Dear Friends of UC Riverside,

This summer I celebrated my first anniversary as UCR’s Chancellor. It was an exciting inaugural year for me as I met so many people on campus and in the community. The year was marked with significant scholarly and research accomplishments by our faculty, staff, and students, and with significant challenges wrought by State budget cuts. I was deeply impressed by the way the campus pulled together through months of budget uncertainty to continue to deliver quality instruction, breakthrough research, and services to our growing campus.

This Fall we will welcome 17,000 students to campus, the largest student body in our history. We will also greet nearly 50 new faculty members across the spectrum of disciplines. We will continue to build new buildings for the sciences and humanities. We will continue to enhance regional partnerships, with the development of satellite education centers in the Coachella Valley and Temecula and a renewed commitment to be an ‘engaged’ university.

Our private and foundation gifts and research awards reached the $100 million mark for the first time. We made widespread improvements in instructional technology for classrooms, tackled important staff and student morale issues, enhanced research administration and opportunities for students to do research with faculty, and enriched library offerings and services.

We are approaching the fiftieth anniversary of our first entering class, which was in 1954. We’ll be devoting more space in this publication in the coming months to reflecting on UCR’s history and traditions. (We welcome historical photos; please send them to me for consideration for our publications and we’ll return them to you.)

In this issue we focus on technology transfer and the critical role it plays in making our campus a magnet for developing technology businesses. It is exciting to see how our discoveries in basic science and engineering can be nurtured and developed for the commercial environment.

I would like to give special congratulations to the nearly 3,000 recent UCR graduates, and a heartfelt thank you to the many staff and faculty who worked so hard to make our five commencement ceremonies so memorable. I am so proud of our newest alums! See the selection of photos on page 2.

I hope you enjoy this issue of Fiat Lux. If you see me on campus or around town, please say ‘hello.’

France A. Córdova
Chancellor
Fiat Lux, Latin for "Let there be light," is the motto of the University of California. It is also an ancient biblical reference that announced the coming of light into the world, and with it knowledge, the power of perception and the hope for wisdom.

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2003 COMMENCEMENT
Dear Editor...

It was good to hear from a number of Fiat Lux readers and I look forward to more correspondence with each issue. Sande Jenkins Hendricks ’66 notified us that the photo identifying her on page 37 of the spring 2003 issue was actually someone else. The “real” Sande is shown here.

We’re sorry about the misprint, but we were quite happy to receive the following comments from her: “I would like to tell you what a first class publication the Fiat Lux is! It has changed a good deal through the years and I think the staff does an excellent job of putting together very interesting information on what is going on, as well as profiling the professional accomplishments of the instructors as well as the updates on campus improvements and the alums. The article about the library and the people involved is wonderful! I haven’t been to the campus in a very long time, but seeing it in your pages makes me want to return when we next come to California.”

We sincerely hope Sande will stop by and visit as we hope all of our readers will when they get the chance. If you haven’t been on campus in the last few years you will be amazed by the changes and the absolutely beautiful grounds we enjoy here each day.

We’d like to hear from you about what you see in these pages, what you’d like to see more of and what you find useful. Let us know too if we’ve missed the mark on something or haven’t fulfilled your expectations.

You can reach me via email at Kathleen.peach@ucr.edu or via mail at:
1150 University Avenue
Highlander Hall, Bldg. A
Riverside, CA 92521
or by Fax: 909-787-5008

Many thanks to those of you who responded to our renewal request in the last issue. The responses demonstrated the growing use of electronic communications as 46 percent of you responded via email and another 12 percent via fax. We’ll continue to make the renewal form available for those of you who haven’t had a chance to send your response yet. Interestingly, 12 percent of respondents have chosen to receive only the electronic version of Fiat Lux. Whether you choose electronic or print you’ll enjoy the same quality of content and visual images that make every issue a compelling must read.

If you would prefer an email letting you know when the next issue is available online and accessible in both PDF and HTML format just fill in the information below and we’ll alert you when the next issue is ready to access.

In fact, we are asking all of our readers to complete a renewal form so we can make sure our mailing lists are up to date. If you fail to submit the renewal form your name will be removed from the distribution list.

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Margaret Mooney is Recipient of Prestigious Bernadine Abbott Hoduski Founders Award

Margaret Mooney, head of the Government Publications Department at the UCR Libraries and coordinator and managing editor of the award-winning INFOMINE services, is a recipient of the prestigious American Library Association Government Documents Round Table (GODORT) Bernadine Abbott Hoduski Founders Award for 2003.

The Hoduski Award recognizes a documents librarian who has made significant contributions to the field of state, international, local, or federal documents. The award honors those whose contributions have benefited the individual’s institution as well as the profession. It was named for Bernadine Abbott Hoduski who founded GODORT in 1972 and who served as professional librarian/staff member for the Joint Committee on Printing for nearly 25 years. In presenting her with the award, GODORT recognized Mooney’s pioneering work in automating the check-in and the cataloging process for U.S. Depository materials and her major role in developing INFOMINE, one of the first library-originated Web-based information services.

Woody Liao, one of only two UC professors on list of “Prolific Authors of Accounting Literature”

A recent study of 40 accounting and related business and management journals named Woody Liao, professor of accounting at the University of California, Riverside, a “Prolific Author in Accounting,” placing him among the nation’s top 10 accounting researchers who received doctoral degrees in 1974 based on three measures of productivity.

Liao ranked ninth as measured by the number of publications by an individual professor. He ranked eighth in the number of articles co-authored. Liao ranked seventh in a combined assessment of the quality of articles and the quality of the journal publishing the articles.

Thomas Cogswell Appointed Fellow of the National Humanities Center

Thomas Cogswell, a professor of history at UC Riverside, will spend the coming academic year in North Carolina as one of 41 scholars appointed as Fellows of the National Humanities Center for 2003-2004.

The fellowship will allow him to finish a project on early modern British politics, entitled “Buckingham’s Commonwealth: War, Politics and Political Culture, 1618-1629.”

Carl Cranor Served on Board of Advisors for PBS Documentary “BLOODLINES: Technology Hits Home”

A PBS documentary about the ethical, legal and social dilemmas of cutting-edge science credits UC Riverside Philosophy Professor Carl Cranor as one of eight members of a “Board of Advisors” to producer/director Noel Schwerin. The show aired on KCET in Los Angeles at 10 p.m. Friday, July 11.

CE-CERT’s Joe Norbeck Receives Chancellor’s Faculty Mentor Award

Professor Joseph Norbeck was honored in June with the 2002-2003 Chancellor’s Faculty Mentor Award for Excellence in Fostering Undergraduate Research. The award was established in 1994 to recognize faculty members who have distinguished themselves through their excellence in fostering undergraduate research or creative activity.

Two Earn Academic Senate Awards

The Academic Senate awarded Professor Roger Ransom in the Department of History and Professor Leah Haimo in the Department of Biology the Distinguished Teaching Award for 2002-2003. The annual awards are based on student evaluation and peer reviews.

Entomologists Honored for Maintaining and Enhancing the Nation’s Natural Resources and Environment

Extension Entomologist Nick Toscano (’73) and Assistant Research Entomologist Matthew Blua (’91 Phd) in the Department of Entomology at UC Riverside were recognized for exemplary service and achievements by Agriculture Secretary Ann M. Veneman at the 57th Annual U.S. Department of Agriculture (USDA) Honor Awards Ceremony held in June in Washington, D.C.

Toscano and Blua received the Secretary’s Annual Awards in the category ‘Maintaining and enhancing the nation’s natural resources’.
and environment.’

The Secretary’s Annual Honor Awards are the most prestigious awards given by USDA. The University of California’s honorees were among this year’s 85 award winners. The awards are the most significant recognition the USDA can bestow to acknowledge outstanding contributions to agriculture and to the consumers of agricultural products. The purpose of Honor Awards is to provide high-level recognition to deserving USDA employees at all levels and private citizens who have made outstanding contributions supporting the USDA’s mission. The Honor Awards Program was created in 1947.

**Gary Dymski Selected to Lead Statewide Student Internship Program in Sacramento**

Gary Dymski, professor of economics at UC Riverside since 1991, has been named Director of the University of California Center at Sacramento.

The University of California Center at Sacramento (UCCS) is a three-year pilot program of the UC Office of the President, a state version of the popular UCDC program in Washington D.C.

**Brian Federici Receives Secretary’s Annual Honor Award from USDA**

Brian Federici, professor of entomology and entomologist at UC Riverside, was recognized with one of the 2003 Department of Agriculture (USDA) Secretary’s Annual Honor Awards in the category ‘Promoting health by providing access to safe, affordable, and nutritious food.’ The award was presented to Federici on Friday, June 13th, 2003, in Washington, DC.

The Secretary’s Annual Honor Awards, are the most significant recognition the USDA can bestow to acknowledge outstanding contributions to agriculture and to the consumers of agricultural products. The purpose of Honor Awards is to provide high-level recognition to deserving USDA employees at all levels and private citizens who have made outstanding contributions supporting the USDA’s mission. The Honor Awards Program was created in 1947.

**Thomas Miller Awarded Prestigious Medal from Academy of Sciences of the Czech Republic**

Thomas A. Miller (’62 ’67 PhD), professor of entomology at UC Riverside, was awarded the J. G. Mendel Honorary Medal for Merit in the Biological Sciences for his work in insect physiology, toxicology and genetics, and for his efforts to encourage and foster research partnerships with scientists in Eastern European countries. The award is one of the world’s top honors in the biological sciences.

The J. G. Mendel Medal was established by the Czechoslovak Academy of Sciences in 1965 and is named after the founder of the discipline of genetics, Johannus Gregor Mendel. The medal is awarded by the Academy of Science of the Czech Republic in recognition of outstanding contributions in the biological and agricultural sciences.

**David Reznick receives 2003 E. O. Wilson Naturalist Award**

David Reznick, professor of biology at UC Riverside, is the recipient this year of the prestigious E. O. Wilson Naturalist Award and joins a distinguished group of researchers who have previously been honored. Reznick received the award on June 23, 2003, from the American Society of Naturalists.

The purpose of the American Society of Naturalists is to advance and diffuse knowledge of organic evolution and other broad biological principles to enhance the conceptual unification of the biological sciences. The E. O. Wilson Naturalist Award was established in recognition of the lifetime of outstanding contributions of Professor E. O. Wilson in the areas of ecology and evolutionary biology, including the study of social insects, biodiversity and biophilia.

**Ivan Penkov Receives Prestigious Appointment at Yale**

It’s not New England’s spectacular fall foliage but mathematics that will take UC Riverside’s Ivan Penkov to Connecticut this year. Penkov, who is professor of mathematics, will be a visiting professor at Yale University during the fall semester of 2003, an appointment that is both prestigious and an honor.

At Yale, Penkov will conduct joint research with several Yale faculty, in particular with Prof. Gregg Zuckerman. He will also teach a graduate course on his research program which will incorporate work that he did at UC Riverside with his students. The course will also discuss his work done in collaboration with colleagues at UC Berkeley and in Europe.

**Professors Honored for Work With Graduate Students**

Prasanta Pattanaik, professor of economics, and Subir Ghosh, professor of statistics, were chosen by The Graduate Council and the Graduate Division to receive the first annual Dissertation Advisor/Mentor Awards. The awards recognize faculty that have made outstanding contributions to the training of advanced graduate students at the University.

Pattanaik was cited for his ability to generate abiding interest and enthusiasm in his students for microeconomics. Students noted he was sensitive to their needs, generous with his time, and possessing the utmost intellectual integrity. Students commented at length on Ghosh’s ability to nurture as well as challenge them intellectually. They noted that his willingness to provide extra encouragement and attention was instrumental to their successes since completing their degrees.
William O. Harris

Prof. Emeritus William Oliver Harris, a scholar of Renaissance literature for 27 years in the Department of English, died June 26, from complications of Parkinson’s disease. He was 79.

Born in Ahoskie, N.C., Harris lived in Riverside 39 years. He started at UC Riverside as a visiting assistant professor in 1964 and earned a tenure track position in 1966. He retired in 1991. His colleagues described him as a careful and meticulous scholar who devoted his life to the campus.

Prof. Harris was a member of the Modern Language Association, the Renaissance Society of America, the American Association of University Professors and Phi Beta Kappa.

Harris and his wife, Dot, co-produced the UCR Barn Folk Concert series for 19 years.

In the ‘60s, Harris was one of the founders of the Fair Housing Bureau in Riverside.

Prof. Harris received his doctorate in 1957 from the University of North Carolina at Chapel Hill. He served in the Marines during World War II, as a Master Technical Sgt. in the Solomon Islands.

Before coming to UC Riverside, he taught English literature at Wake Forest University in North Carolina for six years and also had an associate professor appointment at the University of Alabama.

In addition to his wife of 54 years, he leaves a daughter, Anna of Riverside (BA, ’93, credential, ’98); a son, Sidney of Alaska; and a sister, Richie Whaley of Tennessee.

Memorial contributions can be made to the UC Riverside Foundation, for use in a scholarship fund within the English Department.

Birk Hinderaker

Birk Hinderaker, the wife of Ivan Hinderaker, the longest serving UC Riverside Chancellor, died at her home in Corona del Mar June 19 at the age of 87.

Mrs. Hinderaker was born Aug. 17, 1915. She and Ivan were married on June 7, 1944. They met at the University of Minnesota where Birk received her undergraduate degree. Mrs. Hinderaker did graduate work in personnel and psychology at the University of Minnesota, worked for the Minnesota Taxpayers’ Association, and briefed bills in the legislature. She worked in the War Manpower Commission and later, when Ivan was at UCLA, she taught self-improvement classes for women at the Hollywood and Los Angeles YWCAs.

Between 1964 and 1979, when the Hinderakers served UC Riverside, Mrs. Hinderaker was an accomplished poet and a champion and supporter of the arts. She and son Mark collaborated on much of her published poetry – Birk providing the poetry and Mark the photography. At UC Riverside, she highlighted local artists in the Chancellor’s residence and encouraged them to display their art. She was a strong advocate for the UC Riverside/California Museum of Photography and the UCR carillon. She also promoted opportunities for women in the arts, and it was largely through her efforts that the Chancellor’s Performance Awards were established in the fine and performing arts in 1976-77. It was Mrs. Hinderaker who conceptualized the UCR Affiliates, which brought together campus and community friends to support UC Riverside.

The Hinderakers returned to their Corona del Mar home following Ivan’s retirement from UC Riverside in 1979. They enjoyed taking brisk walks along the ocean or golfing together.

The family requests that memorial contributions be sent to the UCR Foundation to support the fund for UCR’s carillon. In addition to her husband and son, Mrs. Hinderaker is survived by a grandson, Blake.
Nature’s Laguna Wilderness
By Ronald H. Chilcote
Laguna Wilderness Press, August, 2003: 96 pages

Emeritus Economics and Political Science Professor Ronald H. Chilcote’s passion for photography and environmentalism worked seamlessly in his pictorial and personal tale of the preservation of the 20,000-acre Laguna Canyon wilderness.

The comprehensive history, geography and six-year photographic study chronicles a successful grass-roots preservation effort to conserve part of the coastal Southern California wilderness amid the rampant urbanization of southern Orange County.

“…Chilcote has created a volume that is an important contribution to regional history and universal efforts to preserve and enhance wilderness areas,” wrote photographer Jerry Burchfield in the book’s forward.

Nature’s Laguna Wilderness is the product of more than 25 years of struggle to preserve the undeveloped lands between the city of Laguna Beach and the developed interior of southern Orange County. It hopes to redefine the notion of progress to recognize the importance of preserving as much open space as possible to preserve a high quality of life amid the mass urbanization that characterizes much of Southern California.

Conflict in Medieval Europe: Changing Perspectives on Society and Culture
edited by Warren C. Brown and Piotr Górecki

Piotr Górecki, associate professor of history at UC Riverside, discusses the legal, social and religious connections in medieval European history, especially Poland between the eleventh and fourteenth centuries. The book, co-edited with Warren C. Brown of the California Institute of Technology, is a collection of papers looking at conflict as both a natural part of social life and relations in such subjects as property disputes, criminal law, violence, status, sexuality and gender.

“It is a series of articles on the subject of conflict written by a large group of our colleagues, who are among the top scholars of this subject in the United States today,” Górecki said. This book surveys the field, bringing together scholarship across the trajectory of conflict studies in the United States, and also presents its own original contributions.

A native of Krakow, Poland, Górecki moved with his parents to the United States when he was a teenager. He completed his doctoral studies in 1988 and was a Visiting Assistant Professor of History at the University of Illinois at Chicago before accepting his current position at UC Riverside.

Printing for Profit
The Commercial Publishers of Jianyang, Song-Ming
by Lucille Chia
Harvard University Press, December 2002: 360 pages

Lucille Chia, assistant professor of history, has written a book on Chinese book publishers from the eleventh through the seventeenth centuries. The publishers of Jianyang in Fujian province played a conspicuous role in the Chinese book trade because their publications were destined for the retail book market. These publishers survived by responding to consumer demands for dictionaries, histories, geographies, medical texts, encyclopedias, primers, how-to books, novels, and anthologies. Their publications provide a window into the reading habits, tastes, and literacy of different social groups. The publishers of Jianyang were also businessmen, and their efforts to produce books efficiently, meet the demands of the market, and distribute their publications provide an example of the growth of regional and national markets.

Chia received her Ph.D. in Chinese history from Columbia University twenty years after she earned her Ph.D. in chemistry from New York University. Her many research interests include research on publishing in late imperial China. She is interested in the early history of Chinese migration to various parts of southeast Asia, especially the Philippines, and the socioeconomic impact of this diaspora on coastal regions of China from which the emigrants came. Another of her research interests deals with the development of science and technology, e.g., how handicraft techniques were transmitted and modified from place to place, and the ways pharmaceutical materials were developed and refined.

The Land Looks After Us: A History of Native American Religion
by Joel Martin
Oxford University Press, May 2001 (paperback): 128 pages

Joel Martin, who holds the Costa Chair in American Indian Studies at UC Riverside, has traced the development of Native American religion from ancient burial mounds, through interactions with European conquerors and missionaries and on to the modern day rebirth of ancient rites and beliefs. The book was first published in hardback in 1999 under the title “Native American Religion.”

Martin draws on folk stories, rituals and even landscapes to trace the development of Native American religions, what he describes as “America’s most spiritually profound, historically resilient and ethically demanding religions.”

The book traces the formation of the Native American Church in 1919, the passage of the Native American Graves and Repatriation Act of 1990 and the key political actions involving sacred sites in the 1980s and ’90s. Martin weaves in the history of legendary chiefs such as Osceola and Tecumseh, prophets such as the Shawnee Tenskwatawa and the Mohawk Coocoocooche, as well as dozens of other men and women into a wide-ranging survey.

Martin has appointments in the departments of history and religious studies. He is working with several local tribes on projects that relate to preserving tribal culture, religion and history.

The Broken Land
by Frank DeCourten
‘73, ’76 M.S.
University of Utah Press, May 2003: 274 pages

In “Broken Land,” Frank DeCourten surveys the geological phenomena of the
magnificent landscape of the Great Basin of western Utah, Nevada, eastern California, and adjacent regions. Each chapter focuses on the study of a locality or area that provides insights into the deep history of one of North America’s most remote regions – its western continental margin. It is the only book available covering the geology of the entire Great Basin. Written for anyone with a casual to serious interest in natural history, “Broken Land” conveys DeCourten’s awe at the story written in the rock of the basin while making it accessible to all.

DeCourten is a professor in the department of geology and earth sciences at Sierra College in Rocklin, California. He is also the author of Dinosaurs of Utah. He lives in Lincoln, California.

Aluminum Times
by John O. Espinoza ’00
Swan Scythe Press, March 2002: 34 pages

This slim book of 17 poems is filled with honest, evocative and no-nonsense language that paints a true picture of a Chicano’s working-class experience in shades of anger, joy, and compassion.

In the poem “Aching Knees in Palm Springs,” the young narrator recounts working for his father, a gardener, at a large house in Palm Springs:

We spent our vacations in shivers—
Raking, trimming, and mowing
Frosted gardens with Dad.
At the eighth hour of kneeling
And picking, the weight on my knees
Was too much for me to continue.

So every time I pulled out a fistful of grass,
I stood up tall and stretched,
The cold air sneaking under my shirt.

Espinoza refuses to sugarcoat his childhood. We hear his anger towards his father, we hear the pain of growing up without much money. But there is joy, as well, though meager.

In the midst of this harsh reality a poet is born with the sharp skill of observation, capturing the everyday details that reveal to him the world within the world. Espinoza offers us an honest glimpse into the culture of struggle … the ache and pain that keep the body moving forward for the unheralded working class.

“Espinoza’s is a voice of genuine experience, opening our eyes not with pretense or sermon, but from the dignified standpoint of the people introduced to us in these haunting and eloquent poems,” writes UC Riverside alumnus Rigoberto González ’92.

Espinoza was born and raised in Southern California. He is the son of a landscaper and special education teacher. In 2000, his first book of poetry, “Gardeners of Eden,” was published by the Chicano Chapbook Series. Espinoza is currently enrolled in the master of fine arts program at Arizona State University.

Testimony to the Exiles
by Mark Feldmeir ’90
Chalice Press, March 2003: 160 pages

A GenXer himself, author Mark Feldmeir reaches out to the largely unchurched people who live their lives in the shadows of the Baby Boomers. His sermons touch honestly on such issues as sin, grace, relational brokenness, Christian community, and the kingdom of God, explored through the unique experiences, interests, struggles, and passions of GenXers in the postmodern milieu.

Drawing on a variety of resources from literature, music, pop culture, and personal experience, Feldmeir encourages pastors to stretch their imagination as they seek creative ways to intersect culture and gospel through Christian proclamation. Through these twenty-one sermons, pastors have an opportunity to “look over the shoulder” of an insider to gain ideas and techniques for preparing their own sermons. Each sermon includes an “art gallery” of film segments, contemporary music, art, and images that Feldmeir incorporates into his preaching and a media guide for further reflection on the text or subject of the sermon. The gallery and guide are an excellent source of sermon starters and means of connecting with new generations hungry for spiritual growth.

In a culture of conspicuous affluence, rampant consumerism, social disconnection, and pop-theology, Feldmeir’s sermons provide a refreshing, imagi-

native, and hard-hitting alternative to the cultural gospel so often preached in today’s churches.

He is pastor of the United Methodist Church of Santa Margarita, California, a new congregation that has grown in eight years from twenty to two hundred families under his leadership. He is a GenXer preaching to GenXers; the average age in his congregation is 34. He is widely recognized in his Annual Conference for his preaching and postmodern worship design.

Soledad Suspiros
Soledad Suspiros
by Rigoberto González ’92
Children’s Book Press, March 2003: 32 pages

“Every day when Soledad gets home from school, the windows are as dark as cooked gandules. No one to talk to. Nothing fun to do. Everyone in Soledad’s apartment works. Papi at the grade school in the mornings and at the high school in the afternoons. Sweep-sweep. Mami at the laundry. Wash-dry-fold.”

Eight-year-old Soledad dreads coming home to her lonely house. One solution might be to invent an imaginary sister to keep her company. But a much better answer emerges from the imagination and curiosity of two good friends from the neighborhood.

Prize-winning poet and writer Rigoberto González has crafted a delicate and touching tale about Puerto Rican children in New York, one that captures a latchkey child’s
loneliness and her friends’ lively ingenuity in dealing with this all too common concern.

This is González’s first picture book for children. He is working on a second picture book, “Antonio’s Card,” currently under production and scheduled for a Fall 2004 release.

**The Pillars of the Temple**

*by D. E. Vallette ’78, ’80 M.A.*

1stBooks Library, August 2002: 252 pages

“The Pillars of the Temple” contains a rousing tale of intrigue, war, politics, sacrifice, and courage. It opens with some reflections on the connections between the Ancient Greeks and ourselves and touches on the origins of Greek culture some 2,500 years ago. The book discusses the growth of the two most important city-states, Sparta and Athens. Their development is contrasted with the rise of the super power of that era, the Persian Empire.

When Persia embarks on further imperial expansion, the Greeks are the primary object of Persian attention. Some of the Greek states cave in meekly. Others seize the opportunity to even old scores for their own ends. But many join the resistance of Athens and Sparta.

D. E. Vallette is currently a director with Sylvan Learning Corporation in Rancho Cucamonga, California. He is presently working on his next book “The Harvest of Até.”

**The Dragon Tamers**

*by Tom Wolfram ’59, ’63 Ph.D.*

Xlibris Corporation, February 2003: 352 pages

“The Dragon Tamers” carefully weaves the fictional story of physicist Michael Eriksson into the actual events of the Manhattan Project. America’s frantic effort to beat the Germans in the race for the bomb serves as the backdrop for the fast-moving, spell-binding story of love, courage, and espionage. Like the recent successful play, “Copenhagen,” the novel exposes the complex personalities of the scientists – driven men who struggled with the morality of using the bomb on Japan.

During WWII, the Germans amassed an enormous supply of uranium ore and the allies feared the Nazis were ahead in the race to build a nuclear weapon. America’s Manhattan Project headed by General Leslie Groves and Robert Oppenheimer brought together scientists from all over the world in an effort to counter the German threat. The secret project was a huge consortium involving university, industry and military collaboration. Three major facilities, whose missions were secret, were built to produce the bomb. The plant at Oak Ridge, Tennessee, used gigantic gas-diffusion machines and cyclotrons to produce uranium 235. At Hanford, a desolate place in southeastern Washington state, powerful neutron reactors were constructed that transmuted uranium ore into the plutonium. The third facility, located in Los Alamos, New Mexico, was a research and development lab. There, American and allied scientists successfully designed, and built the plutonium, implosion bomb known as ‘Fat Man.’

In the climax to the story, our protagonists, Eriksson and physicist colleague, Kathleen O’Connell, are trapped near the A-bomb, shot tower. The countdown is in progress and time is running out.

Author Tom Wolfram, who was the first person to receive a Ph.D. degree from UC Riverside, currently works as a scientific consultant and pursues his writing. He lives with his wife, Eleanor, near the beach in San Clemente, California.

**The New Anthology of American Poetry: Volume I Traditions and Revolutions, Beginnings to 1900**

*edited by Steven Gould Axelrod, Camille Roman, Thomas Travisano*

Rutgers University Press, January 2003: 688 pages

This new anthology of poetry edited by Steven Gould Axelrod, professor of English at UC Riverside, along with Camille Roman and Thomas Travisano, demonstrates how a succession of canons of American poetry has evolved. It pays more attention to women poets and to artists from African American, Asian American, Latino, and Native American cultures than has any previous anthology.

The book also offers concise introductions to periods and styles, brief bibliographies of key primary and secondary texts, and critical selections on the art of poetry by the poets themselves. The book is the first of a three-volume series that will be the most comprehensive and innovative anthology of American poetry ever published.

The anthology begins with a selection of Native American materials, then spans the years from the establishment of the American colonies to about 1900, a world on the brink of World War I and the modern era. Part One focuses on poetry from the very beginnings through the end of the eighteenth century. Part Two includes works from the early nineteenth century through the time of the Civil War. The poems in Part Three reflect the many issues affecting a nation undergoing tumultuous change: the Civil War, immigration, urbanization, industrialization, and cultural diversification. It also includes poems and songs reflecting the experiences of a variety of racial and ethnic groups.

Axelrod is the author of “Robert Lowell: Life and Art and Sylvia Plath: The Wound and the Cure of Words.”
Technology Transfer,
What it Means and How it is Done
Technology transfer is one of the most promising forces affecting higher education today. Some see it as a money maker. Some see it as a prestige builder. And still others approach it cautiously.

The Internet search engine “Google,” the anti-cancer drug “Taxol,” the sports drink “Gatorade” and the diabetes monitoring device “Glucowatch” are just a few examples of technology transfer – products originating from university research that make it to the commercial sector.

The definition of technology transfer depends on whom you ask, but generally speaking, it is the transfer of new discoveries and innovations, the result of university research, to the commercial sector, according to the Council on Governmental Relations and the Association of University Technology Managers.

A Brief History

At the University of California, Riverside, technology transfer traces its roots to 1907 and the work of the Citrus Experiment Station, which developed new varieties of citrus fruit, tested methods of growing and protecting the crops, then provided their findings to growers.

Nationally, the roots of technology transfer reach back to the establishment of land grant universities, such as the University of California, in the mid- to late 1800s. These institutions were dedicated to the development of the practical application of the agricultural and mechanical arts.

The University of Wisconsin at Madison established the first university-based office of technology transfer in 1925, to patent and license the discovery by Professor Harry Steenbock, who unlocked a way to artificially manufacture and store Vitamin D in foods. The nutrient is key to preventing the debilitating effects of childhood rickets, a common disease of the time. The university negotiated a license agreement for the process with the Quaker Oats Company in 1927.

But as promising as such discoveries were, the flow of technology from universities remained at a trickle prior to World War II for three fundamental reasons.

World War II would give university-based technology transfer its first major boost, bringing campuses into greater partnership with the federal government.

Vannevar Bush developed the modern notion of technology transfer in a 1945 report to the President titled “Science – The Endless Frontier.” During World War II, the former MIT electrical engineer directed the Office of Scientific Research and Development, which coordinated the activities of about 6,000 of the leading scientists in the U.S. Bush witnessed first hand the importance of university research to the national defense and understood the broader impact university research could have on the economy.

But between 1945 and 1980, government agencies generally retained ownership of the discoveries and innovations universities achieved with federal funding. The federal government also lacked a uniform patent management policy, which made technology transfer difficult.

As a result, after the war, the government had accumulated about 30,000 patents in its portfolio, of which only about 5 percent had been licensed, wrote patent attorney Howard Bremer. In a 1998 paper to the Council on Governmental Relations, a Washington D.C.-based advocacy group for universities, research hospitals and nonprofit organizations, as the Cold War set in, the need for technological superiority, especially in defense-oriented areas, fueled the need to continue to provide public support for science research.

If World War II and the Cold War that followed set the conditions that fueled technological innovation at universities, then a piece of 1980 federal legislation, the Bayh-Dole Act, sped the transfer of that innovation to the commercial sector.

Then-U.S. Senators Birch Bayh (D-Indiana) and Bob Dole (R-Kansas), sponsored the Bayh-Dole act, which culminated in a nearly-20-year effort by the nonprofit sector to spark the transfer of technology to industry using the patent system. The act’s most prominent feature was that it shifted the presumption of title for any invention made by a small business, university or other nonprofit group using federal funds away from the government agency and gave it to the contractor or grant recipient, which was frequently a university.

Of the Bayh-Dole Act, Bremer wrote: “It should be considered a landmark piece of legislation in that, after many false starts and unsuccessful efforts it was, finally, a recognition by Congress that:

- imagination and creativity are truly a national resource;
- that the patent system is the vehicle which permits us to deliver that resource to the public;
- that placing the stewardship of the results of basic research in the hands of universities and small businesses is in the public interest;
- and that the existing federal patent policy was placing the nation in peril during a time when intellectual property rights and innovation were becoming the preferred currency in foreign affairs.”

The Impact

The Association of University Technology Managers (AUTM) reports that before 1980, fewer than 250 patents were issued to U.S. universities each year. Discoveries were seldom commercialized, according to the association’s Web site. By contrast, AUTM members reported that 3,914 new license agreements were signed in 1999. Between 1991 and 1999, annual invention disclosures increased 62 percent to more than 12,324 while new patent filings increased 77 percent to 5,545.

Passage of the Bayh-Dole Act, the evolution of genetic engineering, and a U.S. Supreme Court decision that made living matter – in this case a bacterium – patentable, helped raise the awareness of the potential economic impact in university-generated technology, Bremer wrote.

Today, the stakes remain high, as a depressed economy has forced states and the federal government to cut back on their support of higher education, and research in particular. Add to that, the rising expectations of students, faculty and university supporters, and campus officials are forced to look for alternative ways of raising money to keep ambitious research programs afloat.

To date, 2000 has been the most productive year ever in technology transfer. American colleges and universities collected more than $1 billion in royalties, created 368 start-up companies, and filed for 8,534 U.S. patents, according to the Chronicle of Higher Education. The top royalty earner that year was the University of California, with $261.5 million in royalties – thanks to the $200-million settlement of a patent infringement lawsuit paid by Genentech to UC San Francisco.

In 2001, the last year for which figures are...
available, colleges and universities collected more than $827 million, filed more than 9,450 patents, signed more than 3,300 licenses and created more than 400 start-up companies, a Chronicle of Higher Education report stated. The University of California had slipped into third place, earning $66.7 million; behind the Massachusetts Institute of Technology, with earnings at nearly $74 million; and Columbia University, which earned nearly $130 million.

The University of California in 2002, received $88.1 million in royalties derived from 209 inventions, according to the University of California's Annual Report on Technology Transfer.

The University of California's Structure
With the world’s fifth largest economy, California's growth is being driven mostly by such knowledge-intensive industries as biotechnology, telecommunications, and information technology, according to the California Department of Finance.

“Universities traditionally are the intellectual engines that drive the cutting edge of technology and development,” said Richard Luben, interim vice chancellor for research at UC Riverside. “Researchers at universities have much more freedom to examine the broad range of ideas and although there may not be a high take rate from these examinations, generally the most technologically advanced products come out of those investigations.”

The UC Office of Technology Transfer undertakes the task of administering the intellectual property and technology transfer of the largest public university in the nation with an active portfolio of about 5,500 inventions, more than 3,000 U.S. patents generating licensing revenues of about $100 million.

Each of the UC’s nine existing campuses has an office that helps faculty and researchers deal with intellectual property or technology transfer issues but each campus office is at a different stage of development. UC Berkeley and UCLA have the most comprehensive offices, both of which were established in 1990 and offer a wide range of services. At offices on the UC Riverside and UC Santa Barbara campuses, established in 2001 and in February (2003), respectively, the staff relies heavily on the UC Office of Technology Transfer in Oakland. The technology-transfer activity generated at each campus determines the size and authority delegated to their intellectual property or technology transfer offices.

“UC Riverside currently has limited authority delegated to it because we’ve historically been one of the smallest campuses,” Luben said. “We are no longer the smallest campus in regards to our research and related activities.”

According to the University of California 2002 Technology Transfer Annual Report, UC Riverside has a portfolio containing 210 inventions, 71 active patents and licensing revenues in excess of $1 million, surpassing UC Santa Cruz in all three categories but trailing UC Santa Barbara.

Riverside, like other smaller UC campuses such as Santa Cruz, Santa Barbara and the yet-to-open Merced simply do not yet generate the income to justify more comprehensive offices on their campuses. But as they grow they will become more self-sufficient.

“What we’re doing in the meantime is collaborating with other campuses,” Luben said. “All the smaller campuses lack local licensing authority and we’re collaborating with them on issues of technology transfer.”

UC Riverside's Role
UC Riverside's technology transfer is deeply rooted in the discovery of products and processes that have an application in agriculture. Part of its future may continue that relationship through the campus's development of a plant genomics center.

Most notably, UC Riverside's predecessor, the Citrus Experiment Station, has developed and delivered new varieties of oranges, mandarin oranges, grapefruit, lemons and other citrus and citrus hybrids to markets in the United States and globally since the early 1900s. Today, more than 40 citrus varieties can be traced back directly to UC Riverside, with indirect contributions from this campus bred into nearly every facet of the citrus trade.

Likewise, several commercially available avocado varieties can also be traced back to a UC Riverside breeding program, one of the leaders in avocado development in California and the world.

And when it comes to the family lawn, much of the technology growing in front and back yards throughout America has roots at UC Riverside, a major breeder of turfgrass, particularly a low-maintenance form known as Zoysiagrass, varieties of which are licensed around the world.

But that strictly agricultural character is changing as the campus grows.

“We’ve got a tremendous amount of activity occurring in the genomics area, in nanoscience, material sciences and engineering,” said Luben. Emerging areas of discovery also include environmental sciences, air and water quality research.

One notable example is William Frankenberger, (see page 25) an environmental sciences professor at UC Riverside who developed the technology that is the basis for three patents for cleaning up toxic elements in soil, on plant hormones to improve crop production, and on a bacterium to clean perchlorate – a contaminant from rocket fuel – from groundwater. He hopes the university will license the patents to outside companies.

He is also the founder of four companies that consult on and research environmental contamination and unregulated consumer vitamin, food and cosmetic products.

UC Riverside has recently established growing research centers in plant genomics and the study of nanoscience.

To meet those emerging needs, UC Riverside established its Office of Intellectual Property Services in 2001 as part of the Office of Research Affairs. It is one of the UC system's newest.

While Nora Hackett, director of intellectual services, handles the legal aspects of getting an idea to market, UC Riverside has embarked on several initiatives and partnerships to help faculty researchers handle the business end of getting their discoveries into the commercial sector, primarily through the efforts of Chris Buydos, UC Riverside’s economic development manager.

The campus, in 2001, also established the Center for Technology Development [see page 28 for more information on the CTD] to facilitate the transfer of research findings and human resources from the university to business and industry. It offers services of mutual value to the university and to industry, and advocates for improved exchange and use of scientific findings.

To industry, the center offers the umbrella of technology commercialization services such as, access to grant funding, collaborative research, internships, and facilities services.

To faculty researchers the center offers grants for partnerships with industry in the following areas: biotechnology, information technology applied to the life sciences, digital media, communications technology networks such as wireless or wired Internet technologies, microelectronics, electronics, and small business innovation research.

Other initiatives and partnerships in which UC Riverside is involved include:

The University Research Park – Developed by the city and county of Riverside in partnership with UC Riverside to attract technology companies with tax incentives, to provide a technology-based business park environment that has the smart infrastructure, competitive resources and support services necessary to service new and emerging technology-based industry.

The Park, established in 1997, presently consists of eleven lots on 39 acres, with an additional 17 acre expansion underway. http://ResearchPark.ucr.edu

UC Riverside Office of Research Affairs – Coordinates research activities among the academic units on campus and directs technology transfer projects to the office of Intellectual Property Services. http://www.ora.ucr.edu/

IE TechSource – The regional technology alliance offers technical, consulting and grant funding services to emerging technology-based companies. www.ie techsource.org

Inland Empire Economic Partnership – A nonprofit corporation created to attract, create, and retain business to increase the region’s growth and economic output. www.ieep.com

Riverside Regional Technology Transfer Center – A business incubator within the University Research Park featuring laboratories to support biotechnology, information technology, electronic and environmental technology industry start-up businesses. Within this center are the support services of Small Business Development Center and the Regional Technology Alliance.

UCR Connect – A provider of support services such as capital, professional and university research, to high-tech businesses and academic entrepreneurs. UCR Connect works under the auspices of the UC Extension. www.ucrconnect.org

The UC Riverside Discovery Grant – A $60 million-a-year grant from state, industry and university funds to help leverage companies’ research and development budgets by giving them: Access to UC researchers, students and labs; State matching funds and state-federal tax credits; Peer-reviewed research and budget plans; 100-day inception-to-grant cycle. http://www.ucdiscoverygrant.org

A Point of Caution

As the national economy becomes more information dependent, the knowledge and expertise universities develop have become increasingly valuable. The resulting entrepreneurial effort hasn’t happened without a note of skepticism at the potential conflict of interest of tying research to the demands of the marketplace.

Most universities have developed policies or guidelines that seek to balance the benefits of partnership with private enterprise, with the higher education mission of teaching, research and benefit to the public.

Harvard University, for one, recently drafted a statement of principles to govern how their faculty will work with private enterprise in ways that preserve the university’s core academic values of applying their knowledge in a socially beneficial way; and enriching their teaching and research efforts.

“Public trust in the university as an educational institution committed to the pursuit of truth and advancement of knowledge is critical,” the statement said. “The university therefore should seek to ensure any partnerships involving a substantial commercial element, as well as any commercial activities it undertakes on its own, are consistent with these core values.”

The statement also outlines an advance review policy for any partnership proposals.

The University of California also has a series of guidelines governing university-industry relations to uphold the UC core missions of research, teaching and public service. The UC statement covers licensing the use of research technology, copyright issues, and the use of tangible research products such as biological materials, chemical compounds, electrical schematic and mechanical drawings.

For the most part, university policies require that any partnerships undertaken with private industry not adversely affect the faculty’s freedom of inquiry – that is, the right to publish research findings and the commitment to open teaching and research. They also require such partnerships to avoid placing the faculty member(s) or the university in a conflict of interest, and to avoid impinging on the educational welfare of students.

Focusing merely on the financial potential of partnerships with industry is, in a sense, missing the point, according to UC Riverside’s Richard Luben.

“Technology transfer is not just a way of bringing in income but it’s a way of creating relationships with the surrounding community,” he said.

Technology transfer, according to Luben, should not just be “focused on royalties and income but on the entire breadth of a relationship between the external company or agency and the university. The value of these things, apart from the royalties, may actually surpass the value of the income from the royalties.”

Tech Talk

Patent: Typically, a property right to a specific invention, an article, composition of matter, or process that is original to the inventor or discoverer. The patent right conveys the right to exclude others from making, using or selling the invention that is defined in the patent. Under current law, patents last for 20 years, and proceeds from sale go to the owner. After that, the invention is part of the public domain.

Patent license: A contract in which a patent owner grants another party an exclusive or a non-exclusive right to make, use and/or sell the patent owner’s invention. The patent protects the invention against infringement based on the licensed patent.

Copyright: A right granted to the creator of an original work of authorship that is fixed in a tangible form of expression. A bundle of rights, which include the exclusive right to reproduce, make derivatives, distribute, perform and display the work. Typically, copyright is used with musical, literary or artistic creations, such as books and music. Copyrights last for the life of the creator, or up to about 70 years. After that, the creation moves into the “public domain.”

Trademark: Registered brand names and/or designs, which are applied to products or used in connection with services.

Trade secret: Private information, not typically used in the university environment, where there is a presumption that research will be disseminated in some public way. The recipe for Coca-Cola would be a trade secret. Since it has never been out in the public, it remains the sole property of the company forever – as long as it is not disclosed.

Encouraging Entrepreneurial Activity

By Kris Lovekin

Successful technology transfer takes many forms at UC Riverside.

Sometimes it is a discovery with great potential, like the healing properties of artificial human skin created by Manuela Martins-Green, professor of cell biology.

Sometimes it is the practical application of research, like the chemical fertilizer patented by Carol Lovatt, professor of botany, and sold by a California business, Biagro Western.

And sometimes it is entrepreneurial spirit, like that of electrical engineering professor Ping Liang, who took leave to found a technology company called TransDimension.

The University of California, Riverside is encouraging smart, two-way technology transfer between the campus and the larger economy. It is a critical reason why UC Riverside is a growing economic engine for Southern California and beyond. And there is evidence that the trend toward commercializing research is working.

The campus has 210 inventions; 71 active U.S. patents; 14 active utility patents; 26 active foreign patents; and 100 plant licenses, according to the latest UC statistics. The most active research areas for patent activity are botany, plant genomics, biomedical sciences, materials science and engineering. Each year, the U.S. Patent & Trademark Office issues patents on eight to ten new UCR inventions, and those patents have a lifespan of 20 years. Additionally, individual faculty members have privately-held businesses and independent consulting contracts, which contribute to the overall value of UCR technology transfer.

Nora Hackett, UCR’s intellectual property services officer, is the chief person charged with linking faculty ideas to the means of making them happen. She can help people tap into UC Discovery Grants to help commercialize new work; or point to ways to find investor funding.

The University of California, Riverside is encouraging smart, two-way technology transfer between the campus and the larger economy. It is a critical reason why UC Riverside is a growing economic engine for Southern California and beyond.

She has the technical training as a registered patent officer to guide people through the confusing maze of patent law and university policy. For instance how much time can faculty members spend on outside consulting? And is this idea novel enough to patent?

“Just because you can patent something doesn’t mean you will, and likewise just because something is an interesting idea from a researcher’s perspective doesn’t necessarily mean its patentable,” Hackett said.

“There are certain criteria that the patent office has, most of which relate to how new an idea is, rather than its quality. Therefore something may be novel but may not present a specific business advantage to warrant the high cost of securing a patent.”

Another University resource is a 39-acre University Research Park just two miles away from the campus, with commercial space, including “incubator” space available to help launch a fledgling effort in its first year. And in 2001, UC Riverside established the Center for Technology Development, led by Professor Bill Frankenberger, who has successfully commercialized his own research to remove toxic chemicals from soil. His job is to increase the comfort level of faculty members who might be new to the idea of taking research from the lab to the market (see also page 25).

The process of technology transfer is challenging. There are rules about mixing private and public resources, and potential conflicts of interest. There is the struggle between teaching and publishing on the one hand, and the desire to get the research to the commercial world.

But when the process works, the results can be amazing. Crops grow better. People make better computer connections online. The grass stays greener. The toxic chemicals disappear safely from the groundwater. Mandarin oranges resist disease, and taste better. Students get hands-on experience in the business world, and jobs after graduation. Funds flow in for new research, or for another endowed faculty chair.

Through it all, Riverside’s Deputy City Manager Michael Beck says the local economy gets a boost. “Once the campus and the community reach a critical mass of research related companies, other companies will locate in the area around the campus simply to be close to the intellectual energy that results,” he said.

Richard Luben, interim vice chancellor for research at UC Riverside, said university researchers have the freedom to examine a broad range of ideas, and it is critical that the best of those are transferred to society. In some cases, the commercial market is the most efficient mechanism to make that transfer, he said. “Part of our mission is to serve the public, and we would be shirking our responsibility if we allowed the best tax-supported research to stay hidden away from the
Not every faculty member has research that is relevant to the patent process.

Carl Cranor, a professor of philosophy who studies how the court system treats cases related to human exposure to toxins, wonders why scientific ideas are treated differently than ideas from the humanities, arts and social sciences.

“Lawyers are using some of my stuff in court cases,” he said. “We don’t get any money for it. The University could develop copyright procedures.”

Hackett responded that UCR faculty members who seek copyrights on songs, computer games, novels, poems, short stories, photographs and a variety of other creative endeavors, are the sole owner of the copyright. None of that ownership belongs to the University. She notes that copyright law may evolve to be more like patent law.

The UC Patent Policy specifically states that the University retains ownership, but the inventor shares in the benefits. In some cases, a discovery is judged to be completely independent, and the ownership remains solely with the inventor. The UC Riverside Research Office invites faculty members to work through the office to take their ideas to the commercial market.

“We are trying to streamline, as much as possible, the timelines for the process,” said Marie Peikert, special projects coordinator at the Center for Technology Development, housed within the Office of Research Affairs. “We are trying to make it a friendly process, and cost-effective.”

The Research office can help connect a faculty member with a UC Discovery Grant to pursue research, or arrange a presentation in front of UCR Connects, a group that tries to match local researchers to financial backers. The relationships frequently bring in internships and job offers for students, which is the flip side of these valuable commercial partnerships.

In every case, success in technology transfer will mean treating people as individuals, mindful of the fact that academic careers will take their own course. Here, in the following profiles, are just a few of the many faces and phases of technology transfer at UC Riverside:

Manuela Martins-Green Faculty Dilemma: Publish or Patent?

Cell Biology Professor Manuela Martins-Green (’75 M.S.) studies the function of proteins called chemokines on the healing of skin. First she successfully used chicken skin as the model to test the proteins. Then she needed to take the next step.

Because it is very difficult to test compounds in humans, she decided to make a natural human-like skin in her laboratory, using human cells taken from healthy individuals.

Ironically, it is the invention of this “living bandage” that is one of the most commercially viable parts of her research on wound healing. As developed by Martins-Green and her colleagues in the laboratory, the “living bandage” has blood vessels and the proper layers of other human cell types that make up skin.

The chemokines, or small segments (peptides), can be applied to wounds in this skin, in an ointment or in drops. Doctors would use the peptides to speed healing of diabetic ulcers or any other kind of skin injury that is not healing well on its own.

Martins-Green has presented her work to CORE21, an organization that tries to match university research with financial backing. She told them the amino acids are relatively inexpensive to produce, and effective in a laboratory setting. But unless she gets an infusion of cash, she cannot take the next step in the development of the human-like skin in order for it to be commercialized.

“I don’t know yet how I can do my job as a professor and start up a company of this magnitude at the same time,” she said.

“Commercial development of medically-related things is always very costly, especially because we are handling living human cells and tissues which must comply with many governmental regulations.”

In addition, faculty members must publish their research in order to be considered for promotion and to be recognized in the scientific community. “Should we publish about this or not?” Martins-Green asked. “If we describe the system in a publication, others can take the idea. But if we don’t publish, we perish.”

She suggested that the university allow release time and more credit toward promoting people involved in technology transfer. “All of this takes time and effort,” she said.

In some universities, in fact, the preparation of material to obtain a patent and the successful completion is given weight in the tenure and promotion process. This is not yet the case at UC Riverside.

Without those incentives, Martins-Green said, faculty members are not as likely to pursue the process of licensing their inventions, and many good...
ideas may never make it to the public.

“I am a faculty member first, and then maybe these other things,” she said. “But only maybe.” While she is still open to the idea of licensing her research, she said she has decided that her own future lies on the university side of technology transfer. “To me, it is the process of discovery that counts,” she said. “When you can see the pattern, it is such an enlightening feeling.”

Web site: http://www.biochem.ucr.edu/faculty/mgreen.html

Carol Lovatt
California Company Makes and Markets Faculty Idea

Professor Carol Lovatt, a UC Riverside plant physiologist, researches the nutritional factors that determine whether a citrus tree sets a lot of fruit, or a little. She found that nutrients such as phosphorous acid, when applied at the right time, increases the size and number of citrus on the tree.

The chemical is absorbed by the foliage of the plant, instead of the roots, so growers can use a smaller amount and there is less risk of groundwater phosphate pollution.

Lovatt worked through the systemwide UC Office of Technology Transfer to patent her discovery in 1996, and in fact she holds two other patents for the same product to be used on different crops. Biagro Western, a private company based in Visalia, Calif., struck a deal to make and market a fertilizer called Nutri-Phite, based on Lovatt’s research.

The company’s Web site, www.biagro.com, says that over 300 million acres of crops have been treated with the product over the past eight years. And not just citrus. It helps a variety of crops grow well during flowering and boosts the yield of fruits and vegetables.

Lovatt said that Biagro Western has done an excellent job of researching the use of the product on other crops, applying for appropriate patents, and getting the word out to growers.

“This is a success story for the University, for the growers who have a product that will help their bottom line, and for a small California start-up company,” said Lovatt. “None of this would have happened if we didn’t have that process of connecting.”

The UC Office of Technology Transfer (OTT) points to Lovatt’s fertilizer as a successful example of moving technology from the lab to the public, because the product is licensed, it is available to the public, and it is bringing in money to both the University and the licensee.

“Technology transfer is not a perfect science,” said Bernadette McCafferty, a licensing officer at the OTT. “You come in, disclose an invention, and there are a lot of things that have to come together for that to make it to market,” she said. “Even in the commercial world, only a few of the products actually make it to market. But it is an effort that is worthwhile.”

Ping Liang
Extended Leave Time Allows TransDimension to Blossom

Ping Liang came to UCR in 1992 as an assistant professor of electrical engineering. At the time, he thought of himself as a “pure academic research type of person.”

In 1997, he applied as an independent contractor for a $1 million grant from the Defense Advanced Research Projects Agency (DARPA,) and to his great surprise, he won.

The company he founded in Irvine, TransDimension, is privately held and designs embedded computer chip devices and software that allow computers, cell phones, handheld organizers, digital cameras and other technical gadgets to communicate.

Liang, as CEO, first limited the company’s dealings to the Department of Defense. But in 2000, he decided to transform the company into a semiconductor and embedded software company to target commercial markets. He raised $15.5 million in venture capital in two rounds of financing. Today, the company’s customers include Qualcomm, Motorola, Sony, ATI, Samsung, Pioneer, and other first tier technology companies.

“We grew the company from my wife and me to about 55 people with sales offices in the United States, Japan and Europe,” Liang said. “We bought a software company called SoftConnex in 2001 and made it a wholly-owned subsidiary.”

Extended Leave Time Allows Ping Liang to Grow His Company

Liang’s research field is circuit chip design, image processing, digital signal processing, neural networks, embedded systems and wireless networks. He has published more than 55 research papers in technical journals and conferences and one graduate level book.

Web sites: www.transdimension.com
www.softconnex.com

Agenor Mafra-Neto
Researcher Makes Permanent Move To Industry

Agenor Mafra-Neto spent four years as a staff research associate in the UC Riverside Department of Entomology, where he worked to understand the mating habits of moths, and the pheronomes that draw them to each other.

He began his career as an entrepreneur when he accepted a $40,000 consulting contract from Brazilian apple growers eager to reduce pesticide residues that triggered limits on imports to the U.S. and Canada.
Mafra-Neto encouraged Brazilian apple growers to attract and kill pests with pheromone traps, and to give up the regularly scheduled “carpet spraying” of pesticides. Instead, he recommended applying pesticides only when pest monitoring information indicated a need. Together with the president of the Brazilian apple growers association, he worked on educational and legislative efforts to encourage the use of integrated pest management methods. The effort paid off. Within three years, Brazilian apples had successfully regained entry into North American markets and Brazilian lawmakers approved the registration and use of insect pheromones to manage insect pests.

Mafra-Neto founded ISCA Technologies, Inc. in Riverside to develop, manufacture and market integrated pest management (IPM) tools such as pheromone-based insect traps and lures. In less than five years, ISCA Technologies, the Brazilian associate company, has become the Brazilian market leader in IPM tools and solutions.

The Riverside office employs 11 people and five student interns, and almost all of them have some connection to the campus. “UC Riverside is a major source of innovation and trained qualified personnel, only five minutes away from our main office, thus it really makes sense that we work with people from this campus,” said Mafra-Neto.

Moritor Tecnologias, a related company also founded by Mafra-Neto, helps growers use automated ways to track and manage pests in agricultural fields. For instance, growers might use personal digital assistants with Moritor software that can keep track of hundreds or thousands of traps at one time, predicting when insect populations will be large enough to require controls.

The company allows growers to target their pest control efforts, saving money, time and potential environmental damage from the overuse of insecticides.

As a researcher or an entrepreneur, Mafra-Neto has always been interested in improving the environment. He found that through the process of commercializing the research, he could influence the environment on a larger scale.

Financially, it was difficult at first, he said. For the first three years after he gave up his UC Riverside research post, he could not take a salary because all the money had to be reinvested in the business. But now ISCA has seven patent processes and products sold in major consumer markets, with sales around the world. Products include 300 insect lures (such as pheromones and attractants) and 20 different types of insect traps. As a principal investigator for ISCA, Mafra-Neto has also been awarded more than $3 million in federal grants, which is used to fund much of ISCA’s R&D efforts.

Website: www.iscatech.com

UC Riverside is a major source of innovation and trained qualified personnel, only five minutes away from our main office, thus it really makes sense that we work with people from this campus

William Saito
Business Success Follows UCR Education

Technology transfer includes UC Riverside alumni who end up starting private companies during college or after they leave. One alumni entrepreneur is William Saito, Chief Executive Officer of I/O Software, a Riverside company that focuses on biometrics, the computer security applications based on recognizing iris patterns, fingerprints, voice or other physical characteristics.

The company has an agreement with Microsoft that will make I/O Software’s biometric core technology part of the Windows operating system.

Saito said he located his company near UC Riverside to take advantage of a steady stream of highly trained engineers. In the first year alone, I/O Software hired six of the campus’s engineering graduates.

“Our location near UC Riverside allows us to work closely with university faculty and researchers, as well as creating a great opportunity to recruit highly qualified employees,” said Saito, who serves on the advisory council for Bourns College of Engineering, the UC Riverside Foundation Board of Trustees, and the Chancellor’s Associates. He also has taught at UC Riverside as an adjunct professor in computer science and engineering.

Web site: http://www.iosoftware.com/
UC Riverside has been involved in technology transfer since the founding of the Citrus Experiment Station at Riverside in 1907. By attracting some of the very best researchers and teachers in the world to join the faculty, UCR has the intellectual power to address the most challenging problems facing our society.

Many people on campus help transfer the results of research to the public. A few of them agreed to give their perspective on technology transfer for this issue of Fiat Lux. Following are excerpts of interviews with Satish Tripathi, dean of the Bourns College of Engineering; Steve Angle, dean of the College of Natural and Agricultural Sciences; Richard Luben, interim vice chancellor of research; Nora Hackett, intellectual property services officer; Michael Beck, deputy city manager of Riverside; and Joe Norbeck, director of the College of Engineering’s Center for Environmental Research and Technology.

**WHY IS IT IMPORTANT THAT UNIVERSITY RESEARCH AND IDEAS FIND THEIR WAY INTO THE MARKETPLACE?**

Joe Norbeck: I think the goal of most researchers is to see their research move toward commercialization. It is not strictly for monetary reasons. It has to do with putting enhanced value on your research and your research institution. One of the most satisfying aspects of the profession is to see your research become relevant and eventually enhance the quality of life.

Richard Luben: We must be sure to move those ideas from the university to the community environment so that they can actually have an effect on society in a broad sense. The average person benefits much more thoroughly when an idea takes form in the commercial environment.
Steve Angle: Don’t forget that continued public and private funding for basic research is directly related to our ability as a university to demonstrate the relationship between basic and applied research. Technology transfer is one way to demonstrate our value to the public.

HOW DOES UC RIVERSIDE FACILITATE TECHNOLOGY TRANSFER?

Richard Luben: First of all, we’ve established the Intellectual Property Services Office in the past two years and we want to try to encourage those people on campus who are developing new ideas and processes to come to us and seek our help and advice on how to transfer those ideas effectively. The University of California has an Office of Technology Transfer, which has the basic responsibility of handling the university’s intellectual property. Larger campuses have that authority delegated to them. It is our intent to have that same local authority, but we don’t know exactly when that will take place. What we’re doing in the meantime is collaborating with other campuses, in particular Santa Cruz, Santa Barbara and soon Merced.

Satish Tripathi: The strategy of the College of Engineering is to develop partnerships with industry. For example, the focus of our Fifth Annual Industry Day on November 12 will be a research review. We keep communication up through regular interaction with industry leaders on our College Council of Advisors, Department Advisory Boards, and Industrial Affiliates, and that leads to internships, grants, licensing possibilities, etc.

Michael Beck: The campus should encourage faculty to pursue commercialization of innovations in Riverside, where students and faculty have the best opportunity to participate in and learn from the commercialization.

IN WHAT WAYS DOES UC RIVERSIDE RESEARCH CONTRIBUTE TO THE ECONOMY OF THE INLAND EMPIRE AND BEYOND?

Nora Hackett: I can give you some specifics. We have plant properties, which are well known and are used extensively throughout the state in the citrus and avocado area. We also have licensed turf-grasses as well. And through the system-wide office, we are engaging in expansion into foreign markets. One of our more significant inventions is Carol Lovatt’s phosphate fertilizer [see page 16]. We also have licensed property in the area of a substitute for methyl bromide, a compound used to prevent pests in strawberry plants. This is a replacement compound that is not as difficult for the environment to manage and has been licensed and is getting underway.

Joe Norbeck: There is some outstanding research done at UC Riverside in agriculture, in new materials, in the energy arena, and in environmental issues. All can help the economy and improve the quality of life. For example, by solving some of the environmental problems in air, water and soil, we indirectly improve the economic enterprise in Riverside. If you talk to employers, they will say that they have a tough time attracting talent to the eastern portion of the Los Angeles basin because of the air pollution. If we improve air quality, we make this environment more appealing and by doing so we increase the ability to attract high quality people. We enhance the economy.
Michael Beck: Private research entities seek graduates who have participated in cutting-edge research. The company’s proximity to the campus and those students create a competitive advantage for companies.

Richard Luben: That’s true. Just the fact that a university exists in the community can be an important economic development engine. We may be small by UC standards, but we are a large research university in terms of the entire economy. And having the kind of intellectual resources that research universities have makes them attractive to a company thinking about locating to the area. I believe 90 percent of high-tech industries in the state are located within 50 miles of a UC campus.

Satish Tripathi: One of the ways the College of Engineering contributes to the industrial growth in the Inland Empire is the formation of startup companies by faculty and graduates. The economy also benefits from the research experience of the graduates as they become part of the high technology workforce of the area.

How will this university become more successful in the commercial world?

Satish Tripathi: The way I see it, we will become recognized as the nucleus of a high technology environment. Companies will move into the area to take advantage of this resource. There will be more spin-off and startup companies.

Richard Luben: I agree. We’ve got a tremendous amount of activity occurring in the genomics area, nanoscience, material sciences areas and engineering – generally all the major areas of the College of Engineering – which are all fairly new to this campus.

Nora Hackett: Our influence can expand well beyond the local economy. When the university looks for the best party to develop our research, it needs to be the best match. That could be anywhere in the country or the world.

Satish Tripathi: The College of Engineering is extremely well positioned because we have identified the areas, which have great promise and we have hired high-quality faculty who can immediately make contributions to advancing the state-of-the-art. The faculty expertise and communication of results are key to the process.

Michael Beck: UC Riverside has had 50 years of research excellence in agricultural areas. This historical strength could be leveraged into other biotech fields. If collaboration is sought, the combination of having engineering, biological and chemical sciences, and a business school could become the campus’s biggest strength for successful technology transfer.

Richard Luben: The character of our research is changing right now, the amount of income, the amount of research that’s going on, the amount of money attracted to university research has increased almost 100 percent in the last five years. As our research groups get larger, we can make more rapid progress and move faster in developing ideas and products, and have a selling point for faculty recruitment.

Steve Angle

The key to success in research is to understand that the journey into new territories is often more important than the final destination we have in mind.

Michael Beck ('87, '92 MBA)
HOW CAN WE MAKE OUR EFFORTS STRONGER?

Joe Norbeck: It would be nice to see a more entrepreneurial faculty. To seed that effort, the campus needs to provide the resources to take an innovative idea and assist in the commercialization of that idea. It comes down to financial resources, and the right mindset. Also, we need to look at our reward system. Technology transfer and patents need to be as important as publications. I know that may be considered heresy, but I think a patent on a process that can provide a new pathway to renewable energy may be more important than the peer-reviewed paper it generated.

Richard Luben: Another important thing we can do to strengthen our efforts is to provide more education to our researchers on campus about the possibilities inherent in technology transfer. We’re doing more of that both directly through my office and through the (UC) Office of Technology Transfer. When we have local control, our decision making can be even more precise.

Satish Tripathi: I would like to see the formal technology transfer process become less bureaucratic and friendlier to industry.

Nora Hackett: I think we need to get the word out to the public about what we have here. Certainly we have a lot of younger faculty who are very interested in our projects and are working cooperatively with business partners to get up and operating.

Michael Beck: The campus specifically hired a few faculty in the past few years with an entrepreneurial spirit. As an example, I’m thinking of someone like Robert Haddon or Joe Norbeck. The campus needs to keep looking for that kind of hire and then support and reward entrepreneurial achievements.

ARE THERE ANY REASONS TO BE CAUTIOUS ABOUT TECHNOLOGY TRANSFER?

Satish Tripathi: There are no obvious reasons to be cautious. This is a win-win for all of those involved. The purpose of engineering is to benefit society; so getting the research results into an application is a logical step.

Steve Angle: In my view, there are still a few pitfalls to avoid. The boundary between the discovery of new knowledge and its commercialization for financial gain is often fuzzy. We must take great care to avoid conflicts of interest – or the appearance of conflicts of interest – where the development of new technology results in direct financial gain to the faculty member and the university.

Richard Luben: We make every effort to avoid those pitfalls now. The biggest caution I hear from academe is that the drive to commercialize a discovery might disrupt the creative process, or skew interest in the direction of seeking fame and income rather than searching for truth. In my experience, the intellectual process usually drives creation rather than the desire for profits. On the other hand, if you don’t protect your ideas then somebody else will steal them, then they will get the income and the person who invents it is left out in the cold. It has happened.
Nora Hackett: There is another area of concern, and that is managing expectations. Sometimes people think that technology transfer will lead to enough revenue to replace research funds. This just isn’t effective. Only about 1 percent of our total research budget comes from patents and licenses. The real interest is that you can stimulate the practical applications of ideas. Some faculty are becoming interested in pursuing it, some faculty don’t want anything to do with it, the university can manage it either way. We have precautionary procedures that can keep them separated in their private interests and work interests.

Joe Norbeck: In dealing with the environmental issues, you have to ensure the university will not be liable for impacts on public health and welfare. It’s the same with anything related to public health. The university actually has very capable individuals who can assess the risks and minimize them. Also, caution is justified in any endeavor because you have a financial risk up front and there is no guarantee of success.

**WHAT IS THE BALANCE BETWEEN BASIC AND APPLIED RESEARCH?**

Satish Tripathi: In my view, all research has a potential application. If you refer to the definition of engineering, basic research in the “materials and forces of nature” eventually leads to development of a device or process which is commercialized to benefit society. This may take decades. For example, fundamental research in solid state physics eventually led to the transistor and the integrated circuit. The early researchers had no thoughts of commercial application.

Steve Angle: That’s right. The key to success in research is to understand that the journey into new territories is often more important than the final destination we have in mind – it is the “gems” we find along the way that often lead to great leaps forward in knowledge. One classic example is the discovery of Teflon, which has seen wide commercial application. In actual fact the “accident” is simply the result of a well-structured inquiry/experiment in an area we know little about.”

**WHAT VALUE DOES TECHNOLOGY TRANSFER HAVE FOR UC Riverside STUDENTS?**

Joe Norbeck: They get experience that will serve them well later in life. There have been several students I know who have become gainfully employed because of the contacts they made with industry as undergraduates. At CE-CERT we have initiated a process that puts our board members in direct contact with our students. It has led directly to job offers to many of these students. And, we have examples of students who have started small start-up companies based on their research as undergraduates or graduate students.

Richard Luben: We think of technology transfer as a catalyst for broad-scale relationships with the commercial environment. So we’re not just focused on royalties and income but on the entire breadth of a relationship between an external company or agency and the university. The value of these things apart from royalties may actually surpass the value of the income from the royalties. So building up resources for the university is good for students. Companies might offer student internships, or be likely to offer jobs to UC Riverside students after graduation.

Steve Angle: In the classroom, our students are learning from faculty members who are actively pursuing the discovery and development of new knowledge. In addition, a huge percentage of our students are actively involved in research themselves by working in laboratories on campus or in intern positions off campus.

The campus specifically hired a few faculty in the past few years with an entrepreneurial spirit.

Michael Beck

There is some outstanding research done at UC Riverside in agriculture, in new materials, in the energy arena, and in environmental issues.

Joe Norbeck

Technology transfer is one way to demonstrate our value to the public.

Steve Angle
Making It Happen

UCR’s wizard at entrepreneurship shares his secret

By Iqbal Pittalwala

Not in Kansas anymore

An event took place one day forty-one years ago in Topeka, Kansas, for which UC Riverside can be grateful. On that day, William Frankenberger, then ten years old, threw open his backyard to the neighborhood kids, charging them 25¢ each to play a game of miniature golf. Using a garden hose to create a stream of water and arranging a variety of obstacles on the grass, he devised a challenging game for the young players. By day’s end, he had succeeded in two ways: he’d offered his friends a good time and he’d profited from his venture. That day, which Frankenberger has never forgotten, marked the moment when his business skills first gathered form.

Today he is professor of soil science and director of the Center for Technology Development (CTD) at UC Riverside. He is also a well-respected entrepreneur in the Inland Empire and beyond. The walls of his campus office display the many awards he has won (he has received almost every major award in his research discipline). Photographs of his serene Montana ranch are pinned to a bulletin board less than a hand’s reach from his desk. Nearby, shelves of textbooks and scientific journals stand tall, like formidable columns, and lend an air of erudition to the room. He reads no fiction, he confessed, preferring to read for leisure the biographies of people who’ve made it to the top. Serious non-fiction books are what he reaches for most often, the kind whose ideas can fuel his passion for business and research.

Frankenberger’s higher education began at Kansas State Teachers College where he received a track scholarship in pole vaulting. One day, he took a course in conservation, which introduced him to soil science and led him later to consider a Ph.D. at Iowa State University. Drawn even more at Iowa State to solving important environmental problems confronting the world, he took an increased interest in soil and air pollution. He describes himself as a risk taker, an outgoing person, and aggressively curious by nature – traits, he posits, have got him...
to where he is today.

The author, coauthor or editor of more than 200 publications, including six books, Frankenberger is the founder of one real estate firm and three companies that consult on and research environmental issues. He holds three patents on bioremediation technologies and has been active in developing the University Research Park (URP) in Riverside. “I am putting up a 16,000 sq. ft. building on Parcel 2 at URP and am moving one of my companies – the Center for Environmental Microbiology, Inc. – to the park,” he said.

“Two other UC Riverside start-up companies, NOVA R&D and ISCA Technologies, Inc., will be moving to this building as well, which will allow for a close interaction among us and, we hope, will spawn many exciting, collaborative projects. “Moreover, UC Riverside also owns one parcel at URP. The Inland Empire Economic Partnership, the Small Business Development Center, and the regional technology alliance, IE TechSource, located there in August 2003. Both UC Riverside and the Small Business Development Center will operate the Riverside Regional Technology Transfer Center at this location. This consists of two 20,000 sq. ft. buildings for technology business start-ups that will facilitate and assist new companies in taking their products to the market. This ‘business incubator’ will be extremely beneficial to UC Riverside inventors.’

The Center for Technology Development

Frankenberger interprets technology transfer to involve the expression of an idea gained in the academic environment and put to commercial use via the private sector. “It doesn’t always have to be intellectual property, though it often is,” he said. “It can be a service or a product that gets the public’s attention. Once an entrepreneur identifies such a service or product, he or she then markets it and nurtures it along its growth.”

To assist faculty interested in the commercialization of their technology and to spur technology transfer with a good velocity at UC Riverside, Frankenberger strongly supported the formation of the Center for Technology Development on campus.

“We formed the CTD to help faculty members who are seeking companies to license their patents, or who want to interact with companies, or who want to develop start-up companies themselves,” he said.

Designed to encourage closer links between the University’s research faculty and the Inland Empire’s growing high-technology business community, the CTD provides funding sources to UC Riverside faculty, such as Small Business Innovation Research and UC Discovery Grants. The CTD sponsors programs that promote the exchange of information and encourages collaboration amongst different departments in the colleges of UC Riverside. Moreover, the CTD works actively with UC Riverside departments to sponsor internship programs for graduate and undergraduate students. By matching local companies with the interns, the Center helps fill temporary positions that have strong potential to become new permanent jobs in the region.

Frankenberger hopes faculty on campus will take full advantage of the CTD, particularly those in biotechnology and software development for which there is need. Once the URP is developed, especially with the business incubator space, he is confident the park will quickly become home to a cluster of high-tech start-up companies. “At the CTD, we provide many resources such as advice on what it takes to get a start-up company going, attorneys to assist in establishing corporations, and accountants to help in bookkeeping. After all, there is far more to the process than just doing the science. There’s a plethora of business aspects to it that require resources that other agencies, such as the Inland Empire Small Business Development Center, Connecting Research and Economic Development for the 21st Century, and the Inland Empire Economic Partnership, can provide. Because of the CTD, faculty interested in taking their technology to the market now don’t have to go through the pitfalls some of us went through.”

Indeed, UC Riverside established the CTD in 2001 under the Office of Research Affairs to ease technology transfer from the campus to the community. Its mission – to foster the transfer of research and human resources from the University to business and industry – has helped develop a means for mutual exchange of information between partners. The Center facilitates an improved use of scientific findings and, by identifying key researchers to assist companies with their projects, it provides companies with access to a wide range of world class research facilities and equipment at UC Riverside.

The CTD coordinates the matching of UC Riverside faculty with high-tech

Starting from the miniature golf course in my backyard in Topeka when I was ten years old .... to eventually launching start-ups that have been involved in the cleanup of more than 2,000 contaminated sites all over the world – I have enjoyed it all.

William Frankenberger
companies in partnerships. Marie Peikert, Special Projects Coordinator at CTD, said the Center frequently receives calls from companies interested in partnering with the University in some way. “I find out what type of project the company is working on and look through our database of faculty and match their expertise with the needs of the company,” she said. “We put this database together from a survey we sent out to faculty last year in which we asked who would be interested in partnering with companies – doing

consulting work for the companies, for example. If a company is looking for particular equipment, CTD does the leg work and connects them with the department that has the equipment.”

The CTD also assists faculty in finding corporate matches for funding opportunities, for example, UC Discovery Grants, SBIR/STTR (Small Business Innovation Research/Small Business Technology Transfer), CalTIP (California Technology Investment Partnership) and other outside agency, industry-leveraged programs. Meanwhile, collaboration with UC Riverside faculty provides companies with experts in a wide variety of disciplines and access to their knowledge, creativity, and experience. These experts, in turn, can service companies in various capacities such as corporate, technical and advisory boards.

“An important part of UC Riverside’s mission is to try to disseminate expertise we develop here to the society surrounding us,” said Richard Luben, UC Riverside’s interim vice chancellor for research, who oversees not only the CTD but also the offices of Sponsored Research and Intellectual Property Services. “The CTD helps the business community learn what we do here and, like a two-way street, it also lets faculty learn about the business community. The knowledge we create at UC Riverside positions the university well as a powerful economic engine in the region.”

Frankenberger agrees. Concerned that the Inland Empire is mostly known for its distribution centers and warehouses, he is eager to give the Inland Empire a new and vibrant image, an entirely different visibility. Further development at the URP will create not only more jobs, he predicts, but, more important, it will create more high paying, high-tech jobs, just the kind needed for a new profile for the region. “There’s no doubt that the Inland Empire is ripe for technology transfer,” he said. “And there’s no doubt, too, that UC Riverside, a center of both knowledge and business power, can facilitate that.”

### Three Frankenberger Companies

His consulting experience with companies like Chevron, Shell Oil and Mobil provided Frankenberger with the ropes for launching Centrum Analytical Laboratories, Inc. in 1985 to test for hazardous wastes – organic and inorganic constituents, in particular – in soil, air, and water. Although he sold the company to Bob Clark, an environmental scientist, in 1998, the company continues its success as an environmental analytical laboratory (annual revenues averaged $2 million in 2002-2003) serving the needs of Southern California environmental engineering firms, government, transportation and industries. Setting it apart from similar companies in Southern California are its four state-of-the-art mobile laboratories that provide real time results in the field.

“Your dirt is our bread and butter,” joked Clark, who once worked for Frankenberger as a Centrum employee and is now the company’s president. “I grabbed the opportunity to buy the company from Bill when he sold it. It was a matter of being at the right place at the right time for me. Today, the company serves more than ever as a pipeline for UC Riverside students concerned with the cleanup of our environment. We’re not a graduate school, but we attract a steady influx of young minds from UC Riverside.”

Centrum Analytical Laboratory, Inc. began when Frankenberger approached Dave Turner, a businessman for whom Frankenberger did some consulting work in the early 1980s. Turner, who owned a drilling company, joined hands with Frankenberger and together they formed the company. “At that time, we hired just one chemist and we had a handful of sophisticated instruments,” Frankenberger said. “But then the business grew rapidly, I bought Turner
to develop a larger client base of companies for Centrum. Today, the company has grown to occupy 8,000 sq. ft. at URP.

Another offshoot of Frankenberger’s research is the Center for Environmental Microbiology, Inc. (CEM), launched in 1987. The company focuses on bioremediation by assessing whether microorganisms will degrade a particular pollutant in the environment. Seventy-five percent of CEM’s employees and all its student interns are from UC Riverside.

“CEM is research-intensive,” said Frankenberger, “in that it conducts tests to assess the feasibility of bioremediation. Recently, the company diversified to include mold testing. First, we teamed up with a firm in Irvine that specialized in mold testing. Then we brought a number of mycologists on board. And we were set. Mold testing is gaining in popularity because of people’s sensitivity and allergies to mold spores. Many public buildings, commercial buildings and private homes have huge problems with mold.”

Frankenberger is also one-third owner of Phytoanalytics LLC, a new start-up from campus-based research: nutraceutical analysis of medicinal herbs, plants and finished products. The company maintains a 3,000 sq. ft. facility with state-of-the-art instrumentation and personnel with experience in analytical chemistry, biochemistry, microbiology, soil science, and plant physiology. Phytoanalytics interacts closely with academia at UC Riverside and Loma Linda University. All its employees and interns are from UC Riverside.

There’s no place like … a ranch

Frankenberger sees two ways of starting a company. In the first, you bring in a partner who has capital and expertise to complement your own expertise, and you build from that. In the second, you find venture capital or other types of funding sources and bring on board a number of employees to get the company off the ground. Then, you charge full speed ahead. “I prefer the first option and have always gone with it,” he said. “I firmly believe in partnerships so that we can build off each other. Of course, one has to be selective and careful in how you choose your partners, and, even if you are judicious, things may not always go the way you’d hoped or planned. It’s a bit like getting married!”

He admits running a business can be considerably stressful at times, both mentally and physically. He admits, too, that launching four companies has exerted enormous hardships on his physical being on occasion. “You have to deal with lawsuits and cash flow problems, and competition is always tough in the private sector. Oftentimes, it can be a real headache – for example, employees might call in sick when you need them most to meet an impending deadline. Or an instrument may suddenly fail to perform. Still, I believe there’s nothing like getting a business going.”

For Frankenberger, the best thing about starting a company is to see it grow from a seed into a highly successful operation. While he acknowledges it can be taxing at times, he knows how rewarding it can be when things go well. “It’s wonderful when that happens,” he said, smiling behind his desk. “There’s nothing quite like the energy and drive it produces. It’s the incentive that keeps an entrepreneur going. I have no regrets whatsoever about the career choices I have made. Starting from the miniature golf course in my backyard in Topeka when I was ten years old, to being band manager of a boys’ music band in that town two years later, to then selling Christmas trees as a young boy in the harsh winters of Kansas, to eventually launching start-ups that have been involved in the cleanup of more than 2,000 contaminated sites all over the world – I have enjoyed it all.”

He leaned toward the photographs near his desk of his Montana ranch and pointed at one. “A ranch such as this one is another incentive. Just about every cent I have made from my businesses has gone into it,” he said, a measure of triumph accenting his voice. “And that’s where I’m headed to in a couple of days.”
UC Riverside receives $1.25 million from W. M. Keck Foundation

The W. M. Keck Foundation awarded UC Riverside a grant in the amount of $1.25 million for the establishment of the W. M. Keck Proteomics Laboratory within the Center for Plant Cell Biology (CEPCEB) in the Institute for Integrative Genome Biology. The award will allow the Institute to purchase proteomics instruments to study functional genetics in key plants, insects, and pathogens that are important for protecting the world’s food supply.

Proteomics, or the analysis of the total protein complement possessed by an organism, includes the identification, sequencing and structural characterization of proteins, their interactions, activities, and function.

The W. M. Keck Foundation is one of the nation’s largest philanthropic organizations. Established in 1954 by the late William Myron Keck, founder of The Superior Oil Company, the foundation’s grantmaking is focused primarily on the areas of medical research, science, and engineering. Eligible institutions in the fields of science, engineering, medical research, and liberal arts are accredited universities, colleges, medical schools, and major, independent medical research institutions.

“We are grateful to the W. M. Keck Foundation for its financial assistance to the Institute for Integrative Genome Biology and its Center for Plant Cell Biology,” said UC Riverside Chancellor France Córdova. “Thanks to the grant, faculty and students associated with UCR’s Institute for Integrative Genome Biology will be able to establish a proteomics laboratory to produce knowledge on plants, insects, and pathogens that is essential to enhancing the world’s food supply.”

“The award is an important validation of our activities at the Institute for Integrative Genome Biology,” said Michael Clegg, Distinguished Professor of Genetics at UC Riverside, “especially because it comes at a time when many philanthropic foundations have had to scale back activities. The W. M. Keck Foundation award is a strong statement about the foundation’s confidence in UC Riverside.”

Scientific innovation in biotechnology holds great promise for meeting the food needs of a growing world population and for protecting human health through novel strategies to improve the nutritional qualities of plant crops and prevent the transmission of insect-vectored diseases. Building on its reputation as a world leader in teaching and research related to basic plant biology and pest-plant and pathogen-plant interactions, UC Riverside established the UCR Institute for Integrative Genome Biology in 2000 and the Center for Plant Cell Biology in 2002. By incorporating the work of scientists from diverse disciplines, UC Riverside is uniquely positioned to conduct innovative and groundbreaking scientific research in genomics and proteomics that will help farmers combat pests and pathogens and increase production without damaging the environment.

UC Riverside Will Use $2 Million Gift To Tackle Issues of Suburban Sprawl

Ali Sahabi, a real estate developer and philanthropist, has signed a gift agreement to provide UC Riverside with $2,050,000 to create a Center for Sustainable Suburban Development. Pending approval by UCOP, the center will be named in honor of Edward Blakely, Sahabi’s mentor, a UC Riverside graduate (1960), and current dean of the Milano Graduate School of Management and Urban Policy at the New School University in New York City.

The Edward Blakely Center for Sustainable Suburban Development will bring together the university’s intellectual resources and the experience of developers, city officials and environmental
and community groups to focus on the social, ecological and economic issues of suburban growth. These have become national issues.

“Over the next two to three decades, the Inland Empire will be an immense laboratory where communities will wrestle with growth controls, land use and density questions, freeway congestion, air pollution problems and the need to create school districts in the middle of nowhere – all while trying to retain their character,” said Andy McCue, associate director designate of the proposed center.

Robert Nava, interim vice chancellor for University Advancement, said Sahabi’s gift also provides a unique opportunity to aid fast-growing Riverside and San Bernardino counties and communities that have always nurtured UC Riverside. “With suburban growth proliferating across the United States and around the world, the issues to be studied in the Inland region will resonate internationally, fulfilling the University of California’s mission of being an international research university,” Nava said.

Sahabi, named a Champion of Justice by the Fair Housing Council of Riverside County earlier this year, is the developer of Dos Lagos, a mixed-use development in Corona, California, praised by environmental groups for combining good design with sensitivity to the natural environment.

TheImmediate Benefit Gift Annuity

Don and Veora Erwin are receiving income for life because they made the smart choice to establish a charitable gift annuity with UCR. Don is an emeritus professor of Plant Pathology and wanted to continue his support to students in science. Veora wanted to ensure that her support for the Sweeney Gallery and students in the arts would continue. Veora learned about the UC Charitable Gift Annuity at one of UCR’s gift planning seminars. She said, “Don and I thought that a Gift Annuity would make a lot of sense for us. We contributed some of our low-interest rate assets to UCR; we have increased our income, and ultimately the Gift Annuity will enable us to endow our Fund at UCR. We wanted to help future students at UCR with our gift.”

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and Let UCR Send YOU a Check!

Are continuing reports of low interest rates and dwindling returns on your CDs and money market accounts still causing you to feel insecure?

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If your parents or grandparents are looking for a double benefit of additional income and a way to make a contribution to higher education this plan will work for them too.

**What is a Charitable Gift Annuity?**

A UC charitable gift annuity is a simple contract between UC and the donor. In exchange for a gift of cash or other property, UC agrees to pay a fixed lifetime income to one or two beneficiaries. The University of California guarantees your income for your lifetime and part of your income is tax-free!

Charitable gift annuities offer the option of receiving annuity payments immediately or deferring them.

**Immediate Gift Annuity for Two Lives**

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In exchange for your contribution of $10,000 or more you receive the following benefits:

**Increased Income— Guaranteed For Life Income Is Partially Tax-Free!**

**Immediate Charitable Income Tax Deduction Support UCR!**

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By delaying your payments until your retirement, you can supplement some of your retirement income with a secure fixed stream of income. By making your gift now, you receive an immediate income tax deduction while you are in a higher income tax bracket. And, you will receive a higher annuity payment and higher deduction by deferring your payments, than you would receive if you waited until 65 to set up your annuity.

**UC Retirement Gift Annuity**

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The UC Charitable Gift Annuity is truly a way to give—and to receive.

Please call us for a confidential, personal illustration.
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Office of Gift Planning diane.miller@ucr.edu

mail: 250 Highlander Hall, UC Riverside, 92521
Harrison Donation Funds UCR Softball Field

Harrison is showing that one person can make a difference to her alma mater,” Director of Athletics Stan Morrison said. “We are grateful that she was willing to help the student-athletes with this wonderful donation.”

New Head Softball Coach Connie Miner, who served as an assistant coach at UCR from 1999-2001, echoed the thoughts. “This is an unbelievable, from-the-heart gift to her university. It means that our softball field will be able to compete with the schools that have $3 - 4 million facilities. It is a visual indication of the support of the athletics department towards the softball program.

“It is quite flattering and somewhat humbling at the same time,” Harrison said. “To have anything ‘named’ after me appears a little arrogant but makes me feel very proud because I know I ‘stepped to the plate’ so to speak, and worked for and earned every penny that will be used to build this venue. I am also proud that I turned out to be the kind of person who is willing to give it away and share my good fortune with others.”

Minor agreed, saying she is looking forward to the day her team takes to the new field.

“The team is going to feel about six feet tall when they walk into the facility,” Miner said. “It really raises the bar. It helps us in recruiting, getting players to be committed to playing here at UCR.”
When Advanced Placement students get out of school for the summer, their teachers go back to the classroom. “I’ve been teaching for more than 30 years,” said April Wilson, an Advanced Placement English teacher at Valley View High School in Moreno Valley. “When you teach AP, it’s a class that you really need to stay on your toes for ... the students are very astute. You better know what you’re doing.”

Last summer, Wilson was one of five Advanced Placement teachers to earn the nation’s first Certificate in Teaching Advanced Placement from UC Riverside Extension. Before entering the pioneering certificate program at UC Riverside Extension, Wilson said she often felt like a lone ranger teaching Advanced Placement English at her school. Taking sequential coursework allowed her to meet teachers from other schools who were teaching different disciplines. Like their own students, the teachers in the program compared notes. “I got to see a lot of connections,” Wilson said. “For instance, I’m reading The Autobiography of Benjamin Franklin (in class) and the students are studying the American Revolution (in their AP History class). We really learned from each other.”

The other four students who earned certificates were Jesus Lara, A. Tyleen Paige, Connie Pruett and Allison Blythe. Both Wilson and Lara, who is an Advanced Placement Spanish teacher at Cathedral City High School in Los Angeles, learned about the program two years ago during a weeklong summer workshop called the Advanced Placement Summer Institute at UC Riverside Extension. Though Lara traveled from Los Angeles to Riverside every other weekend, he said the program was invaluable. “It’s taught me quite a bit on how to teach,” Lara said.

Lara now uses his new skills to teach students in his other Spanish classes — something he would not have done before. He has encouraged those students to take the Advanced Placement exam even though they weren’t in the Advanced Placement class. Approximately 45 of those students accepted the challenge. “Most of them passed,” Lara said.

Prior to the establishment of a certificate program, many Advanced Placement teachers honed their teaching skills at summer workshops, which are co-sponsored by The College Board. The College Board is the private nonprofit agency that creates and scores all AP exams. It routinely surveys private and public universities to find out what high school students need to know in traditional areas like English literature to the ever-evolving fields of computer science and biology. College Board representatives, in turn, share that information in weeklong summer sessions across the country. Yet AP teachers had no way to take a sequence of courses that laid a solid foundation until UC Riverside Extension created a certificate program from its own College Board-approved summer institute.

Extension has offered the summer institutes since 1999. “The program developed because teachers in the Summer Institute requested more in-depth coursework,” said Sue Teele, director of UC Riverside’s Education Extension. The College Board worked closely with UC Riverside Extension to create a comprehensive certificate program. “The UC Riverside Extension Center was tremendously responsive,” said Mike Johanek, executive director of K-12 professional development for The College Board. “They were very open to our thinking on it.”

Since the program launched, colleges and universities around the country have begun to create their own Teaching AP Certificate programs, using the UC Riverside Extension certificate program as a model, Teele said. To earn the Certificate in Teaching Advanced Placement, teachers must take 17 units of coursework, including 8 units of required courses, 6 units of a specialized academic area, and 3 units in an academic discipline seminar. The Teaching Advanced Placement certificate is just one of UC Riverside Extension’s more than 85 certificate programs designed to provide continuing education and training for those looking to enhance their current career skills or transition to a different career.
This fall, *East* collides with *West* in Riverside. The **Sweeney Art Gallery** at UC Riverside and the **Riverside Art Museum** in downtown Riverside will jointly present the exhibition **PAST MODERN The Singh Twins**. This international show, which opens on October 2 and continues through December 6, 2003, is the West Coast debut of the highly acclaimed British-Asian twins, Amrit and Rabindra Singh. The **Singh Twins** are some of the freshest talent in the United Kingdom today; they have been invited to participate in more than twenty solo shows throughout the world, and are the focus of nearly 100 feature articles. Though their artwork is strongly inspired by traditional Indian miniature-style painting, they also effectively undermine assumptions about contemporary art, Eastern and Western aesthetics, and the supposed primacy of the individual. The **Singh Twins’** artistic process and collaborative partnership began early on in their careers. As art students, they faced harsh critiques from professors who reprimanded the two collaborators for their “derivative aesthetics and non-individualistic ideologies.” Conscious of their position outside the mainstream social and artistic norm, the **Singh Twins** resolutely refused to bow to pressure. Maintaining their practice of working and exhibiting together as an artist, the **Twins** challenge the perceived bias of an establishment that valorizes self-expression as the ultimate achievement of contemporary art, yet denies the validity of anything that does not follow expectations dictated by a Eurocentric perspective. Indeed the artists assert their right to define their own cultural and artistic ‘individuality’ in a way that is meaningful and true to who they perceive themselves to be - British Asians, Sikhs, artists and twins. Their work, a quasi-exaltation of hybridity, offers a compelling perspective on the need to re-evaluate strict cultural definitions and role models within the wider context of an evolving global society. In one of their renowned paintings, for example, Princess Diana is simultaneously transformed into a hybrid of Britannia, the Madonna and Child, and the Hindu goddess *Durga*. Nearly sixty original, stunningly intricate and delicate paintings will be on display at the two Riverside venues. A grand public opening celebration with the artists will take place on Saturday, October 4. For more information, contact the Sweeney Art Gallery online sweeney.ucr.edu or call 909/787-3755.

**Merrill Lynch**

Merrill Lynch is a proud sponsor of **PAST MODERN The Singh Twins**. Additional support has been provided by Burgess Moving & Storage.

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**No Common Place: Three Exhibitions at UCR/CMP**

This fall UCR/California Museum of Photography presents a trio of exhibitions that take diverse approaches to photography, landscapes, and storytelling. The main gallery will feature an in-depth look at **Jerry Burchfield’**s cameraless photographic images of exotic plant material from the Amazon Rainforest. This exhibition, **Primal Images**, will feature both a large selection of Burchfield’s unique catalog of Amazonian flora and a site-specific installation using native Riverside plant material. Photographer **Lori Nix**’s work will be included in the exhibition **Some Other Place**. Nix’s tabletop tableau sets on the brink between the banal and the surreal, confronting the viewer with a wit and charm that calls into question industrial and suburban development, real and imagined environments, and the genre of landscape photography. Finally, **Riverside in Pictures**, gathers together historic views of Riverside and outlying areas from some of photography’s legends, including **Ansel Adams**, Will Connell, **William Amos Haines**, and others. Also featured will be re-photographic views of the historic images by UCR/CMP’s **Upward Bound** summer workshop participants. There will be a reception for all three exhibitions Saturday, October 4 from 6 to 9 p.m. www.cmp.ucr.edu
Special Collections is pleased to present its roster of distinguished authors for its 2003-2004 UCR Libraries’ Author Series. This program is a continuation of the “Meet the Author” Lecture Series initiated in 2002. The Series will feature eight of the many authors among the UCR faculty, staff, and research community.

A number of the presentations of the coming year’s Author Series will also be made available via Webcast. For an example of a Webcast from last year’s Author Series, see http://library.ucr.edu/\ref=news\&article=131 (Greg Benford, May 21, 2003). Double click the “View the Webcast” located beneath Dr. Benford’s biographical information, in blue.

The 2003-2004 Author Series will include:

**October 16, 2003:** John de Pillis, Professor Emeritus of Mathematics, will speak on his book, *777 Mathematical Conversation Starters*. Combining his early career as a commercial artist with his research in mathematics, Dr. de Pillis uses cartoons, jokes, and examples from popular culture to explain mathematical concepts in a way accessible to mathematicians and non-mathematicians alike. The book explores such entertaining topics as the mathematical value of fame; how successfully H.G. Wells anticipated the future, and why good logic makes for good picnics.

**November 19, 2003:** Sharon V. Salinger, professor of history, will speak on her book *Taverns and Drinking in Early America* (Johns Hopkins University Press, 2002), the first study of public houses and drinking in the colonies. The book explores the origins of taverns, their proliferation, the ends that they served in the colonies, and their effect (or lack thereof) in breaking down class and gender differences. Dr. Salinger is also the author of *To Serve Well and Faithfully* (Cambridge University Press, 1987) which traces the history of unfree labor in colonial Pennsylvania. She is currently working on a study of poverty and migration into eighteenth-century Boston.

**December 10:** William Lavender, a novelist, and Mary Lavender, a professional researcher and long-time officer of the Friends of the UCR Libraries, will speak about their collaborative work on Mr. Lavender’s historical novel, *Just Jane: A Daughter of England Caught in the Struggle of the American Revolution* (Gulliver Books, Harcourt, 2002). Nominated for the American Library Association’s Best Books for Young Adults 2002, *Just Jane* is Mr. Lavender’s first novel for younger readers. Mr. Lavender is also the author of five other novels, including *Chinaberry* (Jove Publications, 1977).

**January 21, 2004:** Iqbal Pittalwala, Campus Communications Officer for Science and Engineering at the Office of Marketing and Media Relations at UC Riverside, will read from his book of short stories *Dear Paramount Pictures* (Southern Methodist University, 2002). In addition to a Ph.D. in atmospheric sciences, Dr. Pittalwala holds an M.F.A in creative writing. His stories have appeared in the *Seattle Review, Blue Mesa Review, Confrontation, Trikone*, and other magazines. He teaches “Writing and Critiquing Workshop for Fiction Writers” at the UCR Extension Center.

**February 18, 2004:** Professor Alan McHughen, professor of botany and plant sciences, will speak on his book *Pandora’s Picnic Basket: The Potential and Hazards of Genetically Modified Foods*. A molecular geneticist, public sector educator, scientist and consumer advocate, Dr. McHughen has helped develop U.S. and Canadian regulations covering the environmental release of plants with novel traits. He also served on recent National Academy of Science and OECD panels investigating the environmental and health effects of genetically modified organisms.

**March 24, 2004:** Stephen Spindler, professor in the department of biochemistry, will speak on his intriguing research on the correlation between calorie restriction and longevity. Dr. Spindler holds that the fewer the calories an animal consumes (provided malnutrition is avoided,) the slower an animal ages, and the lower the death rate from cancer, heart disease and diabetes. Dr. Spindler has served on several advisory groups and committees for the National Institute on Aging, and National Institute of Health, Washington, DC.


**May 19, 2004:** Howard K. Wettstein, professor of philosophy, will speak on *Diaspora and Exiles: Varieties of Jewish Identity* (University of California Press, 2002), for which he served as editor. Dr. Wettstein is also the author of *Has Semantics Rusted on a Mistake? and Other Essays* (Stanford University Press, 1991), and *The Magic Prism—An Essay in the Philosophy of Language* (Oxford University Press, 2003), and numerous articles on the philosophy of language. *Diaspora and Exiles* considers the question of Jewish identity from the perspectives of anthropology, art history, comparative literature, history, philosophy, political theory, and sociology.

For more information on this year’s UCR Libraries’ Author Series, call Special Collections at 909-787-3253 or e-mail melissa.conway@ucr.edu.
The UCR Alumni Association will honor 21 scholars this year in its ongoing tradition of recognizing excellence through its competitive freshman and continuing student scholarships program.

The Alumni Association will disburse over $78,000 to new and current UCR students based on merit or financial need. Alumni, volunteers, scholarship donors, and campus administrators will recognize these scholars at a special reception to be held in mid-November. Through the UCR Alumni Association Scholarship Program, the Association also administers awards for the George Beattie Memorial Scholarship, the Leon Braddock Athletic Scholarship, the Brithinee Continuing Student Scholarship, the Burrtec Waste Industries, Inc. Scholarship, and the Reentry Scholarship.

Each of the 12 UCR Alumni Association Freshman Scholarship recipients will receive $4,000 for the upcoming academic year. To qualify for this merit-based scholarship, the student must have at least a 3.65 high-school GPA and a minimum SAT I score of 1250.

The 2003-2004 recipients of the UCR Alumni Association Freshman Scholarship are: Eric Eikermann, biological sciences, Vista; Sean Kaloostian, biochemistry, Los Angeles; Christine Khong, biological sciences, San Francisco; Thomas Lau, physics, Moreno Valley; Laura McDonnell, undeclared, Irvine; Gabriel Murillo, biochemistry, Riverside; Kim Nguyen, biological sciences, San Jose; Tyler Parker, undeclared, Riverside; Neal Shah, biological sciences, Upland; Maxwell Wang, biological sciences, San Jose; Carolyn Podolak, undeclared, Highland; Christopher Salam, biological sciences, Victorville.

The Brithinee Continuing Student Scholarship was established in 1988 with the generosity of Donald Brithinee ('68, '70 M.A., '71 Ph.D.) and Wallace Brithinee ('68, '70 M.A., '71 Ph.D.). Over the past eleven years, together they have funded $68,000 for continuing Alumni Freshman Scholars. The four recipients of the 2003-2004 Brithinee Continuing Student Scholarship are: Maggie Ham, biomedical sciences, La Crescenta; Matthew Longacre, biomedical sciences, San Dimas; Ester Oh, biomedical sciences, Cerritos; Nelly Tan, biomedical sciences, El Monte.

The George Beattie Memorial Scholarship was established in honor of the late UCR Alumni Association board member George Beattie ('58). The Beattie Scholarship recipient is Melissa Mutrux, a creative writing major from Upland.

The Leon Braddock Athletic Scholarship was established in 1990 to honor the late Leon Braddock ('73) for his service and contribution to the principles of higher education. This year’s recipient of the Leon Braddock Athletic Scholarship is Kimberly Feliciano, a fourth year creative writing major.

The $6,000 Burrtec Waste Industries, Inc. Scholarship is awarded to Jeanne Chung from Riverside. Chung graduated from John W. North High School and is currently a fourth-year biomedical science major. Burrtec Waste Industries, Inc., its sister company, EDCO Disposal Corporation and other Burrtec affiliated companies collectively make up the largest privately held solid waste management organization in the State of California.

Three former reentry students, Joyce Vickery ('74, '76 M.A.), Barbara Moore ('78, '83 M.A.), and Peggy Voss established the Reentry Scholarship in 1985 to provide assistance to mature students whose education was interrupted by two or more years. This volunteer-driven effort has raised an endowment of more than $40,000. Reentry Scholarships for 2003-04 are being awarded to Gabriela Arroyo from Riverside, a senior majoring in sociology, and Yolanda Plunk from San Bernardino majoring in Spanish.

Scholarship funding comes directly from membership dues and donations. The UCR Alumni Association Scholarship program would not be possible without the continued support of our UCR alumni. Alumni interested in serving on a local scholarship committee to help select recipients for 2004-2005 or in donating to the UCR Alumni Association Scholarship fund should contact the Association. More information on the UCR Alumni Association Scholarship program is available at www.alumni.ucr.edu.
Honoring Alumni
Nominations open for 2004 Alumni Awards of Distinction

October 31 is the final filing date

2004 marks the fiftieth anniversary of our campus. Help us celebrate this milestone occasion by nominating an alumnus for the University’s highest alumni honor. Each year since 1986, the Alumni Association has proudly recognized alumni who have distinguished themselves through personal, professional, or community achievement. Nominate an alumnus who has made an important impact in the lives of others. Alumni, friends, former award recipients, professional colleagues and members of the University community are encouraged to submit an award nominations disclosure statement. The last day to nominate an alumnus for the 2004 Alumni Awards of Distinction is October 31. The recipients of the awards will be honored at the annual Alumni Awards of Distinction Banquet, on Friday, January 23, 2004 in conjunction with Homecoming activities.

Nominations are accepted in the following five categories:

**Distinguished Alumnus Award**: The most prestigious of the awards is based on national and international distinction in one’s field and significant contribution to society.

**Alumni University Service Award**: This award recognizes a sustained pattern of volunteer service, contribution and support for the benefit of UCR.

**Alumni Public Service Award**: The recipient is honored for service to the public sector or contributions to the arts that represent UCR and the campus community.

**Alumni Community Service Award**: The award is presented based on active and superior service as a community volunteer.

**Outstanding Young Alumnus Award**: Nominees are under the age of 35 and demonstrate significant achievements and promise for the future in their respective fields.

If you know someone who deserves consideration for the Alumni Awards of Distinction, visit the Association’s Web site at [www.alumni.ucr.edu](http://www.alumni.ucr.edu) to download a nomination form. Letters of support are also strongly encouraged.

Nomination forms can also be obtained by contacting the Alumni Association. Information on the 2003 award recipients and a list of past award winners are also available online.

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**LOST ALUMNI 1955-1960**

We need your help. Recognize any of these names? Do you know where they are? If you have information on any of the following please contact the Alumni Association so that we can include them in the Pioneer Class Reunion.

**Class of 1955**
Mary Louise Holt
Mary Virginia Melanson

**Class of 1956**
Floyd L. Brewer
Rosemary V. Lane
Robert H. Michael
Terence C. O’meor
Rosemary Payne Vogel

**Class of 1957**
Janet A. Buvens
John Jay Conley
Wendy Rose Fraser
Gloria Swisky
Barbara Louise Turner

**Class of 1958**
Deomelle Baker
Robert T. Brown
John Philip Clark
Franklin Clair Goodspeed
Ronald P. Grout
Dianer Gurne Hardey
Dorothy Ray Heidinger
Michael Andrew Hogan
Leo Alexander Osheroff
Norman Gilbert Schnautz
Glenda Yvonne Shireman
Georgia Dee Shockey
Elton Frank Smith

**Class of 1959**
William H. Blair

**Class of 1960**
Christina A. Boehm
Elizabeth A. Campbell
Donna Davis
Edward C. Duffy
Virginia Anne Gillis
Branden G. Lungeron
Leslie Griffith McMillon
Kathryn Frances Shaffer
Ann Welles Shelly
Lawrence C. Sobieski
James Donald Witoschek

How to contact the UCR Alumni Association

**Web site**: [www.alumni.ucr.edu](http://www.alumni.ucr.edu)
**E-mail**: ucalumni@citrus.ucr.edu
**Phone**: (909) 787-4511 or (800) 426-ALUM (2586)

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**Career Revolutions: Build Your Networking Matrix**

A successful career is built on relationships . . . from beginning to end

Join the UCR Alumni Association and other Alumni Associations of the University of California on Wednesday, November 12, 2003 in the Northern California area. Learn about career development techniques and strategies for a changing economy. Network with alumni from all UC campuses.

Oakland Marriott City Center
1001 Broadway
Oakland, CA 94607
Emelyn K. Jewett Ballroom

Event Time Frame:
6-7:00 p.m. Reception, networking, social time
7-8:30 p.m. Keynote Speaker and Panel Presentations
8:30-9:00 p.m. Networking and informal discussion with speaker and panelists

Cost: $10 for UCRAA members and $20 for non-members and guests.

For more information about this event, visit [www.ucalumni.net](http://www.ucalumni.net) or contact the Alumni Association.
Who was elected as UCR’s first student body president, served as the first Alumni Association president and later served as chancellor of UCLA for 29 years?
Charles Young ’55

Who won the Pulitzer Prize in 1998 for editorial cartooning?
Steve Breen ’92, ’94 T.C.

What did you enjoy most about what makes UCR special.

Who served two terms as chair of the UC Board of Regents from 2000-2002?
S. Sue Johnson ’62

Who currently serves as director of the Office of Inter-governmental Affairs at The White House and as deputy assistant to U.S. President George W. Bush?
Ruben Barrales ’84

Alumni Send in Your UCR Memories!

Highlanders! As the campus approaches its 50th anniversary, we want to hear from you about what makes UCR special. What did you enjoy most during your years here with us? Share your fondest memories of UCR with the campus community and add to the collection of memories of our special time. We will use your memories in our monthly e-newsletter or an upcoming issue of Fiat Lux, depending on space availability. Send your memory via email to ucralum@citrus.ucr.edu or mail to the UCR Alumni Association, 100 A Highlander Hall, Riverside, CA 92521.

50th Anniversary Alumni Trivia

Who served two terms as chair of the UC Board of Regents from 2000-2002?
S. Sue Johnson ’62

Who currently serves as director of the Office of Inter-governmental Affairs at The White House and as deputy assistant to U.S. President George W. Bush?
Ruben Barrales ’84

Alumni Association Calendar

| October 31 | UCR Alumni Association Scholars Reception, 6-7 p.m., University Extension Center |
| November 12 | 18th Annual Alumni Awards of Distinction Banquet, 6-9 p.m., Commons Dining Room |
| 13 | UCR Alumni Association Executive Committee Meeting, 1:30-3 p.m., University Extension Center |
| 23 | 50th Anniversary Homecoming, various activities all day, contact the Alumni Association for more information. |

Travel the globe and expand your horizons

This nine-day program is priced at $2,795 with round trip air transportation from Los Angeles or San Francisco and round-trip airport transfers from Naples to Sorrento. A land only package is available for $1,695. Both packages include hotel accommodations for seven nights, three full meals each day during the program, all excursions listed on the program itinerary, informative educational programs, and the services of an experienced campus director throughout the trip.

Tour participants must be members of the UCR Alumni Association. Each member may bring a spouse and children under 18 or one guest. Contact the Alumni Association to request a brochure or to be placed on the Association’s travel list.

Save the Date!

Homecoming 2004 will take place January 21-24, 2004. This Homecoming is special in that it will coincide with the campus’ 50th Anniversary celebration and you won’t want to miss the festivities.

A Pioneer Class Reunion is in the planning stages that will involve the classes of 1955-1960. In addition, other groups are also planning reunions or get-togethers. The UCR Alumni Association Web site will list the Homecoming activities once the calendars are confirmed. Check the site regularly at www.alumni.ucr.edu for the latest information. If you would like to help in the organization of an event please contact the Alumni Association.

Alumni Association Travel Program provides opportunities to broaden your cultural horizons while sharing the magic of discovery and adventure with other UCR alumni and friends.

Join the Alumni Association for an extraordinary travel opportunity, the Alumni College in Sorrento. This adventure journeys to the very heart of Italy’s southern province of Campania. The small medieval town of Sorrento provides the perfect base for a week of astounding beauty by the sea. Enjoy the calm brilliance of Sorrento’s sunsets, the magnificent azure Bay of Napoli, the grandeur of the Amalfi Coast, and the beautiful Isle of Capri. Walk through the ancient ruins of Pompei and feel the wonder of this ancient Roman resort.

Alumni College in Sorrento

UCR Alumni Association Web site: www.alumni.ucr.edu

| UCR Retirees’ Association |
| Dec. 12, UCR Retirees’ Holiday Party; 11:30 a.m.-1 p.m.; for reservations and information, contact Betty Morton (909) 689-4381 or e-mail themortons@aol.com |
| Investment Club, 1 p.m., Human Resources Employee Development Center, UCR. Cost: $100 initial fee, $25 monthly. Information contact: Sal Martino (714) 854-0220 or salm@exo.com. Meetings: Oct. 1, Nov. 5, Dec. 3, Jan. 7, Feb. 4 |
| Computer Workshop, 1 p.m., Room 122, Science Library, UCR. Cost: Free. Information: Sal Martino (714) 854-0220 or salm@exo.com. Meetings: Oct. 16, Nov. 20, Jan. 15 |
Henry Ramsey, Jr. ’60 was the recipient of the 2003 Boalt Hall Citation Award. The Citation Award is Boalt Hall Alumni Association’s highest honor and recognizes exceptional achievement by a Boalt Hall graduate who distinguishes him or herself in the legal profession and has thereby brought renown to the law school.

’62 Jim Newlove has been involved in a wide variety of activities since he graduated from UCR. He was a Peace Corps volunteer for two years, a teacher for 16 years, a computer programmer/analyst for 17 years and a member of SPEBSQSA barbershop harmony for 36 years.

’64 Ange Crawford is married with four children and is the author of children’s books and freelance materials …

Ronald Hansen is a health service deputy to Los Angeles County Supervisor Zev Yaroslavsky. Ronald is responsible for policy recommendations on all aspects of County health and mental health services, including County hospitals and clinics, public health, emergency medical services, HIV/AIDS services, alcohol and drug programs, and the development of public-private health partnerships. Prior to joining Supervisor Yaroslavsky’s staff, he served as director of health planning in the Los Angeles County Department of Health Services, where he participated in the early planning for converting the County health system to managed care. He holds a master of science degree in health administration from the University of Southern California.

’65 Bob Cloyes retired from the United States Navy in 1997 and recently retired from Litton Industries in 2001 …

Bill Collins (M.A., ’71 Ph.D.), who has written 303 poems, read to students at Cowles Memorial Auditorium at Whitworth College. His visit was sponsored by the alumni- and faculty-funded Endowed English Reader program, which brings poets and authors to the campus.

’67 Tim Dong (M.A., ’68 Ph.D.) will retire as president of MiraCosta College in June 2004. He will have served 10 years as president of the college when his retirement becomes effective. Tim plans to spend more time with his family after he retires. He and his wife Rosalyn, a retired elementary school principal, celebrated their 40th wedding anniversary in April.

’68 Richard Minnich (’70 M.A.), a professor of earth sciences at UC Riverside, is studying Southern California’s forests and the dangers of damaged and dying trees in the Riverside, San Bernardino, and San Diego counties …

Richard Stern retired last year as a division scientist from 3M Company in St. Paul, Minnesota. He has moved to Tucson, Arizona, with his wife Niki.

’69 Tom Goughnour (’70 M.A.) has been appointed by California Governor Gray Davis to the position of chief deputy warden at San Quentin Prison. Tom has been promoted on numerous occasions within the California Department of Corrections over the past 23 years but began his career as a correctional counselor at San Quentin in 1980. He and his wife, Alicyn Abramson (’69), live on the grounds of the prison with a spectacular view overlooking the Bay area.

70s

’70 Lynne Masland (’71 M.A.) was appointed to the Council for Advancement and Support of Education (CASE) District VII Board of Directors for 2003-2005. Lynne is the director of Western Washington University’s Office of University Communications. She joined Western Washington in 1984 and has served as communications director since 1988. Lynne is an adjunct professor at Western’s Fairhaven College, with research interests in oral and narrative histories. She has written three books, numerous scholarly papers and reviews as well as newspaper and magazine articles. She is a member of Rotary International and is active in community affairs …

Paul J. Turner (’74 M.S.) watched the library and the bell tower, now landmarks of UCR, being built. He was to get a bachelor of science degree in zoology in 1969 but stayed an additional year to get a bachelor’s degree in biochemistry. He conducted undergraduate research in microbiology under Professor Eugene Cota-Robles and continued his education with a master of science degree in plant physiology (specializing in molecular biology) under Professor Lowell Lewis. Paul then moved to UC Santa Barbara and earned a Ph.D. in physical chemistry under Dr. Thomas Hooker. He took a postdoc at the University of Connecticut where he published several articles on semi-empirical molecular physics. Paul was a professor at Bucknell University in Pennsylvania and was the US-DOE Samuel P. Massie Chair of Excellence – an endowed professorship – at Southern University (a historical black
college). Paul worked several years on radioactive and hazardous waste disposal at the Pacific Northwest National Laboratory before becoming State Director of the Forensic Laboratories for the Oregon State Police. Paul and his wife now own and manage an antique shop in Snohomish, Washington.

73 James Michael Allgood retired after 30 years of working in the banking and finance industry. He's been married 32 years with two grown children and enjoys fishing, skiing and biking every day.

74 Robert Horsch (’79 Ph.D.) is vice president of Monsanto Company, a leading provider of agricultural products and integrated solutions for farmers. Rob manages a program designed to help farmers in developing nations improve their farming methods. He has led Monsanto Company genetic engineers to create crops that kill bugs and are resistant to popular weedkillers … Erlinda Martinez is president of the Lakewood Chamber of Commerce; a board that she has served on for three years. She is a member of the Lakewood Rotary Club and attends the Presbyterian Church of the Covenant in Costa Mesa. Erlinda has two sons, Rob, 25 and David, 21. She is vice president of student services at Cerritos College and sits on the advisory committee on student development and higher education at Cal State Long Beach and on the community care committee for Hoag Hospital in Newport Beach … Terry Vandewarker was nominated to Inamed Corporation’s board of directors. Terry is a partner of a privately held family business. Prior to that position, he held a number of senior positions, including president and chief executive officer at Encad, Inc., a publicly traded company on the NASDAQ exchange until its acquisition by Eastman Kodak in 2002. In his professional life, he has also served as a director for a number of private and public companies in various industries. Terry is a certified public accountant.

75 Paul Palminteri teaches Argentine tango in Redlands and Los Angeles. During his free time, he practices his own moves, takes more dance classes, studies with dance instructors, attends social dances and educates himself on Argentine history.

76 Pennie Lee Levers retired from teaching at Riverside Unified School District in 1998. She is now a realtor with PCM Laguna Hills Resales selling in Leisure World, a retirement community in Laguna Woods … Ronald Ridgeway (M.A.) is vice president and wealth management advisor with Merrill Lynch. He has two teenage daughters, Lindsay and Kelly. Lindsay has had a successful career in acting, most recently as Morgan Matthews on ABC’s “Boy Meets World” television show. Kelly is an accomplished dancer and has received numerous awards in national dance competitions. Lindsay will be attending UCR in the fall, and Kelly attends Poly High School in Riverside.

77 Brian M. Barnes (’77) is the director of the Institute of Arctic Biology at the University of Alaska, Fairbanks. Brian is a professor of zoology and science director of the Toolik Field Station, in northern Alaska. Brian was named “One of 40 UCR Alumni that made a Difference” on UCR’s 40th anniversary. His father, Martin, is a retired UCR professor of entomology and each of Brian’s siblings graduated from UCR: Wayne (’69), Martin (’74), Delia (’77). Brian lives happily in Fairbanks with his wife Alison, and daughters Julia and Ellen.

78 Chery Brantly Kingham was married in 1979 to Derek Kingham, whom she met while on the UC Exchange program to the University of Sussex, England. After management careers in two industries, Cheryl is now a part-time communications director and full-time mother to Stephanie, 6, and Melissa, 3. Keeping up a tradition of travel, the family will be living and working on assignment in Mexico in 2004 … Geoffrey Pack is in Denmark to serve as the U.S. Defense Attaché to Copenhagen.

79 Marvin Lawson (Ph.D.) is the director of the division of consumer protection at the Virginia Department of Agriculture and Consumer Services (VDACS). Marvin previously served as program manager for VDACS’ Office of Pesticide Services. He served more than 21 years as a medical entomologist in the U.S. Army, where he held various director level management positions before coming to VDACS. The division of consumer protection is comprised of three offices: pesticide services, consumer affairs, and product and industry standards. The division oversees such diverse functions as weights and measures inspection, certification of pesticide applicators, regulation of health spas, motor fuel analysis, registration of all pesticide products sold in Virginia, landlord/tenant disputes, and other consumer issues.

80 Adriean Mayor (Ph.D.) is the museum curator for the Great Smoky Mountains National Park. He also teaches graduate courses in invertebrates at the University of Tennessee. In addition to teaching, Adriean has worked as a technical writer for defense contractors, and is a beetle specialist. He is considered a world authority on one family of beetles and is very well

Names printed in red indicate members of the UCR Alumni Association. To update your membership, see page 44.
versed in vegetation and has performed research in the Park on the pollination of flowering dogwoods, flame azaleas and other plants. Michael Muratet is president of Admireable Birds Inc., a company specializing in the sale of exotic birds, feed, cages and other supplies in Huntsville, Alabama.

‘81 Penny Lee Perry (M.S., ‘84 Ph.D.) is now divorced. Her daughter Christy was born on November 4, 1988 and her son Michael was born on November 15, 1990.

‘82 Edward Mooney (M.A.) sold his Stone Man Trilogy of books to Fast Carrier Pictures, who will make them into movies over the next three and a half years. Peter Benavidez is the chief-executive officer of Riverside-based Blindness Support Services, Inc., a nonprofit organization that annually helps about 1,500 blind or visually impaired people live independent, productive lives.

‘83 Don Adkins opened Actavision Optometry in Indian Wells, introducing Whole Eye Imaging technology to the Coachella Valley. Kay (Fairhurst) Adkins received the Carol A. Mills award for leadership in community drug prevention. Elinor Levy received her doctorate degree in folklore from Indiana University and is currently the director of the Northwest Jersey Folklore Project. Janis Overlock developed and coordinated The Roma Mainstream Media Internship Programs of the Centers for Independent Journalism in Hungary, Slovakia, and Romania and has been awarded the top honor – the Laureate for Intercultural Education – from the Evens Foundation of Antwerp.

The programs prepare talented young Roma (Gypsies) for careers in the media through an intensive ten-month training in both classrooms and newsrooms. The program started in Hungary in 1998, in Slovakia in 1999 and 2000 in Romania. The goal of the program is to foster the development of a more pluralistic media to better represent the societies in which they operate. The Centers for Independent Journalism are affiliated with the Independent Journalism Foundation of New York. The mission of the centers is to promote ethical, fact-based reporting in developing countries. The award ceremony is tentatively set for October in Strasbourg, France.

‘84 David Goldstein-Shirley is currently teaching American and ethnic studies (mostly literature) at the University of Washington. Kevin Palmer is the economic development manager for California and Nevada with the Illinois-based Burlington Northern Santa Fe. Kevin had been Riverside’s economic development manager since 1999 and is credited with creating the City’s economic development program. Riverside’s economic development department has achieved national acclaim for its business and job attraction efforts. The Industrial Asset Management Council, an Atlanta-based nonprofit representing corporate real estate executives who make facility decisions, recognized the Riverside economic development department with an honorable mention award in the May edition of Site Selection magazine.

‘85 Betty Virgoe (M.A.) has been the organizer for 15 years at St. Margaret Mary Catholic Church in Chino. Betty is teaching all music subjects at Cypress College. She is a lifetime member of the American Federation of Musicians, Orange County Local and a member of the Orange County Chapter’s American Organists Guild.

86 Ludwina Maria Ossa married Juan Ossa (‘86) and they have three children together. Since December 1999, Ludwina has been working at Union Bank of California as vice president-consumer checking product manager.

‘87 Mark Lawler is living in Portland, Oregon, with his wife Susan and their golden retriever Freddy. Mark has worked for a variety of companies from General Dynamics, Symantec, Intersolv, to ProSight and he has worked in an equally vast amount of cities including Chino Hills, Santa Monica, Los Angeles, San Pedro, Baton Rouge, Jerusalem and Portland. Raffi Najarian was deployed to a classified location within the Middle East as part of Operation Iraqi Freedom.

‘88 Elvira Caliri is a graduate student at Claremont Graduate University seeking a Ph.D. in political science. She is conducting a study to determine how citizens of Claremont define democracy, to discover what they do to realize it and to find out the reasons for what they do or not do to promote democracy in the city. Elvira is married and has two sons. Nilda Perez received her master’s degree in gerontology from San Francisco State University. She is happily married to Eric Cravotto and living in the Bay Area of Northern California with their black chow-chow, “Lady” ...

Greg Scott was a member of the Challenged America crew in the 42nd Transpacific Yacht Race – the 2,225 nautical mile, Los Angeles to Honolulu race on July 4, 2003. Greg is an up and coming young sailor with juvenile rheumatoid arthritis, which he has had since he was 3 years old. He has had total replacement of both knees and continues his regimen of anti-inflammatory medications. Greg and his wife, Naoko, now reside in San Diego. Jerry Shively and Jill (Durr) Shively (‘92) announce the birth of their first child, a daughter, Malia June Shively, born on April 25, 2003.

90s

‘90 Mauricio Arellano is the assistant superintendent of human resources for the Palm Springs Unified School District. Mauricio was formerly the director of human resources for the San Bernardino City Unified Schools.

‘91 Katheryn Thompson (M.A., ‘96 Ph.D.) is an assistant professor of Spanish at the University of Tennessee at Chattanooga. She recently purchased a house. Athena Waite (M.A.) was named to the California Commission on Teacher Credentialing, the public body charged with the preparation and certification of the state’s teachers. Athena
was named to one of four ex-officio, or non-voting, seats on the 19-member commission in February and represents the Regents of the University of California. Her term is open ended. The commission certifies and regulates teacher credentialing, develops teacher preparation and performance standards, proposes policies on teacher credentialing, and conducts research and oversees disciplinary procedures involving the state’s public school teachers.

92 John Beck is an associate professor of chemistry at Sweet Briar College in Virginia. John has obtained financing for several new state-of-the-art analytical instruments, including a new 400 MHz nuclear magnetic resonance spectrometer, for the department’s research efforts. He lives in Sweet Briar with his wife Tina and their year-old son, Tristan … Bill Chapin is director of ticket sales and customer service for The Mighty Ducks … Karen Cunagin has been teaching craft classes for many years. She is now an instructor in Palomar College’s Community Education Program, she has a weekly class in traditional rug hooking at Fallbrook’s Art Center, and a doll class at the Senior Center. She also teaches a fabric embellishment class at Palomar’s Oasis Center in Escondido, and a quilting class in Poway … Rigoberto González hosted a month-long literacy program in Sun Valley, Idaho, in the month of June … Carolyn Howk has completed a master’s degree in school counseling from La Sierra University and is currently working on a master’s of divinity at Fuller Theological Seminary … Diane (Gallaher) McMorris lives in Riverside with her husband Erik and two sons. After teaching elementary school for eight years, she is now a stay at home mom with their two-year-old and second son born in February. ’93 Renae Byrant (’02 M.A.) was chosen as a recipient of the 2002-2003 Corona-Norco district teachers of the year. They will compete this summer for Riverside County 2004 teachers of the year awards. Renae teaches fifth-grade students at Stallings Elementary School … Dianne Geary continued on to receive her medical technologist and specialist in blood banking licenses. She has lived in Southern, Central and Northern California … Wayne Kao entered the workforce soon after graduation, as a software engineer for Dynamic Instruments in San Diego. After three years of leading development efforts for digital recording systems, Wayne moved to Boston in pursuit of his M.B.A. During that time, he interned for major companies such as EDS and EMC and worked overseas in Thailand, Malaysia, and Singapore. Wayne then returned to California and worked for Boeing/Autometric for about a year before joining Fair Isaac and Company, where he currently is a lead project manager. Wayne lives in San Diego with his wife Kelly … Kelsey (Zaverl) Lick (’96 M.S.) remains on campus teaching courses as a lecturer in the computer science department. She has also taught courses at UCR Extension and at Riverside Community College. Kelsey now lives in Murrieta with her husband Chris Lick (’91) and her two children, Elizabeth and Nathaniel … Paul Pantano (Ph.D.), a professor at the University of Texas at Dallas, received a three-year grant of $150,000 from the Houston-based Welch Foundation. Established in 1954, the Welch Foundation funds basic chemistry research in Texas and underwrites 41 academic chairs in chemistry … Renée Solomon received her doctoral degree in psychology and has a private practice in Beverly Hills. She and her husband, Tony Sater, have a daughter Lily nine months. Renee will be attending Robin Hardy’s (’93) wedding in September. ’94 Christa (Whitmire) Kish (’95 teaching credential) and Steve Kish (’95 B.A., ’96 teaching credential) purchased a home in Ontario, California. Steven is the pastor of Pathway of Light Church and Christa is teaching part-time in Riverside in the Jurupa Unified School District as a third-grade teacher. Steve, Christa and their two and a half year old daughter Sara welcomed their second child, Steven Christopher on December 11, 2002 … Robert Lynch married Donna Martin of Yorba Linda, California, on June 21, 2003. The two had a lovely honeymoon in Moorea, and have recently moved to Costa Mesa. ’95 Jason Fried is the New Hampshire field director for the Richard Gephardt for president campaign … Tricia-Mona Hinz-Smith graduated with a master of arts degree in political science from California State University, Fullerton. She is employed at Los Alamitos High School where she will be teaching government, civil/criminal law, and United States history in the fall … Hiep Nguyen is the City of Winter Haven’s new support and information services director. He is also responsible for the city’s facilities and fleet services. Hiep left native Vietnam with his family when he was only three years old. At first, the family lived in Singapore, but soon moved to Hawaii and finally settled in Chino. He has since moved to Florida enjoying its warm climate. ’96 Jeff Aldaz (’99 MBA) is the director of the Center for Excellence North America at Ingram Micro, a Fortune 100 company. Over the past two years, the Center of Excellence team has laid the foundation for Ingram Micro to become more efficient and profitable through the successful use of Six Sigma. Since joining Ingram Micro in 1999 as an Affiniti
project manager in the business operations department, Jeff has proven his ability to lead complex projects time and time again. Jeff’s commitment to Ingram Micro continues, in early 2002, he became a senior manager in the Center of Excellence and helped deploy Six Sigma throughout the North America region. He also served as a key member of the Project Horizon team. In his new role, Jeff will have oversight for all six sigma resources in North America (120 in the U.S. and 50 in Canada). The Center for Excellence North America basically acts as an internal consulting firm responsible for managing high-level strategic projects, deployment of Six Sigma, and functional support of each of the business units (project identification, selection, prioritization, resource allocation, financial planning and analysis, project implementation, develop of metrics and control systems). Jeff will also be a member of the North American Executive Staff and report directly to the President of Ingram Micro … Bryan Mih graduated in June from the UC Davis School of Medicine. He is starting his pediatrics residency at the University of Hawaii and continues to miss his little brother, Nathan, very much … Thien Cao Tran is a senior digital design and manager engineer at Rapiscan Security Products. ‘97 Michael Cienfuegos, Jr. received a masters of library and information science degree from UCLA in June 2002 after earning a masters of arts degree in history from the University of Missouri in 1997 … Eric Watson is a fourth-year medical student at Western University of Health Sciences in the College of Osteopathic Medicine of the Pacific. Eric is one of their Osteopathic Fellows and will graduate in May 2004 after he completes his fellowship year of teaching and conducting research. He was in Ecuador for a month doing a medical rotation. The photo of Eric was taken at Mitad del Mundo (Middle of the World) monument on the equator in Ecuador. The equator is represented by the yellow line and the “O” on the monument stands for “oeste” or the “west.” ‘98 Shane Allen was accepted to medical school at the Medical College of Wisconsin in Milwaukee. Shane plans to specialize in interventional radiology … Philip Villani (Ph.D.) is an assistant professor of biology at Butler University in Indianapolis, Indiana. ‘99 Troy Handjo (M.S.) received a doctor of medicine degree from Jefferson Medical College, Thomas Jefferson University, in Philadelphia. Troy will begin a residency in internal medicine at the Naval Medical Center in San Diego. While at Jefferson, Troy received the Armed Forces Health Professions scholarship … Ann Pfeifle (M.A.) is a full-time faculty member teaching history at Riverside Community College’s Moreno Valley campus and is currently documenting local military history. Ann is gathering information about the Riverside National Cemetery Memorial to preserve the cemetery’s rich history. She was recently named the Moreno Valley campus’ Teacher of the Year in communications, humanities and social sciences … Michael Rappaport (’01 M.B.A.) opened a second Marketplace Wellness Center office in Riverside. Marketplace Wellness Centers provide physical therapy, personal training, and massage therapy. Michael’s Riverside office is in the same building as the Old Spaghetti Factory. ‘00 Lisa Carlson received her law degree from Syracuse University College of Law. Approximately 250 degree candidates along with their families and friends attended the ceremony on May 18 … Ryan Pollard is currently a realtor with Century 21 Wright in Temecula, Calif. He married Danielle Strowe (’00) and they have a new baby named Michael Ryan Pollard. ‘01 Lourdes Alberto and John Escobedo returned to UC Riverside on May 28 to discuss their experiences in graduate school and what they view as the greatest struggles faced by their generation of Chicanas/os in higher education. Both of them are graduate students in the department of English at Rice University and recipients of a prestigious Rice Provost Fellowship. Both have presented their work at several professional conferences, including the National Association for Chicana and Chicano studies. Lourdes and John employ a Chicana/o studies perspective in their study of Latina/o literature and culture. Their recent work includes essays on Gregory Nava’s American Family (Escobedo) and Lourdes Portillo’s Senorita Extraviada (Alberto) … Paige Emmons left her job at the Bourns College of Engineering to take an Administrative Assistant III position at the Henry Samueli School of Engineering in the department of mechanical and aerospace engineering at UC Irvine. The Orange County resident will be the administrative ‘right hand,’ to Dr. Satya N. Atluri, holder of the von Karman Endowed Chair. Dr. Atluri is internationally known for his computational modeling of aerospace structures and aircraft … Katherine Prouse won the best Jazz award at the Orange County Music Awards on March 29. Katherine has been singing at coffee houses and other locales across Southern California. She teaches special education at Vista del Lago High School in Moreno Valley.
'02 Melissa Bustarde is a full-time law school student on full tuition scholarships at California Western School of Law in San Diego … Steven Hale is teaching 5th and 6th grade science in Big Bear and loving it … Nisao Ogata (Ph.D.), professor at the University of Veracruz in Mexico, presented his research on the origination of cacao plants in a conference at the American Museum of Natural History in New York … Kevin Sharp was deployed with the U.S. Army in the Middle East serving both Operation Enduring Freedom and Operation Iraqi Freedom.

'03 Kari Glover graduated summa cum laude with her bachelor of science degree in computer science on June 15, 2003 … Vanilyne Gulla is an assistant project director at Lieberman Research Worldwide in Los Angeles. Inside Research listed Lieberman Research Worldwide as number 19 out of 50 on the list of largest researchers in the United States. The Top 50 list is published in the June 10 issue of Marketing News and is based on 2002 revenues. Lieberman Research Worldwide was also named as one of the Global 25, a list of top researchers in the world.

In Memoriam…

'58 David E. Allison, August 2002
William L. Meriwether, May 2000
'Donald C. Young ('66 Ph.D.), January 2003
Joseph S. Flores, February 2003
'Sandra H. Sweet, January 2003
Elise Louise Cosby, April 2003
Thomas L. Normandeau, April 2003

'71 Roberta “Bobbie” Largen Gillespie (M.Ed.), June 2003
Lawrence O’Rourke, May 2003
Rose Marie Bocanegra, March 2001
Kathleen A. Pease, June 2003
Carole Ann Wetzel, January 2003
Soojin Alexandria Jo, May 2003

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Saadia Chaudhary
Joaquin Estrada
Michael Finn
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Joshue Greenberg
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Larry Halem
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Helene Lam
Cindy Le
Laura Leistiko
Chahn Nguyen
Henry Nguyen
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General Surgery / USC
Neurological Surgery / University of Utah Affiliated Hospitals
General Surgery / Kessler Air Base Hospital
General Surgery / UC San Diego Medical Center
Obstetrics-Gynecology/ Harbor-UCLA Medical Center
Emergency Medicine / Harbor-UCLA Medical Center
Internal Medicine / UC Davis Medical Center
Medicine – Preliminary / VA Greater LA Health Systems
Ophthalmology / Baylor
Psychiatry / Johns Hopkins Hospital
Emergency Medicine / Loma Linda University
Transitional / Santa Clara Valley Medical Center
Radiology-Diagnostic / Santa Clara Valley Medical Center
General Surgery / Loma Linda University
Medicine-Primary / Loma Linda University
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This is an amazing story of two Martena Wilsons and their commitment to helping people society often leaves behind. The younger Martena graduated from UCR in 2002 with a bachelor’s degree in business administration. The elder Martena was selected as the 2002 "Parent of the Year" award recipient sponsored by the UCR Parents Association.

Martena "Smokey" Wilson was selected as the "Parent of the Year" from a pool of over 115 nominations in recognition of the opportunities she has provided to adults and children by serving as a role model and for making personal sacrifices to benefit children.

The younger Martena wrote, "My mom teaches basic English at an inner-city college in Oakland. She teaches immigrant students, recovering alcoholics, people with learning disabilities, and those who have served time in jail and institutions." Martena has seen her mom work with people who may not be as lucky as others. She watched her mother "struggle to give these students a voice and an education."

In addition to teaching English, Smokey is the founder of DEAFCAN, an organization to promote education and advancement in the deaf community at Laney College, offering a safe haven to another group often left behind.

"I always remembered students calling from DEAFCAN (on the TTY) and from her basic English classes late at night and early in the morning just to talk to my mom," said Martena. "Smokey was always able to provide guidance to the students in and out of classroom hours and was always there to help those who wanted to be helped."

In addition to her teaching, Smokey had written books and learning tools for teachers. In 1996, she took advantage of a new method of learning: the online classroom teaming with an online learning community to create "Maya," a paper writing guide to help students get started in writing. The writing guide has since been used in community colleges throughout the state and country.

In December 2001, doctors discovered two blood clots on either side of Smokey's brain requiring surgery and forcing her to retire after 40-plus years of teaching at Laney College. Smokey is recovering, but is sorely missed at her community college.

Martena vowed to continue her mother’s commitment of helping others. In her junior year at UCR she began purchasing real estate starting with a condo near UCR. Using her limited savings and the $2,000 award money from winning the "Parent of the Year" award, Martena made a down payment on her second home near downtown Riverside on Lime Street. Her success in real estate prompted another venture based on her own harsh experience of being homeless and dependent on drugs when she was 22.

Today, 29-year-old Martena is determined to help women change their lives and the lives of others. She has rebuilt her own life since her homeless days and is now helping others get sober.

Martena and her mother founded Empire Recovery Services Inc. (ERS) earlier this year to help women and women with children recover from substance abuse.

ERS is committed to creating comprehensive programs for women recovering from substance abuse by providing transition housing and assisting in education, job training and placement, developing social responsibility and service, and improving self-esteem through lifestyle changes.

Martena turned her Lime Street home into a sober-living environment called “Girls Gone Sober.” The home not only offers an opportunity to start a new life, but also to grow in mind and spirit.

ERS now owns and operates four properties, two in the historic district of Riverside, one near UCR, and one in Moreno Valley. These properties house homeless women recovering from substance abuse and provide opportunities for social activism. Guests staying at these homes work with at-risk youth, ages 12-17, as mentors and educators.

Community volunteers help the house by offering counseling, writing, yoga, meditation and even acting workshops. Guests of Martena’s sober-living environment learn how to fill out job applications and write résumés. The results are impressive. Once homeless, these women are now employed and living on their own.

“The most important part of the homes is to give women the opportunity to start a new life,” said Martena. “This is the reason we started ERS.”

Ultimately, the mother/daughter team hopes to provide a string of homes where women can find solace, career placement assistance and a new start to a sober life.
CLOSE UP

By Kathleen Peach

Keeping up in a conversation with Chris Buydos requires an ability to think big, to visualize several years in the future and handle the jumble of acronyms that so quickly come tumbling off of her tongue. Chris carries the official title of Economic Development Manager, Office of Economic Development and Real Estate Services, University of California, Riverside, but ask her for a simple description of what she does and she'll give you a grin and tell you she is the “grout between the tile.”

In this case “grout” is a metaphor representing the relationship building and collaborations Chris fosters between UC Riverside and the business community and public sector (aka – the tile) as part of UCR’s technology transfer effort.

Chris’s energy and enthusiasm for her work is quickly apparent. She has the ability to see beyond the immediate obstacles and focus on the opportunities ahead. She often cites the sentiments of hockey legend, Wayne Gretzky, famous for his quote “I don’t skate to where the puck is, I skate to where the puck is going to be.” Chris stresses that in her work “we need to be where the puck is going to be” when explaining her role in shaping UCR’s long-term strategy to benefit from the growing opportunities in technology transfer.

For example, the recently opened UCR Technology Transfer Center, part of the IEEP (Inland Empire Economic Partnership) is a key component in creating the environment and relationships for the “grout” to do her work. Phase I of the Research Park is divided into 11 parcels, of which all but one has been purchased for private development. Construction on various office space and laboratories will begin in the next few months to house a host of new technology businesses. Another 17-acre parcel in Phase II will be ready for development within the next few years.

“Getting the ideas and technology from the lab to a commercial application and ultimately to the market can involve a number of critical steps,” notes Buydos. “Very often the individual with the idea or technology needs some level of assistance to make the transfer happen. It can be a space to work in, startup funding and resources, marketing plans or a whole host of other elements. We can make the process easier by creating an environment that anticipates the typical needs and having the information readily available, often getting a business up and operational in 30 days.”

Asked how she defines a success, Chris underscores that it’s the momentum itself that moves the project to the next step that demonstrates the success in her work, which she says is measured in ongoing stages rather than a completion point. Right now she is thinking about where the startup companies in the Research Park will be able to expand to when they have outgrown the current space.

Chris and her husband, Jerry, reside in San Jacinto with their eight-year-old son, Dakota, where Chris also holds a seat on the City Council. She graduated from Brigham Young University in Provo, Utah, with a bachelor’s degree in community and regional planning and is a certified planner with the American Institute of Certified Planning.

Chris can be reached at chris.buydos@ucr.edu