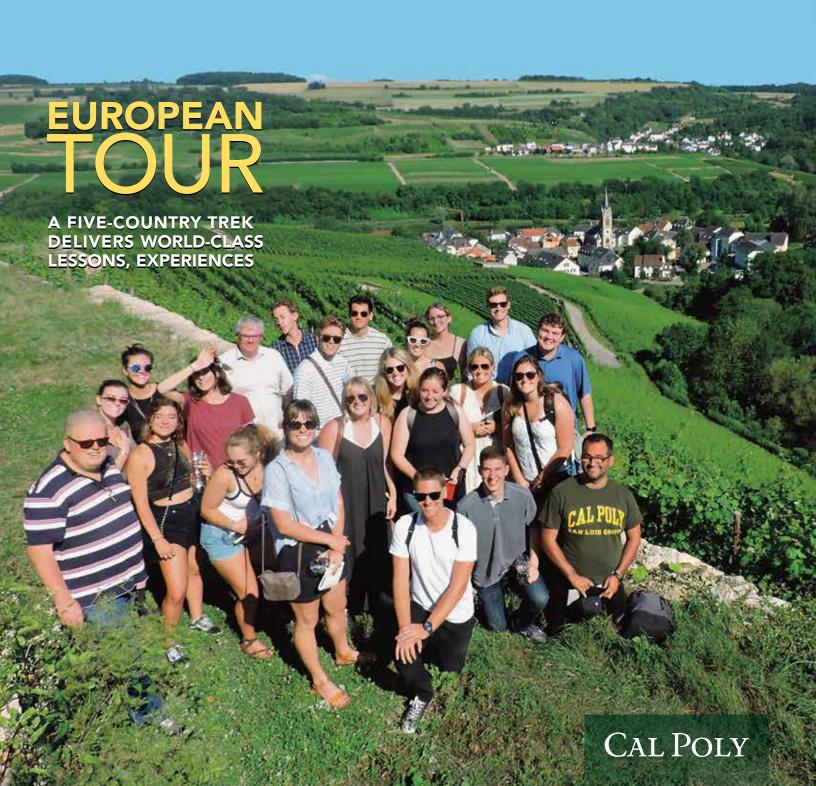
Vines Vines

CAL POLY WINE AND VITICULTURE DEPARTMENT | COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENTAL SCIENCES | WINTER 2019





The European Wine Tour course, designed and led by Department Head Benoît Lecat (second row) and enology Assistant Professor Federico Casassa, took 21 students to France, Germany, Italy, Luxembourg and Switzerland in June 2018.

DEPARTMENT HEAD'S MESSAGE

A Productive Year

CHEERS TO TRAVELS ABROAD, INDUSTRY PARTNERS AND GENEROUS DONORS

Dear Friends,

The 2017-18 academic year was busy and fulfilling. We traveled throughout California, meeting wine industry leaders and involving them in our effort to build the JUSTIN and J. LOHR Center for Wine and Viticulture. The final stage of the campaign seeks to cover actual construction costs and necessary equipment and to establish a maintenance fund.

We had the center's groundbreaking last spring and expect it to be completed in summer 2020. Our thanks to all stakeholders who have supported our program over the years, including Pellenc and Scott Labs for donating a top-of-the-line optic sorter and a crush pad, respectively.

We are in the final phase of developing the Trestle Vineyard, which provides students a unique experience with an ampelographic block of more than 80 different varieties and a rotational block showing the life

cycle of vines over four years — the ideal time students spend earning their degrees.

For the first time, we produced more wine for research (senior projects) than in the applied winemaking class. We supervised 11 wine research programs, and thanks to our partnership with ETS Labs, we are able to run more than 95 percent of our grape research analyses on site.

Our commercial wines have been bonded since July 2016, thanks to our partnership with Compli. Our portfolio includes Chardonnay, Pinot Noir, Cabernet Sauvignon and Syrah. Our thanks to the Niven family for helping produce our 2006-14 vintages, resulting in about 10,500 cases. Their support generated significant revenue for the department and allowed us to run our student pilot winery.

Since the 2015 vintage, Chamisal (part of the Crimson Group) has supported our

efforts, enabling us to produce more than 4,000 cases.

In June 2018, we accompanied 21 students on the two-week inaugural European Wine Tour. The experience exposed them to the best Old World practices.

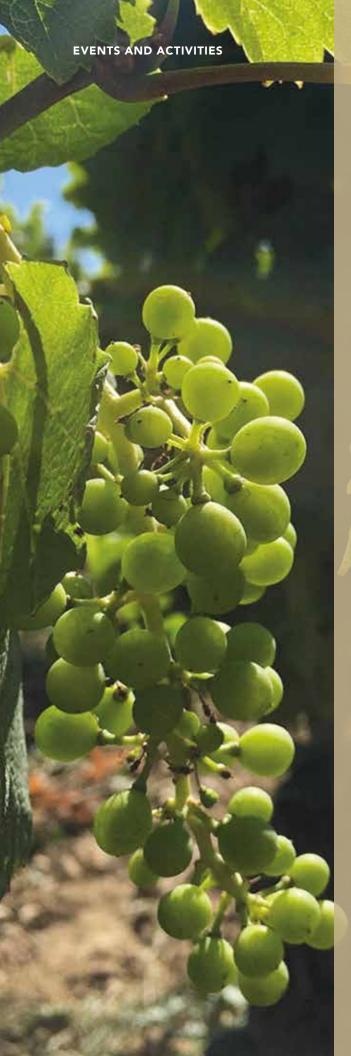
Viticulture Professor Michael Costello is teaching this quarter at the University of Adelaide in Australia.

We welcomed plant/vine pathology specialist Shunping Ding to the faculty, which is becoming even more international.

The Vines to Wines student group, formerly under Associated Students Inc., is operating as an Instructionally Related Activities (IRA) program, ensuring members receive a stronger education in wine and related fields.

BENOÎT LECAT
DEPARTMENT HEAD | PH.D., DIPWSET





See You There ...

MARK YOUR 2019 WINE CALENDAR

APRIL

11-13 Cal Poly Open House and Rodeo, Cal Poly, San Luis Obispo, California

26-28 Hospice du Rhône, Paso Robles Event Center, Paso Robles, California | hospicedurhone.org

MAY

16-19 Paso Robles Wine Festival, various locations, Paso Robles, California | pasowine.com/events

JUNE

15-16 Spring Commencement, Cal Poly, San Luis Obispo, California

17-20 American Society for Enology and Viticulture Conference, Napa Valley Marriott Hotel & Spa, Napa, California | asev.org

20-22 SLO Wine's Roll Out the Barrels, various wineries, San Luis Obispo, California | www.slowine.com/events

OCTOBER

18-20 Paso Robles Harvest Wine Weekend, various wineries, Paso Robles, California | pasowine.com/events

NOVEMBER

- 2-3 Harvest on the Coast, Avila Beach, California www.slowine.com/events
- 8-10 The Garagiste Wine Festival | Paso Robles Fairgrounds,
 Paso Robles, California | http://californiagaragistes.com/



STUDENTS, FACULTY AND ALUMNI MINGLE AT 2018 SYMPOSIUM

ABOUT 20 WINE and viticulture (WVIT) students and most of the department's faculty attended the Unified Wine & Grape Symposium, held Jan. 23-25, 2018, at the Sacramento Convention Center.

Billed as the largest wine and grape industry trade show in North America, the event includes presentations, subject-specific breakout sessions, regional wine tastings, a trade show, receptions and other opportunities to mingle and socialize.

"The presentations, industry networking and alumni meetings are all very important, especially for college seniors just entering the job market," said WVIT senior Gabe Ceja. "The presentations help us recognize trends and best practices; industry networking and alumni meetings help us find jobs."

The WVIT Department hosted a wellattended Cal Poly alumni reception. "This event constitutes a way to increase the students' network and allows us to showcase our research wines, student wines and commercial wines — the Learn by Doing outcome of our students," said WVIT Department Head Benoît Lecat.



Although the symposium is held in the middle of the school week, Ceja said, "It's definitely worth the effort. Students should attend with an open mind and a pocketful of their own business cards to hand out, even if it just says your name and contact information."

For Ceja and the other students, these opportunities enhance classroom learning. "It felt like I was receiving privileged information, which will certainly be helpful when looking into future endeavors," Ceja said. ■

Top: Wine and viticulture alumni Esther Brun and Miguel Lepe attended the department's reception at the Unified Wine & Grape Symposium in 2018.

Above: Wine and viticulture students Emily Stoffel (left) and Michelle Cordova signed in guests at Cal Poly's Wine and Viticulture Department booth.







Top: More than 150 guests turned out for the dinner (top) and auction at Oyster Ridge at Ancient Peaks Winery in Santa Margarita.

Above: Cal Poly students served dinner with a smile.

Left: A potential bidder checks out donated auction items before the action begins.

BETTER THAN EVER!

RAISING OUR GLASSES TO A SUCCESSFUL 2018 WINEMAKER SHOWCASE, AUCTION

THEY CAME, THEY ATE, they sampled wine, and they bid on live and silent auction items, resulting in the highest grossing winemaker showcase dinner in the history of the Wine and Viticulture Department.

More than 150 people attended the 2018 Winemaker Showcase Dinner and Auction, held March 9 at Oyster Ridge at Ancient Peaks Winery in Santa Margarita, California.

Guests feasted on a gourmet five-course dinner, catered by Ian McPhee's Grill. The elegant meal included wine pairings from featured alumni winemakers Clarissa Nagy, who poured the 2016 Blanc de Blanc from Riverbench Vineyard; Kristin Bryden, who shared a 2016 Bien Nacido Chardonnay from Zaca Mesa Winery and Vineyards; Molly Bohlman, who brought a 2016 Pinot Noir from Niner Wine Estates; Mike Sinor, who showcased a 2016 Cabernet Sauvignon from Ancient Peaks Winery; and Karl Wicka, who poured 2016 Pisenti Zinfandel from Turley Wine Cellars.

The evening included a "call to cause," which raised \$10,750 to help defray the cost for 21 students to participate in the 2018 European Wine Tour (See related article, Page 20.)

The silent and live auctions brought in more money than ever before. The funds support student initiatives. "Every year, students come up with strategic initiatives for the event," explained lecturer Adrienne Ferrara, who teaches the Special Problems for Advanced Undergraduates class, which



Above: Department Head Benoît Lecat (left) welcomes guests (from left) Bob Schulenburg, Carolyn Helmke and Paul Burkner.

Right: Professor Emeritus William Amspacher was among the guests who mingled before dinner and the auction.

puts on the event. "In 2018, the students wanted to raise money for the European Wine Tour — and they did it!"

Ancient Peaks Winery donated its incredible Oyster Ridge facility for the evening; Chef Ian McPhee donated his time and talent.

"We saved a great deal of money because of the support and philanthropy of alumni and industry," Ferrara said. ■





WHEN THEN-SENIOR Scot Schleisman (Wine and Viticulture, '18) called Westec in Healdsburg, California, looking for items to be auctioned at the annual Winemaker Showcase Dinner, he wasn't expecting anything as grand as a portable tank.

He experienced that same generous spirit when he contacted Wonderful Nurseries and ClearWater Tech. Not bad results for the first-time auction coordinator.

"I didn't have to persuade anyone to donate," Schleisman said. "We wanted to add industry items for 'flair' in addition to the generous bottle donations provided by local wineries. I went through the suppliers

OTHER MAJOR DONORS and sponsors included Oyster Ridge and Ancient Peaks, the Paso Robles Wine Country Alliance, Scott Labs, ETS Laboratories, Abreu Vineyards, Disneyland, Hospice du Rhone, McPhee's Grill, Brian Simas, and Vintrace. Thank you, everyone!

and retailers published in Wines and Vines, reaching out for donations that they felt were interesting for our auction."

That effort resulted in Wonderful Nurseries donating \$1,500 worth of vines — 300 in total — of the winning bidder's choice. ClearWater Tech, a local ozone generator company, did not have an auction item to donate, "but gladly donated a \$15,000 system for our future winery," Schleisman explained.

He randomly emailed Westec co-chief executive officers Jim and Joe Belli, asking if they'd have anything to donate. "Joe responded, 'What about a portable tank?' I was floored, flabbergasted, astonished and elated by the support of these three companies," Schleisman said.

Those donations and the ensuing auction was just the beginning of what turned into an incredible evening of unexpected events.

When the tank was on the block, none other than Jerry Lohr of J. Lohr Vineyards & Wines — longtime friend and generous benefactor to Cal Poly, the College of Agriculture, Food and Environmental

Above: A portable tank arrives for the 2018 Winemaker Showcase Dinner and Auction.

Sciences, and the Wine and Viticulture (WVIT) Department — was the winning bidder at \$7,000.

"Jerry then announced that if anyone would donate \$5,000 toward additional tanks, he would add \$2,000 to obtain more tanks," Schleisman said. "Two other patrons — Paul Burkner, vice president and cofounder of AIM Inc., and Bob Schulenburg, owner of Schulenburg Vineyards — raised their hands, and that was that. Three tanks were donated in just a few minutes. No one knew that was going to happen; it was a sensational night!"

"We are extraordinarily grateful to these generous friends of the department," said lecturer Adrienne Ferrara, whose students plan, organize and put on the annual Winemaker Showcase Dinner and Auction. "With friends and industry support, we can continue to provide our students unsurpassed Learn by Doing experiences."



Ready to Market

STUDENTS ARE POISED TO DISTRIBUTE FOUR CAL POLY WINES

AN ELEGANT LINEUP of wines, bottled and bearing the Cal Poly label, are stellar examples of lessons learned by Cal Poly wine and viticulture students.

But the lessons are not over. The next step involves tackling distribution.

Since 2017, the Cal Poly wine program has been bonded, said Department Head Benoît Lecat. "Although the department is currently only able to ship to California, this is an outstanding opportunity for the students to understand the complexity of distribution in the U.S., with its unique three-tier system of importers or producers, distributors and retailers."

Cal Poly wines are currently produced in partnership with Chamisal Vineyards, located in the Edna Valley.

"The wines showcase what Cal Poly is doing regarding its winemaking," said department lecturer Adrienne Ferrara. "Assistant Professor Federico Casassa spends a great deal of time overseeing the student winemakers, and the wines are delicious."

Under Ferrara's supervision, students are now marketing four wines:

- 2017 Chardonnay from the Edna Valley American Viticultural Area (AVA), \$16.
- 2016 Pinot Noir from the Edna Valley AVA, \$22.
- 2016 Cabernet Sauvignon from the Paso Robles AVA, \$20.
- 2016 Syrah Grenache Blend, \$18. To purchase Cal Poly wines, visit https://www.calpolywine.com/ or contact calpolywine@calpoly.edu. ■

Above and right: A selection of Cal Poly's faculty-supervised, student-made wines.





Cal Poly breaks ground on the Center for Wine and Viticulture and renames it in honor of the project's two major donors

IT'S OFFICIAL: Cal Poly's Center for Wine and Viticulture has been named the JUSTIN and J. LOHR Center for Wine and Viticulture in recognition of the generous donors whose support has helped advance the project into the building phase.

Lynda and Stewart Resnick, owners of JUSTIN Vineyards & Winery, a family-run winery in west Paso Robles, donated \$2.5 million, and Jerry Lohr of J. Lohr Vineyards & Wines, an industry icon with vineyards in Paso Robles, Monterey and Napa Valley, also committed \$2.5 million in funding.

"The local wine community has stepped forward in support of this project, solidifying a partnership with Cal Poly that will not only benefit students for years to come, but will also provide the rigorously trained talent that the wine industry depends on," Generous donors of the Wine and Viticulture Department joined Cal Poly administrators, faculty and staff for the groundbreaking of the JUSTIN and J. LOHR Center for Wine and Viticulture in May 2018 (above).

said Andrew Thulin, dean of the College of Agriculture, Food and Environmental Sciences.

Construction of the JUSTIN and J. LOHR Center for Wine and Viticulture began in March 2019. The winery will be completed by late summer 2020 and the Grange Hall shortly thereafter. The center is a public-private partnership that has attracted significant private funding. To date, 75 percent of the funding has been raised. Several prominent naming opportunities still exist.

"Cal Poly has demonstrated the university's commitment to providing future generations of winemakers and vintners



THANK YOU, DONORS!

The Wine and Viticulture Department thanks the following donors whose generosity and foresight will make the JUSTIN and J. LOHR Center for Wine and Viticulture at Cal Poly a cutting-edge facility that advances the industry and boosts our students' value to the fields of enology, viticulture and wine marketing. The department also recognizes the many anonymous donors who have contributed to this project.

Charles and Paul Burkner Steve and Susie Carter

Casity Farms

Compli

ETS Labratories

The Gallo Family

Hal Huffsmith

JUSTIN Vineyard and Winery

Ejnar Knudsen

Cecile and Richard Kruse

Mike and Suzy Leprino

The Lauchland Trust

The Ledbetter Family

Jerry Lohr

Martinez Orchards

Gaylord McCool

Peter and Liz McKinley

McManis Family Vineyards

Dana and Marsha Merrill

Harold J. Miossi Charitable Trust

Sandra Noyes

Oreggia Family Foundation

Pellenc

Peszynski Family

Burt and Virginia Polin Charitable Trust

Rodney and Gayla Schatz

Scott Laboratories

Dennis and Polly Stroud

Bob and Marie Torkelson

Trinchero Family Estates

The Wagner Foundation

and its support of the wine industry at a national level," said Stewart Resnick. "Our investment in the center signifies our commitment to a partnership that will allow the industry to continue to prosper. We are not just giving back, we are investing in the future."

The JUSTIN and J. LOHR Center for Wine and Viticulture will include a 15,600-square-foot winery and a 12,000-square-foot grange hall. Crush, fermentation, barrel, sensory, bottling, enology and viticulture rooms, as well as teaching and research labs, a bonded

winery, offices, and community and industry meeting spaces are also planned.

"Thanks to the generosity, loyalty and support from Lynda and Stewart Resnick, Jerry Lohr and others, our years-long dream to build a vital, innovative wine and viticulture facility is coming to fruition," said Benoît Lecat, department head of the Wine and Viticulture Department. "This center will allow us to educate our students with the finest, most up-to-date equipment available. As well, the center will provide a space for critical research and a place where industry professionals can interact and

exchange ideas with the nation's foremost academic authorities."

The growth of Cal Poly's wine and viticulture program — the largest of its kind in the U.S. — is in direct response to the increased demand for wine industry professionals. The unique curriculum allows students to focus on one of three major elements of the industry: viticulture, enology and wine business.

"I am elated to celebrate the start of construction of the JUSTIN and J. LOHR Center for Wine and Viticulture — a vision that I have supported since the beginning," Lohr said. "With the partnership of JUSTIN Vineyards & Winery, years of planning will now emerge as the preeminent program for wine and viticulture students in the nation."

OUR FUNDRAISING COMMITTEE

The Wine and Viticulture Department is also grateful to the following members of the Fundraising Committee, whose hard work and dedication have helped our vision of a wine and viticulture facility become a reality.

 $\label{lem:committee} \textbf{ Jerry Lohr} \ (\textbf{Committee chair}) : \textbf{Founder and proprietor} \ | \ \textbf{J. Lohr Vineyards \& Wines} \\ \textbf{Paul Burkner: } \textbf{Co-founder and vice president} \ | \ \textbf{Ag Industrial Manufacturing Inc.} \\ \\ \textbf{Manufacturing Inc.} \\ \textbf{Manufacturing Inc.}$

Steve Burns: President | O'Donnell Lane (Bay Area wine marketing company) **Vicki Carroll:** President and executive director | Hospice du Rhone

Pat DeLong: President and CEO | Crimson Wine Group

John Franzia: Co-founder and president | Bronco Wine Co.

Dana Merrill: Owner | Pomar Junction and Mesa Vineyard Management **Dennis Stroud:** Vice president and managing partner | Plata Wine Partners

LEND YOUR SUPPORT!

Interested in donating to the JUSTIN and J. LOHR Center for Wine and Viticulture? Please contact **Allyson Fischlin**, director of development for the College of Agriculture, Food and Environmental Sciences, via:

Phone: 805-756-3269
Email: fischlin@calpoly.edu

Online: http://bit.ly/cpwvitcenter.

Thank You, Nivens

STUDENTS, DEPARTMENT GREW AND PROSPERED FROM THIS STRONG INDUSTRY PARTNERSHIP

Thanks to the philanthropy of John R. Niven and Niven Family Wines, Cal Poly was able to produce wine from the campus Trestle Vineyard at the Niven-owned Orcutt Road Cellars from the 2006 through 2014 vintages. The partnership thrived for nine vintages until the Cal Poly Pilot Winery was bonded in July 2016.

"We sold approximately 10,500 cases and made nearly \$350,000 in revenue through this very favorable relationship," said Wine and Viticulture (WVIT) Department Head Benoît Lecat.

The Cal Poly wines were sold at local restaurants and stores and during major holiday promotions that co-branded with Cal Poly cheese and chocolate.

"This is another example of how students and the WVIT Department benefit from industry's support," Lecat said. ■

Right: A sampling of Cal Poly wines that were produced at the Niven-owned Orcutt Road Cellars from 2006 through 2014.





IN-KIND DONATIONS FILL NEW CENTER WITH TOP-OF-THE-LINE EQUIPMENT

WHEN COMPLETED, the JUSTIN and J. LOHR Wine and Viticulture Center at Cal Poly will be equipped with some of industry's latest technology and equipment, thanks to in-kind donations from enthusiastic supporters who are helping students get relevant hands-on experience without leaving campus.

Scott Labs, a leading North American provider of products for the wine, craft brewing and distilled spirits industries, has joined the list of generous benefactors with its donation of a crush pad.

This donation consists of a vibrating sorting table, an incline conveyor, a Rotovib destemmer, and a must pump. The Rotovib, hailed as the latest wine grape processing equipment, gently handles the fruit, yielding the maximum number of whole berries and a minimum of stems. "The grapes are dumped onto the vibrating

sorting table, where they are hand sorted by people staged on each side of the table," explained Jim Shumate, Pilot Winery manager and enology lecturer. "Vibration moves the fruit along while the workers remove anything other than good quality grape clusters. This can include over- or under-ripe grape clusters, moldy grapes, leaves and twigs.

"The grapes then move onto the incline conveyor, which moves them up and dumps them into the Rotovib destemmer, where the grape berries are separated from the stems, and the fruit drops down into the must pump," Shumate continued. "The stems are discarded out the end of the destemmer, and the must pump moves the destemmed grapes to a tank for fermentation."

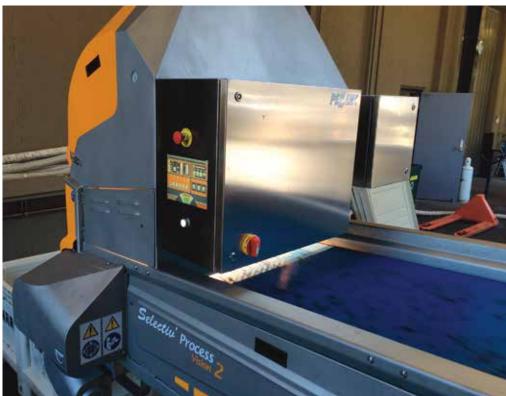
This is a more traditional crush pad arrangement, Shumate explained, as compared to the Pellenc optical sorter Scott Labs' generous donations include (above, from left) a must pump, incline conveyor, Rotovib destemmer, and a vibrating sorting table.

(see following story, next page), which does most of the sorting.

"Seeing this crush pad and the Pellenc set up side by side will give students the best overview of each system," Shumate said. "They will be able to compare the differences and see the quality of the performance of both systems, while also learning the cleaning and sanitizing requirements for each.

"Both are great systems and are widely used in the industry," he continued. "The students can compare and contrast the two, because most likely, they will be working with one type or the other in their careers."





Pellenc America Inc.'s donation of a Selectiv' Process Vision 2 high-precision optical sorter (right) and destemmer (above) will give students experience working on equipment often used by high-end wineries.

There's More...

CUTTING-EDGE EQUIPMENT ROLLS IN FROM PELLENC AMERICA INC.

CAL POLY'S WINE and Viticulture (WVIT) Department got a major technological advantage this year, thanks to Pat Abert, CEO of Pellenc America Inc., who donated a crush pad consisting of a complete destemming and sorting line that will allow students to explore the possibilities of high-precision equipment while focusing on what is truly important: making better wine.

The equipment includes a highquality Selectiv' destemmer and highprecision Vision 2 optical sorter that allows users to sort by color, shape and size with industry-leading precision of up to 10 tons per hour.

"The equipment's unique style of destemming allows for whole berries with minimal maceration," said Glenn Merdan, winery product manager at Pellenc America's Santa Rosa, California, showroom. The berries are mechanically sorted through the fine-adjustable sorting table."

Jim Shumate, Pilot Winery manager and WVIT lecturer, explained, "The grapes are loaded into the destemmer, which uses linear vibration to pull grape berries off the stem and drops the grapes onto a high-speed conveyor belt while discarding the stems. The conveyor belt moves the grapes to an optical sorter, which uses a camera to detect anything

"CAL POLY GRADUATES ARE
THE DECISION-MAKERS OF
TOMORROW, SO IT WAS
A SIMPLE DECISION TO
INVEST OUR SORTING LINE
WITH CAL POLY'S WINE AND
VITICULTURE STUDENTS. IT
PERFECTLY FITS WITH THE
UNIVERSITY'S COMMITMENT
TO ADOPTING LEADING
INDUSTRY STANDARDS."

GLENN MERDAN | PELLENC AMERICA

that is not a grape, such as pieces of stem, leaves, twigs or bugs, and quickly gets rid of it with a high-pressure air blast that comes out of a tiny nozzle at the end of the conveyor belt.

"There are approximately 100 air nozzles that operate independently when the camera and computer detect an object to be discarded," Shumate continued. "The nozzle will dispense a very quick blast of air and push the MOG (material other than grapes) down into a separate chamber, while the clean fruit continues forward and into a clean bin of fruit. The fruit is now ready to go to a tank for fermentation."

The optical sorter uses a simple touch-screen slider to adjust settings.

"Users don't need to know how to program or perform any calibration steps," Merdan said. "Cal Poly graduates are the decision-makers of tomorrow, so it was a simple decision to invest our sorting line with Cal Poly's wine and viticulture students. It perfectly fits with the university's commitment to adopting leading industry standards."

This equipment represents the latest technology. "Students are getting to see it and use it prior to going out into industry. Many higher-end wineries — both locally and around the world — are starting to use this technology, so our students will be well prepared for their careers," Shumate said. "Since we also have more traditional crush pad equipment, which does not include an optical sorter, students will be able to see how technology can help process fruit quickly and with less labor, with the goal of making better wine."

WVIT Department Head Benoît
Lecat agrees. "This equipment will
indeed allow our students to focus on
making finer wines. Working with leading
equipment suppliers like Pellenc exposes
students to the latest technologies and
optimizes their chances to find the best
job in the leading companies."

Find more information on Pellenc America at www.pellencus.com. ■

Sharing What They've Learned

FIVE WINE AND VITICULTURE STUDENTS PRESENT RESEARCH FINDINGS AT NATIONAL CONFERENCE

FIVE OF THE SEVEN Cal Poly wine and viticulture (WVIT) students who attended the 69th annual American Society of Enology and Viticulture (ASEV) national conference presented research papers at the four-day event.

Jean Dodson Peterson, assistant professor of viticulture, accompanied the students to the meeting, held in Monterey, California, in June 2018.

"It was monumental for Cal Poly to have so many WVIT students present their research at the American Society of Enology and Viticulture's annual conference," Dodson Peterson said.

"It is important to our mission to include both undergraduate and graduate students in the grant-funded research we are doing and to give them the opportunity to present our findings," she added.

More students are participating in research activities in the WVIT Department because Dodson Peterson and Federico Casassa, assistant professor of enology and wine sensory analysis, make it a priority. They are thankful for the financial boost from grants awarded through the California State University's Agricultural Research Institute (ARI) to help fund student research opportunities.

One student benefitting is Claire Villaseñor, a viticulture senior who presented at the event for the first time.

"I was quite nervous because I was one of the only undergraduate students to present," she said. "But the feedback I got from judges and industry

WVIT students attending the conference were Niclas Dermutz, Dylan Ellis, Paul Mawdsley, Daniel Postiglione, Emily Stoffel, Margaret Thompson and Claire Villaseñor.

professionals was great! Many said they were so impressed with my project and presentation, they thought I was a master's or doctoral student!"

Her project, led by Dodson Peterson, is titled "Effect of Shoot Density
Manipulation on Canopy Growth and
Berry Chemistry." The three-year study, carried out at the UC Davis Oakville
Station in Oakville, California, examined the role shoot density manipulation has on berry chemistry and on the normalization of shoot development as a function of arm position along the cordon.

"I loved being able to connect with other student researchers from all over the country," Villaseñor said. "Through the guidance of Dr. Dodson, I have learned what it takes to be successful with real projects in the industry. I learned more from doing this conference presentation than from any paper I've written or presentation I've given in class."

Added Dodson Peterson, "It is rewarding to see our students actively engaged and participating in this conference. ARI has made it all possible."



Wine and viticulture major Claire Villaseñor (above) and alumnus Dylan Ellis (right), shown with Assistant Professor Jean Dodson Peterson, presented their research findings at the 69th annual American Society of Enology and Viticulture (ASEV) national conference.



Kudos!

WINE AND VITICULTURE ANNOUNCES 2018-19 SCHOLARSHIP RECIPIENTS

THE WINE AND VITICULTURE Department congratulates this academic year's scholarship recipients and thanks the generous donors who made these awards possible.

American Vineyard Viticulture Scholarship: Claire Villasenor

Arthur E. Norman Scholarship: Erika Colucci

Crop Production Services Scholarship in honor of Gordon Miller:

Sergio Bernal Gutierrez and Rachel Lippa

Garagiste Festival Scholarship:Madison Garzoli, Julia Tan and Kiley Wood

Jack and Catherine Niven Scholarship: Jessica Cerda

Jeffrey Newton Scholarship for Viticulture Studies: Nicolas Kent

Joe and Florence Silva Memorial Scholarship: Yvonna Molodanof

Murphy Foundation-Presqu'ile Winery Scholarship:

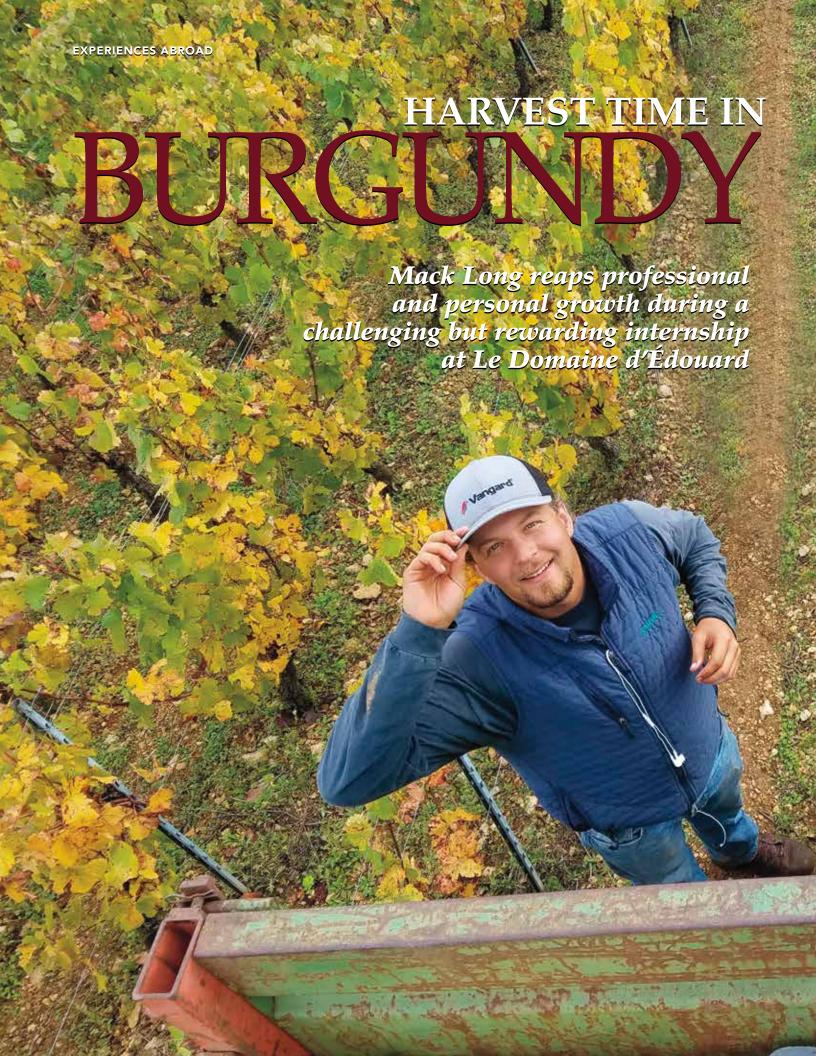
Christopher McDonough

Orange Co. Wine Society Scholarship:

lvy Thompson, Maryn Tudor, Madison Menyuk, Madison Kinder, Stephanie Lockett and Nicholas Steele

Tony and Janet Marino Scholarship: Annika Salenjus

Woodward Graff Wine Foundation Scholarship: Shane McCarthy. ■



DURING A TWO-MONTH internship in Burgundy, France, in the summer and fall of 2017, then-senior Mack Long (Wine and Viticulture, '17) learned a few things. He learned — the hard way — that picking the fruit there, which is pruned close to the ground, is backbreaking work. He also learned that he could successfully travel to foreign lands on his own.

Before starting the internship at Le Domaine d'Édouard (http://www.domaine-edouard.fr/), Long participated in a five-day training program called Odyssey in Burgundy. The pre-harvest course is offered through the CFPPA (Centre de Formation Professionnelle et de Promotion Agricole) school in Beaune, a primary wine growing region in Burgundy.

Specifically designed for "wine-enthusiast foreigners," the courses, taught in English, focus on Burgundy's history, the vegetative cycle, vine training and pruning, vineyard improvements and more.

Long was one of about 25 individuals who had traveled from the far corners of the globe to attend the program. "I made

"THIS WAS MY FIRST
TIME FLYING ALONE.
I NAVIGATED THE
TRAIN SYSTEM; I DROVE
THROUGH FRENCH
CITIES. IT WAS A GOOD
CONFIDENCE BOOST."

friends with people from Africa, Brazil, Japan and New Zealand, plus a handful from California. After the course, we were placed with various French winemakers," Long said.

The most stressful aspect of the internship was not speaking the language. "I picked up some functional phrases, but I had difficulty getting my point across

and asking for help," Long said. "Everyone was very nice and patient when I did attempt to speak French."

He found the main techniques of California winemaking and French winemaking to be similar. "Sanitation is a main concern here and in France, but the goals are slightly different," he said. "French consumers have different expectations; they expect certain attributes from wine from a specific appellation. They buy wine from a specific region; they don't buy a particular variety."

While there, Long was exposed to different growing systems. He cleaned pumps and hoses and helped pick the fruit and process it. "Picking was hard," he said. "They prune their vines really low to the ground, and I was one of the tallest on the crew, so it was literally backbreaking work."

Long said the experience helped him feel more competent. "This was my first time flying alone. I navigated the train system; I drove through French cities. It was a good confidence boost." ■





Above: Mack Long's many duties at Le Domaine d'Édouard included moving barrels and loading the press with a must pump.

Opposite: Long also picked fruit, which he found challenging due to the estate's practice of pruning vines low to the ground.

BROADENING THEIR HORIZONS



A European Wine Tour course offers students a taste of viticulture, winemaking — and so much more





WORKSHOP ON BREADMAKING and a charcuterie tour and tasting in Italy.

Cheese tasting and truffle hunting in France. Champagne tasting in, well, Champagne, France.

Learn by Doing never tasted so good.

Those experiences were just a small part of a new class (WVIT: 470) that takes students on a two-week tour of Europe's most renowned wine and viticulture regions. The European Wine Tour course, designed and led by Wine and Viticulture (WVIT) Department Head Benoît Lecat and enology Assistant Professor Federico Casassa, took 21 students to France, Germany, Italy, Luxembourg and Switzerland.

"The class exposes students to the diversity and complexity of western European vineyards, including the specificities of the three concentrations our bachelor's degree offers: viticulture, enology and wine business," Lecat said.

Students were exposed to best practices in viticulture, including pruning and pest management; vinification; maturation and barrel aging; and wine packaging. They witnessed various processes and noted how different winemaking approaches can

Cal Poly Wine and Viticulture Department Head Benoît Lecat (left), Assistant Professor Federico Casassa (center) and students tour Chignin in France's Savoie region with grower Romain Quénard (right).

Above: Hugel Winery in Riquewihr, Alsace, has the oldest barrel in the world (1715), which is still used to make wine.



affect the style, quality and commercial value of wine for each wine region.

"These students gained a deep theoretical and practical understanding of the relationship between food, wine, tourism and business in Europe," Lecat said. "They were also exposed to beer production at Jurassic Brewery in Jura, France; spirit production at Romano Lévi Distillery, the iconic grappa producer in Piemonte; truffle hunting in Burgundy at the family-owned L'Or des Valois; cheese production at Gaugry in Burgundy and at the Fruitière of Poligny in Jura; and ham production in Valle d'Aosta Bertolin."

Their travels included a visit to Puligny-Montrachet, France, considered by many to produce the greatest Chardonnay wines Above: Visiting the most iconic Grand Cru monopoly of Burgundy, Romanée-Conti, in the village of Vosne-Romanée.

Right: A truffle hunt in the forest at L'Or des Valois Castle in France's Burgundy region proved successful.

in the world, and in Aloxe-Corton they got to meet Claude Chapuis, renowned author of "Sustainable Viticulture: The Vines and Wines of Burgundy."

Senior viticulture student Lauren Fessenden knew the trip would round out her education. "You hear about these famous wine regions in classes, but actually seeing and experiencing them is a whole different thing," Fessenden said. "I wanted to compare their winemaking and viticulture to the practices in California."







Although Fessenden discovered that some viticultural practices are universal, the Old World wine regions she visited had techniques and viticultural styles that aren't practiced much in California. "It's one thing to hear about Old World viticulture in class and another to actually see and talk with the workers who implement them," Fessenden said. "Now I can speak more confidently about places other than Paso Robles and Napa. It's important to have a worldwide, well-rounded understanding of the wine industry, and now I do."

Madison Garzoli, a senior wine business student who strives to work in international relations and marketing, saw this trip as an opportunity to learn about specific markets in the traditional Old World countries.

"This opportunity added so many different realms to my educational pursuits," Garzoli said. "I learned how variable our industry is and how various dimensions exist within the international market and industry. I think it's imperative for wine business students to comprehend the entirety of the industry in order to provide a story to the consumers."

Beginning in Champagne, the students learned how the terroir — climate and soils — and the blend effect the finished product. During a tour of Pol Roger, a well-regarded Champagne house in Epernay, they tasted some of the best wines in its portfolio.

Above: Assistant Professor Federico Casassa supervised a Reviewing Session at C-Comme in Epernay, France.

"We tasted a vintage 2009 Blanc de Blanc, vintage 2009 Rosé, and their prestigious Sir Winston Churchill, vintage 2006," said senior Gabe Ceja. "The Pol Roger Brut Reserve Non-Vintage was even featured at the wedding reception of Prince Harry and Meghan Markle."

Pol Roger wines are aged in caves, remaining undisturbed for years. "Seeing is believing," Ceja said, "and I believe they have about 10 million bottles aging more than 100 feet beneath the streets of Epernay. When the wine is



Left: The students got a lesson in pruning techniques in Beaunay, Champagne.

of Champagne (Non-Vintage, Vintage, Rosé, Blanc de Blancs, Blanc de Noirs and Prestige Cuvée)."

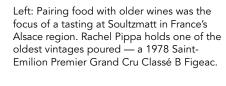
Fessenden recalled the Rhone Valley, walking through Condrieu and seeing the terraced Viognier vineyards and later moving through Côte-Rôtie and Hermitage. "Drinking the Syrah there was my 'ah-ha' moment," she said. "After hearing so much about this place, it was a treat to be there. The wine was impeccable; the area was beautiful."

At the Franz Keller winery in Baden, Germany, the group discovered that the cool region allows for great production of Pinot Noir and Pinot Grigio-style wines. "The terraced vines are not capable of reaching the levels of acidity that Riesling lovers have come to expect from German wine," Ceja said. "Spätburgunder (Pinot Noir) with a strong oak influence is not only popular in America, it also sells well in Germany. These wines reminded me of those made at Chamisal Vineyards and other wineries in the Edna Valley."

Fessenden was surprised to see that a handful of Old World wineries have changed their generations-old practices of winemaking to market in new ways that tailor to younger crowds. "This showed me that new, innovative winemaking styles are taking hold around the world," she said. "Even though many people believe California is the pinnacle for experimentation, other places are doing it too — and they are doing it well."

Garzoli admitted that she had no idea "so many amazing wine regions even existed. Experiencing different cultures and understanding different international industries was invaluable," she said. "This trip allowed me to gain a new perspective on the industry and see how many opportunities exist."

Ceja appreciated the opportunity to compare grape farming and wine





ready for dosage, the bottles are hand-riddled until the lees become a slug on the crown cap when the bottle is fully inverted, 'en pointe.' Riddling is a full-time job, since there are about 55,000 bottles that need to be turned daily. Machine harvesting is not allowed. This helps keep a premium quality on the grapes and, more importantly, the image of Champagne."

Lecat added, "At C-Comme in Epernay, the students learned about the diversity of Champagne styles based on grape variety — Pinot Noir, Chardonnay and Pinot Meunier; the origin of the grapes; the system of the village classifications of Premier Cru and Grand Cru; and the styles



Above: A visit to the Cellar of Marchesi de Barolo, Italy.

Right: Dinner in Soultzmatt paired local food with an outstanding tasting of old vintages.

production in Europe to the U.S. "The challenges they came across were very different from the ones we encounter in California," he said. "The big takeaway for me was that there isn't a huge drive for profits like there is in California. Probably because land is so expensive here, whereas in Europe, the land has been in families for centuries. They are allowed to focus on minimalist wines — on tradition — as opposed to our wines, which must cater to consumer trends."

This trip helped enforce what Ceja already knew: "It's a great big wine world out there, and I'm even more excited to be a part of it!"





AT A GLANCE

Prior to embarking on this two-week, intensive European Wine Tour, students enrolled in a 10-session course, immersing themselves in the intricacies and complexities of Western European grape-growing and winemaking techniques. Here's a look at a portion of their itinerary.

EPERNAY, CHAMPAGNE REGION, FRANCE

- Dinner at C-comme: Tasted Champagne styles based on the grape variety (Pinot Noir, Chardonnay, and Pinot Meunier); noted the origin of the grapes and the system of village classification (Village, Premier Cru and Grand Cru); the styles of champagne (Non Vintage, Vintage, Rosé, Blanc de Blancs, Blanc de Noirs and Prestige Cuvée); and the dosage level (from the addition of liqueur d'expédition before bottling).
- Visited Champagne producer Pol Roger: Studied traditional methods and marketing techniques; visited the cellar; tasted various vintages, including the iconic Sir Winston Churchill Cuvée 2006.

AHN, MOSEL RIVER VALLEY, LUXEMBOURG

- Visited Max-Lahr winery: Tasting in the vineyards.
- Sampled local food and local varieties: Elbling, Rivaner and Auxerrois.

TRIER, MOSEL REGION, GERMANY

(along France and Luxembourg border)

• Toured Karthäuserhof Estate: Studied the German Prädikat System (classification based on natural sweetness); tasted a very rare Trockenbeerenauslese; toured cellar and vineyard.

DAMBACH-LA-VILLE, ALSACE REGION, FRANCE

- Visited Hauller Estate: Studied innovations such as Olejito or "gold sparkling" wine; the trading-up concept (with a targeted tasting of two brands in the portfolio: Louis Hauller vs. Hauller Frères); and how to avoid cannibalization, using the brand Pierre Sperry as an example.
- Visited Michel Dietrich Estate: Learned winemaking technique in neutral containers (foudre); introduced to the noble varieties (Riesling, Gewürztraminer, Pinot Gris and Muscat) and late-harvest and Selection de Grains Nobles; studied Grand Cru Frankstein on the different styles.

RIQUEWIHR, ALSACE REGION, FRANCE

• Visited Hugel & Fils winery: Studied differences among single vineyards, including Schoenenbourg, Sporen and Pflostig; heard criticisms about the Grand Cru classification system; learned about aging capacity of one noble variety with a tasting of a Riesling Vendages Tardives (late-Harvest) 1976; visited cellar with the world's oldest barrel (1715) that's still used to make wine.

VOGTSBURG, BADEN REGION GERMANY

• Visited Franz Keller Winery and Vineyards: Introduced to the concept of Verband Deutscher Prädikatsweingüter (VDP, Association of German Prädikat Wine Estates) classification system; studied different soils in the vineyard districts; and tasted two varietals: Grauburgunder (Pinot Gris or Pinot Grigio) and Spätburgunder (Pinot Noir) from the different blocks and levels of quality within the VDP: VDP Gütswein; VDP Erste Lage (Premier Cru) and VDP Grosse Lage (Grand Cru) and the best of the best, Grosses Gewächs called "GG" especially for Schlossberg, Eichberg and Kirchberg outstanding blocks.

SOULTZMATT, ALSACE REGION, FRANCE

- Sampled local Alsatian charcuterie, traditional sauerkraut, sorbet and Munster cheese. Food and wine-pairing techniques focused on old wines.
- Outstanding tasting with local charcuterie and sauerkraut:
 Champagne Billecart-Salmon 1995 Blanc de Blancs
 Champagne Deutz 1998 Blanc de Blancs
 Chablis Grand Cru La Moutonne (monopole) Long Depaquit 1996
 Pouilly-Fuissé Vers Asnières 2005 Pierre Vessigaud
 Pernand Vergelesses Premier cru lle-des-Vergelesses 1999 Chandon de Briailles
 Beaune Premier cru Clos des Ursules 1999 Maison Louis Jadot
 Pommard Premier Cru Fremiers 1999 Boillot
 Nuits Saint Georges Premier cru Les Pruliers 1999 Boillot
 Vosne-Romanée Premier Cru Clos des Réas (monopole) 1999 Michel Gros
 Gevrey-Chambertin Premier Cru Poissenot 1999 Geantet Pansiot
 Romanée-Saint-Vivant Grand Cru 2001 Nicolas Potel
 Saint-Emilion Premier Grand Cru Classé B 1978 Figeac
 Alsace Grand Cru Rangen Clos st Urbain Pinot Gris 2001 Zind-Humbrecht

RIVAZ, VAUD CANTON, SWITZERLAND

 Tasted the Chasselas variety, the local Grands Crus, and some typical Vaudois reds.

SAVIÈSE, VALAIS CANTON, SWITZERLAND

• Visited Cornulus Winery: Studied local varieties of Humagne, Petite Arvine, Paien (Savagnin), Cornalin, Amigne, Johannisberg (Sylvaner) and Hermitage (Marsanne); introduced to viticulture in mountainous area and to the concept of "clos."

SION, VALAIS CANTON, SWITZERLAND

 Dinner in Sion: Tasted traditional raclette cheese coming from the valleys of Bagnes, Gomser, Haudères, Saint-Martin, Simplon Dorf, Wallis, Heida and Nendaz.

ARNAD, VALLE D'AOSTA, ITALY

• Visited charcuterie producer Bertolin: Enjoyed lunch; introduced to the "lard d'Arnad" (a cured pork product; the white part of the bacon); toured production center; tasted charcuterie.

BAROLO, PIEMONTE REGION, ITALY

• Hosted by Marchesi di Barolo: Toured the vineyards and the cellar; studied the Italian appellation system with Denominazione di Origine Controllata (DOC) and Denominazione di Origine Controllata e Garantita (DOCG); tasted Cortese and Arneis white varieties, the Dolcetto, Barbera and Nebbiolo red varieties for entry-level wines, and then focused on the single block analysis of Barolo DOCG appellation: Coste di Rose, Cannubi and Sarmasa; exposed to Moscato d'Asti and Grappa di Barolo; sampled traditional cheeses and charcuterie.

BARBARESCO, PIEMONTE REGION, ITALY

• Walking tour of the village.

NEIVE, PIEMONTE REGION, ITALY

• Visited Romano Levi distillery: Met owner Luigi Schiappapietra; learned traditional distillation technique; tasted legendary grappa; discussed brand positioning.

ALBA, PIEMONTE REGION, ITALY

• Eataly Shop: Attended workshop on bread production techniques and the role of yeast.

CHIGNIN, SAVOIE REGION, FRANCE

• Visited Andre & Michel Quenard winery: Introduced to altitude viticulture; tasted local Mondeuse, Roussette, Jacquère and Bergeron (=Roussanne) varieties.

AMPUIS, RHÔNE REGION, FRANCE

• Walked in the Côte Rôtie and Condrieu Vineyards.

TAIN-L'HERMITAGE, RHÔNE REGION, FRANCE

- Visited the Cave de Tain l'Hermitage Cooperative: Toured vineyard and saw different types of soil; introduced to concept of cooperative.
- Maison Chapoutier Négociant: Saw video on wine production in the region; introduced to the concept of Négociant; tasted, with a sommelier, the main appellations of the region.
- Studied and tasted the main northern varieties: Syrah, Viognier, Marsanne and Roussanne, but also the main appellations: Côte-Rôtie AC, Condrieu AC, Saint-Joseph AC, Hermitage AC, Crozes-Hermitage AC and Cornas AC.

ROMANÈCHE-THORINS, BEAUJOLAIS REGION, FRANCE

 Visited Hameau Duboeuf: Focused on Gamay variety; toured vineyard; learned about carbonic maceration wine technique; definition of the concept of Beaujolais Nouveau; definition of the Crus of Beaujolais; studied aging capacity of Gamay with vintages 2015, 2009 and 2005.

POUILLY-FUISSÉ, BURGUNDY REGION, FRANCE

• Visited Domaine Pierre Vessigaud: Learned about the Pouilly-Fuissé appellation and geology; tasted different blocks such as Pouilly-Fuissé « vers Pouilly »; Pouilly-Fuissé « vers Agnieres » and Pouilly-Fuissé « Les Pierres à Canards ».

POLIGNY, JURA REGION, FRANCE

• Fruitière of Poligny-Toumont: Tasted Comté cheese at different levels of maturation (six, 12, 24 and 30 months); tasted Morbier and Tome of Jura.

PUPILLIN, JURA REGION, FRANCE

- Fruitière Viticole de Pupillin wine cooperative: Visited winery; learned concept of local varieties including Trousseau, Ploussard and Savagnin; tasted Crémant, reds Trousseau and Ploussard, Savagnin white and Vin Jaune, Macvin or Vin de Paille (straw wine).
- Enjoyed traditional four-hour lunch in cave at Domaine de la Marquise.
- Visited Jurassic Brewery.

BEAUNE, BURGUNDY REGION, FRANCE

Visited local market.

CONCOEUR & CORBOIN (NUITS ST GEORGES), BURGUNDY REGION, FRANCE

• At L'Or des Valois Castle, exposed to Cavage concept: Little forest adventure accompanied with a dog and one of the harvesters to hunt truffles; tasted craft products based on truffles.

BROCHON, BURGUNDY REGION, FRANCE

- Exposure to the production technique and importance of the appellation.
- Tasting of five Gaugry cheese varieties, from the mildest to the strongest in flavor: (Soumaintrain, Plaisir au Chablis, Chaource, Ami du Chambertin, Brillat-Savarin Epoisses AOP).

CHAMBOLLE-MUSIGNY, BURGUNDY REGION, FRANCE

 Toured Domaine Amiot-Servelle Estate and their vineyard: indepth analysis of the Premier Cru Blocks in Chambolle-Musigny: Les Feusselottes, Les Plantes, Les Fuées, Les Charmes, Derrière-la-Grange and Les Amoureuses.

VOSNE-ROMANÉE, BURGUNDY REGION, FRANCE

• Walked and took pictures next to the iconic Grand Crus of this village: La Tâche, La Grande-Rue, La Romanée, Romanée-Conti, Romanée-Saint-Vivant, and Richebourg.

ALOXE-CORTON, BURGUNDY REGION, FRANCE

 Toured with Claude Chapuis, author of "Sustainable Viticulture: The Vines and Wines of Burgundy"; exposed to the four levels of appellations; tasted several Grand Crus, such as Corton-Perrières Grand Cru in red and Corton Charlemagne Grand Cru in white, Corton Languettes.

PULIGNY-MONTRACHET, BURGUNDY REGION, FRANCE

• Studied the white Grand Crus located between the villages of Puligny-Montrachet and Chassagne-Montrachet: Montrachet, Chevalier-Montrachet, Bâtard-Montrachet, Bienvenues-Bâtard-Montrachet, Criots-Bâtartd Montrachet.

BEAUNAY, CHAMPAGNE REGION, FRANCE

 Exposed to viticulture practices and tasting in the vineyards by Sensations Vigneronnes.

COURTING AN ALLIAM

Cal Poly's Wine and Viticulture Department explores a potential partnership with a Chinese university

THE CAL POLY contingency that traveled to Yangling, China, spent only four days in that vast, diverse country — nearly as long it took them to travel there and back. But that didn't dampen their enthusiasm for one of their main goals: to lay the foundation for a partnership between Cal Poly's Wine and Viticulture (WVIT) Department and its Far East counterpart at Northwest Agriculture and Forest University.

Andrew Thulin, dean of the College of Agriculture, Food and Environmental Sciences (CAFES); Benoît Lecat, head of the department and professor of wine business; Jean Dodson Peterson, assistant professor of viticulture; and Federico Casassa, assistant professor of enology and wine sensory analysis, also presented papers at the 11th International Symposium on Viticulture and Enology, held in April 2018 at Northwest Agriculture and Forest University.

Dodson Peterson presented her research, "Influence of Grapevine Rootstock on Scion Development," Casassa delivered "Effects of Vineyard and Winemaking Practices Impacting Berry Size on Evolution of Phenolics During Winemaking," and Lecat spoke on "Counterfeiting French Wines: An Overview and Perspectives."

Casassa also gave a three-hour seminar to about 20 Chinese students on phenolic compounds of grapes. "They were super



Assistant Professor Federico Casassa taught a seminar on phenolic compounds of grapes at Northwestern Agriculture and Forest University in Yangling, China.

motivated, and I sensed that they found the information to be new," Casassa said.

The Cal Poly group was also there to help launch The Silk Road Grapevine and Wine Technology Union (SRGWTU) and The Silk Road Wine Academy, both aimed at promoting the development of the grape and wine industry along the Silk Road, an ancient network of trade routes connecting the East and the West.

In addition, the Silk Road Viticulture and Enology Alliance was formed to uphold the spirit of the Silk Road: peace and cooperation, openness and inclusiveness, mutual learning and a win-win reciprocity to promote regional cooperation and exchanges among members, including a possible faculty and student exchange program between the two universities.

The Cal Poly-Chinese partnership is seen as beneficial for both Cal Poly and Northwest Agriculture and Forest University.

"They have the resources for research, but they don't have the expertise to execute it," Casassa said. "That's where we hope to step in; we have the expertise. We are hoping they will fund students to come to Cal Poly to do research with our faculty supervision. And some of our students could study and do research there. Northwestern Agriculture and Forest University has a fairly developed enology program with established faculty and very good facilities."

"In the coming months, we hope to make further progress in our efforts to partner with Northwestern Agriculture and Forest University," Lecat said. ■



SILK ROAD VITICULTURE AND ENOLOGY ALLIANCE

The Action Plan:

- Jointly cultivate quality students and share educational resources.
- Strengthen research cooperation and academic exchanges.
- Enhance cultural exchanges and highlight regional characteristics.
- Develop brand marketing and industry investment.





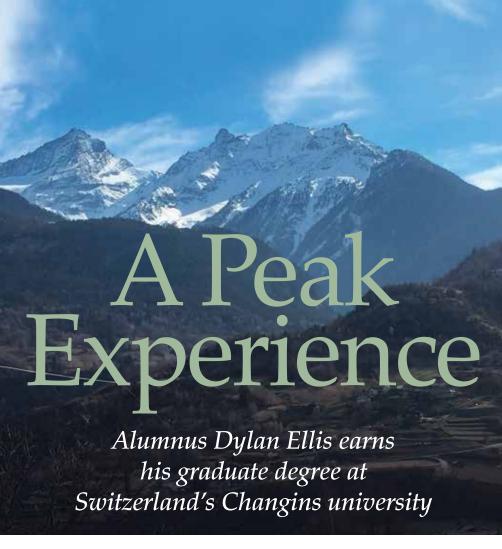
DYLAN ELLIS (Wine and Viticulture, '15) took a decidedly different — and out of the way — route to earn his master's degree from the renowned Changins university in the lakeside town of Nyon, Switzerland, in 2016-17.

"I wanted to see wine from a different perspective," Ellis said about his decision to study overseas. "The accelerated program offered exposure to experts and professors from France, Germany, Italy, Spain and more. I knew it would be a unique academic and professional experience."

He learned about Changins' graduate program in life sciences with a focus on viticulture and enology from a short recruitment presentation at Cal Poly. "Surprisingly there wasn't a lot of paperwork before I left," he said.

However, it was a different story when he arrived there. "It's a very small program, and we students all banded together and figured it out," he said. "In a funny kind of way, it was the first thing that brought us together."

Ellis traveled there alone and was the first student to arrive. "I'm not going to lie; it was scary at first," he recalled. "I spent the first week wandering around by myself. After the other students arrived, I never felt



alone again. We formed a quick substitute family unit."

That family unit consisted of Americans from California and North Carolina and international students from Austria, Canada, France, Germany, Mexico, Romania and Switzerland. "We ranged in age and backgrounds, and I really liked that," Ellis said.

Ellis noted that Changins and Cal Poly have striking similarities and noticeable differences. "Both are applied science programs; both encompass viticulture, enology and business," he said. "Changins' courses are taught once a week and proceed for eight hours, with breaks. Major-related courses took place at Changins, while support courses were taught at the relevant specialty campuses within the University of

Above, left: Dylan Ellis (right) formed a "substitute family unit" with classmates.

Above: The students took in Switzerland's breathtaking scenery between studies.

Western Switzerland. These campuses were in Bern, Lausanne and Spiez, forcing me to quickly learn the ins and outs of the transit system. I used travel time to study."

Balancing the diverse topics of wine, viticulture and business were a bit challenging. "The topics are dynamic. Many points of view and moving parts go into any challenge or decision a professional has to make," Ellis said. "The only way to be prepared for your career is to have a well-rounded background in all three. That's tough no matter who or where you are."

Right: The students toured a winery as part of their studies.

Below: Ellis lived in the picturesque city of Nyon on the shores of Lake Geneva.

Ellis found that the demands of the coursework were offset by new adventures and friends. "We went skiing below the Matterhorn and drove across Europe," he said. "My favorite memories are from the village we lived in. Sitting in a vineyard with a block of Gruyere and a bottle of Chasselas, discussing a wine or viticulture topic with passionate and informed people. At those times, it felt like summer camp for wine nerds; no pressure, just well-thought-out arguments and the occasional thrown grape."

Also as part of the program, the students traveled extensively as a group. They attended a conference in Stuttgart, Germany, and traveled to Burgundy, France, to hear architects talk about environmentally sound wineries. "We traveled to Aoste in Italy near Gran Paradiso to tour a company that customizes winery equipment and does internal design," Ellis said. "We took many trips throughout Switzerland as well, spending time in the Valais and doing consulting work in Ticino. I was also able to visit London and Amsterdam on my breaks."

He returned to Changins in March 2018 and successfully defended his thesis. Jean Dodson Peterson, his Cal Poly thesis and research advisor and assistant professor of viticulture, was in attendance and on the committee, along with the dean of the program and Ellis' academic advisor from Changins.

To students considering international study, Ellis warns, "It'll be crazy. It's a lot to handle being in another country, plus putting in the performance required to obtain an advanced degree. There were times when I wanted to give up and come home, but I leaned on my support system. I finished, and I wouldn't trade that or the friendships I made for anything."







CERTAINLY, THE GOAL of every viticulturist, winemaker and vintner is to produce the best possible wines. In order to do that, they rely on research — in the field and in the lab.

That's where the work of Federico Casassa pays off. The Cal Poly Wine and Viticulture (WVIT) Department's assistant professor of enology and wine sensory analysis, has — since he first stepped on campus in 2015 — taken wine research at the university to new levels.

"When I came here, about the only thing students were doing in the Pilot Winery was making wine in the Advanced Wine Making classes," Casassa said. "There was a history of research in the Pilot Winery, but the results were somehow scattered due to lack of funding and support.

"Doing research in winemaking variables is a noble purpose," Casassa continued. "It educates students in the basics of red and white winemaking in a winery-like setting, following the normal standards of commercial processing. It's all very hands-on."

But Casassa wanted more. He wanted to use his background in applied winemaking and research — and he wanted to involve students.

"I used to make wines for the purpose of experimentation and research," he said. And that is quite different than making wine for consumption. When you produce research wines, there is a level of control and repetition that is not necessary in commercial practice.

"My research focuses mainly on tweaking things during the fermentation of red wines that will have an impact on the finished wine. In collaboration with Jean Dodson Peterson, assistant professor of viticulture, a portion of my research also focuses on viticulture — things you can do in the vineyard that impacts the fruit, and thereby, the wine.

"We do the same experiments over and over," Casassa continued. "It takes a substantial amount of time, a significant amount of labor, which entails not only making the wines, but also running analyses that are not normally run in commercial practice."

To aid in his efforts this year, Casassa has enlisted the help of three students — undergraduates and graduates. He shares a fourth student with Dodson Peterson, who is conducting several vineyard-to-bottle research projects with Casassa.

The students all work on very different projects and are responsible for making the wines and analyzing their phenolic compounds.

During Casassa's brief tenure at Cal Poly, he has engaged 14 undergraduates in his research, including Nick Steele, who is now completing his senior project under Casassas' and Dodson's guidance.

Steele, who has long held a fascination with research, is looking at the vineyard and phenolic effects that shade cloth has in Pinot Noir grapes. That project is taking place in conjunction with Tolosa Winery in Edna Valley and winemaker Fred Delivert.



Invaluable findings pour forth from Cal Poly laboratory and field studies, inspiring student success, industry enhancement and, of course, better wines.

Steele, Dodson and Casassa agree that the research they do in the vineyard can affect the quality of the finished product. "If we can find ways to maximize the quality of the grapes at harvest, it will only make the winemaking and finished wines better," Steele said.

Steele is also involved in a project named "Detailed phenolic and chromatic composition of commercial Central Coast wines," which aims to obtain a detailed chemical and phenolic analysis of 300 commercial wines from the Central Coast American Viticultural Area (AVA). It will be the first completed detailed analysis categorized into varieties and growing regions and made available to the industry.

"I'm determined to find ways to help the industry become more efficient and create better quality wines," Steele said. "This project is especially interesting to me because it will give the local Central Coast wine producers chemical and phenolic data to see the breakdown of their varieties, as well as other wines in their growing region."

Steele is grateful for the opportunities to work directly with a winery and with wines from the area in which he hopes to work. "This has given me unmatched experience," he said. "These two

projects encompass viticulture, enology and chemical analysis of finished wines.

"I'm lucky for the opportunities that Dr. Casassa, Dr. Dodson Peterson and Cal Poly have afforded me," he continued. "They have enriched my experience and have given me a vision of what I want to do in the future."

In another research project, titled "Chemical Sensory Effects of Intrinsic Variations of Berry Size in Cabernet Sauvignon, Riesling and Zinfandel," Casassa and Dodson Peterson are examining — for a second year — how berry size affects the sensory properties of wine.

Below: Senior Nick Steele and Department Head Benoît Lecat tune in as Assistant Professor Federico Casassa shares his research findings. "We are not looking at the effect of just one berry size but a variety of sizes that occur naturally within the cluster," Casassa explained. "The variation in berry size is very broad. For instance, in Zinfandel we found berries in the range of 0.7 grams per berry to 4 grams per berry. That's almost a six-fold variation in berry size within a single cluster!

"If you make wine from each berry size, you should expect some variation in the chemistry," Casassa continued. "And there is indeed variation in chemistry within the wines produced with the various berry sizes. We are examining that variation, but more importantly, we are looking to see if that variation has the potential to negatively affect the chemistry. And if it does, we can look for ways to counteract that negative aspect."

Casassa knows firsthand the value of meaningful research. "We make research

wines for the purpose of understanding the viticultural and winemaking factors that affect wine chemistry and wine sensory composition," he said. "If we understand the factors that underpin wine chemistry, we can control them and eventually produce better wine. Ultimately, we want this research to be meaningful and useful for California's wine industry. Commercial wineries, with the exception of corporate ones, do not conduct research and development in house; they rely on universities and research centers. Research entails time, resources and a very controlled environment, which the industry at large doesn't have."

This research — together with a revised curriculum of classes — provides Cal Poly WVIT students with a more rounded, hands-on, scientifically based knowledge of viticulture, winemaking and wine business.





PROFESSOR COSTELLO, STUDENTS SPEND THE WINTER IN AUSTRALIA

CAL POLY WINE AND VITICULTURE Department Professor Michael Costello and colleague Ben Funston-Timms of the Social Sciences Department are accompanying about 25 students on a three-month trip to Adelaide, Australia, in winter quarter 2019.

They are traveling as part of Cal Poly Global programs, which is administered by the university's International Center. The program provides faculty with opportunities to share their international expertise with students and to teach Cal Poly courses abroad.

Costello is teaching Introduction to Viticulture and Enology at the University of Adelaide, a public university located in South Australia. In addition, he's overseeing a seminar course, Topics in the Grape and Wine Industry, in which industry experts are invited to give

presentations and to share their expertise with Costello and the students.

"The Cal Poly in Australia program has always had a grape and wine component to it," Costello said. "For example, there are several field trips to vineyards and wineries. This is the first time that we'll have viticulture and enology in the curriculum to accompany these activities."

Costello, a Cal Poly alumnus (Crop Science-Plant Protection, '81), has been with the WVIT Department faculty for 18 years. He earned a doctorate in entomology from UC Berkeley. Although he has travelled overseas extensively, this is his first time teaching abroad and first time to Australia. Previously Professor Marianne McGarry Wolf and Professor Emeritus William Amspacher represented the Wine and Viticulture Department in this adventure.



Professor Michael Costello (above) is teaching at the University of Adelaide and leads field trips to vineyards and wineries.

Top: Students visited picturesque Kangaroo Island during a similar trip to Australia in 2015.







Adrienne Lindsay Ferrara



Benoît Lecat

Accompished wine and viticulture faculty's extracurricular activities

FEDERICO CASASSA

- The assistant professor was named an advisory board member on the Diversity Committee for the Vintage Report Napa Valley and Paso Robles. Serving on the committee, Casassa gave several industry presentations, including "Overview of Phenolic Extraction into Red Wine From a Cellular Perspective" at the 2017 Napa Vintage Report (https://www.youtube.com/watch?v=LZ-DyKINJeY) held at the Westin Verasa Napa in January 2018.
- He also gave presentations for Scott Labs, WiVi Central Coast, and the Association of Grapegrowers of Temecula.
- He published an open access peerreviewed chapter titled "Flavanoid Phenolics in Red Winemaking (https:// www.intechopen.com/books/phenoliccompounds-natural-sources-importanceand-applications/flavonoid-phenolicsin-red-winemaking) and "Proteins and Bentonite in Winemaking: Chemical and Practical Aspects of Sensory Consequences," (https://www.taylorfrancis. com/books/e/9781498778701/ chapters/10.1201%2F9781315155050-3), which appears in "Post-Fermentation and Distillation Technology."
- Casassa also collaborated on a paper, "Inoculation Strategies to Improve
 Persistence and Implantation of
 Commercial S. Cerevisiae Strains in Red
 Wines Produced with Prefermentative Cold
 Soak," with a research group that does
 wine microbiology in his home country,

Argentina (https://www.sciencedirect.com/science/article/pii/S0023643818306467).

• He and Assistant Professor Jean Dodson Peterson and graduate student Paul Mawdsley collaborated on "Agronomical and Chemical Effects of the Timing of Cluster Thinning on Pinot Noir (Clone 115) Grapes and Wines," a paper published in the journal Fermentation, Volume 4, Issue 3 (https://www.mdpi.com/2311-5637/4/3/60).

ADRIENNE LINDSAY FERRARA

• The lecturer was selected to serve on the Advisory Committee for Dream Big Darling, an organization dedicated to fostering the success of women in the wine and spirits industry through mentorship, education, life enhancement and professional retreats.

BENOÎT LECAT

The department head co-authored numerous articles that were published during the 2017-18 academic year, including:

- "Fraud and Counterfeiting Wines in France: An Overview and Perspectives," co-authored by J. Brouard, C. Chapuis, appeared in the British Food Journal: Special Issue on Food and Supply Chain Integrity, Vol. 119, No. 1, pp. 1-23.
- "Futures in Bordeaux: How Does the En-Primeur System Work," co-authored by J. Brouard and C. Chapuis, appeared in Wine Business Monthly, May 2018, pp. 88-97.
- A book chapter written by Lecat and W. Ampascher, L. Higgins, Adrienne

Lindsay Ferrara and Marianne McGarry Wolf titled "Wine Sector: Definitions and Nuances: From Global to Country Analysis: A Comparison Between the Old World, the New World and the Emerging Wine Countries from 2005 to Nowadays," was included in "Consumer Science and Strategic Marketing: Case Studies in the Wine Industry," edited by A. Cavicchi and C. Santini.

- At the July 25-28, 2017, Academy of Wine Business Research (AWBR)
 Conference and Education Summit, held in Sonoma, California, Lecat, J. Brouard and C. Chapuis presented "Counterfeiting French Wines: A Review." Also at the summit, Lecat led a talk, "Learn by Doing Through the Whole Supply Chain: How to Implement a Pilot Winery and Commercial Wine Program through Fundraising" during a roundtable discussion on "How Californian Universities and Colleges are Providing the Optimal Workforce to the Local Industry."
- Lecat, J. Brouard and C. Chapuis presented "Lessons From the Past (1822-1973): How Did 'Nicolas Wine Merchant Chain' Use Promotion Tools and Luxury Attributes to Grow Up Over Time?" at the 2017 Global Fashion Management Conference held in Vienna, July 6-9.
- Lecat, J. Brouard and C. Chapuis presented "Counterfeiting French Wines: An Overview and Perspectives," at the 10th International Advanced Seminar on Viticulture and Enology held in Yangling, Shaanxi Province, China in April 2018.



Jean Dodson Peterson

JEAN DODSON PETERSON

The assistant professor gave numerous presentations, including:

- "Effects of Cluster Thinning Timing on Grapevine Carbohydrate Reserves in Cool Climate Pinot Noir," with graduate student Paul Mawdsley and Assistant Professor Federico Casassa, at the November 2018 Crop Science Society of America Conference in Baltimore, Maryland;
- "Effects of Cover Crops on Vineyard Soil Microbial Diversity, Yields and Fruit Composition in Vitis Vinifera L.
 Cv. Pinot Noir" a multidisciplinary collaboration with student Evan Trevino and Cal Poly colleagues
 Federico Casassa, Cristina Lazcano, Prince Kwame Afriyie and Katherine
 Watts at the January 2019 Soil
 Science Society of America meeting in San Diego, California; and
- "The Effect of Vineyard Management Practices on Soil Microbial Diversity and Vine Development" at the July 2018 Calaveras County Winegrape Alliance Meeting in Murphys, California.
- Dodson Peterson received the 2018 Terrance Harris Award for Excellence in Mentorship.

Please see a more comprehensive list of faculty accomplishments at wvit.calpoly.edu. ■

Welcome, Shunping Ding

NEW ASSISTANT PROFESSOR'S EXPERTISE LIES IN PLANT PATHOLOGY

THE WINE AND VITICULTURE (WVIT) Department's newest faculty member, Shunping Ding, is a long way from her childhood home in China's historical city of Kaifeng.

She is working to establish a grapevine pathology program at Cal Poly. Her expertise in plant disease diagnoses and in detecting fungicide resistance of pathogens makes her a welcome addition to the WVIT and Horticulture and Crop Science departments, where she splits her time as an assistant professor of plant pathology.

Ding's interest in plants formed early. "My father is a plant ecologist, and he would take me into the woods to work with him," she said. "That was the beginning of my love for plants."

Staying true to that love, she went on to earn a bachelor's degree in biological sciences from Henan University in China, a master's degree in microbiology from the University of Hong Kong, and a doctorate in plant pathology from the University of Wisconsin-Madison.

During her academic career, she has garnered more than 10 scholarships, honors and awards; published papers in four peer-reviewed publications; and completed an internship at McCain Foods, the world's largest manufacturer of frozen potato products, working on potato tuber quality and yield prediction model with weather data.

Now at Cal Poly, she's incorporating Learn by Doing into her classes through the on-campus vineyard, organic farm and orchard.



Shunping Ding

"These are valuable resources for the students to learn about plant diseases and management in a realworld setting," Ding said. "I teach them how to scout crops, conduct disease diagnosis, and work on ways of disease management."

Ding is enjoying her new location on the West Coast. "I like it here; the landscape is very diverse," she said. "I like that we can always have a garden, either in our own backyard or in a community garden."

As for her students, Ding said she hopes they will remember her as a "passionate explorer of the world of agriculture and the field of plant pathology and as someone who will always care about them, encourage their curiosity, and try to assist them in their endeavors. I am willing to explore the unknown together with them."



Paul Fountain

IN MEMORIAM

Paul Fountain

IT IS WITH GREAT SADNESS that we share the passing of Professor Emeritus H. Paul Fountain in February 2019.

He was more than just an educator and friend of the Wine and Viticulture Department and College of Agriculture, Food and Environmental Sciences — he was a visionary. Throughout his 36 years as a professor of viticulture and fruit science at Cal Poly, he worked tirelessly to shape the wine and viticulture program and was instrumental in its eventual transition from program to department.

More than 30 years ago, Fountain recognized the need for and oversaw the development of the campus' first teaching vineyard. Following his retirement in 2001, he and his wife, Dorothy, created an endowment to redevelop and expand the teaching vineyard.

"The Cal Poly family is eternally grateful for his time and dedication to continuing our shared vision of providing a Learn by Doing education for generations of students to come," said Department Head Benoît Lecat.

At Dorothy Fountain's request, memorial contributions can be made by check to the College of Agriculture, Food and Environmental Sciences and mailed to CAFES Advancement, 1 Grand Avenue, San Luis Obispo CA 93407-0250. Please reference the Fountain Vineyard Fund #6451 on the memo line.



A Temporary Farewell

PROFESSOR MARIANNE MCGARRY WOLF RETURNS TO THE AGRIBUSINESS DEPARTMENT

MARIANNE MCGARRY WOLF, longtime professor in Cal Poly's College of Agriculture, Food and Environmental Sciences (CAFES), has accepted the position of head of the Agribusiness Department.

"I am excited to head the Agribusiness Department and will continue to teach wine and viticulture courses," Wolf said. "I just started my 25th year at Cal Poly; 19 of those years were with the Agribusiness Department. It was one of the three departments that created the Wine and Viticulture Department."

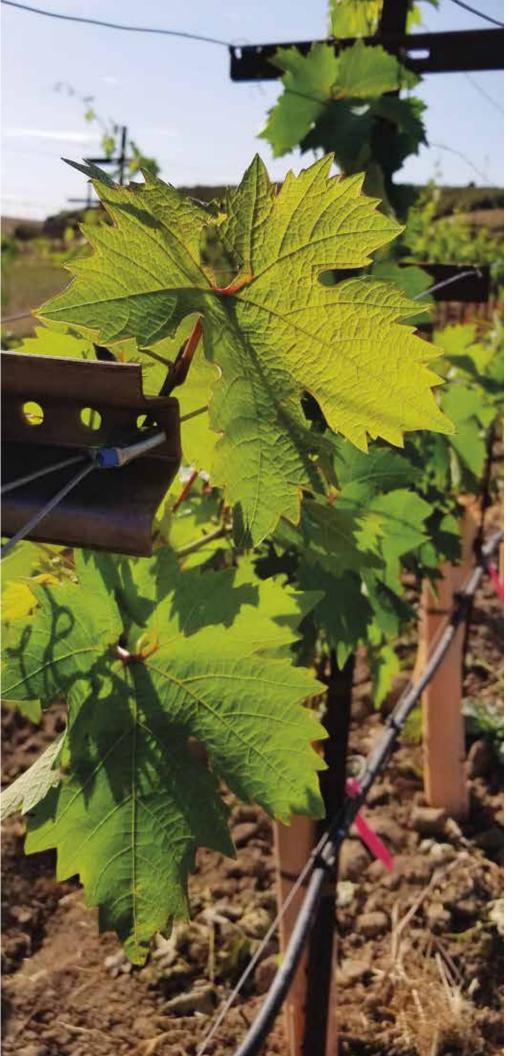
Wolf has taught classes in branded wine marketing, wine marketing research and market analysis, and wine business and agribusiness strategies. Her research interests investigate the factors that motivate consumers to buy a particular brand of food or wine. Her most recent

Marrianne McGarry Wolf has returned to the Agribusiness Department, but she will continue teaching wine and viticulture classes.

research examines segmentation by generations in the wine market and using social media to generate engagement for a wine brand.

She plans to return to teach full time in the Wine and Viticulture Department when her tenure as department head ends in September 2020.

"Marianne has made numerous invaluable contributions to the Wine and Viticulture Department, and we are grateful for her scholarship and collegiality," said Wine and Viticulture Department Head Benoît Lecat. "We wish her well in her new position and look forward to her return." ■





Assistant Professor Jean Dodson Peterson

Trestle Vineyard

GRANT-FUNDED RESEARCH, REDEVELOPMENT CONTINUE

FOR THE PAST few years, Jean Dodson Peterson, assistant professor of viticulture, has been leading efforts to redevelop and expand Cal Poly's Trestle Vineyard, which had become infected with Red Blotch virus (GRBaV), a condition that delays ripening and negatively affects the fruit quality.

With the help of Federico Casassa, assistant professor of enology and wine sensory analysis, Dodson Peterson is conducting the first grant-funded research project at the vineyard. The project, which they started earlier this year, is funded by the California State University's Agricultural Research Institute (ARI).

Dodson Peterson and Casassa are looking at the effect rootstock selection has on green-growing benchgraft establishment success.



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