



RMI

UC DAVIS Robert Mondavi Institute for Wine and Food Science
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Executive Director's Update

By Clare Hasler

Greetings! Welcome to the inaugural issue of The Robert Mondavi Institute for Wine and Food Science (RMI) electronic newsletter, "**RMI wine and food bytes: News from the cutting edge of wine and food science.**"

Congratulations to Everett Bandman, professor in the Department of Food Science and Technology, for creating such a unique name for this electronic publication, which we plan to publish quarterly.

It is a tremendous honor to serve as the founding executive director of this prestigious organization! It's hard to believe that nearly 11 months have passed since I first stepped onto the UC Davis campus to assume my responsibilities. I clearly recall that there was a torrential rainfall my first day in Cruess Hall-which, I might add, was far superior to the -120 F (without the wind) conditions which existed in Champaign, Ill three, days earlier when I flew to Sacramento!

I have thoroughly enjoyed my interactions with UC Davis administrators, faculty, staff and students - as well as a wide range of representatives from food, wine and related industries - over the past several months. We're exploring how we can work together to ensure that the RMI vision, "**Enhancing the quality of life through wine and food sciences,**" becomes a reality.

There is such a tremendous wealth of resources and expertise on the campus and the enthusiasm for the RMI from all facets of the industry is truly infectious! Word about the RMI is spreading far and wide very quickly. I am also pleased that we have garnered a fair amount of positive press attention over the past few months (see RMI in the News and corresponding links below). No doubt we will continue to do so as we move forward with our initiatives.

Frequently I am asked what I have been up to since arriving on campus in February. One of my major activities has been to sit down with faculty from RMI's two founding departments, Food Science and Technology (FST) and Viticulture and Enology (V&E), as well as other departments and institutes on campus, to learn about ongoing and planned research interests and activities. In addition, I have been working with the newly appointed RMI Executive Committee to put policies and procedures in place and launch programs. But there is still a lot to accomplish



before we break ground for the academic building in the June 2005 and then celebrate the grand opening in 2008.

The inaugural RMI Lectureship on September 30, 2004, was a big success (see <http://robertmondaviinstitute.ucdavis.edu/news/newsone.htm>). We are in the planning stages for several upcoming conferences, which will be announced on the Web site and in future issues of this newsletter - so stay tuned. All RMI activities will be detailed on the Web site, which has been completely revamped, so if you have not done so, please log on to www.robertmondaviinstitute.ucdavis.edu. The site will be our main source of up-to-date information regarding RMI announcements, events and activities.

If you know someone who you believe may be interested in receiving a copy of the "RMI wine and food bytes: News from the cutting edge of wine and food science" please pass it along. I welcome your comments on the newsletter, the RMI Web site and all RMI issues; so do not hesitate to call, e-mail or stop by my office - Room 129, Cruess Hall on the UC Davis campus. My phone is (530) 752-6138 and my email is cmhasler@ucdavis.edu. My best to you this holiday season.

RMI Executive Committee Chair Message

By Robert Powell, Chair

In September 2001, as a member of the faculty of the Department of Food Science and Technology, I was invited to the public announcement and celebration of a generous and prescient gift from Robert and Margrit Mondavi to the University of California Davis. Little did I realize at the time that Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences, would ask me to chair a committee that would define the Robert Mondavi Institute for Wine and Food Science (RMI).

Through the fall of 2001, the RMI Planning Committee sought to bring to life the institute's vision. It quickly became clear that while the two outstanding founding departments possessed considerable expertise and worldwide recognition, the future success of the RMI would rely on expertise that was outside these departments and even beyond the boundaries of UC Davis itself.

Committee members realized that, while the RMI must bring to bear the best scholarship available to tackle major societal and industrial problems related to food and wine, it must go far beyond this. The RMI must seek to touch upon our daily experiences of drinking a beverage or eating a meal. Combining these ideas led the committee to the RMI vision, **"Enhancing the quality of life through wine and food sciences."**

A key committee recommendation was to hire an executive director for the institute. Dean Van Alfen accepted this recommendation and soon thereafter, we identified Dr. Clare Hasler as a candidate for this position. She accepted the newly created position and has done an outstanding job in her first year at the helm. Through her efforts, we have begun to see our plans realized.

My experience working with the RMI has been excellent. I've told many of my friends and colleagues that in 23 years as a faculty member, I have not been given a more pleasant assignment. Over the last three years, I've chaired the RMI Planning Committee, the RMI Implementation Committee and now the RMI Executive Committee. The sincerity of everyone involved and their willingness to confront and think through hard problems got us to where we are - heralding in a new era of academic leadership in all areas related to wine and food. Thanks to Robert Mondavi from all of us at UC Davis today and from many future generations of faculty and students still to come.

RMI Update

Executive Committee Appointed. An executive committee comprised of eight UC Davis faculty and administrators has been appointed to assist the executive director in oversight of the RMI, including recommendations for proposals for centers and other programs and activities. Members of the RMI Executive Committee are:

- Robert Powell, Professor and Chair, Chemical Engineering (chair)
- Lowell (Tu) Jarvis, Associate Dean, Division of Human Sciences
- DeeDee Kitterman, Executive Director of Research and Outreach, CA&ES Dean's Office
- Michael Parrella, Associate Dean, Division of Agricultural Sciences
- Charles Shoemaker, Professor and Chair, Department of Food Science and Technology
- Robert Smiley, Professor, Graduate School of Management
- Daniel Sperling, Professor and Director, Institute of Transportation Studies

- James Wolpert, Cooperative Extension Specialist and Chair, Department of Viticulture and Enology

The Executive Committee has met four times in 2004: April 15, June 4, September 9, and December 7 to discuss programmatic activities within the RMI.

People

RMI Adds Administrative Assistant

A Message from Jean Wigglesworth

Seasons Greetings to you all. I joined the RMI team in September and am excited about the opportunities this amazing initiative will bring to the university. I am honored to be in "on the ground floor" lending my expertise in service and event planning. I hope you will enjoy your experiences with RMI.

Prior to joining UC Davis in February 2003, I served as director of customer service for Valley Media Inc. in Woodland. I am a native of Portland, Oregon where I received a BS in Education from Portland State University. I am an active volunteer of many causes and hope to serve you, the RMI and UC Davis in the highest fashion.

Fuller and Associates: Tom Fuller and Monty Sander of Fuller and Associates are the boutique PR firm based in Napa, Calif. retained to represent the RMI. They bring a collective 20 years experience to the wine country public relations arena. Tom and Monty have worked on a broad spectrum of projects, while remaining primarily within the food, beverage and hospitality venues. They bring a unique combination of local expertise and national/international media savvy to any project they undertake, be it the Napa Valley Wine Auction, COPIA or their numerous winery clients. In addition to their work with the RMI, Tom and Monty currently provide media support for a variety of clients, including Turnbull Wine Cellars, Long Meadow Ranch Winery, Artisans & Estates, New Vine Logistics, the Napa Valley Symphony and the Far Niente family of wines, among others. They enjoy working with the RMI, and understand the incredible influence that the University of California Davis has had on the wine and food industries. They are extremely excited about the promise that the RMI brings in the advancement of both industries for the future.

Funding

The total cost of Phase 1 of the RMI building project is expected to reach \$91 million. Construction of the Academic Building is funded partially through the generous support of private donors and the people of the state of California, who approved Proposition 55, Kindergarten-University Public Education Facilities Bond Act of 2004. We need to raise additional private support from donors, alumni, parents, supporters and friends in order for the RMI to realize its maximum potential.

In addition to the Mondavi gift, the Anheuser-Busch Foundation gave a \$5 million challenge grant to the Department of Food Science and Technology to support the construction of the Brewing and Food Science Laboratory. Ronald Miller and Diane Disney Miller of Silverado Vineyards gave \$1 million towards the Department of Viticulture and Enology Teaching and Research Winery.

For more information on giving opportunities at the RMI, please contact Oliver Ramsey, director of campaign initiatives at owramsey@ucdavis.edu or (530) 752-1602.

Oliver came to UC Davis in January 2004. He previously worked as a major gifts officer with COPIA, The American Center for Wine Food and the Arts in Napa, Calif. Before moving to California, he was a major gifts officer for the Illinois Institute of Technology in Chicago during a \$255 million campaign.

Events

Robert Mondavi Institute Site Dedicated: Flanked by Robert and Margrit Mondavi, U.S. Secretary of Agriculture Ann M. Veneman, Chancellor Larry Vanderhoef, Dean Neal Van Alfen, and RMI executive director Clare Hasler, the Robert Mondavi Institute for Wine and Food Science began its long road to completion with a special site dedication and ceremony on June 15, 2004. The ceremony was held outside the South Entry Parking structure on the UC Davis campus, adjacent to the site where the institute will be built.

Slated for completion in 2008, the Robert Mondavi Institute for Wine and Food Science will be a global innovator in university-based wine and food programs and will house the largest and most prestigious wine and food science academic program in the world. The facility will include 129,000 sq. ft. of classroom space, laboratories, offices and meeting rooms, as well as a 41,000 sq. ft. teaching winery and a 14,000 sq. ft. brewery and pilot plant. Adjacent to the institute will be vineyards, including the chardonnay vine planted during the dedication ceremony.

The Mondavis, who contributed \$25 million toward construction of the institute, donned work gloves at the ceremony to plant a symbolic chardonnay grapevine in a hand-made oak barrel near the site where the institute is expected to break ground in June 2005. The vine eventually will be part of the vineyard that will be established adjacent to the institute.

Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences said the Mondavis donated the money, and a vision for the project - a desire to establish a world-renowned institute rather than merely an academic building. "Without them, this vision, this dream, would not have been possible," Van Alfen said.

Programming for the RMI Begins with Inaugural Lectureship Series: The Robert Mondavi Institute for Wine and Food Science began its programming on September 30, 2004 with its Inaugural Lectureship Series, featuring outstanding speakers and experts from food science, brewing and wine industries. The lectureship was generously supported by a gift from Rabobank.

Chancellor Larry Vanderhoef, Neal Van Alfen and Clare Hasler welcomed nearly 100 attendees, faculty and media at the Robert and Margrit Mondavi Center for the Performing Arts. Participants heard critical thinkers discuss the issues that identify the current challenges facing the food and wine industries today and, also the ideas and concepts that will shape these industries well into the future.

David Francke, vice president of sales & marketing, Robert Mondavi Winery, began the day on the topic "Where Does Fine Wine Fit into the Global Wine Industry?" With both Robert and Margrit Mondavi in attendance (and in the very front row), Francke delivered a passionate and informative narrative on the state of the fine wine category. Many thoughtful questions were asked and Francke provided expert insight in his answers. The lectureship series was off to an

incredible start.

During lunch at the Buehler Alumni and Visitors Center, Deborah Perkins, head of Rabobank's Food and Agribusiness component, addressed the audience and provided a global look at the trends and issues facing the agribusiness community today.

Afternoon lectures were held in the Mondavi Center. Immediately following a lively and humorous introduction provided by Charles Bamforth, Anheuser-Busch endowed professor of brewing sciences, Douglas Muhleman, group vice president of brewing operations and technology at Anheuser-Busch, Inc., provided a multimedia tour through the history, process and business model of the world's number one beer manufacturer. Lots of brewing questions, anecdotes and much frivolity ensued. What exactly is it about beer?

Arguably, the highlight of the inaugural lectureship was the afternoon's final speaker John Malin; chief technical officer of Mars, Inc. Malin used every ounce of his comedic timing and dry wit to take the group to "The Future of Food - the Next 219 Years". Malin had the audience in stitches with his entertaining look at the "beginning of food science according to Malin" some 219 years ago to the future of food sciences in the next 219 years. Afterwards, he addressed questions on his topic, and shared insight on the composition and business philosophy of Mars Inc.

After the lectures, guests toured the state-of-art Mondavi Center. The event concluded with a reception where attendees sipped the finest Anheuser-Busch beer and Robert Mondavi Cabernet Sauvignon and Fume Blanc while nibbling on an incredible array of gourmet chocolates generously provided by Mars, Inc. A fitting end to a fitting beginning for the Robert Mondavi Institute for Wine and Food Science!

The next lectureship is scheduled for April 21, 2005. For more information on the lectureship series or the RMI, please contact Jean Wigglesworth at jwigglesworth@ucdavis.edu

Upcoming Events:

- April 21, 2005 - 2nd RMI Lectureship, Studio Theatre, Robert and Margrit Mondavi Center for the Performing Arts
- May 14 - 15, 2005 - Wine and the Mind, COPIA, Napa, Calif.

Research/Faculty News

By Everett Bandman

I joined the Department of Food Science and Technology in January 1982 as an assistant professor of meat science. Prior to arriving at UC Davis, I was an assistant research zoologist at UC Berkeley studying chicken muscle development and biochemistry. The chair of the Food Science Department at the time was Professor Bernie Schweigert and he encouraged me to continue my fundamental research studies in muscle biology as well as to apply my research interests to problems and challenges facing the meat industry.

Shortly after coming to Davis, I began teaching Principles of Meat Science and developed a greater understanding of how my fundamental research on the molecular biology of muscle was related to protein functionality in meat systems. For example, meat tenderness is a critical issue for consumers, and muscle protein breakdown was clearly implicated in the improved tenderness of aged meats. My laboratory helped develop new technologies for studying protein

breakdown during aging with a grant from the California Beef Council and I was awarded the George Strathearn Memorial Research Award in 1986 for demonstrating which proteins were degraded and contributed to increased tenderness in muscle food systems.

Over the ensuing years at Davis, I continued my fundamental studies on physiochemical properties of the major muscle protein myosin. Myosin's solubility properties contribute greatly to holding ground muscle chunks in many meat products, such as salami, ham and other luncheon meats. Most consumers are under the impression that salt is added solely as a flavoring agent, while in fact the salt is necessary to dissolve meat proteins that then act as a binding agent when these products are cooked and/or dried. It is the binding properties of soluble myosin that holds small ground pieces of meat together, allowing salami and similar products to be sliced paper-thin without falling apart.

Recently our laboratory discovered which regions of the myosin molecule are involved in this process. Armed with this knowledge, future research may enable the development of new technologies to generate myosin protein binding and salt-free processed meats.

In addition to my research activities, I am also the master advisor for the food science undergraduate major. I have overseen two major revisions of the curricula into its current format, offering seven distinct options; brewing science, consumer food science, food biochemistry, food biology/microbiology, food business and management, food chemistry, and food technology. Our IFT approved major is one of the largest and one of the most highly ranked food science curricula in the U.S.

On a personal note, joining the Robert Mondavi Institute for Wine and Food Science is particularly relevant as wine tasting, wine collecting, and pairing food and wines have been hobbies of mine since graduate school. I am an active participant in two wine tasting groups that have met in Davis for more than 20 years, and I know and regularly visit many winemakers throughout California - and even a few in France.

In summary, I am proud to have been a part of the evolution of the Department of Food Science and Technology and look forward to contributing to the mission and vision of the RMI.

The Hilgard Project in Viticulture and Enology: There has been some significant progress in the Hilgard Project (<http://wineserver.ucdavis.edu/rbboulton/thehilgardproject.htm>), which aims to connect all of the teaching and research activities of viticulture and enology into a common, Web-based network. This fall, an automated pump-over system for red wines was installed on each of the winery's 2000L fermentors. This permitted these operations to be performed with precision, without the need for evening and weekend visits by students and staff. The pump-over system and its associated cap irrigators add to the already-installed fermentation temperature control and fermentation progress measurements (aka Brix readings), making it one of the most automated wineries in existence.

The last fermentation of the year was a two-ton batch of Cabernet Sauvignon grapes used in an experiment to study the changes in temperatures at 30 locations in the center and at the wall of the fermentor. These measurements were posted to the Web in real time, and the fermentation could be followed from all over the world. (View them online at <http://wineserver.ucdavis.edu/winery/>, set the initial date to the 9th of November and the end date to the 23rd of November. You can view the cap temperature by checking the 100", 94" and 86" marks. The pump-overs were set to be twice each day). It is probably the first wine fermentation to be viewed on the Web, and the posting of all fermentation measurements will be possible next year.

Future plans are to include fiber-optic probes in the pump-over lines of all fermentors so that the extraction patterns for phenolics and color can be measured in all red fermentations. This same system also will permit the measurement of yeast cell mass in our white wine fermentations. The Web-based nature of the significant research advances can now be shared with other wine schools and research institutes throughout the world.

RMI in the news

- [Davis Enterprise - May 5, 2004](#)
- [Davis Enterprise - June 16, 2004](#)
- [Cal Aggie](#)
- [Davis Enterprise - October 1, 2004](#)
- [Napa News - October 13, 2004](#)
- [San Francisco Chronicle - December 5, 2004](#)

"RMI wine and food bytes: News from the cutting edge of wine and food science" is the newsletter of the Robert Mondavi Institute for Wine and Food Science at the University of California, Davis. It is published by Jean Wigglesworth and distributed quarterly. Please feel free to share the newsletter with your colleagues in the wine and food sciences. We hope that you enjoy it.

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