

Food Notes

Fall and Winter - 2006/07

NOTES FROM THE CHAIR

We are fortunate as a department to have a wonderful Leadership Board, enthusiastically chaired by former President of the IFT Herbert Stone. As well as being the lead on our fund-raising activities, the Board is intimately involved in our strategic planning. For example we have been working on a new mission statement for the department, which is: "We teach, research and conduct outreach in a collaborative manner to promote the availability of safe, stable, nutritious, environmentally-compatible and appealing food and beverages."

The Board is excited (as we all are) by new developments in faculty recruitment. The Provost, Virginia Hinshaw, introduced a new competitive system for faculty hires in which emphasis is given to important new initiatives that speak to the strengths and mission of the campus as a whole. One such initiative has grown into the Foods For Health Institute, which links the Davis campus with the Medical School in a unique focus, linking study of the human genome, proteome and metabolome to the design of foods and diets best suited to the health and well-being of the individual. Within this department we have been successful in being part of three new hires, all the faculty in this initiative being obliged to have joint appointments in at least two departments. And so we have embarked on the recruitment process for a Metabolomicist, a Food Process Engineer and a scientist working in the area of biosensors.

With the Board, we continue to work on completing the fund-raising for the new Anheuser-Busch Brewing and Food Processing Laboratory. There remains a substantial shortfall in the amount of money needed to complete this project, but with the energetic involvement of Melissa Haworth, Director of Major Gifts in the College of Agricultural and Environmental Sciences, we are exploring several promising avenues.

Meanwhile the new academic building that will be home to this department, the Department of Viticulture and Enology and the Robert Mondavi Institute for Wine and



Chair Charles W. Bamforth toasting the opening of the Pilot Brewery with Leadership Board Vice Chair Doug Muhleman. Doug (BS'77; MS'79) is Group Vice President, Brewing Operations and Technology for Anheuser-Busch, Inc.

Food Science, is springing up rapidly.

While you're on the Internet, take a look at the new look of our web site (http://foodscience.ucdavis.edu/). Our departmental manager, Karen Gurley, has done a marvelous job on this. I urge you to regularly look at the site – it will give you a feel for how truly vibrant the department is.

For example, you can read about the success of our college bowl team that swept the national championships at the IFT meeting in Orlando. We are so proud of all our students. And you can see pictures of the College Celebration where our wonderful Carol Cooper, who is "mom" to all those eager students, and Herbert Stone were recognized with CA&ES Awards of Distinction.

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CALENDAR OF EVENTS

NCIFT Student Recognition Banquet	Tues, Feb	20,	2007
Picnic Day	Sat, Apr	14,	2007

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CAROL COOPER - A DISTINGUISHED ADVISOR

Carol Cooper, considered guru of the Food Science department by many a thankful undergraduate, didn't start in food science at all. With a BS in microbiology from UC Davis, she started out in a job in the Packaging Supplies Quality Assurance department with Safeway and then became the librarian for the late Packaging Program at UCD when she and her husband relocated back north from the Bay Area. When the Packaging Program looked like it was breathing its last, Cooper became the librarian for the Food Science department and later took over as the undergraduate advisor in the early '90's.

"I didn't actually choose Food Science, but I am sure glad I am here," Cooper said. "I love working with the students." Cooper also cites friendly faculty and a very supportive department as reasons she enjoys her position.

RMI UPDATE

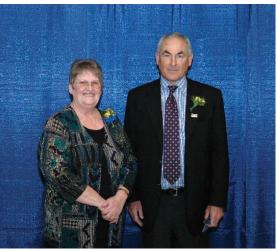
By Allen Lowry and Clare Hasler On October 16, Margrit

Mondavi was given a private tour of the Robert Mondavi Institute construction site. Mrs. Mondavi was absolutely thrilled with the progress and scope of the project and stated many times how happy she was to see Robert Mondavi's vision of a new state-of-the-art facility being realized.

The level of activity is increasing daily at the site. Several different construction trades and more than 100 construction workers are progressing toward completion. The project is on budget and scheduled for a May 2008 grand opening. Every week a ne subcontractor trailer is added Her words of encouragement and tireless work in helping students succeed at the university level and as they segue into the real world have garnered a large number of awards. As advisor she has won recognition on many occasions for humanitarian

dedication and exemplary service to students and the field of food science. Most notably, Cooper was recently given the Award of Distinction from the College of Agriculture and Environmental Sciences, the highest award in the college.

Though helping students has won her many awards, including the first ever Outstanding Staff Advisor Award presented by the Peer Advisor Program in 2000-01, Cooper believes helping students has its own rewards and challenges. "What is hard is having to say goodbye to students when I really just get to know them," she said, "But I have friends all over the US and the world now."



Carol Cooper with Leadership Board Chair Herbert Stone at the College Achievement Award Reception

to the "trailer park" at the southeast corner of the site. Eventually there will be 20 trailers and almost 50 different trades on site simultaneously.

All remaining excavations have been completed, both for the



and scheduled for a May 2008 grand opening. Every week a new subcontractor trailer is added Andy Waterhouse, interim chair, Viticulture & Enology; Bob Segar, assistant vice chancellor in the Office of Resource Management & Planning; Margrit Mondavi; Clare Hasler, RMI winter months. Executive Director; and Charlie Bamforth, chair, FST

spread footings and for utilities bringing electricity, gas, water, drainage, and heating and cooling to the three RMI buildings. Since all utilities pass through the basement, hundreds of pipes and conduits were run into that

> space before the 4-foot-thick "mat" slab was poured, consuming 562 cubic yards of material in addition to 80 tons of steel reinforcing. Completion of the basement walls and placement of concrete in footings in all three buildings are next on the agenda. An important milestone will be placement of first-floor concrete slabs by mid-December to allow for unimpeded work above grade during the wet

FACULTY PROFILE - LINDA J. HARRIS

When pathogenic bacteria such as *E. coli* O157:H7 and *Salmonella enteriditis* are detected in samples of California fruits or vegetables, Dr. Linda Harris is one of the first academic scientists to be contacted.

Dr. Harris, Extension Food Safety Microbiologist, frequently collaborates with industry, government, and academic scientists to develop science-based research and education programs designed to improve agricultural practices and minimize the potential for transmission of pathogenic bacteria from the food supply to consumers.

While she has been active in collaborative efforts to deal with the recent *E. coli* O157:H7 outbreak with spinach, her research and outreach programs in the past few years have focused primarily upon *Salmonella* contamination of nut meats. This work was initiated in response to *Salmonella* outbreaks in raw almonds in 2001 and 2004. Dr. Harris, along with industry and government collaborators and other UC researchers, has helped the almond industry validate post-harvest processes currently used to reduce microbial loads such as oil roast-

COMMENCEMENT 2006

ing, blanching, and propylene oxide treatments. Dr. Harris and colleagues developed novel analytical methods to study *Salmonella* in almonds and the almond production and processing environments, and their work has significantly improved the understanding of the long-term survival and ecology of *Salmonella* in almonds. She has also developed, in collaboration with colleagues at Rutgers University, a risk assessment model to predict the risks associated with raw almond consumption by considering the influences of various post-harvest treatments.

Dr. Harris joined the Food Science and Technology faculty



in 1996 after serving the previous five years as a faculty member of the University of Guelph in Ontario, Canada. She received her B.S. and M.S. degrees in Food Science and in Food Microbiology, respectively, from the University of Alberta, and her Ph.D. in Microbiology from North Carolina State University. In recognition of her outstanding research and outreach program, she was the recipient of the Educator Award from the International Association of Food Protection in 2004. Dr. Harris was recently named Associate Director of Research for the UC Davis Western Institute for Food Safety and Security where she will continue her efforts to bring government, industry, and academia together to address contemporary industry and public health food safety needs.

As for the future, Dr. Harris admits that "at some level, I'd like to be obsolete and knowing that all of the food safety problems had been solved." Acknowledging that such an optimistic view is not particularly realistic, Dr. Harris takes personal pleasure in doing work that has immediate benefits for both the food industry and the general public.

In 2005/2006, the Food Science and Technology department graduated the following number of students: 23 Bachelors of Science, 9 Masters of Science, and 8 Doctor of Philosophy. Pictured below are Carol Cooper, Gerry Russell, and some of our graduating B.S. Students on the left and some of our graduate students with Department Chair Bamforth on the right.





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COLLEGE BOWL TEAM TAKES NATIONAL CHAMPIONSHIP!

College Bowl com-

petition!!! The team

members included

Danyluk, Kit Meyers, Jon Hutchinson,

Ferlinda Kowara, and

team gualified for the

national competition

in Utah after beating

western US, including

7 teams from the

last year's national champions, Brigham

Young University. UCD went on to go

Pat Noonan. The

Captain Michelle



Ferlinda Kowara, Patrick Noonan, Jon Hutchinson, Kit Meyers and Michelle Danyluk - NATIONAL CHAMPS!

Amidst the roars of an adoring crowd in Orlando, Florida, the UC Davis Food Science team won the 2006 undefeated against 5 teams at the finals. Michelle and Kit were the team veterans and have been playing together since 2003. They decided that 2006 was UCD's year to win and implemented practice twice a week for 10 months. The team members knew from the start that a national victory was possible, and they banded together to study outside of practice on their own time. In the end, the team's hard work and experience paid off, and now they can enjoy their prize money and an IFT-mandated retirement. Several of the "retirees" are now advising the brand new team during their building year.



PAMELA D. TOM RECEIVES NATIONAL AWARD

Pamela D. Tom, Seafood Extension Program Manager, University of California-Davis, received the 2006 Calvert L. Willey Distinguished Service Award for meritorious and imaginative service to IFT.

Since the 1970s, Pamela has provided volunteer service and leadership to IFT, serving on the Aquatic Food Products Division, Northern California Section, and national-level committees and task forces, including the Committee on Sections and Divisions, Information Systems Committee, Student Activities Subcommittee, Annual Planning Subcommittee, Ad Hoc Committee on Member Needs, Awards Committee, and Council Issues and Agenda Committee. She has served as chair of several of these. As a volunteer member at various levels, Pam has incorporated her computer and Internet skills to help strengthen communications within IFT. While serving on the Committee on Sections and Divisions, she helped to create and manage for two years the first all-Section and all-

Division listservs. She created the websites for the Northern California IFT Section and Aquatic Food Products Division and tailored the membersonly content for the Aquatic Food Products Division website. Additionally, Tom collaborated members to launch the Aquatic Food Products Division's first online election. As chair of the Division Councilors Caucus, she helped to develop a website to facilitate the exchange and archiving of information and dialogue on topics among Division councilors.



Pamela Tom accepts the award from Past-IFT President and UC Davis alumni Margaret Lawson

with several IFT staff

OTHER IFT HONORS



Jerome Diaz placed first in the Food Chemistry Division Poster Competition. Jerome is a PhD candidate in the laboratory of Dr. Diane Barrett. Jerome received his undergraduate degree from the University of the Philippines. His work involves understanding the nonenzymatic mechanisms of pectin degradation during thermal processing. Pictured with Jerome is his research mentor, Diane Barrett.



Laura Pallas won the Food Packaging Division Poster Competition. Laura recently completed her MS degree under the direction of Professor John Krochta. Laura received her undergraduate degree from University of Georgia, where she has returned to pursue her PhD with Dr. Bill Kerr, a former Ph.D. student of David Reid. Her M.S. research was on "Whey protein and hydroxypropyl methylcellulose blended films: Mechanical, barrier and thermal properties".



The paper entitled "In-line Prediction of Tomato Concentrate Bostwick Flow Using Ultrasonic Doppler Velocimetry" by Rebecca R. Milczarek, Young Jin Choi, Kathryn L. McCarthy, Michael J. McCarthy, has been selected as one of the two winners in the 2006 IFT Food Engineering division award competition. The work was pioneered by Rebecca. She is a Biological Systems Engineering graduate student working in the Department with Professors Michael McCarthy and Kathryn McCarthy. Rebecca completed her undergraduate in Chemical Engineering and M.S. in Food Science from University of Illinois Champaign-Urbana. Pictured are Jeff Walton, Rebecca and Mike McCarthy showing off their next awardwinning work.

GERRY RUSSELL, ACE PROFESSOR

There are many students that don't know about one of the most popular professors on campus. Dr. Gerry Russell was trained as a flavor chemist and can smell cigarette smoke from outside the FSTB building when the wind blows north (hint: the wind picks up the smell and pushes it through the vents).

"I've felt that the UC has been really good to me for my career," Russell said. "I've felt comfortable that I've been able to give back by teaching so many students." He estimates that at nearly 500 students per quarter for four classes per year, Russell has taught nearly 15-20,000 students.

After he received his BS in chemistry in his native Canada, Russell attended a Flavor Chemists conference at the University of Oregon and heard a paper presented by Walter Jennings, then a professor at Davis. Russell worked with Jennings to earn his PhD in Agriculture and Environmental Chemistry. Of Jennings, Russell says, "I think he is the smartest man I ever met."

When the university heard MIT and Cornell were offering Russell teaching positions, Dean Meyer of Agriculture offered Russell a position as assistant professor in a new program that combined consumer related studies, flavor chemistry, and sensory science. Everyone related to the program wound up in Food Science in the late 1970's as Meyer became chancellor (Meyer Hall, anyone?) and a new dean took over.

As a full professor, Russell worked with PhD students, performed research, and taught mostly upper division courses, but about seven years ago he decided to move to teaching entirely. That's when he began putting together an introductory food science course aimed at non-majors. It's a course that undergraduates know as FST 10, one of the best GE requirement courses on campus. In fact, it was voted 1st place Best of Davis GE requirement class last year. Put on by the California Aggie, the Best of Davis was a student-nominated and studentvoted contest to ascertain the highlights of UC Davis and the surrounding area.

"I thought it was a pretty good thing to retire with," Russell said. As he put together the class, Russell worried about being able to reach non-majors with nonscience backgrounds, but his mentor Jennings came to the rescue. Jennings told Russell, "If a person cannot explain a phenomenon or a subject to any undergraduate student, chances are he doesn't really understand it himself."

That doesn't mean one has to dumb a subject down, but it does mean making the subject fun. Russell believes at the heart of a very loose teaching philosophy that a subject doesn't have to be painful to be memorable.

As he finally edges into retirement, Dr. Russell, who holds a pilot license, looks forward to learning to fly a float plane in order to reach tribal lands in Canada. With colleagues at the University of Victoria, he hopes to study the First Nation's people's diets and use of plants, expanding on a personal interest in organic foods and sustainable agriculture, as well as learning more about the source of the First Nation's people's amazing health.



Charlie Bamforth, Gerry Russell, and Paul Singh at the ASUCD Excellence in Education Award Ceremony..

ALUMNI PROFILE - MARGARET LAWSON

When asked what she gained by majoring in Food Science at UCD, alumnist, Margaret Lawson (B.S. class of '77 and M.S. class of '79) said that "Davis taught me how to think and be logical in how I approached my research." She is "very, very thankful for choosing to attend UCD for her Food Science degrees. "I think it was my choice of school that opened many doors for me and provided a strong alumni network."

At UCD Margaret learned the value of finding a mentor and later giving back by being supportive of IFT student members. She has had two key mentors to help her through her university and early career days. Both mentors had a special quality in common which Margaret followed suit 25 years later by becoming the 66th President of the Institute of Food Technologists. Her UCD mentor and friend was Dr. Bernard S. Schweigert who encouraged her to become involved with IFT as a student. She observed and was motivated by our department chair's leadership during his term as national IFT president (1978-79). When she started her first job with Ralston Purina in St. Louis, MO (Human Foods Division, Breakfast Cereal Section), she met Dr. Walter Clark (IFT President 1979-80), guest speaker at the IFT St. Louis regional section meeting. "Walt Clark always had time for students and young professionals." Margaret has emulated Dr. Clark during her career.

Margaret highly encourages students to attend the UCD breakfast at the IFT annual meeting. "That is where I started meeting other Aggies who graduated before or after me and who became active in the field." Margaret attends the breakfast each year and has sponsored students attending the breakfast.

Margaret advises that if you want to enjoy your career in food science, "get out and seek opportunities, try new experiences and assume



new responsibilities. Do not be afraid!" Margaret suggests that students become active in IFT as a professional association to broaden their network and exposure.

As the IFT immediate past president, Margaret has many roles and responsibilities on numerous IFT committees. Currently she is the IFT immediate past-president and life-long councilor, a member of the IFT executive committee, chair of the Babcock Hart IFT achievement award, chair designate of the Management committee on science, communications and government relations, and a member of the finance committee.

In finding your ideal job, she says that "You don't really know what a job is like until you try it." "So...it's better," Margaret further notes, "to have a wide variety of experiences to help define the professional role that you want to settle with."

Her career has been in specialized ingredients where she has worked on the technical side. Her role is to communicate the technology of the ingredients that she represents to product developers. She enjoys working for an ingredient supplier..."This is my real niche," she notes.

In June 2006, Margaret started a new job with DD Williamson. One of her first priorities is to focus on expanding the DD Williamson's natural color line. While there are about 16 approved natural colors, only a handful are available commercially. She will look at developing a portfolio of natural colors to categorize their stability, functionality, and consistency (due to variability in natural colors) and applications to the food industry. A lot of these natural colors come from seeds, roots, and pods that are found in third world countries. She visits the countries to inspect the supply source and quality standards. Obtaining organic certification of colors is one of her responsibilities. "Often people who want a natural product will want organic," says Margaret. In addition, she attends regulatory meetings to keep abreast of regulations affecting the food industry. Best wishes to Margaret as she transitions from being IFT President to her new role as Vice President of Science and Innovation.

Although Margaret's new position required that she relocate to Louisville, KY, she still has roots with UCD in her key role as a member of UCD/FS&T's Leadership Board. UCD is proud of Margaret, for her many professional achievements and mentoring of students!!!

WHERE ARE YOU NOW?

- Vu Q. Tran (B.S. 2000) is an optometrist working in Maryland.
- Rachael Enos (B.S. 1990) is a stay-at-home mom with her two children (ages 3 and 7) in Roseville, CA.
- Susie Straka Briggs (B.S. 1966) is Corporate Quality Control Manager for Barbara Bakery in Sacramento.
- Barbara Lachendro (BS, Consumer Food Science, 1995) is a Specific Learning Disabilities teacher at Staff High School in Stockton, CA.

We would like to run a full-feature article of "Where are you now?" in our next edition of Food Notes. Please send updates of your information to Karen Gurley (kmgurley@ucdavis.edu).

IN MEMORIAM - ROBERT FEENEY

By Patricia Bailey, UC Davis News Service

Robert Feeney, a professor emeritus in the Department of Food Science and Technology, died Sept. 21 at his home in Davis. He was 94.

Feeney was born on Aug. 30, 1913 and earned a bachelor's degree in chemistry from Northwestern University in 1938. He then went on to earn his master's and doctorate degrees from the University of Wisconsin in biochemistry, followed by a brief stint as a research associate at Harvard Medical School before enlisting in the U.S. Army to serve during World War II.

After attaining the rank of captain in the Army's medical department, Feeney became a professor of chemistry and chaired the Biochemistry and Nutrition departments at the University of Nevada.

Following his marriage to Mary Alice Waller, he moved to Davis in 1960 and became a professor in the Department of Food Science and Technology.

Feeney's research took him to the Antarctic five times to collect specimens supporting his theories on the effects of antifreeze proteins on ice growth. He published more than 60 papers on the subject.

Feeney is survived by his wife, Mary Alice; two daughters, Elizabeth Lindemann of Davis and Jane Baker of Carmichael as well as three grandchildren.

IN MEMORIAM - ROBERT PRICE

Excerpts from the Sea Grant website Robert J. Price, emeritus Seafood Technology Specialist passed away on June 1, 2006. He was 64. Price began his illustrious career in 1972 with the FDA and in 1974 became the California Sea Grant Extension Seafood Technology Specialist at the University of California, Davis, a position he held until retiring in 2003.

Price held many honors. Price's election as a Fellow of the Institute of Food Technologists (IFT) and receipt of the Harold Macy Food Science and Technology Award from the Minnesota section of the IFT are two that stand out. Of all his accomplishments, however, Price always said he was most proud of the education and training courses he led and of the positive, productive relationships he forged over the years with working seafood professionals.

He is survived by his wife, two daughters and four grandchildren.

SPECIAL THANKS TO:

The Food Science and Technology department is grateful to the Department External Relations and Outreach Committee for their efforts in research and writing the articles for this newsletter. Members are: Carl Winter (Chair), Stephanie Dungan, Michael McCarthy, Michael O'Mahony, Pamela Tom, Karen Gurley, Carol Cooper, Jamie Brannan, Melissa Haworth, and Allison Aubin.