



# UCLA COLLEGE REPORT

Summer 2016 | Volume Twenty-Six

## THE **NEW** HUMANITIES

MEDICAL HUMANITIES  
DIGITAL HUMANITIES  
ENVIRONMENTAL HUMANITIES  
URBAN HUMANITIES

Dear Friends,

*This is a special issue for us because it marks an end of an era here at the UCLA College.*

*This month, Joe Rudnick, senior dean of the College and dean of physical sciences, retired from UCLA after 32 years of service. He has been a leader in this institution for nearly three decades, and has helped shape some of the most significant accomplishments of his division.*

*His retirement is a historic milestone at UCLA. For the first time since 1948, students will return in the fall quarter without a Rudnick actively serving on the faculty.*

*That's because the UCLA community has had the good fortune of being home to two Dr. Rudnicks. Joe's father, Isadore, served on the faculty of the Department of Physics for nearly 40 years. Both inspired generations of students and faculty through their leadership, teaching, research and mentorship.*

*They left a permanent impression during UCLA's first century, and there's no doubt that Joe's influence and passion will continue to resonate well into our second century.*

*The next hundred years are full of promise as well. As the landscape of public education changes, our responses must also change. The cover of this edition of the College Report, and our introduction to "The New Humanities" on pages 16-17, reflect one such transformation: the reinvention of the humanities for a new age. As a cherished foundational discipline in higher education, the humanities are changing rapidly as our society becomes more interconnected and global.*

*We are re-envisioning the humanities in a way that continues to educate our students about how language, religion, culture and societies have shaped our present, while using the modern tools and technologies offered by this new age to expand our horizons.*

*Reflecting on the contributions of the two professors Rudnick and the current innovations in the humanities, we remain committed to ensuring that UCLA — as it nears its 100th birthday — remains vital and responsive to the needs of the times.*

*We will miss Joe and all that he has done for us. We thank him for leaving a legacy of opportunity and optimism for the future.*

Sincerely,

**Alessandro Duranti**  
Dean of Social Sciences

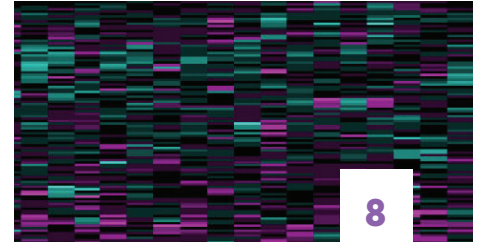
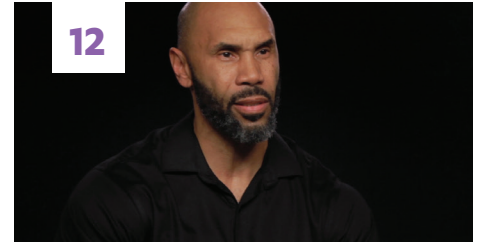
**David Schaberg**  
Dean of Humanities

**Victoria Sork**  
Dean of Life Sciences

**Patricia Turner**  
Dean and Vice Provost for  
Undergraduate Education



Left to right: Joseph Rudnick, Patricia Turner, David Schaberg, Alessandro Duranti and Victoria Sork



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## UCLA College

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Dean of Physical Sciences

**Alessandro Duranti**  
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### 16 On the Cover:

UCLA is a leading force in the creation of the "new humanities," a vibrant discipline that honors the past while looking toward the future—cultivating graduates who can thrive in a complex global society. Photo and Design: Alyssa Bierce and Kristina Hordzwick.



Download the UCLA College iPad app and stay informed of the world-class research, faculty and students of the College.  
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## National and Global Rankings Place UCLA at the Top; Honors for College Faculty

**ELEVEN GRADUATE PROGRAMS HOUSED IN THE UCLA COLLEGE ARE RANKED AMONG THE TOP 20 IN THE NATION IN U.S. NEWS & WORLD REPORT'S 2017 BEST GRADUATE SCHOOLS SURVEY. THE UNIVERSITY ALSO PLACED SECOND AMONG ALL U.S. PUBLIC UNIVERSITIES IN THE TIMES HIGHER EDUCATION GLOBAL REPUTATION SURVEY.**

*U.S. News & World Report* ranks graduate programs based on experts' opinions about program excellence as well as statistical measures of faculty quality, research output and student achievement. UCLA graduate programs in the top 20 are clinical psychology (1), psychology (2), math (7), history (9), sociology (9), political science (10), earth sciences (13), chemistry (15), economics (15), physics (18) and biological sciences (19).

In addition, UCLA has again been recognized by leaders of peer institutions as one of the best universities in the world. *The Times Higher Education World Reputation Rankings*, which assess the international prestige of institutions of higher learning, place the campus No. 2 among all U.S. public universities. Among all universities worldwide, public and private, UCLA placed No. 13.

### American Academy of Arts and Sciences elects new members

The American Academy of Arts and Sciences announced the election of 213 new members who include some of the world's most accomplished scholars, scientists, writers and artists.

Among those elected into the 2016 class are seven UCLA professors, including five from the College: **Robert Buswell Jr.**, distinguished professor of Buddhist studies in the UCLA Department of Asian Languages and Cultures and founding director of the Center for Buddhist Studies and Center for Korean Studies at UCLA; **Steven Jacobsen**, professor of molecular, cell



and developmental biology, and a principal investigator at the Howard Hughes Medical Institute; **Robin D.G. Kelley**, distinguished professor of history and the Gary B. Nash Endowed Chair in United States History; **Glen MacDonald**, the John Muir Memorial Chair of Geography, director of the White Mountain Research Center and a UCLA distinguished professor; and **Roberto Peccei**, professor emeritus in the department of physics and astronomy and the former UCLA vice chancellor for research.

### Faculty earn 2016 Sloan Fellowships

Two young UCLA College professors are among three UCLA faculty members and 126 scientists and scholars in the U.S. and Canada to receive 2016 Sloan Research

Fellowships. The fellowships are awarded by the Alfred P. Sloan Foundation to early-career scientists and scholars "whose achievements and potential identify them as rising stars, the next generation of scientific leaders."

**Artem Chernikov** is an assistant professor of mathematics and a member of the UCLA Logic Center. His main research interest is a branch of mathematical logic called model theory and its applications to algebra, geometry and computer science.

**Elaine Hsiao**, an assistant professor of integrative biology and physiology, studies the trillions of microbes the body contains that impact health and disease and seeks to understand how they influence the brain and behavior.

### Chemistry professor awarded Fulbright U.S. Scholar grant

**Anastassia Alexandrova**, an associate professor in UCLA's department of chemistry and biochemistry and a member of UCLA's California NanoSystems Institute, has been awarded a 2016-2017 J. William Fulbright U.S. Scholar grant. The Fulbright Program is the flagship international educational exchange program sponsored by the U.S. government.

Alexandrova will use the grant to conduct research in the chemistry laboratory of the École Normale Supérieure (ENS) in Lyon, France. Her research project will focus on computational catalysis. She also hopes to establish long-term scientific collaborations between UCLA and ENS.

### Three named 2016 Guggenheim Fellows

A trio of UCLA faculty members are among a distinguished group of 178 scholars, artists and scientists from the U.S. and Canada to receive 2016 Guggenheim Fellowships.

**Neil Garg**, professor of chemistry and biochemistry, and the Carnegie Foundation for the Advancement of Teaching's 2015 California Professor of the Year, develops new chemical transformations that enable the synthesis of important organic molecules. His Guggenheim research project will focus on new chemical reactions catalyzed by non-precious metals.

**Stella Nair**, associate professor of art history and a member of UCLA's Cotsen Institute of Archaeology, was trained as an architect and architectural historian. She has conducted fieldwork in Bolivia, Mexico, Peru and the U.S. Midwest, and she has ongoing projects in the south central Andes. Her research examines the art, architecture and urbanism of indigenous communities in the Americas before and after the arrival of Europeans.

**Zrinka Stahuljak** is a professor of French and Francophone studies and of comparative literature. Her research interests include continental French, Anglo-French and Mediterranean literature, history and culture. A former wartime interpreter on the front lines of wars in the former Yugoslavia, Stahuljak has written about a range of subjects including cultural differences and power structures.

## In Memoriam: Nobel Laureate Lloyd Shapley

**LLOYD SHAPLEY, A UCLA EMERITUS PROFESSOR OF ECONOMICS AND MATHEMATICS AND CO-WINNER OF THE 2012 NOBEL MEMORIAL PRIZE IN ECONOMIC SCIENCES, DIED MARCH 12. HE WAS 92 YEARS OLD.**

Shapley was widely considered one of the fathers of game theory. His research focused on both cooperative and non-cooperative game theory, in fields including stochastic games, strategic market games, assignment games, cooperative and non-cooperative market models, voting games and power indices, potential games, cost allocation and organization theory. His work included the development of the "Shapley value" and the "core."

"Professor Shapley was one of the giants of game theory," UCLA Chancellor Gene Block said. "His work in market design laid the foundation for advances in the matching of kidney donors with transplant recipients, in college admissions procedures, and in



Lloyd Shapley being received by President Obama at the White House in 2012.

assignment of children to public schools. The entire UCLA community joins professor Shapley's family in mourning his passing."

A chapter of *A Beautiful Mind*, about mathematician and Nobel laureate John Nash, who suffered from schizophrenia, is devoted to Nash friend and mentor Shapley. In fact, Shapley was credited with coming up with the book's title when he said that Nash had "a keen, beautiful, logical mind."

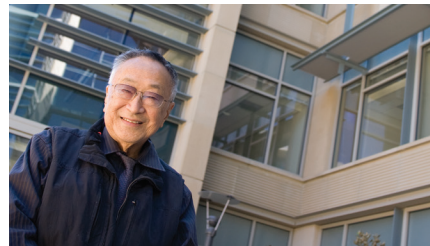
Shapley joined the UCLA faculty in 1981 and has been emeritus since 2001.

## In Memoriam: Paul Terasaki, Transplant Medicine Pioneer, UCLA Professor and Alumnus

**PAUL ICHIRO TERASAKI, WHO SPENT THREE YEARS WITH HIS FAMILY IN A JAPANESE-AMERICAN INTERNMENT CAMP DURING WORLD WAR II BEFORE BECOMING A THREE-TIME UCLA GRADUATE, A PIONEER IN ORGAN TRANSPLANT MEDICINE AND A LONG-TIME SUPPORTER OF THE CAMPUS, DIED JAN. 25. HE WAS 86.**

Terasaki, professor emeritus of surgery at the David Geffen School of Medicine at UCLA, developed the test that became the international standard method for tissue typing. The procedure, which assesses the compatibility of organ donors and recipients, has been used for all kidney, heart, liver, pancreas, lung and bone marrow donors and recipients for the past 40 years.

In 1984 he founded One Lambda with eight of his former students; the company, which he sold in 2012, now has more than 270 employees and continues to play a central



Paul Terasaki, in 2010, in front of the Terasaki Life Sciences Building, which was funded by his generous donation.

role in the advancement of tissue typing.

Beginning with a \$10 gift in 1972, Terasaki donated more than \$58 million to UCLA over nearly 45 years, including \$50 million toward the state-of-the-art Terasaki Life Sciences Building and an endowed chair in surgery at the Geffen School, and a total of more than \$6 million to the UCLA International Institute.

Terasaki was awarded the UCLA Medal, the campus' highest honor, in 2012.



## Celebration marks halfway point of Centennial Campaign

**UCLA COLLEGE'S LIVES CHANGED CELEBRATION ON APRIL 13 IN PAULEY PAVILION MARKED A NEW CHAPTER IN THE COLLEGE'S 97-YEAR HISTORY.**

Faculty, students, alumni and donors were recognized in an event that highlighted the breadth and depth of talent in each division in the College — Life Sciences, Humanities, Physical Sciences, Social Sciences and Undergraduate Education. As the largest academic unit in California, the College educates 87 percent of UCLA's undergraduate students and is at the core of the university's research and community engagement.

The event underscored the importance of UCLA's \$4.2 billion Centennial Campaign to the long-term health of the university. Halfway through the five-year effort, the College is at 65 percent of its \$400 million goal.



From top: The court at Pauley Pavilion was transformed for the Centennial Celebration event; students who received scholarships volunteered to escort guests; the audience enjoyed a musical performance from fourth-year student Lashon Haley and second-year student Lauren Blenkinship.

## Dean Joseph Rudnick retires after 32 years of service



**JOSEPH RUDNICK, DEAN OF PHYSICAL SCIENCES AND SENIOR DEAN OF THE UCLA COLLEGE, RETIRED JUNE 29.**

During his tenure as dean, Rudnick recruited 60 new faculty members and increased faculty diversity. He oversaw a successful fundraising program that has generated more than \$68 million in philanthropic support. Since 2006, student enrollments in the physical sciences have increased by more than 50 percent and UCLA's physical sciences profile has risen. According to the 2014-15 Times Higher Education World University Rankings, UCLA is ranked ninth in the world for physical sciences and first among U.S. public institutions.

"I especially want to thank Joe for his outstanding leadership of the Division of Physical Sciences and for his tireless work to enhance the division's stature and establish it as a hub for interdisciplinary research, education and service," said Executive Vice Chancellor and Provost Scott Waugh.

Rudnick assumed the responsibilities of senior dean of the College in January 2013. In this role, he chaired the College Cabinet of Deans, provided management oversight for the Office of the Deans and College development, and represented the College on campus, systemwide and externally.

A member of UCLA's physics faculty since 1984, Rudnick served as chair of the Department of Physics from 1986 to 1989 and chair of the Department of Physics and Astronomy from 2004 to 2006. He served as interim dean of the Division of Physical Sciences from 2006 until 2009, when he was appointed dean.

Professor Miguel García-Garibay, chair of the UCLA department of chemistry and biochemistry, has been selected as dean of the UCLA Division of Physical Sciences, effective July 1.



From top: UCLA College deans welcome guests; UC President Janet Napolitano addresses the need for a strong public university system; UCLA Chancellor Gene Block speaks about campus priorities.

# ‘Mind Over Matter’

Course introduces students to medical humanities spanning history, philosophy, psychology and neuroscience

By Jessica Wolf

## WHAT CAN SHAKESPEARE, CERVANTES, PROUST, AND EVEN CONTEMPORARY PLAYWRIGHTS AND FILMMAKERS CONTRIBUTE TO THE STUDY OF NEUROSCIENCE?

A lot, says UCLA professor of integrative biology and physiology Scott Chandler, especially for students just starting their academic careers.

“When we are talking about the brain, we are talking about our essence,” Chandler said.

For the last four years, Chandler has been teaching and coordinating the pedagogy for the interdisciplinary freshman cluster course titled “Mind Over Matter: The History, Science and Philosophy of the Brain.” He designed the course to incorporate medical history and philosophy alongside sections in cognitive psychology and in-depth instruction on neuroscientific material.

This year “Mind Over Matter” expanded to incorporate literature and film sections that Chandler said have provided valuable context to understand the brain as the home of the human psyche.

This can be a daunting proposition for students and professors alike, he said, but it’s worth tackling.

### Looking at the mind through the lens of literature and film

Helping tackle it is professor and chair of comparative literature Efrain Kristal, who inserted a mini-survey of his discipline into the class — which is typically about 40 percent science majors. He asked them to dive into representations of mental illness through the lens of Shakespeare’s *King Lear* and Cervantes’ *Don Quixote*.

He followed up scientific and history lectures on the concept of memory with a

representations of memory in literature through readings from Jorge Luis Borges, Marcel Proust and William Wordsworth.

Wordsworth’s poems provided illustration of memory recall that creates a sense of enrichment or reassurance later in life, he said. Reading Proust’s *In Search of Lost Time* exposed students to the concept of involuntary memory, when present sensations can call up unbidden memories. With Argentine writer Borges, students explored a thought experiment based on the imagined writings of a Shakespearean scholar who inherits Shakespeare’s own memories.

They also studied *The Hard Problem* by modern playwright Tom Stoppard, which is set in a neuroscience institute.

“There were characters studying math, psychology and evolutionary biology in the play and they are addressing the practicalities of being in a neuroscience institute, the personal issues involved, the professional dilemmas, and the philosophical dilemmas,” Kristal said. “So through the play we can talk about the implications of what they have been studying scientifically.”

As students learned about the history of schizophrenia and post-traumatic stress disorder (PTSD) and their impacts on the physiology of the brain, UCLA comparative literature professor and film expert Romy Sutherland provided an overview of filmmaking techniques that allow viewers to empathize with characters in such films as the award-winning *A Beautiful Mind*, about Nobel Laureate economist and mathematician John Nash and his struggles with paranoid schizophrenia. *Fearless*, a 1996 film about how two survivors of a plane crash cope with PTSD, and David Cronenberg’s *Spider*, in which the lead character suffers from both disorders, were also studied.

“I approached it as a mini-course on film analysis, and deliberately started with a

popular Hollywood movie, then moving to a more middle-ground piece and then moved all the way into the art-house realm with Cronenberg,” Sutherland said.

She said students responded well to examining how filmmakers use the tools of their trade to establish point of view and generate an emotional response toward characters battling diseases related to the brain.

### Humanities and sciences can complement each other

There is a growing sense of enthusiasm on both north and south campus for increasing the cross-pollination of the humanities with life and health sciences. Deans and educators in the UCLA College and medical schools are exploring the creation of an official course of study dubbed “medical humanities.” This approach to curriculum would more deeply inject courses from multiple humanities disciplines for students in medical degree programs and offer students on a traditional humanities track the chance to broaden their scientific knowledge, which could be applicable in their futures as educators, authors and even artists.

“One of the goals has been to get students, when they leave the course, to see the big picture, and that will help them function better in society,” Chandler said.

The “Mind Over Matter” course is designed to encourage students to think and write critically about the inherent interaction of the neurobiological, philosophical, sociological and psychological factors that control our behavior and experiences as human beings.

“All people need to know about the brain,” Chandler said. “Being able to critically evaluate and understand neuroscientific findings and their potential impact on our society is not only important in medicine, but in non-science professions like law, business and politics, too.”





Scott Chandler

### Students and faculty welcome the challenges

Chandler's course fulfills general education credits for students in any major. This presents challenges for professors as they offer complicated concepts to a broad student audience in their first year. This course however, is anything but basic; neither the science elements nor the humanities requirements are watered down.

Though the coursework is challenging, student feedback is largely positive. In June 2015, Chandler and his fellow "Mind Over Matter" teachers published findings from surveys of students taken in the second year of the course in the *Journal of Undergraduate Neuroscience Education*. They found that 77 percent of the non-science majors in "Mind Over Matter" said they would not otherwise have taken a neuroscience course.

"One of the nice things about an interdisciplinary course like this is you can see more clearly that lots of people



Efrain Kristal

are asking the same questions, they just come at them from different angles," said Emma Geller, Ph.D. candidate and teaching fellow for the course. "This is what we're trying to teach, not that there are always specific answers, but that there is simply evidence and there are ideas."

Students say the architecture of UCLA's cluster course program is invaluable to their research and learning skills, with this class providing particular emphasis on library research. They said they appreciate how the infusion of literature and film also allowed them to examine the brain as a social construct.

"There's so much we don't know about the brain," said James Wilson, who is majoring in statistics and political science. "What I liked about this course was how it fostered both north and south campus mentalities on the topic in challenging ways."

For Youngzie "Zoe" Lee, who is majoring in cognitive science, the course has had a lasting impact. Together with



Romy Sutherland

fellow UCLA students and students from other universities who are all interested in continued exploration of consciousness, she has created The Qualia, a virtual society where she and other online contributors will continue to investigate and share experiences related to the undefinable subjective experience that animates human consciousness.

Creating and teaching a course like "Mind Over Matter" is also challenging for the instructors. Chandler asks that the instructors attend as many of their fellow instructors' lectures as possible, which Kristal and Sutherland both said they found enlightening. They collaborate weekly on class discussions, ask each other questions about how the students are responding and how their areas of expertise can best converge.

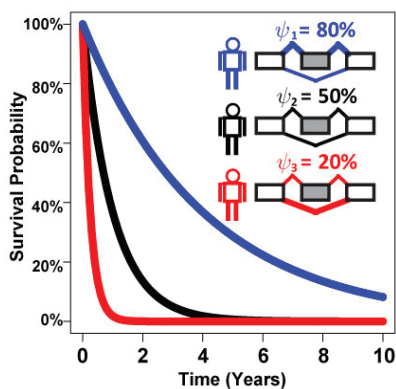
"I haven't worked this hard since I first started teaching," Kristal said with a laugh.

# New method for biomedical big data identifies key biomarkers for predicting how long cancer patients will live

Research could also help scientists suppress dangerous genetic sequences

By Stuart Wolpert

**CANCER PATIENTS OFTEN ASK DOCTORS HOW LONG THEY HAVE TO LIVE, BUT HOW PRECISE ARE DOCTORS' ANSWERS? CAN ESTIMATES BE IMPROVED BY LINKING THE MOLECULAR DATA OF CANCER PATIENTS TO THEIR SURVIVAL TIMES?**



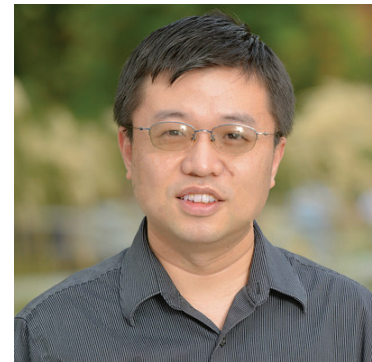
A hypothetical example to illustrate the association of isoform ratio with cancer patient survival probability over time. Blue, black and red lines represent patients with high, medium and low isoform ratios.

A new statistical method developed by a team of UCLA scientists and applied to six types of cancer is likely to result not only in more accurate survival estimates, but also to enable scientists to determine which genetic sequences can be lethal and which are harmless. The six cancer types are breast cancer, a highly malignant and aggressive form of brain cancer (glioblastoma multiforme), a less aggressive form of brain cancer (lower grade glioma), lung cancer, ovarian cancer and kidney cancer.

A key to the new method is its rigorous analysis of various gene isoforms using data generated by “massively parallel sequencing” of RNA molecules (also known as “RNA-seq”) in cancer specimens. Isoforms are different combinations of genetic sequences that can produce an enormous variety of RNAs and proteins from a single gene. Some isoforms can cause cancer cells to spread and may promote cell growth — which, of course, is very undesirable in a cancer patient.

The new method, an example of biomedical big data and precision medicine, is the first statistical method for conducting survival analysis on isoforms, said senior author Yi Xing, a UCLA associate professor of microbiology, immunology and molecular genetics. The research was published June 9 in the journal *Nature Communications*.

In breast cancer, Xing and his colleagues report having identified some 200 isoforms that are associated with survival time (some with longer survival times, others with shorter survival times). The new method, called SURVIV (Survival analysis of mRNA Isoform Variation), can help to identify critical isoforms that are



Yi Xing

important biomarkers for disease. Knowing which isoforms are associated with shorter survival times may enable scientists to learn ways to suppress these isoforms, Xing said.

He and his colleagues show that isoform-based survival predictions work better than gene-based predictions.

## A ‘robust molecular signature’

“We were really surprised by this result because the conventional wisdom is that RNA-seq is much more accurate at measuring the total amount of RNA products of a gene than the relative proportions of its multiple isoforms,” said Xing, director of UCLA’s bioinformatics doctoral program and a member of UCLA’s Institute for Quantitative and Computational Biosciences. “Our finding suggests that isoform ratios provide a more robust molecular signature of cancer patients in large-scale RNA-seq data sets. This has very interesting clinical and translational implications.”

DNA gets transcribed into RNA, and RNA gets translated into proteins. Exons are regions of genetic sequences in “precursor

RNA” molecules that later become part of the final RNA produced by a gene. Our cells combine these building blocks (exons) in various ways to produce different proteins, some of which are harmless and some of which can be quite dangerous. Xing’s SURVIV method is the most sophisticated ever devised to factor in RNA isoforms in analyzing patients’ survival times.

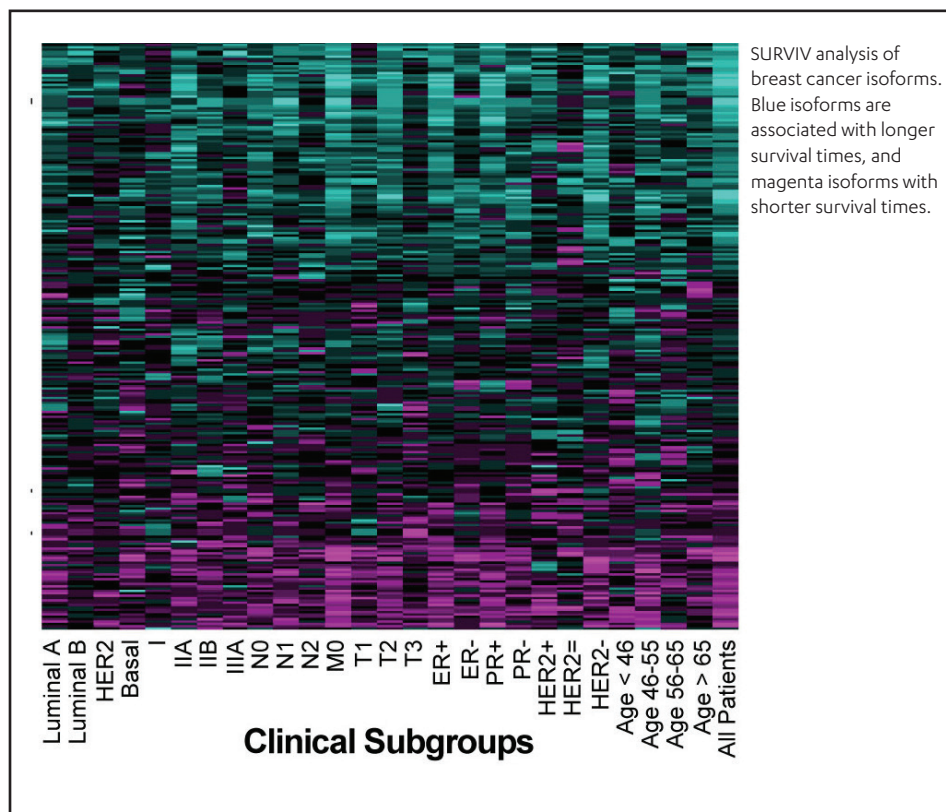
“People often say one gene produces one protein, but that is not true,” said Xing, whose expertise is in bioinformatics, genomics and RNA biology. “One gene can produce many proteins with very different biological functions. Sometimes you can make two very different proteins from the same gene that differ in some of the exons. The proteins can even have opposite biological functions. For example, in cancer, sometimes a single gene produces two isoforms, one of which promotes metastasis and one of which represses metastasis. One gene produces many isoforms, but the conventional analysis of gene expression aggregates all of the isoforms together, without measuring the differences in different isoforms.”

A human gene typically produces seven to 10 isoforms, Xing said. A single gene produces isoforms that are very similar and often differ in only one segment.

The UCLA researchers applied the SURVIV method to tissues from The Cancer Genome Atlas of the National Institutes of Health, which contains RNA-seq data on tumor and normal tissues from more than 11,000 patients. For this study they analyzed tissues from 2,684 cancer patients.

### Just scratching the surface

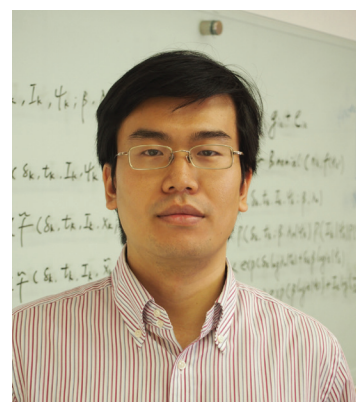
Xing and his colleagues conducted more than two years of research developing SURVIV’s algorithm. They also developed a method called rMATS two years ago to compare RNA sequences in a cancer patient’s tumors with RNA sequences from that patient’s normal tissues and to study whether isoforms are different in the cancer tissues.



RNA has been widely known as a cellular messenger that makes proteins and carries out DNA’s instructions to other parts of the cell, but is now understood to perform sophisticated chemical reactions and is believed to perform an extraordinary number of other functions.

“We have just scratched the surface,” Xing said. “We will apply the method to much larger data sets, and we expect to learn a lot more.”

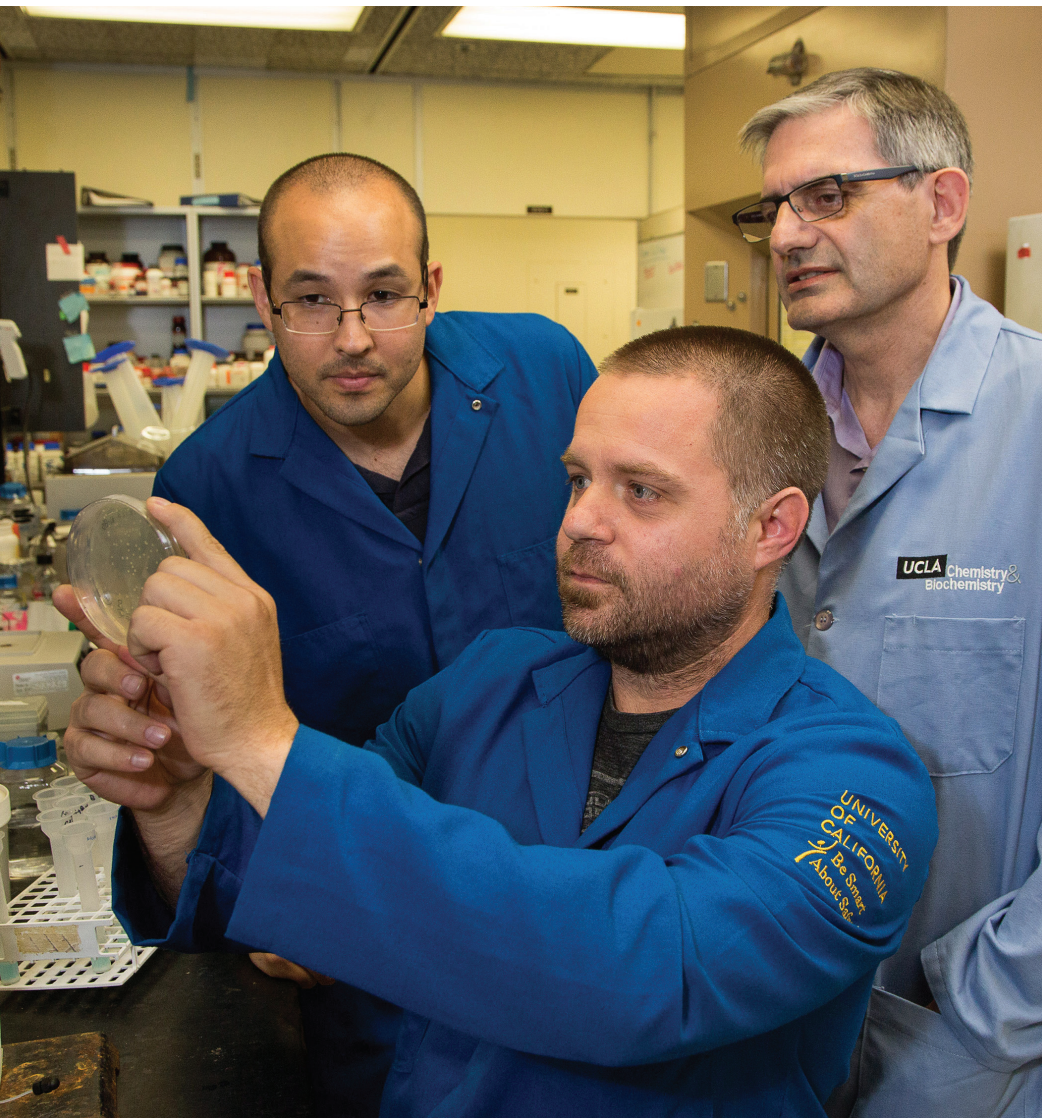
Co-authors of the *Nature Communications* research are lead author Shihao Shen, a senior research scientist in Xing’s laboratory, who is trained in computational biology and statistics; Ying Nian Wu, UCLA professor of statistics (4th author); Chengyang Wang, a student in UCLA’s bioinformatics doctoral program; and Yuanyuan Wang, a UCLA graduate student in molecular and medical pharmacology.



Shihao Shen

The research was funded by the National Institutes of Health and is also supported by an Alfred Sloan Research Fellowship.

# Major advance in ‘synthetic biochemistry’ holds promise for industrial products and biofuels



Paul Oppenorth, Tyler Korman and James Bowie (left to right) work in Bowie's lab at UCLA.

By Stuart Wolpert

**UCLA BIOCHEMISTS HAVE DEvised A CLEVER WAY TO MAKE A VARIETY OF USEFUL CHEMICAL COMPOUNDS, WHICH COULD LEAD TO THE PRODUCTION OF BIOFUELS AND NEW PHARMACEUTICALS.**

“The idea of synthetic biology is to redesign cells so they will take sugar and run it through a series of chemical steps to convert it into a biofuel or a commodity chemical or a pharmaceutical,” said James Bowie, a professor of chemistry and biochemistry in the UCLA College, and senior author of the new research.

“However, that’s extremely difficult to do. The cell protests. It will take the sugar and do other things with it that you don’t want, like build cell walls, proteins and RNA molecules. The cell fights us the whole way.”

As an alternative, Bowie and his research team have developed a promising approach he calls synthetic biochemistry that bypasses the need for cells.

“We want to do a particular set of chemical transformations — that’s all we want — so we decided to throw away the cells and just build the biochemical steps in a flask,” Bowie said. “We eliminate the annoying cell altogether.”

## Synthetic biochemistry at work

The biochemists purified more than two dozen enzymes in particular combinations and concentrations, put them in a flask and added glucose. The enzymes and pathways, created in Bowie’s laboratory, are not

necessarily found in nature. “When we don’t have to worry about keeping cells happy, it’s easier to rearrange things the way we want,” he said.

“If the enzymes are not good enough — not fast enough, not stable enough — then we re-engineer them,” said Tyler Korman, a postdoctoral scholar in Bowie’s laboratory and co-author of the study.

The research, published in the journal *Nature Chemical Biology*, demonstrates that the biochemists can generate complex enzyme systems outside the cell that function well enough to be useful for the production of biofuels and commodity chemicals.

#### Industrial applications

Synthetic biochemistry could be used for many industrial products, including producing plastics, flavors and scents, and perhaps eventually biofuels, said Bowie, a member of the UCLA–Department of Energy Institute’s Division of Systems Biology and Design and UCLA’s Molecular Biology Institute.

To convert glucose into a biofuel, bioengineers would ideally want cells to convert 100 percent of the sugar into fuel. Ethanol can be produced by yeast fermentation in about a 70 percent yield, by the same process we use to make beer and wine, “but that’s after effectively thousands of years of optimization by man to increase alcohol levels in our favorite drinks,” Bowie said. The best yields for cell-produced chemicals in bioengineered strains are generally much lower or have other problems, he said.

Bowie, Korman and Paul Opgenorth, another postdoctoral scholar in the laboratory, report they have achieved approximately a 90 percent yield for the production of a biodegradable plastic.

The research team is working to overcome remaining challenges, including

regulating the production of high-energy molecules needed for biochemical reactions.

In an important prelude to the current study, in 2014 the biochemists reported in the journal *Nature Communications* a major advance in regulating these high energy molecules — a system they call a molecular purge valve — and are continuing to develop other regulatory “tricks.”

“We have to make synthetic biochemistry robust enough to work in a very large industrial plant,” said Bowie, who has conducted research at UCLA since 1989, first as a postdoctoral scholar, and with his own laboratory since 1993.

They are in the early stages of forming a company, called Invizyne Technologies Inc., for which Bowie is a scientific adviser.

### FAST FACTS ABOUT CHEMISTRY & BIOCHEMISTRY AT UCLA

- The Department of Chemistry & Biochemistry was **ranked 5th in the world** by *U.S. News & World Report Best Global Universities* for the subject of Chemistry in 2015.
- The Department is home to more than 50 faculty, 130 postdoctoral researchers, 350 graduate students, and 1,400 undergraduates.
- Three faculty members and four alumni have been **awarded Nobel Prizes in Chemistry**, and 13 faculty have been elected members of the National Academy of Sciences.

#### EDUCATION. RESEARCH. SERVICE.

Students have unparalleled opportunities to do cutting-edge research alongside eminent faculty and researchers. The goals of this research include synthesizing complex natural products and new nano-materials required to solve the many health and environmental crises facing our planet, and illuminating the molecular mechanisms that regulate the decoding of genetic information.

#### CURRENT RESEARCH INCLUDES:

- Cellular repair of proteins and small molecules to counteract the chemical damage of aging
- Breakthrough treatments for prostate cancer
- Unprecedented supercapacitor battery performance based on graphene
- Advanced biofuels and chemical feedstocks
- Structure of telomerase, a key enzyme involved in major life processes

# Hollywood Diversity Report: mounting evidence that more diverse casts help the bottom line

UCLA's Bunche Center finds that earnings and social media traffic are higher for content with more women and minority actors

By Eric Greene

## "THE OSCAR NOMINATIONS ARE OUT, AND THEY'RE SO WHITE, A GRAND JURY HAS DECIDED NOT TO INDICT THEM."

With that pointed joke lampooning the 2015 Academy Award nominations, comedian Larry Wilmore launched his political satire series, "The Nightly Show," in January of last year. That line was equally applicable to the demographics of Hollywood writing staffs, executive suites and talent agencies — and is just as relevant one year later.

The Ralph J. Bunche Center for African American Studies has published its third annual Hollywood Diversity Report. The comprehensive study, subtitled "Busines\$\$ as Usual?," examines the relationships between diversity and profitability in Hollywood, and finds once again that audiences, regardless of their race, prefer diverse content. It also reports that films and television shows with diverse casts tend to sell more tickets and earn higher ratings.

"What we've found for three years running now is that audiences prefer content that looks like America," said Darnell Hunt, lead author of the study, a UCLA professor of sociology and director of the Bunche Center.

The trend of higher ratings and earnings for more diverse content is reinforced by consumers' online behavior. According to the report, social media engagement, an increasingly important measure of popularity, was higher for more diverse programming. For example, the study found that among broadcast TV shows, the median number of Twitter posts was highest for programs with casts that were made up of 31 percent to 40 percent minority actors.

## Women and minorities losing ground

Despite the economic advantages enjoyed by programming with diverse casts — and the celebrated success of a few breakout figures — film and TV jobs still go overwhelmingly to white males while women and people of color are denied opportunities to advance in the industry. Racial minorities, for instance, had 12.9 percent of the lead roles in the 163 films examined for 2014, despite making up almost 40 percent of the nation's population.

During that same period, women directed just 4.3 percent of the top films, according to the report, down from 6.3 percent in 2013.

"While minorities fell back a few steps since the last report in six of the 11 industry employment arenas examined and merely held their ground in the other[s], women suffered losses in eight of the 11 arenas examined and treaded water in the other

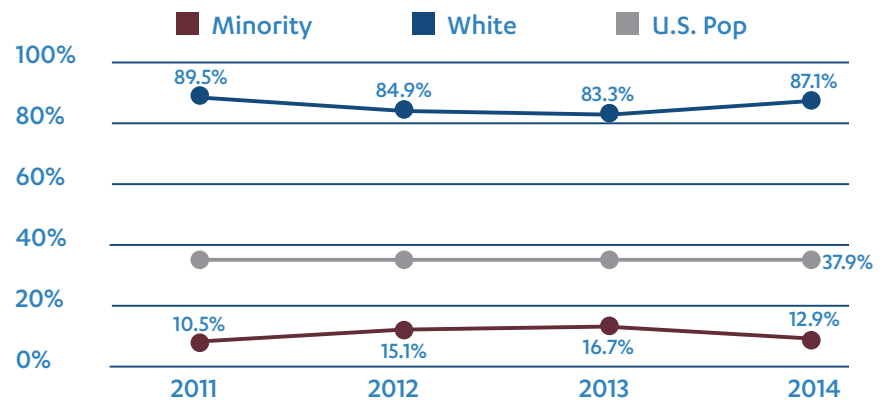
three," the report notes. "Both groups remained underrepresented on every industry employment front in 2013–14."

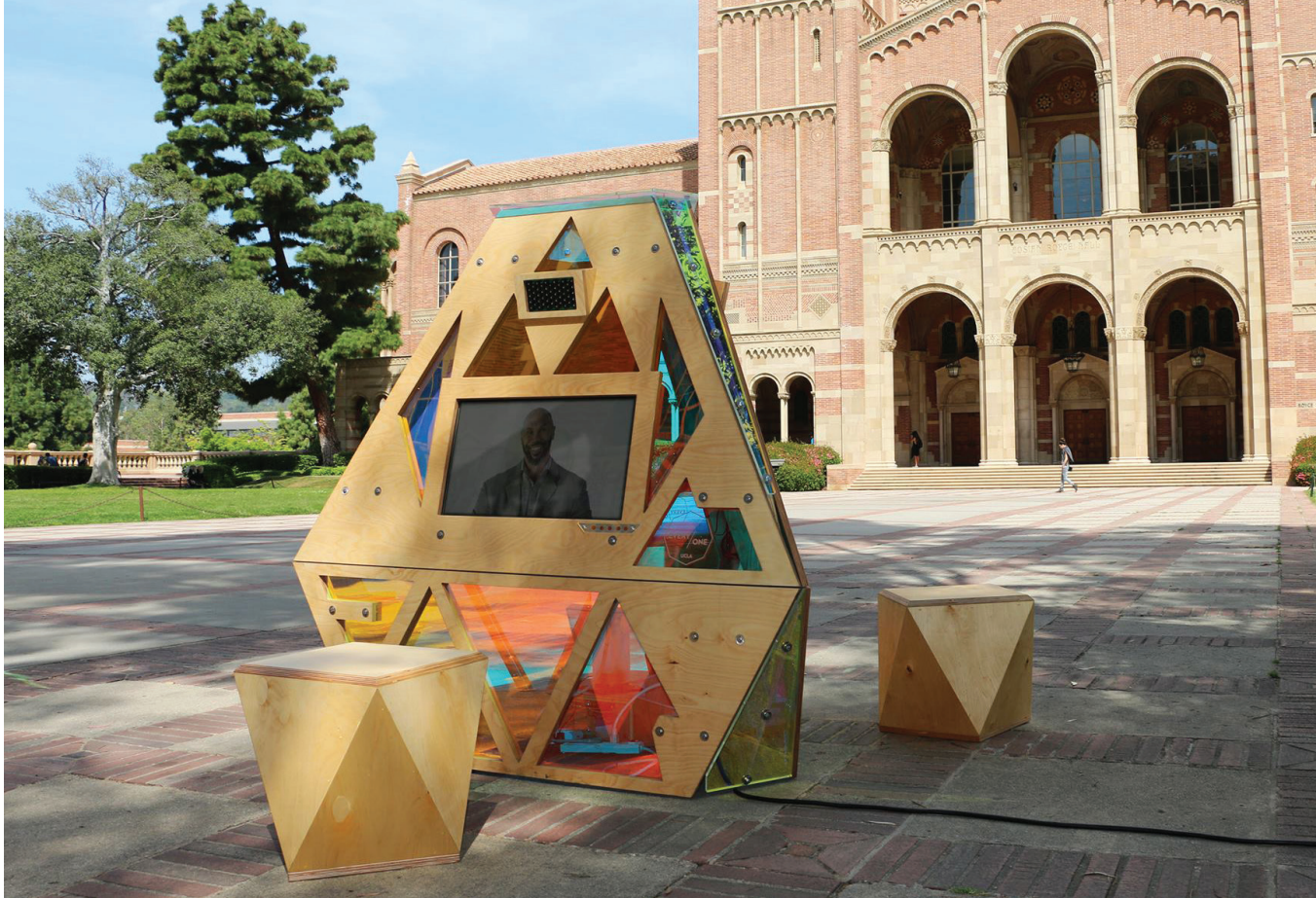
The lack of diversity among 2016 Academy Award nominees — for the second consecutive year, all of the men and women nominated in the actor/actress and supporting actor/actress categories were white — led to a public backlash and the #OscarsSoWhite social media campaign, which decried the ongoing inequality in Hollywood. But beyond the immediate controversy, the demographic mismatch between Hollywood and the nation could portend serious economic consequences for the industry.

## An unsustainable business model?

The report suggests that the entertainment industry's current business model may soon be unsustainable. According to the study, "At nearly 40 percent of the nation's

## LEAD ACTOR BY RACE Theatrical Films





An interactive exhibit showcasing the Hollywood Diversity Report popped up in several locations around campus. The exhibit is a new approach to highlighting the scholarship of UCLA faculty.

population and growing, people of color are overrepresented among Hollywood's audiences. ... Similarly, viewer ratings and social media engagement demonstrate that people of color now make up arguably the most important segment of the television audience." However, the report notes, "The very people best situated to help [Hollywood] connect with today's (and tomorrow's) audiences are hardly at the table."

The researchers write that while Academy Award nominations generated headlines and attention, they merely hint at systemic problems that reach every sector of the industry — the networks and studios, agencies, film and television academies, individual producers and showrunners — and that the situation won't be addressed with quick fixes. "It will require bold gestures that disrupt industry business as usual, which not only adjust the optics in front of the camera but that also overhaul the creative and executive machinery behind it."

Hunt said those types of changes are necessary because of the entertainment industry's singular influence on our culture.

"We know from data that when groups don't know a lot about each other, much of what they think they know comes from entertainment," Hunt said. "So to the extent

that whole populations are absent in media or are placed exclusively in stereotypical roles, you tend to normalize certain types of hierarchical structures that are already in place in society and reinforce prejudices.

"The way we make sense of who we are, who we aren't and who we ought to be often comes from the stories we tell and the stories we consume. This is why what we watch is important."

#### Pop-up showcases scholarship

In a new approach to highlighting the scholarship of UCLA faculty, an interactive exhibit showcasing the Hollywood Diversity Report popped up in several locations around campus, including stops at Covell Commons and Kerckhoff Art Gallery. The pop-up allows many more students, staff



Darnell Hunt

and faculty the opportunity to learn about the relevance of the report.

"The pop-up gives us an opportunity to share innovative faculty research with the broader UCLA community," said Executive Vice Chancellor and Provost Scott Waugh. "This mobile exhibit enables us to connect with Bruins all across campus, reaching beyond traditional academic publications, conferences and classrooms."

The pop-up, which can be customized to shine a spotlight on other faculty projects in the future, is part of the Every/One Initiative, a UCLA program that has hosted dinner discussions and salons to facilitate dialogue about equity and inclusion on campus.

**Learn more:** Read the full report at <http://ucla.in/21PQdeo>. Watch Darnell Hunt, director of the UCLA Bunche Center, discuss the report at <https://youtu.be/5m5kcq81TRU>. See a video of the pop-up at <https://youtu.be/HOsCZm5Z4-4>.

# Interdisciplinary minors energize learning and enhance job prospects



Students taking a new course on food justice at UCLA learn about the topic from the ground up. The course is part of a new food studies minor, one of a growing number of interdisciplinary programs managed out of UCLA's Undergraduate Education Initiatives.

By Jessica Wolf

## A GROWING LIST OF INTERDISCIPLINARY MINORS IS ATTRACTING STUDENTS WHO SEEK TO BROADEN THEIR POST-GRADUATION PROSPECTS AND INTERACT WITH PEERS IN DIFFERENT AREAS OF STUDY.

"I'm clearly seeing how beneficial the entrepreneurship minor is to my future career prospects," said Veronica Chan, a fourth-year student who is double-majoring in architecture and design media arts. "But it is also sculpting me personally."

That perception among students is one factor that's driving the development of more interdisciplinary minors. Last year, the UCLA Anderson School of Management launched an entrepreneurship minor and the UCLA International Institute offered a

global health minor. This spring a cross-section of campus departments and the Center for Community Learning developed a food studies minor. For a new minor in literature and the environment, managed by the English department, students will select environmentally focused electives from other humanities departments as well as those in the social, life and physical sciences.

With the recent additions of entrepreneurship and food studies, there are now five minors boasting similar cross-disciplinary curricula managed out of UCLA's Undergraduate Education Initiatives, including social thought (launched in 2005), civic engagement (2006) and disability studies (2007). A free-standing interdisciplinary minor under UCLA's Lesbian, Gay, Bisexual and Transgender Studies Program has existed since 1997.

"Collaborative minors invigorate curriculum," said Dean of Humanities David

Schaberg of the UCLA College. "We aim to educate creative thinkers who read widely and learn to analyze, synthesize and apply knowledge; study world cultures; and become articulate speakers and persuasive writers. We want our students to graduate with the ability to thrive as global citizens."

Most of the interdisciplinary minors also incorporate internships, capstone courses or service learning programs. These in-depth, experience-based courses are invaluable, students say, allowing them to cultivate skill sets that will serve them well in the job market.

### The roots of the food studies minor

The newest addition to the interdisciplinary menu at UCLA is a minor in food studies.

The program embraces a rapidly growing course list from a variety of departments that use food as the main lens of investigation. Students will dive



into such topics as the science of food, food production, food policy, nutrition, cultural customs and the folklore of food.

For example, this spring there were food-focused classes for every palate, including “Chocolate in the Americas: Bittersweet Bliss” and an English class titled “California Foodways and Food Writing.” A variable history class, “Cultural History of Food in the Atlantic World,” was offered in the winter.

The desire to develop a minor in food studies evolved naturally out of work being done by UCLA’s Healthy Campus Initiative, said Joseph Nagy, English professor and chair of the minor. Student interest was already high, he said, thanks to engagement with healthy eating and wellness programs on campus and the popularity of new courses such as “Food Studies and Food Justice” and “Food and Sustainability,” a general education cluster course.

Food is a universal, inherently varied topic, one that is embedded with meaning, memory and opportunities for dialogue, Nagy said. Students minoring in food studies have the flexibility to incorporate related classes, petition to include other classes and to self-curate a course of study. Also in the works are plans to bring in food industry experts as guest lecturers, including L.A. restaurateur and KCRW host Evan Kleiman, starting this summer. Her course will be called “We Are Stardust: Moral Ecology of Food.”

### Stepping outside conventional ideas

There are currently 75 students enrolled in the entrepreneurship minor, which has drawn students from a variety of majors, including Andreas Dereschuk, an applied math major. Within the minor, he has taken on valuable public-speaking and teamwork challenges. He also appreciates interacting with a diverse pool of students through the minor.

“Getting to experience and have access to instructors and fellow students in what really is a sub-campus within UCLA has absolutely enhanced my experience

here,” Dereschuk said. “Mathematics teaches me problem-solving, which is translatable to so many things in life. Having these management courses has helped me recognize strengths that I can use to my advantage and skills I can work on developing.”

A fourth-year student who has already secured a job, Dereschuk said potential employers were intrigued to see the entrepreneurship minor listed on his resume. He aspires to build a technology-based business, a concept that will be part of his final project in the minor.

One of the most robust and constantly evolving interdisciplinary minors is disability studies, which has graduated more than 100 students. Victoria Marks, a professor in UCLA’s Department of World Arts and Cultures/Dance, became its chair in 2013.



In her course “Rechoreographing Disability” for UCLA’s Disability Studies minor, professor of choreography Victoria Marks uses people’s disabilities as part of her art. More than 32 faculty from 16 departments offer courses in the Disability Studies minor. Photo: Axis Dance Company

As a choreographer, Marks said she never expected to work so deeply within the UCLA College, but she thinks that establishing and maintaining interdisciplinary coursework is both worthy and necessary.

“It allows for us as thinkers and doers to step outside conventional ideas about knowledge and to question what knowledge is and to create new definitions of knowledge,” she said.

In disability studies, students challenge and redefine what is “normal” — whether physical, mental or intellectual — by exploring disability as a social issue with the goal of re-envisioning models of access, inclusion, participation and equality.

Marks said the introductory course is often a paradigm shift for students, many of whom are seeking careers in health fields, as well as social work, advocacy, philanthropy and public policy. Through the minor they have the opportunity to study disability-related topics in such fields as dance, urban planning, law, history, art and gerontology.

Mi So Kwak is a third-year psychology major who decided to double-minor in education disability studies, even though it will extend her original plan to graduate in three years. Kwak, who is blind, said the program gave her the opportunity to examine disability academically for the first time.

“I’ve been blind all my life, and I’m fine with it,” she said. “But this minor has been very perspective-broadening about disability in our culture. These scholars we’re learning from are activist scholars, and it is very encouraging to see how they are making a difference in the way people view disability.”

### Learn more:

Watch “An Introduction to Disability Studies at UCLA,” which includes video of Victoria Marks’ choreography, at [https://youtu.be/46rrvkuQ\\_Dc](https://youtu.be/46rrvkuQ_Dc)



# THE NEW HUMANITIES

## MEDICAL HUMANITIES

For students who aspire to health care or social work careers, Medical Humanities (MH) will provide deep insight into the human condition by cultivating analytical and observation skills, empathy and self-reflection — all essential for humane care. MH students will complement a pre-med or science curriculum with courses in English, disability studies, religion, history, philosophy, sociology and psychology. The MH track will tie UCLA Humanities to the wealth of science, research and medical enterprises on campus.

## DIGITAL HUMANITIES

Digital Humanities (DH) teaches students to create, apply and interpret new digital and information technologies, giving graduates a competitive edge for careers in business, technology and media. DH is being used throughout campus, from mapping Holocaust survivor trajectories to using Twitter to study the progression of the 2011 Egyptian revolution. Since it is primarily web-based, DH scholarship is accessible to a global public audience, and bridges diverse communities, including museums, schools, libraries, advocacy groups and nonprofits.

Image from Housing in the RiverCity: Rethinking Place and Process by Dana Cuff and Per-Johan Dahl

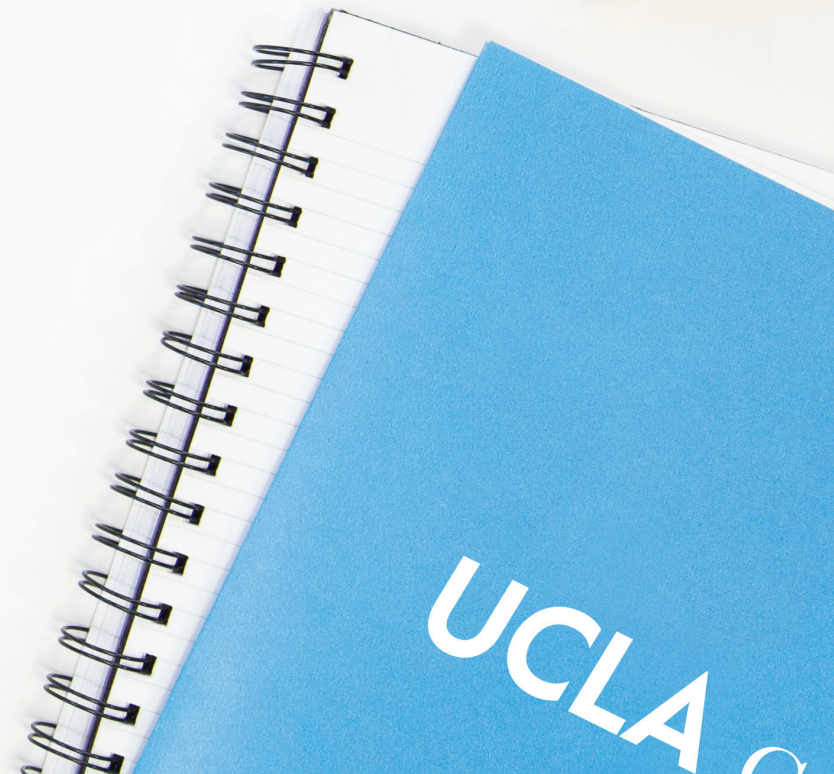
UCLA STUDENTS HAVE RECENTLY BEGUN CONNECTING THE DOTS BETWEEN HUMANISTIC STUDY AND THE WORLD IN WHICH THEY LIVE. UCLA HUMANITIES ARE INTRODUCING FOUR NEW CURRICULAR TRACKS IN WHICH STUDENTS DELVE INTO FIELDS OF CONTEMPORARY RELEVANCE WHILE MASTERING TRADITIONAL HUMANITIES SKILLS SUCH AS CLOSE READING, ANALYSIS, AND WRITTEN AND SPOKEN EXPRESSION. THESE TRACKS WILL COMPLEMENT UCLA'S STRONG OFFERINGS IN THE HUMANITIES.

## URBAN HUMANITIES

Urban Humanities (UH) blends architecture and urbanism with historical-critical approaches from the humanities to study cities and the challenges of contemporary society. UH students learn the importance of focusing on human values and needs in the face of important policy decisions. They gain specific skills and methods with which to explore the intersections of historical research, urban design and digital mapping.

## ENVIRONMENTAL HUMANITIES

The Environmental Humanities (EH) track attracts students interested in studying human civilization's effect on the environment, and in mitigating the negative impact on our present and future landscape. Home to humanities and science scholars with expertise in EH, UCLA is a leader in this emerging field, capitalizing on its location in a city marked by dense and diverse populations, a thriving metropolitan region, mountain ranges, and ocean and desert landscapes.



## Beyond Newton's Law

Largest-ever gift to UCLA Physics & Astronomy establishes the Mani L. Bhaumik Institute for Theoretical Physics



Mani Bhaumik

By Margaret MacDonald

**THE DEPARTMENT OF PHYSICS & ASTRONOMY IN THE UCLA COLLEGE WILL ESTABLISH A CENTER OF EXCELLENCE DEVOTED TO ADVANCING OUR KNOWLEDGE OF THE BASIC LAWS OF NATURE, WITH THE GOAL OF BECOMING A WORLD-LEADING CENTER FOR THEORETICAL PHYSICS RESEARCH AND INTELLECTUAL INQUIRY.**

The Mani L. Bhaumik Institute for Theoretical Physics will be funded thanks to an \$11 million gift by physicist and philanthropist Mani Bhaumik, whose donation is not only the largest in the history of the department, but in the entire Division of Physical Sciences.

Anchored by distinguished faculty, postdoctoral researchers and graduate students, the Bhaumik Institute will be set up to stimulate synergies and intellectual exchanges that lead to major breakthroughs. Its overarching aim will be to address unanswered questions in all areas of theoretical physics.

The Bhaumik Institute will host visiting scholars and organize seminars and conferences for the academic community. There will also be a robust public outreach program to help educate the wider community about scientific advances.

"I thank Mani Bhaumik for his philanthropic leadership and for believing in UCLA," Block said. "He shares our goal of ensuring that UCLA remains vibrant, relevant, strong and among the best in the world."

"We are tremendously grateful to Mani for his vision and generosity," Dean of Physical Sciences Joseph Rudnick said. "It is through extraordinary gifts like these that the next big leaps will be made in science."

### The road to UCLA

Bhaumik rose from poverty to become an eminent scientist who played a key role in developing the laser technology that paved the way for Lasik eye surgery. Born in a remote village in West Bengal, India, he slept on rags in the thatched-roof mud hut he shared with his parents and six siblings.

"My family didn't always know where our next meal would come from," he said. "I didn't own a pair of shoes until I was 16 and walked four miles to school and back in my bare feet."

Life was made even more precarious by the struggle for Indian independence going on around him: Bhaumik's father, a "freedom fighter," was often away and spent time in prison for his revolutionary activities.

Bhaumik's dreams of a brighter future made him determined to obtain a good education and climb out of poverty, but it was his prodigious curiosity that led him to become a scientist.

He studied under renowned physicist Satyendra Bose and was awarded a master's degree in physics from the University of Calcutta. In 1958, Bhaumik became the first student to earn a doctorate from the prestigious Indian Institute of Technology Kharagpur, in physics.

Bhaumik recalled coming to UCLA in 1959 "with \$3 in my pocket" on a Sloan Foundation postdoctoral fellowship. The people of his village had raised the money for his airfare.

"I thought I'd died and gone to heaven," he said of his arrival on campus. "Everyone there was treated equally, not like back at home where the poor were treated like dirt."

In 1961, Bhaumik joined the Quantum Electronics Division at Xerox Electro-Optical Systems as a laser scientist. He later served as director of the Laser Technology Laboratory at Northrop Corporate Research Laboratory. In 1973 at a meeting of the



The deans of the College and Mani Bhaumik announce his \$11 million gift at the Lives Changed campaign celebration in April. From left, David Schaberg, Patricia Turner, Mani Bhaumik, Joseph Rudnick, Alessandro Duranti and Victoria Sork.

American Optical Society, he announced the conclusive demonstration of the world's first efficient excimer laser. In recognition of his contributions to the field, he was elected a fellow of the American Physical Society and the Institute of Electrical and Electronics Engineers. In 2011, the Indian government awarded him the prestigious Padma Shri for distinguished service in science and engineering.

**Long-term support for the field**

As a member of the UCLA Physical Sciences Board of Visitors, Bhaumik has witnessed the

effect of reduced government funding on scientific research, particularly in the field of theoretical physics. In 2015, he established the Mani L. Bhaumik Presidential Chair in Theoretical Physics and has also supported physics professor Zvi Bern's research group.

"It's very difficult to raise funds for this area, because people don't understand what theoretical physicists do," Bhaumik said. "But physics holds the answers to the most fundamental questions of our very existence. Imagine what could be solved right here at UCLA."

He has found creative ways to spark the public's intellectual curiosity. He is the author of two books, *Code Name God* and *The Cosmic Detective*, and the creator of an award-winning animated TV series, *Cosmic Quantum Ray*.

Bhaumik is revered in India, where his rags-to-riches story has inspired generations of young people. He established the Mani Bhaumik Educational Foundation to support high-achieving Indian students and is donating land for the proposed Bhaumik International Center for Advanced Research at the Indian Institute of Technology.

PHOTO: VINCE BUCCI PHOTOGRAPHY

## UCLA receives \$5 million from Mellon Foundation

Grant will launch initiative to transform teaching and learning in the humanities

By Margaret MacDonald

**UNIVERSITIES TODAY FACE A DAUNTING CHALLENGE: HOW TO SERVE NEW GENERATIONS OF INCREASINGLY DIVERSE STUDENTS WHOSE WAYS OF LEARNING REFLECT OUR ERA'S RAPID CHANGES IN TECHNOLOGY AND EDUCATIONAL ACCESS.**

A \$5 million grant to UCLA from the Andrew W. Mellon Foundation will address this challenge head-on — creating core resources that will pave the way for a new era of teaching and learning. The Excellence in Pedagogy and Innovative Classrooms project, or EPIC, will enable UCLA to respond effectively to the emerging needs of today's students, who represent an ever-increasing breadth of cultural and economic diversity, beginning with an overhaul of teaching and learning in the humanities.

The results of the project will influence the way other disciplines are taught, both at UCLA and across the country.

"As a place of teaching excellence in the humanities, UCLA is ideally positioned to lead this transformative effort," said Scott Waugh, UCLA's executive vice chancellor and provost. "The Mellon Foundation's visionary grant will enable UCLA to serve as a model for public research universities committed to excellence in education."

### Putting research into action with teacher training

EPIC will not only examine students' changing learning styles, but also train faculty and graduate students how to teach as effectively as possible. The faculty members leading the project will develop a certificate in teaching excellence for graduate students and will forge new collaborations with community colleges in an effort to better meet the needs of incoming transfer students.

"This is an extraordinary opportunity for the humanities to play a central role in shaping higher education in the coming decades," said David Schaberg, dean of the UCLA College humanities division. "Our students have the talent and determination to become leading global citizens, and we owe it to them to give them as rich and effective a cultural education as we possibly can."

EPIC's goal is to preserve the values and methods of humanities education, while also exploring new ways to help students see the practical and intangible values of humanistic study.

"We hope that this bold initiative will touch many faculty and students, and jump-start ongoing, robust discussions of pedagogy," said Mariët Westermann, vice president of the Mellon Foundation. "UCLA's strategy is well aligned with the foundation's commitments to inclusive excellence and to innovation in humanities teaching."



A new UCLA initiative will examine students' changing learning styles in light of rapidly evolving technology and trends in educational access.

## A brighter future for ebony

Major gift will boost conservation and restoration of the hardwood

By Margaret MacDonald

**WORLD-RENOWNED GUITAR MAKER BOB TAYLOR, OF TAYLOR GUITARS, HAS DONATED \$400,000 TO SUPPORT EBONY CONSERVATION RESEARCH AND RESTORATION EFFORTS IN CAMEROON.**

Work will be coordinated by UCLA professor Thomas B. Smith, co-director of Congo Basin Institute, UCLA's first foreign affiliate in its 97-year history. The gift was announced at a star-studded fundraising gala in March hosted by UCLA's Institute for the Environment and Sustainability (IoES).

Ebony is an exotic but endangered species coveted for the beauty and tonal qualities of its wood, making it a sought-after material for guitars and other stringed instruments.

"Making a difference in central Africa is very hard. Bob is making a difference at the nexus of poverty alleviation and conservation, and along the way he is creating jobs, supporting cutting-edge science, and being a terrific partner for IoES and UCLA," said Peter Kareiva, director of the IoES.

Bob Taylor made his first guitar at the age of 16. A few years later, in 1974, he founded Taylor Guitars with business partner Kurt Listug. Now a world-leading builder of premium acoustic guitars, the company produces hundreds of guitars a day and has an artist roster that includes stars like Taylor Swift, Jason Mraz and Zac Brown.

Taylor Guitars had long been committed to eco-conscious practices. About five years ago, Taylor began visiting Cameroon and saw firsthand not only the depleted state of the ebony forests but also the impoverished conditions of its people. In 2011, the company partnered with Madrid firm Madinter, which sells tone woods for musical instruments, to buy CRELICAM, Cameroon's leading ebony sawmill, in a move to transform the ebony trade for the better and engage the community in the process. The mill now employs more than 70 people and continues to invest in the community's future through employee training and the exploration of ebony propagation, including an onsite seedling nursery.

"We've accomplished much over the five years we've been in Cameroon, first by elevating the income of our employees, then training suppliers, adding equipment for greater yield, leaving more money in the country, all the while increasing legality and transparency in the forest," Taylor said. "Now it's time to plant trees in a meaningful way, but little is known about how to do it."

It was on one of his trips to Cameroon that Taylor met Smith, director of the Center for Tropical Research at IoES and a professor in the Department of Ecology and Evolutionary Biology in the UCLA College. Smith has been conducting biodiversity and conservation research in the Congo basin for 35 years.



Bob Taylor and Tom Smith at Congo Basin Institute

According to Smith, the ecology of West African ebony remains poorly understood despite its economic importance.

"Thanks to Bob Taylor, the Congo Basin Institute is thrilled to help bring the best possible science to promote the sustainable harvest of ebony," Smith said. "Bob cares deeply about the future of ebony and African hardwoods generally. The project is a true 'win-win' for people and for biodiversity."

Taylor's gift will fund a multipronged effort that includes engaging local farmers to propagate and steward ebony seedlings in rural areas; creating predictive models of West African ebony distribution and identifying suitable harvesting and planting areas; research on the basic ecology of ebony; and lab testing to identify optimal conditions for ebony cultivation.

"We must expand the range of ebony in the Congo Basin," Taylor said. "It's the right thing to do, and Congo Basin Institute is able to develop the science to assure the work is successful.

With viable regrowth and conservative use, we can help to achieve sustainability."

# ***DREAMS REALIZED, LIVES CHANGED***

Graduating seniors of the Class of 2016 worked hard for this day and are ready to tackle the next chapter of their lives. Whether in the world of work or grad school, they will no doubt astonish us all.

An accomplished group of speakers led commencement ceremonies held all over campus in June. Here we share our speakers' thoughts about what UCLA has meant to them, along with some of their impressive achievements to date.







## Laurence Fink B.A. '74, M.B.A. '76

UCLA College Ceremony  
Pauley Pavilion

**"UCLA has played a central role in so many parts of my life – I met my wife Lori here, my eyes were opened to a career in finance, and I became a lifelong advocate of the university. Every day I'm inspired by UCLA's capacity to open up opportunities for young people, the way it pushes the boundaries of knowledge, and its commitment to making the world a more equal place."**

Laurence D. Fink, a UCLA alumnus and the chairman and CEO of BlackRock, was the keynote speaker for the UCLA College commencement ceremonies on Friday, June 10. He spoke at both the 2 p.m. and 7 p.m. ceremonies in Pauley Pavilion.

Fink helped establish the global investment management firm with seven others in 1988. The firm now manages more than \$4.6 trillion on behalf of clients of all types, including pension funds, university endowments and individual investors saving for retirement. Fink is regarded as one of the most influential individuals in business and finance today, having been named "CEO of the Decade" by *Financial News* in 2011, one of the "World's Best CEOs" by *Barron's* for 10 consecutive years, and, most recently as one of the "World's Most Respected Leaders" by *Fortune*.

A native of Van Nuys, California, Fink attended UCLA for his undergraduate and graduate studies, receiving his bachelor's degree in 1974 and M.B.A. in 1976. He received the UCLA Medal, the campus' highest honor, in March.

"Laurence used his two degrees from UCLA to build a world-class financial firm, proving that a Bruin can do anything," said Joseph Rudnick, senior dean of the UCLA College and dean of physical sciences. "His advocacy for creating a more long-term culture in business and finance, his focus on innovation and his philanthropy at UCLA and elsewhere demonstrate his commitment to building a better future. I know that his experience will inspire our graduates to find their own success and one day make an impact on the world."

Prior to founding BlackRock, Fink served as a managing director and a member of the management committee of the First Boston Corporation.

Fink is a longtime supporter of the UCLA Anderson School of Management, a member of the board of trustees of New York University and co-chairman of the NYU Langone Medical Center board of trustees. He serves on the boards of New York's Museum of Modern Art, the Council on Foreign Relations and the New York City charitable organization Robin Hood. He also is an executive committee member of the Partnership for New York City, which works to engage the business community in efforts to advance the city's economy.

**Richard Buller '71**  
 Chemistry and Biochemistry  
 Commencement  
 Court of Sciences

**UCLA was a very pleasant college environment with loads of opportunities everywhere one turned. My four years in Westwood had a huge influence on who I have become both as a person and professionally.**

Richard Buller, M.D, Ph.D., is vice president and head of clinical development in the Oncology Business Unit of Pfizer Inc. He began his career in academia as professor and head of gynecologic oncology and professor of pharmacology at the College of Medicine at the University of Iowa. There he pursued research on the molecular biology of ovarian cancer and conducted clinical trials. In 2004 Buller joined the pharmaceutical industry to work in clinical development at GlaxoSmithKline (GSK) and then led translational medicine at Exelixis before moving to Pfizer as head of translational oncology. Since 2012 he has overseen oncology clinical development (clinical, statistics, and clinical pharmacology) at Pfizer. His industry efforts have contributed two companion diagnostics and more than 10 new or supplemental drug applications, including Xalkori for Alk+ non-small cell lung cancer and IBRANCE for ER+/HER2- breast cancer.



As a clinician scientist with board certification in gynecologic oncology, Buller has authored roughly 150 basic science and clinical publications while mentoring multiple fellows. He has also received numerous awards and honors including multiple year listings in the Consumer Research Council of America's *Guide to America's Top Physicians*. He earned a B.S. in chemistry from UCLA, and his Ph.D. and M.D. from Baylor College of Medicine. Buller is married to his high school sweetheart Cathy, and they are the proud parents of four sons and a daughter.

**Stacy Burstin '91**  
 English Commencement  
 Pauley Pavilion

**The UCLA English literature curriculum provided an important foundation that I have applied to all areas of my professional career. Classic literature represents the best of story, character development and creative thinking, which form the backbone for any piece of media, no matter what technology you are using.**

UCLA English alumna Stacy Burstin is cofounder of Eevolver Inc., a next-generation creative development and production studio that works with directors, writers and studios to develop and produce feature films, commercials, virtual reality projects and special venue films.

Burstin was introduced to digital media at Warner New Media in 1993, when she worked on the production team for one of the first-ever interactive CD-ROM games, *Hell Cab*. After a stint as an agent, she joined visual effects studio Rhythm & Hues, which later won an Oscar for the film *Babe*. In 1999 she created and launched the firm's design division. As an executive producer, she oversaw art directors, animation directors, concept designers and creative development teams.

Burstin satisfied her entrepreneurial passion in 2000 by co-founding Eevolver,



originally a licensing and toy company. In 2013, she and her business partner transformed Eevolver's business model to include creative production services. Recent projects include *Woody Woodpecker* (NBC/Universal), *Alvin and the Chipmunks 4* (Fox), and multiple Super Bowl advertising spots. She serves on the New Media Council Board of Delegates of the Producers Guild of America and on the board of directors of Women in Animation. She has also been a consultant in new business development for companies ranging from high-tech start-ups to fundraising institutions.

**Eric Daly M.S. '01, M.B.A. '05**  
 Statistics Commencement  
 Powell Library Courtyard

**I credit my time in graduate school at UCLA with enabling me to synthesize a desire to understand how things work analytically with the artistic endeavor of making movies and television shows. And getting to be part of two national championship volleyball teams was not a bad auxiliary benefit!**

Eric Daly is vice president of Global Reporting and Analytics for Sony Pictures Home Entertainment, where he is responsible for strategy and analysis driving profitability in the home entertainment market; assessment and

forecasting of market trends; effects of new technology; “test and learn” experimentation; and the greenlighting of new films and television shows. He is also a sought-after guest speaker to outside organizations on the use of big data and analytics in entertainment. Previously he was a senior manager at Gateway and a systems programmer at IBM.



Daly was also a player and team manager for the U.S.A. men’s volleyball team, and leveraged this affiliation to be part of the coaching staff of the UCLA men’s volleyball team that won national championships in 1998 and 2000. He continues to be connected to UCLA by serving as a guest lecturer, judging at the annual DataFest competition, and attending volleyball matches. Daly earned a B.S. in computer science from MIT, an M.S. in Statistics from UCLA, and an M.B.A. from the UCLA Anderson School.

**Stephen Godfrey** '89, M.B.A. '93  
Mathematics Commencement  
Court of Sciences

**My UCLA education has been instrumental in my life. It’s given me a framework to see and evaluate the world, a toolbox to address problems, and a skill set to collaboratively work with others.**

Stephen Godfrey is executive vice president and the head of Foreign Exchange eCommerce for Wells Fargo Bank. Based in San Francisco, he oversees the foreign exchange services electronically delivered to clients and the business-side sponsorship of the supporting systems. Working with internal partners, his team manages product development, sales and support of electronic trading, trading-room technology, and processing solutions for the bank’s complete client base.

Godfrey has more than 25 years of financial service experience. Prior to joining Wells Fargo, he was a managing director at Bank of America Merrill Lynch, where he oversaw the initial launch of the global markets Internet portal, managed dealing applications serving thousands of clients executing billions in daily dollar volume, and championed global payment systems deployed to retail customers and commercial entities through cash management platforms.

Godfrey earned his B.A. in mathematics from UCLA and an M.B.A. from UCLA Anderson School, and is a member of the Math Chair’s Council at UCLA. He lives in Palo Alto with his wife and children.



## Kim Gordon

Sociology Commencement  
Wilson Plaza

**It’s difficult to say where UCLA stops and my childhood begins. As kids, my brother and I walked across campus to the bus stop every day after school, using it as our playground. And even though I didn’t really know what sociology was, I knew my dad was a professor at UCLA and I was immensely proud of him.**

Musician, artist and writer Kim Gordon is an alumna of the UCLA Lab School (formerly the Corinne A. Seeds University Elementary School, the K-6 school is part of the UCLA Graduate School of Education & Information Studies) and studied art at the Otis Art



Institute. Born in Rochester, New York, she moved with her family to Los Angeles when her father joined the faculty of the UCLA Department of Sociology.

Gordon rose to prominence as the bassist, guitarist and vocalist of the New York City-based alternative rock band Sonic Youth, which she formed with Thurston Moore in 1981. She continued to write and release material with Sonic Youth until the breakup of the band in 2011. She is currently a member, with Bill Nace, of the guitar duo Body/Head.

Gordon is the author of two books: *Is It My Body? Selected Texts* and *Girl in a Band*. In 2015 her artwork was the subject of solo exhibitions at the Benaki Museum in Athens and 303 Gallery in New York. In January, she curated the Gagosian booth at the Los Angeles Art Book Fair.

**Shoshanna L. Gruss '97**  
Humanities Commencement  
Royce Hall

**UCLA opened my mind to new ideas and ways of thinking, and gave me life tools that I still utilize today. It's where I gained the confidence to build my own company.**



New York native Shoshanna Gruss is founder and creative director of Shoshanna, a contemporary fashion company launched in 1998.

After she graduated from UCLA in 1997 with degrees in history and art history, Gruss decided to explore her interest in fashion at the ground level, working at a lingerie factory. This experience provided an invaluable education in design, fabric sourcing and garment construction. Armed with her newly acquired knowledge, she

designed a collection of dresses that addressed her personal fashion frustrations.

Her label soon became known for its flattering lines, signature prints and feminine aesthetic. In 2001, she revolutionized the industry when her brand became the first to market swimwear as separates with lingerie-inspired sizing. In 2005, she launched *Shoshanna Baby Girl* and in 2015 further expanded her brand by launching the eveningwear collection *Shoshanna Midnight*. In addition to running her business and raising three children, Gruss serves as chair of the Associates Committee of the Society of Memorial Sloan Kettering Hospital. She is also a member of the boards of trustees at Nightingale Bamford and Temple Emanuel in New York City.

**Dana J. Hyde '89**  
Political Science Commencement  
Pauley Pavilion

**UCLA was a gateway to the world for me and started me on a journey of adventure, service and meaning. I worked my way through college while studying alongside and meeting some of the most interesting, engaging and diverse individuals I have ever encountered. My UCLA experience opened my eyes in so many ways, and made me realize that none of us travels our life alone.**

Dana Hyde is chief executive officer of Millennium Challenge Corporation, an independent U.S. foreign aid agency tasked with fighting global poverty. A former State Department and White House official, Hyde has more than 20 years of experience in law and public policy, with expertise in economic growth and resource management in the U.S. and around the globe.

As associate director in the Office of Management and Budget at the White House, Hyde led a team that managed more than \$150 billion in budgetary resources across six Cabinet agencies. Prior to this she worked at the State Department,



where she helped bring reform and innovation to U.S. international development efforts by spearheading country-led initiatives to improve health in the developing world.

Earlier in her career Hyde served as counsel to the 9/11 Commission, investigating the immediate response of the White House, the Defense Department and the Federal Aviation Administration to the terrorist attacks of Sept. 11, 2001. She also worked as an attorney. Hyde earned a B.A. in political science from UCLA and a J.D. from Georgetown Law School. She is married and the mother of two young boys.

**Peter Kareiva**  
Ecology and Evolutionary Biology  
Commencement  
Wilson Plaza

**UCLA and Los Angeles have the vibrancy, energy and optimism to ignite a sustainable future for our species — a species that is now primarily city-dwelling but still dependent on nature and inspired by wild things. I am excited to be leading a world-class center for environmental thinking and solutions that will train new generations of leaders and innovators to solve contemporary environmental problems.**

Peter Kareiva is director of the Institute of the Environment and Sustainability at UCLA and board chair of Science for Nature and People Partnership (SNAPP), a new scientific collaboration designed to respond rapidly to critical questions involving nature and human well-being. His research centers on the connection between human activities and changes in natural capital; the linkage between the sustainability initiatives of global corporations and their impacts on ecosystems and their own corporate performance; the environmental impact and value of aquaculture for food production; and the value of nature for people in urban areas.

Prior to UCLA, Kareiva was chief scientist and vice president of the Nature Conservancy, director of conservation biology at the NOAA Northwest Fisheries Science Center, and a professor at the University of Washington and Brown University. He is the author of more than 150 scientific publications and author or editor of eight books. He is a fellow of the American Academy of Arts and Sciences and a member of the National Academy of Sciences. He received a degree in political science and zoology from Duke University and a Ph.D. in ecology and applied mathematics from Cornell University.



**Steven Laub '80**  
Economics Commencement  
Pauley Pavilion



**UCLA has had an extraordinary impact on my life's trajectory and on shaping who I am – intellectually, personally and professionally. In particular, the study of economics provided the intellectual grounding and analytical rigor that has served me throughout my life, and I will always appreciate the faculty who inspired and supported me.**

Steven Laub is an accomplished executive in the high-technology industry. Most recently he served as chief executive officer and president of San Jose-based Atmel Corporation, a public semiconductor company with revenue exceeding \$1 billion. From 2011 to 2016, he served on the board of the Semiconductor Industry Association and, in this role, met with senior White House and congressional staff members.

During his career Laub has held leadership positions at three other public semiconductor corporations and was also a technology partner at private equity firm Golden Gate Capital Corporation. Prior to this he was vice president and partner at global strategy consulting firm Bain & Company and

helped establish its West Coast technology practice just as Silicon Valley was beginning its extraordinary growth.

Laub serves on the Economics Department Board of Visitors and sponsors the Laub Foundation Workshop in Industrial Organization. He was also a founding member of the UCLA Venture Capital Fund. He earned a B.A. in economics from UCLA and a J.D. from Harvard Law School.

**Beth Rogers '67, M.A. '70, M.B.A. '75, Ph.D. '90**  
Anthropology Commencement  
Dickson Court North

**As a third-generation Bruin, I believe that if tested, I would bleed blue and gold. UCLA shaped my approach to life and gave me an intense curiosity about the world.**



Retired businesswoman and anthropology alumna Beth Rogers can trace her Bruin roots back to the late 1890s, when her grandmother graduated from the Los Angeles State Normal School (from which UCLA sprang in 1919). Her parents were later among the first graduates of the Westwood campus. She received three degrees in

anthropology: a B.A. in 1967, an M.A. in 1970, and Ph.D. in 1990. She also earned an M.B.A. in 1975 from the UCLA Anderson School.

Rogers helped manage the family real estate and farming business for 40 years. Committed to public service, she served on the board of the California Chamber of Commerce and in 2002 ran for a seat in the U.S. House of Representatives. She also founded a networking group to provide support for the first generation of women professionals in Los Angeles. She currently serves on the political action board of Planned Parenthood.

Throughout she has remained passionate about anthropology. She has traveled the world on field excavations with the Archaeological Survey, lived and worked with undocumented immigrants on the Mexican border, attended the National School of Anthropology in Mexico, and pursued doctoral studies in political anthropology. In her spare time, she enjoys spending time with her seven grandchildren.

**Efrain Talamantes '02, M.D. '08, M.S. '13**

Academic Advancement Program  
Celebration of Excellence  
Carnesale Commons

**UCLA gave me a greater purpose and direction with my community in mind: to reduce health disparities, which should no longer be acceptable in our country.**

Efrain Talamantes is associate director for reducing health disparities at the UC Davis School of Medicine. He was formerly assistant clinical professor in internal medicine at the David Geffen School of Medicine at UCLA and the medical director of hospital medicine at the Martin Luther King Jr. Community Hospital. He is involved with national mentoring initiatives to enhance leadership and diversity in the health care workforce, and is committed to caring for the medically underserved.

The son of Mexican immigrants, Talamantes grew up in Norwalk, California, in a two-bedroom house with 15 relatives. His parents spoke little English, a barrier that kept them from receiving appropriate health care until he was old enough to serve as translator. This experience motivated him to train as a doctor and do research to reduce health disparities.

He earned his bachelor's degree in psychobiology at UCLA and his M.D. at the Geffen School. He also completed an M.B.A. at the Goizueta Business School at Emory University. While completing his residency in internal medicine at UC Davis, he served as director of Clinica Tepati, a free clinic for uninsured patients in Sacramento, California. As a Robert Wood Johnson Clinical Scholars Fellow, he completed a master's in health policy and management at the UCLA Fielding School of Public Health.



**Charles Woo '72, M.S. '75**  
Physics & Astronomy Ceremony  
Ackerman Grand Ballroom



**I am a proud product of a UCLA education. I have fond memories of my formative years on campus, and will always value everything I learned and the people I got to know through UCLA.**

Charles Woo is the co-founder and CEO of Megatoys, an international toy manufacturing company based in Los Angeles with facilities in China, Hong Kong, and locally in Commerce, California.

A Hong Kong native, Woo came to Los Angeles at age 17 to attend UCLA, where he received a bachelor's and a master's degree in physics. While working on his graduate research, he started a small toy import business, ABC Toys, in industrial downtown Los Angeles. He began to buy and renovate nearby rundown warehouses, helping Asian immigrants start small toy businesses and creating thousands of jobs. Today the area is a bustling international trade district known as the Toy District.

Woo is the former chairman of the Los Angeles Area Chamber of Commerce, and was the organization's first Asian-American chair. He also served as chair of the Workforce Development Board of Los

Angeles, as delegate to the White House Conference on Small Business, and on numerous civic boards. Among his many awards, he received the UCLA Alumni Association's Professional Achievement Award in 2001.

**D. Danielle Hoston Wrihster '97**  
Communications Studies Commencement  
Royce Hall

**Obtaining my degree from such a highly regarded university fulfilled a lifelong dream and is an accomplishment that I am especially proud of. UCLA opened many doors for me and equipped me for success in life.**

D. Danielle Hoston Wrihster is founder and CEO of Hoston & Associates Inc., an award-winning commercial real estate team. She is also managing director of KW Commercial and CEO of the Fenix Group.

Born in Los Angeles, Wrihster was raised by a single father and a mother who was in and out of her life. She enrolled at UCLA at the age of 16 after graduating



from Cleveland Humanities Magnet High School. She became a single mother in her early 20s when the father of her daughter died of cancer just 10 weeks after her daughter's birth. Shortly after, Wrihster was laid off from her job. That she rose to head up a successful commercial real estate business and multimillion dollar investment portfolio is evidence of her positive mindset and determination to succeed. She also has appeared as a real estate expert on the Fox reality television program *Home Free* and hosted #OWNSHOW on the Oprah Winfrey Network.

In 1997 she received her B.A. in communications studies with a specialization in business administration and was selected as a fellow of UCLA Anderson's Riordan Program, which prepares recent college graduates for M.B.A. programs and careers in management. She recently was honored with the 2016 Riordan Program Legacy Award. She is married to former professional football player George Wrihster III and resides in Los Angeles with their four children.

**Zev Yaroslavsky '71, M.A. '72**  
History Commencement  
Dickson Court North

**UCLA and the Department of History gave me a solid foundation on which to make effective and sustainable policy decisions during my 40-year public service career. I was rigorously schooled in understanding that I could best confront the challenges of the future by learning from the successes and failures of the past.**

As a longtime Los Angeles County supervisor and City Council member, Zev Yaroslavsky tackled the region's biggest issues, including transportation, the environment, health care and cultural arts. He was first elected to office in 1975, winning the coveted 5th District council seat at the age of 26. In 1994, he was

elected to the five-member Los Angeles County Board of Supervisors representing the 3rd District, with a constituency of 2 million people. He quickly emerged as a leader on fiscal, health care, transportation, cultural and environmental matters.



Yaroslavsky championed efforts to rebuild and modernize the Hollywood Bowl, and was instrumental in the development of Walt Disney Concert Hall. He also funded major investments in the Los Angeles County Museum of Art, the Museum of Natural History and the San Fernando Valley Performing Arts Center. Because of term limits, he retired from office in 2014. He is now director of the Los Angeles Initiative at the UCLA Luskin School of Public Affairs and serves as guest lecturer in the Department of History on the intersection of policy, politics and history of the Los Angeles region. Born and raised in Los Angeles, he earned B.A. and M.A. degrees from UCLA.

## UCLA students lead projects to feed the hungry on campus



Tyler Watson (second from left) and Savannah Gardner (right) instruct UCLA volunteers at the Pacific Palisades Farmers Market. Each week, these students collect donated produce and bring it back to campus and University Village for UCLA students in need. Photo: John Vande Wege

By Rebecca Kendall

**AT COLLEGES ACROSS THE COUNTRY THERE ARE CASH-STRAPPED STUDENTS WHO ARE HUNGRY AND UNDERNOURISHED. ALTHOUGH THERE ARE NO FIRM FIGURES ABOUT THE NUMBER OF UCLA STUDENTS WHO STRUGGLE WITH FOOD SECURITY, SAVANNAH GARDNER KNOWS THEY'RE HERE.**

She knows because she's one of them.

"The reality is that there are students who are struggling not just to pay tuition and manage other financial obligations, but also to afford enough food — and foods that are healthy," said Gardner, a sophomore who is majoring in environmental science and political science and minoring in civic engagement.

"You can't expect to be focused on your classes when you haven't eaten in two days."

Gardner said current estimates from existing surveys show that roughly 20 percent of UCLA students experience food insecurity. First-generation college students and those from low-socioeconomic backgrounds are among the hardest hit when it comes to not having enough to eat each day, she said.

With this in mind, she and UCLA Ph.D. student Tyler Watson are leading a multipronged project to alleviate campus hunger and food

waste. Along with six other Bruins, they are among 44 UC students selected to lead projects at their respective campuses as part of the UC Global Food Initiative Fellowship program.

### From farm to families

Every Sunday, Gardner and Watson lead a group of UCLA students who volunteer with Food Forward, a local nonprofit that supplies more than 6 million pounds of food annually to nearly 1 million people in Los Angeles and five neighboring counties. The students head for farmers markets in Pacific Palisades or Brentwood. There, they collect 500-600 pounds of fruits and vegetables donated by local farmers for distribution to organizations and families in need.

Half of this bounty makes its way to the UCLA Food Closet in the Student Activities Center and the 580 Café at St. Alban's Episcopal Church, both of which serve financially insecure students, and to graduate students and their families living at UCLA University Village. The other half goes to Food Forward.

### Shedding stigma

For Gardner, this work is not only beneficial to her peers, it also has personal meaning.

Gardner, who volunteers for the campus chapter of Swipe Out Hunger and was enrolled in UCLA's inaugural Food Studies and Food Justice class, has also volunteered with anti-poverty organizations in Los Angeles, New York and Washington, D.C. She was raised by a single mother of five who fed her family on one income and enrolled in college when Gardner was in elementary school.

"It's hard to be on food assistance, skipping meals or not going out with friends to eat," Gardner said. "When I bring the food to the University Village apartments, I'm reminded of my family. My mom would be someone picking up produce, because Cal Fresh (the state's nutrition subsistence program) only goes so far."

She said the GFI fellowship and food justice class have helped her better understand her own history with food insecurity. It has also helped her feel more confident and less embarrassed about sharing her own experiences of going hungry.

"People think they know what food insecurity looks like, but the truth is there are food-insecure people at UCLA and at virtually every college campus in the nation. They may not only be food-insecure, they may also be homeless. People are alarmed when they hear about this. It's not something they're attuned to."

### Learn more:

Watch a video following UCLA's fellows in the UC Global Food Initiative as they collect food at farmers markets and deliver it to student housing at <https://youtu.be/YyAxAtaPdHs>.



## UCLA senior has a new flight plan

Aspiring cardiovascular surgeon Kimberly Anyadike mentors students in South Los Angeles to inspire them to go to college

By Rebecca Kendall

**IT'S BEEN NEARLY SEVEN YEARS SINCE UCLA SENIOR KIMBERLY ANYADIKE TOOK TO THE SKIES TO HONOR A GROUP OF AFRICAN-AMERICAN WARTIME PILOTS AND MAKE A LITTLE HISTORY OF HER OWN.**

Anyadike made national headlines in summer 2009, at age 15, by piloting a single-engine, four-seater Cessna 172 from Compton, California, to Newport News, Virginia, and back, making scheduled stops in a dozen cities along the way.

Anyadike, who flew with a safety pilot on the 13-day, 6,000-mile journey, as well as a member of the legendary Tuskegee Airmen, is believed to be the youngest African American, and possibly the youngest person of any race, to complete such a feat, said Robin Petgrave, founder and executive director of Tomorrow's Aeronautical Museum in Compton.

Now Anyadike is majoring in physiological science and minoring in African-American studies and Spanish. She's also an aspiring cardiovascular surgeon, a registered emergency medical technician, a member of the Flying Samaritans at UCLA, which brings volunteer medical care to Tijuana, Mexico, and a mentor to at-risk youth in South Los Angeles, near where she grew up in Inglewood.

Anyadike and her sister, Kelly, began taking flight lessons at Tomorrow's Aeronautical Museum in 2006 after reading about Jonathan Strickland, a student at the museum who became the youngest person to fly a helicopter and a fixed wing aircraft solo on the same day.

"If he could do something that impressive, why couldn't we?" she asked.

Kelly flew four different fixed-wing aircraft on her 16th birthday. Not to be outdone, Kimberly soon followed that by achieving her goal of a coast-to-coast flight.

### Flying with legends

What made Anyadike's transcontinental journey particularly moving was the unwavering support she received from the Tuskegee Airmen, the first African-American U.S. military pilots, she said.

"What's really poignant about their story is that they had to fight two wars — here as well as abroad," she said. "They had to fight the war of racism in order to be able to even fight for the country they called their own."

Among them was retired Maj. Levi Thornhill, now 93, who accompanied Anyadike on her journey. Thornhill served overseas during World War II as a propeller specialist and P-47 crew chief.

As Anyadike landed in various cities along the way, 50 of the airmen came out to greet her and sign the plane — a gesture she still finds humbling.



At 15, Kimberly Anyadike piloted a single-engine Cessna on a 13-day, 6,000-mile journey across the country and back. Photo: John Vande Wege

"African-American history is so important to me, important to American history and significant to who I am," Anyadike said. "If not for the sacrifices great men like the Tuskegee Airmen made, I wouldn't have been able to fly, I wouldn't have been able to vote, I wouldn't have been able to do so many things."

Anyadike's achievement in the air was formally recognized by the airmen in May 2015 when they presented her with their inaugural Young Aviator's Award at a ceremony held in Tuskegee, Alabama.

"To be honored by them still makes me emotional because I don't feel like I've done anything that can hold a light to what they've done," she said.

### Inspiring the next generation

Today Anyadike mentors and tutors a new generation of budding scientists and scholars at the aeronautical museum and the Charles Drew University Saturday Science Academy in South Los Angeles.

She hopes her efforts will encourage students of color to pursue higher education and not limit their options when it comes to education and employment.

"I'm a mentor in Compton and in Inglewood and I hope to encourage more African-American students and students of color, in general, to apply to places like UCLA, believing that they can get in, and hopefully give them the tools so that they can succeed somewhere like UCLA."

She added that being a Bruin has been a wonderful opportunity for her, and she has enjoyed her four years in Westwood. She plans to take two summer classes and then take a gap year to do some EMT work and research before enrolling in medical school.

"I ran the marathon in 2012, and I feel like college has also been a marathon. I'm just waiting to cross that finish line."

### Learn more:

Hear Anyadike tell the story of her cross-country journey at <https://youtu.be/5TKJOGeBamQ>.

# In Conversation With Ben Nickoll '86

By Margaret MacDonald

**WHEN HISTORY ALUMNUS BEN NICKOLL GRADUATED FROM UCLA, HE DESCRIBED HIMSELF AS A “LONG-HAIRED, BODYSURFING SKATEBOARDER.” SOON AFTER, HE LEFT CALIFORNIA TO BUILD A CAREER ON WALL STREET, HOLDING HIGH-LEVEL POSITIONS AT TOP INVESTMENT BANKS BEFORE CO-FOUNDING INVESTMENT FIRM ORE HILL IN 2002. AFTER THAT FIRM WAS SOLD IN 2011, HE FOUNDED EL FARO PARTNERS, AN INVESTMENT FIRM FOCUSED ON REAL ESTATE, PRIVATE EQUITY, CREDIT AND AGRICULTURE.**

Nickoll’s connections to UCLA remain strong. He serves on the board of advisors of the history department and in 2008 gave the commencement address at the department’s graduation ceremony. He is also a founding member of the board of the Fink Center for Finance & Investments at the Anderson School of Management. He is married to Christine Armstrong, a musician and former investment banker. One of their two children is a freshman at UCLA.

**What does UCLA mean to you?**

**BN:** Where to begin? I grew up near campus so UCLA was part of my childhood. It’s where my dad took me to see Kareem Abdul-Jabbar play basketball (when his name was Lew Alcindor). It’s where, as a high school student, I took summer school classes and slam-danced at a Talking Heads concert. My last year of high school my brother (who was also my best friend) committed suicide. That was a tough period. When I enrolled at UCLA, it felt like a new beginning and an old friend all at once. UCLA got me through those dark times.

**How did you end up majoring in history?**

**BN:** That happened almost by accident. I took a California history course taught by professor Roger McGrath, a larger-than-life character who brought history to life in the classroom. All of a sudden a light went on. From that moment, I really got excited about learning, and got serious about studying.

**What’s the biggest favor anyone ever did for you?**

**BN:** Right before the start of my junior year, my dad sat me down and told me he’d deposited enough money in my account to pay for tuition, books and rent for the next two years. After graduation, he told me, I would be on my own. That forced me to become responsible, manage my money and think about my future.

**How did you end up on Wall Street?**

**BN:** Actually I credit my UCLA experience with getting me ready for that phase of my life. I knew I had to support myself, and I was interested in the idea of moving to New York and trying my hand in the investment world. So I just went for it. I got on the phone and persuaded some top New York firms to interview me. I flew out there with no guarantee of a job, a bunch of résumés and my life savings of \$1,300, which is what I got for selling my Honda Civic. My friends thought I was crazy. But despite being a kid from the West Coast with no investment experience or connections, I managed to talk my way into a job on Wall Street.

**What’s it like to go back to UCLA now?**

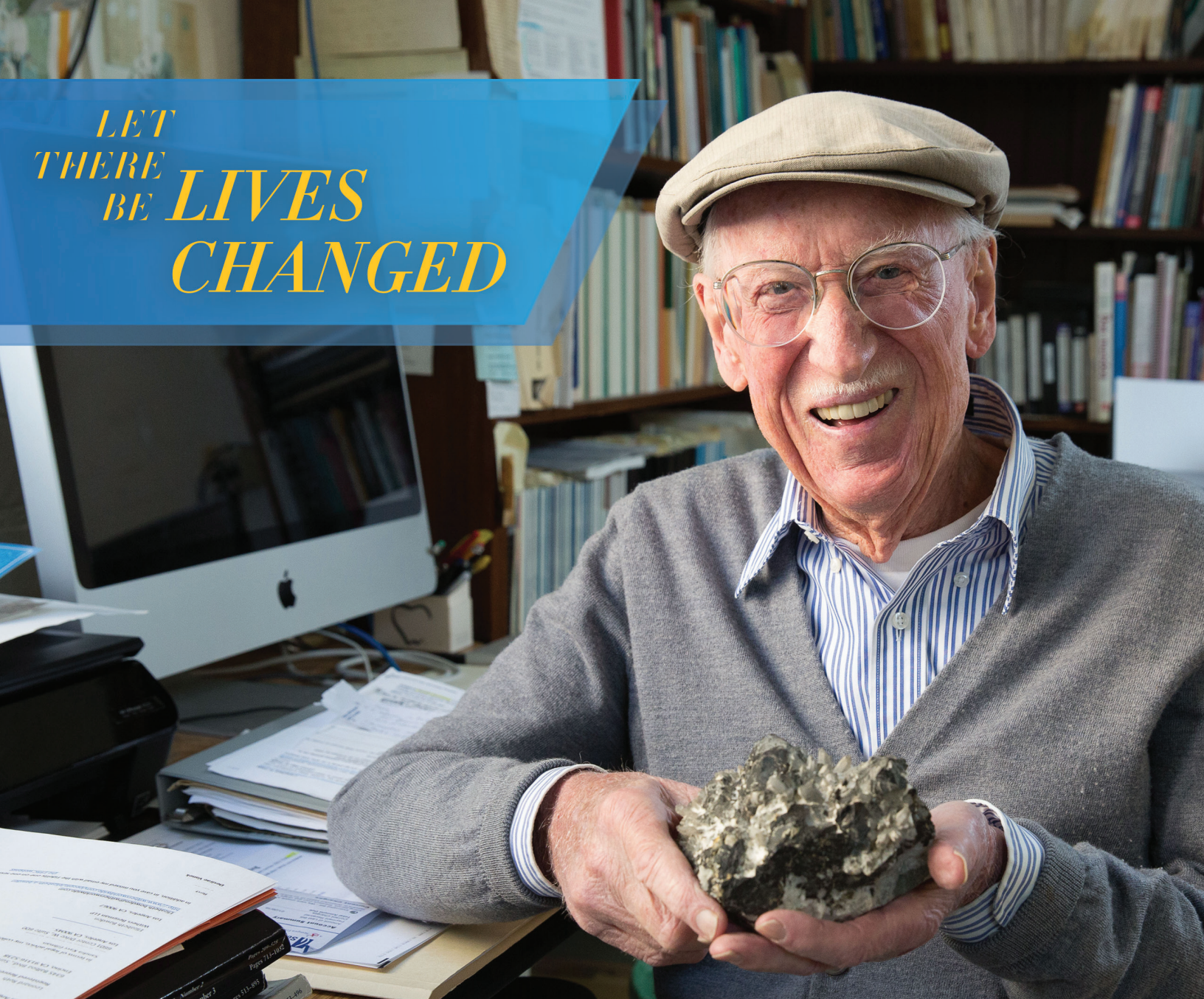
**BN:** It helps that my daughter’s a Bruin! That gives me a good reason to visit campus more frequently. Whenever I’m there, I’m just blown away, and I realize that there’s so much more that I could have taken advantage of.

**What’s your advice to new college grads?**

**BN:** Every successful person has experienced failure or been told they can’t do something. Life is full of potholes and wrong turns and speed bumps and dead ends — you’ve just got to keep going until you find something you love to do.



LET  
THERE  
BE *LIVES*  
*CHANGED*



“I GIVE because UCLA has given back to me throughout my career and now it’s my turn. I hope that as many undergraduate students as possible will benefit from my scholarship support for decades to come.”

**DONALD CARLISLE**  
PROFESSOR  
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# UCLA COLLEGE REPORT

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“WE ARE RE-ENVISIONING THE HUMANITIES IN  
A WAY THAT CONTINUES TO EDUCATE OUR  
STUDENTS ON HOW LANGUAGE, RELIGION,  
CULTURE AND SOCIETIES HAVE SHAPED OUR  
PRESENT, WHILE USING THE MODERN TOOLS  
AND TECHNOLOGIES OFFERED BY THIS NEW AGE  
TO EXPAND OUR HORIZONS.”

— Deans of the UCLA College

**UCLA** College