

Food Notes

Spring and Summer - 2007

NOTES FROM THE CHAIR

We are making great progress on funding the construction of the new pilot facility which will be situated alongside the new academic building on the south side of campus. This \$8M project was, of course, driven by the initial challenge gift of \$5 million from Anheuser-Busch, and I am pleased to report that we are close to achieving our financial goal. Please see page 8 for a list of donors to date.

Of course, new facilities are only worthwhile if they are populated by excellent faculty, staff and students. To that end, there are some exciting developments to report.

We are actively seeking four new faculty members who will have joint appointments between this department and others on campus. These include a Food Process Engineer, a Metabolomicist and a Biosensors specialist. I am now thrilled to report the search for an expert on cultural aspects of food. This person will have a shared appointment between this department and the Department of American Studies. This is a truly exciting development. It is unusual for science and humanities based departments to

collaborate in this way, and it speaks to our determination to provide unique education, research and outreach right the way from raw materials to the social aspects of food consumption.

On the staff front, we are delighted to announce the appointment of Jamie Ruffolo to the position of Executive Academic Assistant. Jamie is no stranger to the department, having been an assistant to both John and Christine Bruhn.

We continue to be proud of our wonderful students. At the recent Northern California section dinner of the Institute of Food Technologists many of them received scholarship awards funded by our much-valued alumni and friends in industry. As always the students contribute such a lot to the delight of everyone in this department. Just to pick out one of their many activities, I would mention the coming together of our student body with those of the Department of Viticulture and Enology and the Culinary Institute of the Americas (CIA) in a marvelous tripartite event held on a recent Saturday at the CIA's beautiful facility in Napa Valley. Apart from being a wonderful bonding opportunity for the students, it also was



Dept. Chair Charles W. Bamforth

another step in the increasing interaction that we are enjoying with the CIA.

We look forward to these students going on to emulate the achievements of the fabulous alumni that we are so proud of. Alumni such as Doug Muhleman, Group Vice President, Brewing Operations & Technology for Anheuser-Busch, who was just awarded the UC Davis Cal Aggie Alumni Association Aggie Service Award in recognition of the many ways in which he supports this department, college and campus.

I hope you enjoy this issue of Food Notes. We hope to see many alumni and friends at Picnic Day on April 14. As always, there will be free, student-made ice cream in Cruess Hall!

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CALENDAR OF EVENTS

Pre-Picnic Day BBQ	Fri, April 13, 2007
Picnic Day	Sat, April 14, 2007
Culinary Combat	Sat, May 19, 2007
IFT UCD Breakfast	Mon, July 30 2007

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JAMIE BRANNAN - GOING THE EXTRA MILE

Jamie Brannan began her work as a student assistant in the Food Science and Technology Business Office in November 1999 and became a career staff in 2004 after receiving her B.S. in Human Development.

"Over the years as a student I paid invoices, placed orders, balanced account and payroll ledgers. Eventually I transitioned into a staff position in July 2004," she said. Brannan is now responsible for accounts management and reconciliation and reimbursement processing as well as some payroll/personnel duties.

If you had been in Cruess lately, you would have seen her out in the halls of Cruess behind a table laden with goodies for a fundraising bake sale. This integral member of the department staff is also a member of the Leukemia and Lymphoma Society's Team In Training (TNT) and runs marathons to raise funds for blood cancer research, public education and patient aid programs. In January of 2007, Brannan

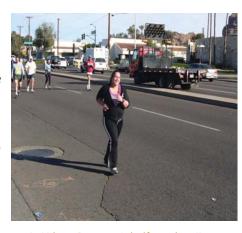
participated in her first run.

Brannan participated in local races in order to build up to a full marathon, running in the Buffalo Migration in September of 2006 which was 10 miles, and the Cowtown Half Marathon in October with 13.1 miles. Her first full marathon was P.F. Chang's Rock 'N' Roll Marathon in January of 2007 with 26.2 miles. She is currently training and fundraising for the San Diego Rock 'N' Roll Marathon in early June. Her training and donation website can be found at www.active.com/donate/tntsac/tntsac/Brannan.

When she isn't training for marathons, fundraising, or helping keep the department afloat, Brannan likes to spend time with her husband and two cats, and the kitten they are currently fostering. Looking ahead to the future, Brannan said she hopes she can continue learning new things.

Brannan comments, "I enjoy being able to understand the 'whole picture'. Perhaps one day I can

be a department manager and utilize everything I have learned and will continue to learn over the years."



At Mile 11 Brannan is halfway there!!

PICNIC DAY



Tina Downey and Jon Hutchison talk to Picnic Day visitors about Food Science in 2006.

Picnic Day this year will happen on April 14, 2008. As usual, the Food Science and Technology department has a wonderful array of exciting events. In Cruess Hall, you will find free ice cream! We also will have demonstrations for handwashing, sensory evaluation, and food chemistry. There will be a host of wonderful and informative posters around the building. Also, in attendance will be several of our faculty, staff and students.

The Bruhn Family enjoys delicious food at the 2006 Pre-Picnic Day BBQ!



On the evening before Picnic Day, the department is throwing it's annual pre-Picnic Day Barbecue. The menu, this year, will have a Latin-inspired theme We will be serving Ropa Vieja (a Cuban dish made with braised, shreeded beef, Chilean lime fish filets, and roasted shredded pork. There will be exciting options for our vegetarian friends as well. If you would like to attend, contact Jamie Ruffolo (jmruffolo@ucdavis.edu).

FACULTY PROFILE - GLENN YOUNG

While food safety and food security issues frequently grab today's headlines, Dr. Glenn Young looks back in time as he strives to understand some of the basic mechanisms by which pathogenic bacteria may survive in the environment.

Dr. Young recently received a National Institutes of Health grant to elucidate the genetic mechanisms that determine virulence factors for human pathogenic bacteria. His work will focus upon several species of the genus *Yersinia*, including the pathogen *Y. pestis*, the infectious agent responsible the 14th century Black Plague in Europe, as well as other *Yersinia* species that have been linked to modern-day foodborne illnesses or pose biosecurity threats.

Although only a tiny number of bubonic plague cases from *Y. pestis* are reported each year in the U.S., Dr. Young notes that the genetic switch influencing *Y. pestis* pathogenicity is conserved between this notorious species and *Y. enterocolitica*, a human pathogen of public health concern that can cause human infections following consumption of contaminated foods such as undercooked pork prod-

ucts. "By understanding the genetic factors that may turn the virulence switch in Y. pestis on or off, we hope to be able to improve our understanding of pathogenicity mechanisms for other Yersinia species as well," Dr. Young says. His work may also be applicable to studies of other pathogenic species of E. coli and of Salmonella since Yersinia is similar to these genera in many respects.

Dr. Young joined the faculty of the Department of Food Science and Technology in 1999 and was promoted to Associate Professor in 2004. He received his Ph.D. in Microbiology from Washington State University and



held postdoctoral positions at UCLA and Washington University School of Medicine in St. Louis before coming to Davis.

In addition to his *Yersinia* work, Dr. Young is also active in projects studying how the pathogen *Listeria monocytogenes* forms biofilms in food processing plants, how *E. coli 0157:H7* infiltrates leafy green vegetables, and how *Xylella fastidiosa*, the pathogen responsible for Pierce's Disease in grapes, may transit through the xylem in the plant.

Each fall, Dr. Young teaches a two-week course on microbial pathology at Assumption University in Thailand. This arrangement followed cooperative agreements between **UC Davis and Assumption University** that were first established by Emeritus Professors John Whitaker and Marty Miller, and Dr. Young has built upon their efforts to establish a successful exchange program for undergraduate and graduate students between the two universities. Back on the mainland, Dr. Young teaches the undergraduate (FST 104L) and graduate (FST 204) food microbiology laboratories.

RMI UPDATE

The Robert Mondavi Institute for Wine and Food Science is proud to announce the 2007 Spring Lectureship. Join us on the morning of Monday, June 11 to hear visionary presentations on agricultural sustainability by Ken Grossman, owner of Sierra Nevada Brewing Company and Ted Hall, General Partner of Long Meadow Ranch and former Chairman of the Robert Mondavi Corporation. Please stay tuned to rmi.ucdavis.edu for further details!

UPCOMING EVENTS

Two other noteworthy events coming up are the Culinary Combat on May 19. This event, sponsored by the Food Science Graduate Student Association is a fun-filled day of playing with food. Events include an iron chef contest, sports with food, and food architecture. Also, at the IFT meeting in Chicago, please come to the UC Davis breakfast on Monday, July 30. You can sign up for this event when you register for IFT. If you can't make the breakfast, please do stop by and see us in booth #4620.

UC DAVIS WINS LITTLE BANG COMPETITION



Members of the UC Davis Product Development Team. Left to right, back row: Judge, Chris Theofel, Kristen Ahrens, Jon Hutchison, Judge, Judge John Ashby, Judge. Front Row: Su Asavasanti and Megumi Takahashi.

Recently, the UC Davis Product Development Team was awarded \$3000 as the winner of Little Bang Poster Competition for Scientific Findings and Marketing in the Foods for Health and Wellness category. This represents the third year of CIFAR's support as the academic coordinating group for the Foods For Health and Wellness track of the UC Davis Innovation Access (formerly known as UC Davis CONNECT) Little Bang Business Plan Competition.

The Product Development
Team won with ProGo, a refreshingly
light and zippy, natural lemon
mint based beverage with a full
day's supply of valuable probiotics.
This year's team is led by seniors
Jonathan Hutchinson and Megumi
Takahashi. The UC Davis Product
Development Team members
include Suvaluk Asavasanti, Kristina
Downey, Patchanee Yasurin, Justine

Gunawan, Eleni Kardaras, Thansuda Mekaroonvidhaya, Snehal Prabhu, Daniel Rauch, Matthew Ronconi, Anika Singla, Natasha Stephens, and Chris Theofel. In addition to winning the Little Bang Competition the Product Development Team submitted ProGo to the preliminary round of Institute of Food **Technologists Student Association** (IFTSA) Product Development Competition. The team is currently waiting for a decision from IFTSA to know whether they will go to the final of IFTSA Product Development Competition at Annual IFT Expo in Chicago.

FTC JOINS DEVO AT THE CIA

Three major programs in northern California were united in St. Helena when students from UC Davis' Food Science & Technology and Viticulture & Enology Programs joined with culinary students in the kitchens of the Culinary Institute of America at Greystone. The all day event, held on February 3 allowed students in the Food Tech Club (FTC) and Davis Enology and Viticulture Organization (DEVO) to take a tour of the Culinary Institute of America (CIA) in Saint Helena and then participate in a cookoff with their fellow students.

One of the chef instructors at the CIA gave a presentation on barbeque sauce preparation. He explained how barbeque sauce incorporates all five taste senses (sweet, salty, sour, bitter, and umami) and how to adjust these senses to bring balance to the sauce.

Information gathered in the barbeque sauce presentation was quickly put to work in culinary combat. Twenty-four students gathered to form eight teams, each with at least one student from each program. Four

teams were told to prepare an amazing barbeque sauce, and the other four battled to create a tantalizing salad dressing. The competition was fierce, and the sauces were presented at a wonderful lunch buffet that CIA students had prepared all morning.

Using an interactive voting response system, the results were very close, often differing by only 0.3%. Our own Lyle Farrell and Daisy Chen were on the winning teams for Food Science.



Shawn Azari participates in the cook-off with his fellow students at the Culinary Institute of America.

AWARDS AND HONORS



Adjunct Professor Edwin Frankel has been named the 2007 recipient of the Supelco/Nicholas Pelic Award by the American Oil Chemists Society. The prestigious award recognizes significant scientific contributions in the field of lipid chemistry. Frankel will receive the award in Quebec City in May during the annual meeting of the society, which is composed of individuals with a professional interest in the science and technology of fats, oils, surfactants, and related materials. Frankel, a member of the UC Davis faculty since 1989, studies lipid oxidation and antioxidation in foods and biological systems.



Professor Charles Bamforth explained the science behind every mug of great beer during a Feb.ruary 26 presentation on the Science of Beer Making at the New York Academy of Sciences. Bamforth's presentation, the third in the academy's five-part Science of Food Series, was followed by a beer tasting.



Doug Muhleman (BS'77; MS'79) received the Cal Aggie Alumni Association Service Award for 2005. This award honors a UC Davis graduate who, during the previous year, demonstrated exemplary Aggie pride and dedication to UC Davis through personal commitment of time and energy, volunteerism, and leadership, which had the purpose or effect of furthering the Cal Aggie Alumni Association and the University of California, Davis. Specific criteria for this award include 1) commitment of personal time and energy, 2) personal leadership and 3) service to UC Davis and the Cal Aggie Alumni Association. Doug is Group Vice President, Brewing Operations & Technology, at Anheuser-Busch, Inc. He currently serves as Vice-Chair of the Food Science Leadership Board.



Professor Glenn Young was selected to conduct a 2-3 year study of bacterial pathogens important for food safety and security. The study will be directly supported by the National Institutes of Health, National Institute of Allergy and Infectious Diseases through a large grant. This peer-reviewed investigator-initiated research grant will extend the current efforts of his research group to delineate the genetic mechanisms used to control the expression of virulence factors. The funded project focuses specifically on human pathogens belonging to the genus Yersinia, which includes species causing serious pediatric foodborne illnesses and one that is a significant biosecurity threat. Read more about Dr. Young in the faculty profile of this newsletter.

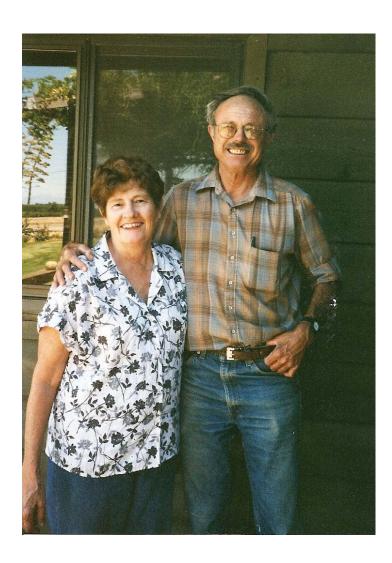
DONOR PROFILE - KEN AND DOROTHY LINDAUER

Ken Lindauer remembers his student days spent working in the Cruess Hall Pilot Plant. And now this 1958 food science grad has been putting his UC Davis education to good use on his prune farm and in his involvement with the California Dried Plum Board where he is currently chairman if the Nutrition Subcommittee that funds research projects regarding the extraordinary nutritional value of dried plums. "While at Davis," says Ken, "I not only learned how such disciplines as math, microbiology and food technology relate to our real life but, as President of the Food Tech Club, I began to learn the value of working effectively with an organization."

Ken and his wife, Dorothy, continue to stay connected to UC Davis. They have been donors to the campus since the 60s and have been committed members of the Davis Chancellor's Club since the early 1990s. Despite the drive, the Lindauers find time to visit Davis for lectures in the Robert and Margrit Mondavi Center for the Performing Arts and occasionally for DCC events.

Last year, when Ken and Dorothy were considering their end-of-year giving, the Department of Food Science and Technology was top of mind. Given Ken's experience in the pilot plant, they were pleased to be able to support the construction of the new Anheuser-Busch Brewing and Food Science Laboratory which will serve students for years to come.

The Lindauers are just two of the many individual and corporate donors who will make the Anheuser-Busch Brewing and Food Science Laboratory a reality. We have nearly reached the fundraising goal for the Laboratory and plan to break ground in 2008. The associated academic buildings are already well underway and a grand opening is scheduled for October 2008. If you are interested in giving opportunities to support this and other critical projects, please contact: Melissa Haworth at mdhaworth@ucdavis.edu or (530) 754-8562.



Ken and Dorothy Lindauer

SCHOLARSHIP RECIPIENTS



SCHOLARSHIP – Hailey Eisner, James Lee, Min Mabel Liu, Jennifer Chenwu, Connie Wong, Daniela Cathcart, Tu Tran, Jonathan chan

CALIFORNIA LEAGUE OF FOOD PROCESSORS SCHOLARSHIP

 Allison Aubin, Joy Cabardo, Natasha Stephens, Moneka Yee

CHAINE DES ROTISSEURS FOUNDATION SCHOLARSHIP

 Kristen Ahrens, Ariel Aljadeff, Anna Caroselli, Ann Dragich, Moneka Yee

MARIE AND WILLIAM CRUESS SCHOLARSHIP SPONSORED BY

NCIFT – Joy Cabardo, Lyle Farrell, Jon Hutchinson, Natasha Stephens, Winny Tanojo

LUTHER AND MARIE DAVIS

SCHOLARSHIP – Stacey Alimwidjaja, Jefferson Chan, Jonathan Chan, Qian Chang, Caitlin Chin, Cinzia Pinamonti, Libby Tang, Melissa Wong

ROSE DRAKE AWARD IN FOOD SCIENCE AND TECHNOLOGY – Eric

Wickler, Melissa Wong

FOOD INDUSTRY FOUNDATION (FOODSTERS) SCHOLARSHIP - Lyle

Farrell, Jon Hutchinson

FROZEN FOOD INDUSTRY MEMORIAL SCHOLARSHIP –

Suwimon Ariyaprakai, Daniela Cathcart

INSTITUTE OF FOOD

TECHNOLOGISTS – Kit Meyers, Jaime Rudolf

HENRY A. JASTRO SCHOLARSHIP -

Michelle Alim, Anna Caroselli, Chereen Leong, WaiSum Ng, Allie Pittenger SHERMAN J. LEONARD MEMORIAL AWARD – Suwimon Ariyaprakai, Jerome Diaz, Maria Gonzales, Brian Kim, Luis Perex-Albela

BOR LUH MEMORIAL SCHOLARSHIP

- Suvaluk Asavasanti, Thansuda (Poppap) Mekaroonvidhaya, Mabel Liu, Joy Rickman

ROBERT K. MALCOLM SCHOLARSHIP

– Kalynda Stone, Paul Wang, Hae Yee.

GEORGE MARSH SCHOLARSHIP

Louise Lee

EMIL MRAK MEMORIAL

SCHOLARSHIP – Michael DiPietro, Laura Gillies, Kit Meyers, Titichayanan (Punky) Patra-Yanan

THOMAS A. NICKERSON

MEMORIAL AWARD – Laura Gillies, Vero Hernandez, Therranun (May) Janjarasskul, Winston Lee, Laura Pallas, Laura Phillipo

GAIL AND RUTH OLIVER

SCHOLARSHIP – Jennifer Chenwu, Jung-Hyun Kim, Lydia Lin, Calvin Ng, Kalynda Stone, Aaron Tse, Connie Tsui, Paul Wang, Hae Yee

DAVID D. PEEBLES SCHOLARSHIP

– Hoi Woon (Anita) Fu, Jung-Hyum Kim, Lydia Lin, Aaron Tse, Connie Tsui

REGENTS SCHOLARSHIP – Valerie

Arechiga

B.S. AND ALTA SCHWEIGERT

AWARD – Jerome Diaz, Lyle Farrell, Justine Gunawan, Theeranun (May) Janjarasskul, Matthew Ronconi, Stephen Russell, Metta Santosa, Winny Tanojo

PETER J. SHIELDS SCHOLARSHIP

Carolyn Yu

R.E. AND HILDA M. SPARLING SCHOLARSHIP – Christine

Hernandez

GEORGE F. STEWART MEMORIAL

AWARD – Taylor Davis, Kristina Downey, Lyle Farrell, Jon Hutchinson, Ferlinda Kowara, Rebecca Milczarck, Patrick Noonan, Winny Tanojo

TIC GUMS AWARD IN FOOD CHEMISTRY AND FUNCTIONALITY

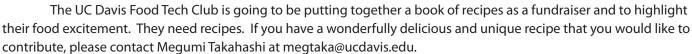
Megumi Takahashi

WARDEN PRIZE - Winny Tanojo

YELLOW DOG SOCIETY

SCHOLARSHIP – Theeranun (May) Janjarasskul, Darin Matsubara.

CALL FOR RECIPES





ANHEUSER-BUSCH BREWING & FOOD SCIENCE LABORATORY

Anheuser-Busch Brewing and Food Science Laboratory Donor Honor Roll

The department is pleased to be able to acknowledge donors who have made a gift or formal pledge to the Anheuser-Busch Brewing and Food Science Laboratory.

\$5 million
Anheuser Busch Foundation

\$100,000+ Anonymous Los Gatos Tomato Company

\$50,000-\$99,999 Kenny and Dorothy Lindauer Southern California Institute of Food Technologists Clair A. Weast

\$25,000-\$49,999 Wayne and Jacque Bartholomew Larry & Ellen Lee Jelly Belly Candy Company Harold McClarty/HMC Marketing Doug and Juli Muhleman \$5,000-\$24,999 Ken McCorkle Cathy and Ron Midyett Herbert and Marjorie Stone

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Up to \$1,000 Arthur & Catherine Chen Miang-Hoong Lim John Klein Christopher & Sandra Pickett David & Tobie Sterling Robert & Jennifer Sterling Alberto & Adirano Sun Leslie Young This list of donors reflects gift, pledges and grants that have been made to the Anheuser-Busch Brewing and Food Science Laboratory through March 1, 2007. Gifts made elsewhere to UC Davis are not included in this report. We have made every effort to ensure that the names are listed accurately, however, if you notice an error, please call us at (530) 754-8562 e-mail Melissa Haworth at mdhaworth@ucdavis.edu so we may correct our records.

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, Jamie Ruffolo, Melissa Haworth, and Allison Aubin.