

# AGRIVIEW

COLLEGE OF AGRICULTURE, FOOD & ENVIRONMENTAL SCIENCES • SPRING 2014

Outdoor Adventure Therapy  
Dairy Science Adds Master's Program

## To the Great Wall and Back Partnering with Universities in China



CAL POLY  
SAN LUIS OBISPO



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**On the Cover:** Visitors from Cal Poly trek along the Great Wall during a trip to Beijing. Shown (from left) are: Scott Steinmaus, interim head of Horticulture & Crop Science; Brian Tietje, vice provost for International, Graduate and Extended Education; Jason Colombini, Associated Students Inc. president; Jeff Wong, professor of Horticulture & Crop Science; Jim Cooper, head of Wine & Viticulture; and Andy Thulin, interim dean, College of Agriculture, Food & Environmental Sciences. Read more on pages 8-11.

## BROADENING OUR HORIZONS RESOURCEFULLY

As we near the end of the academic year, I can't help but feel a sense of pride over the many things we have accomplished across the College of Agriculture, Food & Environmental Sciences (CAFES). We all take pride in our long, rich history of providing generations of students a foundation for lifelong success through our renowned Learn by Doing approach, and we invest each and every day to ensure Cal Poly remains at the forefront of technology, hands-on learning, and developing solutions to industry problems.

We've invested significant effort into thinking holistically across departments — and even across campus — to develop more interdisciplinary resources for students. We're thinking and working collaboratively, providing students with even more opportunities to work with faculty and students from various disciplines, enabling them to achieve more than they could alone.

To bolster our teaching, research and administrative resources, we're recruiting 28 new faculty and staff positions. Some are already on campus, and some will join us in the coming months. I am excited about the infusion of fresh ideas and backgrounds they are bound to bring.

We've begun planning for an agricultural research center. This facility will potentially house such functions as sensory sciences, food safety, enology and plant pathology, as well as student learning areas and faculty offices.

We're also working on a new Cal Poly winery as part of an overall fermentation sciences facility that will put us on the cutting-edge of this exploding field. We're currently mapping out the functionality, design and location of this facility.

And we have even more opportunities on the horizon to enhance student learning and applied research at Cal Poly.

We have great faculty and staff who work hard to ensure our students succeed and become tomorrow's leaders. Our alumni, friends and supporters give of their time and resources to support this amazing college. We extend our sincere appreciation for all that you — our alumni, friends, supporters, faculty and staff — do.

I'm very grateful to have served as interim dean of the college since July 1. It's a transformational time here at Cal Poly, and I can't wait to show you what's next.

ANDREW J. THULIN

## AGRIVIEW SPRING 2014

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# ARI

## RESEARCH INSTITUTE PROVES FRUITFUL FOR STUDENT PROJECTS

The California State University Agricultural Research Institute (ARI) was established to develop effective, practical solutions to current agricultural and environmental issues — a perfect complement to the College of Agriculture, Food & Environmental Science's Learn by Doing model.

Cal Poly students recently used ARI funding to develop an irrigation protocol (*shown below*) for strawberries that minimizes water use and runoff during the critical establishment of transplants. The project was directed by BioResource & Agricultural Engineering Department faculty member Stuart Styles.



# TO TOP IT OFF...

## DAIRY SCIENCE ADDS MASTER'S IN DAIRY PRODUCTS TECHNOLOGY

**T**hanks to a generous contribution from Denver-based Leprino Foods Co., Cal Poly's Dairy Science Department launched a new Master of Professional Studies degree program in dairy products technology in fall 2013.

The program serves to prepare analytically minded students for leadership roles in large-scale dairy processing environments. The program was designed in partnership with industry to help fill management and supervisory positions that have been challenging to fill.

"The MPS is a new degree category that is gaining popularity among top universities nationwide," said MPS Program Manager Tom Johnson. "Cal Poly is the first in the nation to offer an MPS in dairy products technology."

With five students in the inaugural class, the program is gearing up for 20 students next fall and ultimately plans to enroll 45. It's a one-year program consisting of three quarters of on-campus coursework followed by a mandatory, paid three-month internship.

"This innovative MPS program provides students the skills and experience they need to become leaders in the fast-growing dairy manufacturing sector," said Andy Thulin, interim dean of the College of Agriculture, Food & Environmental Sciences. "This program is a great example of Cal Poly's philosophy of partnering with industry today to develop tomorrow's leaders."

Good candidates are people who have analytical training and strong critical thinking and communications skills. Because intensive training in dairy products technology is provided, they do not need to have prior exposure to dairy science operations.

Cal Poly's long tradition of Learn by Doing is employed through hands-on exposure to learning opportunities.

"The program provides interaction with high-level dairy processing executives to learn their management philosophies. It combines a balance of classroom, laboratory, and tours of large-scale facilities to give students the knowledge and tools



Students accrue practical skills making products such as ice cream, cheese and yogurt in the Dairy Products Technology Center.

they need to be successful in the dairy processing industry," said Dairy Science Department Interim Head Charlie Crabb.

Industry executives visit classrooms, giving lectures that shed light on the challenges facing industry and how to meet those challenges.

The Dairy Science Department has built a vibrant industry advisory council with representation from key dairy processing operations that provide continuous feedback on the program, curriculum, recruiting objectives and even students. And they recruit directly from the program.

"Industry advisors also helped put together our internship standards to ensure that internship experiences are productive. Our current students already have internship opportunities with Leprino Foods, Hilmar Cheese Co., and Land O' Lakes Inc.," Johnson said.

For more information on the MPS degree in dairy products technology, visit [mpsdairy.calpoly.edu/program/](http://mpsdairy.calpoly.edu/program/).





# A GOLDEN OPPORTUNITY

NAVIGATING ROUGH WATERS INSPIRES  
PROFESSOR MARNI GOLDENBERG'S CANCER SURVIVORS'  
RESEARCH AND A SEARCH FOR FUNDING SOURCES

Cancer can be a great motivator. Ask Marni Goldenberg, professor of recreation, parks & tourism administration (RPTA) and breast cancer survivor who was inspired to research cancer survivors' experiences with outdoor adventure therapy.

Goldenberg is assessing a nonprofit organization — one of just a handful in the U.S. — that provides weeklong outdoor adventure opportunities intended to empower cancer survivors and fighters 18 to 39 years of age, a woefully underserved population.

Participants can take part in whitewater kayaking, rock climbing and surfing expeditions in North, Central and South America. Through these experiences, they begin to gain new perspectives, insights and attitudes to embrace life beyond their disease.

"This is a life-altering experience," Goldenberg said. And she should know. She's completed two kayaking and one surfing adventure. "The camps challenge participants to push their limits and face their fears, and in so doing, regain the self-confidence and self-esteem lost to cancer."

In summer 2012 at one such camp, Goldenberg met volunteer Elizabeth Gill, who, coincidentally, was headed to Cal Poly that fall to pursue a master's degree in kinesiology. The two decided Gill's master's thesis should focus on the efficacy of the program.

They are assessing the psychosocial outcomes, such as greater self-esteem, self-concept, self-awareness, barriers to exercise and physical activity, and the



health benefits, including the acute and long-term changes in physical activity levels and exercise adherence.

Anna Wagner, an RPTA student writing her senior project on the study, transcribed participants' interview tapes. The process reinforced in her a "passion to give back, get involved, and make a difference."

"This project reminded me that we don't know what's going to happen today or tomorrow — we don't know how long we have on this Earth," Wagner said. "It reminded me to be thankful for my healthy body, and it has given me a better perspective when I'm stressed."

Goldenberg designed the project to provide scientific research that proves outdoor adventure therapy is beneficial to young cancer patients' long-term outcomes. Ideally this will impact the greater cancer patient community.

The project is funded by a three-year California State University Agricultural Research Institute Grant, which requires matching funds (both in-kind and cash). Goldenberg reached her goal the first year but needs sponsors to continue the research. Anyone interested in donating should contact her at 805-756-7627 or [mgoldenb@calpoly.edu](mailto:mgoldenb@calpoly.edu).

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LOST TO CANCER."**

PROFESSOR  
MARNI GOLDENBERG





# BEIJING

## CAL POLY VISITORS EXPLORE PARTNERSHIPS WITH EDUCATORS & INDUSTRY

Cal Poly is helping to bridge the nearly 6,100-mile gap between Beijing and San Luis Obispo by exploring unique partnerships with the China Agricultural University (CAU) and Beijing University of Chemical Technology (BUCT).

Andy Thulin, interim dean of Cal Poly's College of Agriculture, Food & Environmental Sciences, and Brian Tietje, vice provost for International, Graduate and Extended Education, led a contingent of faculty and staff and Associated Students Inc. President Jason Colombini on a trip there in December to meet with university officials and government and industry leaders. The delegation included Gour Choudhury, head of the Food Science & Nutrition Department; Jim Cooper, head of Wine & Viticulture; Jaymie Noland, interim head of Animal Science; Scott Steinmaus, interim head of Horticulture & Crop



The Cal Poly group met with colleagues from the Beijing University of Chemical Technology (middle and bottom photos).

A trip highlight: visiting the Forbidden City (top)

China Agricultural University (opposite page)



CAFES Interim Dean Andy Thulin signs a memorandum of understanding with the China Agricultural University (above).

Professor Jeff Wong visits Beijing's Monument to the People's Heroes (right).



Science; and Jeff Wong, professor in Horticulture & Crop Science.

The trip was part of Cal Poly's broad efforts toward internationalization and to strengthen strategic alliances with international partners, particularly for the College of Agriculture, Food & Environmental Sciences (CAFES).

"Tremendous opportunities exist in the Chinese market, and this trip provided an opportunity to build awareness and have a discussion of what those opportunities are," Tietje said. "One of President Armstrong's goals is to bring more of Cal Poly to the world and more of the world to Cal Poly."

Thulin agrees. "Cal Poly is embarking on a broad international strategy, and

China is an important market to us," he said. "CAU is one of the top 10 universities in the world for ag research. It has tremendous capabilities and spends millions of dollars in research.

"But they need our help," he continued. "They need us to teach their professors our Learn by Doing methods. They teach theory, but they don't know how to apply the technology to solve problems."

Toward that end, Thulin signed an agreement that will allow Cal Poly faculty to teach CAU's faculty how to apply Cal Poly's hands-on learning methodology.

CAFES is also finalizing a second program aimed at globalization: a Master of Professional Studies degree in feed and forage science. The one-year program will teach Chinese students and others about ruminant nutrition and dairy cattle management and how to produce good alfalfa hay and silage.

The Chinese are going to need it. More of China's 1.35 billion people are attaining middle-class status, and with

it, a desire for more meat, dairy, fruits and nuts.

"Two or three years ago, the Chinese had 300 million middle income people," Thulin said. "In five or six years, that number is expected to double. It's like a giant vacuum — their need for meat, milk, eggs and vegetables that are safe and wholesome."

More milk and beef mean more dairy herds and beef cattle. And that requires more forage. "The Chinese can't produce it; the cost of production is outrageously high. They import 72 percent of their forage needs, and much of that comes from California," Thulin explained. "They are paying \$300 a ton for alfalfa — double what it was three or four years ago."

That drives up prices for everyone. "If Cal Poly can help students from China acquire skills to develop their own high-quality hay, it could reduce demand for imports, thus helping California ag producers like the dairy industry, which is competing for the hay," Tietje said.



CAU and five other Chinese universities are going to identify undergraduates who want to attend Cal Poly for the new master's degree. Cal Poly hopes to welcome the first cohort from China and elsewhere in fall 2015, pending program approval.

ASI President Jason Colombini, an agricultural business senior and the only student to make the trip, thinks the partnership is a "huge step forward for Cal Poly."

"The opportunity for students to know more about the world will broaden their horizons and make them better global citizens," he said. "Ultimately, this will make Cal Poly graduates even more competitive in the workforce."

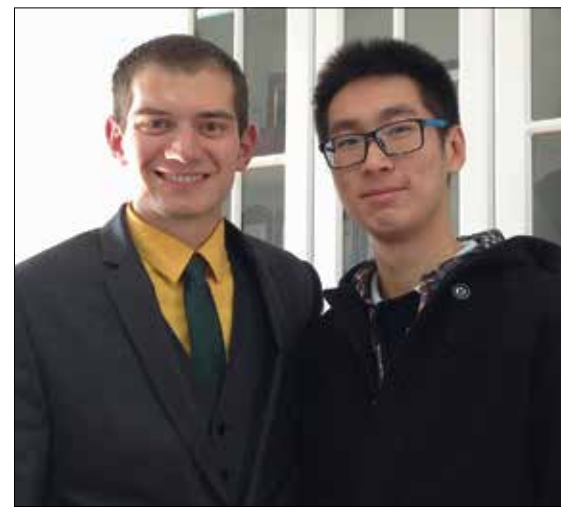
Colombini met his counterpart at the China Agricultural University. "We had an amazing conversation," Colombini said. "We discovered a lot of similarities — how we deal with our students and handle situations, what students are doing and what their issues are.

The only real difference is how the American system of government differs from theirs."

The Cal Poly delegation also met with executives at Land O'Lakes and John Deere. "The meetings were very insightful and should lead to some exciting public-private partnerships with Cal Poly," Tietje said.

It wasn't all business though. "On the last day, we got to see the Great Wall and Forbidden City," Tietje said. "I think everyone enjoyed the trip immensely, and for some, it was life changing."

And it should lead to more global experiences for Cal Poly students. "It will open more study abroad opportunities in China," Thulin said. "I want to help young people who choose to work for an international company get the background they need to hit the ground running and to have an appreciation for and an understanding of other cultures and their importance to the U.S."



Cal Poly ASI President Jason Colombini (left) met with his counterpart at the China Agricultural University.

The Cal Poly group with colleagues from the Beijing University of Chemical Technology (top)



PHOTO BY KATIE MARCHETTI

## REINING SUPREME

### BEN LONDO BRINGS RODEO PROWESS TO COACHING

First-year Cal Poly Rodeo Team Coach Ben Londo (B.S., Construction Management, 2007) knows of what he teaches. As a Professional Rodeo Cowboys Association (PRCA) rider since 2003, Londo has amassed an admirable list of highlights, including three-time saddle bronc champion for the Columbia River Circuit. And as a member of Cal Poly's Rodeo Team while still a student, he earned bareback riding and all-around champion titles for two years running in the College National Finals Rodeo.

Since returning to Cal Poly last spring to head the rodeo program, Londo has wasted no time turning his attention to the next generation of rodeo riders. He's revamped some of the existing facilities and, at press time, the team had just qualified for the College National Finals Rodeo in Casper, Wyo. Five male and four female Cal Poly student-athletes will compete at the event June 15-21.

Up next for Londo: boosting scholarship funding to attract top student riders and ensure Cal Poly maintains its reputation as one of the most successful programs in the National Intercollegiate Rodeo Association.

## PLUS 17

### CAFES WELCOMES NEW FACULTY, STAFF

This 2013-14 academic year, CAFES welcomed: **Natalie Baker**, Equine Center supervisor and equine lecturer; **Sarah Bisbing**, forest ecology, silviculture & forest management instructor; **Mike Bush**, horticulture & crop science lecturer; **Brian Clark**, military science instructor; **Andrew Hosford**, meat science lecturer; **Kelly Ivors**, horticulture & crop science instructor; **Thomas Johnson**, dairy science Master of Professional Studies program manager; **Robert Kravets**, food science & nutrition instructor; **Ben Londo**, rodeo coach; **Susan Mackenzie**, recreation, parks & tourism administration instructor; **Chenchaiha Marella**, dairy products technology instructor; **Nathaniel McDonald**, military science instructor; **Ramon Montez**, military science instructor; **John Penvenne**, bioresource & agricultural engineering lecturer; **Beth Reynolds**, animal science lecturer and supervisor of the Sheep Center and Goat Enterprise; **Keri Schwab**, recreation, parks & tourism administration instructor; and **Gregory Schwartz**, bioresource & agricultural engineering instructor.

For more information, visit the About Us section of each department website at [cafes.calpoly.edu](http://cafes.calpoly.edu).

### ALUMNI AND FRIENDS: STAY CONNECTED!

Alumni and friends: You're invited to follow us on Facebook and LinkedIn and read our online edition of Agriview. Get the latest news by signing up for our e-newsletter at [cafes.calpoly.edu/subscribe](http://cafes.calpoly.edu/subscribe).

# SOMETHING TO CHEW ON

GRADS DEVELOP A TASTY TREAT TO HELP YOUNGSTERS EAT MORE VEGETABLES



"Eat your vegetables." It's a timeless refrain most kids are familiar with. Now nutrition-conscious parents can thank a team of Cal Poly graduates who are making some veggies easier to swallow.

VegThisWay LLC., founded by Caine Fair (B.S., Business Administration, 2013), Kate Mecozzi (B.S., Business Administration, 2013), Kaitlin Munoz (B.S., Food Science, 2013), and Sabrina Mutillo (B.S., Food Science, 2013), produces Rawr Bars, a tasty treat that delivers vegetables — and solid nutrition — to children and adults.

Made from vegetables, fruits and spices, Rawr Bars are similar to the familiar dried vegetable strips referred to as "fruit leather."

The original team, which included food science students Sara Rodich and Brittnee Neuman, created VegThisWay for the 2011-12 Mars Product Development Competition, making it all the way to the finals. After also winning an elevator pitch competition, the students got involved in a few entrepreneurship programs that helped launch their product.

"We are producing Super Sweet Potato and Beet-a-Peel and are working on two more flavors," Mutillo said. The bars are available in San Luis Obispo at Lincoln Deli and Market, EcoBambino, We Olive, Natural Foods Co-op, SLO-Op Climbing, and SLO Donut Co.

The challenge now is figuring out how to increase production. "As we continue to get more accounts, we need to scale up our business to reach more people," Mutillo said. "Finding a way to increase our product will be key to our success."

The Rawr Bar (above) and VegThisWay partners (from left): Kaitlin Munoz, Kate Mecozzi, Sabrina Mutillo, and Caine Fair

## MEET MUSTANG MASCOT MOONSTAR



Moonstar visits with Natalie Baker, Equine Center supervisor and Animal Science Department lecturer.

Some 45 years ago, the U.S. Congress recognized mustangs as “living symbols of the historic and pioneer spirit of the West.” How fitting that Cal Poly now has a living mustang as its mascot.

Moonstar, a gift from alumnus Robin Baggett (B.S., Business Administration, 1973) and his wife, Michelle, is the first horse to be included in a mustang-in-training program.

The mascot is intended to boost school spirit on campus by leading fans into the stadium and the Mustangs teams onto the field on game days, and encouraging interactions with students and alumni.

Animal science juniors Hannah Haeussler and Natalie Harnett, both enrolled in ASCI 345-Equine Behavior Modification, are in the process of training two additional wild mustangs the Animal Science Department adopted from the Bureau of Land Management. The university intends to select a team of outstanding students to train and care for the animals in the mustang-in-training program.

“This program will give students another opportunity to Learn by Doing as they care for and train our new mascot,” said Animal Science Interim Department Head Jaymie Noland, who is leading the new program.



# YOUR LEGACY

## BUILD YOUR LEGACY



## CELEBRATE WHERE IT ALL BEGAN

For generations, our alumni have returned to campus with their sons and daughters, the next generation of Mustangs. This proud tradition is powered by the passion for Learn by Doing. This legacy runs deep through the thousands of alumni who will forever call Cal Poly home.

Every day in the College of Agriculture, Food & Environmental Sciences, students are inspired by what they experience in labs, enterprise classes, senior projects, classroom learning, paid student assistantships, special problems courses and more.

*Through your gift to the College of Agriculture, Food & Environmental Sciences, you can make Cal Poly part of your family legacy.*

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College of Agriculture, Food  
& Environmental Sciences

# CAL POLY

SAN LUIS OBISPO

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## SOMETHING TO CROW ABOUT

Animal science students won big at the annual Pacific Egg and Poultry Association (PEPA) convention held at the Maui Sheraton Resort Feb. 24-26.

Winners, who received scholarship grants, include graduate students Simeen Johal and Kayla Susmilch (pictured) and undergraduate students Shelby Attwood, Ruth Collinot, Rebecca Kile and Devin O'Brien.

PEPA awards scholarships based on scholastic achievement to students preparing for careers in the poultry industry.

