A showcase of the people and progress from the liberal arts and sciences in the UCLA College
Welcome to Volume Two of *UCLA College Report*.

In this issue, we continue to highlight the extraordinary work of the faculty, students and staff in the UCLA College, as well as the dedicated involvement of the friends and supporters of the College.

Using *UCLA College Report* to focus on these marvelous achievements is especially important during this turbulent period in the university’s history. As you read this, the long-term financial picture for the University of California continues to evolve. We hope that the Governor and the State Legislature will provide the support needed to maintain the superb level of higher education that the people of California most assuredly deserve.

In this continuing discussion of the state budget and UC funding, two issues are clear.

First, the problems with the state budget magnify the importance of the University of California as not only a catalyst for intellectual achievement, but also as a critical component in creating stability and growth for the state’s economic progress. UCLA is a formidable engine for driving the economy—for the leading research that is produced here and for training the next generation of scientists and corporate leaders who help California thrive.

Second, even while the state’s contributions to the university’s budget have declined, state funding is more important than ever.

You have probably heard the statistic that the state now provides less than 20 percent of UCLA’s total budget—but that’s only a part of the story. Of even greater importance is the fact that nearly all of the funding for teaching at UCLA is paid by the state; in the College, more than 90 percent of the costs of instruction for undergraduates and graduates come from state funds.

And, the UC system has experienced a 16 percent reduction in state funding over the last four years, while student enrollments have increased 16 percent. Adequate support for the University is critical if we are to fulfill our mission to educate all eligible UC students in California.

Through all of this, you can be assured that our first priority is to our students, and it will remain that way—in any budget environment.

If you have already voiced your opinion about the future of higher education in California, I thank you for your involvement. If you have not yet become part of this statewide conversation, I encourage you to do so by contacting UCLA’s Advocacy Programs by e-mail at advocacy@support.ucla.edu.

I look forward to your involvement.

Cordially,

Judith L. Smith  
*Acting Executive Dean, UCLA College*
A showcase of the people and progress from the liberal arts and sciences in the UCLA College

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Patricia O’Brien: Striving to be a Catalyst for Excellence

A respected scholar and longtime administrator in the UC system becomes the new executive dean of the College.

Patricia O’Brien, an award-winning historian and accomplished university administrator, has been named executive dean of the UCLA College.

O’Brien assumes leadership of the UCLA College from Judi Smith, the acting executive dean. Smith, who had been serving a one-year term during the search for the permanent executive dean, will continue her role as the College’s dean of Honors and Undergraduate Programs, and UCLA’s vice provost for undergraduate education.

“Pat O’Brien is a respected scholar, dedicated teacher, and skilled administrator,” UCLA Chancellor Albert Carnesale said. “Her performance in high-level academic and administrative posts in the UC system demonstrates that she is extremely well-qualified to lead the UCLA College. She brings a superb mix of talent and experience to this post. My colleagues and I look forward to working with her to maintain and enhance the College’s academic excellence and to pursue innovative approaches to undergraduate education.”

O’Brien is an expert on modern French history and in nineteenth and twentieth-century social and cultural history. She has held fellowships from the National Endowment for the Humanities, and from the National Humanities Centers, as well as a Regent’s Faculty Fellowship from the University of California. She has twice held the prestigious post of directeur d’études at the Ecole des Hautes Etudes en Sciences Sociales in Paris, France.

Before serving in her current post as dean of the College of Humanities, Arts and Social Sciences at UC Riverside, O’Brien was the director of the UC Humanities Research Institute (HRI) at UC Irvine.

“I am delighted by the opportunity to serve at UCLA, one of the world’s great institutions of public higher education, and by the prospect of helping to determine the future of the UCLA College,” O’Brien said.

“The College is one of the premier academic units in the country. Working to maintain quality, innovation and strategic leadership in the face of daunting fiscal challenges will require all the best that the faculty, students and staff at the College have to offer. I look forward to being a catalyst for excellence.”

As dean at UC Riverside, O’Brien oversaw twenty departments and over a dozen collaborative programs. In her previous role as associate vice chancellor for research at UC Irvine, O’Brien managed the creation, organization and review of the campus’ scientific research centers. She also served as acting vice chancellor for research and graduate dean at Irvine, with a broad array of responsibilities including graduate admissions, research policy oversight, compliance (human and animal subjects and conflict of interest issues), contract and grant oversight, integrity in research, and a multimillion dollar annual budget.

O’Brien earned her M.A. and Ph.D. degrees in history at Columbia University. She is the author or co-author of five books including Societies and Cultures in World History, and is currently completing her sixth book, The Political Culture of the French State in the Nineteenth Century. She has written dozens of articles in her field and her professional review affiliations include the Fulbright Program National Screening Committee for France and Belgium, the National Science Foundation, and the Chateaubriand Fellowship Committee.

O’Brien is the recipient of several awards and grants for the Humanities Research Institute including a Getty Senior Research Grant, a Koret Foundation Grant, and a Ford Foundation “Crossing Borders” Grant.

“Working to maintain quality, innovation and strategic leadership in the face of daunting fiscal challenges will require all the best that the faculty, students and staff at the College have to offer.”
Gabrielle Spiegel, an internationally renowned historian who has served in national leadership roles in historical studies, has been named dean of humanities in the UCLA College.

Spiegel assumes leadership of the humanities at UCLA from Professor of English Eric Sundquist, who served a one-year appointment after former Dean Pauline Yu was named president of the American Council of Learned Societies.

“The humanities bring a unique richness and interdisciplinary strength to UCLA’s academic program,” said UCLA Chancellor Albert Carnesale, “and Dr. Spiegel is an ideal scholar and academic leader to direct this effort.”

Currently the Krieger-Eisenhower Professor of History at Johns Hopkins University, Spiegel is a medieval scholar whose work focuses on, among several fields, French literature, literary and cultural theory, and historiography (the practice and theory of writing history).

“The great and abiding task of the humanities is to cultivate appreciation for the immense variety of ways that peoples and societies live and think,” she told UCLA’s Daily Bruin newspaper.

“Nothing is more important than studying the humanities,” she said. “We are heirs to a world—that of World War II and its aftermath—when states like Nazi Germany claimed that there was such a thing as ‘a life unworthy of life.’”

“Anyone who says ‘no one ever died of the humanities’—as we commonly hear—has not thought much about what happens when states claim the right to define what humanity is, or who is good and who is evil, and therefore justify movements like ethnic cleansing,” Spiegel said.

Spiegel has earned numerous awards and honors for her scholarship, among them a John Simon Guggenheim Foundation Fellowship, election as a fellow of the Medieval Academy, and a fellowship at the Center for Advanced Study in the Behavioral Sciences at Stanford University. Her academic leadership includes service as chair of the Department of History at Johns Hopkins University, and vice president of the Research Division of the American Historical Association.

“What has impressed me most deeply about UCLA is the institution’s profound commitment to the goals of a public research university—through involvement in its community, and through work with individuals to ensure that the university serves as an avenue of success for anyone who attends by making available education of the highest level of scholarly excellence,” said Spiegel. “I believe strongly in the importance of that kind of civic involvement by a public university, and I am eager to be part of that effort.”

The humanities at UCLA include several academic departments that are top-ranked nationally in their fields, including the Department of English (the nation’s largest), philosophy, musicology, study of more than 60 languages and cultures, and five interdisciplinary research centers.

“The humanities are being challenged at all universities by a variety of forces,” said Spiegel, “but they remain of central importance to the core values of our scholarly and social lives. The humanities are absolutely crucial for cultural literacy and UCLA is particularly sensitive to the goal of comprehensive cultural literacy—understanding that we live in a diverse, complex world, and that we all gain by understanding and appreciating it from a humanistic perspective.”

Kenta Nakamura (left), a senior majoring in Microbiology, Immunology, and Molecular Genetics, discusses his studies at the College’s Science Poster Day, a program held May 24 that showcased the research of more than 130 undergraduates. Nakamura presented his findings that explore the effects of specific genes on heart function and autoimmune diseases.

Nakamura is a Beckman Research Scholar, an award presented to undergraduates for their potential to make extraordinary contributions to science. In April, Nakamura presented this research to the United States Congress at a special conference sponsored by the Council on Undergraduate Research—the only student in the UC system selected to present work at the event.
Six years ago, the UCLA College decided to chart an unusual approach to general education. Senior faculty from different disciplines were asked to team-teach a year-long, big-idea, “cluster” course unlike any other offered to freshmen.

A series of lectures and seminars that would be writing-, research- and discussion-intensive, the course would explore a single broad topic, such as interracial dynamics or biotechnology, from perspectives as varied as biology, philosophy and urban planning. (For a feature on the clusters in Volume One of UCLA College Report, see www.college.ucla.edu/collegereport.)

“Increasingly, work in all the professional fields and at research universities is interdisciplinary in nature,” said Judi Smith, who in addition to serving as acting executive dean of the College is also the university’s vice provost for undergraduate education. “We wanted to familiarize freshmen with interdisciplinarity as an approach to the creation and evaluation of knowledge.”

But would senior faculty embrace the concept and agree to teach collaboratively with peers from disparate disciplines for the benefit of undergraduate students?

After six years, the cluster program has not only proven to be a huge success with freshmen, but it has been a synergistic boon to faculty, who say they have learned a great deal from working with others outside their discipline.

“Clusters represent a very different way of teaching,” said Lucy Blackmar, assistant vice provost for undergraduate education initiatives. “These courses encourage faculty to work with one another, and in that process they learn more about their topic, their colleagues and undergraduate teaching in general.”

Further evidence of the program’s success in faculty development came earlier this year, when TIAA-CREF awarded the Theodore M. Hesburgh Certificate of Excellence to UCLA for the Freshman Cluster Program at the annual meeting of the American Council on Education.

TIAA-CREF, one of the nation’s largest retirement systems for higher education and research employees, cited the clusters as “an outstanding faculty development program that has shown great success in enhancing teaching skills that enrich the intellectual welfare of undergraduate students.”

Faculty, such as Rita Effros, professor of pathology and laboratory medicine, would heartily agree. Effros is one of 80 senior faculty who have taught a total of 12 clusters to date. One lesson she learned early on from teaching with two non-scientists was that “we were from different planets,” with different priorities and ways of thinking about their course on aging from biomedical, psychosocial and policy perspectives. The co-teachers had to balance their priorities and adapt their teaching styles.

“Watching my colleagues has taught me a better teaching style,” Effros said. “I’ve switched from a science-oriented, PowerPoint approach to a more casual style that allows me to be much more interactive with the class. I wouldn’t have thought that this experience would have done that.”

Robert Watson, professor of English, found himself, a Shakespeare and Renaissance scholar, team-teaching with a political scientist and a historian. “The whole course (‘The United States, 1963–74: Politics, Society, and Culture’) was a chance for me to learn about what the different disciplines did with this period,” he said.

Each team chooses its own pedagogical approach, whether it’s tag-team teaching or solo lecturing. Sometimes four instructors participate in a single lecture. Team members, who attend all the lectures, must know what’s being covered by the others and provide the necessary transitions.

“Faculty agree that it makes them better teachers,” said M. Gregory Kendrick, director of the Freshman Cluster Program. “It makes them more aware of the undergraduate student population, and it even gives them different perspectives on their own research. In effect, they too become learners.”

To learn more about the Freshman Clusters: www.college.ucla.edu/ge/clusters.
New Center Links UCLA with the Community to Combat Lack of Health Programs for Minorities

More than 50 faculty from across UCLA have joined in a new center that will create opportunities for better health care and health information where it is needed most.

A new center created within the College will link the university with civic partners to develop research, training and better methods to improve the lack of health care within minority communities.

The new UCLA Center for Minority Health Disparities, under the direction of psychologist Vickie Mays, will study minority health issues to develop programs and policies that help eliminate the gaps in health research, education, training, communication, and distribution of health information available among racial and ethnic groups.

“We created this center to address a critical social concern: the lack of a broad range of health care and health information in many ethnic and racially diverse communities,” said Mays, professor of psychology and health services.

“The center will develop a broad understanding of health, health care, access to care, and health behavior of the diverse populations in California so that we can contribute to national efforts to improve physical and mental health care for minority groups,” said Mays.

“Another important goal of our center is to increase the number of underrepresented minorities who start careers that can make a difference in creating and sustaining healthier communities.”

Funded by a four-year, $4.6 million grant from the National Institutes of Health, the new UCLA Center for Minority Health Disparities brings together more than 50 UCLA faculty from departments and research units across the campus with a diverse group of health professionals, community-based agencies, and minority media.

Funded under the Centers of Excellence in Partnerships for Community Outreach, Research on Health Disparities and Training, the UCLA center links experts and stakeholders to understand the causes of health care disparities, and implement effective strategies to reduce or eliminate these problems.

“While most research on racial and ethnic health disparities in the United States examines extreme disparities in health care between Blacks and Whites, California’s diversity offers the center the opportunity to study and change the dynamics of health disparities within greatly understudied racial and ethnic groups, such as Asians, Pacific Islanders, Native Hawaiians, Latinos, American Indians—in addition to Black populations,” said Mays.

The center’s first research projects, already underway, will create findings about the factors that contribute to disparities in health.

“These studies will be used to inform policymakers on how to improve the delivery of care to minority populations through better methods of screening for diseases as well as by training more culturally competent providers,” said Mays.

Among the first research projects being conducted under the auspices of the center are:

❖ Traditional medicine and health among Mexican immigrants
❖ Racial and ethnic care within the Department of Veterans Affairs
❖ Causes of heart diseases among African-American women
❖ Latino herbal treatments and diabetes
❖ Race and ethnic differences in cancer screening

The center will also create programs that will develop partnerships with community groups and health care providers to develop a model for communication and distribution of health research findings, policies and training opportunities that can create healthier communities and increase health knowledge in the community.

For more information about the UCLA Center on Minority Health Disparities: www.MinorityHealthDisparities.org

Artist Judy Baca (right), professor in the César Chávez Center for Chicana and Chicano Studies, along with UCLA students and graffiti artists, restore an aging mural at the Harbor and Fourth Street exit in downtown Los Angeles. Honoring the first women who ran in the Olympics, “Hitting the Wall” was created by Baca in 1984. Damaged by vandals and construction, the mural is being restored with funds from Caltrans and the city of Los Angeles.
A Celebration of Landmarks in Literature

By Meg Sullivan

How do you fit 400 candles on a birthday cake? Who is witty enough to deliver a birthday toast for Oscar Wilde? How do you hold a king spellbound for one thousand and one nights? And how do you recognize the achievements of the man who showed the world the concept of equal rights?

These are the sorts of conundrums that come to mind in the face of several upcoming anniversaries in the lives of venerable writers and beloved literary masterpieces.

But College faculty and research centers are nonetheless rising to the task, planning conferences, definitive editions, and public exhibitions marking four red letter dates over the next year or so:

- The 150th anniversary of the birth of the wit, playwright, essayist and novelist Oscar Wilde, who died in disgrace in 1900 but has since become a venerable name in British literature.
- The 300th anniversary of the death of John Locke, the 17th-century English philosopher who has been credited with developing the concept of individual liberties upon which the U.S. Declaration of Independence, Constitution and Bill of Rights are based.
- The 300th anniversary of the publication of *One Thousand and One Nights*, a collection of fantastic tales—some folklore, some pure fabrication—that have shaped the West’s view of the Arab and Muslim world ever since.
- And the 400th anniversary of the publication of Miguel de Cervantes’ Golden Age of Spain masterpiece *Don Quixote*, often cited as the world’s first modern novel.

Organizers hope the confluence of these distinct milestones, while serendipitous, will draw attention to important UCLA faculty in the humanities and spark reassessments of cultural, literary and philosophical legacies.

“It is truly unusual that so many important anniversaries are being commemorated so close together,” said Eric Sundquist, acting dean of humanities. “That our faculty are capable of galvanizing their colleagues around such great works and great authors speaks both to the breadth of scholarship in the humanities at UCLA and to our faculty’s influence within their respective fields.”

Activities begin October 22–23 with “Wilde at 150” at UCLA’s William Andrews Clark Memorial Library, which is home to the world’s largest public collection of books by and about the 19th-century British author.

**Oscar Wilde: Taking Aim at Pioussness**

Born October 16, 1854, Wilde enjoyed great financial, popular and critical success until a series of legal tangles stemming from his homosexuality resulted...
in his bankruptcy, ostracism and imprisonment.

“We’ll be looking at the ways in which Wilde’s reputation has been transformed since his death and what his legacy has been to popular culture,” said conference organizer Joe Bristow, a UCLA professor of English and a prominent Wilde scholar.

As biases against homosexuality have eased over the past 25 years, the influence of Wilde’s sexual orientation on his work has become fertile territory for scholars—a trend that Bristow expects to see reflected in research presented at the conference.

“We’ve constructed him as a homosexual icon and martyr who was ahead of his time and who suffered unfairly,” Bristow said.

The role of the wit’s Irish heritage is another scholarship trend.

“Wilde was at his most Irish when he was epigrammatic,” Bristow said. “He preserves the structure of proverbs and turns them inside out like with ‘Only the shallow know themselves,’ ‘The only way to resist temptation is to yield to it,’ or—my favorite—‘All bad poetry comes from genuine feeling.’ On occasions like these, he’s an Irishman taking aim at the pioussness of the English middle class.”

Meanwhile, the Clark librarians plan to mount an exhibit of treasures from their Wilde holdings, including two recently acquired manuscripts: a notebook kept by Wilde as a student and the original manuscript of his homosexual lover’s autobiography.

The 280-page, handwritten notebook discusses philosophy and dates to between 1876 and 1878, when Wilde was an undergraduate at Oxford.

“The notebook has been in a private collection for over half a century, so it has really never been seen by any living Wilde scholar,” said Bruce Whiteman, the Clark’s head librarian.

The autobiography of Lord Alfred Douglas, entitled Without Apology was published in 1938 and is no longer in print.

Also in time for the anniversary, Bristow hopes to unveil a variorum—or a systematic compilation of the drafts, edits and revisions behind Wilde’s 1890–91 novel The Picture of Dorian Gray, the tale of a fashionable young man who sells his soul for eternal youth and beauty.

Armed with support from the UCLA Council on Research and the 17th and 18th Century Studies Center, Bristow devoted three years to assembling the 500-plus-page document that is being published by Oxford University Press as part of a special anniversary set of Wilde’s complete works.

The result, the most comprehensive record of Dorian Gray ever assembled, gives today’s reader “the sense of looking over Wilde’s shoulder as he was writing,” Bristow said.

John Locke: An Ironic Legacy

Next comes the 300th anniversary of Locke’s death. As with the Wilde commemoration, activities will take place at the Clark Library, UCLA’s rare book library in the West Adams District that, in addition to its Wilde collection, specializes in 17th and 18th-century British literature and culture. And as with the Wilde commemoration, the anniversary will be marked with a scholarly conference and a book exhibit from the Clark’s collection of political, philosophical, and literary works related to Locke’s writings, including numerous first editions.

Unlike the Wilde commemoration, however, the tone of the conference is not expected to be one of unbridled enthusiasm.

“One of the ironies of Locke’s legacy is that, although he was a defender of civil rights and equality, he participated in the colonial expansions of the British Empire and that included the institutionalization of slavery in places like Barbados and the Carolinas,” explained conference organizer Kirstie McClure, an associate professor of political science and English, and an authority on Locke. “As a result, there are those who want to venerate him and those who want to excoriate him. We want to take responsibility for launching a serious and balanced reassessment.”

Locke died on October 28, 1704, but the date was important to his legacy for another reason: the Oxford don’s authorship of the enormously influential 1690 Second Treatise of Government, which circulated anonymously in its first three editions due to its controversial contents, and was revealed only posthumously in a codicil in Locke’s will. So the conference is expected to focus in particular on the famous philosophical
One Thousand and One Nights: Shaper of Western Views of “the Orient”

With a ruthless Arab king poised to kill his new bride until she enthralled him with tales of flying carpets and genies in lanterns, *Les Mille et Une Nuit* was an instant success when it rolled off the presses in Paris in 1704, said Felicity Nussbaum, one of two English professors organizing a scholarly conference on One Thousand and One Nights at the Clark Library.

“European fascination with the Orient predated One Thousand and One Nights, but it definitely was the right text at the right time,” Nussbaum said.

The handiwork of author Antoine Galland, a one-time secretary to a French ambassador assigned to Constantinople, the 12-volume series played into not just a long-standing fascination with the Orient, but also a new set of ideals being embraced throughout Europe, co-organizer Saree Makdisi said.

“One way Europeans tried to make sense of their place in the world during the Enlightenment was by contrasting themselves against what they thought the Orient stood for,” he said. “So they looked at this fantasy world of genies, flying carpets and superstition, and said, ‘We don’t have flying carpets—we have science. We don’t have these crazy tales—we’re calm and rational.”’

Unfortunately, many of the negative stereotypes from the tales persist to this day, said Makdisi.

“We still portray the east as a mishmash of religious excess, superstition and despotism,” she said. “Whereas conventional wisdom holds that the West stands for truth, good and justice, and of course nothing is that simple.”

Don Quixote: Still Looming Large, After 400 Years

But no work being commemorated over the next year at UCLA can claim the impact of Don Quixote, which was published on an unknown date in 1605.

From 18th-century novelist Henry Fielding (*Tom Jones*) to 20th-century Czech author Milan Kundera (*Unbearable Lightness of Being*), “a staggering number” of writers throughout the ages have been inspired by the whimsical adventures of the addled hidalgo who believes himself to be a valiant knight, said Carroll Johnson, a Spanish professor and organizer.

“The great European novelists of the 18th, 19th, and 20th centuries, and major American authors like Hawthorne, all learned to write by reading *Don Quixote*,” Johnson said.

The adventures conjured by Cervantes represent the beginning of a new approach to the genre.

“*Don Quixote* is the beginning of the modern novel,” Johnson said. “This book is defined as the story of an individual in the process of defining himself—a subject of the Western novel ever since.”

An exhibit at Young Research Library will coincide with the conference, which is being co-organized by USC and is timed to take place a week before the anniversary of Cervantes’ death on April 23, 1616. In addition to highlights from UCLA’s Cervantes collection, the exhibit that will run through June 2005 is expected to feature *Don Quixote* memorabilia collected over the years by Enrique Rodriguez-Cepeda, a veteran Spanish professor and authority on Spain’s Golden Age. His treasures include 18th-century match boxes, 19th-century playing cards, early 20th-century cigar rings, and 200 years worth of engravings featuring *Don Quixote*.

“No literary figure has been depicted more frequently than *Don Quixote*,” Rodriguez-Cepeda said. “He’s a major international icon.”

For evolving details about these commemorations: www.college.ucla.edu/milestones

Meg Sullivan is a senior media relations representative for the College.

This 1620 English edition of “Don Quixote” from the Clark Library is the first complete translation of Miguel de Cervantes’ masterpiece into any language.
By Ajay Singh

Four students watch video of Dick Cheney sitting in an airplane, gazing out a window. "He's thinking about today's tough issues," a voiceover announces.

A Bush-Cheney campaign commercial? Sort of. The minute-long video film, made by communication studies majors in the College studying the art of political persuasion, is an example of how technology is transforming student learning across campus. While the students' films are driven by technology, surprisingly, many of Tim Groeling's students have no filmmaking experience at all.

“It's a case of learning by doing,” said Groeling, assistant professor of speech and communication studies, who is overseeing the production of political campaign films as part of the students’ assignments. “You couldn't do this 10 years ago, or even five years ago.”

Such technological innovations that enrich education are revolutionizing teaching in many different disciplines, thanks to faculty like Groeling, one of four instructors who have won the 2004 Brian P. Copenhaver Award for Innovation in Teaching with Technology awarded by the UCLA College. This year’s recipients also include Russell Poldrack and Stephen Engel of psychology and Kimberly Jansma of French and Francophone studies.

Poldrack, an assistant professor, shares the award with Engel, an associate professor, for designing and implementing research experiments using functional MRI to measure brain activity.

“Our students end up learning more than they would have otherwise,” said Engel. “An analogy would be when radio telescopes provided a wholly different way of seeing the universe.”

Jansma's quest to use technology to enhance learning partly began with a question: “What are the symbols of French culture that students should know about?” she asked. In response, she worked with several colleagues and students for three years to design multimedia modules offering authentic and culturally-enriching material based on pedagogical principles.

This annual award was created by the Faculty Committee on Educational Technology that selects recipients each year from among those nominated. This year, 23 faculty from 14 departments were nominated for the awards, which were named to honor Brian Copenhaver, provost of the College from 1993–2003, for encouraging the use of technological innovations to improve teaching and learning.

“We thank Richard and Barbara Bergman, who endowed the Brian P. Copenhaver Awards, for their generous and thoughtful support,” said Acting Executive Dean Judi Smith. “Rewarding faculty who are at the forefront of teaching innovation is very important.”

For more on UCLA faculty creating innovative uses of technology for undergraduates: www.college.ucla.edu/edtech
Cristy Cross admits that she was “afraid” of science.

But last year, as a sophomore majoring in international development studies with aspirations for law school, Cross found herself conducting original research in plant genomics alongside a dozen of her undergraduate peers, using some of the most sophisticated instruments and techniques known to science.

Albert Cespedes was a freshman when he got his initial glimpse inside a major science lab—the same week he and 30 classmates began conducting experiments to characterize the genes responsible for cell-division defects in the eye development of Drosophila, the fruit fly.

“We got a crash course in the instrumentation, and then we just jumped in and began working with the organisms that very first week, before we understood all of the complicated molecular biology behind it,” Cespedes said. “As you do more research and ask questions, you gain an understanding that’s much deeper than if you had just looked at some diagram in a textbook.”

Cross and Cespedes are two among scores of UCLA undergraduates who are benefiting from the two $1 million grants awarded by the Howard Hughes Medical Institute (HHMI) to a pair of renowned scientists in the Department of Molecular, Cell and Developmental Biology. As two of 20 HHMI Professors nationwide, Utpal Banerjee and Robert B. Goldberg are receiving the awards over four years to creatively improve undergraduate science teaching.

The Howard Hughes Medical Institute, a private philanthropic organization dedicated to biomedical research and science education, invited 84 research universities to nominate faculty members, then had a panel of scientists and educators review 150 proposals and select 20 HHMI Professors, challenging them to “show the same ingenuity in undergraduate teaching” as they do in scientific research.

UCLA is the only university in the United States to have more than one professor selected for the honor.

“The goal for Utpal and Bob was to create new educational settings that introduce undergraduates into research and let them experience the interest, excitement and joy that come with discovery and with finding solutions to research questions,” said Emil Reisler, acting dean of life sciences. “Both of them have achieved this goal with great success.”
Goldberg has used the grant to greatly enhance his efforts to teach undergraduates about the excitement of discovery, the process by which science is conducted, and how advances in biology and gene technology are rapidly transforming society. His course, “Genetic Engineering in Medicine, Agriculture and Law,” is geared toward entering life-science students and non-science majors.

“In an exciting teaching environment, many entering students may choose to become the scientists of tomorrow,” said Goldberg.

Others, such as Cross, are likely to be touched significantly by science in both their personal lives and their careers, Goldberg noted, and might well play a role in future science-related policy decisions.

In the classroom, Goldberg’s uniquely interactive, multimedia teaching style uses the provocative subject matter as a vehicle to teach undergraduates to think critically about science and its societal implications. Students are called on to summarize the previous lectures, taken out to dinner in small groups where they are engaged in debates, asked to write plays related to the material, and argue in moot courts.

“It was very challenging,” said Cross. “You had to come to class having done all of the reading, knowing that you’d get grilled on the material. As a result, it sank in.”

But just as unusual as Goldberg’s teaching style is the experience available to students who enroll in the follow-up laboratory course, designed to give them hands-on research experience with the genetic engineering technologies they’ve read about and discussed. Working in groups under the tutelage of advanced undergraduate students and postdoctoral fellows in Goldberg’s lab, the undergraduates chart new territory in a hunt for mutant genes critical to seed development. The HHMI funding provides students with expensive state-of-the-art tools for DNA sequencing and genetic engineering experiments.

“You can’t really convey what science is like in a classroom setting,” said Goldberg, a pioneer in the field of plant molecular biology. “Students have no idea about the frustrations along with the rewards that come out of it. We’re giving them an experience that is hands-on discovery.

“Our challenge is to take students who have never held a pipette or even been in a lab, and get them to be able to work independently using the most sophisticated genomics equipment, procedures and approaches,” Goldberg said. “It sounds overwhelming, but it works. The research that they’re doing now, scientists couldn’t even have done it five years ago, that’s how cutting edge it is.”

Banerjee’s HHMI program is centered on the “Undergraduate Research Consortium in Functional Genomics,” a lower-division course heavily focused on the research experience, with the opportunity for a select group of students to move on to an upper-division series that offers three additional quarters of more intensive research.

In the lecture setting, some 30 students each quarter are prepared to work in a research laboratory specifically designed for undergraduates, and are taught about careers in science and the importance of research. For their midterm exam, students write a mock grant proposal for National Institutes of Health funding. For the final, they write a paper describing the results of their research.

“No one knows the answer to the questions these students are asking,” said Banerjee, a nationally recognized investigator who studies the nature of cell-cell communications in Drosophila—considered a premier genetic system for studying many cellular and developmental processes. “We teach students the mechanics of the experiments, but in terms of who will find the prize mutation and who will not, that’s largely up to chance, just like real research is.”

Banerjee’s undergraduates create mutant fruit flies, removing one gene at a time in the developing
eye or the blood. By doing this for a large number of genes, students collectively uncover clues to the function of Drosophila’s genes—not all of which are known—with implications for human gene function and disorder. The students’ work is being pooled together in preparation for submission to a major peer-reviewed journal.

“We don’t start at the bottom, washing glassware; we jump right in to doing real research, where there is no ‘right’ answer and we’re trusted to set up the experiments and collect the data,” said Joy Wu, one of about 15 undergraduates who have gone beyond the lower-division course and are now performing more advanced research in which they’re studying the functions of specific Drosophila genes identified by the group.

Wu, a junior majoring in neuroscience, said enrolling in the program was “the best decision of my life.” She intends to pursue a Ph.D. in neuroscience and eventually do human brain research.

Thanks to the generous funding, Banerjee has been able to recruit three faculty-level scientists interested in teaching students in the research setting, including one whose main responsibility is to assist the undergraduates in getting published. Goldberg has been able to call on assistance from expert members of the Seed Institute, a consortium of university laboratories (co-directed by Goldberg) dedicated to identifying the genes necessary to make a seed from scratch.

This year, Goldberg added a new dimension to his course by having his lectures simulcast to 30 students enrolled in Japan.

Nationally, the 20 HHMI Professors are using their funds in different ways, all with the same goal of making science more engaging for undergraduates. HHMI isn’t the only organization to see such a need. The National Academy of Sciences and the National Science Foundation, among others, have studied the matter and made similar recommendations.

“Research is advancing at a breathtaking pace, but many university students are still learning science the same old way, by listening to lectures, memorizing facts and doing lab experiments that thousands have done before,” said HHMI President Thomas R. Cech, a biochemist who continued teaching undergraduates at the University of Colorado at Boulder after he won a Nobel Prize. “We want to empower scientists at research universities to become more involved in breaking the mold and bringing the excitement of research to science education.”

In Goldberg and Banerjee, HHMI funded two top scholars who have long demonstrated their commitment to engaging undergraduates in the excitement of the discovery process. Both are winners of UCLA’s Harriet and Charles Luckman Distinguished Teaching Award, and the Gold Shield Award for Excellence in Teaching and Research — and both are pleased with students’ response to the opportunities made possible by the grants.

“Three-fourths of the undergraduates in my lecture class, made up of mostly non-science majors, were pounding on my door for the chance to spend the next quarter in my lab doing the things they had learned about in the classroom,” said Goldberg. “That’s unbelievable.”

Both of UCLA’s HHMI Professors see value in exposing as many undergraduates as possible to the research experience at the start of their time on campus. For those who are considering careers in science, they note, knowing early on about the nature of life as an investigator—something that tends to be mysterious to those on the outside—will help them reach more informed decisions about the path they wish to take. And, Banerjee adds, even for those with no intention of pursuing science as a profession, the experience is invaluable.

“I have complete conviction that involving students in research early in their careers will make better scientists, better doctors, better lawyers, and better politicians out of them,” Banerjee said. “Instead of reading from a book and doing an assigned problem set, they’re learning to make their own connections, to follow their own logic. When they start to do that, it’s amazing how turned on they become.”

Bob Goldberg
Home Page: www.mcdb.ucla.edu/Research/Goldberg
HHMI class Web site: www.mcdb.ucla.edu/Research/Goldberg/hhmi-index.htm

Utpal Banerjee
Home Page: www.mcdb.ucla.edu/Research/Banerjee
HHMI class Web site: www.lscore.ucla.edu/research/index.html

Dan Gordon is a Los Angeles-based freelance writer who contributes frequently to UCLA publications.
UCLA drew worldwide attention this spring when the university established the first endowed academic chair to focus on the World War II internment of 120,000 Japanese Americans and their campaign to gain redress. But the George and Sakaye Aratani Chair on the Japanese American Internment, Redress and Community is only the latest example of UCLA’s strength in scholarship that aims to shed new light on ethnically-based human oppression and atrocities.

In the College, the work of UCLA scholars across a number of disciplines in the social sciences spans the Armenian Genocide of 1915, the Holocaust of World War II, and examples of “ethnic cleansing,” sexual crimes against women, forced segregation, and coerced assimilation over the last several centuries.

Some of the College’s most prominent faculty members received acclaim—not to mention furthered truth and justice—by taking fresh approaches to research and presenting new insights into these horrific chapters in modern history.

“These faculty are among many in the College whose work has led to a better understanding of inhumanity—scholarship that helps to create an appreciation of how to work toward a more humane and compassionate world,” said Scott Waugh, dean of Social Sciences.

Richard Hovannisian: Speaking for Victims of the Armenian Genocide

Growing up in a small farming community in Central California during the 1930s and ‘40s, Richard G. Hovannisian, the Armenian Education Foundation Professor of Modern Armenian History, didn’t feel much of a connection to his Armenian heritage. But he did take notice of those who had survived the 1915 genocide of 1.5-million fellow Armenians at the hands of the Turks during World War I.

“Most survivors of the genocide didn’t speak about their past, but it was always there,” said Hovannisian, who was an initiator of Armenian studies at UCLA in the 1960s and is widely honored in the Armenian community for his work. “At the same time, the Turkish government was continuing to deny it, thus denying their suffering. As one in the field of studying the oppressed, whose voices have not been heard, or can’t be, and need others to speak for them, I feel obliged to do so.”

Hovannisian, an emeritus professor of history, began his research with an oral history project that now consists of 800 interviews, mostly in the Armenian language, that are being transcribed into English. By comparing stories of people who came from different regions, Hovannisian was able to confirm the genocide and see the coordinated efforts of the perpetrators.

“The genocide was a double loss because it was not only the extermination of people,” he said, “but loss of land where they had lived for 3,000 years with the cultural institutions they had built.”

Hovannisian’s latest book, Looking Backward, Moving Forward: Confronting the Armenian Genocide, makes the point that survivors are “prevented from freely moving forward because they are forced to spend so much energy on getting recognition for an event that others are trying to deny or forget. To be remembered, the genocide has to be made a part of universal history and collective human memory much like the Holocaust has become.”
Saul Friedlander: The Holocaust—Setting the Record Straight

Saul Friedlander was seven years old when he fled from his native Czechoslovakia to France with his Jewish parents after Hitler began invading Europe. With the German occupation of France, his parents placed him in a French Catholic monastery and tried to escape to Switzerland, but they were shipped to the Auschwitz concentration camp and never seen again.

In his 1979 memoir, Friedlander, a professor of history who now holds the 1939 Club Chair in Holocaust Studies, recalled how at age 13 he first understood his parents’ fate when a Jesuit priest told him about what had been happening to the Jews of Europe, including those who were gassed and cremated at Auschwitz.

“That changed my whole life, and in a way, my Jewish identity was restored,” said Friedlander, who had embraced Catholicism and was thinking of becoming a priest. It also began a nearly 40-year career in Holocaust research out of a “desire to preserve and set the record straight.”

Digging through German laws, police reports, films, and personal recollections, Friedlander has documented one anti-Jewish Nazi measure after another, beginning in 1933. Looking at why so many were silent in the face of a “systematic policy of segregation and persecution,” he concluded that Germany’s largely middle-class, educated population saw the treatment of Jews as a “peripheral issue” during a time of economic prosperity and growing international power.

Among Friedlander’s books is Nazi Germany and the Jews, Volume 1: The Years of Persecution, 1933–1939. A winner of a MacArthur Foundation Award in 1999, he is using the proceeds from the award to write The Years of Extermination, 1939–1945.

Michael Mann: Inside the Minds of Genocide Victims and Perpetrators

Sociology Professor Michael Mann has recently completed two books, one called Fascists, a study of six European countries that led to the other, The Darkside of Democracy: Explaining Ethnic Cleansing. For the second book, Mann pored over victim and eyewitness accounts as well as the transcripts of trials in West Germany and tribunals on Yugoslavia and Rwanda.

“In many of the most serious cases of ethnic cleansing, the victims didn’t know how devastating it would be,” Mann said. “The resistance was not as strong as you might expect because people couldn’t conceive that other people would do this.”

At the same time, he became fascinated with how the perpetrators could be capable of mass murder and even call it “moral.” In the case of the 1994 genocide of an estimated 800,000 Tutsis in Rwanda by Hutu militia, he found many Hutus who described good relations with the Tutsis before the mass killings.

“They attribute their actions to a war situation,” said Mann. “Even the most atrocious cases claim self defense. Because humans can’t come to terms with slaughtering in an unprovoked way, they tell themselves a story that the other group is threatening them, even though it seems implausible to us.”

More than any other work he has conducted as a researcher, Mann has been most disturbed by this research.

“This has been reflecting on evil, not about primitive people, but about people like you and me,” he said, “people who faced moral choices and made the wrong ones for often mundane reasons, like keeping a job or showing loyalty to comrades. It’s what philosopher Hannah Arendt called the ‘banality of evil.’”

Kyeoung Park: Chronicling Sex Crimes Against Korean Women

War was also the backdrop for Anthropology Professor Kyeoung Park’s research into the abduction of some 200,000 “comfort women” to serve Japanese soldiers in occupied Asian and Pacific countries during the 1930s. Under the policy, teenage girls and women were taken to the frontlines of battle, held as prisoners, and repeatedly raped.

Park became interested in the topic while studying Korean immigrant communities in New York. She had encountered old women who told her they were forced by their families during the war to marry Korean men who were handicapped or much older because their parents didn’t want them to become comfort women. Although Park’s mother had been born in Korea toward the end of Japanese colonial rule and was not affected, “I thought it was my responsibility to study this historical issue,” she said.

(Background) A tapestry designed and embroidered by Julia Mnisi of the Mapula Embroidery Project in Soweto in honor of Hector Petersen, a 13-year old boy who was killed when police fired on schoolchildren demonstrating against the apartheid South African government in 1976.
Examining testimonies by former comfort women, she has reconstructed the circumstances in which they were recruited, the brutality of their everyday life, and how they tried to resist in various ways, including running away and pretending they had venereal disease.

“They didn’t let themselves feel defeated, but rather took hope from their daily survival and the idea that the Japanese might surrender some day,” Park said.

The experience remains an unhealed wound for the Korean comfort women and for their champions, like Park, who are involved in a redress movement.

“If we don’t address this issue in a way that satisfies the women, we are continuing to torture these women and their children who want closure to this issue.”

William Worger: Black Oppression and Resistance in South Africa

Oppression of Blacks under European colonialism in nineteenth-century southern Africa and under apartheid in the country of South Africa during the twentieth century has been the subject of two major research projects undertaken by History Professor William Worger.

“In the earlier period, I looked at the way Blacks struggled against oppression in their daily lives, using tactics such as strikes, work slow-downs, or escaping from jobs to which the white ruling class had tied them through taxation and criminal laws,” he said. “In the twentieth century, I looked at apartheid and how resistance to it made the system unworkable.”

Worger has studied government documentation, which because of government censorship became more difficult to access for the period after apartheid was imposed. But by using both court and business records, he was able to begin piecing together a picture that was fleshed out by testimony given to the Truth and Reconciliation Commission after the fall of apartheid in 1994. The commission collected statements from 22,000 people who described such things as being tear-gassed and tortured by the police for their resistance to the segregationist system.

His interest in the subject sprang from his experiences growing up in New Zealand during the 1960s.

“New Zealand is a rugby-mad country, and in the 1960s South Africa said its all-white rugby teams would only play other all-white teams,” Worger explained. “New Zealand insisted that its own already-integrated teams be allowed to play. South Africa relented, but the controversy ratcheted up when New Zealand said that it would only play integrated teams from South Africa.”

Melissa Meyer: American Indians—Forced Assimilation and Survival

Being a child of the 1960s who critiqued American society explains part of Associate Professor of History Melissa Meyer’s attraction to the history of American Indians, including the very dark chapters they have experienced at the hands of the American government. In addition, Meyer’s ancestry is German, Scottish-Irish, and Eastern Cherokee.

In her first book, The White Earth Tragedy: Ethnicity and Dispossession at a Minnesota Anishinaabe Reservations, 1889–1920, Meyer focused on the U.S. government’s policy of forced assimilation. Using census information, oral histories and traditions, photos, and what she called “unusual but necessary” sorts of evidence, Meyer documented the government’s efforts to change a people and their culture.

“They were forced to wear certain clothes, go to boarding schools, and were forbidden to speak their native language,” she said. “At home, they were forced to take designated private plots of land on reservations and the surplus was bought by outsiders. I had never heard of the U.S. government being involved in anything so intrusive and coercive as this.”

Like her colleagues who study other peoples who have experienced brutal oppression and atrocities, Meyer is surprised at how American Indians have managed to survive.

“Both scholars and native people recognize that we’re in the midst of a revival of American Indian culture,” Meyer said. “We’re still recovering that story of survival.”

For more on these faculty: www.college.ucla.edu/voices
Destined for Success

Three undergraduates and three graduate students have received College Awards for their superb scholarly achievements and commitment to the UCLA community.

By Robin Heffler

The winners of the College Awards, said acting executive dean Judi Smith, “truly represent what’s best about UCLA.”

Honored at the College’s annual awards dinner on June 3, three undergraduates were presented with the 2004 Charles E. Young and Sue K. Young Undergraduate Student Award, and three graduate students received the Charles E. Young and Sue K. Young Graduate Student Award. The monetary prizes that accompany these awards are funded by an endowment created by Louis and Evelyn Blau.

Also acknowledged this year were Joy Monkarsh ’61, and Jerry Monkarsh ’59, who were named College Honorary Fellows for their volunteer and philanthropic leadership.

The six student winners profiled here can boast of distinctive achievements in their young careers. But they also have much in common. They have maintained the highest grades among their peers. Many are breaking new ground in research. Most are engaged in community service outside of academia. And all of them are lauded for their personal interactions with faculty, staff and fellow students that enhance the university community and represent the true spirit of collegiality.

Angela Mazer
International Development Studies

It is no accident that Angela Mazer was drawn to what she describes as the “international vibe” of UCLA and to the global arena in general. She has spent a lot of time in her mother’s homeland, Switzerland, her father is Jewish-American, and she grew up surrounded by Mormon culture in Salt Lake City.

“UCLA gave me access to the international academic world and an understanding of international issues,” said Mazer, who for the last five summers has volunteered at a camp off the coast of Croatia for children of diverse backgrounds from the war-torn Balkans. “It gave me a strong foundation that prepared me for my year abroad.” Under the auspices of the School for International Training, she spent the year in Geneva studying the role of various United Nations organizations and had an internship with The Hague Appeal for Peace, an international network of peace and justice organizations.

Her senior honors thesis advisor, Stephen Commins, a lecturer in the Department of Urban Planning, praised her “organizational skills and intellectual insights.” He also singled out the advance work she conducted through UNICEF contacts before beginning her thesis, which examines the trauma and resilience of children who have experienced war and their needs in the post-conflict environment.

For Mazer, receiving the undergraduate award is “an enormous validation of my passion, and that what I’m emotionally connected to can also be translated to the academic environment.” She next plans to travel to Sarajevo for work with an education for peace program, and then will go to graduate school. “I want to be hands-on with children internationally in some way for the rest of my life,” she said.

Sean Patrick Klein
Business and Economics

When Sean Klein first came to UCLA in January 2003, his goals were to take advantage of what he saw as the studious but relaxed environment of UCLA and to prepare for a high-powered job with a matching salary. But his studies have changed his outlook. “I have been given the ability to analyze the world around me, to ask and answer questions about policies, and to benefit the world in which I live,” he said. “I have found my true passion, and it has nothing to do with a paycheck.”

Klein is simultaneously working toward his bachelor’s and master’s degrees, a privilege granted to only one exceptional student in the Department of Economics each year. “I have never seen someone who has not had extensive data analytic experience process so much information so effectively and so quickly,” said Professor Duncan Thomas, Klein’s mentor.
His senior thesis examines if introducing social security programs in countries will have a significant impact on their economies. He himself has had a notable impact on campus. In light of the national corporate accounting scandals, he co-founded a Business Ethics Club at UCLA, which has presented events such as a talk by a Securities and Exchange commissioner.

In winning the award, Klein said he “felt like faculty in the economics department were saying they were proud of me and I made them look good, when usually it’s the other way around.” Klein appears to be on an awards streak; two days after being told about the award, the UCLA Alumni Association notified him that he had won its Distinguished Bruin Award.

Brian Hong-An Tang, Atmospheric Sciences and Applied Mathematics

Impressed that Brian Tang was performing graduate level research in an undergraduate course on climate modeling and climate change, Professor J. David Neelin, co-chair of the Department of Atmospheric Sciences, invited him to tackle an unsolved question: how does the El Niño phenomenon in the Pacific Ocean curtail hurricane formation in the Atlantic?

Using statistical analysis and current theory of atmospheric dynamics, Tang developed findings that were submitted for an article in a scientific journal, and “a number of related things from Brian’s research will be of great interest to climate specialists,” according to Neelin. Tang’s undergraduate advisor, Associate Professor Robert G. Fovell, similarly marvels at his academic ambition, predominance of A+ grades, and advanced knowledge. “He will enter graduate school with the best preparation I’ve ever seen,” Fovell said.

As for the award, Tang said, “It means a lot to be able to contribute to the overall knowledge of the field of atmospheric sciences as an undergraduate, and to be better prepared for graduate school studies, which I’ll start in the fall.”

At the same time, Tang has demonstrated his concern for the university and larger communities. As president of his dormitory, he coordinated several community service programs. He also has held leadership positions in the co-educational Alpha Phi Omega service fraternity, participating in events that included soup kitchens, food banks, beach cleanups, an AIDS walk, and the Los Angeles Times Festival of Books.

Sally Dickerson, graduate student Social Psychology

Sally Dickerson had originally planned to become a physician. “But, because I got so involved in health psychology research early in my undergraduate career, I became more interested in the broader issues related to health and disease than in organic chemistry and other subjects that prepare you for medicine,” she said.

That curiosity appears to have set the stage for her to blaze an investigative trail of her own. With major scientific breakthroughs expected at the intersection of multiple fields, Psychology Professor Shelley Taylor noted the qualifications that researchers will need and that Dickerson brings to the work: “expertise in multiple fields, the ability to pose questions that have never before been imagined, much less asked, and a fearless willingness to move into uncharted territory.”

The goal of her doctoral dissertation is to understand the types of stressful conditions that are capable
Dickerson wants to see how the body responds to stress early in the process, before conditions like stroke and obesity develop, with an eye toward prevention.

“She is an extremely talented researcher, a sophisticated theorist, and a gifted teacher,” said Assistant Professor Shelly L. Gable, Dickerson’s dissertation chair. Speaking about her own teaching experience, Dickerson said, “It’s very rewarding to see students get excited about the research process and about projects that excite me too.”

Having been attracted to UCLA because of the strength of the health psychology program and faculty in psychoneuroimmunology, her view of the award is that “it not only honors work that I am proud of, but it also honors those who have made this research possible—my mentors, colleagues, and students.”

C. Jason Throop, graduate student
Anthropology

“One of the hardest things an anthropologist can do is to find an appropriate research site for studies,” said Professor Douglas Hollan, chair of the Department of Anthropology and chair of Throop’s dissertation committee. “Jason passed this test with flying colors.”

Throop, who came to UCLA because of the department’s reputation for psychocultural studies and medical anthropology, chose a research challenge that even more experienced scholars would find daunting. His dissertation explores how people in Yap, one of the federated states of Micronesia, come to understand pain, how it fits into their general understanding of health, illness, and suffering, and how that serves to structure their everyday interactions.

For the field work, he spent a year in Yap, where he established close ties with Yapese scholars from around the world, obtained hard-to-get research visas, found a suitable rural village in which to live and work, became fluent in the Yapese language, and established strong relationships with his neighbors and collaborators. Hollan noted that he also helped develop a research proposal that will bring nearly $1 million to Yapese youth over the next five years.

Throop has a résumé filled with published articles, conference presentations, and teaching experience, and has received very positive teaching evaluations for a variety of anthropology courses in which he served as a teaching assistant and a teaching associate. He also is a founding member of Mind, Medicine, and Culture, a popular discussion group that brings together faculty and students with interests in issues of psychocultural and medical anthropology.

“UCLA has given me access to a very unique intellectual community,” Throop said. “The award is a huge honor. It’s not often that you get recognition on an institutional level for something that otherwise feels like a very private experience.”

Charles Hiroshi Garrett, graduate student
Musicology

Many jazz historians view Louis Armstrong as a founding father of jazz. Through his research, Garrett has determined that he was also a symbol of capability and success for African-Americans who had migrated from the South to Chicago in the 1920s. That’s just one finding in an award-winning chapter of his dissertation, which examines American nationalism and musical expressions of identity.

“I am convinced that my scholarly career would not have taken the same shape anywhere other than UCLA,” said Garrett, who joined the musicology faculty at the University of Michigan earlier this year. He credited his award to the support given to students by the musicology faculty. “The department pushes its graduate students to professionalize early and become part of our discipline right away,” Garrett explained.

To Professor Susan McClary, who sat on Garrett’s dissertation committee, his numerous presentations of papers, publication in peer-reviewed journals, and impressive teaching skills are just a few indications of his promise as an academician. “Chuck is nationally recognized as a rising star, sure to become an innovative scholar, an influential teacher, and a champion for diversity,” she said.

Although now entrenched in the midwest, Garrett looks forward to returning to California to write his next book project, which will focus on the contemporary music scene in Los Angeles.

Robin Heffler is a Los Angeles-based freelance writer and a former editor at UCLA.
Finding Connections Across Cultures

A new program created in partnership with the UCLA International Institute connects middle school students in Los Angeles and Kabul through a shared curriculum of art, history, culture—and even kite flying.

By Leslie Evans

For the children in Los Angeles and Afghanistan who study together online in a joint program on global citizenship, the goal of finding personal connections in spite of 6,000 miles of separation and vast differences in cultures had a healthy start when the students identified the universal pleasures of life that they all could share: “The things that make me smile.”

Beginning earlier this year, students from five middle schools in Los Angeles have been learning about Afghanistan, using the same curriculum as two schools in Kabul, the Afghan capital. The project, which received seed funding from the William and Flora Hewlett Foundation and the Global Catalyst Foundation, is a partnership of the UCLA International Institute, Los Angeles-based Relief International and its affiliated Schools Online, and the National Geographic Society.

The partnership has coined the name Global Citizenship and Youth Philanthropy (GCYP) to describe their common work. The stated goal of the program is to imbue international youth with the knowledge, skills, and values of global citizenship and to foster learning and understanding across the cultural divide between war-torn Afghanistan and post-9/11 America.

“We hope to empower students to mobilize for positive social change by teaching about global citizenship and facilitating their communication and collaboration across national borders,” said Sylvia Tseng, program manager of GCYP.

The UCLA International Institute was invited to take a leading role in the project, said Jonathan Friedlander, the International Institute’s outreach director, “because of our excellent reputation and achievements in the area of resource development and teacher training.” Relief International’s Executive Director Farshad Rastegar (UCLA Ph.D. ’91) said another reason for collaborating with the International Institute was “the long-term potential for institutionalizing a global citizenship agenda in education and youth media.”

The lesson plans used in Los Angeles and Kabul schools combine online readings and research from six modules: Civic Engagement, Environmental Stewardship, Global Connections, Art & Music, Schooling & Education, and the pilot module, Cross Cultural Understanding. Because the pilot module

An Afghani boy flies a kite, a national passion in Afghanistan that was suppressed during the Taliban’s rule. The sport has become a topic in the Cross Cultural Understanding module studied by students in Los Angeles and Kabul.

Photo: Mario Laporta, Reuters. Photograph supplied by AlertNet (www.alertnet.org), the Reuters Foundation website for the disaster relief community.
centers on connecting American and Afghan students, the lesson plans in the Cross Cultural Understanding module focus on commonalities between the two cultures through three units: Holidays & Celebrations, The Home, and Fun & Games.

One of the topics in Cross Cultural Understanding is kite flying, a national passion in Afghanistan that was suppressed during the rule of the Taliban. In the classroom students learned that kite flying is a serious hobby and sport in Afghanistan. Many students in L.A. marveled at kite flying as a competitive sport that pits enthusiasts in a challenge to cut their opponents’ lines by gluing finely ground glass to the kite strings for this purpose. Others noted that kite flying is prevalent at celebrations and family outings. And several students were excited by the opportunity to make their own kites.

Students at Holmes, Sepulveda, Van Nuys, Lawrence, and Portola middle schools are examining Afghanistan through study guides and a new map of Afghanistan produced by the National Geographic Society. The colorful new map uses English and the two national languages of Afghanistan, Dari and Pashto.

The map ties in to the educational modules by including additional topics such as national holidays, “Earthquakes and Vegetation,” and “Afghan Kite Flying.” Students also participate in an online exchange about “10 Things That Make Us Smile” by posting drawings and photos about their lives and schools to a joint, interactive website, Global Kids Connect.

The Afghan Connection

Students at Lycee Maryam Girls School and the Bibi Mehru School, both in Kabul, are using the same translated lesson plans as Los Angeles students. Through a grant from the Global Catalyst Foundation, and as a part of this pilot program, Internet Learning Centers are also being established in both schools to provide students with the resources to enable them to finally and more fully participate in the global community.

“Engaging these students in the process of cross cultural communication and understanding without these tools would have been difficult,” Tseng said.

The participating schools in Kabul and Los Angeles are each contributing to the “10 Things That Make Us Smile” project on the Global Kids Connect website. The website postings are in English—with teachers in Afghanistan verbally translating the headings for their students.

Student postings have been revealing. Afghan school kids mention red roses, spring, soft things, and a baby’s smile. American students put up drawings and photos of pets, friends, family, and sports. Classes in each country posted something about food, but whereas the Americans mentioned “lunch” in general, the Bibi Mehru School in Kabul said their favorite foods were hoshak and mantoo, dishes generally unfamiliar to even so culinarily diverse a city as Los Angeles.

And from there, the things students had to smile about began to diverge. Americans cited movies, malls, air conditioning, and theme parks. The Afghan kids talked about girls being able to go to school, which had been prohibited under the Taliban, and to be in the same class with boys. About “no more burkas,” the head-to-foot dress women were compelled to wear when out in public in the Taliban era. And about a shopkeeper who had been forced to wear a turban by the Taliban who now uses it for a curtain in his shop.

Partnership

The organizing partners worked together to develop this innovative program and made common decisions on its various components. Within that close collaboration, each brought special expertise and took the lead in certain portions of the effort. The UCLA International Institute carried out the principal development of the curriculum modules used in both countries, the recruitment of Los Angeles teachers, securing commitment from the Los Angeles area schools, and dissemination of the results through Outreachworld.org, a national outreach website it developed with funds from the U.S. Department of Education.

Relief International-Schools Online directed the translation of the curriculum modules into Dari and Pashto and organized their use in schools in Kabul through its field offices. It also manages the Global Kids Connect website.

“Through these activities,” said Tseng, “students can gain a deeper understanding of each other’s lives and perspectives.”

For more information on international programs at UCLA:
www.international.ucla.edu
The young fields of nanoscience and nanotechnology are blurring the line between science fiction and real science. Just as many respected scientists and engineers of the 19th century believed the idea of human flight was impossible, today nanoscience is making scientists rethink what is possible.

“Building artificial molecular machines and getting them to operate is where airplanes were a century ago,” said J. Fraser Stoddart, director of the California NanoSystems Institute (CNSI), who holds UCLA’s Fred Kavli Chair in NanoSystems Sciences.

Scientists are on the brink of a new revolution at the nanoscale. “Breakthroughs are occurring at the atomic level that will stimulate the creation of new businesses and jobs in fields as diverse as health care, manufacturing, information technology, homeland security, environmental protection, and multimedia entertainment,” said Tony Chan, dean of Physical Sciences.

A joint enterprise of UCLA and UC Santa Barbara, scientists in the CNSI explore the power and potential of manipulating structures atom-by-atom to engineer new materials, devices and systems that will dramatically change virtually every aspect of our technology. Nanosystems is science done at the scale of a nanometer—one-billionth of a meter, or 10,000 times smaller than the thickness of a single human hair. Researchers are discovering ways to combine biological and engineered components to create materials and devices with unique combinations of properties.

Stoddart said the CNSI will “create a corridor between Los Angeles and Santa Barbara that will become a hub of invention and innovation across an enormous breadth of disciplines, where size on the nanoscale will be a unifying theme for creative thinking and achievement.”

The physical sciences play a critical role in nanoscience. “For any nanomaterial that you want to make, you have to understand the chemistry first,” said Richard B. Kaner, a UCLA professor of chemistry and biochemistry and materials science and engineering, whose internationally-renowned research in materials chemistry has led to several patents. “Chemistry is certainly central to nanoscience, as well as science in general.”

Said Heather Maynard, a UCLA chemist who also holds the Howard Reiss Career Development Chair: “What I find so exciting about nanotechnology, especially at UCLA, is that it encompasses many disciplines—people

The Physical Sciences in the UCLA College are taking a leading role in the new revolution at the nanoscale.

It’s a Small, Small World

By Stuart Wolpert

The most sophisticated artificial nanomachine yet designed: a molecular platform on three legs created by Jovia Badjie and Fraser Stoddart (see page 22).
from chemistry, physics, mathematics, life sciences, engineering, and medicine working together.”

“Here at UCLA, we can walk over to the medical school or engineering to brainstorm new ideas,” said Maynard. “We can make new materials for nanotechnology—working with engineers, doctors and life scientists—that could result in improved products.”

**Fraser Stoddart: Exploring the Realm of the Scientist, the Engineer and the Artist**

In addition to being director of the CNSI, Fraser Stoddart is among the world’s most distinguished chemists. The New York Times praised Stoddart’s recent creation of an artificial molecular machine that functions like a nanoelevator as an “elegant” work of “nanoscale engineering.”

Stoddart develops unique molecules, often involving interlocking rings, that are critical to the success of molecular computers that could be much cheaper, smaller and more energy-efficient than today’s silicon-based computers.

Stoddart and his research team are working with more than a half-dozen different kinds of molecular switches, each with its own unique characteristics. They also explore a wide range of nano-related topics including chemical sensors, nanoelectronics, mechanically interlocked molecules, and molecular machines, to name just a few.

Stoddart’s tiny world is as much the realm of the engineer—or even the artist—as it is of the scientist.

Earlier this year, postdoctoral scholar Jovica Badjic and Stoddart reported in the journal Science that they designed and built the most sophisticated artificial nanomachine yet: the world’s tiniest “elevator”—a molecular platform on three legs that can be commanded to move up and down between two levels.

“Such nanoscale robotic devices could find use in slow-release drug delivery systems and in the control of chemical reactions within nanofluidic systems conducted in laboratories on a chip,” said Badjic, the lead author of the study, who in March was one of five recipients of a UCLA Chancellor’s Award for Postdoctoral Research.

“I liken Southern California today to Paris in 1900, which was the place to go if you were an artist,” Stoddart said. “When I was working in England in the ’90s, I felt that the place to make things happen as a scientist was Southern California, and I have been proved right.”

**Richard Kaner: Creating Nano Materials**

Materials chemist Richard Kaner, who has won numerous national awards for research excellence, still keeps the first crystals he grew as a college freshman.

In his research in inorganic and materials chemistry, Kaner focuses on the design of new high-temperature materials and their synthesis by new chemical methods. He discovered, for example, a new method to make high-temperature ceramics in a few seconds that previously took days or even weeks.

He is studying electronic applications to see whether the nanofibers can be used for electronic nanowires in computers, for example. Kaner’s nanofibers look promising for computer memory.

“Some day, you will walk into your doctor’s office and breathe on a small card that will tell your doctor whether you may have diseases that should be treated,” said Kaner, who produces large numbers of tiny nanofibers that could potentially be used on that card.

Kaner’s research team creates sensors, which could have many uses. After producing sensors for nearly 20 years, Kaner has found that a version he created from nanofibers is much more responsive and effective than the pre-nano sensors. Kaner was the first chemist to produce pure polyaniline nanofibers, which can be used for sensors—findings he published last year.

This research has homeland security applications as well. Nanofibers potentially could be used for detecting trace amounts of biological and chemical weapons, and could be placed at airports and many other sensitive locations. “It’s dirt cheap to produce them,” said Kaner, who was recently notified that he will receive a research grant from the U.S. Department of Homeland Security.

Kaner and Stoddart have written joint proposals to use Stoddart’s molecules to improve Kaner’s sensors.

“We want to understand the chemistry, but everything we do also has an applications goal in mind,”

Fraser Stoddart
Heather Maynard: Exploiting “Bio-Molecules”

Like Kaner and Stoddart, chemist Heather Maynard conducts research that could produce enormously important new products and devices. She and her research team are making new natural and synthetic hybrid materials.

“We want to make useful materials,” Maynard said. “If we combine man-made plastics with molecules that are found in the human body, then we can make new materials that might be applicable as therapeutics or sensors.

“We’re interested in non-invasively identifying cancer with sensitive detectors that would be capable of sensing in the urine of cancer patients minute amounts of proteins produced by solid tumors. Nanotechnology can help with this early detection of tumors.”

In addition, nanotechnology may also be able to tell whether cancer treatments are working effectively.

Maynard’s research group is combining synthetic polymers, which are generally plastic, with “bio-molecules”—molecules that are in the body, such as proteins, peptides and sugars. By combining the two types of molecules, she is able to obtain desirable properties of each, such as the recognition capabilities of a protein with the structural stability of the plastic.

“We have been successful at developing methods to make materials for nanotechnology, and we are delving into applications,” Maynard said. “We have developed the chemistry to control where we attach the polymers to the bio-molecules.”

Applications could conceivably include clothing that recognizes a problem in the environment, such as a biological agent.

While endowed chairs typically honor distinguished senior professors, Maynard is the recipient of an endowed chair—a rarity for a scholar so early in her career. The chair was endowed by John McTague, a former UCLA chemistry professor noted for his research on the dynamics of condensed matter. McTague named the endowed chair for Howard Reiss, a UCLA chemistry professor and recipient of many national honors for excellence in research.

Heather Maynard

Maynard is the first scholar to hold the Reiss Chair, which provides unrestricted funding for an exceptional assistant professor.

“It’s a wonderful privilege, particularly since Howard Reiss and John McTague are renowned scientists,” said Maynard, who joined UCLA’s faculty in 2002. “I am honored to be associated with two superb chemists.”

For more on nanotechnology at UCLA: www.cnsi-uc.org
Are Social Mothers Better Mothers?

A study by UCLA, Princeton and Duke shows that close-knit groups of baboons have higher levels of infant survival.

Peering and passing time with peers may serve a serious purpose, suggests a study by a UCLA-led team of primate researchers.

The more time wild female baboons spend in the company of other adult baboons, particularly while occupied with grooming activities, the more likely their offspring are to live until their first birthday, the team reported in the journal Science.

“Until now, social scientists assumed that because females invest a lot in social relationships, they must gain a lot from those relationships, but we’ve never been able to make a direct link to reproductive success,” said Joan B. Silk, professor of anthropology and the study’s lead author.

“These findings provide the first evidence that there’s a link between the amount of social involvement and having offspring who survive the critical first year of life.”

The connection is noteworthy because “reproductive success is the gold standard in evolutionary biology,” said Silk. “A trait can’t really be determined to have an evolutionary advantage unless it has a positive impact on reproductive performance. Socializing and grooming are traits that help baboons pass along their genes.”

Along with evolutionary biologists from Duke and Princeton Universities, Silk pored over 16 years of data collected in the Amboseli Basin of Kenya, which is located at the foot of Mt. Kilimanjaro. Since 1984, researchers have measured the social behavior of more than 100 wild savannah baboon females, recording daytime activities six days a week in 10-minute intervals.

The researchers found that the most social females enjoyed a reproductive success rate that was about one-third higher than the least social females.

“It’s increasingly apparent that social skills are of great importance in the evolution of primates,” said Mark L. Weiss, a program director at the National Science Foundation, which helped fund the research.

“These researchers have not only demonstrated just how important it is for mothers to be social, they also show the great importance of supporting long investigations of natural populations so that we can appreciate the long-term consequences of the animals’ activities.”

In addition to funding from the National Science Foundation, the project received support from the Leakey Foundation, National Geographic Society, and Brookfield Zoo.

Although infant survival rates in humans have yet to be linked directly with social factors, research has shown that low-income women with extensive social networks give birth to heavier infants—a key marker of viability—than their more isolated peers.

Since baboons share a long evolutionary history with humans, their behavior is thought to provide a window into human nature, particularly among human ancestors.

“In the social interaction of baboons, we see the roots of the human inclination to come together in families and stable communities,” Silk said. “Being social seems to go back very far in our evolutionary history.”

Joan Silk at work with baboons in Botswana.
Bullying in Schools: Pervasive, Disruptive and Serious

A comprehensive study of young adolescents dispels some long-held myths about bullying in schools.

More than one in five 12-year-olds are repeatedly either bullies, victims or both, and bullies are often popular and viewed by classmates as the "coolest" in their classes, according to new UCLA research from the most comprehensive study on young adolescent bullying in an ethnically diverse, large urban setting.

Bullies, seven percent of the students, are psychologically strong.

"Bullies are popular and respected; they are considered the 'cool' kids," said Jaana Juvonen, UCLA professor of psychology, and lead author of "Bullying Among Young Adolescents: The Strong, the Weak, and the Troubled," published in the journal Pediatrics. "They don't show signs of depression or social anxiety, and they don't feel lonely.

"We hope these findings help us dispel the myth that bullies suffer from low self-esteem," said Juvonen, who conducted the research with education professor Sandra Graham, and Mark Schuster, associate professor of pediatrics in UCLA's David Geffen School of Medicine and researcher at the UCLA-RAND Center for Adolescent Health Promotion. "These studies show that bullies do not need ego boosters. This myth is still guiding many programs conducted in schools. Instead, we should be concerned about the popularity of bullies, and how to change the peer culture that encourages bullying."

Bullying includes physical aggression, verbal harassment, and public humiliation. Bullying occurs across ethnic groups, and income brackets, and the problems associated with bullying are similar across these groups, Juvonen said.

"Young teens who are victims of bullying are often emotionally distressed and socially marginalized, and many of the victims are disengaged in school," said Juvonen, who also works as a consultant to Los Angeles elementary schools on developing anti-bullying programs, and speaks to teachers, administrators and parents.

"Victims are reluctant to talk about their plight," she added. "They suffer in silence and often blame themselves. This is one of our challenges for intervention: we need to provide students with educational settings in which they feel comfortable talking about these issues.

"But, we also need to give kids tools to effectively deal with bullying," Juvonen said. "One method of doing so involves engaging students to talk about strategies that might help them stop bullying and tactics that make them feel better after being bullied. Teachers can facilitate these skills if they help the students mediate incidents."

One of the schools that Juvonen has worked with, the UCLA Corinne Seeds University Elementary School, regards such bullying incidents as "teachable moments" that allow students to develop not only behavioral skills, but also cognitive coping strategies that alleviate the pain associated with being bullied.

Graham and Juvonen are in the fourth year of a long-term study of more than 1,900 sixth graders and their teachers in 11 Los Angeles area public middle schools with predominantly minority and low-income students. Each student provides confidential reports on which classmates bully others and which are victims of bullying, and they also report about their own feelings of depression, anxiety and loneliness. The research is funded federally by the National Science Foundation and privately by the William T. Grant Foundation.

As the study continues, Graham and her collaborators hope to learn whether the students who were bullies and victims in sixth grade remain so in high school, whether changes can be predicted, and why changes occur.

"The transitions that come with moving into high school and moving into full adolescence make it particularly important to track these children’s development across time," indicated National Science Foundation Program Officer Peg Barratt. "Part of what makes this work unique is the broader focus not only on bullies and victims but on the impact of witnessing bullying."

Additional research from Graham and Juvonen’s project, not yet published, shows that victims of bullying experience headaches, stomach aches, and colds more often than students not involved in bullying.

Juvonen advises parents to talk with their children about bullying before it ever happens.

"If you've never discussed this issue with your child, it might be difficult for your child to tell you about it," she said. "The older children get, the harder it is for them to bring it up."

"Start by talking with your child about other kids in the school: ‘Do other kids in your school get picked on? Tell me what happens. How do you think these kids feel? What do you think should happen? Does anybody tell the teacher? Has it ever happened to you? What did you do then? Would you do the same thing if it happened again?'"

www.psych.ucla.edu/Faculty/Juvonen
Vladimir Keilis-Borok
Earth and Space Sciences

A Breakthrough in Earthquake Prediction

Earthquakes can be predicted months in advance, report UCLA scientists, who predicted the San Simeon earthquake.

The long-sought Holy Grail of earthquake science may have been found by a research team at UCLA: major earthquakes can indeed be predicted months in advance, according to UCLA seismologist Vladimir Keilis-Borok.

“Earthquake prediction has been considered impossible by many scientists,” said Keilis-Borok, a professor in residence in UCLA’s Institute of Geophysics and Planetary Physics, and the Department of Earth and Space Sciences. “It is not impossible.”

“We have made a major breakthrough, discovering the possibility of making predictions months ahead of time, instead of years, as in previously known methods,” Keilis-Borok added. “This discovery was not generated by an instant inspiration, but culminates 20 years of multinational, interdisciplinary collaboration by a team of scientists from Russia, the United States, Western Europe, Japan and Canada.”

In June of 2003, this team predicted an earthquake in Japan of magnitude 7 or higher by December 28, 2003 in a region that includes Hokkaido. A magnitude 8.1 earthquake struck Hokkaido on September 25, 2003.

Prediction by this method is based on observations of small earthquakes.

“We call our new approach ‘tail wags the dog,’” Keilis-Borok explained. “We look backwards to make our earthquake predictions. First, we search for quickly-formed long chains of small earthquakes. Each chain is our candidate to a newly-discovered short-term precursor. In the vicinity of each such chain, we look backwards, and see its history over the preceding years—whether our candidate was preceded by certain seismicity patterns. If yes, we accept the candidate as a short-term precursor and start a nine-month alarm.”

Keilis-Borok has been working on earthquake prediction for more than 20 years. A mathematical geophysicist, he was the leading seismologist in Russia for decades. He founded Moscow’s International Institute of Earthquake Prediction Theory and Mathematical Geophysics, and joined UCLA’s faculty in 1999.

At the most recent stage of the research, four members of the team worked at UCLA on this method for short-term prediction: Keilis-Borok; Peter Shebalin, geophysicist from the Russian Academy of Sciences and Institute of the Physics of the Earth in Paris; Purdue University mathematician and geophysicist Andrei Gabrielov; and UCLA researcher Ilya Zaliapin, whose field is analysis of complex systems.

Recently the team was supported by the James S. McDonnell Foundation.

www.college.ucla.edu/keilisborok.htm

Min Zhou Sociology

Busy Neighborhoods = Academic Progress for Children

A UCLA study finds economic vitality in ethnic neighborhoods increases the chances for academic success among immigrant children.

The more economically vital an immigrant neighborhood, the greater the chances of academic success for the children who live there, suggests a report by a UCLA sociologist.

“ Incredible as it may seem, a vibrant ethnic restaurant scene or an abundance of recreational services aimed at a specific immigrant group may signal a promising learning environment for kids from that group.”

“Incredible as it may seem, a vibrant ethnic restaurant scene or an abundance of recreational services aimed at a specific immigrant group may signal a promising learning environment for kids from that group.”

“What attractions tend to draw middle-class families from the suburbs, keeping them engaged in inner-city neighborhoods and creating a demand in the neighborhood for a whole range of enrichment programs designed for immigrant kids,” said Zhou.

Zhou, a professor of sociology, spent two years pounding the pavement in three Los Angeles immigrant neighborhoods: Chinatown, Koreatown and the predominately Latino Pico Union District. After close observation and nearly 100 interviews with adolescents, parents, business owners, social workers and community leaders, Zhou found little difference in the number or kind of nonprofit organizations providing youth-oriented services in these neighborhoods.

However, pronounced differences emerged in the neighborhoods’ business climates, particularly with regard to for-profit services delivered by immigrants for children of the same ancestry.

“Children and adolescents who are involved in supervised after-school activities in their own neighborhoods tend to do better in school and be more ambitious about their college plans and future careers, and have a clearer sense of purpose than those who are not so involved,” said Zhou. “But cultural barriers appear to prevent immigrant children from taking advantage of enrichment and extracurricular activities not specifically aimed at them. So the availability of these resources seems to be key to their academic success.”

www.ssccnet.ucla.edu/soc
**Stephanie White** Physiological Science

**Can a Bird’s Song be a Key to Understanding Human Speech Disorders?**

The genetics that control a finch’s singing may reveal much about human vocalization.

The term “bird-brain” may not be such a put-down after all. UCLA scientists report parallels between human speech and the song of a bird, findings that may contain clues to human speech disorders.

The research by a team led by Stephanie White, UCLA assistant professor of physiological science, supports the theory that two genes shared by humans and songbirds, FoxP1 and FoxP2, may play a role in human speech and speech disorders.

“We examined the expression of FoxP1 and FoxP2 in embryonic human brains and found a striking correspondence between bird and human expression,” said White, a member of UCLA’s Brain Research Institute. “The similar expression patterns suggest that songbirds can be studied to investigate mechanisms for vocal learning that may parallel those used by the human brain.”

In the brain of the zebra finch, FoxP2 is in regions that control the learning of song, said White, who found that additional unknown molecules are likely to interact with the gene. The UCLA study is the first to address whether FoxP2 is critical for learned vocalizations in other species.

If the human and songbird mechanisms underlying vocal learning are parallel, White would expect FoxP1 and FoxP2 to overlap in the same regions of the human brain. “That turned out to be true; these genes are in analogous regions of the human brain and the zebra finch brain,” she said.

White’s co-authors are Ikuko Teramitsu, a UCLA graduate student in molecular, cellular and integrative physiology, who conducts research in White’s laboratory; Daniel H. Geschwind, an associate professor of neurology in UCLA’s David Geffen School of Medicine, who works with people with language disorders; Lili Geffen, a UCLA graduate student in neuroscience in Geschwind’s laboratory; and Sarah E. London, a UCLA graduate student of neuroscience.

“Language is uniquely human, but it has components, such as the ability to create new sounds; the zebra finch does that. It creates new sounds like instrumental music, and may do that using the same genes as humans.”

“There are critical periods in song learning,” noted White. “If we can learn what FoxP1 and FoxP2 are doing during these periods, then we may be able to highlight key developmental moments in children, to make sure the genes function properly at critical periods.”

www.physsci.ucla.edu

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**Glen MacDonald and Laurence C. Smith** Geography

**Siberia Peatlands: A Key to Worldwide Greenhouse Gases**

The widespread bogs of the Russian Arctic may have a global impact as temperatures continue to rise.

The vast peat bogs of the Russian Arctic appear to play a much more important role in the creation of greenhouse gases worldwide than previously thought, a UCLA-led team has found.

Peatlands of Russia’s West Siberian Lowlands have been a global producer of methane gas much longer than researchers once believed. And the foul-smelling marshes could accelerate global warming if rising Arctic temperatures succeed in drying them out, which could boost their emissions of carbon dioxide as the stored plant materials essentially turn to compost.

“This study shows the potential role of Siberian peatlands as a major piece of the greenhouse gas puzzle—both in the past and in the future,” said Glen MacDonald, chairman of UCLA’s geography department and co-author of the study with UCLA geographer Laurence C. Smith.

With funding from the National Science Foundation, Smith and MacDonald led a 22-member international team.

The world’s largest peatlands, Russia’s Western Siberian Lowlands cover more than 230,000 square miles and are filled with between 1.5 feet and 33 feet of decaying plant material.

Because of Siberia’s chilly climate, the decaying plant material never fully decomposes, causing accumulation of peat. Over geologic time, the material forms coal beds and fossil fuel.

But in the meantime, anaerobic bacteria attempt to break down or digest the peat, producing a gaseous byproduct that smells like rotting eggs. The gas consists predominantly of methane, one of the most powerful greenhouse gases.

The researchers, who are allied either with UCLA or the Russian Academy of Sciences, spent three years studying more than 10,000 Siberian bogs.

The widespread bogs of the Russian Arctic appear to play a much more important role in the creation of greenhouse gases worldwide than previously thought, a UCLA-led team has found.

“These are major peatlands that are rich and important in the creation of greenhouse gases,” said MacDonald.

The Arctic has been hard hit by present-day warming trends, Smith said.

“Sea ice is melting so quickly that it’s at the lowest extent ever seen before, shrubs are sprouting up in what used to be tundra, the growing season has lengthened and the tree line may even be moving north,” he said. “There’s no question that the Arctic is really warming up.”

If the trend continues, Siberia’s peat bogs may dry out for the first time, which would unleash a significant store of the greenhouse gas CO2 into the atmosphere.

“In an extreme warming scenario, the peatlands could go from being this wet soggy bog that withdraws carbon dioxide from the atmosphere to a compost heap, which could then begin to release CO2. That’s scary because they’ve been storing it for 11,500 years. That’s a lot of carbon dioxide to let loose on the environment.”

www.geog.ucla.edu
Memories of “Fair Lady”
A world-renowned UCLA linguist recalls teaching cinema’s most famous phonetician about the intricacies of speech.

Rex Harrison almost made an enemy when he extinguished his cigarette in Peter Ladefoged’s mouth.

Never mind that the oral cavity was only a dental cast. Ladefoged, a renowned linguist at UCLA, planned to use the plastic replica of his upper jaw in his research on word formation. That is, until Harrison, the distinguished character actor who portrayed Henry Higgins, started hunting for an ashtray on the set of the 1964 movie, “My Fair Lady.”

“I was rather annoyed,” Ladefoged recalls.

But four decades later, “Rex Harrison’s ashtray” is a colorful souvenir of Ladefoged’s stint as technical consultant on the set of the beloved classic film about an English phonetician and his most stubborn pupil. “My Fair Lady” will appear again in a gala 40th anniversary release this fall.

A research linguist who has been called “a living treasure” by his colleagues, and who is recognized as a champion of preserving the world’s endangered languages, Ladefoged isn’t in the habit of relating “My Fair Lady” anecdotes. But he did include a reference to the film in a textbook on linguistic fieldwork that was published in 2003: he explained the kymograph, an arcane piece of equipment found in the film and once found in turn-of-the-century linguistics laboratories.

In 1964, legendary director George Cukor tracked down Ladefoged, then an assistant professor at UCLA, for advice on just such details. But the name of the director—who won an Academy Award for “My Fair Lady” and was long famous in Hollywood for “The Philadelphia Story” and “Gone With The Wind,” didn’t ring any bells with the Englishman who had joined UCLA two years earlier. “I had no idea who he was,” Ladefoged recalls.

But Ladefoged was quite familiar with the tools—like mouth casts—that would have captivated Henry Higgins, the cocky Edwardian linguist who seeks to elevate a common flower vendor by erasing her Cockney accent. Ladefoged could even remember the equipment’s manufacturers, who then provided vintage models.

“There were enormous strides made during World War II in analyzing sounds,” Ladefoged said. “But when I was a student in the late 1940s, we still had pre-war-type equipment, which hadn’t changed much since the turn of the century.”

“Pygmalion,” the George Bernard Shaw play on which the Lerner–Lowe musical is based, was also an old friend. “I remember setting students—as I’d been set by my professors—to transcribing parts from Pygmalion to learn linguistic notation,” Ladefoged said.

In fact, it was Ladefoged who produced the linguistic notations that Harrison appears to be making in the opening scene with Audrey Hepburn as “gutter snipe” Liza Doolittle. The camera lingers on his transcription for 10 seconds, Ladefoged once calculated.

“You wouldn’t have a hope in hell of remembering it,” he says.

The movie’s legendary but long deceased cast burn more brightly in his memory. The elegant Hepburn, for instance, a five-time Oscar nominee, impressed Ladefoged as a “homebody.”

“Between takes, she passed around a plate, saying ‘Would you like a chocolate chip cookie—I baked them last night,’” Ladefoged remembers. “A very nice person, a very nice person, indeed.”

On the set of “My Fair Lady”—UCLA Linguist Peter Ladefoged (second from right) coaches actors Rex Harrison (left) and Wilfred Hyde-White on linguistic methods, while director George Cukor observes.
Great Futures for the College

College Volunteers: The Critical Link to Advancing Teaching and Research

The task of raising $315 million in private support for the UCLA College has been nothing short of challenging, especially in this time of economic uncertainty. Nevertheless, with the end of Campaign UCLA still a year away, that goal is clearly in sight, thanks in part to the extraordinary commitment and enthusiasm of many alumni and friends of the College, who have contributed not only financially but personally to bring the Campaign to fruition.

Currently almost 400 dedicated people volunteer their time, their energy, and their expertise—either as individuals or as members of one of the College’s 18 boards or committees—to help identify and contact prospective donors, to assist with events, or to advise deans and faculty about developments in business and industry.

These volunteers are critical to the success of Campaign UCLA and to the advancement of research and education in the College.

“Our volunteers often are our best donors,” said Tracie Christensen, executive director of development for the College. “Together they have contributed a total of more than $71 million toward the College Campaign goal. But, just as important, volunteers also help broaden our reach by communicating our needs and inspiring others to do what they themselves have done.”

Acting Executive Dean Judi Smith points out that volunteers contribute a unique stimulus to the Campaign. “When we embark on new initiatives, the energy and excitement come from our volunteers,” said Smith.

Four hundred dedicated volunteers take a leadership role in moving the College toward its fundraising goals.
The most prominent volunteer organization is the College Campaign Cabinet, composed of deans and other administrators, and 17 dedicated alumni and friends who are lending their considerable talents to the direction of Campaign UCLA within the College. Smaller divisional and departmental organizations, such as the Friends of English and the new Sciences Board of Visitors, enable volunteers to direct their efforts to particular areas that interest them.

Two decidedly committed champions of the College are 1966 UCLA alumni Garen and Shari Staglin. The Staglins are generous donors: five years ago they established the Staglin Family Chair in Psychology, Psychiatry, and Biobehavioral Sciences, currently held by Professor Ty Cannon. Recently they increased their total commitment to the College to $5 million, to endow the Staglin Family Music Festival Center for the Assessment and Prevention of Prodromal States at UCLA. (For the full story on the Staglin gift, see www.college.ucla.edu/staglin.htm.)

The center is named for the Staglins’ annual Napa music festival, which raises funds for mental health research. The Staglin Center conducts research aimed at identifying the causes of psychosis and decreasing the severity and frequency of mental illness in high-risk adolescents.

But the Staglins’ devotion to UCLA goes beyond even this generous philanthropy; Shari is a director of the UCLA Foundation and a member of the Board of Governors, and Garen is the recently appointed chair of the College Campaign Cabinet.

“When Garen and Shari Staglin make a philanthropic commitment, we also are fortunate to receive their intellectual involvement and their volunteer leadership,” Christensen said.

In their professional lives, Garen Staglin is an active venture capital investor and manager of companies that provide advanced transaction processing systems and services, and Shari operates the Staglin Family Vineyard in Napa Valley.

What motivates busy people such as the Staglins to devote so much of their own time and energy to the College?

“We have a real sense of pride in UCLA,” Garen Staglin said. “We want to help make UCLA one of the top universities in the country. We feel good when we see the results of our own personal giving, but there is also joy in helping others find opportunities to channel their philanthropic interests into the needs of the College.”

Staglin believes that, like him and his wife, the College’s alumni volunteers are inspired by a desire to give back to the university.

“When you’re fortunate in your life, and UCLA has given you the academic background and capabilities to be successful, you feel an obligation to do something for the university to allow the same assets to accrue to others.”

Staglin asserts that the primary task of the volunteers is communication.

“Our number one job is to dispel the myth that the university is self-sufficient with state funds. Were that even partially true prior to the advent of the budget crisis in California, it is no longer even remotely true. We need to let College alumni and friends understand how important their support is to the university . . . and how much fun it is to get involved!”

Judi Smith sums up, “The College Campaign Cabinet and our other volunteers are partners with the College leadership in advancing research and teaching, and also setting an agenda for the Campaign. We embrace these partnerships and are working to increase the number of partners.”

For information about supporting the UCLA College, call Tracie Christensen, executive director of development (310)206-0699
A new gift to the College provides support for outstanding graduate students—and also additional income for the donor.

Professor Florence Ridley gave 36 years of her career to UCLA as a professor of English literature, but her giving did not stop when she retired. Recently, Ridley donated her house in Santa Monica to the university. But rather than giving the house outright to UCLA now or bequeathing it to the university in her will, Ridley entered into a gift annuity agreement with The UCLA Foundation that created a "life tenancy" to provide her with additional retirement income while she remains in the house as long as she chooses. She also will receive a substantial tax deduction for her charitable donation.

"This life tenancy is a most generous program," Ridley said.

According to Ridley’s wishes, when UCLA receives the house, the proceeds from its sale will endow the Lily Bess Campbell, Ada Nisbet, and Florence H. Ridley Graduate Fellowship in English. These awards will, in perpetuity, provide crucial support for promising graduate students in the department who are pursuing careers in medieval, Renaissance and Dickens studies.

Ridley has come a long way in her life, both literally and figuratively. Originally from Murfreesborough, Tennessee—home to her family for 200 years—Ridley majored in Latin at Randolph-Macon Woman’s College in Virginia, then pursued an M.A. in English at Vanderbilt University. She had intended to stop there, but her love of literature drove her onward.

“For me, getting degrees was like eating popcorn—I couldn’t stop,” she explained, laughing.

Ridley received her Ph.D. from Harvard in 1957 and immediately accepted a teaching position at UCLA. She had never been to California, and she “wanted to venture forth into the great unknown.”

Although Ridley began as one of only two female faculty members in UCLA’s Department of English, she says she “never felt discriminated against.” The department was trying hard to recruit women, but at that time there were few qualified female candidates for university teaching positions. The first woman to teach English at UCLA had been Lily Bess Campbell, whose particular interest was Renaissance literature, but she had already left the university when Ridley arrived. The other woman in the department was Ada Nisbet, a Dickens specialist. In naming her fellowship gift, Ridley included these women to recognize the first three female faculty members in the department.

At UCLA, Ridley immersed herself in the life of the campus. In addition to teaching English literature, she joined the Academic Senate, eventually serving on almost every committee, and becoming the first woman to chair the senate.

Ridley was active in UCLA’s Alumni Association, screening hundreds of young scholarship applicants over the years. And she pursued her scholarly interests, focusing on medieval literature and becoming an eminent Chaucer scholar. She also served for 20 years as the U.S. representative to the International Association of Professors of English.

But teaching was Ridley’s first priority. “I cherished my students,” she said. She wanted to convey her own joy in studying Chaucer, “getting to know a man who lived in the 14th century, understanding the universality of his experience.” Her efforts did not go unappreciated; many of her former students remember her with genuine affection and gratitude. “I still get letters,” she said, “and it means a great deal to me.”

Although Ridley retired in 1993, she remains involved in her field. Her scholarly work has continued with the completion of the first draft of a manuscript on “The Friar’s Tale” for publication as part of the Variorum Chaucer Project, a multivolume, standard edition of Chaucer’s works. She is president of the Society of Fellows of the Medieval Academy. At UCLA, she maintains an office in the English Department, and she currently serves on the board of Friends of English.
A New Recruitment Tool for Rising Faculty Stars

An endowed chair funded by Walter De Logi will provide critical startup funding for faculty at the beginning of their careers.

For Walter De Logi, making a gift to establish an endowed chair in the College’s Division of Life Sciences was an easy decision.

“I knew about biology. I knew UCLA. I didn’t have to do too much homework,” De Logi explained, smiling.

The Walter De Logi Endowed Chair in Biological Sciences will provide vital support that will help UCLA attract promising scientists working at the interface of biological sciences and other science and technology fields.

De Logi’s choice was actually based on a long professional history in the sciences, a strong relationship with UCLA, and a keen personal desire to make a lasting contribution to a field about which he cares deeply. De Logi is chairman of the board of Ceres Inc., a leading plant genomics company in Malibu that he cofounded with UCLA Professor Bob Goldberg of the Department of Molecular, Cell and Developmental Biology (for more on Goldberg, see page 10).

Even while training in physics and electrical engineering in Belgium and then at Caltech, De Logi has always had a strong interest in biology. “Modern biology actually was started by physicists after the Second World War,” he explained. “Physicists imported the tools of physics into biology and changed it from a descriptive science to a more analytical and experimental science. I was very much a part of that culture, and I was interested in biology even when I was studying electrical engineering and physics.”

Pursuing his interests from another angle, De Logi earned an M.B.A. from Harvard and began to investigate the possibility of creating a biotech company.

The company De Logi cofounded in Belgium, Plant Genetic Systems (PGS), was sold to a large German chemical pharmaceutical company in 1996.

“At that time,” De Logi said, “we all knew that the next technology wave was going to be genomics.” But he also knew that it would be difficult to assemble a large enough team in Europe to form a plant genomics company.

So De Logi came back to the United States, and, with Oxford Bioscience Partners (a leading life sciences venture capital company), and UCLA’s Goldberg, a former member of the science board at PGS, cofounded Ceres Inc. Ceres employs state-of-the-art genomic technologies to develop unique plants and plant-based products for use in food and feed, fiber, chemicals and pharmaceuticals.

Walter De Logi’s fruitful relationship with UCLA had begun in the 1980s, when he met Goldberg at PGS and the two became colleagues and friends. Today, De Logi is a member of the College’s Sciences Board of Visitors and has helped build a partnership between Ceres Inc. and Goldberg’s Seed Institute, a joint effort of several UC campuses that works to discover the genes and processes needed to make a seed.

Through Goldberg, De Logi met Fred Eiserling, then dean of Life Sciences. In discussions with Eiserling, De Logi learned that one of the greatest challenges facing the UCLA College is to attract talented faculty. The Walter De Logi Endowed Chair in Biological Sciences was an outgrowth of those discussions. Because the new chair will be occupied for five to ten years by each incumbent, it will continually draw rising young faculty to UCLA, providing critical startup funding for their research Eiserling noted.

“Walter De Logi is one of the sharpest intellects I’ve ever met, and also one of the most thoughtful,” said Eiserling. “Walter established the endowed chair so that it would provide maximum benefit to the university as a whole, as well as to the chairholder. We treasure his help, advice and his wonderful gift to the life sciences.”
A First for the College

Steven and Christine Udvar-Hazy create the first collegewide endowed chair to support faculty who have served in leadership roles.

When the Udvar-Hazy family came to the United States in the late 1950s as Hungarian refugees seeking a better life, they probably had no idea just how much better their life was going to be. In part because of the excellent education that both sons received at UCLA, they were able to pursue rewarding careers.

To express his appreciation for the advantages he gained from his education, Steven Udvar-Hazy and his wife Christine, who attended the UCLA Anderson Executive Program and who heads the Udvar-Hazy family foundation, recently established the first Collegewide endowed chair, an endowment that can support faculty in any department in the College.

Udvar-Hazy was only 12 years old when his family left Hungary, but he took with him an intense interest in aviation, which had begun when he was taken to an air show outside Budapest at the age of 6. From Hungary, the Udvar-Hazy family emigrated to Sweden and then to New York, where Steven began high school. But when his older brother Andrew won a scholarship to UCLA and the family visited him, they fell in love with Southern California and soon moved to Los Angeles. Andrew pursued a career in science. Not far behind, Steven entered UCLA in 1965.

Because of his interest in the aviation industry and international business, Udvar-Hazy majored in economics, with a minor in international relations. Clearly he was no ordinary student.

“While I was at UCLA,” he said, “I was already working on my own projects.” One of these was the establishment of Airlines Systems Research Consultants, a firm that specialized in aircraft leasing, consulting, and airline management activities. Udvar-Hazy also obtained his pilot’s license and started a commuter airline that flew along the California coast. After graduation, he taught transportation management at UCLA Extension and then pursued graduate studies at Stanford. In 1973, he cofounded the company he heads today.

“UCLA was a great foundation for me,” Udvar-Hazy said. “I took a broad range of courses, from philosophy to anthropology to economics and international relations.” The gift that he and his wife gave to the UCLA College was inspired, he said, by his desire to “give back to the school for the help it gave me.” The Steven F. and Christine L. Udvar-Hazy Endowed Chair will be awarded to a faculty member in the College who has served with distinction in an academic or administrative leadership role.

Endowed chairs help the UCLA College attract and retain distinguished, world-class scholars and scientists. When the Udvar-Hazys decided to endow a chair in the UCLA College, they knew they didn’t want to limit their gift to one department or division because, in Steven’s words, “UCLA is a kaleidoscope of academic opportunities, and we want to support that.”

Remembering the strong foundation his education provided, he said, “Our commitment to UCLA now is to enable other students to have this experience, this opportunity to study with topnotch faculty in the College.”

Steven and Christine Udvar-Hazy: “Our commitment to UCLA now is to enable other students to have this experience, this opportunity to study with topnotch faculty in the College.”
An interdisciplinary team of faculty, graduate students, and post-doctoral researchers leads the UCLA Freshman Cluster on “Biotechnology and Society.”

The cluster program in the UCLA College recently received the Theodore M. Hesburgh Certificate of Excellence, for being “an outstanding faculty development program that has shown great success in enhancing teaching skills that enrich the intellectual welfare of undergraduate students.”

For more on the award and Freshman Clusters, see page four.

From left: Instructors Sally Gibbons (philosophy and coordinator of the cluster), Jeanne Perry (molecular, cell, and developmental biology), Ralph Robinson (microbiology, immunology, and molecular genetics), Richard Mousheggi (graduate student in political science), David Yamanishi (postdoctoral scholar in political science).