it gives you a new perspective...of the world around you," Chris Bracken, a new professional practice instructor, said. "You feel limitless, not being bound by lines on a road or even altitude."

Hailing from Price, Utah, Chris Bracken is one of the latest additions to the aviation technology program.

Reflecting back on his first year of teaching in CAAS, Bracken said he enjoyed interacting with students the most. "Their enthusiasm is invigorating. Young people just seem to be happier," Bracken said. "They are poor, overworked, underpaid and overly stressed by exams and homework, and yet they are normally cheerful and fun to be around. Their positive attitudes...are contagious."

During the 2012-2013 school year, Bracken learned that the quality of teaching is dependent on his preparation and excitement about the subject. "You can make a boring subject fun and interesting based on how you present it," Bracken said.

REBECCA CHARLTON

Growing up in the tiny town of Saint Anthony, Idaho, Rebecca Charlton loves the idea of small towns. After attending Utah State to receive her degree in dietetics, Charlton moved to California with her husband but longed for her family to once again experience small-town living. Actualizing her dream, Charlton now teaches in the Department of Nutrition, Dietetics and Food Sciences as a clinical assistant professor.

Teaching medical nutrition therapy courses, Charlton admits it's a challenge. "Teaching is harder than you think it is," she said.

For next year, Charlton is looking forward to exposing students to the diverse world of dietetics. "I'm looking forward to getting the students into new areas of dietetics that they may not have thought about previously."

ANDREW KULMATISKI

Though he studies nothing but soil nutrients Andrew Kulmatiski's research is full of excitement. Kulmatiski travels to places like Puerto Rico, Costa Rica, South Africa and Alaska coming in contact with deadly spiders, bears and lions all in the hopes of discovering new techniques for controlling and encouraging plant growth.

Originally from Scotia, New York, Kulmatiski worked in two other colleges at USU and at the University of Alaska before becoming a research assistant professor in the Department of Plants, Soils and Climate last fall.

Kulmatiski developed his interest in soils in high school and describes his field with passion. "Soils are a crazy place, bacteria and plants play games on each other, grow inside each other, evolve quickly, and...the concept of 'species' doesn't apply," Kulmatiski said. "It is critical to understand plant growth and nutrient cycling."

BETTY MURRI

Between her fascination with nanotechnologies, a fierce devotion to teaching and her passion for all things textile, Betty Murri brings many talents to the Department of Agricultural Systems, Technology and Education faculty.

Although raised in California, Murri has deep roots in USU; one of her parents was even born on what is now part of the university's campus. Murri has earned both her bachelor's and master's degree in subjects surrounding consumer science from USU.

Although Murri teaches several subjects in home economics, sewing remains her favorite. Whether her students have sewing in their blood or struggle to conquer the machine, Murri invests herself in their progress. "Every time I teach, I learn something new," Murri said. "I learn from every student."

me to the Family

COLLEGE OF AGRICULTURE
T NEW FACULTY MEMBERS.

By Tiffany Adams, Jordan Cox, McCarty Hatfield, Lindsey Snyder

DAVID EVANS

David Evans, assistant professor in the Department of Landscape Architecture and Environmental Planning, grew up in central Ohio. Later moving to California, Evans chose to relocate to Utah citing USU's impressive landscape architecture program as a benefit of the move. "USU has a long tradition of a really outstanding landscape architecture program," Evans said.

While he enjoys his busy schedule, he admits it was unexpected. Evans spent his first year teaching three classes, including construction document preparation, communication and leadership in landscape architecture, and site planning and design. "I learned how much work it is to be a professor," Evans said. Now with the first year of teaching out of the way, Evans looks to use his gained knowledge and apply to the classroom. "I'm looking forward to getting better," he said.

ANNE SPRANGER

At age 5, after repeatedly being caught raiding her neighbor's garden for strawberries and flowers, Anne Spranger asked her parents if she could start her own garden. Since then she has labeled herself as a plant enthusiast and combines artistic design with natural environments in her current work as a faculty member in the Department of Plants, Soils and Climate.

In school, Spranger mixed art and science together in unique ways. "My art professor was thrilled...my plant science professor not so much," Spranger said. While obtaining her bachelor's and master's degrees, Spranger focused on incorporating water-wise plants into her designs.

In Utah, Spranger has helped in botanical planning and design, continuing her emphasis on the use of water-wise plants. Spranger co-authored a book and was recognized nationally for her resource conscious projects, all while loving to inspire students by sharing her love of the natural world.

BRIEDI GILLESPIE

A former resident of Washington State and the West Indies, Briedi Gillespie now teaches as a professional practice associate professor in USU's School of Veterinary Medicine. Before moving to Logan, Gillespie was recruited to Ross University on the Caribbean island of St. Kitts to restructure their School of Veterinary Medicine's anatomy courses. "It was a fun time for me," Gillespie said. "It gave me the flexibility to try out different teaching styles."

Returning to the United States five years later, Gillespie was asked by Washington State University to help build USU's new regional veterinary medicine program. "Ready to move onto the next challenge," Gillespie embraced the new opportunity and enjoys teaching smaller classes.

Gillespie believes USU's veterinary students are some of the best she has taught. "We couldn't have asked for a better group of students for this first year of the program," Gillespie said.

DIRK VANDERWALL

As a member of the research team responsible for the first cloned equine in the world, Dirk Vanderwall brings a wealth of expertise in animal reproduction to USU. Formerly recognized as the world's top veterinarian specializing in animal reproduction, Vanderwall now teaches in the Department of Animal Dairy and Veterinary Sciences as an associate professor.

Originally from Oneida, New York, Vanderwall received his bachelor's degree and Doctor of Veterinary Medicine from Cornell University. After working in private practice for two years, Vanderwall earned his Ph.D in animal physiology from the University of Idaho later pursuing a post-doctoral research appointment at the University of Kentucky.

During his first year at USU, Vanderwall has continued his research endeavors publishing seven papers and presenting at two conferences continuing to disseminate his expertise throughout the world.

Renaming a college

Photos: Weston Allen

CLOCKWISE FROM TOP:
The American Festival Chorus leads the crowd in singing "The Scotsman."; Ag Ambassadors serve ice cream after "United by the Land."; USU's Scotsmen Pipe and Drum Corps enter into the Kent Concert Hall during "United by the Land."

In the latest milestone for the college, the College of Agriculture lengthened its name to the College of Agriculture and Applied Sciences. The new college name communicates the breadth of the college to its constituents, including current and future students, while recognizing the college's significant legacy of excellence in agriculture.

The expansion of the college's name came about after several programs were added to the college, including family and consumer science education, landscape architecture and aviation technology.

"We've added some really great programs, and we need to recognize the legacy of agriculture while also recognizing the breadth of the new programs," said Noelle Cockett, dean of the college.

Beginning almost two years ago, the process to broaden the college's name involved the college's administration, faculty, students and advisory board. Stakeholders were consulted and asked to vote on potential names. The new name was officially announced during "United by the Land," a musical and narrative event featuring the American Festival Chorus and Orchestra on April 9.

More celebrations took place on April 10, with student events in five of the college's buildings during common hour. *–TA*

"This was her alma mater. This was her school. Everything fell together perfectly."
– Phil Garn

FULFILLING DREAMS

With the stroke of a pen Utah Governor Gary Herbert signed House Bill 57 into law in 2011, establishing the first doctoral-level veterinary program in the state. The regional program, made possible by a partnership between Washington State University (WSU) and Utah State University, planned to curb Utah's shrinking population of veterinarians. Unplanned, however, was the ability of this new school to fulfill one woman's last request, which in turn helped a student work toward his goal of becoming an animal physician.

Phil Garn's wife, Eleen, always loved animals. "For as long as I've known her, she's always had pets," Phil said. Frequently adopting lost or forgotten animals, Eleen always tried to show love and compassion for every animal that came her way following the example of her much loved mother and grandfather.

When Eleen Garn was diagnosed with cancer in 2005, she and Phil began talking about what to do with her money after she passed. Eleen knew she wanted her money to help animals but didn't know where to direct those funds. The Garns began an extensive search, but were unable to find an organization able to meet Eleen's desires.

"She was almost in tears. She didn't know what she was going to do," Phil said. "I said, 'Well, honey, if you died tomorrow and didn't leave me instructions, I know what I would do.'" Phil explained to his wife his idea to donate the money to start a scholarship for veterinary students. In this plan, the scholarship would initially help students who, after graduation, would spend their lives helping an incalculable number of animals. "She didn't think about it twice. She just said, 'Do it.'"

Photo: Phil Garn

Mark Carter with his wife and daughters. From left to right: Kansas, Tori, Mark and Addi.

Phil and Eleen then began looking for a veterinary school where they would donate the money needed to establish the Humphrey-Collins Scholarship, named in honor of Eleen's grandfather and mother. Before the search could be completed, Eleen passed away in September 2008, only seven days after retiring from her job as an administrative assistant at the University of Utah.

Despite his loss, Phil continued the search, finding a university he thought would honor Eleen's requests. As he looked over the contract he was sent to sign, he found a phrase allowing the school to use the money elsewhere in the university rather than only as a scholarship for veterinary students if the school deemed it necessary. "I was angry that they had done that. I really was," Phil said. Choosing to "cool his heels," Phil determined the best course of action would be to postpone his search and wait until the right organization could be found.

During the interim, Phil heard USU planned to start a school of veterinary medicine, a divine change of events, according to Phil. "I said, 'Is this why you've been jerking me around Lord?'" Phil laughed. Now with the choice of USU available, the donation took on even more meaning. "This was her alma mater. This was her school," Phil said. "Everything fell together perfectly." He immediately contacted USU, continuing his work of ensuring his late wife's wishes would be met. "[USU was] willing to meet everything Eleen wanted," Phil said.

DO SOMETHING YOU LOVE

Across the country, Mark Carter worked for a cattle ranch in Florida. After three years there Mark, his wife Tori and daughters, Kansas and Addi, returned to their home state of Arizona. There Mark started a natural beef business, selling beef at farmer's markets. Knowing he wouldn't be able to get a lifetime's worth of satisfaction from his small business, Mark and Tori knew they needed to make a change.

Laying in bed one night, Mark and Tori discussed their family's future. "He had mentioned vet school before," Tori said, "Then I said... why don't you just go?'" After thinking about it for a few days, Mark and Tori decided veterinary school would be their family's next adventure. "We just got excited because it finally felt like this was going to be his thing," Tori said.

Despite Mark and Tori's excitement, a few family members weren't as convinced. Their main concern: Mark's age. Turning 35 this year, Mark knew it was unconventional to return to school after having finished a bachelor's degree almost a decade earlier. Despite this, Mark and Tori knew his pursuit of a Doctor of Veterinary Medicine (DVM) degree was the right decision for his family. "We said, 'We have umpteen years to work.' Why not do something that you love and enjoy?'" Tori said.

Ultimately receiving encouragement from family, Mark began applying to schools. Originally applying to WSU, he checked the box on the application indicating he would be OK spending his first two years of school in Utah. Relatively close to family in Arizona, Utah had the added bonus of being home to one of Tori's sisters and her family. Once Mark received word he had been accepted, the Carters began the process of figuring out how they were going to finance his return to school.

Photo: Tiffany Adams

"I'm a firm believer, if it's something you want to do, go after it. If it's something that will better your family and better your future, sacrifices need to be made." – MARK CARTER

THE COST OF A DREAM

Even though the Carters had made the decision for Mark to start veterinary school, and Mark had been accepted, they knew financing Mark's dream was going to be difficult. "We prayed before we came [about] if this was the right thing to do, and we got a really good feeling about it," Tori said. Relying on their faith, the Carters sold everything, from their house to their horses, they made the leap. "The only thing we kept was my old dog," Mark said. "He's 14-years-old this year."

Even after the sale, the thought of financing Mark's education was still a daunting task. In the midst of this uncertainty, USU sent out an application for the Humphrey-Collins Scholarship. Mark immediately applied but didn't receive word for several weeks. "We didn't hear anything really soon, so I didn't think I got anything," Mark said.

While waiting for the news, Mark and Tori faced the reality of their situation. Mark hadn't received much financial aid, and Tori wasn't able to get enough hours at work. Then, Mark received an email with some welcomed news: Mark was the first recipient of the Humphrey-Collins Scholarship. "It came at a time when we were so overwhelmed," Tori said. "When he came home and told me, it was just a huge relief."

Now spending most of his day on campus either studying or attending class, Mark believes his family's sacrifice will be worth it. "I'm a firm believer, if it's something you want to do, go after it," Mark said. "If it's something that will better your family and better your future, sacrifices need to be made."

EARNING A DEGREE AND FUFILLING DREAMS

When Phil received word the scholarship had been awarded, he was excited to meet the first recipient of his late wife's legacy. Getting the chance to meet at the college's awards banquet, Mark, Tori and Phil spoke of Eleen's act of generosity and Mark's hopes for the future.

Now immersed in the demands of earning his DVM, Mark is looking forward to graduation day and accomplishing his goal. Hoping to return to ranching after earning his degree, Mark plans to own his own clinic and return to agriculture. "The big thing I'm looking forward to is actually having that vet degree and getting back into agriculture and ranching," Mark said. "That is my true passion."

With the scholarship now in place, Phil's support of higher education has been strengthened. "A lot of students that are very qualified...they just can't make it because of the finances involved," Phil said. "If this will help them financially, to accomplish their life ambitions and be in a field that they want to be in, it's the right thing to do." He believes donating to scholarships helps students achieve their full potential by providing help while still encouraging student effort. "They have to put their effort forward to take advantage of the program once it's there. It's not being handed to them," Phil said.

As for Eleen, Phil thinks she would be just as pleased. "I think she would [be happy] because it's what we talked about. It's what she talked about." Finally being able to find the right home for his late wife's donation, Phil says the students are actualizing his wife's original objective to help animals. "Her dreams are being fulfilled by them." *–TA*

If you would like to donate to CAAS, please go to usu.edu/giving. If you would like to plan a gift to CAAS, please contact Brandon Monson, 435-797-2208 or brandon.monson@usu.edu.

FROM DEAN TO PROVOST

by Dennis Hinkamp

Noelle Cockett's office offers possibly the best available panoramic view of Cache Valley. It's about eye level with the Old Main tower and on clear days the scene is postcard perfect with the Wellsville Mountains as a backdrop. However on July 1, Cockett will trade room 431 in the Agricultural Sciences building for a ground level office with a less scenic, but broader view of the university when she starts her new assignment as provost of Utah State University.

Cockett is leaving her office and her three responsibilities as vice president for Extension, dean of the College of Agriculture and Applied Sciences and director of the Utah Agricultural Experiment Station. At various times in USU's history three different people filled these positions. However, fiscal constraints and Cockett's willingness to take on the challenge led to this new administrative structure. As dean, the past seven years have included opening a new equine and veterinary research center, adding two new departments, overseeing the design and construction of the new Agricultural Sciences building, establishing the first and only veterinary school in Utah, and, most recently, changing the name of the college to the College of Agriculture and Applied Sciences. This all the while maintaining an international sheep genetics research program.

A CAREER PATH DIFFERENT THAN MOST

Cockett, who has been at USU for 23 years, acknowledges her career path is a little different than most. She never was a department head before becoming a dean and although her research focuses on sheep genetics, she didn't grow up on a working ranch. "If you look back and try to figure out how you got where you are, you'll remember forks in the road that you didn't realize would change your career path when you took them," Cockett said. "It might have been the first genetics class I took, a choice to go to Oregon State versus Texas A&M, or a research project that led me down the path to sheep genomics."

According to Cockett, she wasn't sure what she was going to major in until almost halfway through her collegiate career. "There wasn't a lot of career counseling when I was in high school, and I really wasn't sure what I was going to major in until I was a junior in college," she said. A phone call from her mother finally forced Cockett to settle on a major. "I was in pre-vet at Montana State University but was pretty sure I didn't want to become a veterinarian," Cockett said. "My mom called me one day when I was a junior at MSU and told me I had to make a decision, and I chose animal science."

After receiving her M.S. and Ph.D. degrees in animal breeding and genetics from Oregon State University, Cockett spent five years as a research geneticist at the USDA's Agricultural Research Service Meat Animal Research Center in Clay Center, Nebraska. Cockett says her years in Nebraska gave her a solid research foundation, but she was looking for a faculty position and an opportunity to move back to the west where both she and her husband John had family ties. So in 1990 Cockett joined USU as an assistant professor in the Department of Animal Dairy and Veterinary Science.

RESEARCH SUCCESS

While her administrative responsibilities are local, her research ties are international. Her research involves identifying genetic markers responsible for desirable traits in sheep such as increased meat production and disease resistance. She is an active member of the International Sheep Genomics Consortium and is the U.S. Coordinator for Sheep Genome Mapping since 1993.

In her work as a researcher, Cockett has published more than 100 referred articles and 180 abstracts, technical reports and proceedings, nine book chapters, and she was editor of *Animal Genetics* for 12 years. She currently serves as an editorial board member for *Animal Biotechnology* and has served as section editor for the *Journal of Animal Science* Molecular Markers section. Cockett says her journal editing and research program have connected her with research collaborators around the world with whom she still collaborates regularly.

Cockett says the skills used in experimental design and journal editing are similar to those needed to be a good administrator. "I think the years I spent as a journal editor gave me an attention to detail and helped me learn to organize my time," she said. "Science and administration also both require analytical thinking and problem solving skills. It also helps to be able to organize a lot of numbers in your head."

That ability to mentally "organize a lot of numbers" is a bit unusual in people who also excel in writing, but Cockett credits her early years in Catholic school for this. "Maybe it was learning the fundamentals at Sacred Heart Catholic School in Miles City, Montana. We were competitive in everything whether it was math and science or writing."

"Noelle makes all the right decisions for all the right reasons when it comes to empowering the members of her team."

'ALL THIS WITH A SMILE'

It's hard to define what makes a good administrator. Sure organization and problem solving are key as are being a good writer and a prolific list maker, but those are skills, not traits. What traits does it take to be a good administrator?

Chuck Gay, the retiring associate vice president for Extension, believes several traits are necessary to be a good administrator, and Cockett has them all. According to Gay, Cockett is a special person,administrator, colleague and friend who has the intelligence to gather, sort and store an endless barrage of information and the ability to recall it when needed to make wise decisions.

"Being a good administrator means being able to take responsibility for one's own mistakes, treating everyone, regardless of title or rank, with kindness and understanding, making the difficult decisions even when they are unpopular and being inclusive rather than exclusive," Gay said. "She does all this with a smile and superb sense of humor."

Former student Audrey Seamons, now a scientist in the Department of Comparative Medicine at the University of Washington, describes Cockett as a great mentor. "I worked as an undergraduate researcher in Noelle's laboratory for about five years, and there learned more basic sound laboratory technique than I learned in any of my future schooling," Seamons said. "Her willingness to give undergraduates research opportunities is a great recognition on her part that early training for scientists makes a tremendous difference in their ability to do independent research later in their careers."

Seamons continued, noting kindness as another trait setting Cockett apart. "She cares about the people on her team," Seamons said. "Success is generally large enough to be shared, and it is a motivator for hard work. Noelle makes all the right decisions for all the right reasons when it comes to empowering the members of her team."

Long time colleague of Cockett's, Jerry Taylor, the Curators' professor and Wurdack chair in the Division of Animal Genomics at the University of Missouri, explains her success this way: "She is a visionary. She has a vision of where she wants to go in a research program and where she wants to take an organization, and she works diligently to move towards her goals. Her vision more often than not is the correct vision, and this is not luck. It is based on the ability to synthesize currently available information, accept inputs from her peers and management team and accurately project what the future will bring."

Tracey Hadfield, has been Cockett's lab manager and friend for more than 20 years. The two have traveled to conferences together and shared important personal moments such as weddings, caring for parents and adventures in child rearing. When asked what trait has made Cockett a success, the first one that comes to mind is empathy: "To be a good administrator you have to be able to empathize."

Clockwise from the top: Cockett speaks at "United by the Land"; Cockett speaking to a group honoring the eight students and one instructor whose lives ended suddenly in a tragic van accident in 2005; Cockett holds the ribbon as Matthew Hillyard and USU President Stan Albrecht cut the ribbon at the official opening of the Matthew Hillyard Animal, Teaching and Research Center; Cockett honors three CAAS Alumni Council members at the Senior Recognition Luncheon; a portion of "Transitions," an art piece gifted to Cockett for her years of service as dean; a guest views the memorial in honor of the students and instructor lost in 2005; Cockett leading the graduation procession in 2004.

THE FOLLOWING STORIES WERE WRITTEN BY MEMBERS OF THE AGRICULTURAL COMMUNICATIONS CLUB & CAAS INTERNS.

Dietetics Student Challenges Herself in Classroom and on the Field

BY MCCARTY HATFIELD

What does a degree in dietetics, a degree in exercise science and the Utah State University women's soccer team have in common? The answer: Natalie Norris. Norris, a top-performing soccer player for USU, earned a degree in dietetics and will earn a degree in exercise science this winter.

"I've always been interested in nutrition and how diet can affect your body in so many different ways," Norris said. "Then as my career kept going, I discovered that I really enjoyed what my athletic trainer and strength coach did, and I loved learning about the body. So I decided to pick up exercise science as a second major."

Norris has been playing soccer for 18 years and for the last four years has played on USU's women's soccer team as center back. Since 2010, she has earned the Western Athletic Conference Defensive Player of the Year three times. This year Norris won several awards including the College Sports Information Directors of America Academic All American and National Soccer Coaches Association of America Scholar All American.

"It really has been quite the adventure trying to balance school and soccer," Norris said. "Dietetics is not an easy major and to add exercise science classes as well as soccer on top of it made for some interesting semesters."

Norris said she had great professors who were willing to work with her. "I tried to make it a priority to develop good relationships with all of my professors by completing as much work as I could before any of our trips and trying to stay on top of things," Norris said. "I definitely developed a new sense of time management as well as self-discipline."

Norris displays her athletic ability on the soccer field.

Currently, Norris is working to find an internship in dietetics and is considering getting a master's degree in sports nutrition or a similar degree. She is also hoping to pursue her childhood dream of becoming a professional soccer player.

Christensen sitting in front of an inclusive playground he helped design.

Professor Works to Create Inclusive Environments

BY JORDAN COX

Keith Christensen has been working tirelessly. An assistant professor in the Department of Landscape and Environmental Planning, Christensen, along with numerous graduate students, has been researching ways to integrate persons with disabilities into all environments, starting on the playground.

Beginning his research in graduate school, Christensen's master's thesis aimed to create "socially inclusive play environments." That thesis eventually became "a project of national significance" and influenced his future research, according to Christensen.

For the past 14 years, Christensen has worked with the Center for Persons with Disabilities, located at Utah State University, to accomplish his goal of playground inclusion. Operational for 40

years, CPD aims to "improve the lives of people with disabilities and their families" and offers healthcare techniques, educational methods and a host of programs to help those with disabilities and their families.

Receiving funding from the Department of Education, disability awareness groups and playground manufacturers, Christensen continues to work to help all children have access to play areas. "Kids with disabilities are really just kids with abilities," Christensen said. "We try to identify and understand their abilities and provide play opportunities where they can use their abilities to play independently with their brothers and sisters and friends and neighbors."

Besides designing playgrounds, Christensen also publishes material to educate designers and manufacturers about how to better suit the needs of those with disabilities. This research has produced many successful projects and graduate students. "[The students] apply their knowledge in everything they [design]," Christensen said. Former students who worked with Christensen can be found across the country and are recognized for the care and attention they give to vulnerable populations.

Christensen's ultimate goal is to encourage design that leads to inclusion for people of all abilities. "There really should not be 'disability projects' and 'everyone-else projects.'"

Grad Students Assist in Roosevelt Community Development Project

BY JORDAN COX

Students in the Department of Applied Economics recently assisted Roosevelt, Utah by providing a report detailing the feasibility and economic impact of an aquatics center in the small Duchesne County town.

The project assigned by Associate Professor Ruby Ward allowed students to apply their classroom skills outside of the university walls. "I try to find real projects the students can really... understand...because you really learn a lot more and that's what they will need to be able to do when they leave [college]," Ward said.

In the report, the students assessed how the proposed project would affect the flow of money and jobs within the Roosevelt economy. Based on this report, city officials will be able to make an informed decision on whether the project is practical, explained Ward.

Several graduate students undertook this project including Lassina Coulibaly. Coulibaly is a Ph.D. student from Mali, Africa, specializing in water economics. Coulibaly was particularly amazed at the amount of data collected and used for the report. "We started out from nothing and were able to collect a lot of data...and deliver what they needed," Coulibaly said.

Aside from collecting data, the students also utilized economic software to produce and understand their results, a key focus of the project. "Everyone can run [the data] in software but what [is] the intuition behind it? I think that is the most important thing to learn," Coulibaly said.

The project resulted in a complete report delivered to the City of Roosevelt. The report agreed with preconceived assumptions that the aquatics center would be feasible if outside sources of funding were secured, helping Roosevelt possibly move forward with the project. "The USU team was able to bring some great information and ideas to the table that really helped as our group tries to put forth a path for stakeholders," Irene Hansen, director of Duchesne County Economic Development, said.

For more information about the Roosevelt Wellness Center, visit rooseveltwellness.blogspot.com.

A rendering of the proposed aquatic center in Roosevelt, Utah.

Smart Rain is a company founded by CAAS alum to help companies and individuals save water.

Alum Creates Tool to Curb Water Wasting

BY JAMIE KEYES

Water conservation has been an ongoing war, fought between humans and earth, for thousands of years. Rob Simmons, a Utah State University graduate with a bachelor's degree in horticulture and a minor in turf management, and his company, Smart Rain, are fighting diligently to win that war.

"I was one of the few kids who actually liked to mow the lawn when I was younger," said Simmons. During his time at USU, he learned about different types of plants and their needs, which led to his career in irrigation systems. Simmons is one of the many USU graduates who benefited from the hands-on experiences the university offers.

Using his degree, Simmons decided to take matters into his own hands in January of 2012. He and his colleagues set out to find a more efficient way to help people conserve water and started Smart Rain.

Smart Rain is a water management and consulting firm headquartered in Centerville, Utah. The company created a system that remotely monitors irrigation systems all across the United States. Even though systems may be thousands of miles away, the Smart Rain sensors and clocks are able to monitor for breaks and leaks to assure that water is not being wasted. They also monitor the weather to avoid overlapping with Mother Nature when plants receive moisture through precipitation.

"People would be surprised by how much water they are wasting," said Simmons. "They water when it's not convenient."

Smart Rain systems apply water only when plants need it, thereby conserving water and saving money. Smart Rain takes control of all aspects of the irrigation systems leaving companies with one less thing to worry about.

Simmons had a short and sensible answer when asked what influenced the idea of Smart Rain: "The need for water saving."

Landscape Architecture Students Provide Much Needed Design Services

BY DAWN OTTERBY

Students at the Promontory School of Expeditionary Learning (PSEL) will soon be learning in a new outdoor learning area designed by students in the Department of Landscape Architecture and Environmental Planning. Through LAEP's Community Design Teams, landscape architecture students, along with program graduates and faculty advisors, use their skills to design master plans that may eventually turn into real-life creations.

These teams are comprised of between four and seven student volunteers who are then assigned a client. Teams work closely with their client to fulfill the needs of the project. Interested individuals or companies submit their project requests through the "project portal" on the LAEP website. Projects are then reviewed and selected by Phil Waite, the CDT coordinator and associate professor in LAEP. The majority of design projects are assigned during fall semester. After a team has been assigned a project their next step is to meet with the client and visit the work site. Teams will have several meetings with their client before presenting their final project designs in the spring.

Although there are often more projects than students, Waite said, his students enjoy the challenge. Design projects not only benefit clients but students as well. "Students gain real-world experience with a real-world client on a real-world project," Waite said. "No hypotheticals."

In addition to working with the client, Waite also believes students benefit from working with each other. "Lower division students get to work closely with upper division students and with the faculty advisor on the development of the project," Waite said. "Student project managers gain valuable experience leading the team [and] delegating work."

Recently, LAEP teamed up with PSEL in Perry, Utah to help the school design an outdoor learning area adjacent to the school. A CDT designed a master plan that includes over a dozen distinct components such as an orchard, wetland and a greenhouse. Each component will be developed each year and used in PSEL's curriculum. LAEP student work will continue over the upcoming years developing implementation plans in the Planting Design course each year.

"It's a win-win. I get a real-world service learning project that's close to Logan with an engaged active client, and they get another phase of their site designed each year," Waite said.

LAEP students present their designs to PSEL students.

The Design Academy volunteers mentor their high school team during the VEX Robotics Competition in February.

ASTE Brings VEX Robotics Competition to Campus

BY JORDAN COX

High school students from Utah and southern Idaho gathered at Utah State University with robots they designed to compete for scholarships and global recognition this past February.

The competition, known as the VEX Robotics Competition, was founded by the Robotics Education and Competition Foundation. It encourages students to pursue higher education and careers in STEM by holding competitions for high school students to build and then compete their robots in "sports-like" arenas.

Gary Stewardson, an associate professor in the School of Applied Science, Technology and Education, brought the VEX competition to Cache Valley several years ago.

"The nearest tournament was in Seattle or Denver, so we needed a tournament," said Stewardson.

Currently, 56 high school teams attend annually. Even though USU has only been running this tournament for a few years, the valley has already received global recognition. In the world, there are over 7,000 registered teams, and Cache Valley has six ranked in the top 30.

A Davis, Utah high school team, which was ranked third in the world heading into the qualifying rounds, has been competing for several years and spoke very positively about what they learn from the program. "You have your classes at school, but this brings it into real life," said Tyler Merrill, a programmer for the team.

The tournaments involve referees and arenas all focused around a challenge introduced annually. This year's tournament challenge involved stacking beanbags in troughs raised above the arena floor with their robots. Teams were able to both stack their own beanbags and remove their opponent's beanbags.

When asked why the robotics leagues are so important Stewardson said, "Learning by fun; they are learning about engineering and applied science and they don't know that."

This year, a team mentored by the Design Academy, an after-school mentorship program, placed first.

In total, 29 teams were invited to attend the world competition held in Anaheim, California in April. The USU collegiate robotics team placed fifth and received two special recognitions. The Design Academy's high school team ranked twenty-first, and the middle school team finished in eighth. Individual members from both Design Academy teams received awards for unique design solutions.

Department Welcomes New Graduate Research Fellowships

BY SARAH HATCH

The faculty and staff of the Department of Plants, Soils and Climate at Utah State University are well known for their dedication to graduate programs. To further this tradition, Bruce Bugbee, PSC professor and the founder and president of Apogee Instruments, partnered with Campbell Scientific, to establish a new endowment for graduate students in PSC. This endowment, specifically for graduate education, will fund five graduate fellowships each year.

With three-quarters of the current scholarship money in the College of Agriculture and Applied Sciences designated for undergraduate students, the two companies wanted to help fund the costs of graduate education. "We want to advance graduate education at USU," Bugbee said. "Every graduate student is a potential future employee."

Bugbee started Apogee in his garage 17 years ago. Unable to find cost effective measurement tools able to meet his own research needs, Bugbee started building his own sensors, and Apogee Instruments was born. The company creates environmental sensors, most of which are used in agricultural research and production. Based in Logan, Utah, Apogee products are now used to improve agricultural production in more than 80 countries worldwide.

"We look forward to the research that students will conduct. Their efforts will enhance the reputation of the college and the plant, soils and climate department over the next decade," Bugbee said.

Bugbee in front of his company Apogee Instruments.

Alumni Council Celebrates *seniors*

CAAS seniors, faculty and department heads celebrate the accomplishments of the class of 2013 at the Senior Recognition Luncheon on May 1.

In his keynote address to graduating seniors from the College of Agriculture and Applied Sciences, Cody Bingham related a piece of wisdom he recently learned from one of his young sons: Chocolate milk really does come from brown cows.

This piece of childhood insight, along with many others, was shared to CAAS seniors at the college's Alumni Council Senior Recognition Luncheon on May 1. Sponsored by the Utah Farm Bureau, seniors were treated to lunch while socializing and networking with peers, advisors, department heads and alumni council members.

Some CAAS alumni might remember attending their own senior luncheon when they graduated, but the event has not been held since 2006. This year, the CAAS Alumni Council decided to bring back this forgotten tradition in order to congratulate graduating seniors, welcome them into the CAAS Alumni Association and encourage them to continue to involve themselves in both the college and the university's alumni associations.

Bingham, a CAAS Alumni Council member from Jerome, Idaho and the luncheon's keynote speaker, encouraged the crowd of seniors to continue learning either through formal education or from those around them. To illustrate his point, Bingham related a story involving his son's insistence that chocolate milk comes from brown cows. Initially disagreeing with his son, Bingham realized brown cows do in part produce chocolate milk by providing the milk used to make the sweet drink. Learning is all around, Bingham concluded.

In addition to recognizing the seniors, Jed Christenson, John Diamond, Holly Hall and John Keeler were recognized for their many outstanding years of service on the CAAS Alumni Council, and Dean Noelle Cockett was recognized for her service and accomplishments to the college. *–HB*

alumni corner

ALUMNI COUNCIL MEMBER SPOTLIGHT:

Donna Minch, '77

Donna Minch graduated from USU with a bachelor's degree in plant science after fun-filled college years where she was president of the Plant Science Club and a member of the college's student council.

After graduating, she married Steve Minch and traveled to many different areas of the country and world, living in Italy for a few years. Through her travels, Donna owned a landscape design business, taught floral design classes, grew and marketed fresh produce, worked in flower shops and freelanced in floral design.

After moving to Farmington, Utah in 1992, Donna worked as a horticulturist for the Farmington Gardens. For the past 18 years, she has worked for USU as the Department of Plant, Soils and Climate off campus programs coordinator and student advisor, receiving the 2012 Utah State University Robins Award for Advisor of the Year. Donna and Steve have two daughters and two grandchildren who they visit often in Arizona.

Donna has been a member of the College of Agriculture and Applied Sciences Alumni Council since 2001. During her time on the council, Donna has served as council president, organized the Alumni Luncheon at the Utah Green Conference and was the driving force behind the new "I'm an Aggie" ribbons that were introduced at the 2012 Utah Agricultural Products Barbeque. Donna loves the opportunity being a member of the council gives her to network with alumni, represent USU and the college and give back to the university. She is proud to say "I'm an Aggie." *–HB*

If you are interested in being a member of the Alumni Council you can contact Heidi Berg at 435-797-2205 or at heidi.berg@usu.edu.

CALLING ALL NOMINEES!

The Alumni Council is now taking nominations for the Alumni Hall of Honor Award

The Alumni Hall of Honor award was created as a way to recognize alumni who have brought honor to both themselves and the College of Agriculture and Applied Sciences and has been awarded each year at the college's awards and honors banquet since 1999. To be eligible to receive the award, nominees must have obtained a degree from the CAAS* at Utah State University, have made a significant contribution to their chosen profession or society in general, have a record of outstanding accomplishments and have no fewer than 25 years of employed service.

If you are interested in nominating someone for the 2013 Alumni Hall of Honor Award, applications are available at ag.usu.edu/htm/alumni and are due by June 28, 2013. Please contact Heidi Berg at 435-797-2205 or heidi.berg@usu.edu with any questions.

**USU alumni who did not graduate from CAAS but whose department now resides within the college are eligible to receive the award.*

the last photo

AS SEEN ON FACEBOOK.

Meet one of our new (and already curious) foals, born into the equine science and management program in the spring of 2013.

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A SHIFT TO Multidisciplinarianism

BY ABBY BENNINGHOFF

Recently, a friend and colleague introduced me to a large community crowd saying, "This is Dr. Abby Benninghoff. She is a professor of... what exactly?" glancing my way, unsure of how to describe my discipline. I paused for a moment, then simply said "toxicology." The answer was uncomplicated (although I did have to quickly explain that toxicology is the study of poisons), but I felt my response was insufficient and even slightly disingenuous.

My current research program centers, in part, on toxicology, but I am also engaged in the fields of cancer biology, epigenetics, gene regulation and comparative endocrinology. I could have answered marine science, as that is the discipline listed on my doctorate degree, but that title would not be an accurate description of my work at Utah State. My undergraduate education was in biology and biochemistry, and some colleagues peg me as a biochemist. However, that label overlooks my extensive experience in animal physiology. So, how can I provide a simple, genuine answer without reciting my resume? After all, these kinds of labels are important – they help convey one's sphere of knowledge and expertise to audiences unfamiliar with the individual.

Many of my role models and mentors have trained and continue to do research in a single field of study, an approach that can provide the foundation for developing an international reputation as an expert in a specific discipline. My training clearly does not fit into this classical paradigm, because I followed exciting opportunities as they presented themselves. I will admit that I have harbored concerns that colleagues reviewing my grants on mechanisms of cancer prevention may view a scientist with a degree in marine science (even with a specialty in comparative endocrinology) with some disdain. However, the world of scientific research is rapidly and dramatically changing; old models for training in scientific research may be insufficient to compete in this new environment. I have come to embrace my multidisciplinary background to the point of considering it a core strength of my research program. While there are clear threads of scientific inquiry that weave together my research projects and collaborative endeavors, my training provides me the freedom to explore intriguing areas of science or new funding opportunities as they arise, whether out of personal interest or professional necessity.

Flexibility and adaptability are key attributes that help support an early career scientist striving to navigate an increasingly competitive and complex research-funding environment. Indeed, I think we may best serve our graduate and post-graduate students by training them to be effective researchers, critical thinkers and communicators who are ready to take on scientific challenges of the future that may not fit neatly into a simple discipline label.

So, should I now introduce myself as an assistant professor of multidisciplinarianism? Perhaps, although I am rather certain that this title would garner many more puzzled expressions than the descriptor toxicology. On the other hand, it certainly would be a fantastic hook to start a conversation.

Abby Benninghoff is an assistant professor in the Department of Animal, Dairy and Veterinary Sciences.

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To qualify for the tuition waiver, prospective students must be admitted to USU, have a parent or grandparent who earned an associate degree or higher from Utah State University (verification required), and enroll as a first-time student.

LIKE THEY SAY: ONCE AN AGGIE, ALWAYS AN AGGIE.

FOR MORE INFORMATION:

Contact the Admissions Office at 800.488.8108, or visit usu.edu/legacy

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