

UCLA COLLEGE REPORT

Summer 2013 | Volume Twenty

From the Deans of the **College of Letters and Science**

Dear Friends,

In this special commencement issue, we celebrate the College of Letters and Science and the accomplishments of our faculty, new graduates and alumni.

For our faculty, commencement is a gratifying experience that represents the end of another chapter in a long and rich book of memories. Our talented educators have all worked hard to shape young minds and true leaders, and are eager to see their students begin to forge the future.

For our students, commencement is not the end but merely the beginning. They have earned this day, and whether their future leads them back to school or into the marketplace, we are confident they will succeed. After all, they are Bruins.

And for our alumni, it is fitting that we ask them to return to campus and address our graduates at commencement ceremonies all across campus. These accomplished individuals offer a glimpse into what awaits the next generation, and they are a testament to how UCLA can impact lives.

The commencement speakers profiled in this edition of the College Report are proof of what can be accomplished with hard work, determination and Bruin pride. They include an Olympic athlete, a skilled diplomat, a winning gymnastics coach, brilliant scholars, captains of industry and distinguished scientists — all of them inspirational thought leaders.

As deans, we are also excited that this rite of passage has returned to UCLA's iconic landmark, Pauley Pavilion. Newly renovated, Pauley stands as a reminder of the legacy that precedes us and the triumphs that still lie ahead. This storied arena has been witness to our greatest moments and greatest legends, from NCAA championships to the Olympic Games, from presidential visits to historic concerts.

We hope that by returning to Pauley and being inspired by our alumni, our graduates depart UCLA with the great sense of responsibility and pride that comes with being part of the Bruin legacy.

Sincerely,

Joseph Rudnick

*Senior Dean
Dean of Physical Sciences*

Alessandro Duranti

Dean of Social Sciences

David Schaberg

Dean of Humanities

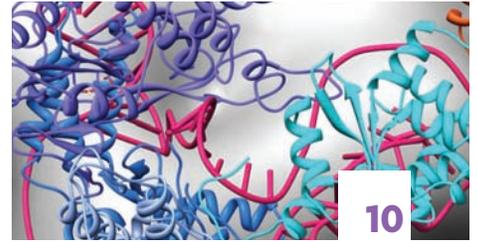
Victoria Sork

Dean of Life Sciences

Patricia Turner

*Dean and Vice Provost for
Undergraduate Education*





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UCLA College of Letters and Science

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Regents UC 2013

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Honors Update: Shapley Awarded Nobel; Sloan Adds UCLA Faculty; Bertozzi Takes Knapp Chair

Lloyd S. Shapley Awarded Nobel Memorial Prize in Economic Sciences

Lloyd S. Shapley, professor emeritus of economics and mathematics at UCLA, has been awarded the Nobel Memorial Prize in Economic Sciences. He shared the award with Harvard University economist Alvin E. Roth. Shapley is the sixth UCLA faculty member to be named a Nobel laureate.

Shapley, 90, who joined the UCLA faculty in 1981, is widely considered one of the fathers of game theory. His research has focused on noncooperative market models, political games, cost allocation and organization theory.

Shapley and Roth were honored “for the theory of stable allocations and the practice of market design,” the Nobel committee announced. Working independently, the two scholars addressed the economic problem of how to match

different agents as efficiently as possible to improve the performance of markets — for example, how to match new doctors with hospitals or patients needing organ transplants with donors.

Working with mathematician and economist David Gale in the early 1960s, Shapley developed the fundamental theory that Roth ultimately confirmed and applied to a variety of situations, said Roger Farmer, chair of the UCLA Department of Economics. “Professor Roth took the theoretical contribution of Gale and Shapley and recognized its relevance to a large number of real-world situations,” Farmer said. “For example, the allocation of new doctors to medical schools was dramatically improved through the use of a clearinghouse system equivalent to the mechanism described by Gale and Shapley.”



“Professor Shapley’s Nobel-winning work relates to the discovery of an algorithm to solve the ‘stable marriage problem,’ a mathematical problem about finding an optimal pairing between two groups of equal size,” added Dimitri Shlyakhtenko, chair of the UCLA Department of Mathematics. “There should be no man and woman who would rather be married to each other than to their current spouses.”

UCLA Scholars Awarded 2013 Sloan Research Fellowships

Five outstanding young professors from UCLA, including three from the College, are among 126 scientists and scholars in the U.S. and Canada to receive 2013 Sloan Research Fellowships from the Alfred P. Sloan Foundation. The fellowships are awarded to exceptional young researchers who are “the next generation of leaders in the natural sciences, economics, and mathematics,” according to the New York–based foundation. The 2013 College recipients are: **Anastassia N. Alexandrova**, an assistant professor in the Department of Chemistry and Biochemistry and a member of UCLA’s California NanoSystems Institute. Her laboratory research program focuses on the design and description of new materials — particularly artificial enzymes — starting with the electronic structure and building up to the molecular and nano-levels.

Rahul Roy, an assistant professor in the Department of Physics and Astronomy who studies phases of matter, collectively known as topological phases. Roy is pursuing research aimed at understanding the properties and necessary conditions for topological phases and exploring the physics of materials like strontium ruthenate, a promising candidate for topological superconductors.

Yi Xing, an associate professor in the Department of Microbiology, Immunology and Molecular Genetics and a member of UCLA’s Institute for Molecular Medicine. His laboratory studies gene regulation at the RNA level using computational and experimental approaches, and Xing and his

colleagues develop novel methods for the analysis of massive genomic data.

Andrea Bertozzi Named to Betsy Wood Knapp Chair for Innovation and Creativity

Andrea Bertozzi, professor of mathematics and director of applied mathematics at UCLA, has been named the inaugural holder of UCLA’s Betsy Wood Knapp Chair for Innovation and Creativity. Under her leadership, UCLA’s program in applied mathematics has become one of the premier programs in the world, said Joseph Rudnick, dean of the UCLA Division of Physical Sciences.

The endowed chair was established through a gift to UCLA from Betsy Wood Knapp, entrepreneur, philanthropist and founder and CEO of BigPicture Investors LLC. Knapp has held numerous leadership positions at the university, including chair of the board of The UCLA Foundation from 2008 to 2010. Knapp said Bertozzi’s “exceptional scholarship and demonstrated commitment to innovation in teaching and research make her the ideal first individual to hold this position.”

Bertozzi and her colleagues work with the Los Angeles Police Department to analyze crime patterns and predict crime hot spots, and they have designed a mathematical algorithm to identify street gangs involved in unsolved violent crimes. Along with other UCLA researchers, she has also been awarded a \$1-million grant from the W.M. Keck Foundation for research aimed at reshaping and improving how images and large data sets are collected and analyzed in science, engineering, medicine and other fields through the use of a method called compressive sensing.

A member of UCLA’s faculty since 2003, Bertozzi has received many awards and honors for her research. She was elected a fellow of the American Mathematical Society this year and became a fellow of both the American Academy of Arts and Sciences and the Society for Industrial and Applied Mathematics in 2010.

At Home and Abroad, UCLA Remains a Top Destination for Students

By Rebecca Kendall

WHETHER IT'S A ONCE-IN-A-LIFETIME INTERNATIONAL EXPERIENCE, TOP VALUE FOR THE ACADEMIC DOLLAR, OR A STRONG NATIONAL AND GLOBAL REPUTATION, STUDENTS WHO CHOOSE UCLA HAVE LONG KNOWN THAT WESTWOOD OFFERS IT ALL. THE WORD CONTINUES TO GET AROUND — IN FACT, ALL OVER THE WORLD.

Going Global

In the most recent Open Doors report, an annual round-up published by the Institute of International Education, the leading not-for-profit educational and cultural exchange organization in the United States, UCLA placed **third among the nation's public universities and sixth overall in enrolling international students.** During the 2011–12 academic year, 6,703 foreign students selected UCLA as their academic destination, a 7-percent increase over 2010–11.

The report also found that the number of UCLA students participating in study-abroad programs has remained steady. The university placed third among public universities and fourth overall in the nation in the number of students who study abroad, with 2,451 students earning academic credit for studying in other countries in 2010–11.

“As the job market increasingly demands a globally minded résumé, study abroad plays an important role in opening doors to students after graduation,” said Hadyn Dick, director of the UCLA International Education Office. “Students face more challenges today in obtaining scholarship support and other financial aid to study abroad, yet participation remains strong. We’re mindful that in the years ahead, accessibility to programs will get tougher, but we are committed to helping students in any way we can.”

Value Proposition

UCLA also recently captured the **No. 6 spot among the nation's 100 best-value colleges and universities in Kiplinger's Personal Finance** magazine's annual survey. The campus rose three spots after being ranked No. 9 in 2012.

The magazine said UCLA's exceptional 2013 ranking was the result of its “high four-year graduation rate, low average student debt at graduation, abundant financial aid, a low sticker price, and overall great value.” The survey looks at costs for both in-state and out-of-state students.

Speaking of UCLA's admission rate of approximately 25 percent, Kiplinger noted that “the posh neighborhood of Westwood in Los Angeles isn't a bad place to spend four years, but you'll need to be a top student to get into UCLA.” It added that while UCLA's annual in-state cost is \$26,888, more than 80 percent of students qualify for financial aid, and most paid about \$10,229 out-of-pocket this year.



The magazine said that despite increases in tuition at California state schools in general, the state's universities remained competitive in the national rankings because of generous financial aid and rigorous academics.

Getting a Good Rep

The **Princeton Review** ranked the university the nation's **No. 5 “best-value” public university for 2013.** “In a word, the University of California—Los Angeles is about diversity — in what you can study, in what you can do with your free time, in ethnicity, in gender and sexuality, in everything,” the company wrote in its profile of UCLA.

UCLA's lofty status in the United States is mirrored in its increasing reputation as one of the best universities in the world. **In the much-watched London Times Higher Education World Reputation Rankings, which orders schools according to international prestige, UCLA placed eighth.** The university was ranked among the likes of Harvard University, the Massachusetts Institute of Technology, the University of Cambridge, the University of Oxford, UC Berkeley, Stanford University, Princeton University, the University of Tokyo and Yale University, which also made the top 10 for 2013.

In UCLA Address, Kofi Annan Encourages Bruins to Prepare for Global Citizenship

By Rebecca Kendall

IN A SPEECH MAY 30 AT ROYCE HALL, KOFI ANNAN, THE FORMER SECRETARY-GENERAL OF THE UNITED NATIONS, ENCOURAGED STUDENTS TO TAKE FULL ADVANTAGE OF UCLA'S MULTICULTURAL CAMPUS ENVIRONMENT AND INTERNATIONAL STUDY OPPORTUNITIES AS A WAY TO PREPARE FOR LIFE AFTER COLLEGE.

"Make time to reach out, travel, have exposure to foreign cultures and foreign languages," he told an audience of about 1,400 people, more than half of which were students. "You're lucky — you have such a diverse campus. You have the world here, and you should reach out to ... people from different cultures, different religions, and share. That, in a way, prepares you for the world you are going to see and to live in."

Annan, the 2001 Nobel Peace Prize laureate, delivered his comments as part of the keynote speech for UCLA's second annual Luskin Lecture for Thought Leadership.

UCLA Chancellor Gene Block opened the program, and Joseph Rudnick, senior dean of the UCLA College of Letters and Science and dean of the College's Division of Physical Sciences, introduced Annan. "Few have been as immersed in world affairs and global challenges of this century as Secretary-General Kofi Annan," Rudnick said, "and we are honored that he is here today to inform and inspire all of us."

Annan's talk touched on his formative years in Ghana and detailed some of the

lessons he learned during his tenure as the U.N.'s leader from 1997 to 2006. He also appealed to students to pursue public and community service.

"I know there was a period when young people felt the best [place] to be was on Wall Street," he said. "They were not interested in politics or public service. But the question I used to pose to those who [said], 'Politics is not for me, public service is not for me,' was: If all the smart ones stay out of public service and politics, who is going to lead the legislation for us?"

Annan, who in 1998 received the UCLA Medal, the university's highest honor, also shared his memories of Ghana gaining its independence from British rule in 1957 — an achievement, he said, that showed him the importance of engaging in political action.

"I grew up with a sense that change — even revolutionary change of that kind — was possible, and that has served me a lot in my own career and in my own life," he said. "When I was at the U.N. and my staff would

tell me, 'It can't be done, it's never been done, the member states will not accept it,' I would say, 'Let's test it. Let's see what can be done.'"

Annan's presentation was followed by a question-and-answer session moderated by Laura Ling '98, a UCLA alumna and



Left to right: Renee Luskin, Kofi Annan and Meyer Luskin.

host of the television documentary series *E! Investigates*. Questions, which were solicited in advance from the UCLA community, focused on war and peace, the future role and composition of the U.N., and Annan's advice to students.

Ling, echoing Annan's advice about pursuing new experiences and perspectives, said, "My education and my exposure to UCLA's diversity really propelled me to want to get out and become a journalist and report in the world."

The Luskin Lecture for Thought Leadership is a public event that promotes dialogue among scholars, leaders and the greater Los Angeles community on pressing national and global issues. The series was established in 2011 by longtime UCLA supporters Meyer and Renee Luskin as part of a \$100-million gift to UCLA. Former President Bill Clinton delivered the inaugural lecture last year.



Kofi Annan and Laura Ling.

Al Gore, UCLA Champion Climate Fixes Together at Star-studded IoES Fundraiser

By Alison Hewitt

FORMER VICE PRESIDENT AND NOBEL PEACE PRIZE LAUREATE AL GORE ENERGIZED A ROOM FILLED WITH CELEBRITIES, ENVIRONMENTALISTS AND UCLA RESEARCHERS AT A RECENT FUNDRAISER THAT GARNERED MORE THAN \$1 MILLION FOR THE UNIVERSITY'S INSTITUTE OF THE ENVIRONMENT AND SUSTAINABILITY.

"Last year was the warmest year in the history of North America. We had \$110 billion in climate-related disasters in the U.S. last year, smashing all the previous records," Gore said. "There are some people who go straight from denial to despair without pausing on the intermediate step of actually solving the problem."

The work being done by UCLA's Institute of the Environment and Sustainability (IoES) and by others in the room is critical, Gore said, noting that "We have a lot more work to do ... There are some who say it's impossible. I refuse to believe it. I refuse to accept it."

Gore's audience was a star-studded group of more than 350 guests celebrating "An Evening of Environmental Excellence" at the home of Jeanne and Anthony Pritzker in the Bel Air hills. Celebrities attending included Barbra Streisand, Warren Beatty, Annette Bening, Courtney Cox, Jeff Goldblum, Zach Braff, Sarah Silverman and Lawrence Bender, an IoES board member and producer of *An Inconvenient Truth* and *Pulp Fiction*.

The dinner recognized the environmental accomplishments of Gore and Lyn Lear, co-founder of the Environmental Media Association. Pritzker, chairman of the IoES board, and board members Bender, Sydney Holland, Alexandria Jackson and Tina Quinn chaired the event hosted by actors Amy Smart and Carter Oosterhouse. Bender's extensive leadership on the gala ranged from approaching the distinguished honorees to procuring the musical talent and filling half the room. He worked with Holland to secure a \$250,000 gift from media magnate Sumner

Redstone which underwrote the dinner.

At the gala, UCLA Chancellor Gene Block praised the institute's growing influence.

"Think about the critically important work being done at IoES," Block said. "We're sending the urgent — some might even say 'inconvenient' — message that humankind is headed for disaster if we don't change our course ... I'm very proud that IoES, here at UCLA, has emerged as a real leader in sustainability."

"We support research in conservation biology, climate change, urban and corporate sustainability, energy efficiency, renewables, water treatment and management, and environmental health," added IoES Director Glen MacDonald. "We really have a full portfolio of the challenges that we all face."

The IoES includes more than 95 faculty from across campus who collaborate to solve regional and global environmental problems while educating the next generation of professional and scientific leadership. The institute also drives sustainability initiatives on campus and advises business and policymakers.

The evening's fundraising will support the institute's students, research, teaching

and field work. IoES' environmental-science major is one of the fastest-growing majors at UCLA, and funds from the gala will help pay for the major's senior practicum

program, where every senior works on a year-long team research project for business, government and environmental group clients.

The crowd raised an extra \$56,500 for UCLA's with a live auction featuring prizes such as a week in a private villa at a Thailand resort, donated by the Pritzkers, and a custom full-home solar-power package, donated by Verengo Solar.

When Lear accepted

her award recognizing her environmental contribution, presented by longtime UCLA Fielding School of Public Health supporter Cindy Horn, Lear acknowledged the difficulty that the world faces in confronting climate change.

"When President Kennedy decided we would put a man on the moon, there was very little science on how we would actually achieve that, but JFK had a vision, and he understood the most powerful statements in the English language: 'I will,' 'We will' and 'It shall be done,'" Lear said. "Solving climate change is our moon landing."



Anthony Pritzker.



Left to right: Al Gore, Lawrence Bender, Annette Bening, Glen MacDonald (IoES director) and Warren Beatty.

Mellon Foundation Supports UCLA-LACMA Partnership

In partnership with the Los Angeles County Museum of Art, UCLA is designing a new curriculum for the training of doctoral students in art history to prepare them to become future leaders in the field.

By Jean-Paul Renaud



Miwon Kwon

A \$600,000 GRANT FROM THE ANDREW W. MELLON FOUNDATION WILL ENABLE THE UNIVERSITY AND THE MUSEUM TO CREATE THE UCLA-LACMA ART HISTORY PRACTICUM INITIATIVE, A FIRST-OF-ITS-KIND PARTNERSHIP ON THE WEST COAST THAT WILL PROVIDE GRADUATE STUDENTS WITH AN EDUCATIONAL OPPORTUNITY THAT INTEGRATES THE ACADEMIC CLASSROOM AND THE ART MUSEUM.

“Thanks to this generous gift, we are enhancing our world-class art history program in response to the changing needs of a competitive job market,” said David Schaberg, Dean of Humanities. “By connecting research with careers, UCLA and LACMA will educate the modern leaders of the art world.”

This dynamic institutional partnership will match LACMA’s broad scope and encyclopedic collection with UCLA’s robust art history program, which trains scholars in fields ranging from Renaissance art to the art of Asia, Africa and the Americas. While both institutions are integral members of the cultural landscape of Los Angeles, their reputations as international leaders in art history and education position this initiative



Michael Govan

to have a significant impact far beyond the Los Angeles region.

“LACMA is proud to partner with UCLA in this initiative, thanks to the incredible support of the Andrew W. Mellon Foundation,” said Michael Govan, LACMA CEO and Wallis Annenberg Director.

“Education is a primary component of LACMA’s mission. In many ways, our galleries are classrooms. The art on view is a window into history and into cultures from around the world, as described by the artists who were there. We welcome UCLA’s students into our museum as part of their education.”

Currently, the basic requirements for a Ph.D. in art history at most major universities include proof of proficiency in two or more foreign languages, a minimum number of graduate-level courses, written and oral exams, and the completion of a dissertation.

“It is not uncommon for students to complete this training without exposure to actual works of art beyond the most superficial encounter,” said Professor Miwon Kwon, who is the chair of the Department of Art History at UCLA. “Despite the fact that the starting point of art history is the work of art, the discipline fails to require students to actively interact with the very pieces they are studying. The teaching of art history

itself must be recalibrated to integrate opportunities for students to encounter, examine and learn from direct interaction with art.”

Starting in fall 2013, incoming graduate students in the Art History program will pursue a curriculum that splits their time between UCLA and LACMA. In addition to working alongside museum professionals with works of art that range from ancient American to contemporary, students will participate in seminars collaboratively designed by faculty and museum staff that address issues around the museum’s collection, exhibition and display, materials and techniques of art-making, and curatorial practice.

With LACMA serving as an extension of the classroom, students will gain intellectual and practical knowledge of the multiple ways in which art history can be produced.

Kwon says that the new curriculum not only helps students explore new areas of study within art history, but also better prepares them for professional careers in the field. Of the doctoral graduates who pursue careers in museums today, many have emerged from East Coast programs at institutions such as New York University, which partners with museums such as the Metropolitan Museum of Art.

This grant is one of a series made by the Andrew W. Mellon Foundation over the past two-and-a-half years in support of graduate students in art history that aims to integrate exposure to object-based study and curatorial practice more fully into their curricula. Most of these grants have been made to paired museums and universities and involve faculty, curators and conservators in joint teaching and mentoring opportunities.

“By connecting research with careers, UCLA and LACMA will educate the modern leaders of the art world.”



A 17th-century terra-cotta sculpture, representative of the type of art with which students in the program might interact. Photo: lacma.org



Parasitic Twists and Sensory Cues at the Hallem Lab

Elissa Hallem

THERE'S A SILENT INVASION OF MINIATURE MONSTERS — PARASITIC NEMATODES — TAKING PLACE ON A MASSIVE, DAILY AND SEEMINGLY PERPETUAL SCALE. THESE CREATURES INFECT MORE THAN 1 BILLION PEOPLE WORLDWIDE. THREADWORMS, HOOKWORMS AND A MYRIAD OF OTHER, SIMILAR, TINY INVADERS WORK THEIR WAY INTO HUMANS AND ANIMALS, INSECTS AND PLANTS, ACROSS THE GLOBE.

By Robin Keats

These often microscopic but immensely powerful (and potentially deadly) beasts have the attention of Life Sciences researcher Dr. Elissa Hallem. Dr. Hallem, who was awarded a MacArthur Genius Grant last year, leads an investigation at her UCLA lab that seeks to put a stop to the destruction these creatures leave in their wake.

Consider, for example, the human

threadworm, whose life and mysterious patterns she's concentrated on. This parasite is commonly found in tropical regions and frequently finds its way into hosts who walk barefooted over soil that's been contaminated by fecal matter.

Once threadworms have made their way into the foot, they enter blood vessels that carry them to the lungs. From there, they crawl up the bronchial tubes to the

throat where they get swallowed back down to the gut, where they find the small intestine particularly to their liking. This parasite then molts twice, threading itself in and out of the intestinal walls and thus causing inflammation. The inflammation can cause major tissue damage, acute respiratory failure and death.

An Olfactory Odyssey

"Parasitic worms that attack humans are a devastating threat to populations, especially in the developing world," said Hallem. "We hope that if we understand more about how these worms locate and infect hosts, how they use sensory cues to do that ... it will be helpful in developing strategies for preventing nematode infections."



PHOTO COURTESY OF THE JOHN D. & CATHERINE T. MACARTHUR FOUNDATION

These sensory cues are what Hallem and her team are intensely investigating. “I became interested in parasitic nematodes because it was thought that some of them use olfactory cues to find hosts, but remarkably little was known about the process,” she said. “We are interested in the behavioral responses of parasitic nematodes to carbon dioxide and other host-emitted olfactory cues and in understanding the neural circuits and signaling pathways that underlie these responses.”

To do that, Hallem studies the responses of *C. elegans* and other nematode species to these same olfactory cues to better comprehend how the nervous system of a parasitic animal differs from

that of a free-living animal. “By comparing the responses of *C. elegans* to those of other nematode species, which have similar neuroanatomy but very different behavioral repertoires, we hope to gain insight into the specific features of a neural circuit that determine its behavioral output,” she said. Hallem is also looking at the immune response to nematode infection, using insect-parasitic nematodes as model parasites and the fruit fly *Drosophila melanogaster* as a model host.

While pointing out that “nematodes are a big problem for humans in terms of agricultural and economic loss, worldwide,” Hallem is modest about her research achievements thus far concerning a problem so immense in scope one might think she’s leading an army of scientists at the eponymous Hallem Lab. “We’re really at the start of this,” she said. “The idea is that we may be able to one day develop nematode traps or repellants that are analogous to what we can do with mosquitoes.”

“Elissa’s research takes a novel approach to study the neural circuitry of odor-driven behaviors that allow parasitic nematodes to find their hosts,” said Victoria Sork, dean of the UCLA Life Sciences Division. “Her findings provide critical details for understanding human parasitic diseases.”

The Making of a Neurobiologist

This young scientist wasn’t the kind of girl, she said, who grew up climbing trees and digging in the backyard of her childhood home in Santa Monica. Her dad, a computer programmer with a Ph.D. in chemistry from UCLA, would show her articles in *Scientific American*, and that stoked her interest in biology. Her specific interest in neuroscience began during a summer high school course in psychology that featured a segment dealing with that specialized branch of study. “I also worked in Larry Zipursky’s UCLA lab while in high school, looking at genes required for development of the fly eye; we screened for mutations that affected eye development,” said Hallem.

Hallem went on to receive her B.A. in 1999 from Williams College and her Ph.D.

from Yale University in 2005. She then spent five years as a postdoctoral fellow at the California Institute of Technology before being appointed as an assistant professor in UCLA’s Department of Microbiology, Immunology and Molecular Genetics. She’s also a member of UCLA’s Molecular Biology Institute and has had her scientific articles published in *Nature*, *PNAS*, *Cell* and *Current Biology*.

“We’ve done a lot of characterization of behavioral responses to different host animals, and the next direction we’re going in is to understand the neural circuits that mediate responses to these host odors,” she said. “For example, why is it that an insect parasite is attracted to insects and a human parasite is attracted to humans? How is that encoded on a neural circuit level? That’s what we’ll be pursuing over the course of the next five years.”

While Hallem obviously recognizes the gloomy aspects of her work and the doom (oft-realized) potential of the monsters she studies, she also said: “We have a lot of fun working with all these parasites — we have some species that parasitize crickets, some that parasitize wax worms, some that parasitize rats and mice. We kind of have a zoo here and do a lot of looking at attraction to feces, and so you’ll hear comments like, ‘Hey, I just got the poop assay to work!’” she said with a laugh that belies the incredible seriousness of her research.

“Elissa’s work is wonderfully interdisciplinary,” concluded Jeffery F. Miller, professor and chair of the UCLA Department of Microbiology, Immunology and Molecular Genetics, who holds UCLA’s M. Philip Davis Chair in Microbiology and Immunology. “She is addressing a fundamental problem in host–parasite interactions using a combination of genetics, neurobiology and behavioral studies that is unique in the field of pathogenesis. We are fortunate to have been able to recruit her to UCLA.”

Scientists Map 3-D Structure of Telomerase Enzyme, Key Actor in Cancer and Aging, for the First Time



Juli Feigon

RESEARCHERS FROM UCLA AND UC BERKELEY HAVE SOLVED THE PUZZLE OF HOW THE VARIOUS COMPONENTS OF AN ENTIRE TELOMERASE ENZYME COMPLEX FIT TOGETHER AND FUNCTION IN A THREE-DIMENSIONAL STRUCTURE. THE CREATION OF THE FIRST COMPLETE VISUAL MAP OF THE TELOMERASE ENZYME, WHICH IS KNOWN TO PLAY A SIGNIFICANT ROLE IN AGING AND MOST CANCERS, REPRESENTS A BREAKTHROUGH THAT COULD OPEN UP A HOST OF NEW APPROACHES TO FIGHTING DISEASE.

By Melody Pupols

“EVERYONE IN THE FIELD WANTS TO KNOW WHAT TELOMERASE LOOKS LIKE, AND THERE IT WAS. I was so excited, I could hardly breathe,” said Juli Feigon, a UCLA professor of chemistry and biochemistry and a senior author of the study.

The scientists report the positions of each component of the enzyme relative to one another and the complete organization of the enzyme’s active site. In addition, they demonstrate how the different components contribute to the enzyme’s activity, uniquely correlating structure with biochemical function.

The Right Fit

“We combined every single possible method we could get our hands on to solve this structure and used cutting-edge technological advances,” said co-first author Jiansen Jiang, a researcher who works with Feigon and the study’s co-senior author, Z. Hong Zhou, director of the Electron Imaging Center for Nanomachines at the California NanoSystems Institute at UCLA and a professor of microbiology, immunology and molecular genetics. “This breakthrough would not have been possible five years ago.”

“When we started fitting in the high-resolution structures to the blob that emerged from electron microscopy, we realized that everything was fitting in and made sense with decades of past

biochemistry research,” added co-first author Edward Miracco, a National Institutes of Health postdoctoral fellow in Feigon’s laboratory. “The project just blossomed, and the blob became a masterpiece.”

Telomerase and Aging

The telomerase enzyme is a mixture of components that unite inside our cells to maintain the protective regions at the ends of our chromosomes, which are called telomeres. Telomeres act like plastic tips at the end of shoelaces, safeguarding important genetic information. But each time a cell divides, these telomeres shorten, like the slow-burning fuse of a time bomb. Eventually, the telomeres erode to a point that is no longer tolerable for cells, triggering the cell death that is a normal part of the aging process.

While most cells have relatively low levels of telomerase, 80 percent to 90 percent of cancer cells have abnormally high telomerase activity. This prevents telomeres from shortening and extends the life of these tumorigenic cells — a significant contributor to cancer progression.

The new discovery creates tremendous potential for pharmaceutical development that takes into account the way a drug and target molecule might interact, given the shape and chemistry of each component. Until now, designing a cancer-fighting drug that targeted telomerase was much like

shooting an arrow to hit a bulls-eye while wearing a blindfold. With this complete visual map, the researchers are starting to remove that blindfold.

“Inhibiting telomerase won’t hurt most healthy cells but is predicted to slow down the progression of a broad range of cancers,” said Miracco. “Our structure can be used to guide targeted drug development to inhibit telomerase, and the model system we used may also be useful to screen candidate drugs for cancer therapy.”

Many Researchers, One Breakthrough

The researchers solved the structure of telomerase in *Tetrahymena thermophila*, the single-celled eukaryotic organism in which scientists first identified telomerase and telomeres, leading to the 2009 Nobel Prize in Physiology or Medicine. Research on *Tetrahymena* telomerase in the lab of co-senior author Kathleen Collins, a professor of molecular and cell biology at UC Berkeley, laid the genetic and biochemical groundwork for the structure to be solved.

“The success of this project was absolutely dependent on the collaboration among our research groups,” said Feigon, a member of the National Academy of Sciences. “We had so many technical hurdles to overcome, both in the electron microscopy and the biochemistry. Pretty much every problem we could have, we had, and yet at each stage these hurdles were

overcome in an innovative way.”

One of the biggest surprises, the researchers said, was the role of the protein p50, which acts as a hinge in *Tetrahymena* telomerase to allow dynamic movement within the complex; p50 was found to be an essential player in the enzyme’s activity and in the recruitment of other proteins to join the complex.

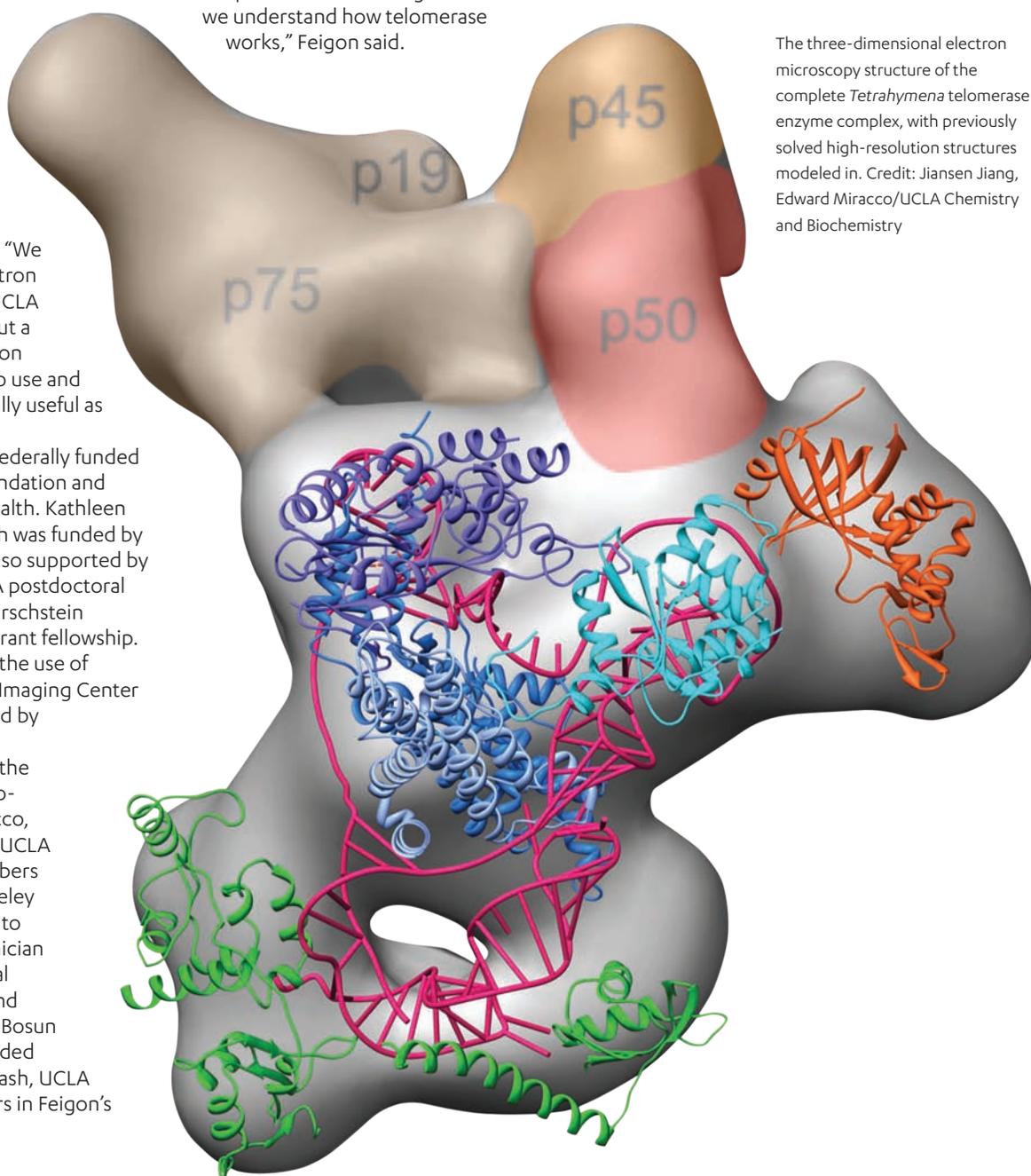
“The beauty of this structure is that it opens up a whole new world of questions for us to answer,” Feigon said. “The exact mechanism of how this complex interacts with the telomere is an active area of future research.”

“The atmosphere and collaboration at UCLA really amazes me, and that is combined with some of the most advanced facilities around,” Zhou said. “We have a highly advanced electron microscopy facility here at UCLA that even researchers without a strong background in electron microscopy can learn how to use and benefit from. This will be really useful as we move forward.”

Feigon’s research was federally funded by the National Science Foundation and the National Institutes of Health. Kathleen Collins’ UC Berkeley research was funded by the NIH. The research was also supported by the Ruth L. Kirschstein NRSA postdoctoral fellowship and the Ruth L. Kirschstein NRSA predoctoral training grant fellowship. The scientists acknowledge the use of instruments at the Electron Imaging Center for Nanomachines supported by the NIH to Zhou.

Equal contributions to the publication were made by co-first authors Jiang and Miracco, postdoctoral researchers at UCLA with Zhou and Feigon. Members of Kathleen Collins’ UC Berkeley laboratory who contributed to this research included technician Kyungah Hong, postdoctoral researcher Barbara Eckert and former graduate researcher Bosun Min. Other co-authors included Henry Chan and Darian D. Cash, UCLA graduate student researchers in Feigon’s laboratory.

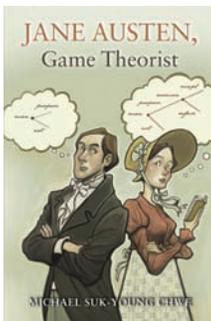
“Telomerase is the most amazing complex,” said Feigon, who began studying telomere DNA structure in the early 1990s, which led to her interest in telomerase. “Some people think if we activate telomerase, we can live forever. However, we don’t want our cells to be able to divide indefinitely. As they get older and older, they accumulate all kinds of DNA damage and defects; that is why we don’t want to have a high level of telomerase activity in most of our cells. There is so much potential for treating disease if we understand how telomerase works,” Feigon said.



Pride, Prejudice and Game Theory

POP QUIZ: THIS BEAUTIFUL MIND WAS PROMOTING GAME THEORY LONG BEFORE COLD WAR THINK TANKS USED MATHEMATICS TO UNDERSTAND STRATEGIC MANEUVERING. PLOTTING, AS A RESULT, HAS NEVER BEEN THE SAME. IS IT JOHN NASH, THE NOBEL PRIZE–WINNING MATHEMATICIAN PORTRAYED IN A 2001 OSCAR-WINNING BIOPIC? JOHN VON NEUMANN, GAME THEORY’S FOUNDING FATHER? GO BACK FURTHER, MUCH FURTHER, URGES A UCLA GAME THEORY EXPERT AND FAN OF 19TH-CENTURY NOVELIST JANE AUSTEN.

By Meg Sullivan



“Austen’s novels are game theory textbooks,” Michael Suk-Young Chwe writes in *Jane Austen, Game Theorist*, published by Princeton University Press. “She’s trying to get readers to use their higher-thinking skills and to think strategically.”

At its most basic level, game theory assesses all the choices available to two (or more) people in a given situation and assigns a numerical value to the benefit each person reaps from each choice. Often, the choice that is most valuable to one player comes at the expense of the other; hence, game theory’s best-known phrase — “zero-sum game.” But just as frequently, there is a choice with unexpected benefits for both players.

“In game theory, you make choices by anticipating the payoffs for others,” Chwe explained.

The Value of a Good Scheme

Chwe argues that Austen explores this concept in all six of her novels, albeit with a different vocabulary than the one used by Nash, von Neumann and other game theory greats some 150 years later. In Austen’s romantic fiction, this type of strategic

thinking is described as “penetration,” “foresight” or “a good scheme.”

In *Pride and Prejudice*, for instance, Mrs. Bennet, a mother eager to marry off her five daughters, sends her oldest, Jane, on horseback to a neighboring estate, even though she’s aware a storm is on the way. “Mrs. Bennet knows full well that because of the rain, Jane’s hosts will invite her to spend the night, thus maximizing face time with the eligible bachelor there, Charles Bingley, whom Jane eventually marries,” Chwe said.

In *Persuasion*, the unmarried heroine, Anne Elliot, is approached by Sophia Croft, the sister of a man whose marriage proposal Anne spurned eight years earlier — a decision she still bitterly regrets. Mrs. Croft casually asks Anne whether she’s heard that her brother has married. Anne flinches, thinking the reference is to her former beau, Frederick Wentworth, but relaxes upon learning that Mrs. Croft is actually referring to Frederick’s younger brother, Edward.

“It’s hard to imagine a better way for Mrs. Croft to gauge Anne’s visceral interest in her unmarried brother,” said Chwe, a UCLA associate professor of political science. The rest of the novel involves schemes to give Frederick so many signals of Anne’s enduring love that he finds the courage to propose to her again.

And readers may recall how, in *Mansfield Park*, the 18-year-old heroine, Fanny Price, intervenes when her 5-year-old sister, Betsey, brazenly appropriates a knife that had been given as a gift to their 14-year-old sister, Susan, by their departed sister, Mary. Calculating that the youngster is more interested in the object itself than its sentimental value, Fanny buys a new knife and gives it to Betsey. In response, Betsey returns the keepsake to Susan, and domestic harmony is restored. The incident so clearly demonstrates game theory for Chwe that he illustrates it in his book using game theory’s mathematical language: the matrix and decision tree.

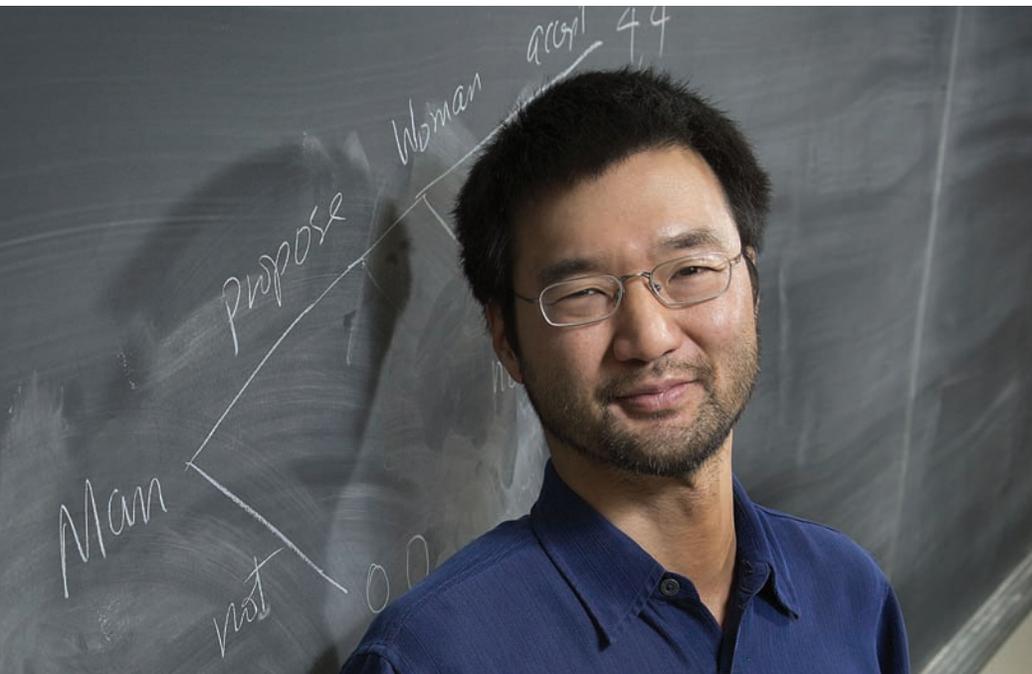
Benefits of a Good Strategic Manipulation

By Chwe’s count, more than 50 such strategic manipulations appear in *Pride and Prejudice*, *Sense and Sensibility*, *Persuasion*, *Northanger Abbey*, *Mansfield Park* and *Emma*. Indeed, the entire plot of *Pride and Prejudice*, which ranked second in a 2002 BBC poll of the 200 best novels in the English language, can be seen as a series of manipulations and schemes, Chwe contends.

In many cases, by making tough choices and predicting how others will respond, Austen’s young, often financially deprived heroines



Jane Austen



Michael Suk-Young Chwe

triumph over seemingly stronger forces, including well-to-do men and older women of higher status, he argues. In so doing, they find happiness and — just as important in an era with limited employment and inheritance possibilities for women — financial security.

“They build a theory of strategic thinking,” writes Chwe, “not to better chase a Soviet submarine, but to survive.”

And such machinations don’t just enable beloved characters to lure mates; they allow them to bond and fall in love. “Austen argues that strategic partnership, two people joining together to strategically manipulate a third person, is the surest foundation for friendship and marriage,” Chwe writes.

A Clueless Game-Changer

Although whiffs of game theory have been discerned in writings as old as Plato, its conventional history begins with the 1944 publication of von Neumann’s seminal *Theory of Games and Economic Behavior*. The techniques gained prominence as a means of anticipating attacks and counterattacks among superpowers during the Cold War, and they played a role in determining the quantity and positioning of U.S. nuclear warheads. Today, game theory

is more frequently deployed in nonmilitary applications, particularly in business and economics.

Chwe, in his more traditional research, applies game theory to the dynamics of political protests, but he is no stranger to unconventional approaches, having uncovered the ways in which slave folk tales such as *Brer Rabbit and the Tar Baby* embody key principles of strategic thinking.

Still, no one had considered Austen as an unheralded pioneer of game theory until Chwe stumbled onto her work at age 40 after taking his son and daughter to see the film *Clueless*, a 1995 romantic comedy loosely based on *Emma*. Set in late 20th-century Los Angeles, the movie follows a scheming Beverly Hills teenager as she blunders in her matchmaking attempts.

Soon the game theorist was reading one Austen novel after another, shaking his head at her seeming obsession with the nuts and bolts of his discipline — choice, preference and strategy. In the tales of women dependent on men, Chwe came to see a parallel with African-American folk tales about slaves struggling for autonomy.

“Game theory,” he said, “may be associated with hegemonic Cold War strategy, but it’s also one of the original weapons of the weak.”

Chwe sees Austen’s heroines as possessing strategic abilities in different measures. Calm and level-headed Elinor Dashwood (*Sense and Sensibility*) and feisty and clever Elizabeth Bennet (*Pride and Prejudice*) are set up from the beginning as master strategists. One of the reasons *Pride and Prejudice* is so popular, Chwe contends, is its heroine’s aptitude in this regard: “Elizabeth is always doing this rapid-fire strategic stuff.”

Meanwhile, he sees motherless Anne Elliot (*Persuasion*), one-time tomboy Catherine Morland (*Northanger Abbey*) and Fanny Price (*Mansfield Park*) as characters who develop strategic skills as the novels progress. At the other end of the spectrum is Emma Woodhouse (*Emma*), whose scheming nearly prevents her gentlemanly neighbor George Knightley from proposing to her. The heroine embodies the hubris of being “overstrategic.”

But it’s with her least strategically adept characters that Austen may actually tread on the boldest frontier, Chwe contends.

Remember Lady Catherine, Mr. Darcy’s imperious aunt in *Pride and Prejudice*, who demands that the heroine, Elizabeth, promise not to marry her nephew? When Elizabeth refuses, Lady Catherine reports the response to Mr. Darcy as an example of the young woman’s impertinence, disregard for social rank and general unsuitability for him.

But what Lady Catherine fails to anticipate is that Mr. Darcy still has feelings for Elizabeth. So when his aunt conveys the news, it emboldens him to propose, signaling to him that Elizabeth would likely accept. Lady Catherine’s efforts blow up in her face.

What is Chwe’s phrase for this tendency that has yet to be mathematized by modern game theory? Prepare yourself, because it is a bit technical: “Cluelessness.”



Well on Their Way: Students to Benefit from Pathways to Commencement Initiative

By Cynthia Lee and Margaret MacDonald

WHEN PATRICIA TURNER, UCLA'S NEW DEAN AND VICE PROVOST OF UNDERGRADUATE EDUCATION, STOOD BEFORE MORE THAN 4,000 PROSPECTIVE FIRST-YEAR STUDENTS ON BRUIN DAY IN APRIL, SHE MADE A POINT OF WELCOMING THEM AS "THE CLASS OF 2017," PLANTING A SEED IN THEIR MINDS FOR WHAT WILL BE WELL WITHIN THEIR REACH — GRADUATION IN FOUR YEARS.

The hope is that every Bruin will begin from Day One to visualize the path that he or she will take to make that happen, said Turner. To help approximately 5,700 incoming freshmen make timely progress to Commencement 2017, UCLA Executive Vice Chancellor and Provost Scott Waugh, Turner and the deans of the College of Letters and Science have made it a top priority to provide a sufficient number of classes without sacrificing the high-quality undergraduate education that is a hallmark of UCLA's global reputation.

"Making sure that freshmen in the new class of 2017 coming in this fall will have the classes they need to graduate in four years is among UCLA's highest priorities," Waugh said.

That is not always easy to accomplish at an institution the size of UCLA.

“Having enough courses for thousands of new freshmen that align with what they want and should take is an enormous statistical challenge that every large university faces,” Turner explained. “But I have been very impressed from the outset at how deeply committed everyone at UCLA is to meeting this objective. It’s not about fulfilling 70 percent or 80 percent of the need for classes. We’ve got to fill 100 percent of that need. People here take this very seriously and are working hard to meet this goal every day.”

Current data from the UCLA Office of Analysis and Information Management show that the majority of UCLA students are getting the classes they need to graduate in four years (12 quarters). Of the students who entered UCLA as freshmen and graduated in 2011-12, 81 percent finished in 12 or fewer quarters. The percentage rises to 89 percent for those in the same class who graduated in 13 quarters or fewer.

In fact, the percentage of UCLA students graduating in 12 quarters has been rising in recent years and is at its highest point in university history. “These excellent graduation rates provide clear evidence that the courses students need to reach graduation in four years are available to them,” Turner said.

“When we look at students who take longer than four years to graduate, the factors are not related to the availability of courses,” Turner said. “The most common

reason why students take more than four years to graduate is that, along the way, they made a significant change in their major, decided to double-major or to add a minor. For some students, staying beyond 12 quarters is commensurate with goals they have refined here.”

Ensuring availability of classes is part of a new initiative, Pathways to Commencement, which will be backed up by additional resources for advisers, lecturers and teaching assistants. In addition, fundraising efforts will focus on boosting scholarships and expanding signature undergraduate education programs like Fiat Lux, the Academic Advancement Program and the Honors Collegium to enable the most stimulating academic engagement and to help keep students on track.

Pathways will also involve a faculty review of curricula and increased opportunities for student internships and service-learning experiences. Applying the knowledge students acquire in the classroom to these outside-the-classroom opportunities should be a priority for all, said Turner.

She added that students should get out of their comfort zone by sampling subject areas in the award-winning Freshman Cluster Program, in which challenging, timely topics are explored through a multidisciplinary lens.

“I’ve noticed that the most successful students are those who hit the ground running,” noted Turner. From the day they enroll at UCLA, she said, students should begin thinking about what they want to have

achieved by the time they don their cap and gown, instead of planning their progress quarter by quarter.

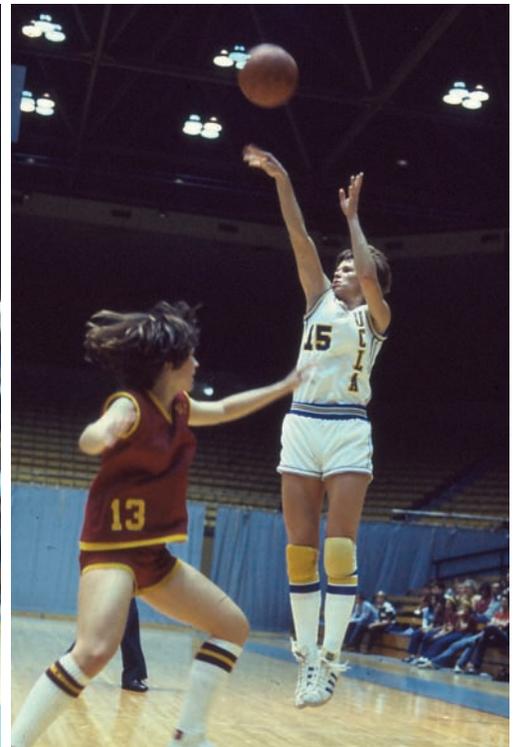
“Students should start putting together their academic bucket list and mapping out a schedule toward completing it,” Turner said. “Very few universities have the incredible curricular and co-curricular variety that UCLA offers, and the right amount of planning will allow students to take full advantage of this.”



Patricia Turner

Ann Meyers Drysdale '79 and the College of Letters and Science Commencement: Home at Last

By Margaret MacDonald



BASKETBALL LEGEND AND UCLA ALUMNA ANN MEYERS DRYSDALE DELIVERED BACK-TO-BACK IDENTICAL — AND EQUALLY INSPIRING — KEYNOTE SPEECHES FOR THE UCLA COLLEGE OF LETTERS AND SCIENCE’S DUAL COMMENCEMENT CEREMONIES ON JUNE 14 AT NEWLY RENOVATED PAULEY PAVILION.

It was a poignant homecoming not only for Meyers Drysdale, who competed in Pauley as a student-athlete in the 1970s, but also for the College Commencement. Pauley’s reopening last November allowed the ceremony to return to the university’s longtime graduation venue after three years at Drake Stadium. Staging two identical ceremonies on one day permitted graduating seniors to invite four guests instead of two, as in past years. And fortunately for the College, Meyers Drysdale agreed to give her keynote speech twice.

“We couldn’t have asked for a more inspirational role model to send off our graduating seniors,” said Joseph Rudnick, senior dean of the College of Letters and Science. “Ann is a truly remarkable individual and one of UCLA’s biggest supporters.”

In fact, Meyers Drysdale did triple duty on Commencement Weekend. The day after the College ceremonies, she returned to campus, this time to Wilson Plaza, as keynote speaker for the graduation ceremony for her home department of Sociology.

“To have graduated from one of the top universities in the world is humbling,” said Meyers Drysdale. “I am always proud to wear UCLA blue and gold, and I want people to know that I will always be a Bruin through and through.”



Meyers Drysdale was the first woman to receive a full athletic scholarship to UCLA and one of the first women inducted into the Naismith Memorial Basketball Hall of Fame. Meyers Drysdale was married to the late Hall of Fame Los Angeles Dodgers pitcher Don Drysdale, and is the sister of former NBA player Dave Meyers, who also played basketball at UCLA and in 1975 captained Coach John Wooden’s final championship team. Several of her family members also are Bruins, including her daughter Drew, a UCLA sophomore.

Meyers Drysdale was a dominant force, guiding UCLA to four conference titles and a women’s college basketball national championship, while also competing on the volleyball team and the track team, which won a national title in 1975. She was awarded the Broderick Cup in 1978 as the top female college athlete of the year and ended her

UCLA career as the first four-time All-American in collegiate basketball history.

While still a student at UCLA, Meyers Drysdale was a starter on the United States’ first women’s Olympic basketball team, which won the silver medal in 1976 in Montreal. She is the only woman to have had a tryout with the NBA, as a free agent in 1979 with the Indiana Pacers, and was the first player drafted by the Women’s Professional Basketball League, earning MVP honors in that league in 1979–80.

Over the last 35 years, she has had a successful career as a sports broadcaster, providing commentary for five Olympics — including the 2012 London Games — as well as men’s and women’s basketball, softball and volleyball. A resident of Huntington Beach, Calif., Meyers Drysdale is vice president of the WNBA’s Phoenix Mercury and the NBA’s Phoenix Suns.

College Commencement Speakers Reflect on Their UCLA Experience

A DISTINGUISHED GROUP THAT INCLUDED ALUMNI LEADERS AND A FORMER PROVOST OF THE UCLA COLLEGE OF LETTERS AND SCIENCE RETURNED TO CAMPUS IN JUNE AS KEYNOTE SPEAKERS FOR DEPARTMENTAL COMMENCEMENT CEREMONIES. IN THIS SECTION, WE RECORD THEIR REFLECTIONS OF THEIR TIME IN WESTWOOD AND OFFER BRIEF RECAPS OF THEIR ILLUSTRIOUS CAREERS.



Steven F. Udvar-Házy '68
Economics Ceremony
Pauley Pavilion

The most memorable aspects of my UCLA undergraduate experience were a wide exposure to a kaleidoscope of foreign students and the stimulating intellectual openings into academic subjects away from my primary interests in business, economics and political science, such as philosophy and anthropology. Some of the interesting upper-class seminars I took created avenues to work in a small team environment, which were later very useful as my career progressed.

Certified jet pilot and aviation entrepreneur Steven Udvar-Házy has amassed thousands of hours flying jet aircraft and 40 years as a leader in the aviation business world. He is currently chairman and CEO of Air Lease Corporation (ALC), which he founded in

February 2010.

Udvar-Házy was born in Budapest, Hungary. In the aftermath of the Hungarian Revolution, he escaped with his family to Sweden in 1958 and immigrated to the United States soon after.

His career began in 1966 while still an undergraduate student at UCLA, when he formed Airlines Systems Research Consultants, a firm specializing in airline routes, fleet and planning analysis. His first clients included Aer Lingus (Ireland), Mexicana and Air New Zealand.

He graduated from UCLA in 1968 with a bachelor's degree in economics and a minor in international relations. That year he also earned his private pilot's license and studied transportation management and economics at the graduate level.

In 1973, Udvar-Házy co-founded the aircraft leasing business that became International Lease Finance Corporation (ILFC). Under his leadership as chairman and CEO, ILFC became the worldwide market leader in the leasing and remarketing of advanced technology commercial jet aircraft to airlines around the globe, with a portfolio valued at more than \$52 billion and consisting of more than 1,000 jet aircraft. In 1983, ILFC went public, and in 1990 it was acquired by American International Group.

Udvar-Házy's 35 years of flying experience include more than 8,000 hours in jets. In 1977, he obtained FAA instrument, multi-engine and commercial pilot ratings, and in 1978 he graduated from American Airlines' training academy in Fort Worth, Texas, as a certified jet pilot. In 1980 he studied airline management at Stanford Graduate School of Business. He currently holds an FAA Airline Transport Pilot license and type ratings in Gulfstreams, Learjets and Citations. He regularly pilots ALC's corporate jet for business trips and is the only individual rated as a captain on the Gulfstream G650 who does not make a living as a full-time pilot.

Udvar-Házy currently serves as lead independent director on the board of SkyWest, Inc. He has been awarded several honorary doctorate degrees, including one from Embry-Riddle Aeronautical University in Florida. He has also received numerous aviation honors, including the Wings Club Distinguished Achievement Award, the Howard Hughes Memorial Award, the Wright Brothers Memorial Trophy, the Living Legends of Aviation Award, and the Air Force Vandenberg Award. The Republic of France awarded him the Officier de la Légion d'Honneur.

In recognition of Udvar-Házy's generosity, the Smithsonian National Air and Space Museum named its companion museum facility the Steven F. Udvar-Házy Center. His extensive philanthropic activities are focused on education and providing opportunities for youth. He, his wife, Chris, and their four children reside in Beverly Hills, Calif.



Catherine Glynn Benkaim M.A. '73
Humanities Ceremony
Royce Hall

I began a long and continuing love affair with the art of South Asia while studying for my master's degree at UCLA. Even more important, I developed the necessary tools — reading and writing critically and analytically — to share my passion with others ... and I've been doing that ever since. Thank you, UCLA!

Catherine Glynn Benkaim is a distinguished scholar, lecturer and independent curator in the field of South Asian art. She is the author of many scholarly publications, beginning more than 40 years ago with her work on paintings from the Punjab Hills of northern India, and now with the painting collections of the royal families in Rajasthan. She is currently working on future exhibitions with curators at the Art Institute of Chicago and the Cleveland Museum of Art.

In 2008, Benkaim presented the annual Benjamin Zucker Lecture at the Victoria & Albert Museum, titled "Mughal Influence on Rajput Painting," and in 2009 she participated in London's Courtauld Institute conference on Rajput painting. She was co-recipient of the 2009 Alfred H. Barr Award for Museum Scholarship for the catalogue and exhibition *Garden and Cosmos*, which opened at the Freer/Sackler Gallery of the

Smithsonian Institution and traveled to the British Museum. In 2012 she lectured at the Asiatica Museum in Berlin on "European Collectors of Indian Miniatures."

Benkaim serves on the board of the American Friends of the Israel Museum and is an emerita member of the board of trustees of the Freer/Sackler Gallery of Art in Washington, D.C. She is an advisory board member of the UCLA William Andrews Clark Memorial Library, the Los Angeles County Museum of Art Ancient Arts Council and South Asian Art Council, and the American Committee for South Asian Art. She has taught undergraduate and graduate courses at UCLA; California State University, Long Beach; and Northwestern University. She received a bachelor's degree from UCSB, a master's degree from UCLA and a doctorate from USC.

Elizabeth Kornblum Devine '83
Ecology and Evolutionary Biology Ceremony
Wilson Plaza

At UCLA, I made lasting friendships and valuable connections that I still enjoy today. I learned to pick myself up and move forward when I failed, and not to let my successes go to my head. I became my own cheerleader and my biggest critic, qualities which have motivated me in every aspect of my life. My UCLA education is and will always be one of my proudest achievements. To me, being a Bruin means to embrace diversity, applaud innovation, strive for lifelong learning and reward loyalty in those you mentor.

Elizabeth Devine is an accomplished forensic scientist, crime scene reconstruction expert, advocate for autism awareness, and co-executive producer of the television drama *CSI: Crime Scene Investigation*.

Devine joined the L.A. County Sheriff's Department as a criminalist in 1985, beginning a 15-year career that involved her in some of L.A.'s highest-profile murder investigations. Rising through the ranks, she ultimately

headed up the Crime Scene Unit and co-supervised the DNA lab. She received the Sheriff's Department's Meritorious Service Medal and was honored by the Los Angeles County Board of Supervisors for her work. In 1997, she served on a national panel of experts and contributed to the publication of a booklet that has become a valued resource for crime scene investigations nationwide. In the course of her career, she has trained investigators both in the U.S. and abroad in homicide investigation, sexual assault investigation and crime scene reconstruction.

In 2000, she became a technical consultant on the first season of *CSI: Crime Scene Investigation*. At the end of that season, she was hired as a writer/producer and has since written or co-written 21 episodes. Devine graduated from UCLA with a bachelor's degree in biology and earned her master's degree in criminalistics from California State University, Los Angeles.



Peter Jones M.A. '77, Ph.D. '78
 Mathematics Ceremony
 Court of Sciences

During my relatively short time as a graduate student at UCLA, a whole world opened up to me. The department was a very welcoming home for graduate students, and I met a large number of first-class researchers and friends with whom I have stayed in touch. The contacts I made at UCLA led to long stays in France and Sweden, two experiences that changed my life. Most of all, I got to see not just one field of research, but to meet leading figures in many fields. A discipline like mathematics is far too large for any one person to understand, but UCLA was a fabulous place to learn basic ideas from many areas and to get a sense of the great scope and power of modern research in the increasingly connected world of mathematical sciences.

Peter Jones is renowned for mathematical breakthroughs in various areas of analysis, dynamical systems and applied mathematics. He is the James E. English



Professor of Mathematics and Applied Mathematics at Yale University and director of Yale's Applied Mathematics Program.

Jones has stayed involved with UCLA, as a board member and former chair of the

science advisory board at UCLA's Institute for Pure and Applied Mathematics (IPAM). He has directed three IPAM programs on pure and applied mathematics. He also serves on the board of trustees of the Institute for Computational and Experimental Research in Mathematics (ICERM).

The author of more than 80 scientific papers, Jones has been honored with the Salem Prize, a Sloan Foundation fellowship, the first Presidential Young Investigator Award, and an invited plenary lecture at the 2010 International Congress of Mathematicians. He is a member of the American Academy of Arts and Sciences, the Royal Swedish Academy of Sciences and the U.S. National Academy of Sciences. After receiving his doctorate in 1978 from UCLA under the direction of John Garnett, he joined the faculty of the University of Chicago. He has been on faculty at Yale since 1985 and was chair of the Yale Mathematics Department from 1998 to 2001.

Valorie Kondos Field '87
 History Ceremony
 Dickson Court

Growing up, I had always heard the cliché "standard of excellence," but I didn't truly understand it until I came to UCLA. The energy that the student body and staff create on this campus is unlike anything else I've ever experienced. For 31 years it has inspired me to personal and professional achievements I never would have dreamed of had I not been in this environment of excellence.

UCLA Head Coach Valorie Kondos Field leads one of the premier programs in collegiate gymnastics. Since she became head coach 23 years ago, UCLA has amassed six NCAA team championships, 12 conference titles — including the inaugural Pac-12 title in 2012 — and 16 NCAA Regional titles. She has won both national and conference Coach of the Year honors four times. Many of her top recruits have



competed at the elite level, including the U.S. National and Olympic teams. In 2010, she was inducted into the UCLA Athletics Hall of Fame. Kondos Field's coaching philosophy stresses balance and integrity. Her teams are regularly represented on the Conference All-Academic teams and Scholastic All-American squads, and contend each year for UCLA's team GPA award. Her student-athletes have also found individual success, winning 25 NCAA individual titles during her tenure as head coach, 22 of those in the last 14 years.

A former professional ballet dancer, Kondos Field initially got her start in gymnastics by playing the piano for floor exercise music. She then became a dance coach and learned the fundamentals of the sport. In 1983, she was hired as assistant coach/choreographer by UCLA Coach Jerry Tomlinson. Together they put UCLA gymnastics on the map with distinctive choreography and flair. She was appointed UCLA's head coach in 1991.

Kondos Field is also a freelance choreographer with extensive experience in the entertainment and gymnastics fields. She has helped to create, choreograph and direct the award-winning "Summer Nights" shows at Sea World for the past 21 years. She earned a bachelor's degree in history from UCLA and is married to UCLA Associate Athletic Director Bobby Field.

Raymond Orbach

Physics & Astronomy Ceremony
Schoenberg Hall

Enthusiasm for learning and discovery is a hallmark of the UCLA campus. The spirit and enjoyment of the UCLA experience make it a magnet for students and faculty. The quality of its academic programs sets a high level of excellence that has inspired me throughout my research and service career.

Respected theoretical physicist Raymond Orbach served as provost of the UCLA College of Letters and Science from 1982 to 1992 and is the former chancellor of UC Riverside (1992-2002). He is the founding director of the Energy Institute at the University of Texas at Austin (UT) and holds joint faculty appointments in UT's Mechanical Engineering Department, Physics Department and the Jackson School of Geosciences.



Orbach is the former head of the Office of Science at the Department of Energy (DOE) and was sworn in as the Department of Energy's first under secretary for science in June 2006. In this role he was responsible for implementing the President's American Competitiveness Initiative, designed to help drive continued economic growth in the United States. He spearheaded the DOE's efforts to transfer technologies

from its national laboratories to the global marketplace.

He received a bachelor's degree in physics from the California Institute of Technology and a Ph.D. in physics from the University of California, Berkeley. Before joining the UCLA physics faculty in 1966, he was a postdoctoral fellow at Oxford University and an assistant professor of applied physics at Harvard University. He has published more than 240 scientific articles on theoretical and experimental physics. He is a fellow of the American Physical Society and the American Association for the Advancement of Science.

Dennis Ross '70

Political Science Ceremony
Pauley Pavilion

Intellectually, professionally, socially and personally, my life has been shaped by my experiences at UCLA. First and foremost, it stimulated my interest in foreign policy and national security. The courses I took, the faculty who inspired me, and the process of learning to dissect and understand key historical events all moved me in a certain direction. Second, I was in an environment that allowed me to grow and try out ideas — and to see the benefit of debating different ways of thinking about problems and their solutions. Third, I was offered opportunities to begin to see how ideas could be put into action. Through UCLA I was able to intern in both the Congress and the Executive Branch, which gave me an invaluable perspective on the policy process. Fourth, I was able to develop analytical skills that have served me throughout my career. And last, but by no means least, I met my wife, Debbie, at UCLA.

Surely, not everyone's life path is affected in so many ways by their college experience. But I was lucky: I went to UCLA and it surely affected me.

Ambassador Dennis Ross is a highly skilled diplomat and recipient of UCLA's highest honor, the UCLA Medal. He currently serves as counselor at The Washington Institute for Near East Policy. Prior to this, he was special assistant to President Barack Obama, the National Security Council's senior director for the Central Region, and special advisor to Secretary of State Hillary Rodham Clinton.



For more than 12 years, Ambassador Ross played a leading role in shaping U.S. involvement in the Middle East peace process and dealing directly with the parties in negotiations. He was the U.S.' "point man" for the peace process in the administrations of both George H.W. Bush and Bill Clinton. He facilitated the 1994 Israel-Jordan peace treaty, assisted the Israelis and Palestinians to reach the 1995 Interim Agreement, successfully brokered the 1997 Hebron Accord and worked intensively to bring Israel and Syria together.

He is the author of several books, most recently *Myths, Illusions, and Peace: Finding a New Direction for America in the Middle East*, co-authored with David Makovsky.



Susan Smalley M.A. '81, Ph.D. '85
Anthropology Ceremony
Dickson Court

UCLA had a huge effect on my life and career. Once I started graduate school in 1979, I never left. From grad student to postdoc to assistant professor to professor emerita, I literally grew up on campus. What I love most about UCLA is that somewhere on campus, someone is likely studying whatever you might be curious to learn — from an expert on the music of vibrating cells to a scholar on Gandhi to a scientist researching attention deficit hyperactivity disorder via mouse models. It's really a microcosm of a world full of interesting people, but all within a few steps of one another.

Susan Smalley is a UCLA emerita professor of psychiatry known for her research on genetic influences in human behavior, childhood onset conditions of autism and attention deficit hyperactivity disorder, and the science of well-being. In 2004, she founded the Mindful Awareness Research Center at UCLA to conduct research and education on mind-body practices such as mindfulness meditation, and in 2009 she co-authored the book *Fully Present: The Science, Art, and Practice of Mindfulness*.

More recently, Smalley has focused on advocating for gender equality as a force for global peace and prosperity. She

currently serves as co-chair of the board of Equality Now, an international human rights organization dedicated to women and girls, and as a member of Gordon and Sarah Brown's High Level Panel for Global Education, which addresses global problems of gender inequality, education and illiteracy. In 2011 she founded Cell Ed, a company that uses mobile phones to distribute basic adult literacy. She also writes for online communities of *Psychology Today* and *The Huffington Post* on a range of topics including mindfulness, education and gender equality.

She received a bachelor's degree in anthropology from the University of Michigan and master's and doctoral degrees in anthropology from UCLA, where she also completed postdoctoral work in medical genetics and childhood psychopathology.

Judith L. Swain '70
Chemistry & Biochemistry Ceremony
Court of Sciences

The UCLA Department of Chemistry provided a real "home" within the much larger university. The personal attention and mentoring I received from professors such as Chuck Knobler, Ken Trueblood, Dan Kivelson and Willard Libby instilled in me the belief that I could achieve anything that I set my mind to. Their belief in me gave me the confidence to aim high and to choose paths that, while not easy, could be achieved with hard work and dedication.

Pioneering cardiovascular researcher Dr. Judith L. Swain is the executive director of the Singapore Institute for Clinical Sciences and the Lien Ying Chow Professor of Medicine at the National University of Singapore. Her research focus is assessing and enhancing human performance in extreme environments. She co-founded OptiBrain, a research center focused on optimizing brain resources for performance in extreme environments, and Synecor, a medical device incubator company.

Previously, Dr. Swain served as dean for translational medicine at UCSD; chair of the Department of Medicine and holder of the Arthur Bloomfield professorship at Stanford University; and the Herbert C. Rorer Professor of Medical Sciences and director of cardiovascular medicine at the University of Pennsylvania.

She serves on several advisory boards, including the Wyss Institute for Biologically Inspired Engineering at Harvard University. She is an elected member of the Association of American Physicians (past president), the American Society for Clinical Investigation (past president), the American Association for the Advancement of Science, and the Institute of Medicine of the National Academy of Sciences. She earned her bachelor's degree in chemistry from UCLA and her medical degree from UCSD.



Julie Swain '70
Chemistry & Biochemistry Ceremony
Court of Sciences



I came to UCLA from a high school in an insular, lower-middle-class area of Orange County. The multicultural community at UCLA opened up the world of education, science and the arts, and showed me the possibilities of a profession. In particular, Dr. Ken Trueblood, who at that time was chair of the Department of Chemistry, was my role model and we had an enduring friendship.

The first woman to lead a cardiovascular surgery division in the United States, Dr. Julie Swain is renowned for her discoveries related to the physiology and biochemistry of hypothermia, for the use of magnetic resonance spectroscopy in the study of cardiopulmonary bypass and the brain, and for her basic studies of myocardial metabolism.

She has served as an advisor to the Food and Drug Administration, evaluating cardiovascular medical devices, working with industry in the design of clinical trials, and making regulatory recommendations. She previously served as acting deputy associate administrator of the Office of Biological and Physical Research at NASA, which involved working with the International Space Station research program.

In addition to running an active medical practice, Dr. Swain held leadership roles at the National Institutes of Health, Louisiana State University in Shreveport, the University of Nevada School of Medicine and the University of Kentucky. She established cardiovascular surgical brain protection laboratories and headed a team of molecular biologists, neurologists and magnetic resonance experts studying molecular mechanisms of brain and spinal cord injury.

She has been a fellow of the American College of Surgeons, the American College of Chest Physicians and the American College of Cardiology. She has authored more than 70 publications, served on seven editorial boards and chaired numerous government and industry advisory committees. Dr. Swain received her bachelor's degree in chemistry from UCLA and her medical degree from Baylor College of Medicine.

Christopher J. Zyda '84, M.B.A. '89
English Department Ceremony
Pauley Pavilion

My English degree and my UCLA education have been so good to me, and so good for me. Because of my UCLA education, combined with some luck and extremely hard work, I have enjoyed a successful finance career that has culminated in the founding of my own investment management firm, which today manages approximately \$1.4 billion in assets. I loved going to college at UCLA, and I have many fond memories of my undergraduate career. Nearly 30 years after graduating, attending UCLA still ranks as one of my best life decisions.

Christopher Zyda has put his two UCLA degrees to good use in a successful investment management and corporate finance career spanning 25 years. He is founder and CEO of Mozaic, LLC, a Beverly Hills-based investment firm that provides customized wealth-management services for ultra-high-net-worth individuals, family

offices and foundations.

Before establishing Mozaic in 2007, Zyda held top-level corporate finance positions at The Walt Disney Company, Amazon.com, eBay and Luminent. As Disney's chief investment officer, he managed more than \$4 billion of company investments. As Amazon's treasurer and later its international CFO, Zyda secured billions of dollars of financing for Amazon's early global expansion and played an instrumental role in Amazon's financial turnaround in 2001. Zyda managed eBay's first comprehensive budgeting process and was a key member of the company's PayPal acquisition team. As CFO of Luminent, he led the real estate investment trust's initial public offering on the New York Stock Exchange and raised nearly \$5 billion for the company.

Zyda earned a bachelor's degree in English from UCLA in 1984 and an M.B.A. from the UCLA Anderson School of Management in 1989, where he graduated with a concentration in finance and with Beta Gamma Sigma honors. In his spare time, he enjoys training in CrossFit and Olympic lifting, running, skiing, playing the piano and creative writing.



Class of 2013: A Snapshot of Excellence

HUMANITIES

Matthew Rosenstein: A Circle of Friends



What do French medieval studies and Ronald Reagan UCLA Medical Center's Department of Neurosurgery have in common? They've both helped shape Matthew Rosenstein's life.

As an entering freshman four years ago, Rosenstein, now 22 and a graduate of Jewish studies, knew he wanted to do something that helped others. He was already a mentor for his best friend, who was diagnosed with autism.

And he was well on his way to founding a UCLA chapter of Circle of Friends, which connects university students with young adults who have developmental disabilities.

A year spent interning in the U.S. Senate through the UCLA Center for Community Learning, stints as a research assistant in Trauma Medicine and Neurosurgery, and a course on French medieval studies led the Santa Monica native to find his calling: medicine.

"My experience working for and shadowing Dr. Isaac Yang, a neurosurgeon, really inspired me to take interest in bridging science with the human side of medicine," Rosenstein said. "Dr. Yang inspired me because he promises every single patient he will care for them as he would his brother or wife. When he's with a patient, he carries knowledge and training as tools, but his heart is on the table first. He's ready to do whatever he can, and sometimes just his listening comforts."

And French medieval studies?

The course came with an option of tacking on a travel studies program that took Rosenstein to France. Under the mentorship of

Professor Teofilo Ruiz, 2012 U.S. National Humanities Medalist, he compared French medieval humanist culture and the rapport that French physicians at Groupe Hospitalier Pitié Salpêtrière in Paris (France National Medical Center) develop with their patients.

"I've learned that the relationship a doctor has with their patients is just as important as the medical treatment that's administered," Rosenstein said. Rosenstein, Yang and Ruiz recently published a book on the topic, *The Service Minded Physician*.

Rosenstein was able to finish the requirements for his major early and quickly dove into premed courses. He has applied to medical schools and is awaiting responses.

But his academic success is only part of Rosenstein's story at UCLA. His work as founder of Circle of Friends has established a mentorship program on campus that connects UCLA students with participants of Pathway, a program in UCLA Extension that offers a two-year certificate program for students with intellectual and other developmental disabilities.

The group, made up of 25 UCLA mentors, organizes events for Pathway students and works with the UCLA Volunteer Center, where Rosenstein is a Leadership Fellow, to bring leaders from across campus to discuss a variety of issues. The chair of UCLA's Department of Surgery once came to talk about what the university is doing to treat pancreatic cancer. Nutrition and healthy living were the topics when several UCLA coaches visited the group.

"UCLA really promotes diversity and encourages its students to see the world from new angles," Rosenstein said. "You have to take the perspective of one of these students if you want to be an effective mentor, and of a patient if you want to be an effective physician, and the university really prepares us for that."

PHYSICAL SCIENCES

Victor Ruiz: Beating the Odds



Victor Ruiz knew the odds weren't in his favor.

He was the first in his family to graduate high school, much less attend college. As an entering freshman at UCLA, he had few mentors and little idea of what he wanted to become. Expectations were low.

But Ruiz, 22, defied the odds. As a recent graduate majoring in chemistry, Ruiz now is headed to Yale University as a doctoral candidate in the pharmacology program. His

hopes are to help devise medicines that treat heart disease, which has claimed the lives of some in his own family.

"I feel that I have redefined the expectations that embody, and sometimes limit, my own status as a first-generation student, and I firmly believe that others in this situation can do the same," he said.

Although Ruiz found mentors along his educational journey — his high school teacher who first encouraged him to take a class in chemistry, for example — his drive to exceed expectations was fueled by the need to thank his parents for the sacrifices they made for him.

"I set those expectations for myself for the purpose of thanking

them," he said. "The moment I came to UCLA, I always remembered where I came from. My mind-set was to stay focused, have the right grades, be part of the right programs and part of the right support system."

Ruiz said that it was difficult to find people with similar backgrounds to lean on, especially in the science and math courses he was taking. But some initiatives at UCLA helped bridge the gap, such as the Academic Advancement Program, the nation's largest university-based student diversity program, and PEERS, the Program for Excellence in Education and Research in the Sciences.

"I wouldn't be in this position to do research and to be learning at such a high level if it weren't for those programs," he said. "There have never been high expectations for me, but I found a way to keep up with everyone else."

After four years at UCLA, Ruiz has gained new mentors and role models to help him continue his meteoric trajectory. Still, his greatest role models are the ones who gave him the opportunity to shine in the first place.

"My biggest role models are still my father and grandfather," he said. "For them, there was no time for school. They worked in the fields, tirelessly and endlessly in the sun. But that work ethic has been passed down to all of us."

LIFE SCIENCES

Andrew Nicholls: A UCLA Soldier's Story



Andrew Nicholls, a College senior who graduated in June, served eight years in the U.S. Army, including a year in Iraq. In spring quarter, he shared his firsthand perspectives about the military and combat in a UCLA psychology course he taught called “Fast Cars and Battle Scars: Understanding the Modern Combat Veteran and PTSD.”

“We discussed the entire process, from who chooses to serve in the military, what it’s like to be trained to kill somebody and how that affects you, to things that happen in combat, as well as military culture and civilian life when you leave the military,” said Nicholls, a 29-year-old psychology major. “I thought undergraduates who never served in the military should have some idea what it’s like ... so that as future voters and perhaps policymakers, they can think about veterans’ issues in a more nuanced way.”

Inspired to enlist in the Army Reserve by the 9/11 attacks, Nicholls joined a civil affairs unit that helped rebuild communities, serving as a liaison between the military and the local populace on issues such as infrastructure, job programs, rebuilding schools and hospitals, and training the military and the police.

“We would advise the commander on the local population and his moral obligations,” Nicholls said. “We helped a lot of people as we tried to figure out what they needed in their neighborhoods. It was very rewarding.”

How hard was it for Nicholls to get through that year? “Before I left for Iraq, my game plan was to tell myself, ‘I’m already dead and I will not come home from this,’” Nicholls said. “Some of the older guys said if you worry about dying, you’ll freeze up and not react, so I walked through that year like a dead man. Every morning I woke up thinking, ‘Today could be the day, but don’t worry about it. Just keep going.’”

When he came to UCLA in 2010, Nicholls quickly understood why acclimating to civilian life can be difficult for veterans. “In combat, there’s a lot of numbness,” he said. “You push everybody else aside emotionally except the people you’re deployed with. Combat is simple — life or death, black and white. Then you return to the grayness of everyday life and many veterans think, ‘I don’t want to deal with this — I’d rather be back in Iraq.’”

The class also covered the experience of basic training, unique issues facing female veterans and how military training prepares prospective soldiers to kill.

“Andrew is a uniquely talented and mature student whose experiences in the army are educational to our campus community,” said Chris Dunkel Schetter, a UCLA professor of psychology who is mentoring Nicholls. “Most of us don’t understand the military very well. Andrew uses data and examples from personal experience to share what he has seen and learned in the process. Those who know him here are much the wiser.”

After graduation, Nicholls plans to become a therapist working with veterans who have PTSD and substance-abuse issues. Already, he and an Army friend founded a nonprofit organization, the KIA WIA Foundation (kiawiafoundation.org).

SOCIAL SCIENCES

Angela Sanchez: A Magical Education



Graduating senior Angela Sanchez, 22, pulls off magic tricks — literally and figuratively. An amateur magician who performs for friends and schoolchildren, she managed both award-winning academic and service careers while at UCLA.

Armed with the College Honors Program’s Naumburg Honors Programs Research Stipend, Sanchez conducted original research at the Magic Castle in Hollywood, Skirball Center in Los Angeles, Conjuring Arts Research Center in New York, New York Public Library for the Performing Arts, Harvard University’s Theater Collection and Boston’s Mini Museum of Magic History. Her resulting thesis, “Conjuring the Modern Woman: Women and Their Representation in the Golden Age of Magic,” was selected to receive one of eight UCLA Library Prizes for Undergraduate Research.

A history major with minors in English and education, she also netted a valuable service award. Sanchez was selected as a junior as one of 15 recipients statewide for the Donald A. Strauss Scholarship, which provides \$10,000 toward a public service project. She founded and directs UCLA’s branch of School on Wheels, Inc., a nonprofit that

tutors homeless K–12 students in the Los Angeles area. She has a special connection to these students, having herself been homeless while she was attending Hoover High School in Glendale, from which she graduated. Sanchez and her father spent two years in a homeless shelter, during which time she was tutored by a School on Wheels volunteer, a graduate student from Caltech.

“I was inspired to begin a School on Wheels student group here at UCLA for one simple reason: I wished to repay a service that had been afforded to me,” she said.

During her UCLA career, Sanchez worked “to ensure that homelessness, either through social stigma or financial distress, does not destroy a child’s ambition for higher education,” said G. Jennifer Wilson, UCLA’s assistant vice provost for honors and the chair of a campus committee that selects candidates for the Strauss and other awards.

“Instead of falling into depression or having her own grades suffer, (Sanchez) made the experience meaningful,” Wilson said.

Besides tutoring, UCLA’s School on Wheels program offers workshops on financial aid, scholarship awareness and college readiness, and sponsors a tour of UCLA.

Sanchez is graduating magna cum laude with History Department and College honors and a Chancellor’s Service Award. She has been accepted to UCLA’s Graduate School of Education & Information Studies’ Teacher Education Program and aspires to be a school district administrator.

UCLA COLLEGE REPORT

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“FOR OUR STUDENTS, COMMENCEMENT IS NOT THE END BUT MERELY THE BEGINNING. THEY HAVE EARNED THIS DAY, AND WHETHER THEIR FUTURE LEADS THEM BACK TO SCHOOL OR INTO THE MARKETPLACE, WE ARE CONFIDENT THEY WILL SUCCEED. AFTER ALL, THEY ARE BRUINS.”

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