

Budget Myths, Facts Addressed at Senate Meeting

Chancellor White asks faculty to write to the governor expressing their concern over the future of the university.

By Marcia McQuern

The campus' Dec. 1 Academic Senate meeting was dominated by discussion of budget issues facing UCR.

Chancellor Timothy P. White told the more than 120 who attended that he and the Senate share the goal of assuring the excellence of the University of California, adding that "it is important to have the facts in front of us, for decisions to be public with the rationale for them explained."

He addressed five myths he has been hearing about the university's budget situation:

- Myth: UC has more than \$5 billion in unrestricted net assets that could be used to avoid budget cuts.

Facts: This money is committed to academic programs, research initiatives, capital projects, scholarships and other purposes. The word "unrestricted" is used in an accounting sense in that this money is not restricted by, for example, federal grant terms. The amount in this category has been declining rapidly and will be less than \$1 billion next year.

- Myth: The UC medical centers have money in reserve we could use.

Facts: The five hospitals have \$400 million in reserve, far less than the \$3 billion recommended to deal with

hold-ups with federal and other payments to handle 190 days of cash flow.

- Myth: UC is using student fees to pay for buildings.

Facts: Not a penny of the student education fee goes to construction or debt service. Since education fees are considered part of general revenue, they do help the university get low interest rates for its construction bonds.

- Myth: UC is in decline.

Facts: Excellent people are still choosing to come here. While we are doing less, what we do we must do with excellence.

- Myth: There are no faculty merit raises or grants of tenure.

Facts: We are spending \$1.5 million in faculty merits this year and intend to keep granting the raises that go with promotions to the next step, even though the state is not giving us the money for it. No assistant professor will be refused tenure for budget reasons. They must simply perform to our national standards.

He noted that health costs have gone up 11 percent, yet UCR employees will see no increase in 2010. Similarly, in April the university will start contributing 4 percent of each employee's salary to their retirement, but employees will pay no more than the 2 percent they pay now into the defined contribution fund.

Passing out stamped, hand-addressed

envelopes donated by the Citizens University Committee, he urged faculty members to briefly write the governor on personal stationery explaining in their own words their dismay at the state's disinvestment in the university.

"The time for the governor is now" because he is preparing the next fiscal year's budget proposal for release in January, White said.

The chair of the systemwide Academic Senate, Dr. Harry Powell, earlier had told attendees, "We need to explain ourselves to our neighbors, the legislature and the public at large. There is need for advocacy; this is the business of every member of the faculty, the staff and student body."

Associate Professor Karthick Ramakrishnan, saying he represented the concerns of "40 to 120 to 150 faculty" members, presented two of five resolutions that had been sent out to faculty members a week earlier.

One called on the state government and regents to reaffirm their shared commitment to carrying out the master plan for higher education. It passed on a vote of 52-4 with five abstentions.

A second resolution on campus equity and shared governance was referred, after extensive discussion, to an e-mailed ballot, which was scheduled to be sent out last Friday.

The ballot includes Ramakrishnan's resolutions on meaningful fiscal transparency; ensuring solvency in retirement benefits; and the UCR strategic planning process as well as one proposed by Professor Harry Green asking for more hires of tenure-track faculty, instead of using the money for other purposes.

Student Protest Sophisticated, Respectful

Teach-in, study-in held in conjunction with regents' decision to raise fees by 32 percent.

By Kris Lovekin

The campus community responded with teach-ins and protests to a UC regents meeting last month that included action to increase student fees.

During a teach-in at the HUB that was sponsored by UCR Labor Studies and other groups, Associate Professor Karthick Ramakrishnan explained California's "boom and bust" economy and the shrinking state support for education.

Students put their names on sign-up sheets to ride buses to UCLA to join a throng of student protesters at the regents meeting.

At a Nov. 18 protest approximately 30 students held a "study-in" on the first floor of Hinderaker Hall and another 25 to 30 were on the first floor of the student services building.

After 5 p.m., at the request of UC police, all the protesters moved to Hinderaker Hall.

UCR police Lt. John Freese commended the protestors for their willingness to talk things out.

"With some protests there is a lack of cooperation, but this time we had a student leader willing to meet and discuss their desires," said Freese, who graduated from UCR and has served as a police officer at UCR for 15 years.

Freese and Vice Chancellor Jim Sandoval did most of the negotiating.

But when protesters insisted they needed to talk to the chancellor, Tim White had a long talk with student leader Roberto Rodriguez, via cell phone from the regents meeting at UCLA.

"He was very soft-spoken and very sincere and we had a powerful conversation," said White.

He asked Rodriguez to put his feelings in writing and he committed to taking a trip to Sacramento together. "I'm going to get some doors open and then I'm going to introduce him and let him talk."

The chancellor said he argued that he had a responsibility to his staff to get them home at a reasonable hour. "I said they deserved to be at home with their families tonight. The students agreed to leave at 10 p.m."

"Minutes before 10 p.m., they started to pick up their blankets, pillows, laptop computers and bicycles, and left chanting, 'Whose university? Our university!'" said Freese. "Whatever happens, we deal with it. But I was glad to see that they honored the agreement."

At UC Santa Cruz, the protest lasted four days and resulted in thousands of dollars in damage.

"I was pleased to see that the Riverside students were respectful and did not damage any property," Freese said.

Chancellor White said he was proud that students made their point with respect for the campus. "These men and women are much more sophisticated than just protesters. They are dismayed, frustrated, they wonder if there is hope, if their voice is being heard."

He said he felt moved to help get their voices heard.

Vice Chancellor Sandoval is working to find a way to get about 16 students to a March 1 event in Sacramento to lobby legislators for more investment in the University of California. He said he would use non-state funds to do so.

"Since the Office of the President is calling on all the campuses to get advocates to Sacramento, this is one good opportunity for us to be talking about the importance of the University of California," Sandoval said.

Hollywood Grows on Botany and Plant Scientist Holt

By Iqbal Pittalwala

James Cameron's "Avatar," which opens worldwide Dec. 18, is being touted as a movie that takes viewers "to a spectacular world beyond imagination."

To achieve that promise the film pays close attention to details in creating a futuristic alien world.

Light-years away from Earth in Cameron's Avatar-world is the lush moon Pandora, whose atmosphere, though toxic to humans, supports vegetation.

To depict the vegetation accurately, the filmmakers consulted Jodie Holt, chair of the Department of Botany and Plant Sciences.

Holt served as a consultant and expert on Pandora's vegetation and provided textual details for the game products that the film will launch. She also gave pointers to actress Sigourney Weaver, who plays a botanist in the film.

Holt said she plans to see "Avatar" twice. In her first viewing, which will take place Dec. 15 at the cast and crew screening at Grauman's Chinese Theater, Hollywood, she said she will surrender to the film and enjoy it. In her second viewing, though, she intends to pay close attention to the plants.

Recently, Inside UCR spoke with Holt.

How did your involvement with the film get its start?

Holt: It began with an unexpected phone call in 2007 to Professor Patricia Springer, a developmental cell biologist here at UCR. The caller was looking for a field botanist, and Patricia passed along that message to me, and suggested I return the call. Thus began a two-year involvement with "Avatar."

How did you help?

Holt: In 2007, I was asked to consult with an A-list actress who plays a botanist in the movie. She turned out to be Sigourney Weaver. My role was to advise her on how a botanist might dress and act.

I met with her in her trailer in a sound studio in Playa del Rey in Los Angeles, and we had a long conversation. A set designer was also present during this meeting. I gave Weaver advice on topics like how a botanist would approach a plant and take samples.



Jodie Holt worked closely with the filmmakers for the soon-to-be-released movie "Avatar."

Photo by Iqbal Pittalwala

With the set designer, I later engaged in an e-mail communication in which I advised him on the sets and equipment that Sigourney Weaver could use in her work as a botanist. I also shared information with him about plant physiology and plant sampling.

For a period of months, we exchanged a number of images about equipment a botanist might use to study plants, and I wrote him short lectures on the plants.

Then, in the fall of 2008, I was told that James Cameron was developing a whole suite of game products. I was asked if I would help out by developing content around the plants that appear in the games. I agreed. So in December 2008, I met with Cameron and Jon Landau, the co-producer, in the sound studio, and agreed to develop Wikipedia-type entries for the plants.

In the game products, players can pause near a plant of interest and read up about it by clicking open an entry about that plant. I provided the content for these entries. Cameron

and Landau were looking for credible botanical information for all these fantastic-looking plants.

My challenge was to come up with explanations for why Pandora's environment would select for the kinds of plants the game products have. Some of these plants are fluorescent, some can move, some can fire things off. Clearly, we're not in Kansas anymore!

Would you collaborate on a project like this again?

Holt: Most definitely! I was treated like a vital member of the team. Everyone was casual and informal. Cameron was clearly in charge, and seemed to thoroughly enjoy discussions and good arguments around how things should be.

It was fun for me to work with him and his team.

They have a wholly different structure and framework to doing work, an entirely different way of doing business, than we in academia have. All of which made for a rewarding and memorable experience for me.

Getting Personal



John Maxwell

Name: John Maxwell

Department: Athletics

Job: Assistant athletics director, media relations

Length of employment at UCR: 18 months

My work focuses on: Publicizing all 17 of UCR's Division I athletics programs. The largest piece of the publicity puzzle is probably the updating of our new Web site, www.gohighlanders.com. My assistant, Lauren Kane, and I are responsible for creating all of the content contained therein. When visiting the site you can read pre-game and post-game stories, listen to live audio broadcasts, view live stats of games

in progress, peruse athlete bios and learn about our rich athletics history. We also are responsible for working with local, regional and national media to get the word out about UCR Athletics; designing all of our media guides and publications; and acting as the historical caretaker of all athletics-related information and media.

Things you should know: My 18-year-old cat's name is MeatLoaf ... named after the singer not the food. She's a "cat out of hell," get it? Had David Lee Roth not reunited with Van Halen when he did in 2007, I would almost assuredly not be employed by UC Riverside. Ask me about it sometime. I worked in the NBA and WNBA for 11 years in Charlotte, New York and Detroit, and I have a 2006 WNBA Championship ring thanks to the likes of Bill Laimbeer, Rick Mahorn, Swin Cash and Katie Smith. I could eat sushi every meal every day. There are no such things as bad horror movies, only better horror movies. 1980s-era spandex and mullet haircuts will come back in style one of these days, and I am prepared for that inevitability. You should be too.

National Academy Member Joins Faculty

Susan R. Wessler, a world-renowned expert in transposable elements, a crucial facet of genetics, has accepted an appointment as a distinguished professor of genetics in the Department of Botany and Plant Sciences. She will arrive on campus in September 2010.

Wessler was elected in 1998 to the National Academy of Sciences (NAS), the most prestigious scientific organization in the United States, as a result of her research that "provided the most comprehensive picture of the interaction between transposable elements and plant genes," according to the NAS citation.

Transposable elements are DNA sequences that move from one location in the genome to another. They are known also as "jumping genes" or transposons.

A Howard Hughes Medical Institute Professor, Wessler currently holds a Foundation Chair in the Biological Sciences at the University of Georgia, where she has been on the faculty since 1983.

Her Howard Hughes Medical Institute program is funded by a grant to pursue a project titled "The Dynamic Genome: Introducing Evolution to Undergraduates," which she has been leading for three years. The project teaches computational and experimental tools of genome analysis to students as early as their freshman year.

"As we mobilize to sustain the

campus' competitive advantage in science, technology, engineering, and mathematics, Dr. Wessler brings a superb record of achievement in both research and science education," said Chancellor Timothy P. White. "She adds a further prominence to our already strong genomics group."

Discovered in the 1940s, for years transposable elements were thought to be unimportant and were called "junk DNA." Scientists now recognize that transposable elements play vital roles, from guiding developmental processes to maintaining genome stability.

Wessler's work has transformed the understanding of genome evolution by showing how transposable elements diversify genes and genomes and, in doing so, contribute the raw material used by plants and animals to adapt to an ever-changing environment.

Wessler has pioneered an experimental and forward-looking teaching style by replicating her research program as an undergraduate classroom laboratory where students are often the first to analyze transposable elements in genomes by using both computational and experimental approaches.

Thomas Baldwin, dean of the College of Natural and Agricultural Sciences, noted that Wessler's teaching program represents a new and promising development in the teaching of



Susan R. Wessler

science.

"We are collaborating with the Graduate School of Education to establish a joint program in science education for Dr. Wessler to continue her valuable work in getting students not just trained, but excited about science," he said.

Wessler received a B.S. with honors in biology from the State University of New York at Stony Brook in 1974 and a Ph.D. in biochemistry from Cornell University in 1980. She joined the University of Georgia faculty after a postdoctoral appointment at the Carnegie Institution.

Her appointment brings to four the number of current UCR faculty who are NAS members.

Sara Clausen and Iqbal Pittalwala contributed to this story.

Regents Give UCR More Control Over Construction

By Kris Lovekin

A recent vote of the UC Board of Regents allows UCR's chancellor to approve campus construction projects at values less than \$60 million.

"It is an endorsement by the regents that we have the vision for the development of the campus, a 10-year capital financial plan, and the tools and protocols to direct the capital and design process at the campus," said Don Caskey, campus architect. "The program to delegate this control to the campuses is a 'pilot' and the Office of the President reserves the right to audit the results over time to ascertain whether we followed the process and vision that we articulated to the regents."

He said UCR will be able to take care of most construction projects without taking them to the regents for approval, which will streamline parts of the capital programs process, saving time and money. "The procedures required in taking projects to the regents for approval is protracted, to say the least. It adds at least four to five months to a project because it happens at multiple intervals."

Previously, the campus had to seek approval for any project that cost more than \$5 million.

During the presentation to the Grounds and Building Committee, Chancellor Timothy P. White and Caskey reviewed the campus planning

process, showing how the campus will grow in ways that are consistent with its heritage, environmental sustainability and educational mission. For instance, future art and performance venues will be developed with the entries to the campus accessible to the public. The historic Barn, already a lunch spot, will be the center of an expanded dining and entertainment venue that will include KUCR and a small coffeehouse. Nearby the campus will develop a roundabout and a landscaped pedestrian plaza for both vehicle drop-off and stops for alternative transportation.

"The first phase of the Barn project is just under way and should be accomplished within two to three years," Caskey said.

Awards & Honors

Aslan Book

Blackwell UK has placed **Reza Aslan's** book "No god but God: The Origins, Evolution and Future of Islam," on its list of the 100 most important books of the decade.

Aslan is an assistant professor of creative writing.

Gupta Named Fellow of ACM

Professor of Computer Science and Engineering **Rajiv Gupta** has been recognized as a fellow of the

Association for Computing Machinery (ACM), a national educational and scientific computing society.

Gupta was one of 47 international members named fellows for 2009 by the association, according to its Dec. 1 announcement. They will be formally recognized at the ACM's annual awards banquet next June.

Achieving the status of fellow denotes exceptional contributions in the computing field.

Gupta's citation is "for contributions to program analysis and optimization and professional service to the computer science research community."

Fellows were selected from the world's leading universities, industries and research labs. They received this honor for contributing fundamental knowledge to the field and generating a broad range of innovations in industry, commerce, entertainment and education.

Who Says?

"Health care reform will fail to achieve its promise of affordable access to medical care unless the nation's physician workforce is substantially expanded to meet the demand that newly insured patients will place on an already over-burdened system."

Timothy P. White, chancellor, speaking about the pressing need to increase the number of doctors and other health care workers to implement the president's health care plan.

WALL STREET JOURNAL

"The sky is not falling. We still can adapt the system."

Kaveh Madani, a postdoctoral fellow at the Water Science and Policy Center, speaking on the possibility that California's high-elevation dams could generate considerably less power over the next 40 years as a result of rising temperatures associated with climate change

THE NEW YORK TIMES

"I do think she has become a cog in the machine of conservative evangelicals in such a way that I think we can learn a lesson as it relates to how we profess our faith in public."

Jonathan Walton, assistant professor of religious studies, speaking about the controversy surrounding beauty pageant contestant Carrie Prejean's stance against same-sex marriage.

THE TAVIS SMILEY SHOW

"The Inland Empire is a newer destination than other metropolitan areas, so you're less likely to have (immigrant) seniors who are outside the work force."

Karthick Ramakrishnan, associate professor of political science, on the increase in immigrant populations in Riverside and San Bernardino counties due to increasing construction and other growth-related jobs.

THE PRESS-ENTERPRISE

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People

In Memoriam

Todd Ransom, a senior public information officer in the Office of Strategic Communications, died on Nov. 24.

Mr. Ransom worked at UCR for more than two years. He was assigned to cover news out of SOBA, GSOE and the College of Engineering.

Before that he worked in corporate communications at the headquarters of H&R Block in Kansas City, Mo., where he did media training for hundreds of executives. He is survived by his mother, Millie, and his sister, Kerry.

A celebration of his life has been set for 2 p.m. Saturday, Dec. 19, at

the Friendship Center at 5899 Venice Blvd. in Los Angeles. The family has identified Pet Orphans of Southern California and AIDS Healthcare Foundation as two possible places for memorial donations.

Staff Elected to PRSA

Bettye Miller, a senior public information officer for the Office of Strategic Communications, has been elected to the board of the California Inland Empire Chapter of the Public Relations Society of America. She will serve as the Assembly delegate for 2010. Miller has worked at UCR since March 2007, covering the College of Humanities, Arts, and Social Sciences.

Collaborative Program Links UCR/ Belgium

By Iqbal Pittalwala

The Department of Nematology has set up formal collaborative links with the academic network of the European Master of Science in Nematology / Postgraduate International Nematology Course (EUMAINE/PINC) as coordinated by Ghent University, Belgium.

A number of faculty members and researchers in the department have successfully applied for a EUMAINE scholarship and visited Ghent University to present seminars, give lectures on various specialized subjects, discuss ongoing or future research collaborations, and interact with the EUMAINE/PINC students socially as well as academically.

James Baldwin, chair of the department, visited Ghent University in early May and presented lectures on scientific illustration, evolution of the nematode sensory systems, evolution of plant parasitism and computer-assisted aids for identification.

Isgouhi Kaloshian, a professor of nematology, visited both Ghent University and Wageningen University (the Netherlands), to present seminars on resistance pathways against nematodes and aphids. She also presented students an outline of opportunities for pursuing Ph.D. degrees in U.S. universities and



Students and faculty members team up for EUMAINE/PINC

advised them about the application process.

During March-April, Oleksandr Holovachov, a postdoctoral researcher in the department, visited the University of Jaén (Spain), Ghent University and Wageningen University, to present seminars. He also explored slide collections at each institution, as well as the Royal Institute for Natural Sciences, Brussels, and the Julius Kühn Institute, Münster, for specimens relevant to his ongoing research in systematics and phylogeny.

Paul De Ley, an associate professor of nematology, and Irma Tandin-gan De Ley, an assistant specialist in the department, visited Ghent University in March to collect image data from selected specimens in the research and type collections at Ghent University and the Royal Institute for Natural Sciences.

Research & Scholarship

Composition Premieres in Brazil

"Brazilian Chamber Symphony" ("Sinfonia de Camara Brasileira"), a new symphonic composition by **Paulo Chagas**, professor of composition in the Department of Music, premiered at the Teatro Sao Pedro in Sao Paulo, Brazil, on Nov. 18. The composition was commissioned by the Sao Paulo State Symphonic Band.



Paulo Chagas

Chagas' new chamber music composition for soprano, clarinet and piano, "Song of Sand" ("Cancao da Areia"), premiered at the SESC Paulista in Sao Paulo, performed by Brazilian soprano Katia Guedes, on Nov. 27.

Commissioned by Ensemble 88, Chagas also composed "Song of Eyes" ("Cancao dos Olhos") for soprano, cello and piano, which premiered in the Netherlands in July. The Brazilian premiere took place at the Brazilian Festival of Contemporary Music in Rio de Janeiro on Oct. 29.

Essay Gets Dramatic Delivery

"Steeped in Shakespeare," an academic essay by English professor **John Briggs**, was performed with dramatic interludes by Write Out Loud and the San Diego Shakespeare Society in a Dec. 8 event celebrating the 200th anniversary of Abraham Lincoln's birth.



John Briggs

Actor Walter Ritter read the paper and company members performed relevant excerpts from Shakespeare's plays. Briggs led a question-and-answer session with the audience afterward.

Briggs also presented a paper on Lincoln and literacy at the UCLA Lincoln Celebration in November and delivered another paper on "Romeo and Juliet" and the cure of souls at the "Politics and Shakespeare" conference at Assumption College in Worcester, Mass., in October.

Molecule Carriers on Display

The Center for New Technologies at the Deutsche Museum in Munich, Germany, now includes an exhibit on permanent display that illustrates research led by **Ludwig Bartels**, an associate professor of chemistry. The exhibit shows a system of molecule carriers that Bartels and his research team developed in 2007.

The Bartels lab showed that the carriers, which run along a copper surface, can each pick up and release up to two carbon dioxide molecules and transport them along a straight path.

"The use of machines at the scale of single molecules can be an extremely efficient way to build objects or deliver material," Bartels said. "Moreover, the molecule carrier mimics nature well. For example, in the human body, the molecule hemoglobin carries oxygen from and carbon dioxide to the lungs, thereby allowing us to breathe — and to live."

Bartels predicts that the transport of molecules will, in time, be as important to the field of molecu-

lar machinery as trucks and conveyor belts have become for factories of today.

The molecule carrier is the organic compound anthraquinone. Consisting of three fused benzene rings with one oxygen atom on each side, it is widely used in the pulp industry for turning cellulose from wood into paper and is the parent substance of a large class of dyes and pigments.

Miller Publishes Book, Journal Articles

"Television Studies: The Basics," written by **Toby Miller**, professor and chair of the Department of Media and Cultural Studies, was published in November by Routledge. The book is an introduction to the study of television, and examines the role and future of the medium.

Miller also edited "The Contemporary Hollywood Reader" (Routledge, June 2009), a collection of scholarly analyses of Hollywood after World War II, and contributed chapters to numerous books published this year.

Among recent journal articles are "Hollywood: Domination or Retreat? Past, Present, Future, Labor," with Richard Maxwell, *Studies of Broadcasting and Media*; "Reinvention Through Amnesia," with Mia Consalvo, *Critical Studies in Media Communication*; and "Afterward: Albert and Michael's Recombinant DNA," *Continuum: Journal of Media & Cultural Studies*.

Miller also was invited to address the Cultural Technologies/Cultures of Technology Symposium in Stockholm in October; the School of the Art Institute of Chicago in October; the Frontiers of New Media Symposium at the University of Utah in Salt Lake City in September; and presented by teleconference the keynote address, "Why Do First World Academics Think Cultural Imperialism Doesn't Matter When So Many Other People Disagree," at the American Studies Symposium of the Salzburg Global Seminar in September.

Salzman Invited as Visiting Scholar

Michele Salzman, University of California Presidential Chair in history and director of the Tri-Campus Classics Program, has been invited to be part of a visiting scholar program at the Institute of Advanced Studies of the Hebrew University of Jerusalem on Personal Versus Established Religion: Revision, Stagnation and Synthesis in Eastern Christian Thought and Praxis (5th-8th centuries). She will be in Israel in February.

The research group is connected with her work on reactions to the fall of Rome, which is the subject of an NEH Summer Seminar Salzman will direct at the American Academy in Rome. The seminar, "The 'Falls' of Rome: Transformations of Rome in Late Antiquity," is scheduled from June 28 through July 30, 2010.

Salzman also presented recent work on Pope Leo and Christian responses to crisis at the Society of Biblical Literatures annual meeting, Piety Workshop, in New Orleans in November.

Fuel Cell Research Gets Funded

Professor of Chemical and Environmental Engineering **Yushan Yan's** proposal "Quaternary

Phosphonium-based Hydroxide Exchange Membranes" is one of 37 selected for negotiations for the U.S. Department of Energy's newly formed Advanced Research Projects Agency-Energy (ARPA-E) awards for transformative energy research projects.

Yan's proposed project focuses on the development of a new generation of high-performance hydroxide exchange membrane fuel cells (HEMFCs). In the letter informing him of the selection, the DOE cited Yan's application as "... among those of the highest scientific and technical merit, and is part of an ARPA-E portfolio of high impact projects that have great potential to revolutionize the U.S. energy sector."

If successful, and assuming a reasonable market share, the technology will reduce gasoline consumption by 163 million barrels and eliminate 60 million metric tons of CO2 emissions every year.

Yan is also co-author of the paper, "High Performance Zeolite NaA Membranes on Polymer-Zeolite Composite Hollow Fiber Supports," published by the *Journal of the American Chemical Society* Nov. 6.

Ethanol from biomass has become increasingly important as a sustainable alternative fuel to gasoline. The ethanol from the fermentation process, however, is usually accompanied by a large amount of water (e.g., 90-95 percent) which has to be removed before it can be used as fuel. A typical separation process such as distillation is energy intensive. Zeolite membranes can perform the separation more efficiently if a membrane with high flux and selectivity is developed.

Yan and his co-authors

report a new strategy of using of polymer-zeolite composite hollow fibers as supports, potentially reducing production costs, eliminating one of the complex "seeding" steps and easily creating a very uniform crystal distribution, so continuous zeolite membranes with high flux and selectivity can be prepared with high reproducibility.

Real Estate and the Economy

"After the Crash: Designing a Depression-free Economy," by economics professor **Mason Gaffney**, was published in November by Wiley. The book analyzes how real estate boom-and-bust cycles contributed to the current economic crisis.

"There has long been a real estate cycle of about 18 years duration," Gaffney said. "Most macro-economists have missed it because they compartmentalize economics and fail to integrate real estate with their overall analyses and models of what determines GDP (gross domestic product) and employment. Periodic overpricing of land causes investors to sink too much capital into land-substitutes, which typically pay out slowly. This results in shortages of working capital and trade and consumer credit, as now."

Grant Funds Graphene "Quilts"

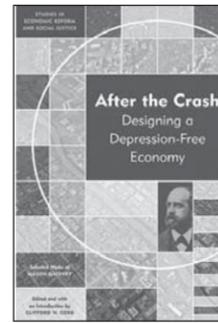
Alexander Balandin, professor of electrical engineering and

chair of the Program in Materials Science and Engineering, has received a \$420,000 grant from the U.S. Office of Naval Research to develop "quilts" for the high-power electronics. Unlike the traditional "grandma's quilts," which are used to keep the heat, graphene "quilts" proposed by Balandin will actually take the heat away from the heat-generating regions in the high-power electronic devices. Balandin will create an experimental proof-of-concept demonstration in his Nano-Device Laboratory.

Graphene is a new form of carbon materials that has a thickness of just one atom and reveals many unique properties, such as extremely high-electron mobility and unusual optical absorption. Graphene's extraordinary high thermal conductivity was discovered in Balandin's lab at UCR in 2008. It is this property of graphene which makes possible its applications in heat removal.

Thermal management of the high-power-density devices is becoming a crucial part of their design, testing and manufacturing. The growing complexity of the device structures and chip designs substantially increase the thermal resistance and complicate heat removal. The higher speed, higher power densities and increased thermal residence in the state-of-the-art devices result in development of hot spots, performance degradation and thermal breakdown.

Balandin proposed an innovative graphene-based approach for thermal management, which might lead to the creation of a new technology for local cooling and hot-spot spreading in the high-power-density and ultra-fast chips.



Fulbright Scholars Bring a World of Music to UCR

By Bettye Miller

Three Fulbright Scholars have joined the Department of Music this fall, one as a postdoctoral scholar and two who are enrolled in the Ph.D. program. It is the first time so many Fulbright Scholars have been associated with the department at the same time, said Deborah Wong, professor and department chair.

The three are: Roberto Kolb-Neuhaus, a professor of musicology and performance in the Graduate Program in Music of the National University of Mexico; Nerfita "Popi" Primadewi, a Ph.D. student from Indonesia who is studying ethnomusicology; and Chia-Lin "Cathy" Kuo, a Ph.D. student from Taiwan who is studying music composition.

"This is really a historic moment for the music department," Wong said. "To have three Fulbrighters in one department is pretty unusual. Roberto, Popi and Cathy have already added immeasurably to our scene."

The three scholars represent the international reach of the department, Wong said, and all three areas of research offered — ethnomusicology, music composition and historical musicology.

Kolb-Neuhaus, whose doctoral research focused on the early works of Mexican composer Silvestre Revueltas, will be in residence for the 2009-10 academic year. A well-known scholar of Revueltas' work, he is the founder and artistic director of Camerata de las Américas, an inter-American orchestra dedicated mainly to the research, recording and performance of music written for mixed instrumental ensembles during the 20th century in the Americas.

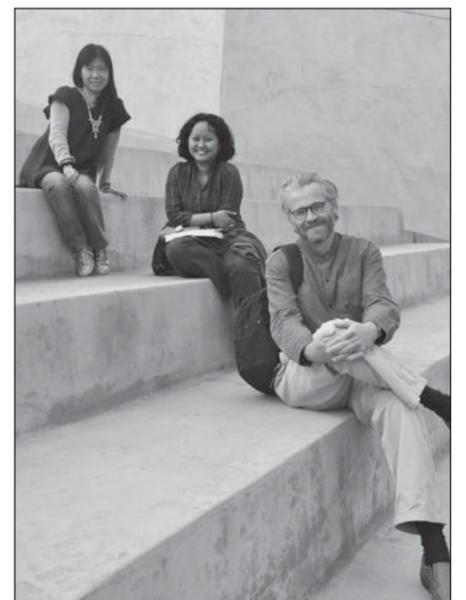
Kolb-Neuhaus said access to massive amounts of documents on Mexican culture in the UC libraries, many of which are paradoxically not available in Mexico, "has already changed my perceptions of Revueltas' music completely. For example,

who would think that I would find here fragments of an old 1938 propaganda film by the Mexican government for which Revueltas composed the music, a film considered lost in the fire that destroyed a good part of the National Film Archive in Mexico not long ago? Finds like these could shed valuable new light on the life and works of this composer."

Primadewi, who taught at the Indonesian Institute of Art Surakarta, is a highly regarded artist in Indonesia whose research bridges traditional visual arts and new media, Wong said. She created video installations and other new-media art — including an exhibition of images created by cell phone texts from Indonesia and the Philippines — and is in the forefront of research and the creation of new Indonesian culture, particularly as it involves the use of technology.

"In Indonesia technology is perceived in a different way," Primadewi said. "It was hard to communicate in the Suharto era. Now we have Facebook, which in Indonesia is a medium used to state your mind about everyday life, like the electricity shutting down, and cell phones, which create different communities."

Kuo, who earned an M.F.A. in music composition at UCI and an M.S. in broadcasting from Boston University, has lectured in media production and music at universities in Taiwan. She has composed music for interactive children's books and TV commercials in Taiwan. Her "Concerto for Piano — Quin Qun Wu Qu," which is based on a traditional Chinese folk tune, premiered at UC Irvine in November 2007 and has been performed by the National Tai-



Fulbright Scholars in the Department of Music are (l-r, top to bottom) Chia-Lin "Cathy" Kuo, Nerfita Primadewi, and Roberto Kolb-Neuhaus.

Photo by Bettye Miller

wan Symphony Orchestra's Youth Orchestra in Taipei, Taiwan.

As an undergraduate at Fu-Jen Catholic University, Taipei, where she was a sociology major, Kuo said she never expected to become a composer or musician, although she was already an accomplished pianist as a teenager.

"Music was always my interest," she said. "I never thought it would be my career."

Kolb-Neuhaus already has presented his current research at UCR, UCLA and at the annual meeting of the Society for Ethnomusicology. Kuo recently performed one of her compositions in the department's Wednesday@Noon series.

"All three of these scholar-artists are already well-established in their home countries," Wong said. "Thanks to the Fulbright program, our department is the richer for their presence."

Associate Vice Chancellor for Strategic Communications: Marcia McQuern

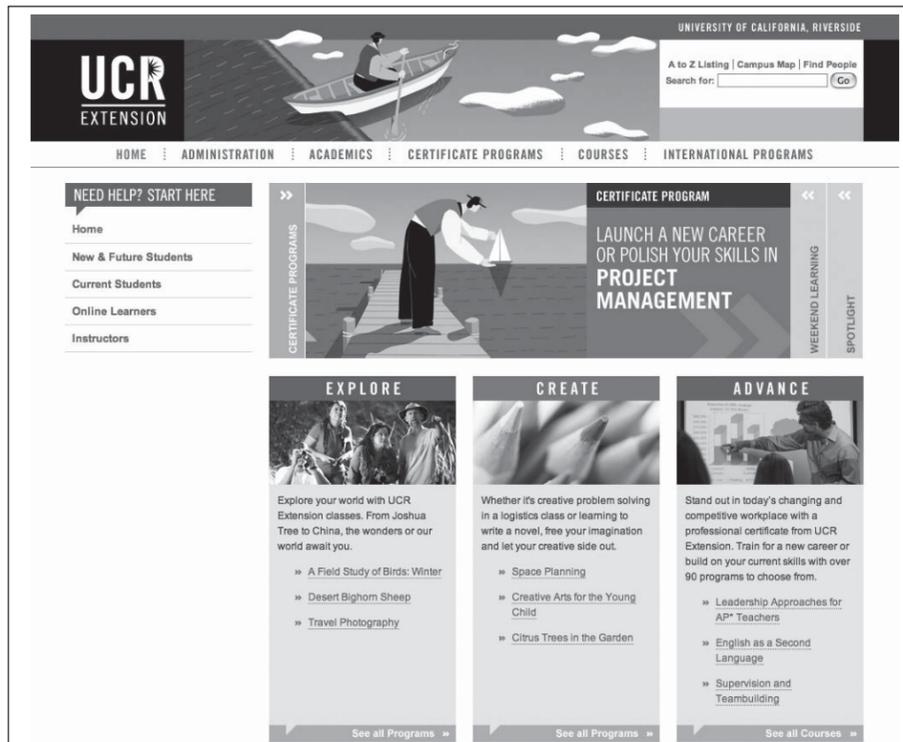
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Send story ideas and comments to InsideUCR@ucr.edu

Issues are available online at www.insideucr.ucr.edu.



Extension Launches New Web Site

UCR Extension last Thursday launched a redesigned Web site (www.extension.ucr.edu) in support of its new identity system, which features the slogan "More Power to You."

Developed in close collaboration with the Office of Strategic Communications, the site is aligned with the look and feel of the main campus Web site, yet is distinctive because it makes extensive use of the illustrations used

in new Extension print materials and has e-commerce features.

Its new online registration system makes it easier for current and future students to browse courses and programs, and enroll online, said Extension's dean Sharon Duffy.

"We are thrilled by the new look and functionality of the redesigned Web site," she said.

Moses in Panel Discussion on Race with Tavis Smiley

By Don Davidson

Professor of Anthropology Yolanda Moses participated in a panel discussion, "The Medicalization of Race," moderated by TV and radio broadcaster Tavis Smiley at the California Science Center in Los Angeles Nov. 21.

The event was part of the Science Matters program at the Science Center and held in conjunction with "Race: Are We So Different?", a nationally touring exhibit on display there through Dec. 31.

Moses, who also serves as associate vice chancellor for diversity, excellence and equity and vice provost for conflict resolution at UCR, is a founder and chair of the advisory board of Understanding Race and Human Variation, which created the exhibit, teaching materials and Web site www.understandingrace.org. A version of the exhibit will be on display at the Riverside Municipal Museum from May to September 2010.

The panel discussion began with the premise that all people are genetically 99.9 percent the same, as demonstrated by the Human Genome Project. The question the panel considered was whether or not race should be a factor in medical research, which quickly evolved into a discussion of, "What is race?"

"Culture creates race," Moses posited. "While there is genetic biological variation and clustering of diseases in certain populations, those are not races in the sense that we talked about them 100 years ago."

"You say that culture creates race," Smiley asked of Moses. "Why is it not the opposite – that race creates culture?"



Yolanda Moses and Tavis Smiley
Photo by Don Davidson

"If we take the presumption that there is no biological race in nature – that homo sapiens have not subspeciated – what we have is a wide variety of variation that manifests itself at the individual level, at the socioethnic level and at the population level," she said. "What I think we should do is look at how all three of those things come together."

Moses summarized by saying, "Race is a very powerful word and we need to understand how it affects our society moving forward, as well as how it has historically. Race is about culture, not biology; however, race and racism are still embedded in our institutions and our everyday life. We need to understand the barriers to overcoming that."

Other panelists included Pragna Patel, professor of biochemistry and molecular biology, University of Southern California; Esteban Gonzalez Burchard, associate professor, biopharmaceutical sciences and medicine, UC San Francisco; and Michael J. Montoya, assistant professor of anthropology, UC Irvine.

Campus Calendar

Ongoing

UCR/ California Museum of Photography

Exhibition: "The End of Film: The Brief History of Digital Cameras 1987-2009," documents the incredible transformation of photographic technology during the last 20 years and recapitulates what had occurred during photography's previous 163-year history. The exhibit demonstrates ways in which the digital camera created a medium that now occupies the center of modern communication, journalism, and social interaction. The exhibit runs through Jan. 10, 2010.

Exhibition: "AndHowe: Photographs by Graham Howe, 1968-2008." Having hidden away his photographs until now, Graham Howe is most known as the founder and CEO of the company, Curatorial Assistance. Howe's wit first took form as street photography of funny, candid pictures of everyday life that marvel at how



AndHowe: Photographs by Graham Howe, 1968-2008

silly the world looks. But his work soon took a turn toward a philosophical inquiry into the nature of looking itself. Through his photography, Howe has examined, and made fun of, the way we use our two eyes to look at life. The exhibit runs through Jan. 2, 2010.

The UCR/CMP is located at 3824 Main St., Riverside. Information: www.cmp.ucr.edu.

December

9 Wednesday

Training: Course Request and Maintenance System (CRAMS) Training I, 8:30-11:30 a.m., University Village Suite 1-208. Free. Information: www.hrtraining.ucr.edu.

10 Thursday

Seminar: Live Wise Live Well: Sleep Well, noon-1 p.m., Human Resources Building (Personnel) Employee Development Center. Free. Information: www.wellness.ucr.edu.

Lecture: Brian Haig, Detecting Psychological Phenomena, 12:10-1 p.m., 3210 Psychology Building. Free. Information: www.psych.ucr.edu.

No Waiting at the Child Development Center

The UCR Child Development Center (CDC) has immediate openings and is accepting applications for winter quarter for children 18 months old through kindergarten.

A new building addition opened this fall, and the down economy forced some families to delay child care.

"My daughter is currently in the toddler program (18 to 36 months) and just loves it," said Michael Kaplan, who has worked in housing and dining services since May. "We had been on the waiting list since I started at UCR and she was accepted this October."

The infant program seems to be in highest

demand, and there is still a waiting list for children ages 2 to 17 months.

UCR's Child Development Program isn't simply day care; it operates under a much tighter set of rules and requirements for class sizes and teacher credentialing, known as Title 5 of the state's Education Code. Most other child care centers operate under more lenient regulations. All of the CDC teachers are college graduates and/or have teaching certificates. Student-teacher ratios range from 3:1 for infants; and 4:1 for toddlers to 8:1 for preschool and kindergarten programs.

More information is available at (951) 827-3854.

Community Outreach Efforts Inspire Young Students

By Iqbal Pittalwala

The Geoscience Education Outreach Program (GEOP), which was launched in the fall of 2008 by Cassandra Meyers, a graduate student in Earth sciences, has met with success this year with 23 presentations at local schools, generating excitement among young students about climate change, earthquakes, volcanoes, rocks and minerals, as well as paleontology and fossils.

GEOP was founded to provide science education directly to local schools by sending volunteer graduate student scientists into the community to teach Earth science. Its mission is to provide this education at no cost to local school groups, fulfill a need for greater science literacy in the K-12 age group, raise awareness of the relevance of Earth science in society, and present role models for children.

Mary Droser, chair of the Department of Earth Sciences, serves as GEOP advisor. Other faculty members involved in the outreach program are Marilyn Kooser, Elizabeth Cochran, David Oglesby, Richard Minnich, Peter Sadler and Michael McKibben.

"In the month before my first quarter of graduate school, I spoke with Dr. Droser about the opportunities for doing geoscience education and outreach in the community,"

Meyers said. "Up until that point outreach was conducted mainly through individual professors in the department. As there was no organized means for graduate students to perform outreach in the local community, I decided to create a program that would connect graduate student scientists and K-12 students."

A GEOP presentation lasts about an hour and takes the form of a short power-point presentation on a topic and one or more hands-on activities, such as describing a rock or mineral, a role-playing game about the fossilization process, or learning about the exact movements in seismic waves.

Meyers hopes GEOP and programs like it will help promote science literacy and make science more accessible to the public.

"We hope to inspire children to learn more about science and perhaps to become scientists themselves," Meyers said. "Graduate students benefit greatly from the experience of communicating directly with children and the public. GEOP hopes to graduate many generations of articulate scientists who are comfortable talking about science to the public."

More information can be found at earthsciences.ucr.edu/GEOP.html.

Library Staff on Science Fiction Awards Team

By Bettye Miller

Melissa Conway, head of Special Collections of UCR Libraries, and Rob Latham, associate professor of English, are part of a nationwide team of 10 science fiction scholars and authors organizing the Science Fiction and Fantasy Translation Awards. The awards will recognize works of science fiction, fantasy, horror and related literature that is translated from other languages into English.

The first awards – one for long-form literature (40,000 words and above) and one for short forms – will be presented at UCR's Eaton Science Fiction Conference in 2011.

The awards will "seek out and reward authors and translators who bring fresh new works created in other languages to the English-speaking world," according to the announcement made at the World Fantasy Convention in San Jose in October. The awards will consist of a trophy and a cash prize, which will be presented to both the author and the translator.

Fantastic literature has a long tradition outside the English-speaking world, Conway and Latham noted. One of the world's best-

known writers of science fiction and fantasy literature is 19th century French author Jules Verne, whose work was the subject of the 2009 Eaton Conference.

"The literature of the fantastic is an international phenomenon and has been since Hoffmann, Gogol, and Maupassant in the 19th century. Yet contemporary Anglo-American readers have only a sketchy sense of the global scope of science fiction and fantasy today," Latham said. "This award will take a big step toward the goal of closing that blind spot. UCR is proud to be associated with this initiative given the wide range of materials gathered in the Eaton Collection, which includes works published in well over a dozen languages."

Conway said she is proud that this initiative originated at UC Riverside and will be associated with the Eaton Collection and Conference. "I myself never realized how terrible the translations of Verne's works, for example, were until I was able to read them in the original French," she said.

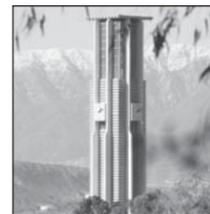
More information about the awards is available at www.sfftawards.org.

11 Friday

Training: Professional Academic Advisor Certification Course (PAACC), 8 a.m.-noon, Human Resources Building (Personnel) Suite I. Free. Information: www.humanresources.ucr.edu/ed.

12 Saturday

Concert: Holiday Carillon Recital, 3-4:30 p.m., Bell Tower. Free. Information: www.belltower.ucr.edu.



Holiday Carillon Recital

15 Tuesday

Training: Staff Assembly will host its annual holiday party, 3-5 p.m. Hub 302. All UCR staff are welcome to attend. Hosted by Andy Plumley. Light refreshments, prizes. Information: www.staffassembly.ucr.edu.

16 Wednesday

Meeting: Paralegal Career and Information Meeting, 6-8 p.m., UC Riverside Extension Center. \$10. Information: www.extension.ucr.edu.

21 Monday

Training: The Winning Resume, 9 a.m.-noon, Human Resources Building (Personnel) Suite I. \$10. Information: www.humanresources.ucr.edu/ed.



The Winning Resume

January

7 Thursday

Training: Building Core Supervisory Competencies, 8:30 a.m.-4:30 p.m., Human Resources Building (Personnel) Suite I. Free. Information: www.hrtraining.ucr.edu.

For the most up-to-date information on these and other events view the UCR Calendar at www.events.ucr.edu.