

CA&ES
Outlook

EAT, DRINK & BE
HEALTHY



CA&ES Outlook

is a publication of the College of Agricultural and Environmental Sciences

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CA&ES OUTLOOK ONLINE
www.caes.ucdavis.edu/NewsEvents/news/outlook/default.htm

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This publication is funded partially through gifts from the J.G. Boswell Foundation.

PRINTED ON RECYCLED PAPER

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THE COVER

A bumper crop of new programs and research at UC Davis is digging ever deeper into fruits and vegetables, sensory analysis of food and beverages, and a generation of emerging "foods for health."



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FACULTY SPOTLIGHT

Nutrition educators want kids to make eating changes. They're supplementing dietary education with hands-on experiences in school gardens and kitchen classrooms.

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COVER PHOTO: UC Davis graduate student Joy Rickman is investigating the nutritional quality of organic and conventional tomatoes. She's one of the many food scientists on campus discovering more about California fruits and vegetables.

RESEARCH SPOTLIGHT

We ♥ chocolate. But could it be good for our hearts? Research indicates that minimally processed cocoa beans contain flavanols that may lower the risk of cardiovascular disease.

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ALUMNI SPOTLIGHT

▶ "Tara McHugh was the ideal grad student, meeting all the objectives of the grant that funded her research, while also defining new directions."

▶ "Oran Hesterman was the kind of a student you knew was going to be successful. He had the belief in his ideas to pursue them and the drive to make them happen."

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ANN KING FLYMER



DIGGING IN

The food and beverage research we conduct benefits us all.

Abundant examples of university research are as close as your local grocery store. Year-round strawberries, for instance, were developed by UC Davis scientists. And chances are one of our graduates helped make the wine you drink with dinner.

In recent years, discussions about what we consume increasingly involve health concerns because many of us are overweight. Health-care spending is expected to double in the next decade, fueled in part by heart disease and other diet-related conditions. The cost of cardiovascular diseases and stroke in the U.S. will be nearly \$432 billion this year. The good news is that food and beverage research at UC Davis today is changing the way we will eat tomorrow.

We are responding to health concerns with the creation of new collaborative programs such as the Foods for Health Institute, which will address how food is grown, produced, and processed *and* its impact on human health. We envision a future where health is determined not by intervention, but by how and what we eat.

The groundwork for this evolution in our eating habits is taking place now. In this issue of *CA&ES Outlook* our cover story examines a new center dedicated to fruit and vegetable quality, and research into healthful “phytonutrients.” We also report upbeat news about the healthful aspects and interesting history of a perennial favorite – chocolate.

Discovering what’s in food and beverages is only part of the story. We engage the public on many levels. For instance, we are teaching young children about good nutrition in school garden programs. On campus, our

college boasts the three most popular undergraduate courses – and two of them are about food.

Our alumni remind us how well we’re preparing our students for the world. We profile two outstanding CA&ES graduates – a food scientist creating healthy new products at USDA and a sustainable agriculture pioneer heading up a new foundation. In this issue we also acknowledge the invaluable support of donors and

“We envision a future where health is determined not by intervention, but by how and what we eat.”

spotlight two special philanthropic efforts strengthening our programs.

From our beginnings 100 years ago, the campus’s founding college has helped establish UC Davis as a preeminent world center for research on food and beverages, health, and nutrition. We hope you find this informative issue an enjoyable read, and we are pleased to present some new designs to make the magazine more appealing.

NEAL K. VAN ALFEN

COLLEGE OF AGRICULTURAL AND
ENVIRONMENTAL SCIENCES

NICE GRAB.

You know fruits and vegetables are the right stuff. Now, science is discovering more of their secrets. Nutrients you probably never heard of promise a measure of longevity. Healthy eating won't take you far from the produce aisle, but food and beverage research has other surprises in store.

Story
by John
Stumbos

It's a decision we all make many times every day: what to eat and drink. Our choices are influenced by many factors such as cost, perceived wholesomeness, and taste preferences. Increasingly, health concerns are at play – and rightfully so. You don't need the latest statistics to know that too many of us eat too much of the wrong foods too much of the time.

UC Davis has one of the country's greatest concentrations of brain power studying food and beverages – much of it in the College of Agricultural and Environmental Sciences. Our faculty are hard at work figuring out better ways for us to eat, drink, and enjoy being healthy. Here's what some of them are investigating.

A CONSUMPTION CONUNDRUM

One thing is certain – Mom was right. We need to eat more fruits and vegetables. According to the Produce for Better Health Foundation, most Americans need to triple their current intake of fruits and vegetables to meet the recommended five to 13 servings per day.

“Consumers know fruits and vegetables are good for them and they should eat more, so why aren't they?” asks UC Davis food scientist **Diane Barrett**, director of the new Center for

Fruit and Vegetable Quality. “That's our first goal – trying to understand what factors are affecting consumption.”

Approximately 40 faculty members with expertise ranging from plant breeding and molecular biology; to plant production, processing, and postharvest biology; through sensory and consumer evaluation have affiliated themselves with the center. Their mission: improve the color, texture, flavor, and nutritional quality of fruits and vegetables.

“You have to optimize everything as much as possible,” Barrett says. “You can't just work on nutrient content, for instance, and lose sight of the textural attributes or the flavor, the sweetness. It all contributes to the desirability.”

The center holds its first symposium November 13, 2007, at UC Davis – *Increasing Fruit and Vegetable Consumption: Is It a Matter of Taste?* “We have some of the best minds in the country working on this topic,” she says. “The center helps us to approach issues like this in an integrated fashion.”

Another topic of increased interest is whether fresh is always best. UC Davis graduate student **Joy Rickman**, UC Davis consumer food marketing specialist **Christine Bruhn**, and Barrett conclude in a recent journal article how the assumption that canned foods are less nu-



tritious than fresh or frozen products is not always true. In some cases, as with the potent antioxidant lycopene in processed tomato products, the opposite may be true.

“Something is happening with the heating process that results in higher levels of some of these compounds,” Barrett says. “Some research shows that it becomes more bioavailable than lycopene from fresh tomatoes. More research is needed.”

FINDING PHYTONUTRIENTS

Scientists are learning more about “phytonutrients” in fruits and vegetables. These compounds include a wide range of naturally occurring substances that appear to decrease the risk of cancer, heart disease, and other chronic conditions. They also affect the taste and color of food and beverages.

Flavonoids are a group of plant compounds known for their antioxidant activity. UC Davis food chemist **Alyson Mitchell** in the Department of Food Science and Technology published a study in 2007 that compared levels of the flavonoids quercetin and kaempferol in organic and conventionally grown tomatoes. Her findings reverberated through food science circles and made headlines worldwide.

The organic tomatoes had significantly higher levels of the flavonoids, and Mitchell believes it has to do with how plants respond to fertilizers. “The organic fields had been receiving organic compost to build soil health, but in 1998 project leaders decided soil organic matter reached an optimal level and reduced the level of compost applied to the fields,” she says. “As soon as they did that, the levels of flavonoids just shot up. This was really remarkable.”

A plant receiving high levels of nitrogen fertilizer, Mitchell suspects, puts more energy into producing the molecules needed for primary plant metabolism and less into secondary



JOHN STUMBOS

Diane Barrett (right) laughs with farmer Annie Main at the Davis Farmers Market.

plant products like flavonoids. Her team is now looking more closely at different fertilization practices and flavonoids – information useful for conventional and organic growers alike.

Another flavonoid is catechin, found in many vegetables and fruits such as the skins and seeds of red grapes and thus, red wine. Wine chemist **Susan Ebeler** in the Department of Viticulture and Enology and scientist **Andrew Clifford** in the Department of Nutrition found that mice fed experimental diets rich in red wine solids had an improved ability to fight cancer cells.

“We’re looking at how compounds like catechin and other polyphenols act in the body,” Ebeler says. “Clearly we’ve been able to see antioxidant activity associated with the relatively high concentrations of these compounds found in grapes and wine. Now we’re focusing on how these compounds interact with DNA and their role in blocking cancer formation.”

Plant compounds also influence wine flavor – the other area of Ebeler’s research. “Flavor chemistry examines compounds important to flavor, how we can measure them better, how we can quantify

them,” she explains. “Can we follow them through the vineyard to the winemaking process, to the wine? Can we optimize each of those steps in vineyards, during winemaking, during storage, so that we can get a flavorful wine for the consumer?”

A MATTER OF TASTE

“We’ve all had the experience: a bottle of wine somewhere – at an anniversary dinner, on the Rhine, on the Mendocino Coast – and the wine is wonderful,” says **Hildegard Heymann**, a UC Davis sensory scientist in the Department of Viticulture and Enology. “You then schlep this bottle of wine home and you have it one night and it’s somewhat ordinary.”

Heymann conducted an experiment that helps explain this puzzling phenomenon. A volunteer tasting panel compared how dairy products affect the taste of red and white wines. The tasters tried four wines and three dairy products – butter, sour cream, and yogurt.

“We found that if you rinse your mouth with red wine between dairy products, the wine tastes more astringent,” Heymann says. “If you drink white wines between dairy products, they probably will taste

less astringent. Wine type does have an effect, but it's small. It makes no real difference."

Heymann repeated the experiment with the same tasters – only she told them she was interested in the effect of wine on dairy products. "We gave them the same wines, the same dairy products, everything," she says. "The only thing we changed is that we told them we were looking at the possible effects of wine on food."

The results changed dramatically and with no consistent pattern. "Did they have an expectation to find differences?" Heymann wonders. "Whatever happened, it didn't happen in their taste buds or in their noses. It happened in their brains. It was what they *did* with the information, how they *interpreted* that information. My feeling is that what happened here is the same thing that happens when you're on vacation. You're relaxed. You have a great meal. You're in this context."

How to study this, Heymann says, is the new frontier of wine and food pairing. She and other UC Davis scientists are eagerly looking forward to the opening of a new sensory laboratory and full kitchen to replace outdated facilities. "We'll be able to create a meal and even some ambience around it," she says. "The new facility will give us so many options in so many different ways. It's going to make a big difference."

BEYOND VITAMIN-FORTIFIED

"Functional foods" with qualities beyond basic nutrients and calories have received much attention in recent years, although functionality is something humans have always been seeking in foods and beverages. "Let food be thy medicine," advised Hippocrates. And clinical studies have shown that Benjamin Franklin's sage advice about apples was right.

Yet there's much more to food today than meets the eye. Just ask **Clare Hasler**, executive director of the Robert Mondavi Institute for

Wine and Food Science. Aging baby boomers concerned about chronic diseases, escalating health-care costs, and a desire to do things differently than their parents has given rise to what she calls "do-it-yourself doctoring" with food and dietary aids.

Supplements abound for improved energy, vision, memory, and heart health, for instance. In 1998, 31 percent of Americans reportedly "treated" themselves with food. By 2002 that figure rose to 70 percent. No surprise then that functional food sales exceeded \$20 billion in 2006. "We're turning to the kitchen cabinet instead of the medicine cabinet for our health

That was an astonishing scientific achievement."

Fortification of salt with iodine largely did away with goiter. Vitamin D in milk did the same with rickets. "This was a truly visionary policy because it eliminated deficiency diseases from most of the population," German says. "It was a wonderful application of scientific knowledge and had marvelous results – overnight."

Solving essential nutrient deficiencies doesn't eliminate the health problems of an unbalanced diet. But German believes we're on the cusp of a new era of customized human health assessment and nutritional



JOHN STUMBOS

Alyson Mitchell's research on phytonutrients in tomatoes yielded surprising results.

concerns," Hasler says.

UC Davis food science and technology professor **Bruce German** is quick to remind people that Americans have been consuming foods fortified with vitamins and minerals for decades. "In the early 20th century, society did an amazing thing," he says. "Scientists disassembled food into molecules and came up with the list of every vitamin, all the minerals, and all the amino acids and essential fatty acids necessary for human life.

guidance that will radically change the way we view well-being.

"What we have now is a disease-based health system," he says. "Science and public health have become very good at diagnosing and resolving disease. What we envision with health is preventing disease at its earliest stages. Before you ever get disease, you are managed in such a way that it never happens."

German is a campus leader in the new science of "metabolomics," where knowledge of the human



A tasting panel at UC Davis learns how to identify differences in wine. Analytical sensory studies will be moved from Wickson Hall to sophisticated new facilities in 2008.

genome plays out in human metabolism. He sees vast potential in emerging technologies that will provide more detailed health information coupled with new food products.

“People with arteriosclerosis, obesity, and diabetes – these conditions will be unimagined,” German predicts. “We’ll have to look in books for them. Think about what that will do for the human condition.”

HEALTHY FOODS INSTITUTE

Few people would dispute the advantages of eating more fruits and vegetables. Yet science has a vital role in helping consumers sort through an emerging barrage of health claims about phytonutrients. For instance, UC Davis nutrition department faculty researcher **Hagen Schroeter** believes that while a relationship has been shown between flavonoids and improved cardiovascular health, benefits must be assessed in context.

“Scientists have found that the amount of flavanols in the blood after eating flavanol-rich foods is 30-50 times smaller than the amount of vitamin C, a powerful, natural antioxidant that we also absorb from the foods we eat,” he says. “It can

be misleading to look for products that claim ‘high antioxidant benefits.’ We should not rely *only* on advice mainly based on measurements taken in a test tube, but in the human body as well.”

The Foods for Health Institute is a new campus-wide effort designed to explore this new world of food, nutrition, and health. In the works

“We are embarking on what we hope is the most innovative and groundbreaking research on foods for health in our generation.”

for several years, the institute is now recruiting new faculty, forming industry partnerships, and planning public symposia to bring foods for health into the spotlight. It includes more than 90 participating faculty from CA&ES, and colleagues in medicine, veterinary medicine, engineering, biological sciences, letters and science, and USDA’s

human nutrition research center at UC Davis. The institute will foster research into health-promoting nutrients and diets, new agricultural practices and food-processing technologies, consumer education to improve health, and other areas.

“This new initiative provides the framework to build on our strengths in agriculture, food science, nutrition, life sciences, and health, and establish UC Davis as an international leader in the development of healthy foods,” says **Carl Keen**, nutrition department professor and the interim director of the Foods for Health Institute.

The potential for foods of the future is evident in many of the everyday foods we consume now. Cheese, bread, wine, and yogurt show what’s possible when biological processes are harnessed for taste and nutrition. Many new products are in research and development around campus. For instance, German and fellow food science and technology researchers are developing beverages fortified with oligosaccharides and microorganisms to help seniors and newborns fight off illness-causing germs. Other scientists are doing basic research on phytochemicals that may lead to new uses for agricultural byproducts like winegrape pomace.

“We are embarking on what we hope is the most innovative and groundbreaking research on foods for health in our generation,” says German, one of the principal faculty members behind the Foods for Health Institute. “We *are* going to make people healthier by building scientific knowledge and bringing it to practice as foods.”

Keen is equally optimistic, yet encourages perspective. “We should be responsible and recognize we’re not going to solve all the world’s ills simply by modifying food products,” he says. “Part of being healthy is a clean environment. Part of it is having exercise. Part of it is having a healthy diet. We can’t lose sight of that.” ■



To your
HEALTH

Research indicates
beer, in moderation,
does the body good.

THE BEST THING ABOUT CONDUCTING

research on the wholesomeness of beer is that nearly everyone is interested in the outcome. Professor **Charlie Bamforth**, chair of the Department of Food Science and Technology and author of *Beer: Health and Nutrition*, wants people to know that moderate consumption of beer is certainly not harmful, and may even be good for you.

Beer is a rich source of silica, magnesium, and potassium. It is bountiful in B vitamins, except for thiamine. It contains fiber and polyphenols—naturally occurring chemicals in food that can potentially reduce the risk of health problems, such as cancer, hypertension, or heart disease. Polyphenols act as antioxidants, protecting cells against damage caused by free radicals. “People talk about beer being ‘empty calories,’ but that’s simply not true,” says Bamforth, Anheuser-Busch Endowed Professor of Malting and Brewing Sciences. “It’s more like liquid bread.”

Bamforth also disputes the beer belly mythology, perpetuated by authors of a popular low-carbohydrate diet, who initially banned beer from their trendy diet plan. The authors claimed beer is loaded with maltose, a sugar with a high glycemic index. In fact, as Bamforth informed the diet gurus, beer contains little-to-no maltose because it is converted to alcohol during the fermentation process. “Preventing a beer belly doesn’t mean eliminating moderate consumption of beer from an adult diet,” says Bamforth. “It’s a simple matter of counting calories.”

Bamforth, whose current research includes investigating the soluble fiber, polyphenols, and potential prebiotics in beer, notes that beer is equally as effective as red wine in the prevention of atherosclerosis. Multiple studies over the last 25 years have indicated that moderate alcohol consumption counters coronary heart disease. While this has been widely publicized regarding red wine, Bamforth points out that the active ingredient is alcohol, whether consumed as wine, beer, or spirits. Lifestyle differences between typical beer drinkers and typical wine drinkers probably account for the different public perception of the healthfulness of the two beverages.

“A Danish study showed that people in a grocery store buying wine also bought fresh vegetables, tofu, and low-fat yogurt,” says Bamforth. “Whereas people buying beer also bought things like ground beef, whole milk, and cigarettes... Just imagine how unhealthy these people would be if they didn’t drink the beer.”

— Robin DeRieux



Story by
Robin DeRieux

How the heart can benefit from CHOCOLATE

In a delicious irony, it turns out that chocolate may be good for heart health. But be sure to read the fine print.

Several years ago, UC Davis nutrition professor **Carl Keen** and his lab began trying to pinpoint some of the constituents in food that have cardiovascular benefits. Epidemiological observations indicate that people who eat diets high in plant food have reduced incidence of cardiovascular disease. Keen, holder of the Mars Chair in Developmental Nutrition, wondered what beneficial compounds were in plant foods other than the well-identified essential vitamins and minerals. After a European research team indicated that some fruits and vegetables contain a naturally occurring class of chemical compounds called flavonoids, and that the higher the intake of flavonoids, the lower the risk of cardiovascular disease, Keen decided to tackle a piece of the puzzle.

He chose chocolate.

Why chocolate? “It turns out that cocoa, if it’s properly processed, has one of the highest concentrations of flavonoids in foods that are routinely consumed by people,” says Keen. In a raw state, the beans that grow inside the pods on the cacao tree are extremely high in flavanols, a type of flavonoid. They’re also bitter and virtually inedible, and require extensive processing to become the chocolate products



COURTESY

This hand-sewn mola made by Kuna Indians depicts cacao pods full of seeds.

that we know and love. The flavanols can be destroyed during various aspects of processing, particularly by “dutching,” or alkalinizing the chocolate to temper the bitterness.

As a result, Keen’s lab and other members of the chocolate research community use flavanol-rich cocoa beverages for research that are not even available commercially. The Keen lab has discovered that the flavanols in chocolate reduce the clumping together of blood platelets that can lead to heart attacks. In parallel research, nutrition professor **Hagen Schroeter** showed that a specific type of flavanol called epicatechin can reduce blood pressure by relaxing the endothelium – the lining of blood vessels.

Researchers have also learned that flavonoids

have a relatively brief existence in the bloodstream, which could be one reason that the research community has only begun to discover the potential of these compounds. “The transitory effect of flavanols is important because if these are valuable nutrients, how often do you

“The flavanols in chocolate reduce the clumping together of blood platelets that can lead to heart attacks.”

have to consume them?” asks Keen. “Our data would suggest on a regular basis.”

One of Keen’s colleagues at Harvard Medical School did a study that indicated frequent consumption of flavanol-rich cocoa by the Kuna Indians, who live on the San Blas islands off the coast of Panama, seems to be associated with a markedly low incidence of hypertension. The Kuna drink three or four cups a day of a minimally processed cocoa produced on the island. The Kuna who migrate to the mainland and reduce their consumption of cocoa do not enjoy the same level of cardiovascular health.

“No one would argue that we should have cocoa or chocolate three times a day,” says Keen. “But if this work continues to be substantiated, the message is that we think people should increase the amount of flavanols they eat in their daily diet. By identifying which molecules within chocolate are driving the positive cardiovascular effects, we could then figure out how to maximize the content of these nutrients—not only in chocolate, but in a whole variety of plant foods that contain flavanols. We need to identify a suite of foods and beverages rich in flavonoids so we can offer people dietary choice.” ■

HISTORY OF A CONFECTION

RICH WITH LORE, STEEPED in mysticism, the history of chocolate is complex and savory. *Theobroma cacao*, the tree that bears the pods and beans that ultimately are made into chocolate, was domesticated thousands of years ago, most likely in South America. The Mayan Indians buried pots of spicy, bitter chocolate beverages with the deceased to accompany them to the afterlife. The guards of Aztec King Montezuma served frothy chocolate drinks in cups of pure gold to Spanish conquistador Hernando Cortés.

“I suspect that chocolate and wine are the only two foods in the world with such a rich history,” says **Louis Grivetti**, professor emeritus of nutrition. “Both have mind-altering effects. Both are pleasurable. Both are documented in the archeological record with artifacts, murals, images, and religious texts.”

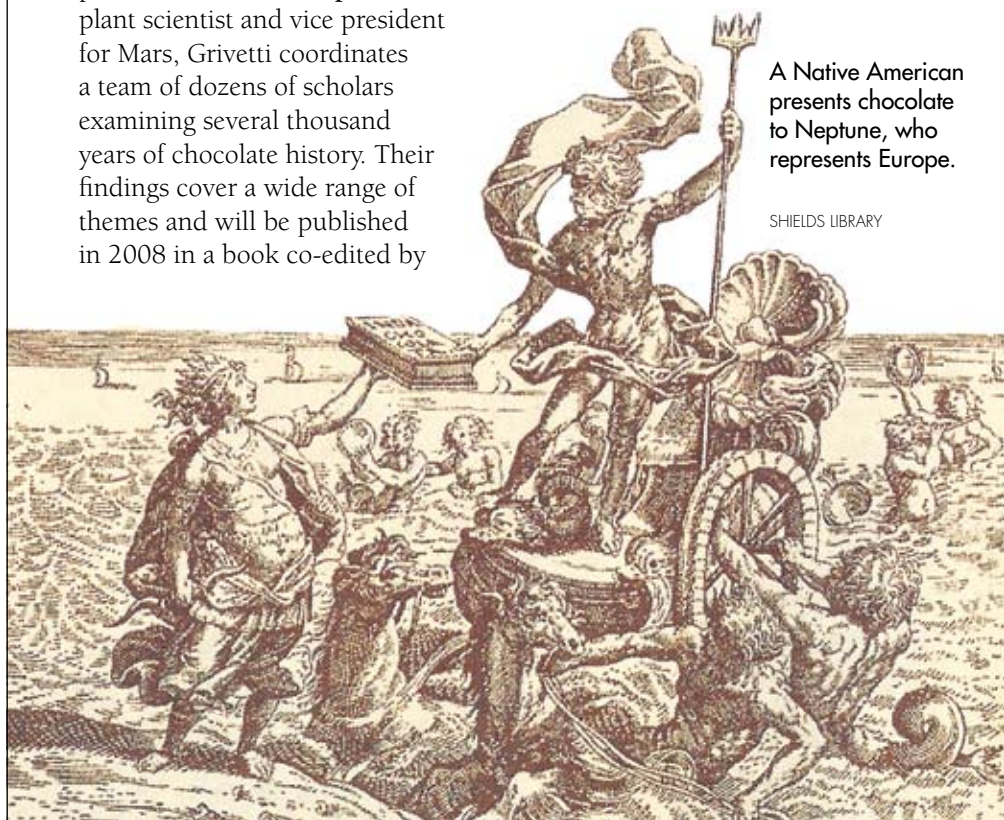
Since 1997, Grivetti has researched the history of chocolate with a grant from Mars, Inc. Along with adjunct professor **Howard Shapiro**, a plant scientist and vice president for Mars, Grivetti coordinates a team of dozens of scholars examining several thousand years of chocolate history. Their findings cover a wide range of themes and will be published in 2008 in a book co-edited by

Grivetti and Shapiro.

Grivetti and others exploring the history of chocolate have traveled to archives in Spain, England, and Mexico to study European ship logs and travel accounts from the 1500s and beyond. Scholars know that within a century of the arrival of the Spaniards in Mexico, chocolate made its way across the Atlantic to Western Europe, where it was sweetened with sugar and used as both a beverage and a medicine. The chocolate bars and chocolate confections that are familiar to us today didn’t evolve until the 1800s, with the invention of the cocoa press.

While many of Grivetti’s research findings on chocolate have been presented at symposia, some of his work will remain under wraps until the book is published next summer. “One of the great stories we’ll tell is about the arrival of chocolate to North America,” says Grivetti. “It’ll knock your socks off.”

—Robin DeRieux



A Native American presents chocolate to Neptune, who represents Europe.

SHIELDS LIBRARY

'A' IS FOR APPLE

Nutrition educators hope to cultivate better eating habits in children.

A first grader at a Davis, Calif., elementary school munches on the ABCs of nutrition.

ROBIN DERIEUX

Children are a critical audience for learning about diet and nutrition because they are establishing eating habits that will affect their health throughout their lives. A healthy diet also contributes to cognitive development and academic success.

THE GARDEN-BASED RESEARCH

program that **Sheri Zidenberg-Cherr** planted more than seven years ago has grown. A nutrition specialist in Cooperative Extension at UC Davis, Zidenberg-Cherr has done several studies centering on the use of school gardens in academic instruction to teach nutrition and promote better eating habits. Moving beyond school gardens, Zidenberg-Cherr has begun research on comprehensive nutrition services in schools. Her group is measuring the impact of a multi-faceted approach to nutrition education on changes in eating behavior.

The program offers science-based classroom curricula, reinforced with hands-on experiences in instructional gardens, kitchen classrooms, and composting programs. Whenever possible, fresh fruits and vegetables from local growers are used to improve food selection in school cafeterias. Comprehensive school nutrition programs seek to help students make connections between food, health, agriculture, their community, and the environment.

“They say it takes a whole village to raise a child—that’s really what is required to improve children’s nutrition,” says Zidenberg-Cherr. “We want children to realize that it feels better to eat healthier foods and to exercise. We want to give them the tools to make changes for life. Simply changing the food selection at schools and forcing kids to eat it is not enough.”

The need for nutrition education is pressing. In California, more than 25 percent of K–12 students are overweight or obese, and nearly 40 percent are considered physically unfit.

Schools are excellent settings for nutrition education because large numbers of children can be reached in a systematic fashion. Children eat at least one or two meals daily on school grounds, and the food on

campus can strongly influence their eating habits.

One of the main obstacles to teaching nutrition to schoolchildren is a shortage of instructional time. Nutrition is not a mandatory subject. California teachers are required to address the mathematics and language arts curricula for each grade level, so Zidenberg-Cherr and others have developed lesson plans that link nutrition to the state standards for core subjects.

Another challenge for nutrition educators is that many children today, across all income levels, lack food preparation skills. Families eat out frequently or buy packaged food. Some have kitchens that aren’t even equipped with the basic tools to prepare food. “Maybe you could get them to buy a stalk of broccoli, but they really have no idea what to do with it,” says **Marilyn Briggs**,



Zidenberg-Cherr

group will measure the activity levels, food preferences, and food selection of the 300 middle school and high school students in the study to evaluate the effectiveness of a multi-component approach to nutrition education.

Zidenberg-Cherr and others recently established the UC Davis Center for Integrative Nutrition Environments in School Communities (CNS) to serve as a resource for schools and nutrition educators. To better inform students,



Briggs

CNS works with the California Department of Education to give teachers accurate nutrition information that incorporates the latest scientific findings from universities. The teacher training programs are sponsored in part by a UC Davis endowment established in the name of former dietitian **Barbara Van Zandt** by her daughter **Karen (Van**



Kindergarteners in Auburn, Calif., took part in a gardening study by UC Davis faculty.

the former deputy California State Superintendent of Public Instruction, now a graduate student working with Zidenberg-Cherr.

Briggs has begun work with Zidenberg-Cherr on a nutrition intervention in a rural school district near Redding, Calif. Over the course of three years, Zidenberg-Cherr’s

Zandt) Medford.

“We’re moving nutrition education beyond school gardens to the entire school community,” says Briggs. “We want to define the determinants that really make positive improvements in children’s eating behaviors.”

—Robin DeRieux



Over the years, Gerry Russell taught FST 10 to more than 12,000 students.

BEST OF THE BEST

In the 2007 *California Aggie* “Best of Davis” issue, the undergraduate courses that were named “Best G.E. Requirement Class” were all from our college. The popular classes are signature courses for three outstanding faculty members.

► **Gerald Russell** was such a popular instructor that he had to retire twice. A senior lecturer emeritus in the Department of Food Science and Technology and winner of multiple teaching awards, Russell taught FST 10 to hundreds of students annually for more than a decade. When he retired at the end of the 2005–06 academic year, department members paid tribute with a PowerPoint slide featuring the golden arches and the tagline, “Over 12,000 served!” Then they signed him on to teach an encore year.

“Food Science, Folklore and Health” covers a wide range of food topics: fiber, sugars, organics, toxicants, nutrients, and more. “Funny how one class changes everything,” comments recent graduate **Laura Strawn**, who changed her major to food science after taking Russell’s class and began graduate studies in food science this fall.

► The “Dr. Ruth” of UC Davis is actually named “Dr. Judy.” Lecturer **Judith Reitan** has been teaching “Human Sexuality” to undergraduates since 1995. Human Development 12 covers hormones, anatomy, sexual response, pregnancy, childbirth, and a variety of other topics guaranteed to make it a perennial favorite among students.

With an enrollment of nearly 500 students per quarter, Reitan finds wide variation in the knowledge base of undergraduates, who might be majoring in anything from art to physiology. She also has students from many different countries and cultures, some of whom arrive with virtually no prior sexual education. Reitan uses a question box so that shy students can raise potentially embarrassing questions anonymously.

Reitan, who has reduced her HDE 12 course load as she approaches retirement, says, “This is a class everyone should take, even the ones who think they know everything.”

► With several hundred students on the waiting list each quarter for her Nutrition 10 class, **Liz Applegate** has devised an enrollment system to keep the students happy and the fire marshal as well. Show up, sit down, and fill out a purple card if you’re enrolled. Show up, line up (outside), and fill out a yellow card if you’re a wannabe.

Senior lecturer Applegate, a nutrition instructor at UC Davis since 1985, teaches “Discoveries and Concepts in Nutrition” to nearly 2,000 students a year. The award-winning instructor covers topics that students can apply to their daily lives, and she makes difficult science concepts accessible to a broad range of majors. Many students say the food-diary project they did requiring them to record everything they ate for three days had a long-lasting impact on their nutritional habits.

— Robin DeRieux

CULINARY COMBAT

Food science students cook up a recipe for fun.

EVERY SPRING, STUDENTS IN THE Department of Food Science and Technology celebrate food by staging a “Culinary Combat” in the Cruess Hall courtyard. The popular event brings students, staff, faculty, and the community together to play with food in events that range from food golf to food trivia to food art. Teams of eight compete in four categories, and the team that garners the highest total points is the winner.

At the heart of the competition is a 90-minute cooking contest that requires teams to use preselected, secret ingredients to create original food items in the experimental kitchen. The Culinary Combat is organized by officers of the Food Science Graduate Student Association (FSGSA), who relish the opportunity to challenge cook-off teams with such exotic ingredients as fresh quail eggs, pomegranate juice, yucca root, baby food, and coconut milk.

“It’s a lot of fun, but students have to use their scientific knowledge when they’re putting these ingredients together to know how the foods will react,” says department academic advisor **Carol Cooper**.

In addition, food science graduate students learn about leadership and team building in their efforts to organize and publicize the annual Culinary Combat. While the department typically underwrites half of the cost of the event, the FSGSA pays for the rest



through fundraising and donations.

“We try to work with food and beverage companies and get them involved,” says **Laura Gillies**, president of the FSGSA. “I was pretty timid when I started. But now I can call up a company, introduce myself, explain that we’re putting on a nonprofit event for students, and ask if they’ll help us out. I’ve gained that skill.”

— Robin DeRieux

Graduate student Eleni Kardaras races to prepare “Ants on a Log” for the food relay.

“It’s a lot of fun, but students have to use their scientific knowledge when they’re putting these ingredients together to know how the foods will react.”

Food science students Lyle Farrell (left) and Rod Read have 90 minutes to prepare a meal during the Culinary Combat’s cooking competition.



TREVOR SUSLOW, a Cooperative Extension specialist in the plant sciences department, is one of several faculty members conducting research on *E. coli* and other pathogens affecting fruits and vegetables. Suslow directs a research program on postharvest pathology and biocontrol in produce, and works closely with growers and food processors throughout California to develop safe produce handling practices.

Partly in response to several *E. coli* outbreaks in 2006, a unique public-private partnership formed earlier this year between UC Davis, the Produce Marketing Association, Taylor Farms of California, the California Department of Food and Agriculture (CDFA), and UC Agriculture and Natural Resources to establish a new **Center for Produce Safety** at UC Davis. The center will focus on research related to fruit and vegetable safety, outreach and training, and will fund studies to reduce food

THE CENTER FOR PRODUCE SAFETY

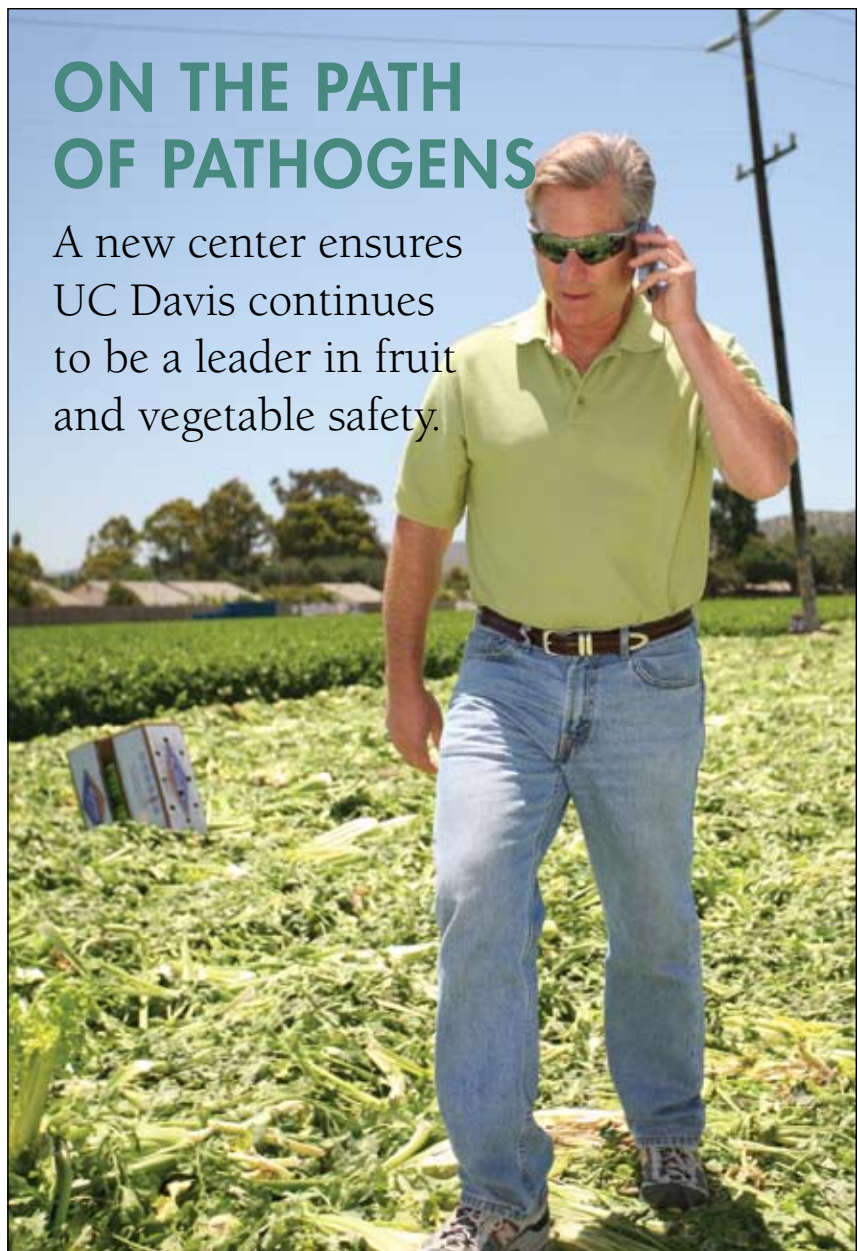
website is www.wifss.ucdavis.edu.

UC FOOD SAFETY website is www.ucfoodsafety.ucdavis.edu.

safety risks in fresh produce.

“This partnership will leverage our combined strengths of industry resolve, scientific research, and agricultural expertise to ensure a safe and secure food supply,” noted **Neal Van Alfen**, dean of the College of Agricultural and Environmental Sciences. Housed within the Western Institute for Food Safety and Security at UC Davis, the Center for Produce Safety will significantly advance the entire industry’s collective knowledge about food safety. “This will help ensure consumers continue to enjoy safe, wholesome, and healthy produce,” said **Bryan Silbermann**, president of the Produce Marketing Association.

The Center for Produce Safety recently hired **Devon Zagory** as interim executive director. The center has a governing body of leaders from



COURTESY

ON THE PATH OF PATHOGENS

A new center ensures UC Davis continues to be a leader in fruit and vegetable safety.

Produce safety researcher Trevor Suslow keeps up to date while surveying a celery field.

academia, industry, associations, and government. With input from these groups, the center will be able to focus on all aspects of produce safety. As **Alec Leach**, president of Taylor Farms of California, noted, “Ensuring food safety is the business of us all.”

— Ann King Filmer

“We are proud of our partnership with the university and the produce industry and look forward to positive steps in the years ahead.”

— A.G. Kawamura, Secretary, California Department of Food and Agriculture

EVENTS OVERFLOWETH

RMI's dedication coincides with College Celebration and homecoming.

IF YOU HAVEN'T BEEN TO CAMPUS IN A WHILE, mark your calendar for Friday, October 10, 2008. That's when new academic buildings of the Robert Mondavi Institute for Wine and Food Science (RMI) will be formally dedicated in a public ceremony to help kick off the UC Davis Centennial. The annual CA&ES "College Celebration" will be held that evening in Freeborn Hall – and a homecoming football game follows the next day in the new Aggie Stadium.

The new buildings will be home to the offices of RMI and the departments of Viticulture and Enology, and Food Science and Technology, which are moving from outdated facilities in the central campus. The project will forever change the main entrance to UC Davis.

Passersby on Interstate 80 can now see the first cluster of three buildings in the \$100 million complex.

TO LEARN MORE about opportunities for involvement and support of RMI, visit www.rmi.ucdavis.edu.

ALSO, CHECK online at www.caes.ucdavis.edu for more information about College Celebration, which annually honors supporters, alumni, faculty, and staff of the College of Agricultural and Environmental Sciences.

Bamforth, food science and technology chair. The site will also ultimately feature a teaching and research winery and the Anheuser-Busch Brewing and Food Science Laboratory.

A 12-acre teaching vineyard with a view of the Vaca Mountains is planned for the area to the west stretching to the "UC Davis" freeway exit on Interstate 80. "The vineyard will be unique," said **Andy Waterhouse**,

These include offices, laboratories, classrooms, and meeting rooms for faculty, staff, and students. A 3,500-square-foot sensory theater is a major feature that will be equipped with impressive multimedia technology. Adjacent kitchen laboratories and individual sensory testing stations will greatly expand teaching and research capabilities.

"This state-of-the-art facility will enable us to offer students more courses in food and beverage sensory science than any university in the world," said **Charlie**

ANN KINK FLYMER



Margrit Biever Mondavi at the "Topping Out" ceremony.

viticulture and enology interim chair. "This is where students will learn how to identify more than 100 varieties of wine grapes and get practical experience in planting, pruning, training, and trellising vineyards."

In June 2007, a major construction milestone was celebrated — the "Topping Out." This tradition has long been observed by iron workers when the final structural beam, which has been signed by workers, donors, and special guests, is hoisted onto a building, signaling that the project has reached its maximum height. Among those in attendance was **Margrit Biever Mondavi**, who expressed gratitude to UC Davis for a long list of viticulture and enology faculty who have worked with the Mondavi winery for more than 40 years and for the many UC Davis students who have worked for the winery.

"We're delighted with the progress of the new buildings," said RMI Executive Director **Clare Hasler**. "All of us at UC Davis extend our heartfelt gratitude to the Mondavis, Anheuser-Busch, Inc., a growing list of donors, and the residents of California who share the vision of a world-class research and teaching facility that will vastly strengthen our programs in food and beverage science."

— John Stumbos



An artist rendering of wine and food science facilities.

COURTESY

(From left) Steve Wallace, Wynne Peterson-Nedry, and Jenne Lee gather at the event honoring Michael Bonaccorsi.



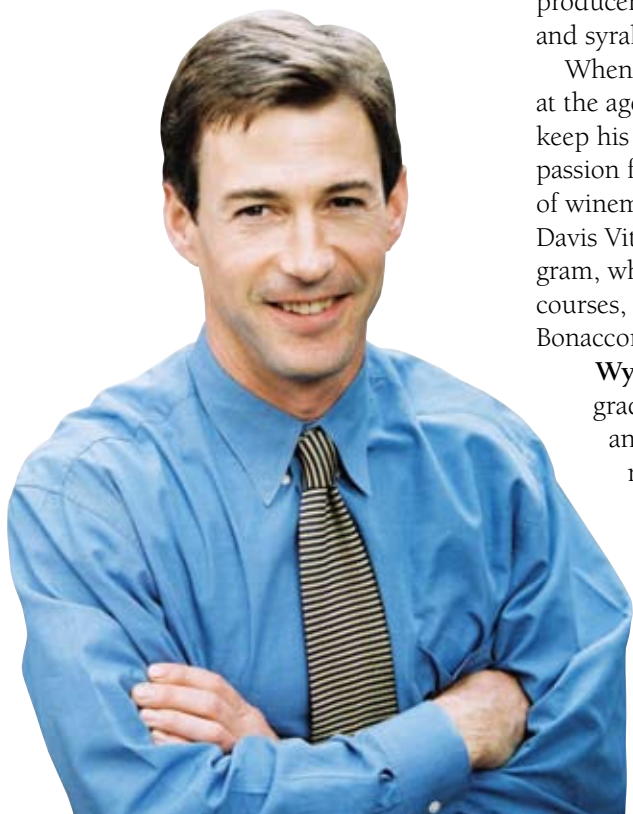
ALEX BERLINER/BERLINER STUDIO/BEIMAGES

A LIVING LEGACY

An annual celebration honors the late Michael Bonaccorsi, a rising star in the wine world.

NEXT YEAR'S Celebration event is slated for August 3, 2008.

FOR A LIST of the sponsors and more information about the scholarship and the Celebration event, see www.bonaccorsi.foundation.com.



WITH ELEVEN BROTHERS AND sisters, **Michael Bonaccorsi** grew up in a family where college scholarships were important. Bonaccorsi, born and raised in Chicago, became interested in wine while busing tables during college at the University of Illinois. He moved to San Francisco to be closer to the wine country, then worked harvest in Sonoma, became sommelier at Masa's in San Francisco, and later was the 20th American to be awarded the Master Sommelier diploma. Moving south, Michael met his future wife, **Jenne Lee**, while both worked for **Wolfgang Puck** at Spago. The Bonaccorsi established the Bonaccorsi Wine Co., a boutique producer of pinot noir, chardonnay, and syrah wines.

When Bonaccorsi died suddenly at the age of 43, his family wanted to keep his memory alive through his passion for wine and lifelong learning of winemaking. They chose the UC Davis Viticulture and Enology program, where Michael had taken wine courses, and established the Michael Bonaccorsi Scholarship Fund.

Wynne Peterson-Nedry, a graduate student in viticulture and enology and this year's recipient of the scholarship,

plans to use the funding to help pay for tuition, in keeping with the Bonaccorsi spirit. Wynne is working on her thesis and is president of DEVO, the student organization in the Department of Viticulture and Enology.

The annual Wally's Central Coast Wine & Food Celebration, benefiting the Michael Bonaccorsi Scholarship Fund, was held in August under the leadership of co-founders **Steve Wallace**, Wally's Wines & Spirits, and **Frank Ostini** of the Hitching Post Restaurant, as well as **Jannis Swerman**, JS & Co., a lead volunteer who has helped at the event since its inception.

"I believe we've achieved the best way to keep Michael's memory alive, and continue to remember the countless ways he touched our lives personally and professionally," Swerman says.

"The event was fantastic," says Peterson-Nedry, "and I had a great time hearing about what a difference Michael Bonaccorsi made."

This fourth annual event was sold out with 450 attendees, and raised more than \$50,000 toward the total endowment of almost \$250,000.

"His work made an indelible impact on all of us who knew him," says Wolfgang Puck.

— Kathy Sachs-Barrientes

Michael Bonaccorsi

COURTESY

SHARING THE WEALTH

Howard Schutz establishes a fellowship with his IRA rollover.

GIFT PLANNING TIP

If you are 70½ or older, new legislation allows you to make tax-free charitable donations totaling \$100,000 from Individual Retirement Accounts (IRAs) and Roth IRAs. Until this legislation expires December 31, 2007, you can make gifts during your lifetime from retirement assets without an income tax penalty.

To qualify for this special treatment, your contributions must be a direct rollover from your IRA custodian to a public charity. The UC Davis Foundation qualifies and can designate your gifts to benefit CA&ES.

This gift-planning strategy is one tool you can use to meet your charitable goals and take advantage of potential tax benefits. The Public Good IRA Rollover Act of 2007, if passed, will expand this opportunity and make it permanent.

For a sample letter to request a rollover from your IRA administrator, or to discuss how to benefit your favorite CA&ES program, contact Christine Schmidt, Director of Gift Planning, at (530) 752-6414 or cmschmidt@ucdavis.edu. For more information, visit giving.ucdavis.edu/planned_giving.html

— Christine Schmidt

PROFESSOR EMERITUS HOWARD

Schutz is passionate about the field of applied consumer science. On the faculty at UC Davis for more than 20 years, Professor Schutz continues to stay active in the field by teaching a distance learning sensory science and consumer testing certificate program through UC Davis Extension. He also serves as special assistant to the dean of UC Davis Extension.



Schutz

To encourage the next generation of consumer scientists, Schutz established a graduate student fellowship in the Food Science Graduate Group at UC Davis. For the next 10 years, the fund will provide an annual \$5,000 fellowship to students interested in the field of applied consumer science. "I want to encourage graduate students to consider entering the consumer science area," said Schutz. "It's a critical field that is highly desired both in the

"I want to encourage graduate students to consider entering the consumer science area. It's a critical field that is highly desired both in the commercial and academic worlds."

commercial and academic worlds."

Food Science Graduate Group Advisor **Karen Jo Hunter** explained the importance of graduate student support.

"Top students often make funding packages a priority in choosing a



DEBBIE ADRIDGE/UC DAVIS

graduate school. Awards like the Howard Schutz Graduate Student Fellowship can help attract highly competitive prospective students to UC Davis."

She continued, "This award is especially valuable because it is unique and provides wonderful motivation for graduate students to consider and persevere in the challenging field of consumer science."

The IRA Rollover program helped Professor Schutz give a gift to UC Davis at this time. Professor Schutz said that "support from the Development Office made the process simple and efficient." To learn more about making a gift through an IRA rollover, see the Gift Planning Tip accompanying this article.

— Melissa Haworth

TAKING CHARGE

A pioneer in sustainable agriculture is set to lead a new foundation.

ORAN HESTERMAN (B.S., '79 plant science; M.S. '81 agronomy) has been nudging sustainability into the mainstream of American agriculture through his work at Michigan State University and the W.K. Kellogg Foundation for many years. In January 2008 he takes the helm of a new foundation that will support programs to bring more locally grown fresh food to those most in need.

Hesterman will become president

and chief executive officer of the Fair Food Foundation, which will disperse grants to nonprofits and other organizations. Inner city areas where food sources are often convenience markets, liquor stores, and fast food restaurants are of prime interest.

“Where I live in Ann Arbor, a person with economic means has access to high-quality produce,” Hesterman says. “If I go 40 miles east to the city of Detroit, it’s a very

different situation, one that’s been described as ‘a food desert.’”

The UC Davis alumnus says the foundation won’t ignore environmental stewardship or economic viability, but will focus its efforts on partnerships in both urban and rural settings. “Our vision is to create a food system that reconnects us to the food we eat, our families, communities, and the earth,” Hesterman says.

As a Michigan State University professor in the Department of Crop and Soil Science from 1984 through 1996, Hesterman researched environmentally sustainable cropping systems. On sabbatic leave in the 1991–92 academic year, he helped initiate the W.K. Kellogg Foundation’s sustainable agriculture program at a time when the concept of “sustainability” was struggling for identity and credibility. The grant program he set up established educational centers at land-grant universities and with nonprofit organizations throughout the country.

Hesterman returned to the W.K. Kellogg Foundation as a program director in 1998 and led its Food and Society initiative. “It’s been a wonderful experience that’s helped me understand and appreciate the leadership role that philanthropy can play in social change,” he said.

“Oran was the kind of a student you knew was going to be successful,” said UC Davis plant sciences professor **Larry Teuber**, Hesterman’s faculty sponsor during the 1970s. “He was always thinking in an area where no one else had been thinking and had the belief in his ideas to pursue them and the drive to make them happen.”

— John Stumbos



“You have leadership at UC Davis who understand the importance of social equity in food systems. There may be opportunities for collaboration to ensure access to healthy and sustainably grown foods for our most vulnerable citizens.”

VISIT HESTERMAN’S WEBSITE
at www.fairfoodfoundation.org.

EDIBLE CREDIT

A food science graduate makes films from produce.

THE NEXT TIME YOU'RE IN TRADER JOE'S, LOOK for a sushi product called a "Sunny California Roll." Its bright orange color is derived from an edible carrot-based film developed by a team of scientists led by alumna **Tara McHugh**, the first person to earn a doctoral degree in the Department of Food Science and Technology at UC Davis.

McHugh oversees about 30 scientists as the Research Leader for the Processed Foods unit at USDA's Agricultural Research Service in Albany, Calif. She's been there since graduating from UC Davis in 1993, and was acknowledged as "outstanding young alumnus" with a CA&ES Award of Distinction in 2005. She's also been honored with other national awards.

"We're looking at new ways to help get more fruits and vegetables into people's diets and to add value to California agricultural products," McHugh says.

Edible food films have come a long way since McHugh studied under food science and technology professor **John Krochta** in the development of the first edible film products made from whey. Those films were transparent and made from proteins and polysaccharides.

The newer generation of edible films comes in a rainbow of colors that are packed with healthful phytonutrients and are a key part of the strategy to fight obesity with increased consumption of fruits and vegetables. The latest innovation in edible films adds essential plant oils from oregano, cinnamon, and lemongrass that have the ability to kill bacteria like *E. coli* and salmonella.

Another successful technology developed in the laboratories under McHugh's direction has resulted in pear- and apple-based fruit bars combined with other phytonutrient-rich fruits like cherries, blueberries, and strawberries. You'll find these 40-gram bars with product names like Gorge Delight, Just Fruit, Mountain Organic, Bear Fruit, and Fast Fruit.

The processes developed at ARS are licensed to private companies and take up to three years to get to market. "Developing the technology is only the beginning," she said. "Transferring the technology is sometimes a bigger challenge."

McHugh, who has hired "a good number" of UC Davis graduates, is very grateful for the support and encouragement she received from Krochta; fellow food science and technology professors **Bruce German** and **Charles Shoemaker**; and the late CA&ES dean **John Kinsella**, whom she studied with as an undergraduate at Cornell.

"Tara was the ideal grad student, meeting all the objectives of the grant that funded her research, while also defining new directions," Krochta said. "She took the lead role in setting up my Biopolymer Film Research Lab, as well as taking a leadership and mentoring role in my research group. Tara is applying her UC Davis education very successfully, working on high-priority projects for the USDA."

— John Stumbos

We'd like to hear from you. Take a moment to drop us a note at outlook@agdean.ucdavis.edu or online at www.caes.ucdavis.edu/NewsEvents/News/Outlook/defaultForm.aspx

1950s

Bob Dempel

'56, AGRICULTURE

Of Dempel Farming Co. in Santa Rosa, Calif., was recently appointed by Governor Schwarzenegger to the Redwood Empire Fair Board (12th District Agricultural Association) in Ukiah. Bob and his wife, Shirley, grow winegrapes and run a grapevine nursery.

1970s

Mary (Dahl) Christopherson

'73, ANIMAL SCIENCE

Is the owner and manager of the Oakley Equestrian Center in Oakley, Calif. Mary runs a full-service boarding facility, offers riding lessons, and raises Arabian horses for the English Pleasure show ring.

Phil Evans

M.S., '76, HORTICULTURE

Has been developing the campus grounds of San Francisco State University for almost 20 years, after stints teaching community college in Portland, Ore., and as assistant park superintendent in San Mateo, Calif. Phil's special interest is developing accessible features for public landscapes, and perhaps one day mastering a dream to irrigate the 138-acre campus solely with captured rainwater.

Margaret Lawson

B.S. '77, M.S. '79, FOOD SCIENCE AND TECHNOLOGY

Is Vice President of Science and Innovation for D.D. Williamson in Louisville, Ky. She recently received the Distinguished Achievement Award from the Southern California Institute of Food Technologists. Margaret is past president of the

Institute of Food Technologists.

Richard Stier

M.S., '77, FOOD SCIENCE AND TECHNOLOGY

Is an independent consultant in the area of food safety, sanitation, and quality systems – with HACCP expertise. Last year Rick worked for clients in Africa, Asia, Europe, South America, and the United States, logging more than 280,000 air miles.

James Ward

B.S. '77, AGRICULTURAL ECONOMICS AND BUSINESS MANAGEMENT; M.S. '81, AGRONOMY

Raised his two children in Gilroy, Calif. When they were in college, he went back to school, too. Jim moved to New England and was accepted into the Honors Program at Roger Williams University Law School in Rhode Island, where he has just completed his first year of studies.

1980s

Debra Bereki

'80, NUTRITION SCIENCE

Received a master's degree from UC Santa Barbara in June and is working on a doctoral degree. She survived a near-fatal car accident nine years ago, suffering multiple major injuries. She underwent extensive medical treatment, and upon re-entering school, had to relearn to read and write. Debra attributes part of her recovery to a positive attitude and perseverance.

Eric Woychik

'80, ENVIRONMENTAL PLANNING AND POLICY ANALYSIS

Is an executive consultant for Strategy Integration, LLC, in

Oakland, Calif., working on domestic and international energy policy. After UC Davis, Eric earned a master's degree in economics (New Mexico State University) and a doctoral degree in executive management (Case Western Reserve University).

1990s

Hollee (King) Brunsky

'92, ENVIRONMENTAL BIOLOGY AND MANAGEMENT

Bill Brunsky

'92, LANDSCAPE ARCHITECTURE

Live in Ventura, Calif. with their two sons. Hollee is planning services manager for Civic Solutions, Inc., and Bill is a principal architect with George W. Girvin and Associates, a landscape architecture firm.

Paul Laustsen

'99, ENVIRONMENTAL DESIGN

Gretchen Thomsen

'02, ENVIRONMENTAL BIOLOGY AND MANAGEMENT

Married in July. Gretchen is a natural resources manager with the Resource Conservation District in Redlands, Calif., and Paul is a public affairs specialist for the Natural Resources Conservation Service.

2000s

Christina Tom

'02, HUMAN DEVELOPMENT

Of Honolulu, Hawaii, received her master's degree in nursing from The Johns Hopkins University School of Nursing in Baltimore, Md. last year. Christina works as a family nurse practitioner at Hana Community Health Center in Hana, Maui.

COMMITTED TO CA&ES

A list of major donors from 2006 – 2007 fiscal year

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"I am confident that through this gift the vision of the Saratoga Horticultural Research Foundation board of trustees is being reborn at UC Davis."

Ernest Wertheim, longtime Saratoga Horticultural Research Foundation trustee

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Cathy and I are honored to participate with UC Davis in continuing improvement in the wine industry in California. Our vineyard has benefited from these advances and we are pleased to give something back.

Catherine and Roderic Park

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"I'm delighted that the recipient of the Grady L. Webster Memorial Fund Award is Professor Judy Jernstedt. I wanted the award to support a woman in the College of Agricultural and Environmental Sciences because Grady always supported my research in the college. And Judy was Grady's student, so it's perfect, all the way around."

**Professor Emeritus
Barbara Webster (left)**

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"UC Davis and especially the Harry H. Laidlaw Research Facility has a historical connection to our business and a special place in my heart. I value what I learned about bees and beekeeping from Dr. Laidlaw, Dr. Christine Peng, Dr. Norm Gary, Dr. Eric Mussen, and others. I am thrilled that an effort is being made to restore the facility and again be a vital link to the beekeeping industry in California."

**Valeri A. Severson,
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“The Arboretum was our first choice when we considered a gift honoring Alan’s mother, Celia, a talented educator and a committed environmentalist. Creating an art-science education program in the Arboretum that will inspire families to learn about the natural world seems the perfect way to honor her memory.”

**Elaine Fingerett
& Alan Hastings**

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DISTINCT REPUTATIONS

Members of the CA&ES community are honored at College Celebration

EIGHT EXTRAORDINARY

individuals – faculty, staff, alumni, and supporters – were honored at the annual College Celebration Oct. 12, 2007, in Freeborn Hall. Seven received the “Award of Distinction” for their work enriching the image and reputation of the college and its capacity for public service. One faculty member received a special

“Discovery Award” from USDA.

The annual event brings together friends of the 100-year-old college for a festive celebration of people and food. Mark your calendar for Friday, October 10, 2008 and join us next year. The new academic buildings housing the departments of viticulture and enology, and food science and technology, as well as

the Robert Mondavi Institute for Wine and Food Science, will be dedicated in a public ceremony earlier that day to help kick off the UC Davis Centennial. For full biographies of the recipients, see www.caes.ucdavis.edu/NewsEvents/default.htm.

— John Stumbos



KIRVIN KNOX

Outstanding Alumnus

Retired teacher, scientist, and administrator at two land-grant universities.



DENNIS GONSALVES

Outstanding Alumnus

Director of USDA's Pacific Basin Agricultural Research Center in Hawaii, who led successful efforts against papaya diseases.



KAREN ROSS

Friend of the College

President of the California Association of Winegrape Growers and supporter of UC education for the winegrape industry.



JEROME (JERRY) LOHR

Friend of the College

Founder and president of J. Lohr Vineyards & Wines and supporter of the UC Davis Department of Viticulture and Enology.



CAITLIN O'CONNELL

Outstanding Young Alumna

Ph.D. graduate who made a groundbreaking discovery of how elephants communicate with each other.



KENT BRADFORD

Outstanding Faculty

Plant sciences professor, scholar in seed biology, and director of the Seed Biotechnology Center at UC Davis.



JERRY NISHIMOTO

Outstanding Staff

Legendary lead computer staff member in the Department of Agricultural and Resource Economics for 35 years.



JORGE DUBCOVSKY

USDA's National Research Initiative "Discovery Award"

Plant sciences professor led a team that cloned an important nutritional gene from wild wheat.



Travel pals support UC Davis

When they aren't touring historic sites in Moscow or planning a trip to Egypt, friends and travel companions **Mary Lou Cockcroft** (left) and **Sandra Gardner** (B.S., Design) are making time for UC Davis. Along with Sandra's husband, **Tracy Gardner**, the women have been Dean's Circle members since 2005.

"In my travels around the world, I've visited many countries that send their very best students to UC Davis," says Sandra. "Supporting the college is my way of expressing pride in its role as a leader." Mary Lou is a retired food service professional and provides philanthropic support to CA&ES because she sees a need for well-trained individuals in the food industry.

JOIN CA&ES DEAN'S CIRCLE

As a CA&ES Dean's Circle donor, your financial support enhances the academic environment for the next generation of Aggies and creates opportunities for our faculty to achieve higher levels of excellence in teaching, research, and public service.

ABOUT CONTRIBUTING

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- You may designate your gift to one of many CA&ES departments or programs, or give to the unrestricted CA&ES Dean's Circle Fund.
- Your donation is renewable annually, and your employer's matching gifts count toward the total.
- Donors to the CA&ES Dean's Circle are invited to campus events such as an annual briefing with the dean. Donors also receive recognition in college publications.

HOW TO CONTRIBUTE

- A response envelope is included in this issue of CA&ES Outlook so that you can join our prestigious circle of donors today.
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CA&ES Outlook

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