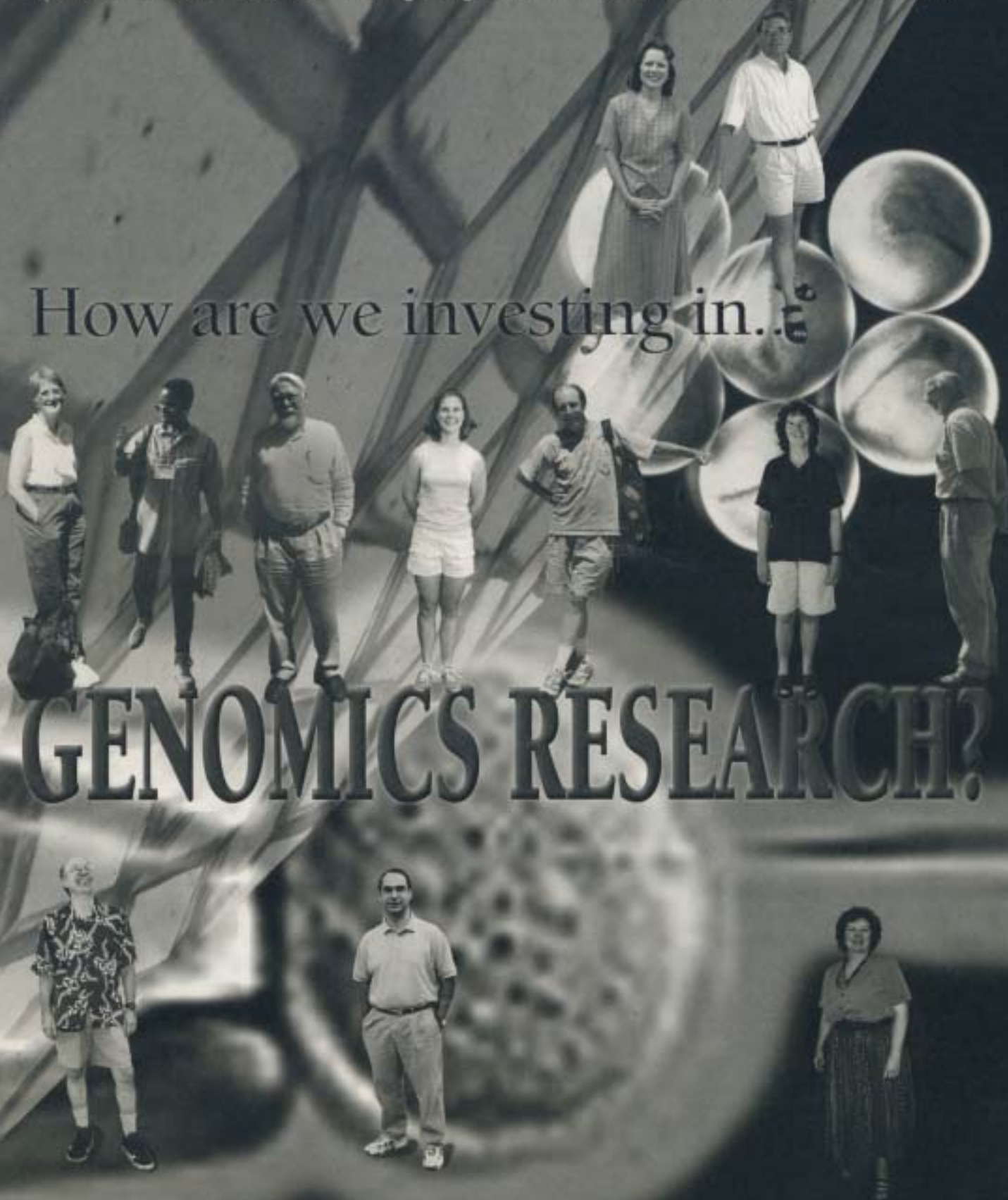


CASES OUTLOOK

A publication for alumni and friends of the College of Agricultural and Environmental Sciences • UC Davis • Fall 2000

How are we investing in...

GENOMICS RESEARCH?



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Why Are We Investing in Genomics Research?

By **Neal K. Van Alfen**

Shortly after arriving in Davis late last summer, I found myself facing TV cameras and reporters in a research field that had been vandalized by antibiotech terrorists. I was trying to explain why well meaning people find themselves at odds regarding agricultural biotechnology.

Biotechnology has revolutionized the pharmaceutical industry and offers our best hope for developing the environmentally benign food production methods needed to keep pace with the world's growing population. Equally important, this technology can help solve the world's continuing health problems that remain linked to what people eat.

Despite the promise of this technology, some are so opposed to it that they use physical intimidation to attempt to stop research. While we abhor the methods of terrorists, it is our responsibility to assure that knowledge gaps that feed their fears do not persist. We must explore the potential of this new technology and also must assess the risks associated with it.

The terms 'genomics' and 'biotechnology' often are used interchangeably, but they have different meanings. Genomics research seeks to unlock the nature and function of genes. As we learn more about how information is stored by organisms and passed to their progeny, we will possess the information necessary to improve the nutritional quality of our food and grow crops and livestock in environmentally friendly ways. Applying this knowledge of genomics to these ends can be described as biotechnology.

As scientists, we are proud of what we have learned about life and our planet during the past few decades, but we are humbled by constant reminders of how little we really know. For instance, the microbial

processes of soil are critical to life being sustained on land; yet, we probably know fewer than 10 percent of the microbes that inhabit soil. Our ability to unravel the language of life through genomics research will enlarge the peephole through which we are trying to understand life and its processes.

The language of life contained in our DNA is a universal language, so knowledge of how genes function in humans, mice, rice, or almonds often is interchangeable.

Our college has many faculty engaged in genomics research. Portions of Robbins Hall are slated to become home to an agricultural and environmental genomics facility that will allow us to cluster programs and centralize equipment. Together, the college and the Division of Biological Sciences are recruiting four new plant genomics scientists to further stimulate this area of research.

UC Davis has made significant commitments and investments in genomics research. A large genomics building will be erected near the medical sciences complex on the western edge of campus. Although our college will have a relatively minor role in this building, we will benefit greatly from this campus investment.

The College of Agricultural and Environmental Sciences is planning an agricultural biotechnology research complex on land adjacent to the Plant Sciences Teaching Center. The academic planning process of our college identified agricultural and environmental genomics as one of its top two research priorities, and these investments in facilities and faculty assure that UC Davis leads the world in the application of genomics research to solve problems in agriculture and the environment.

UC Davis and the college are uniquely positioned to take the lead in application of genomics research. Our

historical strengths in genetics, production agriculture, and food and fiber research capabilities are unrivaled.

The recent move of USDA's Western Human Nutrition Research Center to campus adds to our world-class nutrition and health programs. These and other similar partnerships will help foster the research continuum that we have among agriculture production, food processing and nutrition research.

Our considerable strength in ecological research also will play an important role in assessing the potential risks associated with the development of genetically unique crops and animals.

Having a strong human science research capability in the college assures that we focus on the economic, policy and social issues related to development and adoption of the new technology that comes from our genomics research.

As in the past, UC Davis and CA&ES are committed to leading in the discovery and development of technology that can benefit California agriculture and the environment. Key to the adoption of new technology is the research to assess any risks that the technology presents. As a public institution, it is our responsibility to carefully examine both the benefits and the potential risks of agricultural biotechnology. While some seek to stop such free inquiry by methods of intimidation, they will not succeed in stopping the discovery process.



*Neal K. Van Alfen
(Ph.D., '72, Plant
Pathology)
Dean
College of
Agricultural and
Environmental
Sciences*

How We Are Investing in Genomics Research?

By Karen Finney

The age-old field of genetics is undergoing a transformation. New technology makes it possible to quickly break apart whole genomes and analyze thousands of genes at one time. Computers then make it possible to map the order of those genes.

The tools of genomics analysis and bioinformatics together make possible what once was thought impossible -- unlocking not only the sequences but also the specific functions of genes for all plant and animal species. Understanding both is key. As one UC Davis researcher explains, it is equivalent to knowing the individual words in the sentence and what the sentence says.

Discovering the genetic 'sentences' and their meanings for all the earth's species is not likely within our lifetimes, but it is likely for many of them. Small genetic differences account for the entire range of organisms that exist on our planet. The genetic sequence of one can fill in at least some of the holes in the genetic sequence of another. The flood of new knowledge about genes, how they are influenced and what they do could be leading us into a new social revolution.



Martina McGloughlin, director of the UC Davis Biotechnology Program and the UC system-wide Life Sciences Information

Program, says "changes that will have effects comparable to those of the Industrial Revolution are now beginning." While this new revolution is still in its infancy -- "we're working on the functions of genes one gene at a time" -- the discovery process is definitely speeding up.

Outcomes of that discovery process touch every corner of our culture, including advances in the management, quality, safety and understanding of our agriculture and environment. The College of Agricultural and Environmental Sciences is contributing significantly to these advances.

Researchers throughout the college are involved in the full range of genomics discovery and their applications, including marker-assisted selection, transgenics, genetic modification and cloning. Some possible outcomes of their inquiries are pesticide-free, wrinkle-free cotton, cleaner groundwater, healthier cow's milk and the increased availability of organs for human transplant.

To enlighten you on the scope of the college's uses of and contributions to genomics tools and knowledge, here is an overview of some of our faculty's current research -- and how that research can improve our lives.

Reducing Pesticide Use



Bradford, center director and professor in the Department of Vegetable Crops, notes that biotechnology techniques can be applied in conjunction with standard breeding techniques to speed the incorporation of specific beneficial traits into crop plants. In addition, biotechnology allows traits to be moved among species that otherwise would not be able to cross.

According to Bradford, protection from pests and diseases will be delivered to farmers increasingly through genetically improved seeds rather

than through pesticide applications. This is much like how humans rely on vaccinations whenever possible to prevent disease, instead of trying to cure disease once it occurs.

The nutritional quality and value of fruits and seeds also can be enhanced by biotechnology. Therefore, as a delivery system and commodity, seeds are key components in transferring the benefits of biotechnology to farmers and consumers.

Supporting Developing Nations



Professor Paul Gepts, Department of Agronomy and Range Science, is interested in why bean seeds in Mexico contain a protein that is naturally toxic to the destructive seed weevil, while its wild ancestor in the Andes does not. His goal is to identify the specific genes that express the protein, then encourage their expression in similar bean crops.

Gepts' research is significant for many reasons. It aids our understanding of how the same crop can evolve differently in separate locations. It is another example of how genetics can reduce reliance on pesticides. And it is extremely important for people in developing nations who rely on bean crops but do not have resources for the safest methods of food storage.

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Making Cotton Even Better

Our most popular clothing fabric is becoming even better. Thea Wilkins, associate professor, Department of Agronomy and Range Science, is looking at the genetic basis of cotton in existing and evolutionary contexts. The goals are first to find out how specific cotton genes are expressed in different growing condi-

tions and then use the information to support selective plant breeding processes. California, which already produces a highly valued crop and grows 20 to 23 percent of the country's cotton, could then grow cotton with longer, stronger yarns for an even higher quality textile product. Given the speed current technologies bring to the process, Wilkins predicts that wrinkle-free and naturally colored cottons are not far behind.

Developing Unique Databases



Professor Bruce Hammock of the Department of Entomology thinks UC Davis' leadership in genomics can be significant, especially if the broadest range of data is available.

Hammock is participating on a committee to develop the campus-wide infrastructure necessary for a 'technology center' of databases on genetic expression in its entirety - from DNA to proteins to metabolites to phenotypes. According to Hammock, extensive information is available on the structural gene level, but building knowledge beyond that is where the campus can make a unique contribution.

In addition to his commitment to information sharing and a broader approach to genomics, his own studies have assisted pest-control efforts. His lab is conducting research on genetically engineered viruses that target crop-hungry caterpillars, essentially using biological insecticides in place of chemical pesticides.

Cloning and Xenotransplantation

The Department of Animal Science works in many areas of genomics, including the disruption or modification of gene expression in order to produce a genetically refined animal. This may seem relatively common, since there is a 20-year history of doing this with mice. However, pro-



fessor and department chair Gary Anderson advises that the campus was awarded a patent for modifying cells - the embryonic germ

cells in pigs - in species other than the mouse. "The significance is great, since altering these cells is the first step toward producing pigs with organs that can be used in human transplants," Anderson said.

Another area is cloning, much like Dolly the sheep but with cattle. This summer department researchers attempted one of the first cloned cows. According to Anderson, very few universities are doing this, with UC Davis the first in the Western United States. Anderson adds that cloning is the best hope for saving animal breeds that may otherwise disappear due to losses in genetic diversity or breeding competency.

In collaboration with Professor James Murray and professional researcher Elizabeth Maga, Anderson is working on developing cows that produce healthier milk by introducing the anti-microbial protein found in human milk. The team has



accomplished this with mice and goats; the next step is to introduce the gene responsible for the beneficial protein to cows. This

improves the milk that humans consume and also could decrease antibiotic use in dairy cows, since the protein may reduce the occurrence of mammary gland infections.

Helping horses - and humans, Murray also is working with Ann Bowling, executive associate director of the Veterinary Genetics Laboratory in the School of Veterinary Medicine, to produce a genetic map of the horse. This has a comparative benefit to human genomics, since, according to Murray, "big pieces of horse chromosomes are in the same order as human chromosomes. The horse is a medically important model."

Their work also has relevance for the country's \$25 billion horse industry. A gene that causes a condition known as hyperkalemic periodic paralysis (HYPP) - resulting in paralysis in quarter horses - is now identified and breeders can select against it. "We can predict the muta-



tion and do something about it," says Murray.

The HYPP discovery also shows how comparative genomics works both ways, since it was based on information derived from genetic research on a similar human disorder.

Improving Dairy Production



Professor Juan Medrano, Department of Animal Science, is using genomics to study specific genetic traits. His interests focus on two distinct areas: animal growth and milk composition.

Using mice, Medrano is looking at a mutation that increases growth rate and body size. The applications of his research are numerous. For instance, understanding how to manipulate growth can lead to the development of domestic animals that grow and utilize food more efficiently. In human medicine, this understanding may lead to strategies for treating growth disorders.

Collaborating with animal science professor Edward DePeters, Medrano is studying how to select and breed dairy cattle for higher content of casein, the protein that increases milk solids and cheese yield. Processors could produce five to eight percent more cheese from selected cows, resulting in large economic benefits without altering quality. Similar techniques are being examined to breed cows that produce milk with a higher concentration of unsaturated fatty acids, resulting in a healthier and softer butter.

Preserving Fish Populations



Genomics also has an important role in wildlife conservation. Professor Bernie May, Department of Animal Science, uses it to unlock the genetic life history of certain aquatic populations. That history

can tell him if those populations have reached a point of low genetic variability due to inbreeding, making them prone to disease and even extinction. "Genomic variation is important to long-term species survival. You can't rebuild it if you lose it," says May.

His work has many applications. The white sturgeon, for instance, is a source of caviar, a delicacy important to the food industry. The blue whale is of interest to ocean ecologists seeking to influence regulation of the whale hunting industry. The golden trout has special relevance to Californians interested in preserving state fish.

In two current studies, May is looking at whether or not human intervention results in the hybridization of two species - one endangered and one more common. The Modoc (endangered) and Sacramento suckers in the Pitt River drainage and the Owens (endangered) and Lahontan tui chubs in Owens River drainage now overlap in their distributions. "We could be losing one species completely and creating something else," he says. Results of these studies could alter the management of California's state waterways.

Improving Groundwater and Air Quality



Kate Scow, professor in the Department of Land, Air and Water Resources, is determined to get the toxic fuel additive MTBE

out of our groundwater. At one contaminated site, she added a bacterium isolated from compost that rapidly breaks down MTBE. At another site, she is studying the naturally occurring organisms that break down MTBE, then creating conditions that encourage those organisms to thrive. Using DNA sequencing techniques, she can tell if the added organism survives, and she learns about the composition of naturally occurring microbial communities.

The same techniques aid another of Scow's concerns - dust. She is interested in the airborne dust that contributes to disease and reduces air quality. As in forensics, 'fingerprints' of potential sources of this dust (from soil, feedlots and roads for instance) are taken by sequencing the DNA of microorganisms living in these materials. The fingerprints then are compared to dust fingerprints to help identify where they came from. Scow's analyses are important to regulatory agencies responsible for controlling the sources of harmful dust.

Treating, Preventing Disease



The next decade holds many opportunities for our understanding of nutrition, and that understanding is powered by genetic advances.

Carl Keen, professor and chair of the Department of Nutrition, is a specialist on how nutrients influence embryonic and fetal development. His work also addresses the interactions among genetics, nutrition and a number of health concerns in adults, including cardiovascular disease, hypertension and diabetes. It has been understood for a while that there are genetic predispositions to these conditions.

According to Keen, we now can better understand these predispositions in terms of nutritional triggers. Understanding these triggers provides new insights into disease treatment and prevention. "In the near future, we should be able to begin to define how select genes can be influenced by subtle changes in diet."

Keen adds that the union of genomics and nutrition opens the doors to understanding disease on an individual level. There may be a time when physicians can develop genetic profiles and recommend nutritional programs for each patient. "No longer will diet advice be about what the public should do,

but about what each individual should do," Keen says.

Understanding Consumer Attitudes



Where does the public receive scientific information? What information do they trust? How do they perceive the benefits? These

are some of the questions that concern Christine Bruhn, food marketing specialist in the Department of Food Science and Technology and director of the Center for Consumer Research. Bruhn is dedicated to ensuring that the public receives useful and accurate information about biotechnology, including its full benefits and potential risks.

Bruhn explains that studies show a decreased acceptance of technology

in California, due in part to how some media reports have focused on harms that can be misrepresented or overstated. However, the public is now asking very good questions about biotechnology and food safety, which Bruhn encourages. She is committed to ongoing and meaningful "dialogue between scientists and the public."

"Scientists should talk about what they do and the social outcomes," Bruhn says. "We need to talk about the questions that new technology raises and compare them to current practices, like the use of broad-spectrum pesticides."

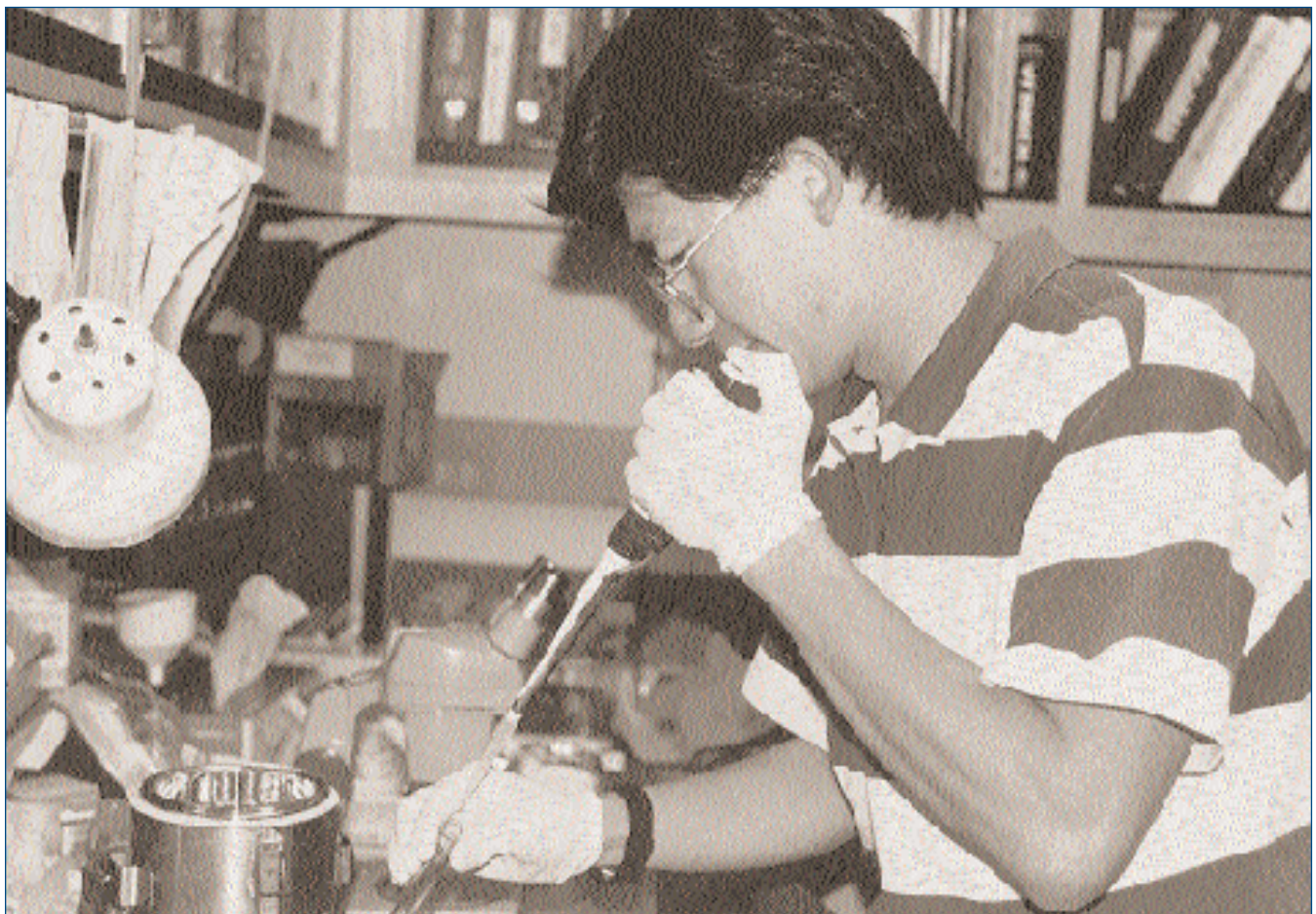
Bruhn facilitates this dialogue in part through a Web site on genomics research and issues. Take a look at <http://ccr.ucdavis.edu>. She also is involved in consumer research and education to ensure that food label statements are truthful and not misleading.

Conclusion

While this overview does not represent the college's genomics work in its entirety, it does represent the range and likely benefits of our research in this area. A month from now, even a week from now, the scope of that research may be even greater, given how quickly genetic information is being compiled.

McGloughlin says that "the post-genome era in biological research will take for granted ready access to huge amounts of genomic data. The challenge will be understanding those data and using the understanding to solve real-world problems."

The college is clearly committed to that challenge.



Commencement 2000

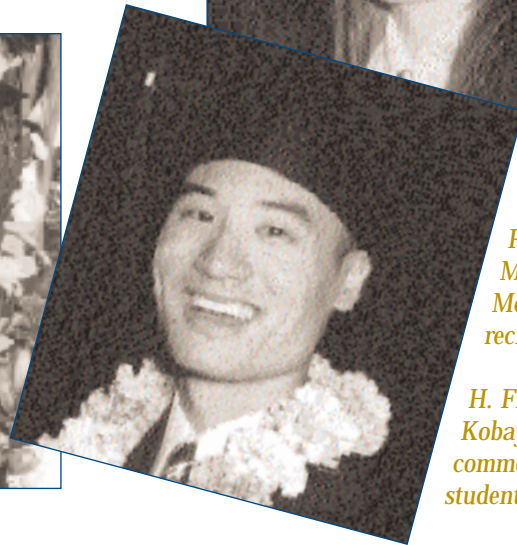


Astronaut Stephen K. Robinson, National Aeronautics and Space Administration, commencement speaker.

Sara Ruth Williams, College Medal recipient



Susan Christina Palmer, Mary Regan Meyer Prize recipient



H. Frank Kobayashi, commencement student speaker

College Wins Five Design Awards!

The College of Agricultural and Environmental Sciences won three national and two international design awards for editorial and design excellence - one for its new Web site and four for print projects.

College publicist Rhoda McKnight of the Dean's Office coordinated efforts for all five projects with assistance from computer production specialist Margarita Camarena ('98, Design).

The National Agricultural Alumni and Development Association (NAADA) presented three awards to the college at its annual conference held at Purdue University:

Category: Alumni and Donor Publication, one-to-three Color College periodical
1st Place - CA&ES Outlook alumni magazine

Category: Alumni and Donor Publication, Department or Unit Newsletter
1st Place - Psittacine Exotic Bird Report - program newsletter
 Department of Animal Science
 James Millam and Chris Craig-Veit
 Gary Anderson, Chair
2nd Place - LAWR Newsletter
 Department of Land, Air and Water Resources
 Sandy Filby and Brenda Wing
 Dennis Rolston, Chair

APEX 2000, an international competition for communications professionals, presented two awards to the college:

Category: Investor and Customer Relations Materials
 Dennis G. Raveling Endowed Professorship Brochure
 Department of Wildlife, Fish and

Conservation Biology
 John Eadie
 Deborah Elliott-Fisk, Chair

Category: Web Sites
 CA&ES Web Site
www.aes.ucdavis.edu

Last year, McKnight and Camarena received a first-place award for the best World Wide Web site in the Council for Advancement and Support of Education (CASE) Circle of Excellence Program competition. The competition recognizes excellence in 44 categories in the areas of alumni programming, institutional relations, electronic and news media, and periodicals and publications. They also received five design awards in 1999 from NAADA for college publications and promotional pieces.

Two Join CA&ES Outreach Efforts

Two new positions have been created in the CA&ES Dean's Office to support recruitment and outreach efforts.



DeeDee Kitterman came to the Dean's Office in July to fill the redefined position of executive director, research and outreach programs. She previously served as management services officer in the Department of Entomology.

“Opportunities were being missed in the college because there wasn't a person to keep all the balls in the air,” Kitterman said. “My job is to keep all the balls in the air!”

Kitterman's responsibility falls into three primary areas:

1. Provide analysis and leadership in developing partnerships among the college, DANR - the Division of Agriculture and Natural Resources, targeted clientele, and industry and commodity groups.
2. Provide leadership for coordination of research initiatives, data management and research collaboration through centers.
3. Provide management oversight and expertise for administrative and computing resources and functions of the Dean's Office, including streamlining processes and initiating changes.

Kitterman brings a strong institutional memory to her new position. She has worked on campus 23 years, the last 15 years in entomology. Previously, she worked in the Department of Land, Air and Water Resources and in Veterinary Pharmacology and Toxicology.

“I'm excited about this position because of the broad scope of activity,” Kitterman said. “It's enticing, exciting and definitely challenging.”

Kitterman describes her style as ‘open door,’ hoping that others will involve her so that can assist with

their projects. “I like the feeling of being a part of the finished product,” she explains. “I like making things happen.”

Kitterman has been active in college and campus-wide committees for many years. When she isn't at work, she is home with her husband on 23 acres outside Winters where they raise navel oranges. Kitterman was born and raised on a farm in North Central Illinois, so farming is comfortable to her.

You'll find DeeDee Kitterman in her office in 150 Mrak Hall.

“Office? Too busy to think about it,” she said.

530/752-9484;

dmkitterman@ucdavis.edu.



Richard Engel ('90, Agricultural Education; '91, Education Credential) joined the Dean's Office in July as director of student recruitment and out-

reach. He came to the college from the California Foundation for Agriculture in the Classroom where, for five years, his work focused on agricultural literacy programs throughout the state.

A native of Bishop, California, Engel taught agriculture at Woodland High School before being recruited to run a farmer/rancher education program for the Yolo County Resource Conservation District.

Today, Engel and his wife live in Woodland with their two sons, ages two and four. He is a member of Class XXVIII of the California Agricultural Leadership Program, a member of the board of directors of Alpha Gamma Rho and an associate director of Yolo County Resource Conservation District. He has big plans for his new position.

“In terms of recruitment,” Engel said, “I will determine the needs of

our departments and what recruitment programs they have in place. I plan to utilize a portion of our scholarship pool to recruit the top incoming and transfer students and will work closely with the four other agricultural and environmental colleges in California, doing my best to keep the top students in agricultural and environmental studies - regardless of what campus they attend.”

Engel plans to broaden the Aggie Ambassador Program, maximizing peer relationships as a recruitment tool, and utilize the college's alumni network to find quality students. He'll work closely with industry contacts through California's 53 county Farm Bureaus to identify top agricultural and environmental students.

Engel also will assist in rebuilding the Agricultural Education Program within the Division of Education and will spearhead efforts in the Dean's Office to direct the Summer Science Institute. He believes the college should be playing a role in providing M.S. and Ph.D. programs in agricultural education.

“Most students leave California to get their degrees in Ag Ed,” Engel said. “I believe the campus should take a leadership role in curriculum development for agricultural education, as well as in-service and pre-service for teachers.

“I want to let students in both public and private schools around the state know about opportunities in the College of Agricultural and Environmental Sciences,” Engel said. “I'll work with recruiters and counselors on high school and junior college campuses. I want to do a good job of linking with the educational sector and with the general public.”

Contact Engel in the relations and development unit of the Dean's Office in Mrak Hall.

530/754-6249;

rrengel@ucdavis.edu

2000 College Celebration

Eleven individuals and one family were chosen 2000 Award of Distinction recipients by the College of Agricultural and Environmental Sciences. The designation is the highest presented by the college to individuals whose contributions and achievements enrich the image and reputation of the college and enhance its ability to provide public service.

Award recipients will be recognized at College Celebration on Friday, October 27, 2000. The ceremony begins at 5 p.m.; a reception follows. Complimentary parking is available for registered guests.



Joe Aparicio

('54, Agricultural Education;
'55, Education Credential)
Professor (Retired)
American River College
Farmer
Sutter Creek, California

Joe Aparicio is an expert in identifying native plants. Since retirement from American River College, he has taken over the family farm in Amador County and serves as a visiting lecturer and adviser to Cooperative Extension, 4-H, FFA and the Master Gardener Program. He was president of the Amador County Grape Growers Association and the Amador County Farm Bureau.

G. Eric Bradford

Professor Emeritus
Department of Animal Science
UC Davis
Davis, California

Eric Bradford came to UC Davis as a faculty member in 1957. He devoted his career to the genetics of reproduction and growth in livestock and laboratory animals. He was named an American Association for the Advancement of Science Fellow in 1984 and served as UC Davis Genetics Graduate Group chair, Department of Animal Science chair and associate dean of the college.

John Diener

('74, Agricultural Economics and
Business Management)
Farm Owner/Manager
Five Points, California

John Diener is a large-scale organic grower in Fresno County. He developed the award-winning Integrated On-farm Drainage Management System that reduces the impact of salinization and prime agricultural land going out of production. Diener is a member of California Agricultural Leadership Program, Class XX. He received the Governor's 1999 Environmental and Economic Leadership Award.

Daniel M. Dooley

('73, Agricultural Economics and
Business Management)
Attorney
Dooley, Herr & Williams, LLP
Farmer/Partner
Dooley Farms
Visalia, California

Daniel Dooley is an attorney with a general civil and business law firm specializing in water, agriculture, environmental land use and business law. He also farms diversified row crops and cotton, alfalfa and walnuts. He is a member of UC President Atkinson's Advisory Council on Agriculture and Natural Resources and chair of the Agricultural Issues Center advisory council.

Richard R. Engel

('90, Agricultural Education;
'91, Education Credential)
CA&ES Director of Student Recruitment and Outreach
UC Davis
Woodland, California

Rich Engel joined the college's Dean's Office in July 2000. Previously, he coordinated student and teacher programs in 58 California counties for California Foundation for Agriculture in the Classroom, developing strategic planning sessions for agricultural literacy and education programs. Engel is a Class XXVIII graduate of the California Agricultural Leadership Program.

Marylee Hardie

('64, Home Economics)
Volunteer
Davis, California

Marylee Hardie has served UC Davis and its programs for 35 years. She has been a strong supporter of the library, UC Davis Presents, Team Aggie, Trellis Alliance in the Department of Viticulture and Enology, Design Alliance in the Department of Environmental Design, the Faculty/University Club, International House and the Cal Aggie Foundation/UC Davis Foundation.

Landon Heffner

(’72, Applied Behavioral Science; M.A., ’74, Education)
 Vice President
 Monrovia
 Glendora, California

Landon Heffner has inspired and improved the careers of hundreds of individuals in agriculture, horticulture and ranching through his teaching, counseling, advising and training efforts. He developed and taught courses in basic cultural norms, foreign language, problem solving and production efficiency to Spanish-speaking workers in order to assimilate migrant workers into California’s agricultural economy.

Walter E. Howard

Professor Emeritus
 Department of Wildlife,
 Fish and Conservation Biology
 UC Davis
 Davis, California

Walter Howard joined the UC Davis faculty in 1947, specializing in applied ecology. His professional contributions in the fields of wildlife damage management, agricultural crop and livestock, protection from vertebrate pests, and human health and food safety from vertebrate pests are legendary nationally and internationally. Howard retired in 1987.

Adel Kader

(M.S., ’62, Vegetable Crops; Ph.D., ’66, Plant Physiology)
 Professor
 Department of Pomology
 UC Davis
 Davis, California

Adel Kader’s work on brown stain damage to lettuce, tomato ripening and taste quality and postharvest handling of pistachio nuts has helped industry develop solutions and set standards. The Postharvest Outreach Program, formed under Kader’s leadership, has become the development model for other college research and information centers.

Lloyd Swift

Wildlife Biologist
 USDA-Forest Service (Retired)
 Falls Church, Virginia

Lloyd Swift studied range science at UC Davis in 1922. He began working with the U.S. Forest Service as a summer intern and became the agency’s highest-ranking wildlife biologist and a respected USDA-Forest Service administrator. He served as a consulting biologist for USAID, FAO, UNESCO, the United Nations Special Fund and other agencies in the U.S., Africa and the Middle East.

Robert K. Webster

(Ph.D., ’66, Plant Pathology)
 Professor
 Department of Plant Pathology
 UC Davis
 Davis, California

Robert Webster joined the college’s plant pathology faculty in 1966. He served as department chair, acting dean of the college and assistant director of programs for UC Division of Agriculture and Natural Resources.

Webster has been honored for pioneering studies on rice disease management and alternatives to burning rice field residues. He works closely with the wine and grape industry and other commodity groups.

Wente Family

Winemakers/Ranchers/Restaurateurs
 Livermore, California

The Wentes are fourth generation California vineyardists and winemakers with over 3,000 vineyard acres in the Livermore Valley and Monterey County. Founded in 1883, Wente Vineyards is the country’s oldest continuously operated family-owned winery.

The family has been recognized nationally and internationally for its interest in farming, new growing areas, new crushing, fermenting and cellaring techniques, sophisticated wine and food program development and wine education, as well as its industry commitment, community service and political efforts.

**2000 College Celebration
 Reservation Form**

Friday, October 27, 2000
 Freeborn Hall, UC Davis
 Award Ceremony 5 p.m.; Reception Follows

Names of those attending (please print):

Street Address _____

City/State/Zip _____

Telephone Daytime (____) _____

Evening (____) _____

Please reserve ___ seats @ \$10 each \$ _____

Tickets held at the door.
 Contact Sharon Lynch 530/752-1602; selynch@ucdavis.edu; Fax: 530/752-9369

Reserve by phone or fax and pay at the door!

Complimentary parking is available for registered guests
 in parking structure on Howard Way.

Olsen Scores ...Everyone Wins!

By **Rick Swantz**

On May 22, 2000, quarterback Mel Olsen threw a short pass to team captain Dave Hills to cap a seven-year scoring drive that put the Joe A. Heidrick, Sr. Western Center for Agricultural Equipment fund-raising campaign in the end zone. Olsen's pass enables the Department of Biological and Agricultural Engineering to start classes in the 18,000-square-foot structure this fall.

Located on 40 acres near the intersection of Hutchison Drive and Highway 113, the center will accommodate teaching, research and extension activities associated with the mission of the department.

Indoor teaching related to the latest advances in field equipment followed by field demonstrations, will be provided to students, growers, farm advisors and industry personnel. A wing of the center will be devoted to the equipment industry for conducting service and sales training of dealer personnel.

At times, the offense stalled; but big plays from several All-Stars led to eventual victory.

In the first half, fans formed an outside charitable trust for funding construction of the facility. Engineering staff developed the construction drawings; then a consortium of contractors began construction of the facility using funds from the charitable trust, donated labor and building materials at trade prices.

After the kickoff, the family of Joe A. Heidrick, Sr. ran for a big gain with the naming opportunity



Mel Olsen, left, presents a check for \$100,000 to Professor David Hills, Department of Biological and Agricultural Engineering, to name the Mel and Dorothy Olsen/Alpha Gamma Rho Teaching Laboratory at the Joe A. Heidrick, Sr. Western Center for Agricultural Equipment. The gift completed the \$2.5 million campaign. Classes began in September.

for the entire building.

The New Holland Equipment Company tackled the demonstration lab, the Far Western Equipment Dealers pounced on the training wing while the Regnar and Beverly Paulsen Foundation ran interference for the lecture room.

As the clock was running down for the beginning of this school year at UC Davis, it was Olsen - with the pass protection of his fellow members of the Alpha Gamma Rho fraternity - who made the deciding play. In recognition of Mel's generous contribution of \$100,000, the teaching laboratory at the WCAE will be named the Mel and Dorothy Olsen/Alpha Gamma Rho Teaching Laboratory.

Olsen has a long association with the Davis Alpha Gamma Rho alumni chapter and recently received the group's Alumni Achievement Award.

Olsen attended UC Davis in the 1930s and completed a two-year certificate in the Dairy Industries Program. This course of study allowed him a good deal of latitude in the career course he took, and he attributes the skills gained in his general education at Davis for his successful career as a state sanitarian.

Commenting on the impressive outcome of this campaign, Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences, commented: "This is a great victory for everyone involved. How nice to have Mel throw a perfect spiral to end this campaign. GO AGS!"



*Rick Swantz
Director of
Development*

Your contribution makes a difference!

The College of Agricultural and Environmental Sciences offers many gift arrangements to help meet your financial and charitable goals. For more information about making a gift to UC Davis or making UC Davis a beneficiary of your estate plan, contact Rick Swantz, director of development, 530/752-7961; raswantz@ucdavis.edu.

What's New in Development?

* W. Andrew Beckstoffer contributed over \$20,000 in stock to the Department of Viticulture and Enology's **Harry E. Jacob Research Facility** near Oakville, California. The gift fulfills his pledge of \$50,000 to the campaign.

* Victor M. Parachini made a generous gift of stock in support of the **Dennis G. Raveling Waterfowl Professorship Endowment** in the Department of Wildlife, Fish and Conservation Biology. The gift was valued at over \$94,000 and brought Phase II of the endowed chair campaign to a successful conclusion.

The \$1.1 million endowment insures a permanent funding source for teaching, research and outreach activities focused on wetlands and waterfowl, with emphasis on agricultural land in California.

* In May 2000, John P. and Mary Lou Gifford gave securities valued at \$388,000 to the UC Davis Foundation to establish the **John P. Gifford and Mary Lou Gifford Student Support Endowment**. The purpose of the endowment is to support students interested in solving problems of overpopulation.

John Gifford, who passed away in June, considered overpopulation to be the greatest challenge facing the world.

* Distributions from the Miriam C. Stelling Revocable Trust to the UC Davis Foundation as trustee of the Joanne Stelling Charitable Remainder Trust total \$2,820,000. Upon death of the beneficiary, the trust will be used to create an endowment for the **Donald and Miriam Stelling Chair in Agricultural Economics**. The chair will reside in the Department of Agricultural and Resource Economics. The chairholder will focus on agricultural trade, marketing, policy and related matters.

* The disposition of the Kay A. Devine Trust Estate includes a gift of over \$80,000 to the College of Agricultural and Environmental Sciences to establish the **Kay A. Devine Fund**. The fund will be used to advance, support and maintain the Equine Teaching and Research Program in the Department of Animal Science.

* **Raindrip, Inc.** donated drip irrigation products valued at over \$46,000 to the Department of Biological and Agricultural Engineering for use at the Joe A. Heidrick, Sr. Western Center for Agricultural Equipment, the UC Davis Arboretum and at other areas on campus.

* When **Albert DeFreitas** passed away last December, his attorney notified the university that 20 percent of the residue of his estate was left "to the School of Agriculture at the University of California, Davis, for research in tomatoes or dairy science." He also provided for scholarships for Hilmar High School graduating seniors majoring in engineering at any California college and for research in diabetes or heart disease.

DeFreitas' gift exceeded \$40,000.

* Professor emeritus Robert Laben and his wife Dorothy contributed \$10,000 to establish the **Department of Animal Science Undergraduate Educational Enhancement Fund**. Income from the fund will be used to help students participate in internships, special meetings, programs or activities supplemental to their regular academic program.

* It's election year, and some important results are already in!

The **UC Davis Arboretum** won a landslide victory over other proposals submitted by the Senior Gift Committee for the coveted UC Davis **Class of 2000 Senior Gift**. The Arboretum's proposal outlined restoration of the T. Elliot Weier Redwood Grove alongside Putah Creek on the south end of campus.

The gift, provided solely by contributions from the class of 2000, is expected to exceed \$25,000. It will be spent on planting more redwoods, upgrading the grove's irrigation system and improving paths.

Arboretum director Kathleen Socolofsky said, "The Arboretum is really honored. The gift makes us feel like an important part of students' lives."

Nearly 4000 seniors participated in the election.



* *Captain Ed Carlson presented the Captain Ed's Prize to recipients at the Department of Animal Science annual Spring Awards Barbecue at Putah Creek Lodge. Carlson (center) is shown with six of the recipients. Left to right, Cassie Reed, William Wright, Kristin Burton, Dawn Alegria, Jed Asmus and Elizabeth Hamill. Each received \$1,000.*

Student Recruitment - Now More Than Ever!

By **Rich Engel**

In my first week on campus, I was asked at least a dozen times why a director of student recruitment and outreach position was established at a time when the level of competition for admission is at an historic high. My response is simple.

With fewer resources available to the College of Agricultural and Environmental Sciences and a reduced number of incoming and transfer openings available to our recruits, we must work harder than ever to expand our applicant pool in order to maintain the diversity and level of academic excellence that our college has come to expect.

My job in student recruitment is to create a map of CA&ES characteristics that will help attract top students into our 40 majors. As alumni and friends of the college, you are an important part of this map.

During my undergraduate years as a member of Alpha Gamma Rho (AGR) fraternity here at UC Davis, our alumni repeatedly stressed, "Recruitment is the lifeblood of our organization." Many students joined AGR as a direct result of alumni contact and referrals.

We need that same help to identify and contact potential students for the college.

Through referrals, participation in Cal Aggie Alumni Association (CAAA) student receptions and UC Davis Decision Day, you can assist us



in linking the programs and opportunities available through CA&ES with California's outstanding secondary and community college students.

My goal is to identify students early in their junior high and high school careers to assist them in meeting UC admissions requirements and provide students and their parents information about UC Davis.

Here are some of the recruitment tools we use to maintain our base of talented incoming students.

Scholarships

The college awarded over \$1.2 million in scholarships during the 1999-2000 academic year. In addition, many departments have scholarships available for incoming students. I will work with the scholarship office and our departments to develop a plan for sharing scholarship information with students interested in applying to UC Davis.

Outreach Events

Numerous opportunities exist each year - such as conferences, teacher in-services, and educational and recreational events - to promote the programs available in the college's environmental, human and agricultural science divisions. I will work with each of the divisions to match recruitment opportunities with faculty and staff interests.

A&ES Field Day

The first Saturday in March every year, approximately 2,000 FFA and 4-H members converge on the UC Davis campus for competitions in leadership and judging events.

UC Davis Preview Day will be held October 21, 2000. CA&ES faculty, staff and students play a major role in this campuswide recruitment event.

Aggie Ambassador Program

Thirty-five student ambassadors are hard at work hosting or attending recruitment and relations activities for the college. The Aggie Ambassador Program will include representatives from every undergraduate major, students providing peer-on-peer recruitment and outreach efforts.



Richard Engel
(’90, Agricultural Education;
'91, Education Credential)
Director of Student Recruitment and Outreach

If you have a student you would like to refer to UC Davis or have questions about our expanded recruitment and outreach activities, contact Rich at 530/754-6249 or rrengel@ucdavis.edu.

Outreach Highlights

* Summer Science Institute

Twenty-six high school science teachers took part in the CA&ES/CEPRAP Summer Science Institute held July 12-14, 2000, on the UC Davis campus. A seminar titled "Genetic Engineering: The Promise, Practice and Controversy" provided teachers practical laboratory skills in DNA extraction, restriction enzyme analysis and bacterial transformation. Teachers gained insight into integrating practical skills and ethical-issue discussions of genetic engineering into high school classrooms.

Presenters included Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences; James MacDonald, CA&ES executive associate dean; Martina McGloughlin, biotechnology program director; Barbara Soots, education director of the Center for Engineering Plants for Resistance Against Pathogens (CEPRAP); Kent

Bradford, professor of vegetable crops and director of the Seed Biotechnology Center; Cecilia Torres-Penedo, staff research associate of the Veterinary Genetics Laboratory; and Linda Whent and Eric Zilbert of the Agricultural Education Program.

"Our special thanks to Barbara and Jim who played key roles in instruction and planning," said Rich Engel of the Dean's Office.

* Aggie Ambassadors

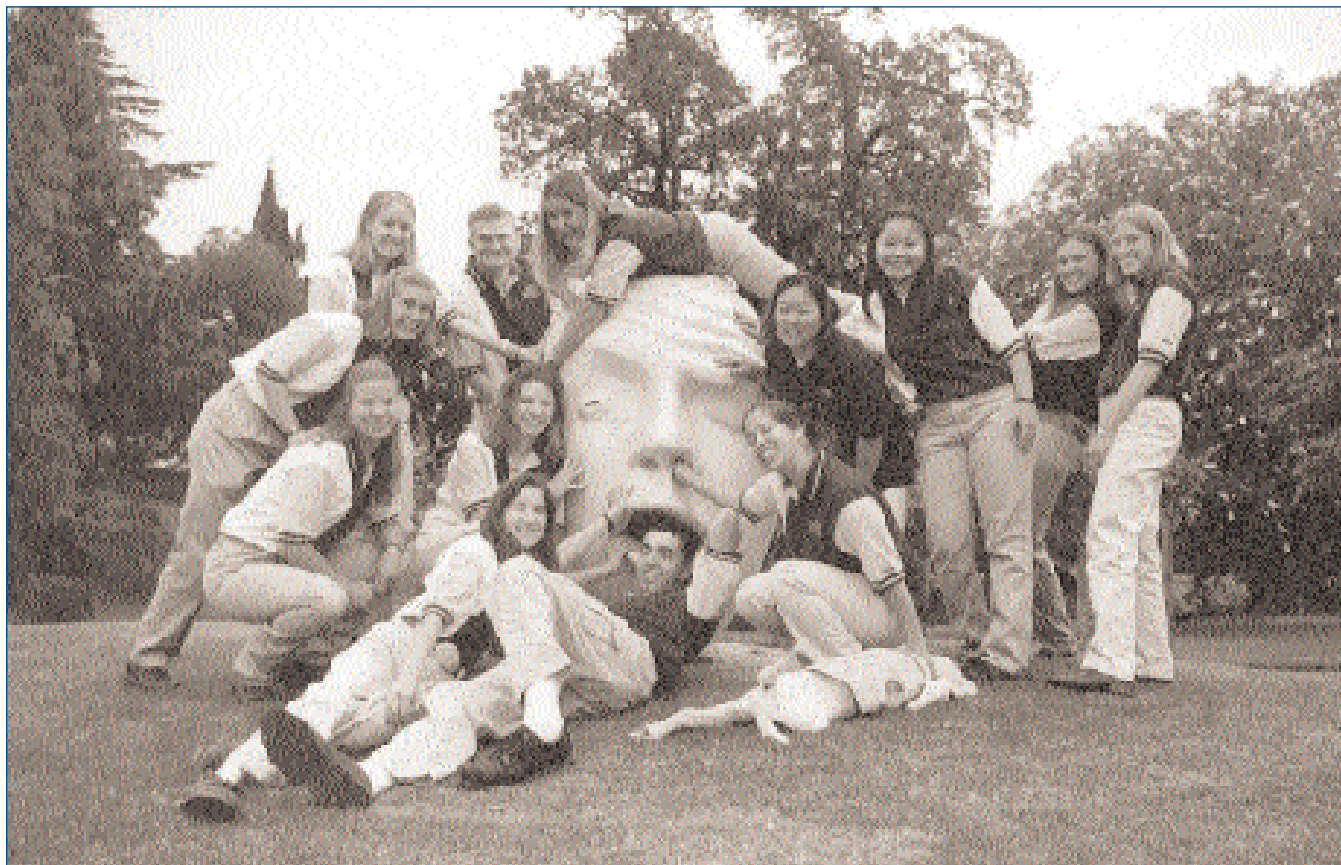
Aggie Ambassadors attended Cal Aggie Alumni Association new-student events throughout the state to welcome fall 2000 students to campus and inform them of additional opportunities and resources available through the college. Aggie Ambassadors will host "You See UCD Day" held in conjunction with homecoming on October 14, 2000.

* National FFA Convention

CA&ES Dean's Office and Division of Education representatives and seven agricultural education credential candidates will attend the National FFA Convention in Louisville, Kentucky, in October. More than 50,000 people are expected to participate in the four-day event. College representatives will be involved in convention outreach activities and will have the opportunity to talk with top high school agricultural and environmental students.

* New Student Receptions

This fall, the Cal Aggie Alumni Association welcomed the newest crop of students and made them feel a part of the UC Davis family. Receptions are a chance to meet incoming students and their families and give them 'insider' information about UC Davis before they arrive on campus in September.



Stephanie Oppenheim and **Yuriko Adkins** are recipients of the 2000 John E. Kinsella Prize established in honor of John E. Kinsella, former dean of the College of Agricultural and Environmental Sciences and an internationally distinguished food chemist.

George Chen, Karen Hampton, Maya Kabat and **Kathy Rouso**, MFA graduate students in textiles and costume design, displayed their work at the 2000 MFA Show in the Design Gallery.

Chen's textile art dealt with envi-

ronmental waste and the experience of transforming discarded materials into personal emotions.

Hampton invoked into cloth the voices and memory of African American women during slavery.

Kabat's work consisted of two- and three-dimensional pieces revolving around natural cycles of birth, death, growth and deterioration.

Rouso drew upon her experiences interacting with indigenous peoples of the Pacific Rim to create hand-constructed textile sculpture.

In a separate project, Rouso's "Turned Inside Out #2" was accepted into Basketry Turning Points: The Future Contains the Past at Convergence 2000 Cincinnati. The piece, inspired by her research trip to New Zealand, is a twined raffia bas-

ket lined with porcupine quills. Her paper, "Betel Nut, Beads and Beliefs in Atoni Society," was accepted for publication in *Arts of Asia* magazine.



Design student **Mary Testa** received a \$500 scholarship from the Sacramento Chapter for the Textile Arts. While finishing her stud-

ies and cramming for finals just before commencement last June, she worked as a student intern in the Dean's Office, helping to keep the college's Web site up-to-date and assisting in designing new pages.

Testa entered the MFA program in textile arts and costume design in September.



Michelle Marie Leinfelder was selected by the board of the California Chapter, American Society of Agronomy to receive a \$500

scholarship. She was selected for "work in agriculture, an essay, and demonstrated leadership and extracurricular activities."

Leinfelder is a fourth-year crop science and management major, a long-distance runner on the UC Davis Track Team and team captain, as well as a peer adviser.

Leinfelder was Block and Bridle Club treasurer, Aggie Ambassadors vice president, Dean's Student Advisory Committee member and Individual Major Committee tabulations coordinator for Agricultural and Environmental Science Field Day.

Michael Chan and **Rungsinee "Pearl" Sothomvit** won first and second place, respectively, in the Packaging Division Student Paper Competition at the recent Institute of Food Science and Technology (IFT) meeting in Dallas.

Chan's poster was titled "Whey Protein Coated Paperboard as a



In a weekly gardening program, 30 fourth-grade students from Pioneer Elementary School in Davis learned about soils, plants, soil animals and composting from Marja Koivunen, graduate student in soils from Finland and volunteer 'garden parent.' When she brought the students to campus on a field trip, it was the culmination of a problem-solving activity to find out ... "What is wrong with the soil?"

There is one spot in the elementary school garden where it was difficult to grow plants. Students took soil samples and made hypotheses about possible reasons plants in that area might die. When they visited a lab in the Department of Land, Air and Water Resources, they had a chance to do hands-on science. They tested the problem soil in a real soil science laboratory. And they were thrilled!

Under Koivunen's direction, the nine-year-olds looked at soil texture and color, measured pH, electrical conductivity and the soil nitrogen content. Based on the results, the group will continue its problem-solving activities and hopes to find a remedy for the soil.

"Everyone in this group - students, parents and teachers - enjoyed the visit to Hoagland Hall," said Koivunen. "The kids learned a lot. They learned that soils are much more than dirt!"

Grease and Oxygen Barrier.” Sothomvit’s poster was titled “Whey Protein Molecular Weight Effect on Film Oxygen Permeability and Mechanical Properties.”

Sothomvit presented another aspect of her Ph.D. research at a meeting in Milwaukee. The poster was titled “Plasticizer Effect on Mechanical Properties of Beta-Lactoglobulin Films.”

Martin Smith, Ph.D. student in the Department of Agricultural and Resource Economics, was awarded Best Student Paper in competition held by the International Institute for Fisheries Economics and Trade. He received a framed certificate and check at the organization’s tenth biennial meeting. His paper is titled “Two Econometric Approaches for Spatial Fisheries Management.”

Smith is completing a thesis examining the biological and economic implications of marine reserves.

Animal science major **Kelly Templin** is recipient of the Alpha Zeta Freshman Award recognizing the most outstanding freshman student based on demonstrated excellence in scholarship, leadership, and campus and community activities.

Templin attended Boston Latin School from seventh to twelfth grade. She came to California to attend UC Davis and begin a path leading toward a Ph.D. degree in animal behavior. She hopes to have a equine veterinary practice.

Gwain Evans, former student assistant in the Dean’s Office, received the JC Penney Golden Rule Award for work with Court-appointed Special Advocates (CASA) in Woodland. She was selected because of her work with two young sisters who lived in separate foster homes. Evans made certain the sisters saw one another and maintained a strong bond. According to a program coordinator, volunteers usually take on only one young person at a time.

(Continued page 38)

Landon Scarlett isn’t a typical student. By the time she came to UC Davis, she’d already earned bachelor’s and master’s degrees in art history and an M.B.A. She worked toward her M.B.A. while working full time.

Following graduation, Scarlett worked in horticultural display gardens for DuPont and later as director of the Dallas Arboretum for five years. She reached a point in her career where she wanted to do something outside gardening, nursery work and horticulture. She asked herself: “What do I want to do more than anything else?”

She decided that she wanted to have a small vineyard on a hillside with a nice house and a lovely view. Therefore, she reasoned, she needed to find out about vineyards.

Scarlett was living in Nashville and decided to come to UC Davis because she heard it had the best classes in viticulture and enology of



any school in the country.

Did she write letters and arrange appointments? No.

Did she make phone calls and set up contacts for her visit? No.

Scarlett just traveled to Davis and went to the Department of Viticulture and Enology. She found associate professor Andrew Walker and, after they talked about her goals and the possibilities before her, she made a plan. She returned to Nashville and enrolled in background courses at the University of Tennessee. Later she transferred to UC Davis, and her husband transferred to his company’s Sacramento office. She spent a year working with a grape farm advisor in Mendocino County, doing wine grape variety trials.

“This is the most fun I’ve ever had when it comes to education,” Scarlett said. “I didn’t really know how to study, how to concentrate or how to prioritize my work the first time I went to college. I came here with a wonderful education and lots of experience behind me.”

Scarlett couldn’t say enough about her mentor. “Andy Walker has been wonderful. He is passionate and enthusiastic about his work, and he didn’t burden me with junk. He’s a fabulous teacher.”

Asked what she would like people to understand about her as a re-entry student, she replied, “I am not a natural student. I worked very, very hard at Davis. Some people believe that it was easier because I’m older. That’s not so.

“The other thing is that I’m grateful for all the support I’ve gotten here. I’ve had a good time.”

Landon Scarlett moved across country to re-enter college at age 57 - and she got married the same year. She’s not the typical student for sure! And what’s she up to next? Watch the hillsides for a nice house on a hill with grapevines and a lovely view.

Undergraduate Academic Programs

By Annie King

The Undergraduate Academic Programs (UAP) unit functions as the hub of academic advising for students in the College of Agricultural and Environmental Sciences. It is the central contact for college faculty on matters pertaining to curricular development, college executive and advisory committees, for other undergraduate units on the campus and for all student affairs offices.

UAP staff include the associate dean, executive assistant to the associate dean, office manager, five counselors, two counseling assistants, staff assistant to the college Executive Committee and its sub-committees, outreach program coordinator, college graduation coordinator and student peer advisers and assistants.

UAP counselors provide information about college/campus requirements; specific knowledge on university-wide or campus procedures/regulations, petitions and deadlines; advice on scheduling of classes; guidance concerning academic performance; and referrals to campus services for personal situations affecting academic performance. Quick, front-line service is available from two front-counter counseling assistants and student peer advisers, or a private, 30-minute session may be requested.

The UAP unit interacts with departmental advising associates and master advisers from the departments and the Dean's Office through an e-mail bulletin board, *CAES Counselors*, monthly meetings and the CA&ES Fall Advising Conference.

Counselors also have specific responsibilities related to undergraduates or graduate students:

- Coordination of Exploratory programs for students who have not chosen a major
- Coordination of degree certification
- Coordination of summer advising for transfer students, freshmen and parents

- Support for transfer students from community colleges and other four-year institutions

- Support for students seeking a second baccalaureate and those over 25 years of age re-entering the college

- Engagement of students in equal opportunity programs

- Maintenance of undergraduate and graduate scholarships

Counselors often confer with campus personnel who can aid in ongoing, successful management of their specific college responsibilities. They participate in the annual advising conferences for UC Davis and for the UC system.

The unit keeps abreast of present interpretations of old and new policies and helps establish general campus policy relevant to undergraduate academic programs.

The associate dean and/or office manager meet regularly with associate deans/assistant deans of the College of Letters and Science; School of Engineering and Division of Biological Sciences; the vice provost of undergraduate studies; the vice chancellor of student affairs and student affairs office personnel.

The associate dean often meets with counterparts of the western and national academic programs sections of the National Association of State Universities and Land Grant Colleges.

Several CA&ES Executive Committee sub-committee members work closely with the UAP unit as part of the college's teaching and research mission. For example, the Majors and Courses Subcommittee approves/reviews all majors and courses for the college and seeks input on college regulations/policies and emerging trends.

The Graduate Education Subcommittee works extensively with the unit to clarify policies surrounding distribution of the Jastro-Shields Awards to graduate research assistants.

The Teaching Workload Committee recently participated with the associate dean in developing rec-

ommended principles, policies and guidelines for instructional workload in the college.

In keeping with its commitment to help educate various segments of California's population, the college supports outreach programs for potential and actual undergraduates.

Two college programs are coordinated in the UAP unit. The Junior Academic Science Research Achievement Program (JASRAP) and Collegiate Academic Preparatory Science Research Achievement Program (CAPSRAP) are summer research experiences for high school students.

A related activity, the Summer Undergraduate Program for Research in Science and Engineering, seeks to introduce undergraduates from UC Davis and state/national institutions to the full range of research opportunities, including those in the agricultural and environmental sciences.

In addition, the unit participates in campus outreach events such as Preview Day, Get Acquainted Day, UC Davis Welcome and spring tours.

Coordination of commencement begins in late February and culminates in June. Over 1,200 students and approximately 12,000 family members and friends attended two commencement celebrations in 2000.

Following commencement, unit personnel prepare for summer advising of incoming transfer students and freshmen and look forward to a new academic year.



Annie King
Professor
Department of
Animal Science;
Associate Dean,
Undergraduate
Academic Programs

CA&ES Visiting Scholars

"Visiting scholars are an important and fundamental facet of university life. We are in the business of sharing and extending knowledge, and it is via interactions with colleagues - both near and far - that such interactions are best pursued."

— Douglas Kelt
Associate Professor, WFCB

Peter Meserve is a presidential research professor at Northern Illinois University, studying the ecology and biogeography of mammals with a strong emphasis in temperate South America. He has been working in Chile since 1974.

Currently, Meserve and Douglas Kelt, associate professor, **Department of Wildlife, Fish and Conservation Biology**, are collaborating with Chilean ecologist Julio Gutierrez on a long-term study of an arid region in Northern Chile. Meserve and Gutierrez began the project 11 years ago; Kelt joined the project in 1998.

The trio is assessing the relative importance of biotic and abiotic factors on small mammal and plant ecology. Because of ongoing interactions in Chile with Kelt, Meserve selected Davis as a home for his work. He spent three months on campus, and they produced one synthetic manuscript that they will submit for publication.

"Visiting scholars clearly are an important and fundamental facet of university life," said Kelt. "We are in the business of sharing and extending knowledge, and it is via interactions with colleagues - both near and far - that such interactions are best pursued. Although UC Davis revels in the tremendous number and diversity of its academic faculty, no university can cover all bases.

"As a geographical ecologist with extensive field experience, Peter's presence was useful. My graduate students benefited by his presence during lab meetings when he contributed another seasoned approach to ongoing research. Peter has a broad background that provided useful insights."



Jung-Sup Choi arrived at UC Davis from the Korea Rural Economic Institute as a Fulbright Fellow to work with Daniel A.

Sumner, professor, **Department of Agricultural and Resource Economics**. They met at several academic meetings and found that they shared research interests in agricultural policy, trade and rice.

During his two-year stay, Choi worked with Sumner on several research projects in the areas of trade, exotic pests and the economics of research. On several occasions, other CA&ES faculty worked with them. Choi sat in on graduate classes, updating his knowledge and developing a close relationship with faculty and

graduate students. At several academic meetings held in the U.S., Choi successfully represented both UC Davis and his institute in Korea.

Reflecting on his time here, Choi said, "I think I spent a productive stay. Professor Sumner did the key role, connecting me to UC. Through him, it was possible to establish an international network of faculty and graduate students. We have accomplished [several] projects and now have a long-term research plan. I hope to have a chance to pay back what I owe to UC."

Hiroshi Hasegawa from Japan and Imma Farre from Spain successfully applied for grants from their home governments to work for two years with Long-Term Research on Agricultural Systems Facility (LTRAS).

Working with professor R. Ford



The laboratory of Professor Michael Reid in the Department of Environmental Horticulture has frequently hosted visiting scholars who, Reid said, "add a multicultural dimension to the department and the laboratory and often are the best and brightest minds from their home countries."

According to Reid, "The value to us of having visiting scholars here lies not only in the opportunity to work with bright and energetic scholars from around the world but also in the chance to provide them with skills they can use to improve agricultural production in their home countries."

Don Hunter arrived at UC Davis from New Zealand in early 1999. Antonio Ferrante arrived from Italy in January 2000, and Mohamed Abd Allah Eraki arrived from Egypt in March 2000. "These scholars came to campus because of the reputation of the college and its postharvest program," Reid said.

Reid believes that the postharvest ornamentals program is enriched by scholars' research and background and hopes that their experience at Davis expands their scientific horizons.

Denison of the **Department of Agronomy and Range Science**. Hasegawa did field research and computer modeling to predict availability from leguminous green manures to subsequent crops. They published two papers on this work and a third is in preparation.

Farre made a good start analyzing differences in water use between our conventional and organic systems.

Shinji Shimada of Japan spent eight months researching legume nodule physiology in Denison's laboratory. Their research was featured on the cover of the *Journal of Experimental Botany*. The following year, Shimada obtained funding for an exchange visit, so Denison spent a week lecturing and visiting laboratories in Tsukuba, Japan.



Graduate student Marinda Visser came from South Africa to work for one year in the laboratory of Professor Thomas Gordon, Department of Plant Pathology.

Five visiting scholars are working in the lab of Clarence Kado, **Department of Plant Pathology**.

Kenji Terashima of Toyota City, Japan, is studying novel delivery systems in the biological control of plant root diseases; Naima Bouhouche of Morocco is a postdoctoral visiting scholar studying the application of a novel gene for controlling crown gall disease; Laurence Leloup of Paris, France, is studying the application of novel genes useful in promoting transformation; Helen Rawsthorne of

Norwich, U.K., is studying the design of novel gene exchange vectors for gram-positive bacteria; and Shaw-Jye Wu of Taipei, Taiwan, is working on microbial array technologies.

In 1999, Professor Marian McKenna came to the 4-H Center for Youth Development as a visiting scholar. While here, she worked with Cooperative Extension specialist and director Richard Ponzio and his staff. She shared her research findings on the impacts of academic service learning, wrote a monograph published by the center and presented a workshop at the California 4-H annual meeting.

Ponzio became familiar with McKenna's work through the Northern Rocky Mountain Educational Research Association. He wanted to incorporate some of the principles of her work into the 4-H Center at Davis, so he invited her to work at the center.

McKenna and Ponzio worked on a model for incorporating academic service learning into non-educational settings for students thinking of entering fields in addition to education. They are continuing investigation into the impacts of various models to do this and to disseminate findings to interested agencies and communities.

"I cannot begin to tell you how much I enjoyed my time on the UC Davis campus," McKenna wrote. "The staff and students with whom I interacted were absolutely wonderful! They were kind, supportive, intelligent and interested."

McKenna taught one session on the use of Ethnograph software for qualitative research methods and developed a collaborative project between UC Davis and UC Berkeley.

"I am very grateful for the opportunity to work at the 4-H Center for Youth Development at UC Davis," she said. "It has inspired my research with my community and students. It is my hope that I have contributed something to the dynamic work being done at the center. I look forward to a return visit."



Distinguished Canadian scientist Donald McKay visited the **Department of Environmental Toxicology** during the winter quarter.

Professor McKay is director of the Environmental Modeling Center at Trent University, Peterborough, Ontario. His primary research interest is the development, application, validation and dissemination of mass balance models describing the fate of chemicals in the environment.

This is McKay's second sabbatical with the department, and he regularly visits when he is in California.

On this visit, undergraduates learned about environmental modeling from McKay. He also delivered the keynote address, "Managing Chemicals in the New Millennium," before the meeting of the Northern California Chapter of the Society of Environmental Toxicology and Chemistry.

McKay worked with professor and department chair Marion Miller on the development of a physiologically based pharmacokinetic model. He also used his time to do the final editing of the second edition of his book, *Multimedia Environmental Models*, and to write several papers.

"Having Dr. McKay visit our department was a real pleasure," said Miller. "He contributed to the department culture - not only because of his expertise - but because he brought a fresh perspective to the role that environmental toxicology plays in dealing with chemicals in the environment."

Jihua Liu (photo page 21), faculty and director for the cotton genetics and breeding program at Shandong Agricultural University, spent two years as a visiting scientist in Professor You-Lo Hsieh's group in the **Division of Textiles & Clothing**. Liu's research focused on cotton fiber strengths and their relationships to fiber structure.

Hongbo Yang of Shandong Agricultural University also worked



on the cotton strength project. Yang and Liu were active in outreach programs and worked with JASRAP students during summer 1999. The results of their work were presented in several meetings, and the first paper was submitted for journal publication.

Chunhee Kim, associate professor at Hannam University, Korea, took a one-year sabbatical to work in Hsieh's laboratory. Kim works in the areas of surfactants and interfacial phenomena. While on campus, her focus has been studying the wetting properties of fibrous materials with non-ionic surfactants and microemulsions. The first paper generated from this collaboration was presented at an international conference at Princeton in June.

Magda Lopez Barajas came to the **Department of Viticulture and Enology** from Barcelona, Spain. She worked with professor and Amerine chairholder Linda Bisson. Here is her story in her own words:

"I always thought that it is very good for every person to stay for a time outside of his/her own town because it opens the mind. Meeting different people from different countries-cultures shows that there are other good ways to think and to work, mainly when the new people you meet think and work very well.

"To have a position in the university, this 'visit' is almost compulsory. I learn new techniques, work with more instruments and meet professors who, hopefully, continue to work with

or keep in touch with me. That's [what] I found at UC Davis.

"I came here because friends told me that this was the best place! I met people from [all] over the world and professors with a different and very good way of working - high level, ambitious goals, hard working and, at the same time, available to me. These professors, with high knowledge, are very open and accessible.

"I hope to come back, to do more visits, and to be in working contact with these professors and with friends," Barajas said.

The **Department of Land, Air and Water Resources** has hosted numerous visiting scholars.

Recently, professor Kate Scow invited Dr. Amos Hadas to the UC Davis campus to conduct joint research on vineyard soils in her lab. His interest in the physical attributes of terrior not only complements Scow's interests but provides important data on a topic that virtually has gone unexplored in California. Hadas was on campus through August.

LAWR assistant professor William Horwath invited Senior scientist Aviva Hadas of the Volcani Center, Institute of Soil, Water & Environmental Sciences in Israel, to conduct research in his laboratory for one year. Her interest is in soil fertility evaluations of organic amendments.

Hadas' proposal was to study the

availability of nutrients in alternatively managed cropping systems.

Rivka Reichman is a permanent research fellow in the Department of Environmental Physics, Israel Institute for Biological Research, Ness-Ziona, Israel. She was invited to campus by Professor Dennis Rolston, LAWR chair, and is spending one year as a post doctoral scholar in his laboratory.

Reichman's principal research area is related to chemical volatilization from porous media. While at UC Davis, she is working on the collection of field and laboratory data on the volatilization of pesticides from soil and comparing model simulations with the data.

Two visiting scholars from Nippon Del Monte food company in Japan are working in the laboratory of associate Cooperative Extension specialist Diane Barrett, **Department of Food Science and Technology**. The company wanted to form a collaboration with UC Davis focused on tomato processing, one of its primary interests. The company's goals were to train individual researchers in laboratory methods related to tomato biochemistry and processing; expose their researchers to commercial California tomato processing facilities; establish a relationship with the principal UC Davis food science and technology scientist working in these

(Continued page 38)



Professor Kate Scow and graduate student Mara Johnson examine samples collected in a dust generation chamber. These samples are part of a study using microbial community DNA fingerprinting to determine sources of fugitive dust.



Kenneth Tate, Cooperative Extension range-land watershed specialist in the Department of Agronomy and Range Science,

received the Outstanding Young Range Professional Award at the Society for Range Management's 53rd annual meeting in Boise, Idaho. The award was presented to the member demonstrating extraordinary potential and promise as a range management professional.

Tate's leadership rallied a team of researchers to focus on water quality in grazed watersheds. His research and education programs helped to resolve conflict in highly visible watersheds, resulting in changes in practices on rangelands throughout the state and protecting the quality of drinking water for millions of urban Californians.



Professor **Harry Kaya**, Department of Nematology, was elected a Fellow of the Society of Nematologists. He was honored for

providing leadership and vision to the discipline in insect nematology.

Kaya established insect nematology as a viable sub-discipline, giving nematology a critical focal point that led to such breakthroughs as the exemption of nematodes from EPA registration. As the result of his efforts, nematode pathogens of insects have been elevated to the same status as protozoan and bacterial pathogens.

Professor **Thomas Famula**, Department of Animal Science, recently put together the college's first course on statistical genomics. It begins in spring 2001. Graduate students, undergraduate students in biotechnology and statisticians are expected to enroll.

Famula targeted the course to new graduate students of genetics who "have next to no understand-

ing of the mathematics of genetics, yet want to find genes."

The course will teach students how to determine if genes are linked, what 'order' they are in on a chromosome and whether a gene segregates with a trait of interest. The class will relate genetic map information to complex phenotypes, such as milk production in cows or cholesterol level in mice.

Famula admits that the material sounds dry, but contends, it is "exciting for statisticians." He uses as an example the research he is doing with associate professor **Anita Oberbauer** on the genetic basis of epilepsy in Belgian Tervuren, a breed of shepherd dog.

"We have been working on this about four years," Famula said. "We're currently at the stage of collecting mouth swabs from 500 dogs with and without epilepsy from which we will extract DNA. We're assembling pedigrees and genotyping dogs at 103 microsatellite markers. We'll try to see if some DNA markers associate with the disease. That test of association is the heart of statistical genomics."

Oberbauer and Famula are doing similar work on Addison's disease in Bearded Collies, and Famula is working on other gene-disease associations.



Professor emerita **Emmy Werner**, Department of Human and Community Development, is the first UC Davis

faculty member to win the UC-wide Constantine Panunzio Distinguished Emeriti Award given seven times over the past 16 years. The award recognizes UC emeritus faculty for scholarship or educational service "of outstanding character" in any year following retirement.

An internationally recognized development psychologist, Werner spent a lifetime studying how children cope when confronted with adversity. Since her retirement, she



Linda Bisson, professor and Amerine Chair, Department of Viticulture and Enology, was presented the Honorary Research Lecturer Award from the American Society for Enology and Viticulture at its annual meeting.

Bisson and her lab students pose outside Wickson Hall (top row, from left): Jason Burrus, Magda Lopez-Barajas of Spain, Natasha Boffman, Yiannis Skiadis of Greece; (middle row) Bisson, Tammi Olineka, Vidhya Ramakrishnan of India, Kathryn Weiss; (front row) Yoko Kinoshita, Ellen Ingalla, Apostolos Spiropoulos of Greece and Jim Brown.

has published books on children of the westward migration, the Civil War and World War II.

In 1999, Werner published *Through the Eyes of Innocents: Children Witness World War II*. Her book, *Reluctant Witnesses: Children's Voices from the Civil War*, was released in paperback last year, and she had six book chapters and one journal article published or accepted for publication. Werner also presented six research papers at national or international conferences during 1999.

Werner is a 1995 Award of Distinction recipient.

Professor **Thomas Adams**, Department of Animal Science, was presented the Distinguished Teaching Award by the campus division of the Academic Senate. The award recognizes "remarkable teaching ability."

A UC Davis faculty member for 19 years, Adams teaches courses in reproductive physiology. His research program focuses on reproductive issues of livestock. Adams is known for mentoring his own graduate students and postdoctoral researchers and also for offering assistance to undergraduate and graduate students from other disciplines.

According to Professor **Gary Anderson**, chair of the Department of Animal Science, Adams is the third animal science faculty to receive the award in as many years. Professor **Edward DePeters** received the award in 1998, and Professor **Thomas Famula** received the award in 1999.

"Since recipients of the Distinguished Teaching Award are selected campuswide, this speaks well of the importance that the college and the department put on teaching," said Anderson.

Associate professor **Scott Rozelle**, Department of Agricultural and Resource Economics, was presented the Excellence in Economic and Sector Award from The World Bank for exemplary leadership and personal contribution. Rozelle's work

on the China Rural Development Project was selected from among 100 projects completed during fiscal year 1998-99 and noted for outstanding quality.

In presenting the award, Sven Sandstrom, managing director of The World Bank, said, "...your personal contribution has been identified by your managers and colleagues as having had a major impact. Your accomplishment sets an important example for your colleagues...and demonstrates that high-quality [projects] can make a major contribution toward helping clients and stakeholders."

Professor **Christine Bruhn**, director of the Center for Consumer Research, Department of Food Science and Technology, was keynote speaker at the three-day British Crop Protection Conference in Brighton, England, attended by 1,200 delegates. She presented the 26th Bawden Lecture, making a detailed analysis of the differences in North American and European consumer attitudes regarding biotechnology and food production and how these attitudes have evolved. Bruhn believes that lack of trust and misinformation are the main impediments to consumer acceptance of new technologies.

Bruhn encourages the scientific community to increase communication with non-scientists, especially consumers, retailers and farmers. She believes that new plant production and processing techniques serve no value if they are misunderstood or rejected at any stage of the food cycle.

"If the avenues of communication are not used by the scientists," Bruhn said, "they can become dominated by special-interest groups who may, or may not, share science-based information."

Professor **Joy Mench**, Department of Animal Science, was elected president of the International Society for Applied Ethology at the group's meeting in Norway. She also serves

on the Council on Accreditation of the Association for the Assessment and Accreditation of Laboratory Animal Care.

Lecturer **John Constantine** and professor and chair **Colin Carter** of the Department of Agricultural and Resource Economics were recognized for outstanding service by Delta Sigma Pi, UC Davis' professional business fraternity. The department's undergraduate advising assistant, Cathy Pickett, also was recognized.



Professor **R. Paul Singh**, Department of Biological and Agricultural Engineering and Department of Food Science and Technology, was elected fellow of two professional societies.

The Institute of Food Technologists recognized him as an accomplished researcher in applying engineering principles to food processing. The American Society of Agricultural Engineers recognized Singh's pioneering research contributions in the application of engineering principles and mathematical modeling to food processing, leading to improved product quality, lower energy requirements, improved analytical techniques and improved environment."



Associate professor **Hossein Farzin**, Department of Agricultural and Resource Economics, was selected the 2000

UC Davis/Association of Pacific Rim Universities (APRU) Fellow.

Fellows from approximately 25 APRU universities will interact with leading academic, business and government experts on topics of maintenance and enhancement of regional ecosystems and sustainable economic development.

Farzin's fields of interest include environmental and natural resource economics, development economics, microeconomic theory, risk and uncertainty. He recently was appointed associate editor of the international journal *Review of Development Economics*.



Professor of geography **Nigel Allan**, Landscape Architecture Program, Department of Environmental Design, was awarded a

Smithsonian Institution Fellowship for research in the Himalayan areas of Pakistan, India and Nepal.

Allan's research deciphers the patterns exhibited in mountain societies and habitat as these areas are incorporated into the nation-state. As a cultural geographer and area studies specialist, he is interested in nature-society relations, especially in the South Asia mountain rimland.

Allan's latest book, *Karakorum Himalaya: A Bibliography*, is an outgrowth of his work promoting the Karakorum mountains between Pakistan and India as a UNESCO-designated World Heritage Site.

Professor **Ernest Chang** of the Bodega Marine Laboratory was appointed to the California Sea Grant Advisory Board. The group advises UC's president and the director of the California Sea Grant on research, education and outreach activities.

Professor **Dennis Hedgecock**, Bodega Marine Laboratory geneticist, was elected to the Council of the American Genetic Association, publisher of *Journal of Heredity*.

Assistant professor **Mary Delany**, Department of Animal Science, organized and chaired the Poultry Genome Workshop session of the Plant and Animal Genome VIII Conference in San Diego.

Delany was an invited sympo-

sium speaker at the XXIst World's Poultry Congress, Biodiversity Session, held in Montreal, Canada.

Delany also served on the organizing committee and was an invited speaker and chair of the Poultry Species Workgroup at the Third DISCOVER Conference on Food Animal Agriculture: Preserving Animal Germplasm Diversity. Professor emeritus **Eric Bradford** also participated.

Research scientist **Greg McPherson** of the Western Center for Urban Forest Research and Education received the California ReLeaf Urban Forestry Achievement Award at the group's annual statewide meeting. ReLeaf coordinates a network of 65 community-based tree planting and stewardship groups.

The award recognized McPherson's outstanding support of grassroots urban forestry efforts at the local, state and national levels through research and public outreach.



Professor **Dolph Gotelli**, Department of Environmental Design, received one of three 2000 Distinguished Public Service

Awards from UC Davis colleagues. The award recognizes faculty members who have made distinguished public service contributions to the community, state, nation and world throughout their professional careers.

During the past 25 years, Gotelli created more than 180 exhibitions or lectures for non-profit organizations and more than 40 for public organizations. He founded Design Alliance, a community-based organization that supports the Design Gallery on the UC Davis campus.

Gotelli serves as U.S. coordinator/curator for the Asia Pacific Applied Arts Forum, an international group of designers committed to sharing the arts and culture of their nations via the Web.

"Dolph has expanded public awareness and appreciation of visual communication, cultural heritage and the creative spirits of people," said Patricia Harrison, chair of the design program.

Design professor **Barbara Shawcroft**, Department of Environmental Design, is one of two American artists selected to compete for the Betonac Prize in Belgium. Shawcroft's work is a three-dimensional, large-scale structure created in steel wire.

Shawcroft has created public site-specific works for the Bay Area Rapid Transit Embarcadero Station and Three Embarcadero Center, both in San Francisco. She has conducted workshops in Japan, Finland, England, Switzerland, Austria, Italy and Hawaii, as well as in the U.S.

Shawcroft currently is investigating visual expressions of bubble formations and their mathematical components. In 1994, she was awarded the Gold Medal Prize in Italy for a bubble formation prototype.



Sculptures using recycled metal frames and cellophane were designed and installed by Shawcroft's students Janice Ellis, Lesley Bradley and Elisa Owens.

Professor emeritus **Robert Fridley** of the Department of Biological and Agricultural Engineering and special

assistant to the CA&ES dean was appointed to the National Research Council's Board on Agriculture and Natural Resources. He will serve for three years.

The board, comprised of leading scientists, engineers and professionals, advises the nation's leaders on issues of scientific and technical importance.



Professor emeritus **Alex McCalla**, Department of Agricultural and Resource Economics, was recognized as a Fellow of the Canadian Agricultural Economics Society at its annual meeting in Vancouver.

An internationally recognized authority on economics of agricultural trade, agricultural policy, economic development and world food policy, McCalla is one of a half-dozen distinguished agricultural economists who founded the International Agricultural Trade Research Consortium. His research interests are focused on international trade in agricultural products, international implications of domestic agricultural and macro policy, agriculture and economic development and world food policy.

Professor **Kenneth Brown**, Department of Nutrition, is chair of the international steering committee of the newly formed International Zinc Nutrition Consultative Group that met in Stockholm, Sweden, at the Conference on Zinc and Human Health. The Nutrition Programme of the United Nations University and the International Union of Nutrition Scientists established the group to promote improved zinc nutrition in vulnerable populations of low-income countries and to provide related technical assistance to governments and international agencies.

Cooperative Extension specialist **Steven Blank**, Department of



Agricultural and Resource Economics, was elected president of the Western Agricultural Economics Association for 2001-02. As presi-

dent-elect, he participated in the WAEA Executive Council Meeting in Vancouver and will present his presidential address at the group's 2001 annual meeting in Logan, Utah.

Blank's work ranges from financial management to decision-making under risk. He has looked at rural finance issues and the relationship between rural and urban economic development and at risk management methods and tools, such as futures markets and crop insurance.

Lecturer **Liz Applegate**, Department of Nutrition, was asked to help plan the menus available to athletes at hotels and on-site locations during the U.S. Track and Field Trials in Sacramento this past summer. A former award-winning triathlete, Applegate suggested menus that offer a variety of high-quality proteins and carbohydrates and plenty of soy-based products for vegetarian athletes, such as tofu and soy milk.

A nationally recognized expert on nutrition and performance, Applegate recently received the UC Davis Excellence in Teaching Award. She is author of *Power Foods: High-Performance Nutrition for High-Performance People*. Her new book is titled *Eat Your Way to a Healthy Heart: Chocolate and 99 Other Foods to Help Your Heart*. She is a nutritionist for the National Cycling Team and a nutrition consultant for NBA and NFL teams, as well as for professional and Olympic athletes.

The Best Practice Paper Award of the Environmental and Water Resources Institute Irrigation and Drainage Council of the American Society of Civil Engineering (ASCE) was presented to irrigation and drainage specialist **Blaine Hanson** and irrigation specialist **Larry**

Schwankl of the Department of Land, Air and Water Resources. They were honored in June at the ASCE Watershed and Operations Management 2000 Conference at Colorado State University in Fort Collins, Colorado.

The award recognizes their paper titled "Error Analysis of Flow Meter Measurements" published in the ASCE *Journal of Irrigation and Drainage Engineering*.

Professor **Annie King**, Department of Animal Science, associate dean of undergraduate academic programs, was featured in the June 2000 issue of *Black Issues in Higher Education* in an article titled "African Americans and Agriculture."

King commented that students often shy away from agriculture. "I was taught by my parents who were sharecroppers that working on the land or with products from the land is an honorable profession. But many parents and grandparents today tell young people about the great hardship associated with slavery or they speak about dirty, hard work with low pay or even the loss of family-owned farms.

"Students bring these stories forward with them into high school and college, thus missing many new, rewarding experiences and careers."

King is a member of the Graduate Groups in Agricultural and Food Chemistry, Avian Sciences and Food Science. Her research interests include prevention of lipid oxidation in poultry muscle; eggs and their products; and methodologies for determination of cholesterol and its oxidized derivatives in poultry muscle and eggs.

Professor emeritus **Donald Crosby**, Department of Environmental Toxicology, was presented the International Award for Research in Agrochemicals by the American Chemical Society. He will be honored at the group's national meeting in San Diego in 2001.

Crosby's area of research is chemical aspects of ecology, envi-

ronmental photochemistry, water chemistry, and marine chemistry and toxicology. He is a member of the Graduate Groups in Agricultural and Environmental Chemistry, and Pharmacology and Toxicology.

Associate research behaviorist **Peter Klimley** of the Bodega Marine Laboratory was quoted in a recent article on great white sharks in a *National Geographic* article titled "Inside the Great White."

Over the past few decades, great white shark attacks have increased, partly because there are more divers and swimmers using the water; however, fatal attacks have decreased. Years ago, half of the people attacked died; today, four out of five of them survive.

While it is thought that improvements in community and emergency medical care have saved many lives, Klimley commented that in some cases, the sharks change their minds. "These sharks



Glenn Young (left), assistant professor, Department of Food Science and Technology, and Robert Zasoski, professor, Department of Land, Air and Water Resources, listen intently during the CA&ES Faculty Tour.

are seizing people and holding them while they make a decision about whether or not they want them. Strike. Hold. Release."

Read the entire story at www.nationalgeographic.com.

Professor **Serge Doroshov**, Department of Animal Science, received the World Aquaculture Society Lifetime Achievement Award. It was presented at the World Aquaculture 2000 Conference in Nice, France.

Doroshov was recognized for contributions in sturgeon biology research, graduate student training and establishing international commercial sturgeon aquaculture.

Doroshov joined the department in 1977 and has served on numerous state, regional and national committees. He was director of the Aquaculture and Fisheries Program from 1995 through 1998, recently reorganized as the Center for Aquatic Biology and Aquaculture.

In 1998, Doroshov received the Distinguished Service Award from the California Aquaculture Association.

Assistant researcher **Peter Havel**, Department of Nutrition, was named recipient of the 2000 American Physiological Society Shih-Chun Wang Young Investigator Award, recognizing outstanding promise in the field of physiological sciences research.

Havel's research is focused on diabetes and obesity. He studies the role of the autonomic nervous system in regulating pancreatic hormone (insulin and glucagon) secretion and intermediary metabolism, and examines the mechanisms responsible for impaired defenses against hypoglycemia in humans and animals with diabetes.

Havel's laboratory also is investigating the regulation of secretion and the actions of leptin, a hormone made by adipose tissue (fat) that is involved in modifying energy metabolism via its effects on feeding behavior and energy expenditure.

This research examines the molecular and biochemical mechanisms regulating leptin production and the effects of endocrine, metabolic and dietary factors in the regulation of leptin in animals and humans, as well as the function of leptin in the overall regulation of energy balance and its role in the pathophysiology of obesity and type-2 diabetes.

Lecturer **Linda Whent** (B.S., '78, Animal Science; M.Ed., '87, Education), Department of Agronomy and Range Science, was awarded the Honorary State FFA Degree by the state Executive Committee for the California Association of Future Farmers of America, it's highest honor.

Whent also received the gold Teacher-of-Teachers Award from the California Association of Agricultural Teachers at the group's state convention in June. She served on the state committee to establish standards of quality and effectiveness for subject matter in agriculture education.

In 1997, Whent received the American Association of Agricultural Educators western region Outstanding Young Member Award. She was the first woman to serve as AAAE western region vice president.



Professor **Mikal Saltveit**, Department of Vegetable Crops, was elected a fellow of the American Society for Horticultural Science (ASHS)

for contributions in his area of specialization and to the society.

Saltveit, the only individual to receive the ASHS Most Outstanding Research Paper Award three times, is an internationally recognized expert on the postharvest physiology and technology of horticultural crops. He maintains an active research program on the physiological effects of the abiotic stresses of chilling and wounding on horticultural crops.

Saltveit is currently director of

the Mann Laboratory and director of the UC Postharvest Program.



Pamela Yee Tom (B.S., '71, Home Economics; M.S., '75, Consumer Science), program representative in the California Sea Grant Extension

Program, was recognized as a fellow for outstanding contributions in the field of food science and technology and service to the Institute of Food Technologists. She was acknowledged for service to the institute at local and national levels and extension work providing information to industry and consumers in the fields of seafood technology, consumer food marketing, and fruit and vegetable processing.

Tom collects and analyzes data for seafood research presentations, plans and coordinates workshops and conferences, helps write extension leaflets on seafood processing and food safety issues, and designs and produces visual aids for Extension specialists.

Tom supervises the only seafood technology training video lending library in the U.S. and maintains a seafood technology e-mail mailing list and Internet database on seafood technology to more widely promote the international exchange of seafood technology.

Soils and biogeochemistry professor **Kate Scow**, Department of Land, Air and Water Resources, was elected a Fellow of the Soil Science Society of America, the group's highest award. She also was appointed to an editorial board for the American Society for Microbiology journal *Applied and Environmental Microbiology*. Board members are selected on the basis of demonstrated competence and achievement in their scientific discipline, evidenced by quality of research accomplishments, publications in scientific journals and national reputation.

Scow's work in coupling physical

and microbiological processes in soil is unique in the soil microbiology community. Her research is focused on the kinetics of biodegradation, interactions of sorption, diffusion and biodegradation of polycyclic aromatic hydrocarbons, and volatile organic chemicals and bioremediation of MTBE.

Professor **Robert Flocchini**, Department of Land, Air and Water Resources, was appointed to a state air quality and agriculture advisory committee that will identify and promote clean air strategies for agriculture. His area of research is the transport of airborne particulates and air pollution meteorology.

Flocchini is director of the Crocker Nuclear Laboratory.

Extension poultry specialist **Donald Bell**, Department of Animal Science, was elected fellow of the Poultry Science Association in recognition of his internationally known research in cage layer management, flock recycling, beak trimming, egg quality and egg marketing, as well as for service to the industry. The association bestowed the honorary title fellow upon only two U.S. citizens this year.

Bell has contributed to educational programs throughout the world. He co-authored the fourth edition of the *Commercial Chicken Production Manual*.

Alexandra Navrotsky, interdisciplinary professor of ceramic, Earth and environmental materials chemistry, is the 2000 Calorimetry Conference Hugh M. Huffman Memorial Awardee. She was selected based on her contributions to thermodynamics and calorimetry. She presented the Huffman Memorial Award lecture at the conference in August.

Cooperative Extension education research specialist **Joan Wright**, Department of Human and Community Development, received the 2000 Distinguished Service Award for Outstanding Teaching -

Specialist by the UC Academic Assembly Council. The peer-nominated award also is sponsored by the California Farm Bureau Federation. The council represents CE advisors and specialists.



Professor and chair **Colin Carter** (left) and Professor **Julian Alston**, Department of Agricultural and Resource Economics, were elected fellows to the American Agricultural Economics Association (AAEA) at the group's annual meeting in Tampa, Florida.

The award is the most prestigious honor an agricultural economist can receive from AAEA peers.

Others from the department were recognized at the ceremony.

Professor **Jeffrey Williams** received the Distinguished Teaching Award for Graduate Teaching, More Than 10 Years Experience.

Professor **James Wilen**, with former graduate student **James Sanchirico**, received honorable mention, Quality of Research Discovery Award.

Marketing specialist **Leslie "Bees" Butler** received the Distinguished Extension Program, Group Award.

Professor **Richard Sexton** was invited to give the annual Waugh Lecture and was presented a medal.

Alston also was elected president of the Australian Agricultural and Resource Economics Society (AARES) for 2001. As president-elect, he is planning the annual AARES conference to be held in Adelaide, close to Australia's premier wine-producing region. Several UC Davis faculty and graduate students will participate.

DESIGN PROGRAM

For many years, the Landscape Architecture Program was a part of the Department of Environmental Design; however, in 1994, the two units separated, and chairs were named for each program. CA&ES Outlook interviewed program chairs Pat Harrison and Dean MacCannell to find out about these two strong, independent programs that function within one department.

Professor Patricia Harrison explains design as “standing on the bridge between science and art.” She is chair of the Design Program, and she is passionate about her work and the work of her colleagues.

“At a professional level, design is about structuring our environment,” Harrison said. “To live the life or philosophy that we believe in, we must take a comprehensive look at shaping our world to express our ideas.”

One way that Harrison sees the world is through design students. “I think our students are very special. They see at a very profound level and want to make a difference. The things they see may be economic, social or political, but their interpretation has a very strong visual complement. They may see social injustice and interpret it in terms of buildings or landscape or color. Someone else may see social injustice and interpret it in terms of disease or medicine.”

According to Harrison, design is about space, and space always has been a big issue with the Design Program. “Our dilemma is that to see and understand space, we need space. We need space in order to recreate space. Our alumni rate us as an excellent program - all except for our space. It’s an ongoing problem for us.”

Harrison said that alumni keep in close touch with the program and with one another. Some come back to teach. Others send suggestions or ideas for program improvement. “It’s the nature of designers,” she said. “They look at our program the way they look at everything - analyzing, thinking, considering how it could be different or better.”

Harrison hopes to build stronger ties with industrial and professional communities and to add younger faculty who will create contemporary, future-oriented linkages.

Faculty are talented and diverse, according to Harrison. “We cover a broad range of interests, including furniture design, textile structures, costume design, graphics, and digital computing and visual presentation.

“Handcraft is still a very important part of design,” Harrison said, “and yet, the new medium of digital computers is so pervasive that it is causing some interesting programmatic shifts. We are engaged in shifting emphasis to address the new world of digital computers - working to find the right balance.

“As society gets more and more sophisticated and educated, the things we use and see become increasingly important as icons of quality of life. If our program can keep strong intellectual, theoretical focus and keep moving along with technological change, we will continue to turn out cutting-edge designers.

Our goal is to retain our strong design tradition and keep up with new technology.”

Harrison explains that professors in design are the individuals in academia who interpret science for the larger public. They utilize the products of scientific research to fabricate the objects we use in human activities.

Design faculty include: Richard

Berteaux, architect and professor - interested in vernacular and environmentally responsive architecture.

Dolph Gotelli, professor, curator and exhibition designer - focusing on visual presentation. He is director of the Design Gallery in Walker Hall.

Patricia Harrison, architect and professor - focusing on housing for low-income California populations.

Gyongy Laky, professor - interested in sculptural forms of recycled agricultural and park prunings. Her work is represented in several museum permanent collections, including the Philadelphia Museum of Art.

Helge Olsen, senior lecturer - specializing in environments for seniors and the visually impaired.

Victoria Rivers, professor and artist - involved in ethnographic textile research. Her new book is titled *The Shining Cloth: A Survey of Ethnographic Light - Reflective Textiles and Dress*.

Barbara Shawcroft, professor - researching the links between the natural scientists and a visually expressive point of view.

JoAnn Stabb, senior lecturer - designing and exhibiting one-of-a-kind garments as wearable art clothing.

Kathryn Sylva, assistant professor - focusing on women’s health issues, specifically eating disorders such as anorexia and bulimia.

Lecturers include John Driscoll, Robert Frye ('88, Design), Barbara Molloy, Bob Morgan, Gale Okumura, Susan Sutton Palmer, Kathleen Church Plummer, D.R. Wagner, Jaqueline K. Warriner, Linda Welch, Peter Xiques and John Driscoll.

“Communication of both physical and social science through responsible, informed design of objects, environments and visual images is critical to the success of our society and the chief objective of the Design Program.” concluded Harrison.



Professor Dean MacCannell transferred to the Landscape Architecture Program in 1994 from Applied Behavioral Sciences. He always has known the program as an independent unit. Today, he serves as chair and its biggest cheerleader.

"We share the computer lab and MSO with Environmental Design," MacCannell said, "however, we have our own program representative and independent research and teaching facilities. Our subsidiary units include the Center for Design Research directed by Mark Francis and Community Design & Planning Services directed by Randall Fleming and Patsy Eubanks Owens. These units support our research and outreach activities."

Faculty are involved in basic and applied work at all levels of landscape architecture - from micro-level projects (residential redesign) to major, large-scale projects (regional parks). Portfolios reflect quality contributions in California and nationally.

"Our faculty is extraordinary," MacCannell said passionately. "Our philosophy is based on three major components of design: process, environment - the impact of design on nature, and culture - the understanding that landscapes are created by people for people. We are concerned about environmentally sustainable design practices and emphasize that in our teaching and research. Our work is very diverse. Our faculty reflect that."

Nigel Allan, professor - specializing in mountain geography. He is interested in nature-society relations, especially in the South Asia mountain rimland. His latest book is titled *Karakorum Himalaya: A Bibliography*.

Mark Francis, professor - focusing on the design and planning of urban and community landscapes. He designed Farmer's Market, the new Borders Books next to Aggie Village and Central Park in downtown Davis.

Steven Greco, assistant professor and landscape architecture's newest



faculty member - works on dynamic modeling of changes in the Sacramento River system.

MacCannell, professor and chair of the Landscape Architecture Program - focused on critique and analysis. He has done critical studies of the Statue of Liberty, Disneyland and the Vietnam Memorial in Washington, D.C. Landscape architects and planners use his work as background analysis for design work.

Stephen McNeil, lecturer - focusing on restoration work for state and national parks. He built a statewide geographic information system of historic recreational homes and evaluated thousands of them for National Register of Historical Places eligibility.

Patsy Eubanks Owens, associate professor - focused on the social aspects of design, particularly user needs and preferences, and participation. Her research reveals how skate board parks and shopping malls might be more user-friendly.

Heath Schenker, associate professor - engaged in the fine arts aspects of landscape architecture. Her Central Valley show and book is titled *Picturing California's Other Landscape: The Great Central Valley*.

Rob Thayer, professor - working on the Putah Creek-Cache Creek Bioregional Project. He authored *Gray World, Green Heart* and is writing *Life Place: A Bioregional Approach to Planning, Education and Stewardship*.

"Our part-time faculty do impressive work," MacCannell said with pride. "One has been contacted to remodel Union Square in San Francisco. Another redesigned the trails leading to Mt. Fuji in Japan. They enjoy working with our students and often, our students move directly out of our programs into their professional offices."

MacCannell has three specific goals for the next five years:

1. "We rank fourth nationally," according to what MacCannell said. "Our space is critically important if we are to maintain our accreditation. I believe our program will rise in the ranking once new facilities are realized."

2. "I'd like to establish a Ph.D. program in landscape architecture," MacCannell said. "A joint Ph.D. program has been proposed with the landscape architecture faculty at UC Berkeley. We hope to see the idea move forward within the next three to five years."

3. The program has petitioned for full departmental status. "This will not necessarily disrupt our current relationship with design," MacCannell explains. "It merely makes official what already is true administratively."

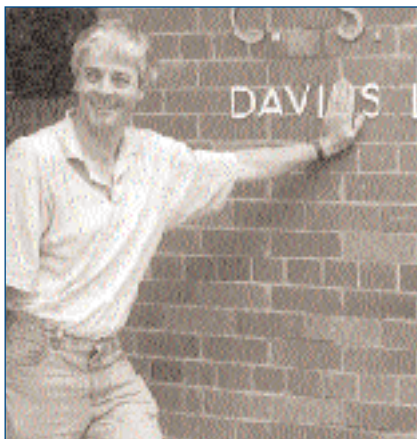
The Landscape Architecture Program admits students into its major by portfolio review. There is high quality control; students literally are hand picked. Given size and studio space, the program can handle only 100 majors. Students who just miss the cut are encouraged to apply in the second year, and many of them are admitted.

"The level of collegiality, trust and respect among faculty, staff and students in this program is as high as I've ever seen anywhere," MacCannell said. "I am successful at my job and this program is successful in its mission because we are secure in what we do and in the support we receive from one another."

Professor James Wilen, **Department of Agricultural and Resource Economics**, is a committee member of the National Research Council advising the federal government on marine reserves. His work involves analyzing the economic benefits and costs of marine reserves. His colleagues' work is on the biological benefits and costs.

Wilen recently completed a study of marine reserves in the Galapagos Islands with assistant professor David Layton of **The Department of Environmental Science and Policy** and graduate student Micki Stewart. They concluded that if 20 percent of the Galapagos marine ecosystem were set aside in a reserve, the benefit-to-cost ratio would be 10 to 1.

"We're doing multidisciplinary work between social and biological scientists focused on solving policy problems," Wilen said. "UC Davis has the capacity and talent to do this and to influence state, national and world policies."



Hydrology professor Jan Hopmans, **Department of Land, Air and Water Resources**, was awarded a Land and Water Resources Research and Development Corporation Fellowship that made it possible for him take a one-year sabbatical with CSIRO Land and Water in Townsville, Queensland, Australia, and

work in the CSIRO Davies Laboratory.

During his sabbatical, Hopmans is focusing on improving the general understanding of differences in deep drainage between natural and agricultural systems (complex rooting systems, e.g., tropical rainforest vs. relatively simple rooting systems; e.g., sugarcane).

Particular attention is given to the development of methods for quantifying water and nutrient uptake by different rooting systems and differences in quantity and quality of drainage water leaving the rootzone. A key aim is to develop more appropriate root uptake algorithms for use in crop-soil simulation models being used to explore long-term sustainability of alternative cropping system designs.

Hopmans resides on the Pacific Ocean coast. "This region of Australia is fantastic with its tropical islands, tropical rain forests and Great Barrier Reef National Park," he wrote. "Living in Townsville is easy-going, and my family is involved in a range of activities including school, touring and soccer."

A comprehensive national system of marine-protected areas was established by President Clinton this summer. One of the key recommendations that led to the president's order came from a workshop held under the auspices of the Marine Conservation Biology Institute and The Cousteau Society.

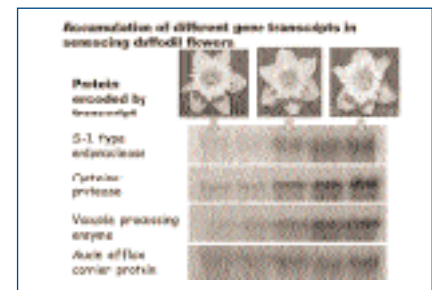
At that workshop, 15 leading social and natural scientists from around the world wrote a letter to the White House calling for the creation of a comprehensive national system of protected marine areas and recommending criteria for the design and management of the system. Professor Louis Botsford, **Department of Wildlife, Fish and Conservation Biology**, was one of those scientists.

An authority on ecological modeling, Botsford builds mathematical models of natural systems and, by making certain assumptions, tests

what would happen if certain things occurred. He can model what the effect of many small marine reserves would be opposed to a small number of large ones. He determines which would be more effective at protecting the organisms inside them and which would be more effective in producing surplus organisms for fisherman to catch.

Professor Alan Hastings, **Department of Environmental Science and Policy**, believes that UC Davis is one of the places central to the formulation of general principles for the design of marine reserves. An authority on the modeling of spatially distributed populations, Hastings was co-author of an influential paper that appeared in the journal *Science* in January 1999. With Botsford, Hastings reported that 'no-take zones' in coastal waters could reduce the effects of fishing and better preserve biodiversity in the world's oceans and actually yield the same industry harvest as current fishing-control methods.

Hastings and Botsford concluded that managing through reserves can net the fishing industry a sustainable catch identical to the maximum yield under traditional management.



Professor Michael Reid, **Department of Environmental Horticulture**, and his group are using molecular tools to examine the genes involved in the senescence of short-lived flowers such as daylily, daffodil and four o'clocks. Their goal is to use genomic tools to interfere with the senescence process, thus providing gardeners and florists with beautiful flowers that last longer.



Students from Cloverdale High School visited UC Davis for a glimpse of college life, and many of them left inspired and rethinking their plans for the future. For some of them, it was the first time they seriously thought about going on to college or about a career in science.

*The visit centered around a visit to the **Department of Environmental Toxicology**. Chair Marion Miller (back row on right) organized the day: an introduction to the department, an overview of avian sciences by Professor Barry Wilson of the Department of Animal Science, a trip to the California Raptor Center, a lecture by Professor Ron Tjeedema who talked about acid rain, and a visit to the Center for Aquatic Biology and Aquaculture where facility manager Paul Lutes talked about research projects currently underway and showed the exotic fish stored at the facility.*

The trip to campus gave students a chance to glimpse college life and, hopefully, inspired them to consider studying science in the future. According to trip organizer, Susan Melton-Piper, Cloverdale High School chemistry and physical science teacher, students found the day informative, enlightening and inspirational.

"I can't wait to come to UC Davis," one student said. "It's going to be a great learning experience."

Department of Environmental Science and Policy professor Benjamin Orlove was featured in a recent issue of the British journal *Nature* in an article showing how indigenous or traditional knowledge has been found to have sound scientific basis. According to an article in the *New York Times*, modern research shows why people maintain their traditions in agriculture, nutrition, medicine and other fields.

One example takes place in mountain villages in Peru and Bolivia where for about a week each June over the last four centuries, farmers have observed the stars in the Pleiades constellation to determine when they should plant their potato crops. If the stars are big and

bright, the farmers know to plant their potato crops at the usual time four months later. If the stars are dim, they know to delay planting several weeks.

By pouring over reams of satellite data on cloud cover and water vapor, Orlove and colleagues discovered that these star-gazing farmers are accurate, long-range weather forecasters. High wisps of cirrus clouds dim the stars in El Nino years, bringing reduced rainfall to that part of the Andes. In such drought conditions, it makes sense to plant potatoes as late as possible.

Orlove's research would have been impossible even 10 years ago because the type of satellite data he needs did not exist.

The **Western Center for Urban Forest Research and Education** is partnering with the **Department of Land, Air and Water Resources** to develop a computerized decision support tool for urban watershed management in Los Angeles.

The three-year project developed and tested a computer-based tool that watershed managers can use in the field to evaluate the cost effectiveness of environmentally friendly landscape practices. Such a tool is needed to implement best management practices (BMP) aimed at reducing stormwater runoff and landscape irrigation water use, conserving energy and recycling green waste.

Associate professor Susan Ustin and postgraduate researcher Qingfu Xiao of the Department of Land, Air and Water Resources will monitor the effectiveness of BMPs already installed at a South Central LA residence and develop the model's hydrologic component. Research scientists Jim Simpson and Greg McPherson of the Western Center are working with graduate student Virak Dee to model impacts of tree shade on building energy use.

Studies in assistant professor Mary Delany's lab in the **Department of Animal Science** focus on poultry - such as chicken, turkey and quail - and other species of birds - such as parrots, raptors and cranes. They have been studying aspects of avian telomere biology.

Delany describes telomeres as the ends of linear chromosomes that contain a specialized repeat sequence. Telomeres are important for chromosome stability and recently have been shown to be a factor controlling regulation of cellular senescence in vitro and aging in vivo.

Many animal models for cell aging have relatively shortened life spans, whereas birds exhibit an amazing array of longevity expectations, with some birds achieving lifespans similar to that of humans. Prior to Delany's study, little infor-

mation was available regarding telomere array organization and telomere stability in birds.

"We have a strong group of animal genomicists in our department," Delaney said. "A positive spin-off of this is that our undergraduate students in the animal science major are getting good exposure to this new area through courses and research experience."

Department of Environmental Horticulture affiliates David Neale and Claire Kinlaw received a \$1 million award from the National Science Foundation for pine genomics research. The Plant Genome Research Project award is through a sub-contract from North Carolina State University. The title of the proposal is "Wood Formation in Loblolly Pine."

Neale and Kinlaw will contribute towards development of an expressed sequence tagged (EST) database for genes expressed in wood-forming tissues and will construct genetic maps and identify candidate genes for commercially important wood-property traits.



The mission of the **Seed Biotechnology Center** is to mobilize the research, educational and outreach resources of UC Davis in partnership with the seed industry to facilitate discovery and commercialization of new seed technologies for agricultural and consumer benefit.

CA&ES

IN
MEMORIAM

Charles B. Ledgerwood
(*27, Agriculture)
Seed Distributor
December 4, 1999

Kinsell L. Coulson
Professor Emeritus
Department of Land, Air and
Water Resources
December 22, 1999

William E. Stuke
Stuke Research Fund
Nurseryman
March 8, 2000

Don Munns
Professor Emeritus
Department of Land, Air and
Water Resources
March 16, 2000

Gary A. Polis
Professor and Chair
Department of Environmental
Science and Policy
March 27, 2000

Michael Rose
Postgraduate Researcher
Department of Environmental
Science and Policy
March 27, 2000

William Ross
Donor
Department of Animal Science
April 7, 2000

Jane Rhoads Leach
Widow, Professor Lysle D. Leach
Department of Plant Pathology
April 27, 2000

Lanitta U. Thomas
Lab Assistant
Department of Food Science
and Technology
May 1, 2000

Horace T. Strong
UC Agricultural Extension
Service, Retired
May 10, 2000

Helen F. M. Olmo
Wife of
Professor Harold Paul Olmo
Department of Viticulture
and Enology
May 17, 2000

Ronald S. Knight
(B.S., '54, Animal Science)
UC Farm Advisor, Retired
Former Director, Cal Aggie
Alumni Association
May 19, 2000

John P. Gifford
Donor
June 15, 2000

James E. Welch
Professor Emeritus
Department of Vegetable Crops
June 17, 2000

Kathleen Barsotti
(*74, Ecology)
July 2, 2000

Benjamin F. Lownsbery
Professor Emeritus
Department of Nematology
July 14, 2000

Frederick Dan Hess
(M.S., '73; Ph.D. '75,
Plant Pathology)
August 4, 2000

Larry Mitich
Weed Science Emeritus
Department of Vegetable Crops
August 16, 2000

CF3 Update

By **Ross MacDonald**

The College of Agricultural and Environmental Sciences was awarded a \$2.5 million grant from the W.K. Kellogg Foundation to support the California Food and Fiber Futures Project (CF3).

CF3 consists of a consortium of higher education institutions and stakeholder groups led by the Davis campus. Over the next five years, CF3 will conduct a set of model projects addressing key issues in ways that will help the college and its partners learn more about how best to engage with the many segments of the public.

UC Davis' current challenge as a leading land grant university is to organize resources and expertise and then bring them to bear on local problems in coherent ways.

"With this support, CF3 can contribute to an ongoing national dialog about how public universities can best engage with their constituencies in the 21st century," notes project director Ross MacDonald, director of special

projects for the college's Dean's Office. A report authored by the President's Commission, a national consortium of land grant university chancellors and presidents, challenges land grant universities to go beyond an outreach and service function to achieve engagement. According to the report, 'engagement' is based in two-way communication and is characterized by sharing and reciprocity.

The CF3 Project is creating engagement through multiple partnerships, leadership, resources and a focus on concrete actions.

The CF3 Steering Committee is comprised of deans and associate deans from nine institutions of higher education and representatives from a number of business, industry and community groups. Under Steering Committee's supervision, four action teams are developing model projects around four key issues: sustainable agriculture and sustainable communities; food, health and nutrition; stewardship of natural resources; and agricultural literacy.

Each action team, comprised of community, UC, state college and community college representatives, is designing a set of model projects

focused on one of these issues. Each model project experiments with ways to create engagement.

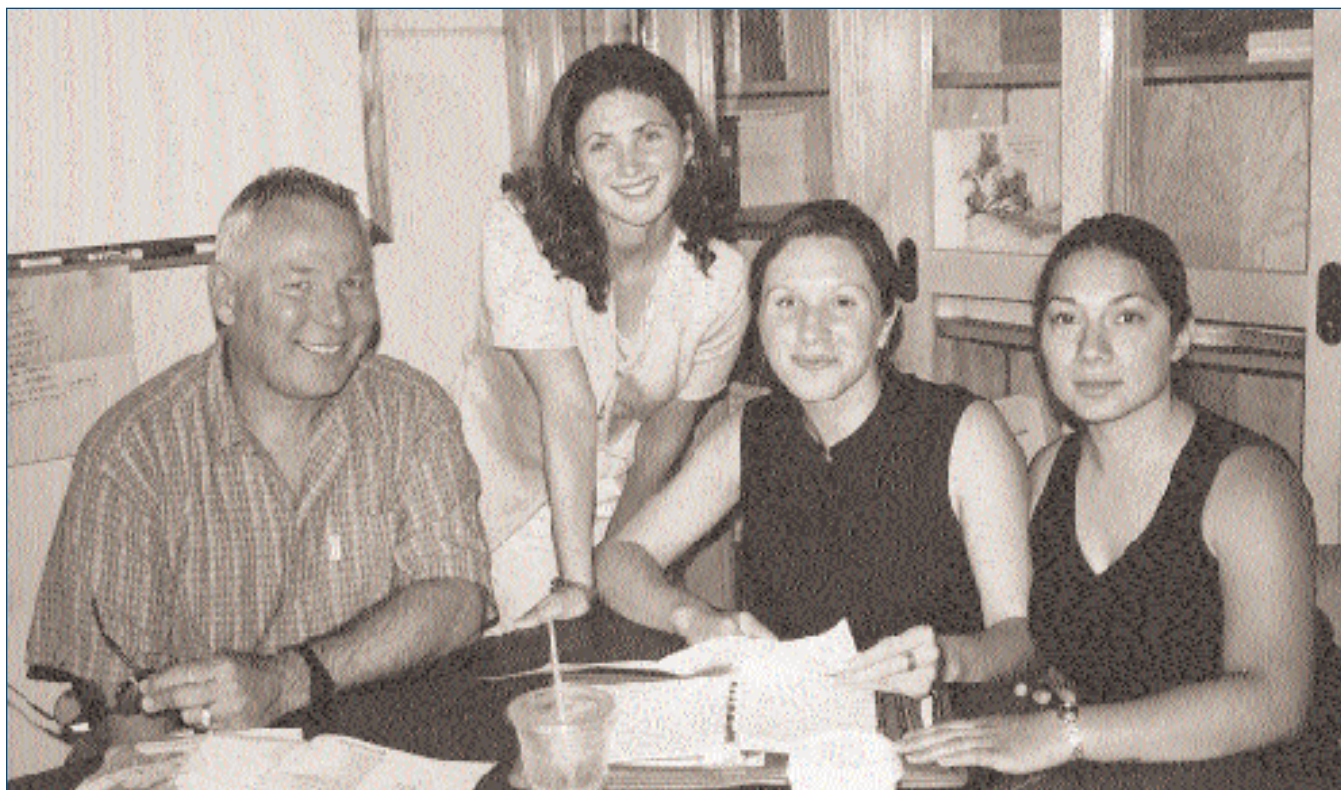
Model projects are designed to be carried out in cycles punctuated by annual touchstone conferences at which what has been learned is summarized and applied to the development of new projects and, simultaneously, new or adapted models for engagement.

CF3 will report on findings through a series of annual reports, the Web and a quarterly newsletter.

For more information about CF3 or how to participate, visit the Web at cf3.ucdavis.edu or call 530/754-9880.

Ross MacDonald is director of special projects, CA&ES Dean's Office; director, Science and Society Program; and director, California Food and Fiber Futures Project.

(Left to right) Ross MacDonald, project director; Kim Biancalana, project assistant; Monica Bernardo, student assistant; and Sonia De La Torre, student assistant.



Hunter Johnson, Jr., (B.S., '50, Vegetable Crops; M.S., '64, Plant Pathology) of Banning, California, is retired and enjoying travel, golf, gardening and 'domestic engineering.' He writes horticultural articles for a community newsletter and serves on a community advisory committee.



David Hansen (B.S., '60, Agricultural Production; M.S., '61, Plant Breeding) of Ames, Iowa, is executive director of the Mid-

America International Agricultural Consortium (MIAC) at Iowa State University. According to Hansen, MIAC supports the international agricultural programs of Iowa State, Kansas State, Oklahoma State, and Missouri and Nebraska Universities.

Richard Almeida ('61, Agricultural Economics) of Orlando, is a financial planner with Balliett Financial Service, Inc. in Winter Park, Florida. He writes:

"Recently, my son, an electrical engineer living in Atlanta, planned a business trip to the Sacramento area. I suggested that he swing over and have his first look at the UC Davis campus.

I knew he had taken me up on my suggestion when I received e-mail with a scanned photo of him wearing a UC Davis T-shirt. Later, when he told me about how spread out the campus is, the scarcity of parking and that he bought the T-shirt downtown, I had to tell him how things were in the 'old days' when I went to school there.

The highest enrollment during the four years I was [at UC Davis] was 2,500, and buildings covered a much smaller part of the campus. Parking was free and wherever you could find it, and neither bicycles

nor anything else had to be locked. The only place to purchase a UC Davis T-shirt was at the one-story student union.

Sheri Schneider Sankey ('72, Atmospheric Science) is a self-employed computer consultant in Potomac, Maryland. She has lived in the Washington, D.C., area for 13 years. Her oldest daughter graduated from UC Santa Cruz this year; a second daughter is in eighth grade. She plays golf in her spare time.

Stephanie Kim Smith Digard ('74, Environmental Planning and Management) of St. Helena, California, is a registered nurse working in case management. She plans to transition to an independent practice as a legal nurse consultant.



Janet Broughton Carle ('75, Environmental Planning and Management) and **David Carle** ('72, Wildlife and Fisheries Biology) of Lee Vining, California, are park rangers with California State Parks. For the past 18 years, they have job-shared the ranger position at the Mono Lake Tufa State Reserve. Both earned M.S. degrees from California State University, Sacramento. They teach biology and environmental interpretation courses at Cerro Coso Community College in Mammoth Lakes.

David Carle, who plans to retire this year, authored a book titled *Drowning the Dream: California's Water Choices at the Millennium*.

April Halprin Wayland ('76, Human Development) of Manhattan Beach, California, writes children's books. Her fourth book, *Poetry is My Underwear*, is the story of a 13-year-old who secretly writes poetry. It will



be published in 2001.

Wayland recently received the Society of Children's Book Writers and Illustrators 1999

Magazine Merit Award for Poetry.

At UC Davis, Wayland ran on the track team, worked on political campaigns and in the theatre and learned to play folk fiddle. Since graduating, she has worked at the Rand Corporation, co-founded a tutorial agency called Positive Education, Inc., backpacked through Europe and the Middle East, was a marketing manager for Pacific Bell, married and gave birth to son Jeffrey.

Wayland taught at UCLA Extension and lectured at over 275 schools across the country. She also lectured for the USC Writing Project, for Music-Center-on-Tour, and at American military base schools in Germany and France. Wayland left the corporate world in 1985 to write full time. Her tape, "It's Not My Turn to Look for Grandma and Other Stories," won the 1998 Award for Storytelling from National Parenting Publication Awards.

Ann Wilson Warner ('78, Zoology) is director of conservation at The Oakland Zoo. She enjoys coordinating the zoo's conservation projects, leading ecotours and working with teens. She is married to fellow Aggie **Cliff Warner** ('77, Individual Major). They met at Davis in wildlife and fisheries biology. The Warners have three children; the oldest, Ross, was a senior this year at UC Davis!

Stacy Edge ('80, Environmental Planning and Management) inspects buildings and reviews building plans for compliance with fire code requirements, advises homeowners and builders on fire safety, and reviews plans and inspects fire sprinkler systems in Santa Cruz County. In 1998, she was president of the Santa Cruz County Fire

Prevention Officers' section of the County Fire Chief's Association. She also worked law enforcement operations in statewide investigations, security and surveillance.

From 1994 through 1996, Edge worked in the Jackson Demonstration State Forest in Ft. Bragg. Previous to that, she was a Santa Cruz state park beach ranger.

Claudia Contos ('81, Dietetics) of Auburn, California, works in risk management with the Nevada Irrigation District in Grass Valley. She has two daughters, ages 10 and 14.

Kathie McMillan Morgan ('82, Environmental Planning and Management) is chief of environmental programs for the Federal Law Enforcement Training Center (FLETC), a bureau of the Department of the Treasury. Morgan and her staff oversee the environmental compliance and natural resources management of all FLETC facilities, including more than 20 weapons firing ranges, a dozen driver training courses, an explosives range and an arson investigation facility. Her office is located in Glynco, Georgia.

Fred Blatt (B.S., '84, Individual Major; M.S., '88, Ecology) transferred from the Lahontan Regional Water Quality Board in Tahoe two years ago to the North Coast RWQCB in Santa Rosa. His unit reviews timber harvest activity for the Klamath, Trinity and Smith River watersheds in Northern California.

Blatt lives in Santa Rosa with his wife and two children.

Laurie Hook ('84, Fermentation Science) and **Ron Schrieve** ('84, Fermentation Science) recently were promoted to key winemaking positions at Beringer Vineyards in St. Helena, California. Hook was promoted from associate winemaker to winemaker, and Schrieve was named winemaker for the Beringer Founders' Estate line of California appellation wines.

Rebecca Wells ('85, Environmental Design) of San Francisco is art director at The Nature Conservancy. Previously, she worked for five years as an exhibit graphic designer at the California Academy of Sciences Museum. Wells is a student with the San Francisco Taiko Dojo.

Liudyte Novickis Baker ('85, Environmental Planning and Management) earned her M.S. degree in renewable natural resources at the University of Arizona. She operated her own business for five years and had a 10-year career with the National Park Service. Baker was married in April and is pursuing new career opportunities in Tucson.



Charles Olson ('85, Wildlife and Fisheries Biology) is an eighth-grade science teacher and technology mentor at Tioga Middle School in the Fresno Unified School District. He and wife Michelle have a son, Erik David, born December 1999.

Erik Vink ('86, Agricultural and Managerial Economics) was appointed by Governor Davis to the Department of Conservation as assistant director, Division of Land Resource Protection. The division administers farmland programs for California - Williamson Act, California Farmland Conservancy Program, Farmland Mapping and Monitoring Program and liaison work with resource conservation districts. Vink formerly was with American Farmland Trust.

Erik C. Andersen ('87, Agricultural and Managerial Economics) of Orinda, California, recently joined PeopleSoft in Pleasanton after working 10 years with Federal Express and Hewlett Packard. He and wife Heather are raising two daughters, ages five and six.

Andersen reports that a favorite UC Davis memory is working as a teaching assistant for Jim Rumsey in Ag Practices 49 [tractor driving]. "I understand he is still doing a great job," Andersen said.



April Kangas ('89, Textiles and Clothing), former advising associate in the college's Division of Textiles and Clothing, was presented the Walker Award at a formal ceremony attended by award founder Harry Walker, Dean Neal Van Alfen, co-workers and friends. Kangas was a staff adviser in the division for six years.

Candidates are nominated by students and interviewed by a committee including peer advisers, faculty advisers and administrators. Students acknowledged Kangas for her active role in networking students with UC Davis alumni.

The Walker Award was established in 1991 to honor staff advisers in the college who assist students with decisions regarding majors, career options and academic direction. Before he retired, Walker was a master adviser for the college's Exploratory Program.

The Walker Award was established in 1991 to honor staff advisers in the college who assist students with decisions regarding majors, career options and academic direction. Before he retired, Walker was a master adviser for the college's Exploratory Program.



Michael Miramontes ('89, Agricultural and Managerial Economics) of Volcano, California, graduated from Harvard

Law School with a J.D. degree. He is an associate with the Palo Alto law firm of Morrison & Foerster LLP.

Kyle Sasahara (B.S., '90; Ph.D., '99, Food Science) of Ithaca, New York, is a postdoctoral associate in the Food Safety Laboratory, Institute of Food Science, at Cornell University. He is working on the bacterium called *Mycobacterium paratuberculosis*, the causative agent of Johne's disease found primarily in ruminants and in dairy cattle.

Paul Cummings ('90, Urban Architectural Design) of Portland, Oregon, received a master's degree in city planning from UC Berkeley and works for Enterprise Social Investment Corporation. He and wife Stacey Wainwright return to UC Davis annually on Picnic Day to run - or watch - the John Pappa alumni two-mile race at the Woody Wilson Track Meet.

Dany Doueiri ('91, International Agricultural Development) of Culver City, California, is vice president of IslamiCity in Cyberspace. She previously was vice president of Human Assistance and Development International where she trained people in alternative and low-cost housing. She also has done relief work for refugees in Bosnia, Chechnya, Sudan and other countries.

After receiving her Ph.D. degree in Islamic studies and agricultural policy from UCLA, Doueiri worked as senior policy analyst for TEAM International, a management and development consulting company. Her studies related to rural development, agricultural sector restructuring, price policy and tobacco industry restructuring.

Doueiri is married and expecting her first child.

Rebecca Marchant Elkins ('91, Design) of Gold River, California, is a graphic designer for Oberthur Gaming Technologies in San Antonio, Texas. She is an on-site contractor at the California Lottery, designing instant-ticket Scratchers. Son Brock was born in February; daughter Sydney was born in 1997.

Jeff Talkington ('91, Biochemistry) recently received his Ph.D. in medical microbiology from the University of New Mexico, Albuquerque. He plans to attend University of San Diego Law School, specializing in intellectual property.



William Brunsky ('92, Landscape Architecture) and **Hollee King Brunsky** ('92, Environmental Biology and Management) of Ventura, California, recently welcomed son Bradley Davis Brunsky. He was named 'Davis' in honor of where his mother and father met.

Bill is an associate landscape architect at the Santa Barbara office of George Girvin Associates. Hollee is a planner for the Ventura County Council of Governments.

Brianna Cutts ('92, Design) recently completed her master's thesis in exhibition design at John F. Kennedy University in Orinda, California. She is working at The Sibbett Group in San Francisco, an exhibit design firm specializing in museums and visitor centers. Her specialty is children's exhibitions.

Cutts published *Children's Museums and Serious Exhibit Topics: Guidelines* for exhibit developers. The book is based on a hypothetical plan for an exhibit focused on the danger of guns.

Jennifer Howse ('93, Human Development) of Santa Rosa, California, is co-founder and CEO of Everything Computers Referral

Agency. She also is a professional dog trainer and is raising four golden retrievers.

Lucinda Shellito (B.S., '93; M.S., '98, Atmospheric Science) is a Ph.D. student in the Department of Earth Sciences at UC Santa Cruz.

Heidi Katherine Stosick Fox ('94, Design) is marketing coordinator with Er&HDR in Los Altos. She previously worked on historic preservation projects with Carey & Co., Inc. Architecture in San Francisco.

Fox received her master's degree from Texas A&M University in 1997. She married Matthew Fox in 1999.

Sunil Dutta (Ph.D., '94, Plant Biology) is a patrol officer in the West Valley division of the Los Angeles Police Department. He is co-author of *The Lightning Should Have Fallen on Ghalib*, a translation of the poetry of Ghalib. He collaborated with poet Robert Bly to write the English version of Ghalib's poems.

Dutta lives in the hills just north of the Santa Monica mountains. He enjoys hiking and is helping to preserve the ancient Indian classical music called Dhrupad. His second book is underway.

"I enjoyed my time in Vegetable Crops," he wrote to *CA&ES Outlook* recently, "especially the research. I was fortunate to have excellent colleagues and department staff."

Sid England (Ph.D., '95, Ecology), UC Davis campus environmental planner, is a member of the state board of the National Audubon Society. He was elected by the Central Valley chapters of the Audubon Society. England is conservation chair for the Yolo Audubon Society and active in the Central Valley Audubon Council.

Scott Brayton ('94, Agricultural and Managerial Economics) is director of marketing and promotions for UC Davis Athletics. He is responsible for the corporate partnership program, season and individual ticket sales for

all revenue-producing sports and the promotions programs for 25 inter-collegiate sports. He also directs the largest student spirit group - the Aggie Pack, the community support group - the Aggie Fanatics, and one of the largest university auctions in the country - Aggie Auction.

Brayton and wife **Debra Wilson Brayton** ('94, Design) have one daughter, Jasmine, born in 1999.

Diana Coss ('95, Design) recently joined Pottery Barn as a full-time designer in product development for children's products. Her "Jungle Island Rug" for Pottery Barn Kids' winter 2000 catalog was the best seller in all divisions.

Coss previously worked for Mulberry Neckwear and as a freelance designer.

Maia Dock ('95, Applied Behavioral Science) is a member of the administrative staff to HIV Services Planning Council in Portland, Oregon. She was admitted to the fall 2000 Master's of Public Health Nutrition Program at the University of Minnesota, Minneapolis. Dock recently received a competitive Margaret J. Queneau Research Assistantship in Public Health Nutrition.

Maria Ravera ('95, Environmental Biology and Management) of Sacramento is a sales manager with *The Sacramento Bee* in North Highlands. Overseeing the activity of 35 employees in two sales departments, she is responsible for 43 percent of all new newspaper sales.

Ravera and husband Mark are expecting their first child this fall.



Timothy Wylie ('96, Managerial Economics) graduated with honors from Pepperdine University School of Law. He won

first place Best Brief, was a member of Phi Delta Phi - an international legal honor society and participated in the

school's London program.

Wylie is working with Arthur Andersen LLP at its downtown Los Angeles office, specializing in estate and tax planning. He previously worked for Warner Bros. Corporate Legal in Burbank, Menes Law Corporation in Beverly Hills, and Barlow Lyde & Gilbert in London.

Sean Eagan (M.S., '98, Hydrologic Science) of Fresno, California, is a hydrologist with the U.S. Forest Service PSW Research Laboratory. He is setting up a paired watershed study to examine the effects of understory burning and partial harvest on stream chemistry and aquatic invertebrate populations.

Ann Chernow ('98, Managerial Economics) of San Francisco is an associate investment specialist for Charles Schwab. Chernow currently is studying for her stockbroker's license.

"Everyday I think how lucky I am to have the Davis experience," Chernow wrote. "UC Davis truly prepared me to handle the challenges of work and life after college."

Chloe Kennedy ('98, Design) commutes from Novato to work in San Francisco at Levi Strauss.

Kristen Reis ('99, Design) is working in Baltimore, Maryland, for Bignell Watkins Hasser, an architectural firm. "It's exactly what I was looking for," she wrote. "I am doing the type of work I enjoyed most while studying at Davis...that is, artistic presentation delineation, creating graphic marketing pieces and interior space planning projects."

Narges Kamali ('99, Design) is in the graduate program in apparel design at Cornell University. She is refining her ideas for her master's thesis which she hopes to finish in spring 2001. The frozen landscapes of the East Coast are subject matter for her "black-and-white-white-white" photography. Over the summer, she traveled to Iran to

visit her parent's native country.

Michael Inaba ('99, Environmental Horticulture) of Santa Cruz is a propagator at the Monterey Bay Nursery in Aremas, California.

Mark Miller ('99, Design) is studying industrial design at Rhode Island School of Design. He works primarily with woods and metal, a reflection of his continuing interest in furniture.

Joe Borges ('00, Managerial Economics), a senior track and field All-American, was named 1999-2000 California Collegiate Athletic Association Male Scholar Athlete-of-the-Year by CCAA faculty athletics representatives. While attending UC Davis, he earned three All-America honors.

He also has been named a finalist for the inaugural NCAA Division II Conference Commissioners' Association Male Scholar Athlete of the Year Award.

In 1999, Borges won the NCAA division championship in the hammer throw. He was named co-winner of the 2000 W. P. Lindley Award, recognizing outstanding achievement in athletics, scholastics and community leadership. He was named to the GTE/CoSIDA academic All-America college division spring at-large second team by sports information directors.

Borges plans to enter UC Davis Graduate School of Management.

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Visiting Scholars *(Continued from page 21)*



Scholars visit the Department of Land, Air and Water Resources.

areas; and improve the English language capability of their scientists.

Barrett explains that the company fully funded the scientists who worked in her laboratory on a project of mutual interest. Nippon Del Monte paid laboratory fees, visa costs and related incidental expenses.

"This was an excellent opportunity for my laboratory group to work with trained, experienced scientists who made significant contributions to our research program," Barrett said.

Yukio Sekine worked in Barrett's lab from May 1999 through March 2000 on kinetics of inactivation of two softening enzymes in tomatoes. He has an M.S. degree in food microbiology and 15 years experience at Nippon Del Monte.

Nobuo Watanabe, with an M.S. degree in food microbiology and 20 years experience with Nippon Del Monte, began working in Barrett's lab in May 2000. He also is working on kinetics on inactivating tomato softening enzymes. He will be on campus for seven months.

"Mr. Sekine and Mr. Watanabe have been hard working, pleasant and extremely productive," Barrett said. "The experience has been excellent, and I highly recommend similar interactions to colleagues."

This is the first of a two-part article on visiting scholars. The topic was suggested by Sandy Filby, management services officer in the Department of Land, Air and Water Resources.



Bernie May (third from right in back row), director of the Genomic Variation Laboratory in Animal Science, nine graduate students and one post-doctorate student are working on threatened and endangered species.

Students

(Continued from page 17)

Several students were recognized at the college's commencement ceremony in June at Recreation Hall.

Anacristina Lola of Daly City, was the female recipient of the \$1,000 Charles Hess Community Service Award, recognizing outstanding community and campus service. Lola graduated with a B.S. in nutrition, a minor in human development.

Susan Palmer of Fair Oaks was presented the \$500 Mary Regan Meyer Prize given to a student who demonstrates exceptional motivation. She graduated with a B.S. degree in ecology and culture.



Students work in the Department of Food Science and Technology's new food laboratory located in Cruess Hall.

Congratulations to the Milton D. and Mary Miller Plant Science Award recipients for the year 2000: **Stephen Enloe**, Ph.D. student in plant biology; **Nicholaus Madden**, M.S. student in international agricultural development; **Ronald Saylor**, Ph.D. student in plant pathology; **Misty Swain**, M.S. student in horticulture and agronomy; and **Theresa Ward**, M.S. student in animal science.

CAREES

The College of Agricultural and Environmental Sciences
College Custom Apparel Program



Sweatshirt
95% Cotton/Poly/Sweatshirt.
Embroidered logo on left chest
and left sleeve.
Color: Navy
Sizes: S-XL \$20.00; XXL \$21.00



Pique Polo
100% cotton (pique) polo shirt.
Embroidered logo on left
chest and left sleeve.
Colors: White/Navy/Blue
Sizes: S-XL \$20.00; XXL \$22.00



Pique Polo
100% cotton (pique) polo
shirt. Embroidered logo on left chest
and left sleeve.
Sizes: S-XL \$25.00; XXL \$26.00.
XXL \$27.00



Denim Shirt
100% cotton denim shirt, button down
collar. Embroidered logo on left chest
and left cuff.
Sizes: S-XL \$25.00; XXL \$26.00;
XXXL \$27.00



T-Shirt
Navy 100% cotton T-shirt. Sewed logo
on left chest.
Sizes: S-XL \$12.00; XXL \$11.00



Ball Cap
Navy/Velvet Blend 6-panel
constructed ball cap. Embroidered
logo on front, embroidered JC Davis
on back.
\$14.00

Proceeds from the College Custom Apparel Program Support Student Leadership and Recruitment Activities.

ITEM	DESCRIPTION	S	M	L	XL	XXL	XXXL	PRICE	TOTAL
Item #1	Navy 95% Cotton/Poly/Sweatshirt Embroidered Left Chest and Left Sleeve							S-XL \$20.00 XXL \$21.00	
Item #2	Traditional Pique Coll Polo 100% Cotton Embroidered Left Chest and Left Sleeve							S-XL \$20.00 XXL \$22.00	
Item #3	Navy Pique Polo 100% Cotton EMBROIDERED LEFT CHEST AND LEFT SLEEVE							S-XL \$25.00; XXL \$26.00 XXXL \$27.00	
Item #4	Denim 100% Cotton Embroidered Left Chest & Left Cuff							S-XL \$25.00; XXL \$26.00 XXXL \$27.00	
Item #5	Navy 100% Cotton T-Shirt Sewered Logo Left Chest							S-XL \$12.00 XXL \$11.00	
Item #6	Navy/Velvet Blend 6-panel cap Embroidered Front and Back							One Size Fits All \$14.00	

Add 5% for Shipping & Handling

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Orders may be placed direct to Regalart, 1-800-406-5643.

Please make a check made out to Regalart, or provide your credit card number above.

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This alumni section is a favorite among our 44,000 readers. People like to know where you're living and what you're doing. Take a moment to drop us a note. Return this form to the address below or send us the same information electronically at outlook@agdean.ucdavis.edu. If you send us a photo, we'll scan and return it to you immediately.

Name _____

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Home Phone (____) _____

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