A record number of students will take part in the 59th commencement at UCR. Altogether, 5,358 students are eligible to walk in seven ceremonies between June 14 and 17.

For graduating students, commencement is the payoff for years of hard work and perseverance. For the university, it’s a showcase — of achievement, of diversity, and of potential greatness that each Highlander can take pride in.

This year, 72 students are graduating summa cum laude, 131 magna cum laude and 335 cum laude. But each person walking to get his or her diploma has overcome individual challenges — some academic, some emotional and some financial. Here are some of their stories.

**The Writer**

Fatima Mirza initially came to UCR to pursue a premed major. “I would take creative writing courses because that’s what I was really interested in,” she said. Mirza credits professors Charmaine Craig, Andrew Winer and Michael Jayme with opening her up to a future as a writer. “They believed in me, which made me believe in myself and try to pursue writing seriously,” she said.

As a creative writing major, Mirza has received numerous scholarships and awards, including the 2011-2012 Award for Academic Excellence and in 2013, the Chancellor’s Award for Excellence in Undergraduate Research/Creative Achievement. She was also an editor at the campus newspaper, The Highlander.

After she graduates, Mirza will pursue her M.F.A. at the Iowa Writers’ Workshop, the country’s most prestigious graduate program in creative writing. “I was lucky that [UCR offered] an undergraduate major in creative writing, because that allowed me to get on the track I’m on now.”
The Researcher

Divya Sain, a Ph.D. student from India, took her father’s favorite Sanskrit chant to heart when she began her studies in Riverside in 2007. “Shane shane parvata langhanam,” translates into English as “Slowly and steadily, even mountains can be conquered.” She followed that advice as a plant pathology student.

Sain, who will graduate with a Ph.D. in genetics, genomics and bioinformatics, studies fungal cell walls. Her research will be an asset to the antifungal drug development industry in India. During the 2012-2013 school year, Sain won the Guru Gobind Singh Fellowship, a $30,000 award given to a student from an Indian or Pakistani university who is committed to returning to her country of origin after receiving her doctoral degree at a UC campus.

Sain, who mentors two undergraduates in the Stajich Lab, is a member of the Rotaract Club (the youth branch of the Rotary Club) and Omicron Delta Kappa. She received the UCR Graduate Division Fellowship in 2008 and a Klotz Memorial Travel Award in 2011.

The Motivator

Brian Molina, a community activist, competitive body builder and certified personal trainer, is the 22-year-old CEO of Yungmuscle, a motivational website. He’s graduating from the College of Humanities, Arts and Social Sciences with a major in ethnic studies. The product of a biracial couple who grew up in a predominantly Latino, working-class community, Molina knows what it’s like to live with limited resources (“Every house we lived in or apartment we rented we eventually lost, got evicted from, or kicked out of,” he said).

“Living with constant financial struggle gave birth to an almost overwhelming amount of tension and domestic dysfunction that made me aware of issues of race and class almost inherently,” he said. His struggle gave birth to his ambition, and he resolved to channel his energy into academics and athletics. While he was a scholar athlete and a straight-A student, Molina was foreign to the process of scholarships, college applications and grants, so he graduated from high school with no college opportunities.

The sport of bodybuilding turned out to be Molina’s ticket to the university. It helped give him the discipline and drive to persevere. “It took me three-and-a-half years of taking 14-16-unit semesters at community college, working graveyard shifts, taking summer school courses and an absolute dedication to eating eight meals a day with two — sometimes three — workouts per day to become a champion bodybuilder and transfer to UCR.”

After he graduates, Molina will be able to say he is the first in his family to graduate from a university.

The Challenger

Brian Weden is set to graduate with a B.S. in materials science engineering. At UCR, he was able to spend four years conducting research on sea mollusk teeth with Professor David Kisailus. That research also enabled him to explore facets of his personality that other scientists may not have developed at such a young age.

In February 2012 he entered into the Institute of Materials, Minerals, and Mining (IOM3) U.S. West Regional Young Person’s lecture competition. Contestants were required to give a 15-minute presentation on research in the field of materials, minerals, and mining; they were judged by their clarity, passion, enthusiasm, technical content, presentation layout, and how well they handled the Q&A.

Weden received the top prize. He then competed at the World Final in London against eight regional winners from the United Kingdom, Ireland, Malaysia, Singapore, Brazil, South Africa, and Hong Kong. At the time, Weden was 21; most of the other competitors already had master’s degrees. Some had Ph.D.s.
Even though Weden was the youngest contentant by four years, he took first place at the 2012 Young Person’s World Lecture Competition, becoming the first undergraduate and youngest person ever to win the competition. “I was able to show the world what UCR brings to the table,” Weden said.

Months later, Weden discovered that the IOM3 will host the 2014 World Lecture Competition at UCR. “I’d like to think I had some part of making that happen,” he said.

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Guests attending commencement ceremonies must have tickets for entry, with the exception of the Graduate School of Education and Bourns College of Engineering ceremonies. Family and friends who are unable to attend can watch the event online. A link will be available on www.ucr.edu.

Shuttles will carry the disabled and elderly from parking lot 6 to the commencement venue. For heat-sensitive guests, live video-feeds will be available in air-conditioned venues at Watkins Hall, Room 1000, and University Lecture Hall.

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**UCR Faculty, Staff to Receive Salary Increases Starting July 1**

*By Lilledeshan Bose*

Interim Chancellor Jane Close Conoley announced last week that the University of California will implement systemwide salary increases for nonrepresented employees.

Faculty and other nonrepresented academic personnel will receive across-the-board increases of 2 percent. Nonrepresented staff employees will receive average increases of 3 percent. The raises are effective on July 1.

This is only the second general salary increase for nonrepresented employees in the past five years, and it will help to offset recent increases in retirement and benefit costs that faculty and staff have absorbed over the past few years.

Increases for represented employees are negotiated separately through the collective bargaining process.

“The budget cuts of the last several years have created many challenges – and sacrifices – for faculty and staff, and I want to thank you for your continued dedication, service, and contributions to the university,” Conoley said in a campuswide email that announced the raises.

Kathy Barton, the current staff advisor-designate to the regents and a UCR staff member, said that she and her fellow staff advisor to the regents Kevin Smith have brought staff and faculty concerns about pay to the Board of Regents and discussed it consistently with leadership in the Office of the President. “We are certainly heartened by this news and appreciative of the support from OP leadership and chancellors,” Barton said. “We have also been acutely aware of the economic forces that have made this a most difficult issue for UC.”

The UC-wide salary increases are in the proposed 2013-14 budget approved by the UC Board of Regents last November.

The 2013-14 salary program excludes:

- Top senior management members, including the president, chancellors, executive and senior vice-presidents and other senior managers who report directly to the president
• Medical center chief executive officers, direct reports to the regents, certain other senior managers, and athletic coaches whose salaries are covered by multi-year contracts

• Union-represented employees (because their raises are negotiated through a different process).

Campus guidelines will be issued in the next couple of weeks to provide additional information, including when the increases will be reflected in paychecks.

Further questions may be directed to Jadie Lee from Human Resources (x2-3196 or jadie.lee@ucr.edu) and Susan Brown from Academic Personnel (x2-3385 or susan.brown@ucr.edu).

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UCR Libraries Launches Inland Empire Memories Initiative

Effort will identify, preserve and make available documents of the region’s diverse and rich cultural history

By Bettye Miller

Residents of the Inland Empire launched a prosperous citrus industry, helped establish the U.S. Environmental Protection Agency and effectively advocated for economic and social justice for Native Americans, farmworkers and others.

That legacy deserves recognition and ought to be preserved for future generations, UCR University Librarian Steven Mandeville-Gamble said in announcing the Inland Empire Memories Initiative.

The initiative is a collecting program that will identify, preserve, make available, and interpret the rich cultural legacies of the diverse communities of the Inland Empire, Mandeville-Gamble explained. It will seek out and acquire personal papers, organizational records, political files, and other documentary evidence that chronicles the lives and activities of artists, authors, poets, cultural and social leaders, civil rights leaders, cultural organizations, political figures, religious leaders and business people from the many cultural groups that make up the rich tapestry of the Inland Empire, he added.

“The collecting program emphasizes acquiring collections of individuals and organizations whose work has fundamentally shaped the lived experiences of the people in the Inland area since the 1800s, with particular emphasis on the 20th century onward,” Mandeville-Gamble said. “The collecting program particularly emphasizes documenting the lives of peoples and groups historically underrepresented in the historical record.”

Guiding the initiative will be an advisory board of UCR faculty from several disciplines; UCR Libraries staff; a student from the UCR Ethnic and Gender Program Offices; and members of the community.

These photos of former UCR Chancellor Tomás Rivera as a young child and high school senior are included in the Inland Empire Memories Initiative.
UCR students, faculty, the public and scholars around the world will benefit from the Inland Empire Memo-
ries Initiative, particularly as an anticipated digitization effort makes many of the records available online, the
UCR librarian said.

The initiative builds on archives and collections of personal papers, photographs and other records UCR
Libraries has gathered over the decades, such as those of the late Rep. George E. Brown, whose leadership in
Congress resulted in the creation of the Environmental Protection Agency; former UCR Chancellor Tomás Ri-
vera, a poet and the first minority chancellor in the UC system; Native American scholars Rupert and Jeannette
Costo, whose scholarship and activism began to steer depictions of Native Americans away from long-held ste-
reotypes toward historical accuracy; biographer Patricia Ortlieb’s research on Eliza Tibbets, the woman whose
introduction of the navel orange tree to Riverside spawned a thriving citrus industry in the 19th century; U.S.
Air Force veteran Gurthalee Clark, whose records form the basis of a collection on African-American women
in the military; and Hollywood publicist Armando del Moral, who represented the Mexican film actors union
Asociación Nacional de Actores, and his wife, Amelia.

“We have these great disparate collections but no rubric to hold them together,” Mandeville-Gamble said.
“The Inland Empire Memories Initiative gives us a framework to understand how these collections fit together
and fill in the gaps.”

Among the individuals or groups whose papers or oral histories the initiative hopes to pursue are residents
who worked with Cesar Chavez in the effort to organize farmworkers; the late Press-Enterprise Publisher Howard
H “Tim” Hays, who won two U.S. Supreme Court cases that fundamentally redefined freedom of the press;
local women authors; Native American elders and scholars; and citrus farmers who continue to contribute to
the region’s agriculture industry.

“We want people here and around the world to understand that events in the region had local and national
impact,” Mandeville-Gamble said. “Even people who participated in some of these events might not think of
themselves as having an historical impact, but they did. Their children and grandchildren often don’t know the
role they played in larger, significant events. We want to preserve their photos, their diaries and letters so that
history isn’t lost.”

Academic Senate Recognizes Faculty With Top Awards for Teaching, Research,
Service

Alexander Raikhel, Gabriela Canalizo, Eugene Nothnagel, Ameae Walker, Richard Hooley, Jeanie Lau and
others are honored

By Iqbal Pittalwala

The UCR Academic Senate — the campus faculty governing body — last week announced its top awards in
research, teaching and service for the 2012-2013 academic year.

In research, Alexander Raikhel, a distinguished professor of entomology and UC President’s Chair, was se-
lected as the Faculty Research Lecturer for 2013, the highest honor that the UCR Academic Senate can bestow
on a colleague to recognize the quality of his or her research.

The Distinguished Teaching Award, conferred on the basis of student evaluations and peer reviews, went to
Gabriela Canalizo, an associate professor of physics and astronomy.
The Distinguished Service Awards went to Eugene Nothnagel, a professor of plant physiology, and Ameae Walker, a professor of biomedical sciences. Both awardees were nominated by their colleagues.

The faculty recipients of the Chancellor’s Awards for Excellence in Undergraduate Research and Creative Achievement are Richard Hooley, an assistant professor of chemistry, and Jeanie Lau, a professor of physics and astronomy.

The Doctoral Dissertation Advisor/Mentor awardees are David Funder, a distinguished professor of psychology, and Eamonn Keogh, a professor of computer science and engineering, for their outstanding contributions to the training of advanced graduate students.

The student recipients of the Chancellor’s Awards for Excellence in Undergraduate Research and Creative Achievement are Eric Liao, Department of Environmental Sciences, and Fatima Mirza, Department of Creative Writing.

Raikhel has received wide acclaim for the high quality of his research, especially the hormonal control of egg development in mosquitoes, and innate immunity in insects. His insightful and pioneering research places him among the top insect molecular biologists worldwide. He has received many honors, among which are his election to the U.S. National Academy of Sciences, and as a fellow of the Entomological Society of America, both in 2009. Based on significant advances achieved by his laboratory as well as his prolific record of high quality publications, the National Institutes of Health awarded Raikhel a 10-year MERIT Award of more than $4,000,000 in 2002. During his career, Raikhel has published more than 130 peer-reviewed papers, 29 book chapters, eight edited books, and 11 review articles.

Canalizo studies quasars, host galaxies and galaxy evolution. She brings her passion and excitement for science and astronomy to her classrooms at UCR, where she teaches nonmajors, majors, and graduate students. She has inspired her students to succeed not only in science but in their own lives. As further evidence of her passion for teaching, she is actively engaged in outreach at the K-12 level. In addition to wide-ranging public lectures, she is principal investigator of the Inland Area Science Program, a collaboration between UNEX, several UCR teaching programs, and local school districts, which has raised funds for teacher-training in the sciences. She spends several weeks every summer teaching English and science in an orphanage in Africa.

Since 2001, Nothnagel has provided excellent service and leadership to UCR in a variety of venues. He has been a member and often the chair of many Academic Senate, campus search, departmental and other campus committees. He has served on search committees for the vice provost for undergraduate education, dean of the Graduate School of Education, and the committee for the Chancellor Chair for Innovation in Teaching Across Disciplines. He served as the chair of the Department of Botany and Plant Sciences from 2001-2003. He is a regular contributor to Science Fair judging, a speaker at Discover Day, committees on student advising, learning outcomes, WASC reaccreditation, and the Campus Appeals Panel.

Walker participated in or chaired a large number of division, campus and university committees. She has served as chair of the Division of Biomedical Science Faculty (2005-08), chair of the division’s Executive Committee (2007-10) and chair of the School of Medicine Executive Committee (2012-present). For the campus, Walker was on a variety of Academic Senate committees. She served as vice chair of the Academic Senate (2010-11) and chaired the Committee on Academic Personnel (2004-05). Walker has served several times as the chair of her department. She mentors and assists medical students, Ph.D. graduate students, and undergraduates.

In only four years Hooley has mentored 12 undergraduate students. Under his mentorship, these students received awards, grants and fellowships for their research. His commitment to increasing diversity in the sci-
ences is reflected in his participation in the Minority Access to Research Careers – Undergraduate Training in Academic Research, the UCR STEM Pathway, and the California Alliance for Minority Participation program. Additionally, he has trained eight women, three African-American students and one Hispanic student. His research has earned him fellowships from the National Science Foundation Division of Undergraduate Education program and UCR’s Innovative Use of Information Technology in Teaching program.

Over the past seven years, Lau has mentored eight undergraduate students, with several students training in her laboratory for at least two years. Five of these students have graduated and gone on to pursue doctoral degrees. Under her guidance, these students have received several grants. Her students’ success is due in part to her close attention to their professional training and access to publication opportunities in top journals. Lau includes her students in her research on the physics of nanoscale systems and the properties of graphene.

Funder is a distinguished professor of psychology and a leader in the field of personality psychology. His research is funded primarily by grants from the NSF and the National Institute of Mental Health. He is the recipient of numerous awards, including the Jack Block Award for Distinguished Research in Psychology. His students emphasize his availability and responsiveness to them. He “considers each student’s unique strengths and abilities in his interactions with them.” In part through the weekly lab meetings he holds, he teaches students “how to conduct interesting research and to communicate findings to others.” He is said to be exceptional at “training his students to work independently at the level of a colleague.” Several students gave examples that illustrate the ways in which Funder continues to mentor and advocate for his students after they have moved on from UCR.

Keogh is a professor of computer science and engineering. His research specializes in data mining, and he has a long publication record that illustrates his ability to come up with innovative solutions to problems. His research has been funded by NSF and other sources such as the Bill and Melinda Gates Foundation. In 2008, he was named a University Scholar. His students describe him as brilliant, passionate about his research, and highly dedicated and caring. They cite the extensive, near-daily interactions he has with them as an important aspect of his mentoring. A common sentiment is that “he inspires us to think deeply and conduct thorough experiments.” He gives students “lifelong skills to be a better teacher, researcher, and mentor.” Keogh pays close attention to the professional development of his students, including arranging mock interviews for them as they prepare to look for jobs. His former students have moved on to successful careers in academia and at companies such as Google, Microsoft, and Yahoo! Labs. One student summed it up best: “Dr. Keogh is the kind of advisor/mentor that I want to be. I would consider myself successful if I would be half as good a teacher, a researcher, or a mentor, as Dr. Keogh.”

In his four years at UCR, Liao, an environmental sciences major, has built a resume reflecting his dedication to studying raw seismic data and earthquake processes. He has served as a co-author on four papers, and is the first author on one of these publications. Additionally, he has contributed data for presentations at six major conferences. He served as the presenter for three of these conference presentations. The recipient of four major undergraduate research awards, Liao has used his expertise and educational experiences to influence K-12 curriculum development.

Mirza has proven herself a gifted writer, committed to the development of her craft. Through her coursework, she has created a complex set of characters, all belonging to one family. She has “a terrific instinct for what to notice, what to perceive, what to see in a moment, in a character, in a dilemma, in a scene.” She has served as an assistant editor and a features editor for The Highlander and published in the Mosaic. She has received numerous scholarships and awards including the 2011-2012 Award for Academic Excellence. Mirza was accepted to and participated in the Squaw Valley Community of Writers Conference Summer 2012 workshop and has been accepted into the Iowa Writers Workshop.
UCOP Seeking Comment on Proposed New Electronic Accessibility Policy

*Guidelines would help ensure electronic information is accessible to all*

**By Ross French**

Ensuring that the UC maintains accessible electronic programs and services for all—including websites and other Web-based content—is the purpose of a proposed systemwide integrated technology (IT) accessibility policy that is now open for comment through July 22.

“The UC has always had a policy of inclusion. As we put more and more content online, we need to ensure that we are not excluding some individuals due to disability,” said Robert Bottomley, UCR’s representative on the systemwide Electronic Accessibility Leadership Team and the Web architect of the Office of Strategic Communications. “Not everyone is the same, not everyone has perfect vision, hearing or motor skills,” he said. “Plus, it’s the right thing to do.”

According to the policy information page on the UC Office of the President website, “The proposed systemwide UC Information Technology Accessibility Policy promotes and supports an accessible IT environment within the university. By supporting IT accessibility, the University helps ensure that as broad a population as possible is able to access, benefit from, and contribute to its electronic programs and services.”

The comment period will allow individuals inside and outside the UC system to review the document and submit their observations via email. The comment period closes on July 22. Following the comment period, the document will go to the systemwide Faculty Senate for approval before moving on to the UC Regents for final approval.

Outgoing UC President Mark G. Yudof has been a driving force behind the effort. In a July 21, 2010, letter to all UC chancellors, he wrote: “This initiative offers an exciting new opportunity to think systematically and creatively about how we serve the growing number of people who, with or without formally disclosing a disability, increasingly depend on a fully accessible electronic environment.”

As part of the proposal, the university will adopt the Web Content Accessibility Guidelines 2.0 standards. Campuses and labs will be expected to “develop, purchase and/or acquire, to the extent feasible, hardware and software products that are accessible to people with disabilities,” and “promote awareness of the policy to all members of the university community, particularly those in roles that are responsible for creating, selecting or maintaining electronic content and applications.”

U.S. Census data show that approximately 20 percent of the population between 18 and 65 has a disability, and about 8.5 percent has some disability that affects computer usage, says Bottomley. These include visual impairments such as blindness, color blindness, or low vision, impaired motor skills, including the inability to use a mouse, slow response time or limited fine motor control, and cognitive, the largest group, which includes individuals with ADHD, dyslexia or Asperger’s syndrome.

After a Successful Year, UCR Athletics Association Looks to Continue Growth in 2013–14

*Goals for 2013-14 include growing membership, continuing to improve fan experience*

**By Ross French**
One of the biggest accomplishments for the UCR Intercollegiate Athletics Department took place off the competition field in 2012–13.

The UCR Athletics Association (UCRAA), the official support organization for the UCR Intercollegiate Athletics program, saw a more than twofold increase in its membership. Senior Associate Athletics Director Eric Buskirk is aiming higher for 2013–14.

“Our goal is to reach 1,000 members annually,” Buskirk said. “We have made great strides from the 379 members that we had in the 2011–12 season, but we can do more.”

Funds raised by the Athletics Association go to scholarships, facilities and equipment. They also support other platforms that enable student-athlete success.

“There are some who might say that Riverside isn’t a good sports town, but I don’t think that is true,” he said. “We have made a commitment to the fan experience by adding new amenities and features to the games. I believe that if we provide fun, affordable entertainment, people will come out and will want to become part of the UCR Athletics Association family.”

“We have established a strategic plan to make significant strides with our external units, and I am very happy with our progress thus far. We are very excited for what the future holds, as we continue to grow our fan and donor base,” says Director of Athletics Brian Wickstrom.

One can become a member of the Athletics Association through a gift of any size. Donors who reach certain levels of giving are eligible for a series of benefits, such as logo wear, access to special hospitality areas, season tickets and more.

Some of the increase was due to the marketing campaigns “You’re Our #1 Recruit” and “Who is Your +1?” Both encouraged fans to get their friends and neighbors involved in UCR athletics.

In 2013–14, the department will also once again sell the UCR Faculty/Staff All-Sports Pass. Available in the fall, the pass provides admission to 100 regular season home athletics events throughout the school year for a set price of $50.

“We sold about 100 of the all-sports passes this past year,” Buskirk said. “In time, I hope we can get to the 1,000 mark.”

The department will also continue to appeal to the UCR community by continuing its popular “Dean’s Night” promotions, where each of UCR’s colleges was invited out to a men’s or women’s basketball games held in their honor. The events included pregame game chalk talks, halftime activities, and postgame receptions.

“The Dean’s Nights’ were a great success. People had a lot of fun coming out and spending the evening with co-workers and their families and just having a little fun,” Buskirk said.

The department also worked on bettering the fan experience through improvements to UCR athletics venues. One such improvement was the new Baseball Pavilion at the Riverside Sports Complex. A $500 donation provided two guests with admission to all home baseball games and unlimited food and drink, including beer, on a covered patio just behind first base.

“The seats are as close to the field as you can get. It’s a great experience for fans of Highlander baseball,” he said.
The pavilion expansion was paid for through specific donations for facility improvements. Other work included improvements to the baseball facility restrooms, enhancements to the UCR Soccer Stadium, lockers for the softball team and the renovation of the Hall of Champions in the Athletics and Dance Building.

“We couldn’t have done these projects without the generous donations of our fans,” Buskirk said, adding that the UCRAA also received substantial donations from the Fay and Vanderpool families that will go to support athletic scholarships. “We have several projects in the queue for 2013–14, including baseball video equipment, a baseball weight room and additional locker room upgrades, and a staff box at the soccer stadium.”

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**Building Human Colon to Improve Water Quality**

*Former UCR student builds replica human colon and feeds it three times per day to understand impact bacteria has on groundwater*

By Sean Nealon

To better understand how bacteria impact the environment, a former UCR graduate student spent nearly a year building a system that replicates a human colon, septic tank and groundwater and “fed” the colon three times a day during weeklong experiments to simulate human eating.

Ian Marcus, who recently earned his Ph.D. from the Bourns College of Engineering, said discussion of the research often left people a bit perplexed.

“People would give a kind-of-interested-but-definitely-don’t-talk-about-it-during-dinner look because we’re literally dealing with crap,” Marcus said. “It has got the smell. It has got everything.”

The idea for the project came after Marcus noticed that scientists typically study bacteria in an isolated environment under ideal growing conditions. That presents a problem because bacteria typically proliferate in microbial communities with other microorganisms such as archaea, fungi and protozoa.

Marcus set out to solve that problem by creating a simulated environment where the life cycle of bacteria (he used a pathogenic strain of E. coli in these experiments) and the microbial communities they live in can be studied from the human colon to water treatment to groundwater.

In the past, researchers have simulated the gut of humans and synthetic aquatic environments, but no one had combined the two, as far as Marcus can tell.

By comparing his finding with those of researchers who worked with bacteria in an isolated environment, Marcus found that the E. coli strain in the microbial community may be less mobile in aquatic environments and more prone to biofilm that than the isolated strain.

This means that the E. coli would linger longer in the environment, since biofilm provides a refuge for all the microorganisms within it. When the biofilm matures, it sends out bacteria to colonize another surface, thus the bacteria could survive in the environment for longer periods of time.

“This means that pathogens could potentially linger longer, and over a long period of time travel greater distances in the groundwater,” Marcus said.

Marcus said his research shows you should study microorganisms as close as possible in their natural habi-
Marcus, who worked in the lab of Sharon Walker, an associate professor of chemical and environmental engineering, had his findings published in a paper called “Linking Microbial Community Structure to Function in Representative Simulated Systems” in the journal *Applied Environmental Microbiology*. Co-authors were Walker, and Hailey A. Wilder and Shanin J. Quazi, both former students in Walker’s lab.

“It is a pleasure to work with a student who can think outside of the box and bring in fresh ideas on how we can approach our research,” Walker said. “Ian’s work has provided critical new insight into how microbial communities behave in wastewater treatment and contribute to biological contamination of water, which really changes the paradigm of how we do research and manage our water resources.”

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**Twelve Undergraduates Named as Chancellor Research Fellows for 2013-14**

By Ross French

A dozen undergraduate students at UCR have been named Chancellor Research Fellows for the 2013-14 academic year. The program, now in its second year, is designed to encourage the development of faculty-mentored research and scholarly and creative activity among UCR’s undergraduate student population through a maximum award of $5,000, which can be used for a research stipend, materials and supplies, and travel expenses.

“Being able to participate in research is why many students apply to a research university, and we want to provide students with the opportunity to link with some of the top researchers in their areas of interest,” explained Veronique Rorive, director of undergraduate research in the Office of Undergraduate Education.

A total of 44 undergraduates applied for the 12 fellowship spots. Applications were reviewed by a diverse faculty committee consisting of Shan-Wen Tsai, associate professor of physics and astronomy; Kim Hammond, professor of biology and director of Natural Reserve System; David Kisailus, assistant professor of chemical and environmental engineering; Augustine Kposowa, professor of sociology; Deborah Wong, professor of music; Helen Regan, associate professor of biology; and Gregor Blaha, assistant professor of biochemistry.

Fellowship recipients are required to complete a research project or creative activity and present it at the annual Symposium for Undergraduate Research, Scholarship, and Creative
Activity in May 2014. They also must provide quarterly progress reports and reflections and participate in monthly meetings.

Rorive said that research and creative activities under the guidance of a faculty mentor can improve the undergraduate experience.

“Programs like these can significantly enhance the learning process,” she said. “Students develop skills and attitudes that will be used throughout their lifetime no matter what career they may choose.”

But the fellowship is about much more than just furthering one’s academic career. Insia Hirawala, a junior psychology major from Placentia, Calif., who worked as a research assistant with Professor Rebekah Richert in the UCR Child Cognition Lab, hopes her research into the role Muslim religious teachings play into children’s cognitive development will expand upon past research that has predominantly focused on Christian and Jewish populations.

“My research project will focus on a population of 40 Muslim families with children from the ages of 4 to 6 by conducting interviews with the children and providing questionnaires to their parents,” Hirawala said. “I hope this research can serve as a basis for more refined research in the future and others can draw consistent conclusions for the effects of children’s cognitive development coming from religious teachings in all three of the predominant monotheistic religions, Christianity, Judaism and Islam.”

**Chancellor Research Fellows for 2013-14**

The following students were selected as fellows:

Ariana Contreras (biological sciences) — “Environmental Factors Influencing Ratios of NOx/N2O Trace Gas Emissions in Arid Lands”

Faculty mentor: Darrel Jenerette (botany and plant sciences)

Fallon Fowler (entomology) — “Northern Flies at Southern Latitudes: Investigations of Range and Diapause in the Face Fly, Musca Autumnalis”

Faculty mentor: Bradley Mullens (entomology)

Insia Hirawala (psychology) — “Muslim Children’s Conceptualization of Allah and Prayer”

Faculty mentor: Rebekah Richert (psychology)

My Hua (English and biology) — “Is Third Hand Smoke from E-Cigarette Aerosol Harmful?”

Faculty mentor: Prue Talbot (cell biology and neuroscience)

Wun Huang (psychology) — “Computational Model of the Leader’s Expressive Style and Linguistic Patterns on Leadership”

Faculty mentor: Curt Burgess (psychology)

Josiah Keagy (physics) — “Atomic Layer Etching of Bismuth Selenide Using Iodine”
Faculty mentor: Jory Yarmoff (physics)

Ilya Lederman (bioengineering) — “Charge Network Analysis of Molecular Dynamics Trajectories and Patient Sequence Data of the V3 loop of HIV-1”

Faculty mentor: Dimitrios Morikis (bioengineering)

Christopher Miller (bioengineering) — “Evaluation of the Bioactivity of Anodized Magnesium with Nanoscale Surface Features for Orthopedic Application”

Faculty mentor: Huinan Liu (bioengineering)

Pauline Olsen (biochemistry and chemistry) — “Synthesis and Biological Activity of Gold (iii)-Based Anticancer Compounds”

Faculty mentor: Jack Eichler (chemistry)

Kyle Ricio (biology) — “Edge Effects on Arid Agricultural Plots and their Consequences on Plant Growth”

Faculty Mentor: Darrel Jenerette (botany and plant sciences)

Rebecca Villarrreal (political science and religious studies) — “Vietnamese and Latino Catholicisms: Multi-ethnic Religious Encounters and Sacred Space in Southern California”

Faculty mentor: Jennifer Hughes (history)

Danni Wei (art) — “Entering a World of Their Own: Mark-Making with Children on the Autism Spectrum”

Faculty mentor: Erika Suderburg (art)

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**Five Great UCR Moments in Pop Culture**

Welcome to Inside UCR’s newest feature, The Top!

Each issue, we’re presenting a list of UCR staff and faculty favorites — from restaurants to Zen gardens to events. This week, we’re featuring UCR’s contributions to the great abyss that we know as pop culture. In subsequent Inside UCR issues, we’re featuring “How You Know You’re a UCR Grad of the ’60s, ’70s, ‘80s and ’90s” — if you want to contribute, email lille.bose@ucr.edu.

**1. The Barn Was One of the Gateways to Coachella**

One of the oldest buildings on campus, the Barn was built in 1917. From the 1960s to the 1980s, it became a musical landmark at UCR as a venue for up-and-coming folk and pop acts. In the 1990s, Bill Fold, a Riverside native, promoted punk and rock shows at the Barn with his company, 98 Posse. Bands such as No Doubt, the Aquabats, Dance Hall Crashers and Blink 182 all performed at UCR, and Fold eventually went on to work with Goldenvoice as director/producer for the Coachella and Stagecoach festivals.
2. Former UCR Chancellor Tim White May on a Primetime Reality Show

On May 1, 2011, the Season 2 finale of the CBS reality television show “Undercover Bosses” aired an episode featuring former UCR Chancellor Timothy White. White spent a week undercover as Pete Weston, doing a variety of jobs across across the campus. He was a track coach, a chemistry professor, a campus tour guide and a staff member in the science library. This episode marks the only time a university campus has been featured on the Emmy-nominated show.

3. Our Scientific Research Inspires Comics Who are Big on the Internet

Matthew Inman, author of The Oatmeal Web comics (which gets 5 million views a month), recently declared his love for the mantis shrimp on his site, in detailed, illustrated glory. It was a comic partly inspired by the research of David Kisailus, assistant professor of chemical and environmental engineering. Kisailus is conducting research on the unique, fist-like club of the mantis shrimp and how it could be used to create military body armor and vehicle and aircraft frames. After the comic was published, Kisailus invited Inman to come to UCR and meet a real mantis shrimp.

4. ... And Can Also Be Used as the Basis for Movie Settings

James Cameron’s “Avatar” is set in 2154 on the lush moon Pandora, whose atmosphere — though toxic to humans — supports vegetation. To make its alien jungles believable, the filmmakers consulted Jodie Holt, professor of plant physiology, on plant life and the approaches a botanist might take in the off-world setting. For two years, Holt provided textual details for the film. She also gave actor Sigourney Weaver, who plays a botanist in the film, some pointers.

5. Of Course, We Perpetuate Pop Culture, Too

The Harlem Shake craze, an Internet meme that popped up on YouTube, Facebook and Twitter in the thousands since the first video went viral in early February, left its mark on UCR as well. Several versions of the Harlem Shake meme were created on campus. The biggest was a gathering of more than 300 students at the bell tower. Other videos include a performance by the UCR track and field team, a group of students dancing at the Orbach Science Library, and by the residents of the F1 hall of East Lothian.

Getting Personal

Laurie Graham, Principal Lab Mechanician in the Departments of Earth Sciences and Biology

by Konrad Nagy

The multitalented Laurie Graham is so many things wrapped up into one that her job title sounds like a made-up word. While some may boast about their keen sense of smell or impeccable hair, Graham — a machinist, technician and electrician — can confidently say she can build just about anything.

And for the past eight years, Graham has built countless things for UCR scientists and researchers. The principal lab mechanic (yes, that’s a word) works in the departments of earth sciences and biology to create or repair equipment for use in various labs.

On the day-to-day, she uses a large assortment of machines, mills and lathes. She works mainly with plastic because it is easy to clean. She creates lab equipment such as vials and beakers, repairs centrifuges and rocker tables, and even does maintenance on cage washers for the campus veterinarians. She has worked on atmospheric chambers, mass spectrometers and the fine-tuning of tubing and porting in metabolic chambers. She’s currently
building a wind tunnel with sound-deafening capabilities for use in studying hummingbirds.

“This is my dream job because I get to work on different things all the time,” Graham said.

Graham got her start at UCR working in CE-CERT. A robust skill set enabled her to excel at creating high quality and precision equipment in nearly every area of scientific study. From her teens to her mid-20s, she worked as an aircraft mechanic, earning a degree from Chaffey College. In 1995, she earned a degree in electronics from DeVry University, which enabled her to work on robotics, medical and diagnostic equipment.

She can trace her love of machining to her father, who had a machine shop and taught her, at a young age, how to work with aircraft sheet metal and circuit boards.

“The great thing about my job is that there is always something new,” Graham said. “I can use all of my schooling to build something new every day.”

Another thing that makes Graham’s a “dream job” is the fact that her husband, Craig Graham works on campus in Pierce Hall as a principal electrical technician. The two are sometimes able to collaborate and work on projects together as a team. Graham also has many students working under her and enjoys helping her students along.

“I try to keep up on research and instill safety in students to impress good life skills upon them.”

DID YOU KNOW?

Scotmail Moving to a Digest Format for Staff

UCR’s Scotmail system was developed many years ago to enable effective communications with UCR faculty, staff, and students concerning university business and events. As the campus has grown, the number of messages sent via Scotmail has increased significantly. In an effort to address the large amount of email that staff and faculty receive, University Advancement and Business and Administrative Services will implement a new Scotmail daily digest mode list beginning June 24.

The daily digest will be delivered in a message sent out at 12:30 p.m. daily. Staff members will automatically receive this daily digest; the distribution process for students, faculty, MSO and academic nonsenate will remain the same. Faculty members, students and external UCR affiliates can elect to receive the digest by subscribing to it at Mail Services’ website at ucrmail.ucr.edu. Emergency messages and Scotmail approved by a dean or vice chancellor will be sent in the traditional fashion. For additional information, go to cnc.ucr.edu/scotmail-digest.

Incredible Bulk Event Returns to UCR and the University Neighborhood

UC Riverside and the city of Riverside are teaming up to hold the sixth annual Incredible Bulk Event on Saturday, June 22, from 8 a.m. to 1 p.m. in UCR Parking Lot 24. It is sponsored by the city of Riverside, UCR and
Keep Riverside Clean & Beautiful.

Riverside residents and UCR students, faculty and staff can drop off unwanted bulky items, including furniture, refrigerators, mattresses and electronics at no cost. Household hazardous waste, such as antifreeze, batteries, oil and paint will not be accepted.

Participation is limited to city of Riverside residents and UCR students, faculty and staff. Those dropping off items must show proof of residency or campus affiliation. Lot 24 is located on Canyon Crest Drive, between University and Linden avenues. For more information, call (951) 827-7073.

UCR ADA Transition Plan Update

UCR is seeking public comment on the draft Americans with Disabilities Act (ADA) Transition Plan Update document through July 16.

In response to the 1992 ADA legislation, UCR conducted a self-evaluation to ensure compliance with Title II of ADA across all programs, activities and services to qualified individuals with disabilities. The resulting “1992 ADA Transition Plan” identified barriers that needed to be removed from the campus to be in compliance with ADA.

Growth at UCR since 1992 has been significant, and continued growth is expected. Over the past decade alone, enrollment has increase by approximately 44 percent to more than 21,000 students in 2012 and approximately 1.2 million square feet of space in new facilities added. In 2009, Capital Programs hired a consultant team and initiated an update to the transition plan to reflect this significant growth, and to ensure compliance with not only Title II of the ADA but also Title 24 of the California Building Standards Code with regard to public access. A total of 123 locations or facilities on campus were included in the scope of the current Transition Plan Update.

Compliance with ADA specifically relating to the physical environment of the campus comes under the purview of the Office of the Vice Chancellor for Business and Administrative Services (BAS).

The draft document may be accessed via the following link: cpp.ucr.edu/adatrans.html. In addition, the public may comment in person at a meeting on Tuesday, June 25, between 10:30 a.m. and noon in Chung Hall 138. Accessible parking is available in Lot 16. Comments via email may be addressed to: ADAtransitionplanupdate@ucr.edu.

Who Says?

“It’s really cool. If you turn the fruit upside down and cut it longways, it looks like a heart. It has a really interesting flavor.”

Tracy Kahn, curator of UCR’s Citrus Variety Collection, on the Valentine, a new citrus fruit developed at UCR’s Agricultural Experiment Station - Citrus Research Center, that is part pummelo, part mandarin, and part ruby hybrid

CAPITAL PRESS

“Today’s report is very heartening because it demonstrates, along other recent rankings of scientific impact, that UCR is a national leader with respect to both academic excellence and access.”
Dallas Rabenstein, executive vice chancellor and provost, on UCR being among six institutions hailed in a national study by the New America Foundation as a “Next Generation University” for success in enhancing student outcomes and maintaining robust research profiles despite economic pressures

SAN FRANCISCO CHRONICLE

“If we say that moral reflection has only abstract value we lose something huge. Part of the justification of teaching business ethics, medical ethics and personal values is the hope that we can have a positive effect on the behavior of you and me.”

Eric Schwitzgebel, professor of philosophy, on his and Joshua Rust’s research, which finds that professional ethicists do not do better at demonstrating moral behavior

SCIENCE DAILY

“The research should push forward the frontiers of knowledge about death and immortality in various ways. I expect that we will advance our understanding of the prospects for increasing human longevity.”

John M. Fischer, distinguished professor of philosophy, on the Immortality Project, a study on near-death experiences, belief in an afterlife, and genes that prevent a species of freshwater hydra from aging, among other phenomena

NEWS-MEDICAL.NET

“We've known about this form of behavioral resistance for a long time, but there really hasn’t been an explanation as to exactly how this behavioral change occurred. This is a nice elegant little study that shows there has been a remarkable change in how the bitter and sweet receptors are working in the mouthparts of the cockroach.”

Michael Rust, distinguished professor of entomology, on a study that explains how cockroaches have evolved a glucose-avoiding behavior and why certain cockroaches have been avoiding insecticide containing sugary bait

THE SCIENTIST

“The warning gets there before the shaking does and this will allow for certain things to happen very, very rapidly, like the shutting down of gas lines and the stopping of trains, things like that.”

David Oglesby, associate professor of geophysics, on a California bill calling for a statewide earthquake early-warning system

ABC LOCAL

“GMO technologies have been around since the early 1970s and have given us many useful products, from human insulin to safer crops grown with fewer pesticides.”

Alan McHughen, CE plant biotechnologist, on being in favor of genetically modified foods

TUCSONCITIZEN.COM
Awards and Honors

Conway Appointed to the Schoenberg Database of Manuscripts

Melissa Conway, head of Special Collections & Archives, has been appointed to the planning committee of the Schoenberg Database of Manuscripts at the University of Pennsylvania. The committee comprises 12 international manuscript scholars and IT specialists charged with transforming the database into a community-built, universal finding aid for pre-1600 manuscript books worldwide. The first meeting of the committee took place April 23-25 in Philadelphia, Penn.

Conway also was invited to present a paper May 11 at the 48th International Congress of Medieval Studies in Kalamazoo, Mich., in the Schoenberg Database of Manuscripts-sponsored session “ ‘The Greatest Sport’: Histories of Collecting Medieval Manuscripts.” Conway and co-author Lisa Fagin Davis of the California Rare Book School presented the paper, “Manuscripts Lost, Manuscripts Found: Using the Schoenberg Database to Track the Movement of Manuscripts in North America.”

Craig Byus Receives Lifetime Achievement in Medical Education Award

Craig V. Byus, Ph.D., senior associate dean of academic affairs and research in the UCR School of Medicine, received the Lifetime Achievement in Medical Education Award from the David Geffen School of Medicine at UCLA on May 22.

Dr. Alan Robinson, associate vice chancellor and senior associate dean at the David Geffen School of Medicine at UCLA, presented the award to Byus at the UCR School of Medicine’s annual clinical faculty recognition and student awards ceremony in downtown Riverside.

Byus is only the third recipient of the Lifetime Achievement Award in its 18-year existence. In addition to his exemplary career in teaching and service, the award recognizes his leadership in the complete redesign of the UCR/UCLA Thomas Haider Program in Biomedical Sciences, which resulted in a program geared toward diversifying the physician workforce and training physicians who would serve the underserved populations within Inland Southern California.

UCR Alumnus Akhil Rao Named as Coro Fellow

For the second year in a row, a UCR alumnus has been named to the Coro Fellows Program in Public Affairs. Akhil Rao, who graduated with honors in 2012 with a bachelor’s degree in business administration and a minor in economics, was named as one of 64 fellows for 2013-14 in February.

The Coro is a full-time, nine-month, graduate-level experiential leadership training program that teaches effective and ethical leadership in the public affairs arena, providing participants with great opportunities for personal and professional growth.

“I’m hoping that the program will give me an opportunity to learn about and connect with the diverse actors in the public affairs arena. I’m interested in policy-oriented research, and I’m hoping that that ‘on the ground’ knowledge will inform my work and make it better,” Rao said.

Pazzani Appointed to CENIC

Michael Pazzani, UCR’s vice chancellor for research and economic development, was named as one of the three UC-appointed directors for the Corporation for Education Network Initiatives in California. President
Mark Yudof made the appointment on June 5; Pazzani serve a two-year term, from July 1 to June 30, 2014.

Jun Li and Xinping Cui Elected to International Statistical Institute

Jun Li and Xinping Cui, both associate professors of statistics, have been elected as members of the International Statistical Institute (ISI). Elected membership in ISI carries the prestige of a successful formal committee review of an applicant’s credentials and implies having reached a high bar of scholarly productivity.

The ISI has an extensive global reach among statisticians and those interested in the field of statistics. The institute is also an association that links national statistical societies, with special focus on societies in the developing regions of the world. A majority of the world’s central bureaus of statistics are represented within the ISI network.

UCR’s Sustainability Efforts Earn Silver STARS Ranking

For the first time, the Sustainable Tracking Assessment and Rating System (STARS) has given a “Silver” rating to UCR in recognition of the campus’ sustainability efforts, including curriculum and research, operations, diversity and planning.

STARS is a voluntary benchmarking tool created by the Association for the Advancement of Sustainability in Higher Education (AASHE) specifically for colleges and universities. It is designed to build a stronger, more diverse campus sustainability community by providing a framework for understanding sustainability in all sectors of higher education, creating a common set of measurements that can enable meaningful comparisons over time, create incentives for continual improvement toward sustainability and facility sharing about higher education practices and performance.

Compiling the information for the report took eight months and involved dozens of staff, faculty and students. The data is used by The Princeton Review and Sierra Magazine to compile their annual “green” issues.

UCR is one of six UC schools to participate in the survey. UC Santa Barbara, UC Irvine and UC San Diego earned gold rankings, while UCLA and UC Merced joined UCR in the silver category.

Research and Scholarship

The National Endowment for the Humanities has awarded researchers at UCR a $60,000 grant to continue their development of face-recognition software to help identify unknown subjects of portrait art.

A $25,000 grant in 2012 allowed the research team — Conrad Rudolph, professor of art history; Amit Roy-Chowdhury, professor of electrical engineering; and Jeanette Kohl, associate professor of art history — to begin establishing general parameters of the technology to recognize faces in portrait art. In one example of their success, the software was able to recognize two three-dimensional portraits of the same individual, a death mask and bust of 15th century Italian statesman Lorenzo de’ Medici.

In the second phase of the project, “FACES: Faces, Art, and Computerized Evaluation Systems,” the researchers will build on their initial successes to study the applicability of automated face-recognition technologies for analyzing portraits under different paradigms, including artist and period styles. They also will continue development of an algorithm robust enough to deal with the problems of angle views, aging and personal artistic style that it can determine the likelihood of a probable match.

John Martin Fischer Awarded an Additional $100,000 for Immortality Research
The John Templeton Foundation has awarded UCR philosophy professor John Martin Fischer an additional $100,000 to support research on issues related to immortality.

This latest grant will fund four graduate fellowships at UCR — two each for the next two academic years — for immortality studies, and a weeklong workshop for young scholars from around the world prior to the June 2015 capstone conference for The Immortality Project.

“We are very excited about this supplementary grant,” Fischer said. “We are grateful both to the John Templeton Foundation and also to UCR for providing additional support that will allow us to provide the four graduate fellowships. Specifically, the dean of the Graduate Division, Joseph Childers, has been very generous in providing additional financial resources.”

The Immortality Project was established at UCR in 2012 with a $5 million, three-year grant from the John Templeton Foundation to undertake a rigorous examination of a wide range of issues related to immortality. Fischer, a distinguished professor of philosophy who is widely regarded as the world’s leading philosopher on free will, is the project’s principal investigator.