



E-News Issue #040

February 2015

*Robert Mondavi Institute
for Wine and Food Science*

Wine & Food
BYTES

UCDAVIS



A Message from the Executive Director

Happy New Year.
Hard to believe it's 2015!
Even harder to believe
this is the 40th issue of
RMI Wine & Food Bytes
- and our last quarterly edition. Beginning next
month we will be switching to a monthly format
to keep more current with all of the programmatic
activities that take place at the Robert Mondavi
Institute throughout the year.

The 2013-2014 fiscal year was an outstanding
year of growth and achievement as detailed in our
recently released Annual Report. And in this issue
of the E-news you'll see that we ended fall quarter
on a very high note with numerous education and
outreach events which engaged many industry
stakeholders, members of our Friends program,
the general public and our students.

The fifth annual graduate student poster
competition recognized three outstanding graduate
students from the departments of Viticulture and
Enology, and Food Science and Technology for
the excellence of their research projects. Students,
both graduate and undergraduate, are critical to
the success of all of our outreach and education
events. We would not have been able to seamlessly

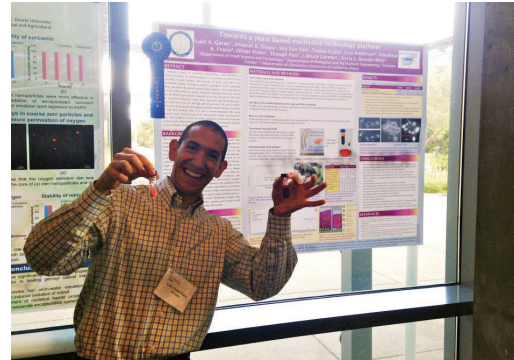
orchestrate the pairing of eight bugs and brews for
nearly 100 people on November 1 without their
efforts! Students also worked side-by-side with
Chef Daniel Olivella at our inaugural Great Chefs
event in September. Finally, we are extraordinarily
proud of the fact that a UC Davis student team
working with the institute's Olive Center was
named the grand prize winner of the iGEM
(Internationally Genetically Engineered Machine)
prize in Boston for developing a high-tech, palm-
sized biosensor to quickly evaluate the chemical
profile of olive oil. This year's competition featured
245 teams from Asia, Europe, Latin America and
North America. Go Aggies!

Clare Hasler-Lewis
Executive Director
*Robert Mondavi Institute
for Wine and Food Science*
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Supporting Students and Rewarding Excellence

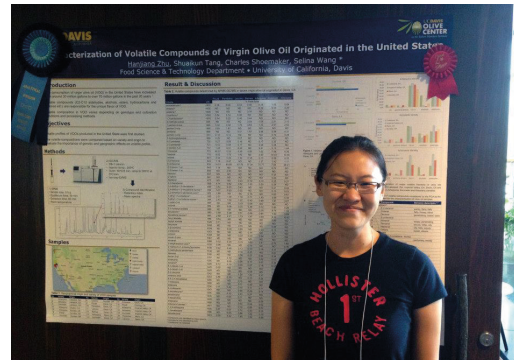
Institute Hosts Fifth Annual Graduate Student Research Poster Competition

The fifth annual Graduate Student Research Poster Competition was hosted at the Robert Mondavi Institute on September 26, 2014. Graduate students from the departments of Food Science and Technology, and Viticulture and Enology took part in the competition, which awarded \$1,500, \$1,000, and \$750 for first, second and third place, respectively.



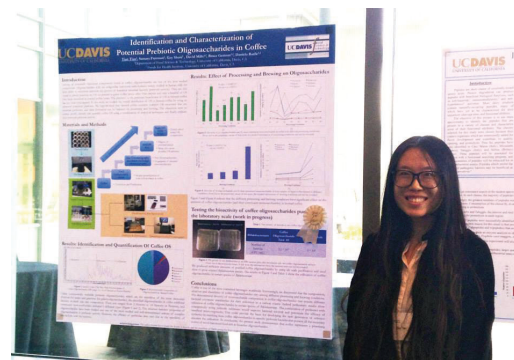
FIRST PLACE: *Luis Garay*

Garay is a Ph.D. student in the Department of Food Science and Technology. The title of his poster was, "Towards a Yeast Based Multivalue Technology Platform."



SECOND PLACE: *Alice Tang*

Tang, a Ph.D. student in the Department of Food Science and Technology. The title of her poster was, "Characterization of Volatile Compounds of Virgin Olive Oil Originated in the United States."



Third Place: *Tien Tien*

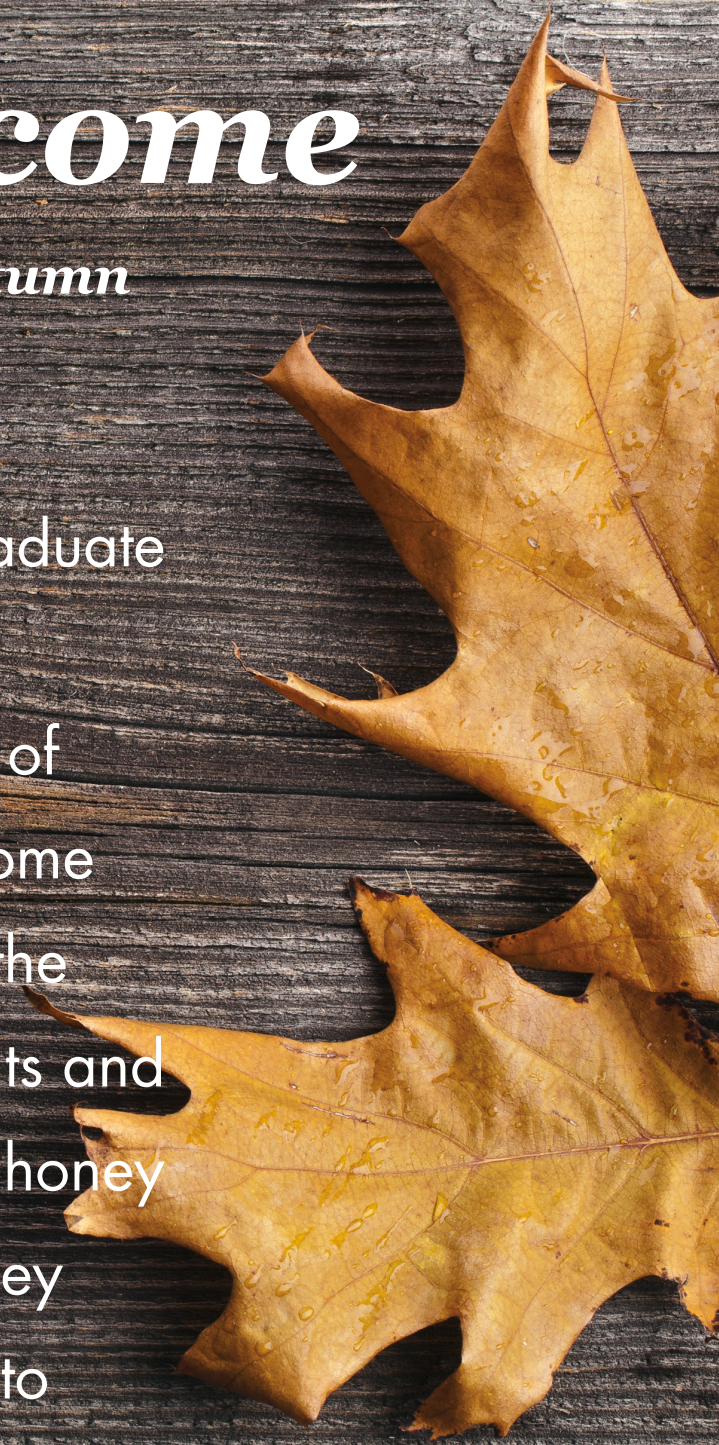
Tien is a Ph.D. student in the Department of Food Science and Technology. The title of her poster was, "Identification and Characterization of Potential Prebiotic Oligosaccharides in Coffee."

Fall Friends Welcome

at the Robert Mondavi Institute Celebrates Autumn

By Clare Hasler-Lewis

SHORTLY AFTER the winners of the fifth annual Graduate Student Poster Competition were announced, the Robert Mondavi Institute welcomed members of the Friends program to the first annual Fall Welcome Reception. More than 80 members gathered in the Sensory Building Lobby to mingle with the students and view their posters, enjoy tastings of olive oil and honey provided by the UC Davis Olive Center and Honey and Pollination Center and have the opportunity to tour the LEED Platinum Teaching and Research Winery.



UC DAVIS Olive Center

at the Robert Mondavi Institute

News and Updates

UC Davis Students Win Big at International Competition

Adapted from a UC Davis Press Release



From left: James Lucas, biochemistry; Sarah Ritz, biochemistry; Simon Staley, biological and agricultural engineering; Julie Yeonju Song, biomedical engineering; Brian Tamsut, biochemistry and molecular biology; Lucas Murray, biomedical engineering



A team of UC Davis undergraduates was named the grand prize winner of the iGEM (Internationally Genetically Engineered Machine) prize on Nov. 3 in the 2014 iGEM international competition at MIT in Boston. There were 245 entries submitted from four continents. The UC Davis team also won the

Best Policy and Practices Advanced Presentation Award.

“The chemical methods we have available [to test olive oil] are either too crude and don’t correlate with sensory traits, or are too time-consuming and require expensive instruments,” said Selina Wang, research director for the Olive Center and one of four advisers to the 2014 iGEM team.

“The students’ goal was to generate an affordable device to detect a comprehensive profile of signature rancidity compounds that match what we smell.”

Their electrochemical biosensor — shaped like an oversized thermometer — comes complete with the computer hardware and software necessary to read

rancidity levels in a single drop of oil.

Their biosensor will be best suited for producers, buyers and retailers because it’s probably too complicated in its current form to easily test olive oil quality at home.

“I think their project has great potential,” said David Garci-Aguirre, production manager at Corto Olive Co. in Lodi. “A biosensor that provides an easy, affordable way to help ensure the quality of our olive oil could prove an incredibly useful tool for us, for retailers and especially for consumers.”

In addition to Wang, the UC Davis iGEM advisers included Justin Siegel, chemical biology professor; Marc Facciotti, biomedical engineering professor; and Ilias Tagkopoulos, computer science professor. The team also includes two “shadow students,” Yeonju Song and Michaela Gobron, who are gaining iGEM experience and will likely compete on next year’s UC Davis iGEM team.

UC Davis has fielded an iGEM team for the last six years, consistently placing in the top 10 percent of the more than 200 entries from around the world. Winners compete for trophies and bragging rights. This is the first UC Davis iGEM entry relating to food and nutrition.



CA Legislation Passed to Ensure Olive Oil Quality

On September 18, 2014 the California Department of Food and Agriculture approved grading and labeling standards for California olive oil. The standards took effect Sept. 26, and were supported by research done at the UC Davis Olive Center at the Robert Mondavi Institute. “Today’s decision is not only good for consumers, but also helps strengthen the competitiveness of California’s olive oil industry,” said California State Senator Lois Wolk, who authored the 2013 legislation to establish the commission within the CDFA.

The standards were recommended by the recently-formed California Olive Oil Commission – brought into existence by olive oil producers in recognition of their fast-growing industry, with the help of the UC Davis Olive Center at the Robert Mondavi Institute. Importers and distributors of bulk and bottled olive oil produced outside of California as well as smaller-scale in-state millers are exempt from the standards. “We believe the time has come to designate a ‘California-grown’ olive oil, and these standards are an excellent way to do it,” said CDFA Secretary Karen Ross

The standards are based on scientific research done at the UC Davis Olive Center, and will establish a more stringent limit for free fatty acids, a negative attribute that signals a breakdown of olive oil quality due to exposure to heat, light and oxygen. The standards will be the first in the world to require testing of every lot of oil produced.

Sixth-Annual Master Milling Short Course



The Olive Center’s sixth annual Master Milling Short Course was held on Oct. 9-12 at the Robert Mondavi Institute. In addition to lectures and demonstrations, participants visited three local olive oil processors.

For the third time, the center included Pablo Canamasas as an instructor. Trained in Argentina and Spain in the art and science of olive oil processing, Canamasas refined his skills at Australia’s Boundary Bend, where he was the lead miller for 12 years.

“Pablo brings a deep passion for excellence and helped attendees understand how to produce award-winning olive oil,” said center director Dan Flynn.

Lectures were also presented by Sue Langstaff of Applied Sensory in Sacramento, Calif., and Selina Wang, research director for the Olive Center, who explained chemical analysis, and sensory science.

Participants visited three producers in the area, including the Yocha Dehe Wintun Nation’s Séka Hills production facilities and tasting room.



Twenty volunteers joined Olive Center director Dan Flynn and research director Selina Wang at the university’s olive grove in November to harvest four tons of olives. This is the 10th consecutive year of the UC Davis olive harvest. The 150 gallons of estate olive oil produced from this harvest will be available for purchase in 2015.



Honey and Pollination Center at the Robert Mondavi Institute

News and Updates

Over this past summer, the Honey and Pollination Center developed a new, stronger vision that more clearly articulates the center's future:

"The Honey and Pollination Center is dedicated to helping UC Davis become the world's leading authority on bee health, pollination and honey quality."

The center will address bee health during the newly established annual **Bee Symposium** to be held May 9, 2015. Marla Spivak, the Distinguished McKnight Professor of Apiculture and Social Insects at the University of Minnesota and recent recipient of a MacArthur Genius Grant, will give the keynote.

Other faculty members and guest speakers will also present during the day-long event. A gift from the Henry J. Kaiser Family Foundation will underwrite student attendance.

The center donates the proceeds from the sales of its products, honey, note cards and the Honey Aroma and Flavor Wheel, to support graduate student research and travel grants in the Department of Entomology and Nematology.





Second Mead Short Course Offers Introduction to the Craft

Six renowned instructors - all of whom have won awards in national or international mead competitions - conducted a two-day workshop, “Introduction to Mead Making,” on November 14 and 15. The event was a follow-up to the Honey and Pollination Center’s highly successful (and sold out) inaugural short course in February 2014.

In addition to Amina Harris, center director, instructors included Petar Bakulic, president of the Mazer Cup International

Mead Competition; Chik Brenneman, winemaker and manager of the LEED Platinum Teaching and Research Winery at the Robert Mondavi Institute; Michael Fairbrother, owner of Moonlight Meadery, Londonderry, N.H.; Mike Faul, owner of Rabbit’s Foot Meadery, Sunnyvale, Calif.; and Ken Schramm, author of “The Compleat Meadmaker,” and owner of Schramm’s Mead, Ferndale, Mich.

Honey and Pollination Center Appoints Two New Co-Chairs to Advisory Committee

The Honey and Pollination Center is pleased to announce the appointment of two new faculty co-chairs to its advisory committee. Both faculty members bring a fresh perspective to the center’s vision and goals as it moves into its third year.

- Alyson Mitchell, the John E. Kinsella Endowed Chair in Food, Nutrition and Health, in the Department of Food Science and Technology, has been working with the center over the past year conducting research on ways to analyze and understand the chemical properties of honey.
- Michael Parrella, chair of the Department of Entomology and Nematology, studies integrated pest management, an area that has become more and more important to the health of honey bees and other pollinators.

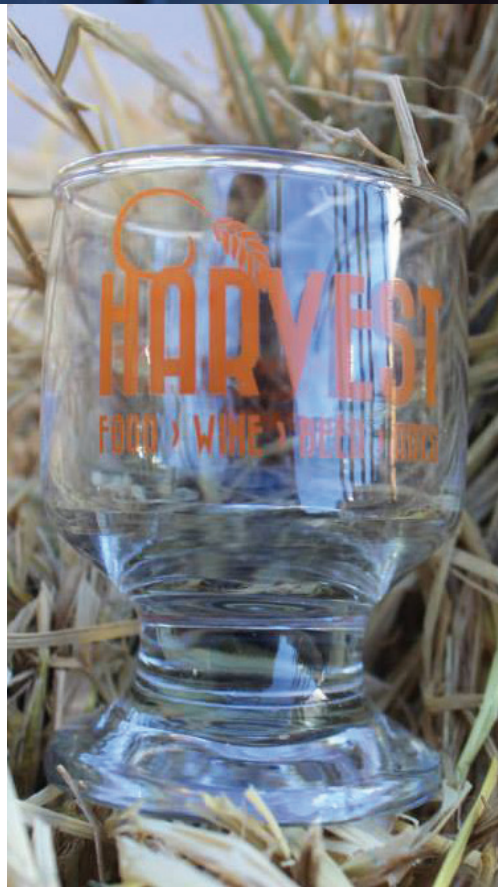




The Robert Mondavi Institute kicked off autumn with “Harvest: A Gathering of Food, Wine, Beer and the Arts” on Sunday, Oct. 12, 2014. The Good Life Garden showcased the region’s agriculture with tastings from 40 wineries, breweries and food purveyors. Tastings were provided by the Honey and Pollination Center and the UC Davis Olive Center. Ticket proceeds will be used to support student scholarships.

The event was a partnership with the Mondavi Center for the Performing Arts, the World Food Center, the UC Davis Arboretum and Public Garden, Nelson Gallery, and the Jan Shrem and Maria Manetti Shrem Museum of Art.

Harvest was sponsored by a grant from the Julia Child Foundation for Gastronomy and the Culinary Arts. The day concluded at the Mondavi Center with a concert by the Grammy Award-winning singer-songwriter Ray LaMontagne.





Institute Launches Great Chefs Series

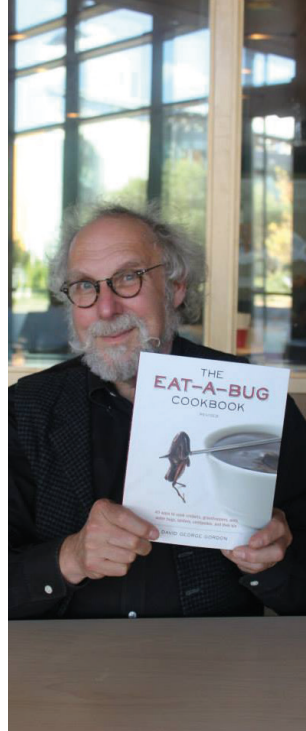
(adapted from an article in the SacBee)

On September 13, 2014, the Robert Mondavi Institute launched the Great Chefs Program, featuring Daniel Olivella, a native of Spain who owns B44 Catalan Bistro in San Francisco and Barlata Tapas Bar in Austin, Texas.

Fourteen attendees had the rare opportunity to cook with Olivella in the food innovation kitchen during the morning session. In the afternoon, Olivella hosted a paella-making demonstration, lectured about his career and led a tasting of Spanish wines for over 60 people.

Olivella began his career in his hometown of Vilafranca del Penedes in Spanish wine country. He trained at Chicago's La Paella and worked at Zuni Café in San Francisco before opening his restaurants B44 Catalan Bistro, and in 2009, Barlata Tapas Bar. Barlata's extensive menu, which is praised for its innovative tapas, features nine paellas (including one made with Maine lobster) and platos such as a beef and chorizo burger.

The next Great Chefs event will take place Saturday, February 28 and will feature Sacramento's own Patrick Mulvaney.



The occasional t-shirt was designed by Danica Maxwell (right)

Bugs and Beer

(adapted from an article in the Davis Enterprise by Kathy Heatley Garvey)



“Don’t worry — be hoppy,” celebrity bug chef David George Gordon, author of the award-winning *Eat-a-Bug Cookbook*, told the budding entomophagists as they eyed the colorful kabobs threaded with grasshoppers and green and red peppers.

Gordon, from Seattle, joined “The Pope of Foam” Charlie Bamforth, Anheuser-Busch Endowed Professorship in Malting and Brewing Science, to pair eight bug dishes with eight different beers. The theme was “Bugs and Beer — Why Crickets and Kölsch Might Be Matches Made in Heaven.” It was the most popular event the Robert Mondavi institute has ever hosted.

Elizabeth Luu, a senior in the Department of Food Science and Technology, and student-assistant at the Institute (and an occasional bug eater) conceived the idea.

Gordon and Bamforth paired flavored mealworms with Ruhstaller Gilt Edge Lager, wasabi sago worms with Lagunitas Pils, baked European house crickets with Sudwerk Hefeweizen, Cambodian crickets with Gordon Biersch Winterbock, ant and pear salad with Sierra Nevada Boomerang IPA, teriyaki grasshopper kabobs with Rubicon Angus Scottish Ale, cricket flour cookies with Heretic Chocolate Hazelnut Porter and chocolate-dipped chapulines

(grasshoppers) with Berryessa Whippersnapper English Mild.

Luu not only orchestrated the event from its earliest stages, but also oversaw a team of undergraduate students preparing the beer and bug pairings in the Food Innovation Kitchen.

“Bug-eating is good for the planet,” Gordon said. “Bugs are nutritious, delicious, cheap and plentiful. Raising cows, pigs and sheep is a “tremendous waste of the planet’s resources, but bug ranching is pretty benign.” With cows, “it takes the equivalent of 16 pounds of grain and 2,000 gallons of water to get one pound of steak.” And the resulting greenhouse gases are not good for the planet, either, he pointed out. “Insects are the food of the future.”

In his talk, “Bugs Are No Strangers to Brewers,” Bamforth discussed the intricacies of beer brewing and why he paired certain beers with certain bug dishes. He also touched on beer preference: what some people love, others may loathe.

Department of Food Science and Technology News

FST Alumnus Ali Bouzari, Ph.D., “Rock Star Redefining the Industry” (from Zagat.com)



What do Benu, SPQR, Meadowood, Bar Tartine and the Thomas Keller Group have in common? They’ve all collaborated with Ali Bouzari. You may never have heard of Bouzari, but this food scientist is influencing some of the country’s most innovative restaurants. It

helps that he cooked in restaurants while he was a biochemistry undergrad before pivoting to academics, studied sous vide at The French Laundry for his dissertation and helped develop the CIA’s Culinary Science curriculum.

“To make an impact and really help a restaurant make a better french fry, you have to understand the cook making those french fries isn’t going to have room for a 17-step process in his daily routine, so understanding the ebb and flow in the kitchen has been just as important as actually knowing the sciencey stuff.”

These days, the TEDx speaker splits his time between New York and Healdsburg, where he is collaborating with fellow food scientists Dan Felder and Kyle Connaughton to launch PILOT, a culinary research company and facility, and working on a book he hopes will be “the Rosetta Stone for the kitchen.”

News and Updates

FST Welcomes Assistant Professor Gail Bornhorst



Dr. Bornhorst completed her B.S. in Biosystems Engineering at Michigan State University in 2007. Following an internship at Kellogg Company, she began graduate school at UC Davis. She completed her Master’s degree in 2010 and Ph.D. in 2012 in Biological Systems Engineering under the supervision of Dr. R. Paul Singh. Bornhorst investigated physical breakdown and mixing of brown and white rice during in vivo digestion, using a pig model. As faculty in FST, Bornhorst’s research will focus on quantitative methods to understand material transport, breakdown, and absorption in the gastrointestinal tract to improve food safety and quality, increase consumer health benefits, and optimize food processing operations.

More than 100 friends, donors, and guests attended the 2013 year-end holiday gathering



Friends
of the
Robert Mondavi
Institute



New and Renewed Friends of the Robert Mondavi Institute

Epicurean

- Douglas and Juli Muhleman

Reserve

- Glenn Workman
- Margaret Lawson
- Al and Margaret Giuliani
- Elizabeth Clair
- Randy Cobb and Kathie Benko
- Darrell Corti
- Robert and Barbara Leidigh

Vintage

- James and Penelope Shackelford
- Bill and Linda Schmidt
- Mary Horton

Culinary

- Michael and Sofie De Nardi
- Thomas Engel
- Jenise Fahrni and Eric Shih
- Patty Pesavento and David Warland
- Ann and Jim Stevens
- Dan Sperling
- Tom and Rebecca Ramme
- Barbara Fingerut
- Grant and Louis Chappell
- Clay Gregory

Foodie

- Robert and Janice Boynton
- Don Roth and Jolán Friedhoff
- William and Laura Lacy
- Bob and Amy Day

Center for Wine Economics

at the Robert Mondavi Institute

News and Updates

Center Hosts “An Evening with Some Italians”

by Julian Alston



On November 20, 2014, at “An Evening with Some Italians,” Dr. Paola Corsinovi, CEO of Chianti Classico and associate professor in the Department of Business Administration at the University of Verona, Italy, and Professor Davide Gaeta, Ph.D., and president of the Regional Young Agriculture

Association, presented highlights from their new book “Economics, Governance, and Politics in the Wine Market: European Union Developments.” The presentation was followed by a tasting of the wines from the Chianti Classico guided by Darrell Corti.



Holiday Soiree Ends the Year on a Festive Note

By Clare Hasler-Lewis

On the evening of December 4, 2014, the Robert Mondavi Institute hosted its first annual Holiday Soiree in the Sensory Building Lobby. It was an opportunity for us to thank donors and members of our Friends program who have so generously supported the institute's mission in outreach, education and research throughout the year. Gala attire, dozens of candles, and small case wines from the Robert Mondavi Winery paired with an elegant meal catered by Jeff Oblinger - it was truly an occasion that enhanced our quality of life!



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