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Teaming Up Against Cancer

From high-end cancer cell research to attending basketball practice with their two sons, engineering professors Cengiz and Mihri Ozkan find that collaboration — and a lot of multi-tasking — makes it work.

Mining the Seas for Medicine

UCR graduate William Fenical is making waves — he searches the ocean floor to find fresh and innovative sources for medicinal cures.

Is it Art, or Chemistry?

Vincent Lavallo’s work in chemistry is an art.

Reinventing Invention

Change, they say, is good. But in this world of turn-on-a-dime technology and continuous global modernization, the ability to constantly rework, transform and retool can be a matter of survival. In this issue, we ask three UCR innovators to discuss what reinvention is, why it’s important and where it can lead.
Music, Dance, Theater and More

For more UCR events, look on the Web at www.events.ucr.edu.

11.29
Noche Flamenca
Known for its passion and dedication to the integrity of the flamenco, the dance company Noche Flamenca will perform in the University Theatre.

culturalevents.ucr.edu

12.09
Holiday Choral Music
The UCR choruses and the UCR Brass ensemble, conducted by G. Edward Bruner and Ruth Charloff, come together to perform Pinkham's Christmas Cantata.
music.ucr.edu

01.17
Author Series
Assistant professor Margaret Nash, recipient of the 2005 Critics Choice Book Award of the American Educational Studies Association, will speak on her book “Women’s Education in the United States, 1780–1840,” which examines the underlying rationale for educating women.
library.ucr.edu

01.25–27, 02.01–03
One Size Fits All
This play by Assistant Professor of Theatre Pickerty Hinds explores the exploitation of children around the world through four children’s quests to find the life embodied in a pair of sneakers.
theatre.ucr.edu

01.27–03.17
Empire:Style
Empire:Style, curated by Peter Zellner, features works that explore the social and economic energy of the American suburbs, and the move of cultural activity from city to suburb.
sweeney.ucr.edu

01.28–04.14
Liset Castillo: Lakewood, Calif.
Castillo’s large-scale photographs of highways and intersections are derived from sand-castle models. This series is based on one of America’s first planned communities, Lakewood, Calif.
www.comp.ucr.edu

03.08–10
UCR is Dancing 2007
This annual production is the culmination of five quarters of instruction and features original choreography by UCR students that demonstrates new ideas and experimentation in dance.
dance.ucr.edu

Reinvention at its Best

Welcome to UCR magazine (previously called Fiat Lux magazine). In keeping with the spirit of the reinvented and reinvigorated look and feel of this publication, designed to showcase the insights, innovations and impacts of our campus community, I invite you to explore with us the art and science of reinvention.

For our students, reinvention lies at the heart of the education process itself, from the opportunity to explore their individual gifts to the experience of discovering, acquiring and applying new knowledge. So, too, the life cycle of a university is a study in reinvention, as hundreds of talented, eager young social visionaries and scientific detectives pass through our halls of learning and into the world beyond.

This year, the campus welcomed 4,429 new Highlanders, raising the size of our population to 16,875 students.

Thanks to the generosity of our supporters, UCR is reaping the benefits of a record-breaking $40 million fund-raising year, enabling the campus to reinvent itself in ways both intellectual and physical. This year, we were pleased to add nearly 50 outstanding scholars and researchers to the ranks of our distinguished faculty. And, as highlighted by the recent groundbreaking for a new state-of-the-art genomics research building and the anticipated openings next year of the CHASS Instruction Visitors Center, as well as the expansion of the East Campus Child Development Center to begin in 2008, the campus is rapidly evolving to meet the demands for more classrooms, labs, child care and housing space. Through the development of plans for a new medical school, and with efforts well under way to expand the reach of other professional schools, UCR has positioned itself to meet the work force challenges of 21st century Inland Southern California and beyond.

Within these pages, you will learn more about how UCR is also transforming the world in which you live. From the development of alternative fuels to the creation of drought-resistant crops to the invention of new nanotechnologies for medicine, our scientists, engineers and researchers are improving the quality of life for millions around the globe, even as they educate our next generation of innovators, ethicists and entrepreneurial leaders.

Finally, it is important to recognize reinvention as a continual process of rebirth and renewal, one in which our alumni and friends play a key role. This fall, I have been privileged to meet with dedicated, accomplished UCR alumni from all over the country and to share with them our vision for the future of UCR. It is a shared dream, made possible only by the continued involvement and contributions of all members of our extended campus family. I look forward to working with you to make it a reality.

Sincerely,

France A. Córdova
chancellor
Ratings Boost

Washington Monthly College Guide has ranked UC Riverside No. 22 among universities and colleges in the United States. Unlike most college rankings guides, Washington Monthly College Guide doesn’t use SAT scores and grade point averages to evaluate schools. Instead, its reviewers ask qualitative questions, such as “What is this college doing for the country?” “Is this college an engine of social mobility?” and “Does this school foster scientific and humanistic research?”

UCR’s ranking rose more than any other school’s relative to its U.S. News & World Report ranking. “We’ve always felt that our mission — carried out through classroom instruction, scientific and humanistic research and community outreach — has been to make a significant contribution to the people of California,” says UCR Chancellor France Córdova. “It’s gratifying to see that effort recognized nationally.”

New Private Fund-Raising Record

UCR raised a record $40.1 million in private gifts and pledges in 2003–06, more than doubling the amount raised in 2004–05. The fund-raising effort was given a substantial boost in June, when Bart and Barbara Singletary and William and Toby Austin together contributed $16.5 million in two charitable trusts for the support of endowed professorships in the social sciences, the law, public policy, agriculture and medicine.

Other recent gifts to UCR include:
- a $1.6 million grant from the Howard Hughes Medical Institute for biomedical student preparation;
- a $1.5 million grant from the W.M. Keck Foundation for environmental research;
- a $1.5 million gift for an endowed chair for teaching innovation;
- a $1 million gift for an endowed chair in cancer research;
- a $1 million gift from the Glick Foundation for arts outreach;
- a $1 million grant from the Bernard Osher Foundation for a learning program for seniors;
- a $1 million pledge from Ron and Margaret Redmond to finish the Alumni and Visitors Center;
- a $300,000 gift from the estate of Rosalie Ketchersid for scholarships;
- a record $450,000 total for the UCR Fund, an annual telephone campaign to alumni;
- a $240,000 gift from California Wellness to support the FastStart program for students interested in health care careers serving the underserved.

“That we’ve accomplished so much so quickly speaks volumes about the generosity of UCR’s supporters,” says Associate Vice Chancellor for Development Susan Harlow.

Beijing Center Offers TEFL Program

UCR’s International Education Programs is partnering with the Yale-China Association to offer the first-ever Yale-China Teaching English as a Foreign Language (TEFL) program at UCR-Beijing International Education Center. Seven Yale-China fellows have begun TEFL training at the center.

International Education Programs has offered a range of programs since opening the center in October 2005, including targeted conversation programs that will help address China’s need for English speakers during the 2008 Olympics and as the country increasingly does business with the West.

New UC Regent is from Inland Empire

After more than four years without representation on the UC Board of Regents, the Inland Empire once again has an ambassador on the board. Bruce Varner, a partner in the Riverside law firm of Varner & Brandt LLP, was appointed by Gov. Arnold Schwarzenegger in August. His term began with the regents’ Sept. 19 meeting in San Francisco.

The 69-year-old attorney joins 25 other board members who make policy for the UC system. In addition to the governor, other public and university officials and one student, Varner joins 17 other public members appointed to 12-year terms. Regents receive no salary for their service.

New Golf Scholarship

Donald and Anne Skotty have established the William G. Skotty Endowed Golf Fund to support golf scholarships for UCR students. The Skotty Fund will provide a four-year scholarship for one member of UCR’s men’s or women’s golf team, with the scholarships alternating every four years between the two teams. Donald Skotty’s uncle William was a World War II veteran whose passion for golf was kindled with weekly miniature golf outings in Los Angeles. He was married to former UCR employee Patricia Skotty, an active member of the UCR Retirees’ Association. William Skotty passed away in January.
Training Tomorrow’s Teachers in California

A 2005 UC report found that nearly one-third of California’s K-12 teachers expect to retire by 2015, a high proportion of them math and science instructors. That's why eight UC system campuses, including UCR, created a program called the California Teach Science-Mathematics Initiative. The initiative partners the UC campuses with the California State University system in recruiting student participants into a four-year program, then tracking their progress — through an intern teaching credential to full credentialing after graduation.

At UCR’s SMI Resource Center and its counterparts at the other UC campuses, students identify career paths in teaching, cultivate strong professional connections and mentors, and design advising paths. The program also provides stipends for education coursework and fieldwork in elementary and secondary school classrooms. Students learn firsthand how education theory and subject knowledge can best be applied in the classroom.

Initiative organizers hope to attract as many as 5,000 UC and community college students into the program with 1,000 internships in California secondary schools.

Conscientiousness a Better Predictor than SATs Alone

In a recent paper, Seth Wagerman, a UCR doctoral candidate in psychology, and psychology department Chair David Funder found that success in college corresponds more closely to a student's work ethic and self-discipline than to intelligence or test-taking ability.

In the study, acquaintances and trained clinicians described students’ personal qualities and compared them with the student's grades and SAT scores. “Being described by others as conscientious and hard-working predicted college grades years down the line,” Wagerman says. “Highly motivated and organized students who are determined to succeed are likely to do well, regardless of their SAT scores.” The findings strengthen an argument that SAT college entrance exams should carry less weight in college admissions.

Focus of Research on Evolution/ Ecology Interaction

UCR Evolutionary biologist David Reznick is leading a team of researchers that received a five-year, $5 million National Science Foundation grant to find the answer. Joined in the effort by colleagues from U.S. and Canadian universities, Reznick will study the evolution/ecology interactions in natural stream communities on the island of Trinidad.

The team will focus on guppies — small fresh-water fish — that coexist in the stream with the Hart’s killifish, a predator. The team will examine what causes the guppies to evolve as they might and also the coevolution of the killifish.

Med School Funding Gets a Booster Shot

UnitedHealth Group has donated $5 million to UCR for the creation of medical education and related health sciences programs — giving a significant boost to UCR’s campaign for a school of medicine.

The contribution is a response to an April 2005 UC study that called for creation of new comprehensive medical education programs by 2020 in medically underserved regions, such as Inland Southern California.

“This generous gift has created a strong foundation for our health sciences initiative and provided momentum for our campus to attract other gifts from foundations, corporations and individuals,” says Chancellor France Córdova.

UCR will use the funds to hire faculty and staff to establish coursework associated with the campus’s health sciences program, upgrade research and educational facilities, and expand planning for the health sciences initiative that the university launched last year.

New Leader for CHASS

Stephen E. Cullenberg, an economics professor at UCR since 1988, has been appointed dean of the College of Humanities, Arts and Social Sciences (CHASS).

Cullenberg replaces Joel Martin, a historian who served as interim dean for two years (before he was hired recently as dean at the University of Massachusetts, Amherst).

Professors Help Clear the Air in India

Akula Venkatram and Marko Princevac, UCR mechanical engineering professors, recently traveled to India as part of a U.S. Environmental Protection Agency (EPA) effort to aid in development of an urban air-quality management system. Along with three EPA scientists, Venkatram and Princevac demonstrated the use of an EPA-developed air-quality modeling system for their Indian colleagues. Venkatram played a key role in developing the system, called AERMOD, while Princevac provided training on the system’s instruments.

India’s rapid economic and industrial development has spawned pollution problems that are among the world’s worst and are thought to contribute to 3 million premature deaths and increasingly severe monsoons.

“Our hope this pilot program will attract the attention of the World Bank, which could step in and offer ongoing support to the Indian government,” says Venkatram.
“Discover and innovate” is the mantra of the modern American research university. But what does it mean to discover in an era when our final frontiers are not defined by mere geography? And whence comes the drive to innovate? Is it in our DNA or simply our cultural destiny? Is it catalyzed by the quintessential “a-ha!” moment or does it grow from the darkest nights of the soul? Is it a serendipitous event or, quite simply, essential to human survival? In this issue of UCR we asked three UCR innovators to weigh in on the concept of reinvention. Their musings reveal that reinvention is older than Darwin, as American as apple pie and as familiar as the human quest for happiness. By Betsy Brown
Toby Miller has been a Californian for only two years, but he's been a California dreamer all his life. "Growing up in Australia, I harbored a California fantasy based on perceptions of the state's natural beauty, the lure of Hollywood, the impact of the American military," says Miller, professor of English, sociology and women's studies in UCR's College of Humanities, Arts and Social Sciences. A big-idea generator with a ready and well-articulated opinion on all things sociocultural — media, sports, labor, gender, race, citizenship, politics, economies — Miller understands the importance of reinvention to the American mindset in general and California in particular.

"Reinvention is the founding mythology of American culture. This is a nation based on the idea that you can come here from anywhere in the world ... and reinvent yourself." — Toby Miller

Breathing New Life into Animation

The characters in computer games and animated films may wow us with their verisimilitude. But look closely: Are those characters really breathing? Breathing, from an animator's perspective, is hard to capture.

"Breath combines the rigid movement of bones with the deformable movement of muscles and other tissues, which is irregular and complex," says Victor Zordan, an assistant professor in the Department of Computer Science and Engineering at UCR. "Animators often overlook breathing because the subtlety required to animate it isn't worth the overhead."

Zordan, who founded the Riverside Graphics Lab, was determined to change all that. Studying anatomy, physiology and film of human motion — using physics, computation and pure intuition — he and his research students developed a believable, three-dimensional motion model of human breathing. And they did it by reinventing the familiar. "We applied simple, well-known animation techniques — the kind used to show movement in cloth in games and movies — in a novel way to model a hybrid/rigid/deformable torso capable of respiration."

But repurposing tried-and-true techniques wasn't the only innovation to grow from Zordan's work. Trolling the Internet, Steve McCall, a medical educator from Blue Cross/Blue Shield in Hawaii, came across Zordan's Web site and found what he'd been looking for: video demonstrations of computer-animated humans breathing. Collaborating with McCall, Zordan developed a software program called Breathe Easy. McCall now uses the program in his stress-reduction classes to demonstrate deep-breathing techniques developed by a Harvard cardiologist in the 1970s.

When it comes to what animation can bring to healthcare education, Breathe Easy is just the beginning. "I see many applications in the modeling of other complex physiological processes, such as swallowing and digestion," says Zordan. View Zordan's work at www.cs.ucr.edu/~vbz.
“Universities need to show that they are partners in the region,” he says.

What happens to a society that fails to make the connection? “It loses its equity in the innovation,” Miller says. “Ordinary people can’t access it.” Case in point: although information technology has proliferated in the past 25 years, access to it has not kept pace, resulting in a society increasingly stratified into tech-haves and tech-have-nots. “The Internet isn’t funded the way radio and TV were in their early days. High cable and telephone bills now restrict access to high-tech services and disenfranchise large segments of the population,” Miller says. Then there’s the aftermath of innovation and reinvention: what happens when today’s technology breakthroughs give way to tomorrow’s whiz-bang gizmos? The consequences are daunting, Miller points out — enough to make the connection? “It loses its equity in the innovation,” Miller says. “It’s only natural to make the connection? “It loses its equity in the innovation,” Miller says. 

As an example, he offers up the evolution of insect wings: research reveals that they actually began as tiny bumps on the insect’s back. Insects with these tiny bumps found themselves with an evolutionary edge — the additional surface area they provide helped with thermoregulation, enabling bump-endowed bugs to warm and cool their bodies more effectively. If little bumps provided a slight edge, larger bumps provided an even bigger advantage until, over generations and generations, the bumps elongated until they became long appendages that enabled the insect to glide. Voila: flight. Sometimes the same principle of accidental enhancement finds expression in the realm of human endeavor. Steven Gould and Richard Lewontin noted the evolutionary edge — the additional surface area they provide helped with thermoregulation, enabling bump-endowed bugs to warm and cool their bodies more effectively. If little bumps provided a slight edge, larger bumps provided an even bigger advantage until, over generations and generations, the bumps elongated until they became long appendages that enabled the insect to glide. Voila: flight.

“Reinvention goes on all the time in nature ... It’s never perfect, and it’s never finished. No sooner does an organism adapt to its environment than the environment changes again ... We’re always catching up.”

— Norm Ellstrand

“It’s Only Natural

Talk to most scientists about reinvention manifested in the natural world and you won’t hear many mentions of supermodels or the architectural marvels of medieval cathedrals. For such interdisciplinary interconnections, seek the counsel of Norm Ellstrand, a geneticist and professor of genetics at UCR and director of the university’s Biotechnology Impacts Center.

“Reinvention goes on all the time in nature,” Ellstrand says. “It’s never perfect, and it’s never finished. No sooner does an organism adapt to its environment than the environment changes again ... Sometimes in response to the organism itself. We’re always catching up.”

Although humans often perceive reinvention as an act of will — for instance, we choose to make something better — in reality, reinvention is a natural force as often accidental as it is purposeful. “Many of the features that provide creatures and plants with an evolutionary advantage were ‘designed’ for a different purpose,” Ellstrand says.
home message, he adds, is that scientists
more fluid,” Ellstrand says. The take-
hybridization rare and unimportant. “It's just too soon. And we’re
Impacts are often blown out of propor-
tion. None have been terrible examples, but they definitely show that we aren’t
good at keeping human-designed plant genes down on the farm,” he says. “The truth is, we’re in the infancy of this field
and, looking forward, there are exciting possibilities.” The first plants developed through genetic engineering are only a little more than 10 years old, he points out. To assess their eventual impact now would be like assessing the impact of the automobile, 10 years after its introduc-
tion. “It’s just too soon. And we’re fortunate to be moving slowly, taking baby steps.”
Hybridization — which happens when natural plant genes intermate with geneti-
cally engineered crops peers is another hot topic. Although hybridization is a concern — producing “superweeds” or even “supergerms” — not all hybrids will become weeds, Ellstrand points out. “Fifty years ago, scientists considered hybridization rare and unimportant. Today we understand that evolution is more fluid,” Ellstrand says. The take-
home message, he adds, is that scientists
should be humble. “The knowledge we were certain of 50 years ago, over
time, has been revealed as imperfect — just as today’s knowledge will be 50 years from now.”

Thank goodness for the natural forces of reinvention — the constant striving for illusory perfection, toward which Ellstrand takes a Zen approach. “Perfection is in the eye of the beholder, and it is much more than we can see with our scientific eye at any given time,” he muses. “We’re not all perfect specimens — Robert Redfords and Heidi Klums. And it’s a good thing, because a world inhabited by only perfect specimens would be a boring place.”

Go Ahead and Laugh

W hat’s the simplest act of reinvention — one any of
us can commit, any time, any day, any place? To
Sonja Lyubomirsky, professor of psychology at UCR, it’s
probably smiling. Or maybe laughing. Perhaps a small act of altruism.
Lyubomirsky’s research involves understanding how people can reinvent themselves as happier — not just for a minute, but forever. Although it may sound simple, her research is revolutionary. “Science is pessimistic about the idea that people can become happier in a permanent way,” she says. “The pervasive idea is that

From Garbage to Gasoline

What happens when invention goes awry and produces a “lemon”? If you’re professor Joe Norbeck of UCR’s College of Engineering, you make lemonade — enough to power a diesel fleet.
In 1997, pressed by the threat of climate change and America’s thirst for energy, Norbeck and a team of scientists and students built a reactor capable of producing methanol, a promising alternative fuel. Following well-laid plans, they built their prototype. But it proved fraught with problems — at first glance, a failure.

Determined to salvage their efforts, Norbeck and team decided to experiment with a different reactor process: steam pyrolysis. “That was the ‘Eureka!’ moment,” says Norbeck. Working on a laboratory scale, the team reinvented the original reactor to harness a combination of steam, hydrogen, high pressure and high temperature, optimized for efficiency. Into this thermochemical engine went diverse “biomass” feed stocks — plastics, animal fats, human waste, anything carbon-based. Out the other side came biodiesel — a biodegradable, nontoxic fuel made from natural sources that, when burned, produces significantly fewer emissions than petroleum-based diesel (and could cost as little as 65 cents per gallon to produce).
The successful garbage-to-gas reactor has eight invention disclosures associated with it; soon there will be several patents. And now, in partnership with a Riverside energy company, Norbeck’s team is building a reactor large enough to demonstrate that steam pyrolysis can work on a commercial scale. In addition to providing a renewable alternative to fossil fuels — and taking the United States closer to energy independence — the reactor offers an answer to the vexing question “what do we do with all our biosolid wastes?” Quite simply, we could turn our garbage into gasoline.

Although the team’s commercial-scale prototype shows enormous promise, Norbeck isn’t ready to rest on his laurels. “Boston Celtics coach Red Auerbach used to light up a cigar when he thought a win was a sure thing,” says Norbeck. “I’m not lighting the cigar yet, but I’m optimistic there will be a commercial plant within the next five years.”
we each have a set point for happiness that is genetically dictated, and that we’re basically doomed to that set point."

As evidence, pessimists point out that people are good at adapting to positive change. For example, we undergo life-improving events — get married, get a better job or a better house, have a child, move to a new place. For a while, we’re happier. Then we get used to it; back to the “set point.”

But the set point theory, Lyubomirsky contents, can’t explain everything about happiness. “My hypothesis is that happiness is determined by three factors: a set point, life circumstances and intentional behavior. Thus, there’s room for change, through what we think and do.”

In her laboratory, Lyubomirsky has tested her theory among people who are and who are not committed to becoming happier. Her research offers interesting insights into our ability to reinvent ourselves: she’s found that regular, simple actions — counting one’s blessings, performing acts of kindness, keeping an attitude of gratitude — can sustain “flow” throughout our lives, Lyubomirsky says. “New activities and learning prompt positive emotions and produce a stream of positive experiences,” she says, citing research out of the University of Wisconsin. But what about the connection between happiness and innovation, contentment and reinvention? Who’s more likely to create: happy people or dark, brooding types in a ruminate funk, such as the iconic suffering artist? “Although poetry, painting and art seem to tap deep, often painful emotions, studies show that creative works don’t require it,” Lyubomirsky says. “They’re more likely to create: happy people. But brooding types can produce a stream of positive experiences.”

From within UCR comes the voice of Norm Ellstrand, echoing messages from Miller and Lyubomirsky. “I think we must innovate with a sustainable world in mind — and we must slow down. What we need is a reinvention of the American lifestyle that integrates reflection and enjoyment with the hard work that, for generations, has enabled us to pull ourselves up by the bootstraps and make a better world for ourselves.” The dark, brooding moments of the soul may feed innovation, and creativity and happiness may catalyze action. “But we are nothing without the middle zone,” Ellstrand says. “That’s where wisdom grows.”

"The pervasive idea is that we each have a set point for happiness that is genetically dictated, and that we’re basically doomed to that set point… My hypothesis is that happiness is determined by three factors: a set point, life circumstances and intentional behavior. Thus, there’s room for change, through what we think and do.”
— Sonja Lyubomirsky

 boosting the intelligence of classrooms

Turning students loose in a high-speed, tech-driven world after educating them in a chalkboard classroom is a little like teaching them driver’s ed in a Model A before giving them a driver’s test in a Ferrari. Pupils emerge from their learning experience a little … unprepared.

In 1999, to give students the best start on the information superhighway they will navigate in their careers and lives, UCR launched the Smart Classrooms Initiative. The goal: reinvent the learning environment with technology and support that can empower instructors to teach more effectively.

"Technology has to revolve around students and faculty," says Chuck Rowley, associate vice chancellor for Computing and Communications, who oversees the Smart Classrooms Initiative. "It can help actively engage students in the learning process, but it’s only a tool. And it’s only successful if faculty members get the support they need."

With one year to go in the eight-year improvement program, 65 general assignment classrooms now give instructors easy access to digital projectors, integrated VHS video, DVD, personal computers and the Internet. Larger lecture halls boast wireless microphone systems, computers and digital document cameras. And with standardized “single point of control” systems in place, instructors can walk into any intelligent classroom and be up to speed on its capabilities — no down time struggling to make unfamiliar technology work.

The initiative is also reinventing how professors interact with students and monitor learning. Students often use audience response receivers — "clickers" — to answer concept questions posed during lectures. For example, standing before a class of 300, an organic chemistry professor might project images of various molecules and ask students to identify the diastereomers — compounds with more than one stereocenter. Students click on one of four possible answers, providing an instant read on how many understand the concept and how many others do not.

Because technology is only effective when it’s working properly — and when instructors can use it with confidence — the Smart Classroom Initiative includes education and support. Tech assistance responds to problems in minutes, sparing instructors frustration and preserving valuable lecture time. A Web site, cnc.ucr.edu/classrooms, offers extensive, easy-to-understand instructions for using equipment.

So far, UCR’s reinvention of the classroom has earned applause from students, instructors and administrators. Because they know that classroom “clicks” translate into points for participation, classroom attendance is up. In a fall 2004 survey, 98 percent of faculty expressed satisfaction with classroom technology. And in 2005, UCR’s Smart Classrooms won the UC system’s Golden Award for Innovation and Entrepreneurship in Information Technology.

As UCR rises to the challenges of increasing enrollment and accelerating technological change, classroom reinvention will continue. In the future, networked LCD panels will allow instructors to leave their laptops in their offices and still have access to images and information. They will be able to use wireless tablet PCs to add written notes and diagrams to their presentations. And videoconferencing links will bring guest lecturers from all over the world into UCR classrooms — blurring the boundary between the campus and the larger world of learning opportunities.
Teaming Up Against Cancer

Mihi and Cengiz Ozkan, faculty members in engineering, stay plugged into their research and their family life.

By Ricardo Duran

R
d

as children is no small feat. Add to that the rigors of successful careers in engineering, as well as the challenges of becoming involved in a worldwide race to find cures for cancer, and you have the makings of a hectic life.

So how do Cengiz and Mihri Ozkan manage?

As faculty members at UC Riverside’s Bourns College of Engineering, in mechanical and electrical engineering, respectively, Cengiz and Mihri take a decidedly rational — one might even say scientific — approach.

“We have to keep family first,” Cengiz says. “But, we have also found ways to use our time most efficiently.”

With the advent of e-mail, text messaging, mobile smart phones and laptops, their research — and their research teams — is usually just a few keystrokes away, even as their sons, ages 12 and 7, engage in a full-court press, practice a Dvorak piece on the piano or angle for that perfect soccer goal.

So keeping work and home life separated is not an option for the hard-charging, career-driven academics. After all, they’re both working on a research project that, if successful, could revolutionize cancer treatment.

The work is critical to finding a way to deal with cancer, second only to heart disease as the leading cause of death in the United States. The American Cancer Society estimates that 1.4 million people will be diagnosed with cancer in 2006, with 138,700 of those cases in California.

The Ozkans are understandably serious as they apply nanotechnology to such a vital issue of national health.

“Imagine having the ability to find the very first cancer cells in a patient’s body and kill them with targeted therapies,” Cengiz said. “We have a lot of capabilities in our nano-toolbox. It’s time to apply them to cancer therapy.”

Both of the Ozkans have been working for five years on the “listening” technology to detect and interpret micro-electrical arrays, or the signals emitted by cells, and how those signals change when cancer cells are present. “We’ve developed a method to distinguish between different types of cells and how they respond to different chemicals,” Mihri said. “UCSD is happy because no one there is doing this type of research.”

The goal for Cengiz’s group is to use knowledge about the different signals sent by healthy cells and cancer cells to target only the diseased cells. His approach is seen as a more benign alternative to the common use of dyes to find cancer cells. “The stains are often toxic themselves and affect how cells react to their environment,” he says. “The use of dyes also sometimes compromises study results because you don’t know if a given cell died from cancer or from a reaction to the stain.”

Meanwhile, Mihri’s research group will develop a combination of virus capsids and nanoparticles to bioengineer a delivery vehicle that will zero in on cancerous cells and kill them. Virus capsids are the shells of the virus and contain the mechanism they use to infect cells.

“The quantity of drugs used is therefore far smaller than with standard chemotherapy,” she said.

The effort means long hours in the laboratory and in discussions with graduate students and colleagues at UCSD.

Priorities at Home

But it’s not all work for the Ozkans.

They take time to be parents. Their boys play basketball, take music lessons and attend school in Poway, near San Diego, about an hour’s drive south of Riverside.

“We’re very lucky,” said Mihri. “Both sets of grandparents live in San Diego and help out by picking up the boys and looking after them when we’re going to be late or out of town. They’re a great help.”

The couple has been married 16 years and met when Mihri was an undergraduatate student and Cengiz a teaching assistant at the Middle East Technical University in Ankara, in their native Turkey. The two have always coordinated their professional and private lives to allow each other to advance in their careers before the other takes the next professional step.

Both were accepted to graduate school at Stanford University where Mihri received a master’s degree and went to work until Cengiz received his Ph.D. Mihri received her doctoral degree from UC San Diego in electrical and computer engineering.

Throughout their busy professional lives, Cengiz and Mihri have managed to keep their focus centered on family. “As researchers, we have to give a lot from our personal lives to our work. There’s no time for movies and dinner parties,” Mihri said. “What time we have is spent with our children. We try to be with them and do things with them as much as possible.”

With laptop computers and mobile phones at hand, Mihri and Cengiz say they have become adept at juggling their professional and private lives. “I’ll take my sons to basketball practice and work on my laptop, with my books, while they’re having fun,” she says. “I’ll look up from a technical paper or a report from the lab and cheer the boys on, then get back to work.”

As for the perks that may potentially arise in working with a spouse, Cengiz says that, through the years, they have developed a very courteous professional relationship. He credits that relationship with helping them become part of today’s important national research effort.

“Here at the university, we’re colleagues,” he said. “We’ve developed these technologies together and the expertise from both our labs has made this possible.”
Loafers, Adolescent Angst, Superheroes and More

It may not be “publish or perish” for every writer, but the written word is central to the reinvention made possible by a university. These authors have published books in order to reinvent their fields, their genres or even themselves. UCR faculty member Tom Lutz used parents’ understandable consternation with an unemployed son to inspire his book “Doing Nothing: a History of Loafers, Loungers, Slackers, and Bums in America.” UCR alumnus Rigoberto Gonzalez writes his personal reinvention story “Butterfly Boy,” allowing outsiders to view his adolescent turmoil and eventual self-acceptance. And Stanley Stewart, longtime UCR English professor, takes on the unconventional examination of superheroes as a literary theme. The comic book cover is a super disguise for its textbook insides. This issue’s “Page Turners” includes all that and more.

Doing Nothing: A History of Loafers, Loungers, Slackers, and Bums in America
By Tom Lutz, UCR associate professor of creative writing
Farrar, Straus and Giroux
May 2006, 384 pages
Couch potatoes, goof-offs, freeloaders, good-for-nothings, loafers and loungers. Ever since the Industrial Revolution, when the work ethic as we know it was formed, there has been a chorus of slackers ridiculing and lampooning the pretensions of hardworking respectability. Reviled by many, heroes to others, these layabouts stretch and yawn while the rest of society worries and sweats. Whenever the world of labor changes in significant ways, the pursuits, politicians and pedagogues ring with exhortations of the value of work, and the slackers answer with a strenuous call of their own. “To do nothing,” as Oscar Wilde said, “is the most difficult thing in the world.” From Benjamin Franklin’s “air baths” to Jack Kerouac’s “choma bums” to Generation X slackers and beyond, anti-work-ethic proponents have held a central place in modern culture.
Through a series of case studies that illuminates the changing pace of leisure in the American republic, “Doing Nothing” revises the way we understand slackers and work itself. Tom Lutz is an associate professor of creative writing at UCR. His previous books include “Crying: A Natural and Cultural History of Tears,” “American Nervousness, 1903: An Anecdotal History” and “Cosmopolitan Vistas.”

The Target
Translated with an essay by Ben Stoltzfus, UCR professor of comparative literature
Farleigh Dickinson University Press
September 2006, 128 pages
The unique relationship between French novelist and cinematographer Alain Robbe-Grillet and artist Jasper Johns that intertwined pop art and metafiction is explored in this interarts study. Robbe-Grillet and Johns, in their respective works of fiction and art, sought to bridge the gap between artist and observer through the interplay of image and narrative. “The Target,” Robbe-Grillet’s narrative introduction to John’s exhibit, attempts to express the theories of art by incorporating those theories used by Johns into his fiction.

Quarry
By Susan Cummins Miller
(F’71, ’73, ’78 M.S.)
Texas Tech University Press
April 2006, 248 pages
As geologist Frankie MacFarlane prepares for her doctoral dissertation defense, two members of her committee are attacked, one fatally. Frankie must also deal with the possibility that her former fiance might still be alive and with the abduction of fellow student Dora Simpson. In the Mojave Desert, amid the arroyos and volcanic mesas of the Cady Mountains, Frankie finds the final pieces to these puzzles and begins a new life.

Caped Crusaders 101: Composition Through Comic Books
By Stanley Stewart, UCR professor of English, and Jeffery Kahan
McFarland and Co.
January 2006, 208 pages
This textbook is intended to inspire an appreciation for literature by studying important literary themes found in comics. By deconstructing comics, it encourages critical thinking about literature, a crucial skill for understanding language and composition. Chapters discuss comics’ varied attempts at portraying race, politics, economics, business ethics and democracy, responses to the Cold War and the events of Sept. 11, and portrayals of prisons and capital punishment.

Global Social Change
Edited by Christopher Chase-Dunn, distinguished professor of sociology, and Salvatore J. Babones
Johns Hopkins University Press — Baltimore
September 2006, 384 pages
The essays in “Global Social Change” explore globalization from a world-systems perspective and offer insights into globalization’s gradual and uneven growth throughout the course of human social evolution. Chase-Dunn and Babones bring together accomplished senior sociologists and outstanding younger scholars with a mix of interests, expertise and methodologies to offer an introduction to the ways of studying and understanding global social change.

These books are available for purchase at the UCR Bookstore and online at www.bookstore.ucr.edu. They have been discounted up to 30 percent.
Help Seeking in Academic Settings: Goals, Groups, and Contexts
By Richard S. Newman, UCR professor of education, and Stuart A. Karabenick
March 2006, 336 pages
This book presents the most important and influential social psychological theories and research programs in contemporary sociology. Original chapters by the scholars who initiated and developed these theoretical perspectives provide full descriptions of each theory, its background, development and future. The first four chapters cover general approaches organized around fundamental principles and issues. The following chapters focus on specific research programs and theories. A concluding chapter provides an analysis of and commentary on the state of the theoretical programs in sociological social psychology.

Butterfly Boy
By Rigoberto González ('92)
University of Wisconsin Press
June 2006, 222 pages
Heartbreaking, poetic and intensely personal, “Butterfly Boy” is a unique coming out and coming-of-age story of a first-generation Chicano who trades one life for another, only to discover that history and memory are not exchangeable or forgettable.
Growing up among poor migrant Mexican farmworkers, Rigoberto González also faces the pressure of coming-of-age as a gay man in a culture that prizes machismo. Losing his mother when he is 12, González must confront his father’s abandonment and an abiding sense of cultural estrangement, both from his adopted home in the United States and from a Mexican birthright. His only sense of connection becomes forged in a violent relationship with an older man. By finding his calling as a writer, and by revisiting the relationship with his father during a trip to Mexico, González finally claims his identity at the intersection of race, class and sexuality. The result is a leap of faith that every reader who ever felt like an outsider will immediately recognize.

Creative Union
By Kirill Tomoff, UCR assistant professor of history
Cornell University Press
June 2006, 321 pages
Why did the Stalin era, a period characterized by bureaucratic control and the reign of Socialist Realism in the arts, witness an upsurge of musical creativity and the prominence of musicians? This is one of the questions addressed in “Creative Union.” Drawing on previously untapped archives, Tomoff shows how the Union of Soviet Composers established control over the music profession and negotiated the relationship between composers and the Communist Party leadership.

Contemporary Social Psychological Theories
By Peter Burke, UCR professor of sociology
Stanford University Press
May 2006, 400 pages
This book presents the most important and influential social psychological theories and research programs in contemporary sociology. Original chapters by the scholars who initiated and developed these theoretical perspectives provide full descriptions of each theory, its background, development and future. The first four chapters cover general approaches organized around fundamental principles and issues. The following chapters focus on specific research programs and theories. A concluding chapter provides an analysis of and commentary on the state of the theoretical programs in sociological social psychology.

Bring Everybody: Stories
By Dwight Yates, UCR creative writing lecturer
University of Massachusetts Press
April 2006, 143 pages
The winner of the 2005 Juniper Prize for Fiction, this collection of stories delivers the range of characters suggested in the title, many of them struggling to salvage situations they feel have been thrust upon them. Self-delusion courts self-destruction in these stories, but not without relief, since revelation is always possible and redemption just might come tumbling after. The stakes are sometimes low and the circumstances more rueful than tragic.
Few of us care to think about our next illness or the medicines required to cure it, but if we did, we would be frightened — as frightened as UCR alumnus William Fenical.

In 1928, when penicillin was discovered lurking in mold in an unwashed Petri dish, no one, including Alexander Fleming, the man credited with discovering its bacteria-killing properties, had any idea it would become the so-called “magic bullet” — the cornerstone of today’s arsenal of powerful antibiotics.

For decades, researchers have scoured the earth — in swamps, jungles, rain forests, backyards and compost heaps — for new antibiotics and they found streptomycin, erythromycin, actinomycin and vancomycin.

Researchers also unearthed other antimicrobials — antivirals, antiparasitics and antifungals. Diseases that once killed by the thousands, such as bubonic plague, typhoid fever, scarlet fever, malaria, measles and tuberculosis, nearly disappeared from developed countries.

But as quickly as researchers came up with new drugs, their targets — one microbe after another — began their evolutionary dance for survival, mutating into new drug-resistant strains that deflect the once-powerful magic bullets.

As a result, diseases once thought vanquished are resurfacing in more virulent forms.

“People are now dying in hospitals of simple infections that a few years ago they would not have died from,” says William Fenical from behind his desk, his beloved Pacific Ocean bathing him in soft light. “Now there are infections that are impossible to cure.”

Fenical and many in the medical and research communities believe the world is in the midst of a medical emergency. “It frightens researchers and our colleagues who are treating infections in hospitals,” says Fenical.

He should know. He is director of the Center for Marine Biotechnology and Biomedicine (CMBB) at Scripps Institution of Oceanography at UC San Diego. For more than 30 years, he has been one of the pioneers boldly going where few have gone before for new sources of medicines — the ocean floor.

He and generations of students and fellow researchers have been reinventing how scientists search for medicines, and they have been coming up with new sources of cures. It has been a long slow journey — one that started inland, at UC Riverside.

**In Love with the Ocean**

Young Bill Fenical arrived at UCR in 1965 after earning his bachelor’s degree in chemistry from California Polytechnic University, San Luis Obispo, and his master’s degree from California State University, San Jose. He loved chemistry. “It was always chemistry, always organic, always the biologic side — but I just wasn’t sure what I wanted to do as a young guy,” he says.

But there was something else. “I fell in love with the ocean when I was 12 and my family moved from Chicago to California, by way of Florida,” Fenical says. “We stopped in Florida to visit my uncle and stayed in a motel right across from the ocean. While my parents were out, I’d put on my diving mask and go out to look under the surface. I saw all kinds of life under the sea and I was fascinated.”

He was an avid fan of “Sea Hunt,” the classic ’60s television adventure show about a crime-fighting scuba diver. “I wanted to do all those underwater things I
English, can make the subject engrossing. “There are two kinds of creatures on the ocean floor — soft things and hard things, like lobsters and animals with external skeletons. The soft things seem incredibly easy to eat, but nothing eats them,” says Fenical. “That’s because they’ve developed chemical defenses.

“When you bring those chemicals into a laboratory, you find they contain highly toxic or noxious compounds. Our early work created a brand new field of marine chemical biology.

‘About 10 years ago we thought, ‘What grows in the mud [of the ocean] and where — out in the middle in the deep ocean or near on shore? And we started to look around.’

He remembers what he calls his Eureka moment. At the time, his team was analyzing the DNA of bacteria found in an early sample of ocean mud. They were comparing the results on a computerized list of all known life and there was no match. “We realized that we were working with microbes that had never been seen before.”

When the team began to grapple with how to search vast oceans, they decided to create a way to find medically relevant chemicals. This decision required the development of equipment to capture samples from ocean depths where darkness, very high pressure and low temperatures make it inhospitable to humans. New tools were developed to access samples from as deep as 600 meters. Although other researchers are looking under the waves for cures, Fenical has been a leader in developing ways of prospecting thousands of feet below the surface.

This technology led to the discovery of new bacteria in mud samples from the Red Sea, the Gulf of California and the Atlantic and Pacific oceans. The team has since identified 15 new scientific categories of organisms.

The decision to concentrate on medically valuable products also required a different shift for Fenical. “I changed from working on animals and plants to studying ocean microbiology. I had to reinvent myself. I said, ‘OK, I’m an organic chemist but I have to be a microbiologist now.’ I had to educate myself in microbiology.” — William Fenical

“Three years ago, we found a molecule that was very effective in limiting cancer growth and it’s now in clinical trials. And we have two chemical compounds from marine microbes in clinical trials for cancer.”

— William Fenical
Is it Art, or Chemistry?
By Litty Mathew

Vincent Lavallo creates art out of elements that some might consider minutiae, layering in bits of information, color and point of view. He steps back often to see what he's created. He's reflective. He makes changes. And when Lavallo's finished with a project, a giant canvas isn't displayed in a gallery. Instead, a molecule emerges and changes science. He has helped invent something totally new, and perhaps, has reinvented himself in the process.

Lavallo may not be a classic example of a modern artist in the vein of Hockney or Kandinsky. He is a chemist. But he creates what is novel and interesting. His studio is the lab and his canvas the schlenk, a sealed glass reaction vessel under an inert atmosphere of argon.

As a 28-year-old graduate student in the UCR Department of Chemistry, Lavallo has helped synthesize molecules — called carbenes — that have unusual carbon atoms that allow them to bind to metals and permit chemical changes that were previously impossible in these metals. His current project involves using carbo-supported transition metal complexes to find new catalytic reactions.

“Science is the closest you get to doing something fantastic — like you'd see in science fiction movies as a kid,” notes Lavallo, who's been interested in the sciences since middle school. His synthetic molecules are more than cool. They may also help the pharmaceutical industry reduce drug-manufacturing costs where carbo-supported catalysts are used for chemical reactions. “We try to use these molecules to make catalysts for useful applications,” explains Lavallo of his work, which he hopes will lead him to a Ph.D. in chemistry.

Vince believes that all his hypotheses are correct,” says Distinguished Professor of Chemistry, Guy Bertrand, on whose team Lavallo works. “This is why he has been able to obtain extremely surprising and exciting results. He is highly imaginative and does not want to follow the main road.”

Lavallo discovered his talent in chemistry early on, joining UCR as a biochemistry major.

“I did well in biochemistry but I wasn’t passionate,” explains Lavallo. It wasn’t until he took Bertrand’s Organic Chemistry 112A course that he found his calling.

“I realized I liked what I was doing,” said Lavallo. It changed his academic career. “When I teach undergraduates, my main objective is to prepare the largest possible majority of students for their exam and to demonstrate that chemistry is useful for society and not boring to learn,” said Bertrand. “However, my great pleasure is to attract a few of these students to do research and share my passion.” Bertrand likens a research group to a family.

“When you’re a kid, you want to be successful for yourself. When you’re a parent, you want first your kids to be successful and if they are, it’s great!”

Lavallo has passed on the favor. He has helped two undergraduates spend the summer in the lab.

“It can say that I was able to help inspire at least one of my students to pursue research. I learned that it’s possible to influence the right person to learn chemistry outside of the class. To steer someone in the right direction,” said Lavallo.

That, too, is an art.

Mark Schroeder
By Kris Lovekin

Mark Schroeder and his wife, Eve, recently created an endowed scholarship to help a UCR student with an interest in fire science. Why? Mr. Schroeder, who spent most of his life working in the world of fire science and weather, wants to continue the legacy.

Life So Far
After serving as a weather reconnaissance officer in World War II, flying in B-17s, he became a research meteorologist for the U.S. Forest Service, assigned to the U.S. Forest Service fire laboratory in Riverside. He led the National Fire Danger Rating Project, the rating system still in use today. He retired in 1973. He and Eve have traveled to more than 170 countries.

Great Accomplishments
Schroeder earned the U.S. Department of Commerce Silver Medal for Meritorious Service, the U.S. Weather Bureau Distinguished Service Award and the Forest Service's Outstanding Performance Award for extraordinary scientific leadership, all related to the success of the National Fire Danger Rating Project.

Influential UCR Mentor
Donald Munnecke, professor emeritus in the Department of Plant Pathology, was a close friend. Schroeder also keeps an inquisitive eye on the fire ecology work of UCR professor Richard Minnich.

Your Legacy
Paving the way for future fire scientists.
Quick Flicks

UCR's Renee Coulombe had to hit “fast-forward” on her musical composition technique for the 48-Hour Film Festival in San Diego. The project turned a blender and a toaster into film stars.

By Renee T. Coulombe, Assistant Professor of Music

What do you get when you mix a half-dozen software engineers, one UCR composer and radically new digital imaging technology? An award-winning film at the San Diego 48-Hour Film Festival that stars a toaster and a blender, not to mention the aforementioned UCR composer. The short film, “Burnin’ Love,” by the completely obscure Cane Toad Productions, earned the 2006 jury prize for best cinematography.

For those not currently enslaved to YouTube, the 48-Hour Film Festival requires crews to write, edit and produce a film within a frantic two-day span. It owes its very heart and soul to the digital video revolution. That’s because digital cameras and editing software make it possible (while still perhaps not advisable) to write, edit and shoot a short film in two days.

Until recently, the color and vibrancy of film could not be captured in binary code, or so it would seem. How fitting then, that this festival, itself based on revolutions in digital technology, has reinvented filmmaking again with a little film shot in a decidedly un-Hollywood neighborhood in eastern San Diego.

My brush with film-making history started with a frantic phone call on a summer afternoon from a friend in a modest neighborhood of San Diego. David Newman, software engineer and creative genius behind video and high-definition video-editing software companies Applied Magic and CineForm in Carlsbad, asked if I could lend my musical and technical skills to their crew.

I knew this experiment in guerrilla filmmaking was intense, but my curiosity was piqued when he revealed that Film & Imaging had loaned him a prototype high-definition (HD) processor for a new kind of HD camera — one of only three in the world.

The crew had to build a camera around this processor in a single day — because it arrived the afternoon before shooting began. Sony loaned a prototype laptop to run the necessary beta-version software, so we were ready to shoot.

Almost.

They were debugging the editing software even as the film rolled — or more accurately, as the hard drive buffered and then saved. The occasional system crash only added to our resolve, as we experimented with the camera's possibilities.

First, we discovered that the processor was so fast it could capture true filmic color and depth of field in digital video. The San Diego sky never looked so blue in high definition as it did on that July afternoon. The early evening glow of sunset, captured in one of “Burnin’ Love’s” sequences by that awkward tangle of cables, lens and processor, revealed every color of the rainbow. More than that, the camera was so small and light — containing little more than a lens, processor and gigabit cable ports connecting it to the laptop — that we could innovate with little-before-seen shots, like “toaster P.O.V.” or the always tricky “inside the shutting trunk” camera angle.

I knew my first priority had to be creating an equally innovative musical score. Music is often overlooked in fast filmmaking, but there, too, digital technology allowed the creation of a musical score at the speed of the 48-hour festival.

I arrived in San Diego on Friday afternoon in a tiny Miata jammed with a Roland piano keyboard, a mixing board, a recording module, microphones, a Mac G4 tower, monitor and keyboard, as well as several hundred feet of audio and video cable. Oh, and some costumes and makeup.

Knowing that I’d be pressed into acting, writing and editing, as well as scoring the film, we shot my one acting scene early on the first day. Then, as scenes were shot and edited, I could import them directly into ProTools, a music industry standard recording and editing software, and record the music. Such a streamlined process was not just helpful, but essential. I had 20 whole minutes to score and record a central flashback sequence involving the surprisingly touching backstory of a toaster and blender accidentally separated at a yard sale.

New technology is helping artists revise and reinvent themselves, revolutionizing the filmmaking process, including the form and content.

Ladies Professional Golf Association star Annika Sorenstam had her sights set on tennis stardom when a tennis backhand forced her to cash in her racket for a set of golf clubs.

Twenty years later, she’s the LPGA all-time leading money winner, with 68 tournament wins, including 10 major tournaments, eight Rolex Player of the Year awards and induction into the World Golf Hall of Fame.

Sorenstam credits much of her success to her experience as a member of her college golf team, so she quickly agreed to give a clinic at the Bighorn Golf Club in Palm Desert to raise scholarship money for UCR’s golf programs.

“It fits in really well with some of the stuff I’m doing with junior golf, so I thought I could help out and give them one or two pointers ... and that would be great,” she told reporters.

Along with tips on training, like how to line up a shot and the proper use of a driver (“the key is to sort of sweep it off the tee”), the top woman golfer in the world also shared a few life lessons.

“I got a lot of experience at school,” she told the gathering of enthusiastic golf team members, UCR donors and university staffers.

“…”It taught me a lot about life and people. It taught me what I wanted as a career.”

Sorenstam, who spent two years at the University of Arizona before leaving to turn pro, also made a small confession.

“Sometimes, I wish I’d stayed and finished college,” she told the group. “Take advantage of the opportunity. It’s a great time to absorb everything you can.”

For UCR golf team member Linda Ong, the golf star was an inspiration. “It shows me there’s a place for me out there and if I work hard with a lot of determination I can get there.”

New technology is helping artists revise and reinvent themselves, revolutionizing the filmmaking process, including the form and content.
practice as a family lawyer representing clients in divorce, pre-marital agreements and complex family law issues. Forrest was named as a 2006 Super Lawyer by Los Angeles Lawyer magazine and one of the Top 25 Family Mediators in California by the Los Angeles Daily Journal.

'70s

70 Perry Pegue is director of the division of education of the American Academy of Family Physicians. After service with the National Health Service Corps, he became a residency director and accumulated more than 20 years’ experience in that role. His professional background also includes trauma center director, hospital chief medical officer, public health officer, vice president of a large integrated health system and medical director of a health plan. Perry was also a featured speaker for UCR’s Health Sciences Initiative.

'60s

61 Arthur Rigs, director of the City of Hope’s Beckman Research Institute, was among 72 people elected to the National Academy of Sciences. He’s known for his work on techniques that have led to therapies for arthritis, cancer, diabetes and other diseases.

65 Carol (Haller) Small and her husband, Ken, have retired to the sailing capital of North Carolina, the city of Oriental, with a population of almost 900, but with more than 3,000 active sailboats. The couple are avid sailors.

69 Forrest S. Mote has been a private mediator since 1979 and is an advanced practitioner member of the Association for Conflict Resolution and a popular presenter at mediation conferences worldwide. Forrest also maintains an active

program. His office is responsible for tracking and identifying disease-carrying mosquitoes and other insects, including ticks that transmit Lyme disease.

Barbara Finlayson-Pitts was elected to the National Academy of Sciences. Barbara is a professor of chemistry at UC Irvine and studies chemical reactions in the lower atmosphere to better understand air pollution in urban and remote areas. She directed ARTIC — Atmospheric Integrated Research Using Chemistry at Interfaces — a multi-investigator effort to better understand how air and water interact in the atmosphere and how those processes affect air quality and global climate change.

John Jimenez and Barbara Brown Jimenez ’74 celebrated their 30th wedding anniversary. The couple met in January 1971 at a UCIR tutorial program orientation meeting. Gary McGavin was reappointed by Gov. Schwarzenegger to his third term on the California Seismic Safety Commission representing the architecture seat. He’s the current chair of the commission. Gary teaches architecture and seismic design at Cal Poly Pomona and has an architectural practice in Redlands.

74 Jim Gilford (Ph.D.) retired after 30 years at the University of Arkansas at Little Rock as chair and tenured professor of chemistry in July. He had been senior chemist at Argonne National Laboratory near Chicago for the past 17 years.

73 Jorge Arias (Ph.D.) is an insect control officer for the Fairfax County Department of Health. He’s in charge of the disease-carrying insects on College Composition and Communication, the National Council of Teachers of English, and the National Education and Research Committee of the Society for Technical Communication. He’s serving his ninth consecutive term on the Portage County Board of Supervisors and has been chair of the Springville Pond water quality committee for the village of Plover since 1992.

76 Robert McNell was owner of Fitness West in Daly City and South San Francisco. He also serves as chief financial officer on the Daly City-Comma Chamber of Commerce board of trustees. He was “Principal for a Day” at his alma mater, Woodmoor High School, in March.

Linda Saroff (M.Admin.) is community development director for the city of Silverton, Ore., where she oversees both current and long-range planning, code enforcement, building development review and Silver Frolley functions. Linda was formerly the community development director for the City of Florence. She is married and has four children.

80 Arlene (Lehmkuhl) Golds teaches high school English in Riverside. Her first novel, “From Dream to Dream” was published by Baen Books in June. Michael Campbell has been named chief software officer, navigation division for the Aerospace Corp. in El Segundo.

84 Linda Halisky (M.A., Ph.D.) was appointed dean of the College of Liberal Arts for Cal Poly San Luis Obispo. As dean, she’s responsible for the quality of the College of Liberal Arts’ undergraduate and graduate academic programs. She oversees about 60 staff members and more than 300 faculty members. In 2004-05, Linda received the Student Success Recognition Award from the university’s division of student affairs and won the Cuesta College Woman in Education award. Linda joined Cal Poly as an assistant professor of English in 1984.

93 Marshall Johnson (Ph.D.) was selected as a fellow for the Entomological Society of America. He’s currently IPM Extension Specialist and entomologist and lecturer at the University of California, Riverside. He has awards from the University of Hawaii, the Hawaiian Entomological Society and the Entomological Society of America. Marshall is currently president-elect of the International Organization for Biological Control and a past president of the Hawaiian Entomological Society. He was also a member of the ESA Governing Board and chair of several of its committees, the editor of the Proceedings of the Entomological Society of Hawaii for several years and editor of Biological Control from 1997-2004.

1. Why do you volunteer for the Program for Torture Victims?
   a. We work with people who are survivors of international state-sponsored, paramilitary or ethnic violence. I decided to volunteer because in my current paid position, I no longer have client contact and I wanted client contact again but in a different setting.
   b. We’re out of reading material. Can you recommend a book?
   c. I just finished Monique Truong’s “The Book of Salt.” It’s about this imaginary household of Gertrude Stein and Alice B. Toklas in Paris as told by Binh, their gay Vietnamese cook. It transports you to Paris and into the bistro’s kitchen with Binh’s cooking and his musings carrying you back and forth to his “home,” though he is really in a constant state of exile.
   d. Tell us one thing you haven’t told anyone else.
   e. While I was a student at UCR, my records mistakenly listed me as “male” so I had to request a “gender change,” or should I say “gender confirmation,” from the administration office for my records. Whenever I get junk mail addressed to “Mr. Thao Lam,” I still chuckle.
   f. What class would you have loved to have taken but never had the chance?
   g. I probably would have taken more classes with sociology professor Edna Bonacich, who just retired this past June. She challenged me to look at the world differently and was one of the two women who inspired me to go into social work.
   h. What’s the best thing you took away from UCR?
   i. It expanded the notion of the world for me. There is a quote from “Cinema Paradiso,” a film I first saw at the Fox Theater in downtown Riverside during school. Alfredo tells Toto as a young man, “one must leave this poisoned land because if you don’t, you will come to believe that it has definite boundaries.”

Names printed in Blue indicate members of the UCR Alumni Association. To update your membership, visit www.alumni.ucr.edu.
Homecoming Court — It’s All About Volleyball

A tribute to Head Volleyball Coach Sue Gozansky and UCR’s volleyball program will be part of this year’s Homecoming celebration, scheduled for Feb. 22-24. Events include meals inside the Barn, campus tours, a hike to the C on Box Springs Mountain, classes without tests, and a basketball matchup against rival UC Santa Barbara.

Visit friends and classmates, and see what the campus looks like now, including the site of the new Alumni and Visitors Center and the progress on the new Commons.

For times and dates, www.homecoming.ucr.edu

For information about these and other alumni events, visit www.alumni.ucr.edu

Nominating an Alumnus

Which UCR alumni are making a difference in the world?
Nominations are sought for the 2007 awards for Distinguished Alumni, Alumni Service and Outstanding Young Alumni and Honored Alumnus.

The nomination deadline is Dec. 1. Recipients will be honored at the 21st Annual Alumnus Awards of Distinction Banquet on April 21.

Tour Sardinia, Corsica, Rome

Travel the world with other UCR Alumni Association members.
The tour is scheduled for July 6–17, 2007, and is priced $4,195 per person for reservation deposits paid by March 15, or $4,295 thereafter.

How to contact the UCR Alumni Association

Web site: www.alumni.ucr.edu
E-mail: ucralumni@ucr.edu
Phone: (951) UCR-ALUM or (800) 426-ALUM (2586)

12.03

UCR at UCLA Men’s Basketball Game and Pre-Game Lunch
Bus leaves from UCR at 11:30 a.m. The day includes a 1 p.m. lunch at the L.A. Tennis Center and a 2:30 p.m. tip-off at UCLA.

Cost is $50 alumni association members and $60 non-members with transportation; $30 members and $40 non-members, for the pre-game lunch and game only. Reservations are requested by Nov. 27.

01.13

Alumni Reception and Women’s Basketball at UCR
Alumni reception and UCR Women’s Basketball vs. Cal State Fullerton; 3:30 p.m. pre-game reception at UCR Student Recreation Center; 5 p.m. tip-off.

02.22

Alumni Association Winter Quarter Meetings
Executive Committee Meeting
University Extension, Suite 6. 1:30–3 p.m.

UCRAA Winter Quarter Board Meeting
University Village Conference Room 207, 3–5:30 p.m.

3.26 – 27

UC Day in Sacramento Legislative Conference
UC Day is the one time of the year when all 10 UC campuses come together to meet with elected officials on issues facing UC.

This is an opportunity to meet in small groups with legislators in their offices and discuss issues affecting higher education.

He is responsible for software issues and opportunities across all parts of the global positioning system program supported by the company.

He's been with the Aerospace Corp. since 1992. He met his wife, Aya Glotman, while they were both studying at UCR.

They have two daughters, Sasha and Alice ...

Kim Foreman has joined the Community Foundation Serving Riverside and San Bernardino counties as director of communications and visibility.

The Community Foundation is a 501(c)3 charitable organization that distributes scholarships to every college in the two-county area and funds programs that enhance the quality of life in the community.

Her husband, Patrick Benn (’81), is a senior consultant with Booz Allen Hamilton ...

Derek Isaacson (’86 M.S.) had an article called “IVA Management” published in the August edition of the ISSA Journal.

He received a master’s degree in computer science with a concentration in computer system security in June.

‘82 Judy (Nelson) Ploktin moved to Oregon in 2004. Her husband of 32 years died in 2002. She’s a retired special education teacher and college instructor.

Judy is involved in the Red Door Community, a social action group that helps people manage in difficult situations. As a presenter for the American Association of University Women, she went on a mission to Ukraine and Soviet Union to set up a reform congregation in 2003.

‘83 David Hawkins commands the 27th Intelligence Squadron, which conducts intelligence computer operations and production support for worldwide intelligence, surveillance and reconnaissance operations.

He plans, manages and integrates intelligence systems and emerging technologies to achieve information dominance and operational supremacy.

‘84 Gerry Rippins is dean of the College of Liberal Arts at California State University, Long Beach.

Gerry has served as the associate dean for the College of Liberal Arts since 2002, overseeing the development and coordination of the college’s budget plan and managing enrollment for the college.

He has also served as interim dean for the college.

As dean, Gerry is the chief academic officer of the college and reports to the provost and senior vice president for academic affairs.

He’s responsible for directing and coordinating the instructional, curricular and support program of the college, including academic and professional programs at the undergraduate and graduate levels.

‘85 Robert Field was promoted to director of facilities management for Riverside County. He is responsible for overseeing the construction of a number of new multimillion-dollar public facilities over the next several years, and oversees the operation and maintenance of more than 5.7 million square feet of existing county buildings.

‘86 Dan Kish is a blind psychologist and leading teacher of echomobility among the blind.

He’s also executive director of World Access for the Blind. Dan is the first certified blind orientation and mobility specialist in the world and is one of the world’s foremost experts on echolocation.

Echolocation is a technique that teaches blind people to listen for echoes to navigate in a sightless world ...

Michael Givel (Ph.D.) was recently promoted by the board of regents of the university of Oklahoma to associate professor of political science with tenure at the university’s Norman campus. His areas of research and teaching interest include public policy, health policy including tobacco policy, public administration and urban politics.

In addition, Michael was recently named to 2006-07 Who’s Who in Health Care and Medicine ...

Stephen Ure is an immigration and divorce attorney in Fontana, Calif. He has been chair of the San Diego County Bar Association Immigration Law section for the past three years.

‘90 Michael Valentine announced the birth of his first daughter, Emma Collette, in November 2005. He and his wife, Laura (Bloomfield) Valentine, were married in 2000. Later that year, he earned a Ph.D. in biological sciences from the City of Hope Graduate School. The family lives in Woodland Hills, Calif. ... Shelli Wilson was named one of five California Teachers of the Year last year. She’s a teacher at Lincoln Continuation High School in Riverside.

‘91 Douglas Swart is court administrator at Pomona Courthouse of the Superior Court of California for the County of Los Angeles.

‘92 Mike Bergler (’95 M.S.) was promoted to director of alumni and family relations and advancement services at Concordia University in Irvine, Calif. Mike is also a speaker in alumni and family relations programming at regional and national conferences. Last year, he was awarded two silver medals for peer-reviewed programs in alumni relations and fund raising. His wife, Lisa (Greayer) Bergler ’93, is the director of recruiting for the Orange County/Pasadena offices of John Hancock Financial. They have two children, Natalie, 6, and Jonathan, 3 ...
Rod Pacheco
UC Riverside, Political Science, 1980

By Laurie Williams

Rod Pacheco was a mover and shaker in student government during his under-graduate years. He apparently enjoyed the give and take, because he has spent his whole career in public life, first as one of Riverside County’s winningest prosecutors and later as Republican leader of the state Assembly. Now back in the District Attorney’s Office, he takes over the top job Jan. 1.

1. How does a person with a heavy job let loose? Well, I actually like to work — I’m fortunate that my job itself tends to keep me loose, and it’s enjoyable every day of the week. Also, I love to spend time with my family.

2. We’re out of reading material. Can you recommend a book? One I read recently and enjoyed very much was “Team of Rivals,” by Doris Kearns Goodwin. It’s about Abraham Lincoln’s Civil War Cabinet. Lincoln is someone I’ve admired for a long time, and this book shows his leadership style and his understanding of people’s motivations.

3. What class would you like to have taken at UCR but never got the chance? That would definitely be Critical Thinking. I tried to sign up for it every time, all four years, and I probably made up for it in law school.

4. Do you have a hero? My hero is my mother, because she’s worked very hard and made the most of her life. From humble beginnings, she became extremely successful in her field, real estate. She’s quite a person.

5. What’s the best thing you took away from UCR? I think it was the feeling that everyone on campus really cared about whether students learned and succeeded. I remember two people especially. Francis Carney taught political science and I’d pore over the course catalog and sign up for anything he was teaching. My hero is my mother, because she’s worked very hard and made the most of her life.

John Heskisions is a singer-songwriter. He has released an independent CD, “Miscellaneous Heathen.” John returned in May from a brief tour through Europe, where he did 13 shows in 16 days in seven cities. He was able to book a couple of shows at the legendary Cavern Club in Liverpool …

Steve Nunez has moved his law office to Mission Valley in San Diego. His practice emphasizes representation of individuals and small business in litigation, as well as personal estate planning …

Sheri (Silva) Rocco and her husband, Gregory, announce the birth of Katherine Rose, who joins her 2-year-old siblings, Lauren and Michael. The family is healthy and doing very well …

David Salardino and Paige (Downey) Salardino (’93) are proud parents of a baby girl, Mia.

Gregory Scott Hoover received his master’s of law in taxation from the University of Washington. Gregory received his J.D. degree from the University of Detroit Mercy in 1996 and is currently practicing law in Seattle, Wash. He has been an attorney for eight years …

Barbara Jacobs (’98 M.A.) is a resource specialist program teacher at Hepner Junior High School. She led her students to the national competition of the Christopher Columbus Awards, a nationwide science program that challenges middle school students to explore opportunities for positive change in their communities. This was the first time students with disabilities have made it to the finals. The team won a gold medal for its entry, “H.D.T. — Hands-Off Telephone Band,” a Velcro wristband used to hold a cell phone for those who need or would like hands-free communication without an earpiece …

Lucinda Lundebo (’94 teaching credential) is a first-grade teacher for Hemet Unified School District.

‘93 Shannon (Martin) Elia and her husband, Rob, welcomed their third daughter, Kaitlin Rose, in March 2006. The family resides in Humboldt County along with their two other daughters, Sophia and Ashley. The family relocated to Redding, Calif., where Rob is an assistant principal at a K-8 school …

Kelin Wang (M.S., ’01 Ph.D.) is a recipient of the Resident Clinical Basic Science Research Award, which is sponsored by the American Society of Therapeutic Radiation and Oncology. Kelin’s study focused on acute and chronic hypoxia in head and neck cancers based on serial PET-FMISO images. He’s now working with Dr. Chifton Ling as a research fellow in medical physics at Memorial Sloan-Kettering Cancer Center in New York …

‘95 Diana Finck graduated from residency as an OB/GYN doctor from Drexel University in Philadelphia and now works at Kaiser Permanente Orange County. She was married in July to Luke Spak of Danbury, Conn. …

Vince Moses (Ph.D.) retired as director of the Riverside Metropolitan Museum in March. He was director for 3½ years and an employee of the museum since 1979. He plans to write books on the history of Riverside and the citrus industry in Southern California …

Timothy H. Nelson is the first director of alumni affairs for Delta Tau Delta fraternity. He will focus on the training of alumni volunteers, reviving existing or dormant alumni chapters and increasing long-term involvement in Delta Tau Delta. Tim and his wife, Candice, are the parents of a son and daughter and live in Frisco, Texas.

‘96 Jason Tani has joined Merrill Lynch’s Temecula office as a financial adviser after establishing his wealth-management practice in Orange County over the past decade. He moved his family back to the Inland Empire and closer to his UCR roots …

Robert Vargas passed the final licensing exam in June to become a licensed psychologist in California. He is working as a psychologist/case manager in Marin County.

‘97 Christine Kai is a teacher in the Buena Park School District …

E. John McGowan has worked for Kaplan Test Prep & Admissions, since 2003 where he served as the Orange County Center director. Recently, he received a promotion to associate marketing director for the California region, where he is spearheading efforts to set up customized test prep programs (i.e. GMAT, LSAT, GRE, SAT) for students taking those exams.

Cheer your favorite Highlander teams to Division I victory! Check for home games, games near your home and even televised games at home (in select locations).

www.athletics.ucr.edu

UCR Alumni Travel Program
www.alumni.ucr.edu

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Discover the best of SoCal contemporary art through student and professional exhibitions, lectures and live performances offered by the UCR ARTSblock in Downtown Riverside.

www.sweeney.ucr.edu or www.crm.ucr.edu

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www.alumni.ucr.edu

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2. CHEER your favorite Highlander teams to Division I victory! Check for home games, games near your home and even televised games at home (in select locations).

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Companies that encourage their employees to pursue advanced degrees. John is a member of the UCR Alumni Association awards committee and volunteers for various UCR student recruitment and career events. E-mail John at john.mcgowan@kaplan.com.

'99 Kevin Boeve is a senior investment associate, director of the national retail group and a director of the net-leased properties group in Marcus & Millichap’s Ontario office. Kevin specializes in the sale of single-tenant net-leased properties throughout the United States. For three consecutive years, Kevin has earned three of the most prestigious awards given to Marcus & Millichap commercial real estate sales agents. In 2004, he earned membership in the company’s Seven-Figure Club.

'00s

'01 Ryan Nieves and Kevin Lowe (99) participated in AIDS Life Cycle 2006, a 3,500-mile bicycle ride from San Francisco to Los Angeles to raise money to help cure AIDS …

'03 Jennifer (Isaacson) Soto married Jeff Soto. They have a 1-year-old daughter and reside in Riverside. Jeff is an artist. He has published a book, “Pita and S 125.0008 dB...” from Sterling Publishers.

'05 Crystal Harris is playing professional basketball with the National Women’s Basketball League team San Diego Seige. Crystal is excited to be working with veteran coach Fred Williams, who coached the WNBA’s Charlotte Sting and Utah Starzz. She holds the amateur spot on the team and is averaging about seven minutes and three points per game. In her senior year at UCR, Crystal was the graduate assistant coach for the Highlanders.

'06 Antonio Ortega was selected as a member of Polanco Fellows by the California Latino Legislative Caucus Institute for Public Policy. The program provides leadership training and development for a select group of college graduates. The institute’s goal is to develop the next generation of leaders who will help guide California as it navigates the public policy challenges of the new century.

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The People: The Citizens and the Constitution,” hundreds of history and government teachers nationwide applied and six were accepted from Riverside Unified School District. The program took place in August at Boston University through the Center for Civic Education. Teachers worked with constitutional scholars, attended lectures and learned teaching methods.

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'67 Robert Reeves Gunther, known for his geodesic home manufacturing business. May 2006

'72 Patricia (Wilkinson) Wybomy, coordinator of academic support services in the Office of Services for Students with Disabilities at UCR before she retired in 2001. April 2006

'74 Janet Lee Hope, vice president and district manager of the Santa Monica Residential Appraisal District for Bank of America. March 2006

'92 Arty Moti, an orthopedic surgeon in Tampa, Fla. August 2006

Latasha Wallace, a sociology/administrative studies major and a resident advisor in the Pan-African Themed Hall. September 2006

Mark Hall, a basketball player who transferred to UCR as a sociology major. His brother, June 2006
Jennifer Bermingham
Class of ’09

“I’d be a good lobbyist. I could take legislators out on the golf course and talk them into seeing things my way.”

A UCR golfer takes a swing at education, a career and a way to make a difference.

By Laurie Williams

From her vantage point at the front of UCR’s women’s golf team, 19-year-old Jennifer Bermingham can see herself turning pro someday. “But I have to get a degree under my belt first,” she says. “That way, I’ll have a plan B.” Even if she turns out to be the best woman golfer this side of Annika Sorenstam, Jennifer reasons, she won’t able to play professional golf her whole life.

She has another passion: political science. “I just always want to know what’s going on in the world,” she says. “My teammates tease me about it. They’re just jealous because I know what’s going on and they don’t.” A visit to Washington, D.C., in high school sparked her interest — seeing the sights and getting a feel for the history and traditions of how the government works.

Jennifer keeps a close watch on environmental issues, especially fighting pollution and finding alternative energy sources. “I’d be a good lobbyist,” she says. “I could take legislators out on the golf course and talk them into seeing things my way.”

For now, she says, life is great. UCR also recruited her best friend, Allison Ek. Once standout players at rival high schools, they’re now roommates as well as teammates and spend at least four hours each day on the golf course. “What could be better?” she asks. “A lot of people would give anything for a life like mine.”
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