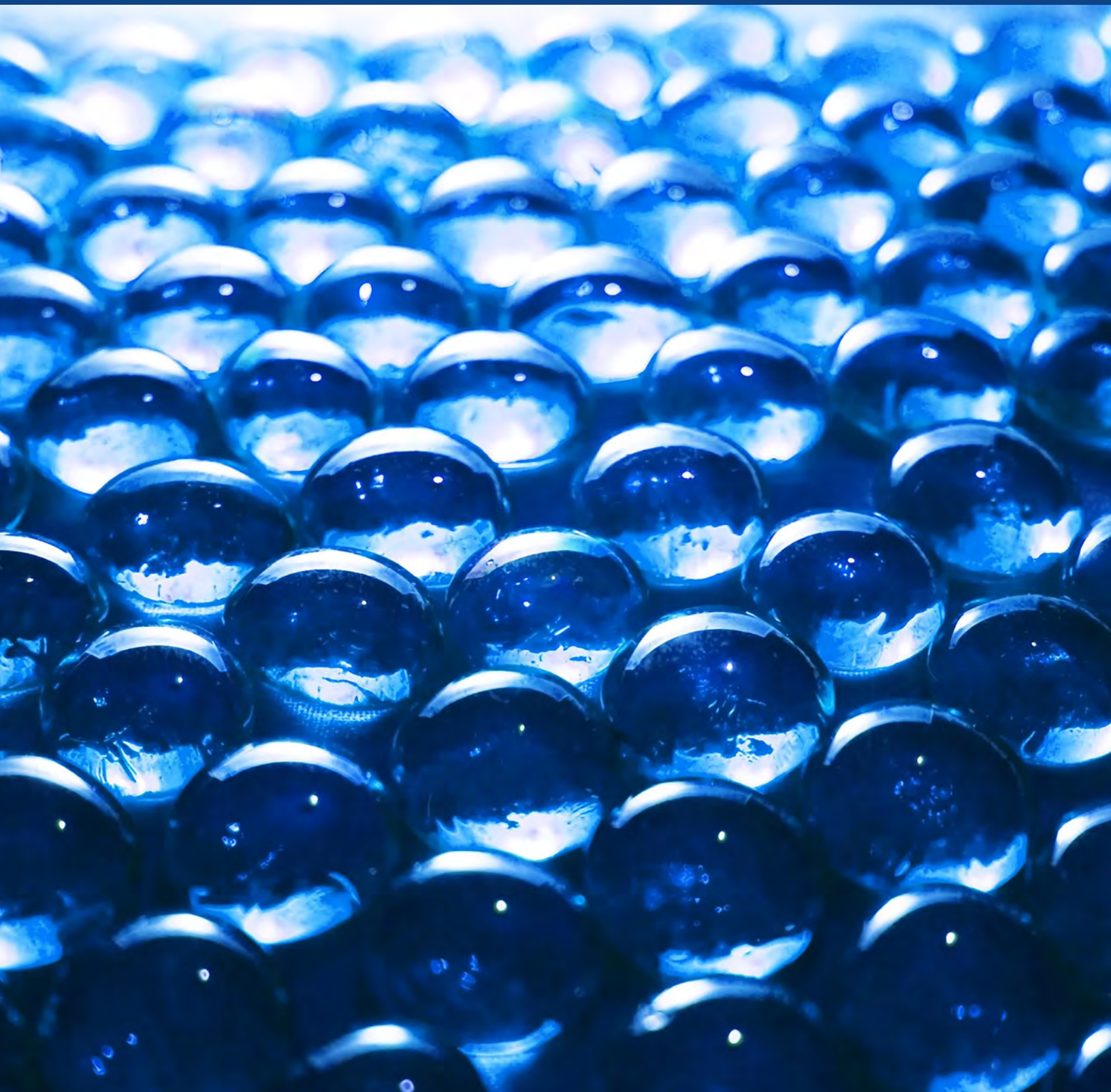


DEPARTMENTAL MAGAZINE, VOL. V

UCLA CHEMISTRY & BIOCHEMISTRY



Greetings from the Chair

Alex Spokoyny

Department Chair
Professor



Welcome to the new issue of our department magazine.

The feature story in this issue, highlighting colleagues engaged in entrepreneurship, is both inspiring and timely. It showcases an important and growing aspect of our department's impact. At the same time, it is worth noting that the examples presented in the issue only scratch the surface, as they represent just a small snapshot of the many alumni, faculty, and students who are translating discoveries from our laboratories into real-world technologies, companies, and solutions in many areas.

Across our community, these efforts span a wide range of areas, from new materials and energy technologies to biotechnology and medicine. For example, Sri Kosuri, a former faculty colleague, co-founded Octant, a company that brings together biology, chemistry, and computation to develop new kinds of precision medicines. In a true commitment to this vision, Sri made the bold decision to leave his tenured position in the department to dedicate his full efforts to building Octant, which has already seen tremendous early success and now has multiple therapeutic candidates advancing through the development pipeline. Another recent success is Tanya Petrossian ('05, Ph.D. '10), founder of EndoCyclic Therapeutics, which has received U.S. Food and Drug Administration clearance for its Investigational New Drug application for ENDO-205, a novel, non-hormonal therapy for endometriosis. These are just a few examples that highlight the depth and reach of innovation within our community.

We see this even more clearly when we bring our alumni together. At the recent Seaborg Symposium honoring Ric Kaner, many former students shared their own entrepreneurial paths, including ventures in cutting tools (SuperMetalix, Inc.; Chris Turner, '12, Ph.D. '16), next generation battery technologies (Nanotech Energy; Maher El-Kady, Ph.D. '13), and antibacterial coatings (Silq Technologies; Brian McVerry, Ph.D. '16). Taken together, these stories make one thing clear: the entrepreneurial spirit of UCLA Chemistry & Biochemistry is broad, diverse, and continuing to grow. One could write an entire book and still not capture all of these successes.

At the same time, it is important to remember our core mission. As a public institution, our primary goal is to educate and train the next generation of scientists, professionals, educators, and future leaders across many fields. That mission, in itself, has a profound societal and economic impact. By providing rigorous training and developing critical thinking skills, our departmental programs alone contribute to more than \$500 million in annual economic growth through the increased lifetime earnings of our graduates. This is an important reminder of the broader value of higher education and its societal impact, not only in California but around the world.

The entrepreneurial successes highlighted in this issue are a natural extension of this mission. They reflect what can happen when strong training, curiosity, and opportunity come together and evolve into something truly remarkable. I hope you enjoy this issue and take pride in the many ways our community continues to shape science, industry, and society.

Fiat Lux and Go Bruins!

Alex Spokoyny ('06)

CONTRIBUTORS

MANAGING EDITOR

Penny Jennings, Communications Manager

EDITORIAL BOARD

Professor Alexander Spokoyny, Department Chair

Ben Paul, Director of Communications,
UCLA Division of Physical Sciences

Jin Lee, Chair's Office Manager

CONTRIBUTING WRITERS/EDITORS

Loida De Leon

Rebecca Letts

Wayne Lewis

Brooke Sanders

Laura Strom

Kelsea Valerio

Nicole Wilkins

CONTRIBUTING PHOTOGRAPHERS

Reed Hutchinson

Penny Jennings

Isabella Luo

Wolf Marloh

DESIGN

Claire Schatzle

© 2026 Regents UC

Departmental Magazine, Vol. V, Spring 2026

www.chemistry.ucla.edu

ABOUT THE COVER IMAGE

The cover image illustrates a novel surface coating developed by Richard Kaner's company, Silq Technologies, designed to prevent bacterial and protein buildup on catheters and other implantable medical devices. This simple yet transformative innovation became Silq's flagship technology and has improved the lives of thousands of patients.



When Chemistry and Biochemistry Meet the Marketplace

A GROWING CULTURE OF ENTREPRENEURSHIP IS RESHAPING HOW UCLA CHEMISTS AND BIOCHEMISTS THINK ABOUT DISCOVERY, IMPACT, AND THEIR ROLE BEYOND THE LAB.

BY BEN PAUL

When Mike Jung first tried to commercialize his research, his early attempts at translating academic research into drug development didn't go as planned. Not surprisingly, it's hard to make a drug for human diseases. The experience was humbling, but the lessons he learned helped set the stage for a generation of entrepreneurial growth.

"Taking basic scientific research to industry involves a lot of trial and error, and persistence," he says. "And when trying to do that translation in an academic department, it also often involves a shift in culture and thinking."

Today, as Associate Dean for Entrepreneurship & Innovation in UCLA's Division of Physical Sciences, Jung

channels those lessons into helping others navigate the same unpredictable path. From early missteps to eventually founding more than a dozen companies, Jung's experience has helped pave the way for a broader transformation taking place across UCLA Chemistry & Biochemistry.

"Our department has grown into one of UCLA's most reliable engines of entrepreneurship," says Department Chair Alex Spokoyny. "Our researchers are learning from each other and developing new approaches to combine research and entrepreneurship." From quantum sensing to drug discovery, inclusive beauty products and public health, the following is just a brief highlight of the many exciting things coming out of UCLA labs and into the world.



RICHARD KANER: Silq and the Science of Safer Implants

Chemistry's true purpose, according to **Richard Kaner**, is to improve people's lives. His latest venture, Silq Technologies, does just that by addressing a frustratingly stubborn medical problem: infections caused by catheters and other medically implanted devices. About 10% of all Americans – 32 million people – have some sort of medical implant. And, with the rise of antibiotic-resistant bacteria, implant-related infections are a serious health and economic concern.

Kaner's path to Silq wasn't straightforward. Earlier ventures taught him that innovation often requires patience and persistence. Working with former graduate student Brian McVerry and undergraduate student Ethan Rao, he developed a novel surface coating that prevents bacterial and protein buildup on catheters. That simple yet transformative idea became Silq's flagship innovation, now FDA-cleared and used in Silq's ClearTract® Foley catheter in hospitals all over the world.

"The moment someone tells you a product you helped create made their hospital stay easier," Kaner says, "you realize what applied science can really do." Bringing Silq to market demanded years of refinement, including rigorous manufacturing scalability studies, durability testing, and regulatory approvals. Each challenge reinforced the importance of determination and collaboration.

Beyond product development, Kaner emphasizes mentorship. He actively supports graduate students and junior faculty, sharing lessons from his entrepreneurial journey and fostering a culture where chemistry and business intersect. He believes that applied research

must balance laboratory precision with human impact, a philosophy evident in Silq's expanding applications, which include stents and other implants as well as industrial filtration devices.

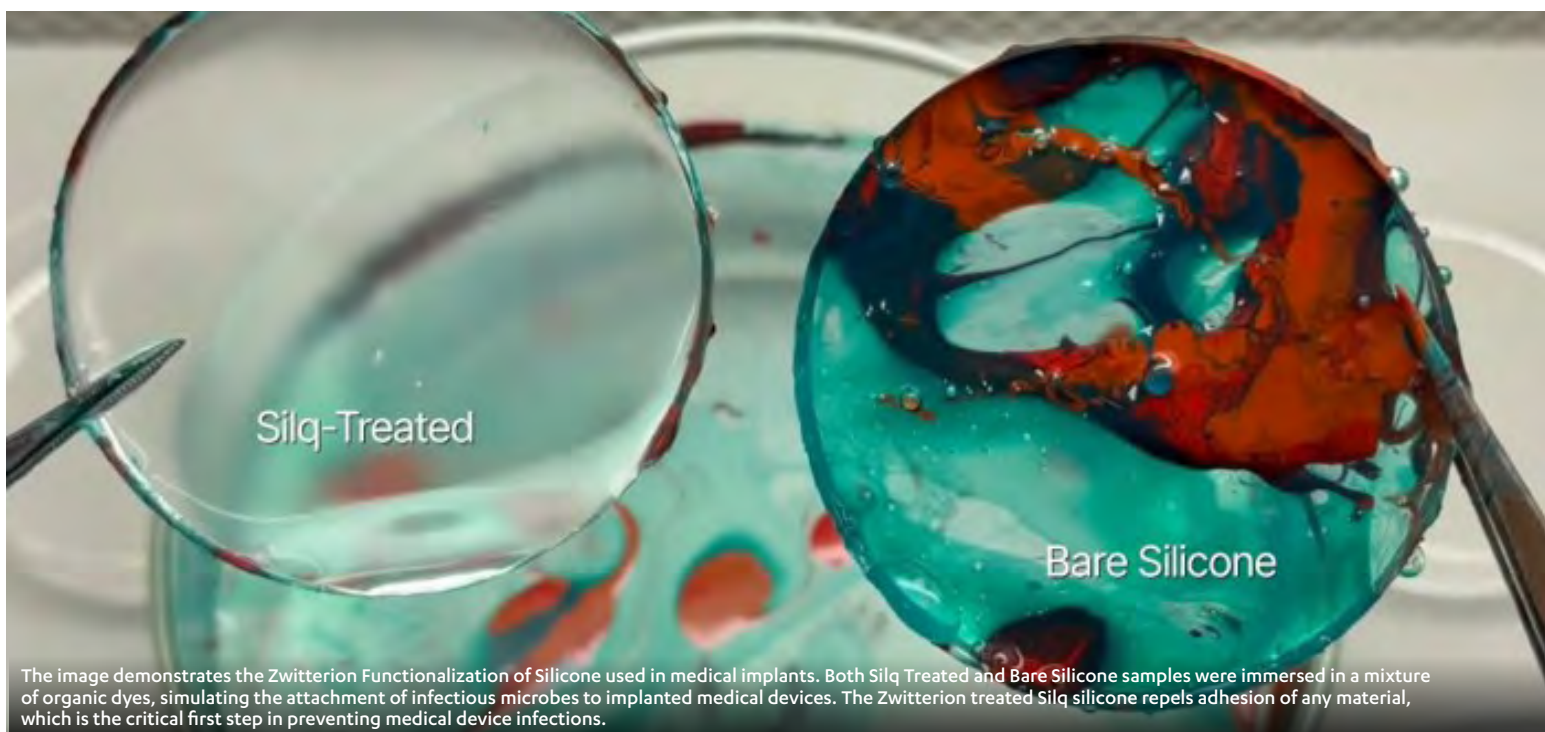
"Innovation isn't just about discovery," he says. "It's about taking what you learn in the lab and applying it to people's lives."

SARAH TOLBERT: Rethinking the Speed of Energy

The leap from science to the marketplace is rarely straightforward, and not every promising technology becomes a standalone company. For **Sarah Tolbert**, the attempt to commercialize fast-charging nanostructured batteries produced meaningful scientific and educational outcomes, and the underlying technology has found life beyond the initial venture.



Tolbert's work, done in collaboration with UCLA Materials Science and Engineering colleague Bruce Dunn, centered on replacing the solid grains of material that make up traditional battery electrodes with what she calls "battery Swiss cheese": nanoporous versions of anode and cathode materials that allow lithium ions to move rapidly. The result was a battery that could charge in five or six minutes without overheating. Although the original acquiring company did not move forward, the breakthrough has already attracted additional entrepreneurial interest and a new licensing option.

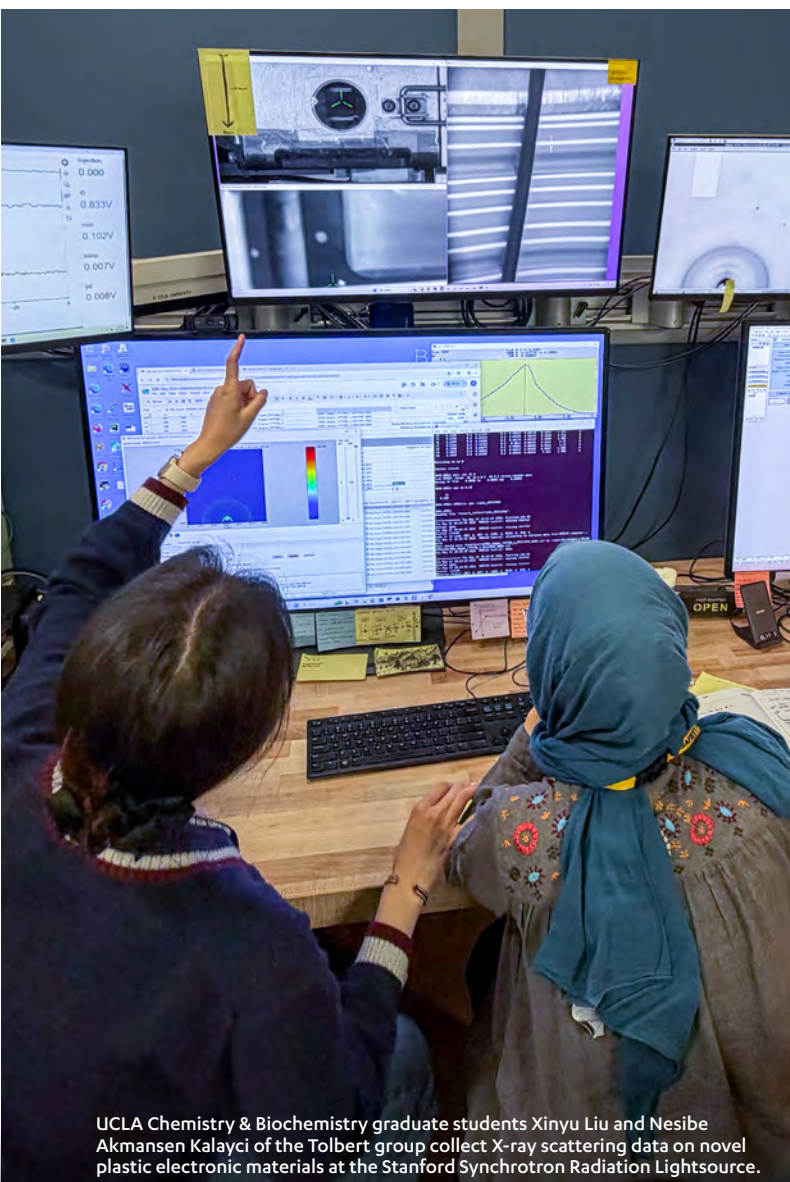


One of the biggest scientific challenges, Tolbert says, was scaling up the material. “Nanostructured materials are usually made in small quantities, and the chemistry is not the same on the kilogram or ton scale as it is on the gram scale. Watching these materials grow from tiny coin cells to high-capacity pouch cells while still keeping their fast-charging behavior was genuinely exciting.” That scaling process, often the stage where lab work fails, held up remarkably well.

Market fit proved to be the harder problem. “Cars are the natural home for fast-charging technology, but automakers are understandably cautious about new battery systems,” she says. “Smaller markets, like power tools, tend to be more open to trying new ideas.”

Despite the challenges, Tolbert points out the unique opportunities start-ups offer for students. “When research from UCLA forms the foundation of a potential product, it gives students a chance to use their expertise immediately in a real-world setting,” she says.

“Seeing their work move from the lab to an application shows students that the path to entrepreneurship is readily attainable.”



UCLA Chemistry & Biochemistry graduate students Xinyu Liu and Nesibe Akmansen Kalayci of the Tolbert group collect X-ray scattering data on novel plastic electronic materials at the Stanford Synchrotron Radiation Lightsource.

ANNE ANDREWS



“They say chemists are either makers—synthesizing compounds—or measurers. I’m a measurer,” says Anne Andrews, a UCLA Professor of Chemistry & Biochemistry, Psychiatry and Biobehavioral Sciences, and Bioengineering, and co-founder of FemSync, a company developing first-in-kind biosensors that quantitatively monitor female reproductive hormone levels through passive sweat. “Everything I do, I think about precision and experimental design. Even when I’m cooking or baking, I’m making data-driven decisions.”

Andrews’ longstanding passion for chemistry has led her to make key discoveries about the body’s chemical messengers, including hormones and neurotransmitters, that mediate our experience of the world. She and her colleagues at FemSync are adapting their technology for measuring biochemicals in sweat into a wearable device that could offer unprecedented precision in tracking hormonal changes associated with ovulation and menopause.

“I had no aspirations of being an entrepreneur,” says Andrews, also a member of the California NanoSystems Institute (CNSI). “We started thinking about giving people information about their bodies that can empower them, and that set me on the path. I was a little reluctant, but it felt like it had to be done.”

During her doctoral studies at American University and her research at the National Institute of Mental Health (NIMH), Andrews began investigating serotonin. “From there, it was true love,” Andrews says.

After her time at NIMH, Andrews joined the faculty at Penn State, where she established a research program to develop and advance methods for measuring brain chemicals related to anxiety and stress.

Andrews relocated to UCLA in 2009, where she and her UCLA collaborators showed that their sensors could overcome the challenge of the tech-hostile conditions within the body.

A further advance in 2022 unveiled smartwatch technology that samples sweat on the skin to measure the stress hormone cortisol. This became the foundation for the technology that FemSync is commercializing.

Meanwhile, Andrews’ lab is expanding its portfolio of measurable neurotransmitters, hormones, and other biochemicals. From her vantage point in the early days of moving her inventions toward the market, where they can do the most good, Andrews can’t predict the next major pivot in her journey. But she stays ready.

“I’ve learned to be open when the universe, or serendipity, points me to a different path,” she says. “I’ve made three left turns so far. If you make four, you’ve gone full circle.”

Adapted from a *UCLA Newsroom* article by Wayne Lewis: bit.ly/AnneAndrewsUCLA. Photo by Wolf Marloh.



PRINEHA NARANG: Where Quantum Science Meets Venture

If chemistry truly is a vehicle for improving lives, then **Prineha Narang** believes the vehicle has twin engines. “Science and entrepreneurship, working in tandem, are the driving force behind what chemists and researchers can do to truly impact society,” she says.

A quantum materials expert and now a venture partner, Narang sees innovation not as a one-way street from lab to market, but as a feedback loop that accelerates future discovery.

As a graduate student at Caltech, Narang saw firsthand what it looked like when scientists treated the impact of research seriously.

“Understanding how to file patents, work with government agencies, and talking openly about how ideas leave the lab are important skills that researchers need to have when they first step on a research campus,” she says.

As a faculty member at UCLA, Chief Technology Officer, and Partner at deep-tech venture fund DCVC, Narang helps bridge the gap between deep theory and commercialization. “It can be challenging to translate cutting-edge research into technologies that serve people’s needs.” Narang credits departmental support for patenting, rapid IP turnaround, and openness to risk-taking for helping to create fertile ground for entrepreneurship.

“Leaving the lab to translate your ideas into real-world technologies doesn’t make you less of a scientist, it makes you more of one,” she says. “Entrepreneurship forces us to think about how our research holds up outside the lab, which makes us better scientists.”

JIM BOWIE: A Greener Path for Chemical Manufacturing

When **Jim Bowie** first explored biofuels in 2008, the timing seemed perfect. With energy prices climbing and carbon-neutral solutions in demand, his lab began engineering microbial pathways to convert sugars into renewable fuel molecules. But scaling those reactions into an affordable, commercial process soon proved nearly impossible.



“The science worked,” Bowie says, “but the economics didn’t.”

Instead of giving up, Bowie pivoted. He saw that the same enzyme systems used for fuels could produce high-value specialty chemicals. Finally, he realized, a space where innovation and sustainability could meet profitably. That realization led to eXoZymes, a company built on using biocatalysts to make chemical synthesis cleaner and faster.

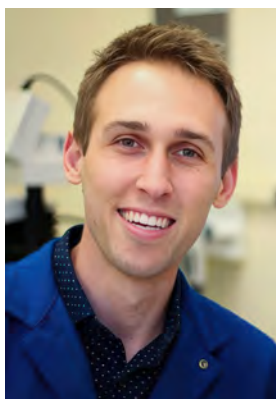
In 2024, eXoZymes went public, a moment Bowie calls both surreal and satisfying. But for him, the milestone represents more than business success. It’s proof that when researchers think creatively about translation, lab discoveries can become technologies that matter.

Now retired, Bowie believes that university researchers, with the right support, are perfectly positioned to impact industry even more.

“Academic scientists are really good problem solvers,” he says. “We are used to always facing the next obstacle and are really good at figuring out how to get through it and asking the right questions. This approach works well in the startup world.”



eXoZymes pilot scale production of NCT (n-caffeoyltyramine). NCT activates HNF4, a master regulator that governs energy metabolism and is a promising treatment for the growing problem of fatty liver disease among other indications.



JEFFREY VINOKUR: Bringing Science to Life

That intersection of scientific creativity and real-world impact also shaped the path of one of Bowie's former doctoral researchers, **Jeffrey Vinokur**. After completing his Ph.D. in Biochemistry, Molecular & Structural Biology at UCLA in 2017, Vinokur launched what would become one of

the most widely used science-education platforms in the country: Generation Genius.

Long before graduate school, Vinokur had an unusual gift for science communication. As a child, he spent hours running experiments in his garage laboratory, and by high school, he was performing science demonstrations at school assemblies. By the time he arrived at UCLA, he had already appeared on national television, bringing chemistry and physics to life with an energy that captured kids' attention.

At UCLA, he found an environment that recognized and encouraged this path. Bowie in particular understood that Vinokur's ability to engage audiences was not a distraction from research but another expression of it.



Dr. Jeff Vinokur performs at a science summer camp in 2016.
Courtesy of Jeffrey Vinokur

With Emmy-winning television producer Eric Rollman as co-founder, Vinokur built Generation Genius into a full curriculum platform, covering everything from ecosystems to phases of the moon. The service quickly scaled, ultimately reaching roughly one-third of U.S. elementary schools.

In February 2025, Newsela acquired Generation Genius for \$100 million, marking one of the largest recent acquisitions in the K–12 science-education space. For Vinokur, it was the culmination of years spent merging scientific expertise with compelling storytelling.

Vinokur is quick to note that UCLA's culture made his path easier. Faculty such as Jim Bowie and Todd Yeates not only tolerated but actively supported his broader interests. "No one ever told me to stop," he says. "This is not something you often hear from faculty advisors who can be skeptical about balancing research with ambitious outside projects."

Asked what he wishes more people understood about teaching young students, Vinokur emphasizes that children respond to authenticity and joy. "If you make science feel alive, kids will follow you anywhere."

NEIL GARG: A Classroom Question, A Commercial Breakthrough



But there can be another track that helps drive innovation forward: the humble classroom.

While giving lectures on organic chemistry to undergraduates, **Neil Garg** developed a demonstration on how an alcohol breathalyzer works using a redox reaction. Later performing this demo to a Bruin alumni audience, Garg was asked why a breathalyzer for marijuana did not exist yet. That simple question set Garg and post-doctoral researcher Evan Darzi on a multi-year journey into chemistry, regulation, and entrepreneurship.

THC, the active component in marijuana, differs drastically in structure and behavior from the ethanol in alcohol, making it a tougher analytical target. Darzi and Garg immersed themselves not only in detection chemistry but also in navigating DEA licensing, state law, and regulatory uncertainty. After months of development, they demonstrated proof-of-concept, which led to patents and a publication. These studies would lay the foundation for their start-up company, ElectraTect, which spun out of UCLA in 2020.

Garg recounts the moment when venture capitalists and industry players began approaching them, validating that the basic-chemistry solution had real-world appeal. Ultimately, the company was acquired by Mindr, a national leader in substance detection, monitoring, and safety solutions. ElectraTect has since been rebranded as recenTHC. Darzi serves as the Chief Scientific Officer and recently won a prestigious Early Career Investigator Award from the American Chemical Society.

Garg attributes much of this success to the culture at UCLA Chemistry & Biochemistry. In his lab, patent strategy and startup thinking are as familiar as spectroscopy or synthesis. Mentors like Mike Jung and Richard Kaner helped create an environment where entrepreneurial ideas are spoken of openly, and scientific rigor and practical impact are treated as complementary goals.

“Chemists are trained to analyze complexity,” Garg notes. “Entrepreneurship is just another complex system.”

By bringing that mindset into the department, faculty and students begin to see business not as a distraction but as another lens through which discovery can reach society.

AJ ADDAE:

The Full Spectrum of Beauty

While Narang and Garg represent the second generation of entrepreneurs in the department, the third generation is already leaving its mark as well. Ph.D. candidate **AJ Addae** sees chemistry as a powerful tool for social change and inclusion. Her company, SULA LABS, develops and tests cosmetic products, with a focus on melanin-rich skin and textured hair. The products developed in her lab are licensed to cosmetic brands of all sizes, and one of her team members is a dermatologist who leads the company’s clinical testing efforts. Many of the products developed at SULA LABS can be found in retailers like Sephora, CVS, Target, and Ulta.

Using her expertise as a researcher and chemist, Addae and her team help brands in the massive beauty industry produce more effective



products for people of color, whose skin and hair have long been neglected in mainstream product development.

In fact, Addae started her entrepreneurial journey with SULA LABS even before starting her Ph.D. at UCLA. Under advisors Justin Caram and Paul Weiss, she’s also designed an improved UV filter for sunscreens that blends more seamlessly with darker skin tones. The patent-pending material she developed is supported through UCLA’s Technology Development Group.

“As chemists, we’re used to thinking about entrepreneurship through the medium of pharmaceuticals,” she says. “Cosmetic formulation chemistry offers an opportunity to reach people every day in small yet impactful ways. It’s deeply personal.”

Like Bowie, Addae mentors younger students pursuing scientific entrepreneurship in the beauty industry, especially women and students of color. “Representation and mentorship matters,” she says. “If they can see someone doing it, they can imagine themselves doing it, too.”

MIKE JUNG:

The Cultural Captain

But it’s not just young dogs that can learn new tricks. At the age of 55, after decades as a synthetic organic chemist, **Mike Jung** made a deliberate shift to medicinal chemistry. This change led directly to an extremely fruitful collaboration with UCLA biologist Charles Sawyers. The team was able to design and develop two novel drugs for the treatment of castration-resistant prostate cancer (CRPC): enzalutamide (Xtandi) and apalutamide (Erleada). These two FDA-approved drugs have



Addae’s research has received significant attention. In 2024, she was featured on CBS Evening News discussing her work to make the beauty industry more inclusive through science.

allowed more than a million men to live longer, healthier lives. UCLA sold the patent rights for Xtandi to Royalty Pharma in 2016 for \$1.14 billion, with much of that money going to fellowships and research. The Department and the Division of Physical Sciences have been greatly aided by some of these funds.

But that is in the past, and the future is just as exciting! Another collaboration – with biologists Heather Christofk and Bill Lowry - led to the formation of Pelage Pharmaceuticals, a company developing a groundbreaking topical treatment for hair regeneration.

The idea began with research on hair follicle biology. The team discovered that blocking pyruvate entry into mitochondria could awaken dormant hair follicle stem cells. Over years of experimentation, they designed and tested more than 100 compounds, eventually creating a molecule that activates hair growth safely when applied topically without the compound entering the bloodstream.

In early human trials, participants applied the compound nightly for a week, seeing promising results and noticeable hair regrowth. The molecule, PP405, works by inhibiting a protein which allows hair follicle stem cells to no longer remain dormant, effectively “waking them up.” Unlike existing treatments, which mainly stimulate active follicles, PP405 addresses the root cause of hair loss, offering a fundamentally new approach.

Now preparing for a phase 3 clinical trial, Pelage has attracted significant investment from Google Ventures and Arch Venture Partners, among others. Jung reflects on the process with characteristic humility and enthusiasm: “Seeing a compound designed in my lab that has the potential to improve patients’ lives is incredibly rewarding. When applied thoughtfully and with purpose, chemistry has a unique potential to make a positive impact on people’s lives.”

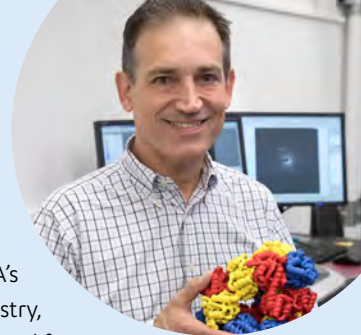
A Cultural Shift

Despite their companies spanning a variety of industries, all these scientists have a shared and important mindset. They all actively consider how fundamental discoveries, even the most theoretical, can translate into meaningful societal impact.

That mindset has been nurtured by a growing culture of entrepreneurship within the Division of Physical Sciences, heavily supported by Dean Miguel García-Garibay. “The Chemistry & Biochemistry Department has become our case study for how to build a culture of entrepreneurship into our research,” he says. “I am proud to see that patent strategy, commercialization, and real-world application are discussed as routinely as synthesis or spectroscopy, and it should be considered a model for the rest of the division.”

Across generations and disciplines, this culture fosters scientists who combine rigorous research with a clear focus on real-world impact.

TODD YEATES



Todd Yeates’ career spans decades of foundational research and a growing portfolio of biotechnology startups. After more than 34 years in UCLA’s Department of Chemistry & Biochemistry, Yeates retired from full-time academic life a few years ago. But that didn’t slow him down. He began to focus more directly on translating his ideas into the commercial world alongside former students and colleagues.

Beginning initially with a love of geometry before moving into molecular biology, he spent much of his academic career developing methods to redesign proteins so they self-assemble into precise geometric structures such as cubes, cages, and other nanoscale architectures. What began more than 25 years ago as a curiosity-driven project has since matured into a technology with tangible biomedical applications, particularly in vaccine design.

Today, Yeates is involved in two startups that reflect different stages of this translational journey. One, Pythia Labs, was founded by a former graduate student and postdoctoral fellow and has already grown to nearly 20 employees. An AI-centric company, Pythia Labs focuses on algorithm-driven protein and antibody design, pairing sophisticated computational tools with experimental biology. The company designs novel antibody therapeutics and partners with major pharmaceutical firms to help bring them toward the clinic.

Yeates’ own startup, Avimer Bio, is earlier-stage but directly rooted in discoveries from his UCLA lab. The company is developing geometric protein nanoparticles that can display viral or bacterial antigens for next-generation vaccines, with longer-term potential as containers for targeted molecular delivery. Avimer Bio has already secured partnerships with pharmaceutical companies, raising initial capital to file patents and conduct experiments, and is now preparing for a seed funding round.

Moving from academia into entrepreneurship required an adjustment. “In the business world, you might have two years to make something work,” Yeates says, contrasting that urgency with academic research, where ideas may take decades to find practical relevance. While his early work would not have drawn commercial interest years ago, advances in AI and protein design have suddenly made it actionable.

For Yeates, this shift reflects a broader change in science itself. Many leading developments in protein engineering now occur outside academia, creating new opportunities for students with strong foundational training. Looking ahead, he is most excited to see whether elegantly engineered protein designs behave as intended inside cells and animal models. “The engineering is working,” he says. “Now we get to see if the biology follows.”



ASSISTANT TEACHING PROFESSOR

Jazmin Aguilar-Romero

Emerging pedagogy scholar Assistant Teaching Professor Jazmin Aguilar-Romero, whose work focuses on equitable instruction in chemistry, brings to UCLA a student-centered approach to closing achievement gaps and increasing belonging in the sciences.

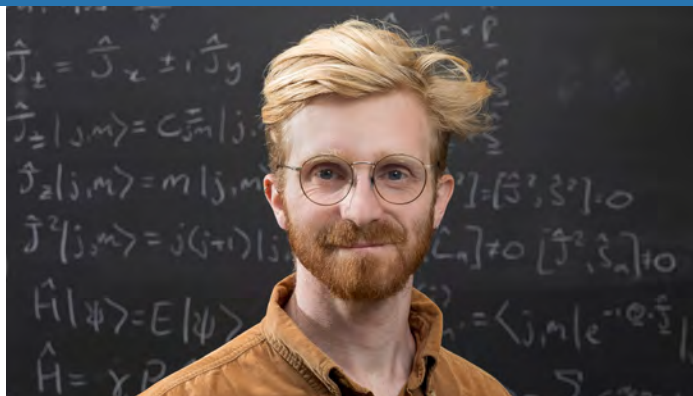
“Since I was an undergraduate, I have consistently sought, built, led, and maintained communities for students who have been traditionally excluded from STEM careers,” says Aguilar-Romero, who joined the Department of Chemistry & Biochemistry in July 2025. “I aim to foster an inclusive and supportive environment that enables students of any background to succeed in the sciences.”

The Aguilar-Romero group prioritizes increasing students’ sense of belonging to improve student performance and success in organic chemistry courses. Projects in the group include forming effective learning communities in large-enrollment classes, integrating a course-based undergraduate research experience into lab sections, and evaluating formation of science identity in different institutional contexts.

After earning her bachelor’s degree in chemistry and chemical biology from Cornell University, Aguilar-Romero then obtained her Ph.D. in chemistry from the University of Illinois Urbana-Champaign (UIUC). It was at UIUC where she further honed her expertise in evidence-based pedagogy and inclusive teaching practices.

At UIUC, Aguilar-Romero served in leadership roles within the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), forming a strong, supportive community of STEM undergraduates and graduate students. She organized the inaugural “Latinas in STEM” panel at UIUC during the COVID-19 pandemic and has mentored more than a dozen female chemistry Ph.D. students and numerous undergraduates from historically excluded backgrounds through programs such as the Women Chemists Committee, Sloan Scholars, and Científico Latino. Aguilar-Romero then served as a Center for Sustainable Polymers Postdoctoral Fellow in the lab of Professor Jessica Lamb at the University of Minnesota.

Learn more about Aguilar-Romero’s research and career: <https://bit.ly/jazmin-aguilar-romero>



ASSISTANT PROFESSOR

Thomas Fay

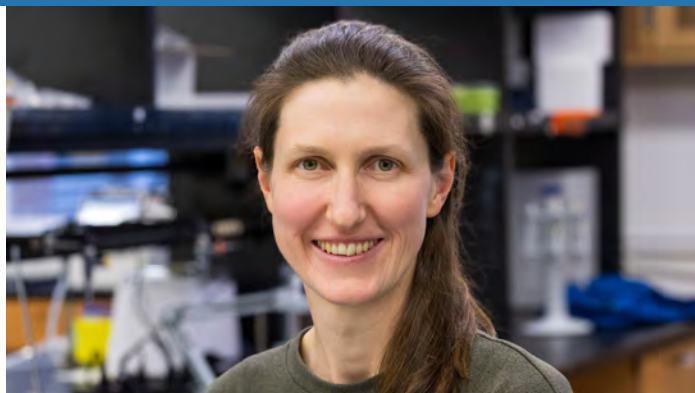
Talented theoretical chemist Professor Thomas Fay, who joined the UCLA Department of Chemistry & Biochemistry in July 2025, brings a distinctive perspective and strong foundation in theoretical and computational chemistry to UCLA.

The Fay group’s research focuses on developing theoretical and computational tools to understand the quantum dynamics of light-induced processes in molecules and materials. The group explores a range of quantum phenomena related to electron and energy transfer in chemical systems, including biological photosynthesis and photocatalysis. Their work also investigates the enigmatic relationship between molecular chirality and electron spin, and how this interplay can be harnessed for applications ranging from quantum information science to enantioselective catalysis. Understanding of these phenomena, particularly in complex chemical systems where thousands of atoms and electrons are interacting simultaneously, is being tackled with a combination of pen and paper theory and the development of new computational methods and software to construct *in silico* models of experiments.

“I’ve always been fascinated by quantum mechanics and how it manifests in the real-world,” says Fay. “Light-driven chemistry and electron transfer are inescapably quantum but essential to life on Earth. It’s a real challenge to understand these quantum phenomena in messy chemical systems, and I’m looking forward to taking on this challenge. I’m really excited to start my independent research career here at UCLA, surrounded by such brilliant students and inspiring colleagues.”

Fay is also excited to contribute to teaching at UCLA at both the undergraduate and graduate levels. With research interests that span quantum mechanics, statistical mechanics, chemical kinetics, and spectroscopy, and with several years of teaching experience as a lecturer at various colleges of the University of Oxford, he is looking forward to the challenge of training the next generation of chemistry students in these exciting areas.

Learn more about Fay’s research and career: <https://faygroupucla.github.io/>



ASSISTANT PROFESSOR

Kalli Kappel

Visionary biophysicist and computational biologist Kalli Kappel joined the Department of Chemistry & Biochemistry as an Assistant Professor in July 2025. She came to UCLA from the Broad Institute of MIT and Harvard and holds the Linda and Fred Wudl Term Chair.

Kappel brings to UCLA a powerful interdisciplinary approach to understanding how the primary sequences of protein and RNA molecules shape their organization and function, strengthening the university's leadership in foundational, cutting-edge biological science with implications for human health and biotechnology.

"It's an exciting time to decipher the language of biology - we have the ability to generate massive datasets and the computational tools to stitch these measurements into predictive models," Kappel says. "I'm excited to build a lab where people feel empowered to ask bold questions and to develop new approaches to answer them, and I'm thrilled to have the opportunity to do this within the incredible scientific community at UCLA."

The Kappel group develops models of RNA, proteins, and their interactions by combining machine learning with computational biophysics and large-scale experimental data. By examining biophysical properties - such as molecular structure, binding energetics, and the formation of higher-order assemblies - the group investigates the rules governing essential cellular processes such as gene expression, protein synthesis, and signaling. Their goal is to create tools that infer these intracellular properties directly from primary sequences.

To begin exploring these principles experimentally, Kappel's team recently developed CondenSeq, a platform that simultaneously measures thousands of protein sequences in living human cells. Unlike traditional experiments, which study one protein variant at a time, CondenSeq allows researchers to uncover general rules of protein behavior at an unprecedented scale, revealing the mechanisms that drive the formation of cellular structures. The Kappel Lab is currently building on this approach and developing new high-throughput experimental frameworks to open new paths for understanding human health and disease.

Learn more about Kappel's research and career: <https://sites.google.com/view/kappellab/>



ASSOCIATE PROFESSOR

Steffen Lindert

In July 2025, Professor Steffen Lindert joined UCLA's Department of Chemistry & Biochemistry as an Associate Professor, bringing world-class expertise in computational chemical biology. His appointment strengthens UCLA's leadership in structural and computational biology while advancing translational research through global collaborations in medicinal chemistry and drug discovery.

Lindert's research group relocated with him from Ohio State University, where he served as a Professor of Chemistry & Biochemistry. At UCLA, the Lindert group continues to develop and apply advanced computational approaches that integrate mass spectrometry and other biophysical data with physics-based, knowledge-driven, and AI-enabled methods. These approaches allow the team to model biological systems and determine complex protein structures that are otherwise difficult to characterize. By revealing how proteins function in their native cellular environments, their work is guiding protein engineering, accelerating drug discovery, and identifying promising therapeutic leads for diseases such as heart failure—bridging fundamental structural biology with real-world biomedical impact.

"With the emergence of powerful AI techniques, computational biochemistry is going through a historic transformation," Lindert says. "With our move to UCLA, my group is well-positioned to employ these machine learning methods towards breakthrough achievements in protein design and drug discovery. I am very excited for all our new UCLA collaborations."

Lindert's research is highly collaborative, bringing together scientists from leading institutions across the United States and around the world. His group regularly partners with experimental and computational researchers at major universities and biomedical research centers to combine mass spectrometry, structural biology, and molecular modeling approaches.

Lindert is also committed to making significant contributions to the university's teaching mission through core undergraduate biochemistry courses, advanced graduate-level structural biology instruction, and the development of new courses in computational structural biology and/or computer-aided drug discovery.

Learn more about Lindert's research and career: <https://lindertlab.chem.ucla.edu/>



PROFESSOR

Giulia Palermo

A world-renowned computational biophysicist, Professor Giulia Palermo is recognized for her pioneering studies of genome editing systems. Her research is poised to open new frontiers in how scientists model and predict gene regulation at the intersection of interpretable AI, computational chemistry, and physics, exemplifying the innovative and interdisciplinary spirit of UCLA's scientific community.

Palermo will join the UCLA faculty as a Full Professor on July 1, 2026. Her research group will move with her from the University of California, Riverside, where she is currently a Professor of Bioengineering and Chemistry.

"I am thrilled to join the department," says Palermo. "UCLA is the birthplace of the internet, a place where bold ideas and transformative technologies have reshaped the world. I am excited to join this community of dreamers who are pushing the frontiers of molecular medicine and computational science. I look forward to collaborating with colleagues across campus to accelerate advances in computational biophysics and to inspiring students with research at the intersection of computation, AI, and molecular medicine."

Palermo's group is known for its innovative computational studies of the CRISPR-Cas9 system. At UCLA, her team will continue to push the boundaries of computational biophysics by developing integrative multiscale approaches that bridge molecular dynamics, quantum mechanics, and cryo-electron microscopy (cryo-EM) modeling with emerging AI methodologies such as Graph Neural Networks (GNNs) and causation-inference models.

Looking ahead, Palermo's group will address key challenges in genome engineering, investigating programmable DNA "knock-ins" and "knock-outs" through computation. Using advanced simulations and AI-driven strategies, the group aims to deepen understanding of genome editing mechanisms and enable computers and AI to model, predict, and guide the function of DNA- and RNA-editing systems. This vision supports the development of predictive, *in silico* approaches that drive the rational design and engineering of complex biomolecular systems.

A passionate educator, Palermo is dedicated to creating research opportunities that inspire students to excel in their scientific careers.

Learn more about Palermo's research and career: <https://palermolab.com/>



ASSISTANT PROFESSOR

Antonio Tinoco Valencia

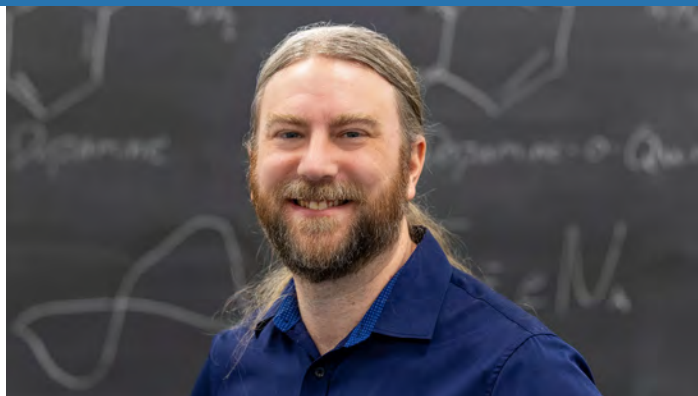
Talented microbial chemist Assistant Professor Antonio Tinoco Valencia joined the Chemistry & Biochemistry faculty in July 2025, bringing an interdisciplinary research approach that integrates biochemistry, organic chemistry, multiomics, and bioinformatics studies to advance human health. Grounded in his own experience as a first-generation scholar, his work at UCLA is coupled with a strong commitment to broadening participation and advancing diversity in the sciences.

"UCLA is truly the perfect place to launch and grow my research program! The incredibly interdisciplinary collaborative opportunities that we have available to us between the Department of Chemistry & Biochemistry, the California NanoSystems Institute (CNSI), the School of Dentistry, and the Medical School are unrivaled," says Tinoco Valencia. "It's a dream come true to work alongside my esteemed colleagues and be at the forefront of our respective fields, all while mentoring and teaching students that I personally relate with."

The Tinoco group employs an interdisciplinary toolkit spanning synthetic chemistry, chemical biology, bioinformatics, and microbiology to uncover new enzymatic functions and microbial metabolites at the interface of human and microbial biology. Their research focuses on investigating the chemistry encoded by uncharacterized gut microbes, discovering and elucidating the ecological functions of bacterial natural products from the oral microbiome, and developing platforms for the directed evolution of microbiomes to enable the biodegradation of environmental pollutants, with implications for both human health and environmental sustainability.

Born in Irapuato, Guanajuato, México, and raised in the San Gabriel Valley after immigrating to the United States, Tinoco Valencia is the first in his family to attend college and earn a degree. Reflecting his commitment to supporting first-generation students in science, he is collaborating with the Chicano Studies Research Center (CSRC) to develop initiatives aimed at increasing Latinx student participation in chemistry and biochemistry at both the undergraduate and graduate levels and supporting their long-term career success.

Learn more about Tinoco Valencia's research and career: <https://www.tinocolab.com/>



ASSISTANT TEACHING PROFESSOR

Patrick Wilson

Forward-thinking chemical educator and student-centered pedagogy scholar Assistant Teaching Professor Patrick Wilson, who joined the UCLA Department of Chemistry & Biochemistry in July 2025, brings a commitment to developing learning environments that cultivate ethical engagement, critical thinking, and belonging in undergraduate science education.

Wilson's vision of creating learning environments where students can observe chemical principles in action within community-based contexts is advancing the department's mission to cultivate interest in scientific careers among students from diverse backgrounds.

"My teaching philosophy has been strongly influenced by my training as a chemist, medical professional, and educator," Wilson says. "I am dedicated to providing my students with meaningful, real-world connections to chemistry, while ensuring they are supported in ways that help them build confidence, community, and a lasting commitment to learning."

At UCLA, the Wilson research group develops pedagogical tools that integrate ethical inquiry as a practice of care into undergraduate chemistry curricula. Wilson's research program aims to foster moral and intellectual development in undergraduate students during their formative academic years, encouraging them to apply their scientific expertise for the public good. By assessing student understanding and application of ethical principles, he seeks to create an inclusive and proactive learning environment that promotes student belonging and supports the development of responsible, innovative scientists.

Wilson's experience as a postdoctoral researcher in chemical education at the STEM Education Innovation & Research Institute at Indiana University Indianapolis fueled his passion for his work and involved assessing the impact of the university's efforts to incorporate evidence-based methods into science instruction, including examining how a pedagogical technique called cyber peer-led team learning influenced the development of critical thinking skills.

Learn more about Wilson's research and career: <https://bit.ly/patrick-wilson-ucla>



Dr. Donna Speckman (Ph.D. '84, Hawthorne group) was presented with the 2025 Alumni Legacy Award by Department Chair Professor Alex Spokoyny at the Chemistry & Biochemistry Departmental Awards Ceremony on June 9, 2025. This prestigious honor recognizes distinguished alumni for their remarkable achievements, generous support, and service to the university.

Speckman is a Senior Scientist in the Energy Technology Department within the Physical Sciences Laboratories at The Aerospace Corporation. She joined the organization in 1984 after earning her Ph.D. in inorganic/organometallic chemistry from UCLA, where she conducted research under Professor M. Frederick Hawthorne.

During her career at Aerospace, Speckman has led and contributed to projects involving spacecraft materials, including solar array degradation, atomic oxygen interactions with satellite surfaces, metallic dendrite failures, quantum dot nanotechnology, magnetic storage materials, antistatic microsphere coatings, and chemical vapor deposition for metal and semiconductor thin films.

Her work has earned numerous honors, including corporate awards for her work on classified programs, a NASA Engineering and Safety Center Group Achievement Award for resolving a coolant chemistry issue aboard the International Space Station, and recognition as The Aerospace Corporation's "Woman of the Year."



Speckman also served for more than six years as Director of Development in Aerospace's Research and Program Development Office, managing a \$15 million research portfolio within the company's Technical Investment Program.

Committed to education and mentorship, she has served as a Visiting Professor at Pepperdine University and currently teaches part-time at El Camino College. She also volunteers at science fairs and mentors students through STEM Advantage, which supports primarily first-generation college students from underserved communities pursuing STEM careers.

We are deeply grateful to Donna Speckman for her generous \$50,000 gift in memory of Dr. John Walker. Her meaningful support of the Collaboratory Donor Recognition Wall honors Dr. Walker's enduring legacy and will help ensure that both the space and its state-of-the-art equipment are maintained for years to come.



2025 Glenn T. Seaborg Symposium and Medal Award Dinner

Established in 1987, the Glenn T. Seaborg Medal honors UCLA alumnus and Nobel Laureate Dr. Glenn T. Seaborg '34. Learn more at seaborg.ucla.edu.

On March 21, 2025, the UCLA Department of Chemistry & Biochemistry posthumously awarded the 2025 Glenn T. Seaborg Medal to Nobel Laureate and UCLA Professor Emeritus Sir Fraser Stoddart, a much-respected and beloved colleague who passed away on December 30, 2024. The department held the Seaborg Symposium and Medal Award Dinner in honor of his remarkable life and legacy. His daughter, Dr. Fiona McCubbin, and her husband, Quentin McCubbin, attended all the events, and she accepted the award on her father's behalf at the Medal Award Dinner.

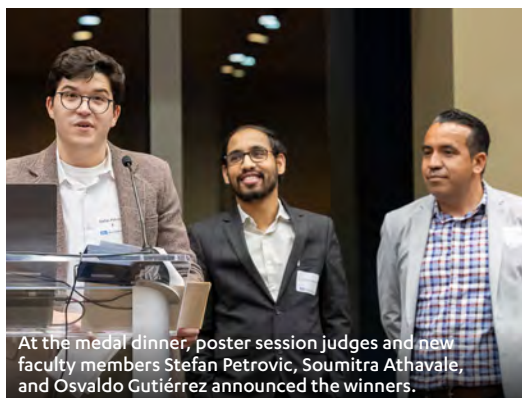
The 2025 Seaborg Symposium, titled "Artificial Molecular Machines: From Invention to Implementation," celebrated Stoddart's achievements and featured talks by five prominent scientists: Anne-Sophie

Duwez (University of Liège), Omar Yaghi (Nobel Prize in Chemistry 2025; University of California, Berkeley), Nathalie Katsonis (University of Groningen), Ben Feringa (Nobel Prize in Chemistry 2016; University of Groningen), and Ken Houk (UCLA).

Dr. Cameron Movassaghi (Ph.D. '24, Andrews Group; Postdoctoral Scientist, Cedars-Sinai) also spoke at the symposium as the 2025 recipient of the Norma Stoddart Prize for Academic Excellence in Outstanding Citizenship. Established in 2004 by Stoddart and his family and friends to honor his late wife, Norma, the prize is awarded annually to a current or recent UCLA Chemistry & Biochemistry graduate student for exceptional contributions to science, service, and humanity - qualities Norma exemplified. From 2012 until his passing



2025 Seaborg Symposium speakers with Sir Fraser's daughter Fiona McCubbin and her husband Quentin McCubbin (center): (left to right) Omar Yaghi, Cameron Movassaghi, Anne-Sophie Duwez, the McCubbins, Nathalie Katsonis, Ben Feringa, and Ken Houk.



At the medal dinner, poster session judges and new faculty members Stefan Petrovic, Soumitra Athavale, and Osvaldo Gutiérrez announced the winners.

(excluding the pandemic), Stoddart returned each year to present the award at the Norma Stoddart Prize Lecture.

A panel of faculty judges - Professors Soumitra Athavale, Osvaldo Gutierrez, and Stefan Petrovic - selected three winners from the poster session competition: postdoctoral researcher Dr. Huiling Shao (Houk group) and graduate students Emma Greene (Harran group) and Peter Fernandez and Jonathan Shirley (Damoiseaux and Koehler groups).

After the symposium, guests gathered at UCLA Carnesale Commons – Palisades Ballroom for a reception and medal award dinner.

Following the meal, faculty judges announced the poster session winners, and Department Chair Alex Spokoyny and Professor Ken Houk presented the 2025 Glenn T. Seaborg Medal to Stoddart's daughter.

In her acceptance speech, McCubbin said, "My father's research and his students were always his greatest passion, and his ten years at UCLA were intrinsic to cementing that priority in his life. He was known for his forthright and unconventional approach to mentoring students and for believing that they were his partners and not his disciples. He really did want to make it possible for young people with amazing talent to express their creativity. And I think we heard a lot of people mention that during the symposium today. Since my father's death, my family has been so touched by the many letters we've received and the wonderful and entertaining memories people have shared with us about him. He was one of a kind. I know my dad would be truly honored by this award, and I am proud to accept it on his behalf."



Department Chair Alex Spokoyny, Fiona McCubbin, and Ken Houk.



Stoddart group alumni pose for a photo at a reunion symposium on the Saturday following the Seaborg events.

Attending the day's events were former California Governor Gray Davis and Seaborg Medalists Professors Ken Houk (2013), Michael Jung (2016), William Gelbart (2017), and Juli Feigon (2023-24).

The day after the Seaborg events, more than 40 former Stoddart group members gathered for a reunion and symposium.

The department wishes to thank Dr. Fiona McCubbin and her husband, Quentin McCubbin, for attending the events on Stoddart's behalf, as well as our generous supporters, whose donations made the Seaborg events possible. Many thanks to the undergraduate volunteers from the Student Members of the American Chemical Society (SMACS) for their help at the Seaborg events.

To read more about the 2025 Seaborg events, visit <https://bit.ly/UCLASEaborg25>.

Fraser and Norma Stoddart Chair in Contemporary Chemistry at UCLA

Before his passing, Sir Fraser, along with the UCLA Department of Chemistry & Biochemistry and former members of his research group at UCLA, launched a campaign to endow the Fraser and Norma Stoddart Chair in Contemporary Chemistry at UCLA.

The goal is to create an endowed chair to recruit an organic chemist who is doing forward-looking science in Stoddart's style. The objective is to raise a total of \$2 million to endow a full chair. Sir Fraser donated

\$500,000 to seed the endowment, and UCLA has pledged to match those funds. For any additional donated funds, UCLA will match up to another \$500,000. The interest from this endowment will be used by the future chairholder for their research interests, including support for graduate students and postdocs, and for activities to honor the memory of Fraser Stoddart.

To make a gift, please visit <http://giving.ucla.edu/StoddartChair>.



2025 Commencement Ceremony and Alumni Award Recipient

On June 14, 2025, the UCLA Department of Chemistry & Biochemistry held its 2025 commencement ceremony to celebrate the graduating class. The ceremony, held in the Court of Sciences, began with a welcome address by Department Chair Professor Alex Spokoyny. Dean Miguel García-Garibay then presented the UCLA Chemistry & Biochemistry 2025 Alumni Award to Dr. Jeffrey E. Miller '87, founder and CEO of Invivoscribe, who delivered an inspiring commencement address. At the ceremony, 37 of our students received Ph.D. degrees, 21 students received Master of Applied Chemical Sciences degrees, six Departmental Scholars received Master of Science degrees, and 295 undergraduate students received Bachelor's degrees.

A special graduate at commencement was Dr. Thomas Scott Griffin, who finally received his doctoral hood more than five decades after earning his Ph.D. in Natural Products Chemistry from UCLA in 1970. Griffin completed his dissertation under the mentorship of Professor Theodore Geissman but was unable to attend his graduation after being called to active duty during the Vietnam War. The ceremony was especially meaningful, as Griffin was joined by his grandson, Ian Keyes - who was also graduating from UCLA that same weekend and beginning a master's program in physics - symbolizing a proud family legacy of Bruin excellence.

To read more about the 2025 Commencement Ceremony and Alumni Award Recipient, visit <https://bit.ly/UCLACHemBiochemGraduation25>.



Alex Spokoyny, Jeffrey E. Miller, and Miguel García-Garibay



Thomas Scott Griffin is hooded by Alex Spokoyny as his grandson, Ian Keyes looks on.



2026 Glenn T. Seaborg Symposium and Medal Award Dinner

On March 13, 2026, the UCLA Department of Chemistry & Biochemistry honored Professor Richard Kaner (UCLA Department of Chemistry & Biochemistry) with the prestigious 2026 Glenn T. Seaborg Medal in recognition of his seminal contributions to the field.

A symposium entitled “Materials for a Better World,” a poster session, and an evening medal award dinner were held in Kaner’s honor on campus. A Kaner group reunion, attended by more than 75 alumni, collaborators, and friends, was held in Boyer Hall the next day. The reunion included a poster session by Kaner alumni, a tour of the Kaner lab, and a catered lunch.

The afternoon symposium featured talks by Kaner and four other prominent scientists: Zhenan Bao (Stanford University), Kourosh Kalantar-Zadeh (The University of Sydney), Sarah Tolbert (UCLA), and Fred Wudl (University of California, Santa Barbara), and three current or former members of the Kaner group: Chris Turner (SuperMetalix, Inc.), Maher El-Kady (Nanotech, Inc.), and Brian McVerry (Silq Technologies).

A panel of faculty judges, Assistant Professors Antonio Tinoco Valencia, Thomas Fay, and Patrick Wilson, selected three winners from the poster session competition: graduate students Hashim Al Khunaizi (Spokoyny group) and Sophia Uemura (Kaner group), and postdoctoral scholar Ching Ching Lam (Houk group).

After the symposium, guests gathered at UCLA’s Carnesale Commons - Palisades Ballroom for a reception and medal award dinner. Following the meal, faculty judges announced the poster session winners. Professor Robin Garrell then presented a slideshow about the life of Dr. Glenn T. Seaborg, for whom the medal is named. The highlight of the evening was when Department Chair Professor Alex Spokoyny presented the 2026 Glenn T. Seaborg Medal to Kaner.



Richard Kaner is presented the 2026 Seaborg Medal by Department Chair Alex Spokoyny.

After Kaner’s acceptance speech, Dr. Maher El-Kady (Ph.D. ’12), a researcher in Kaner’s group and Chief Science and Technology Officer of Nanotech Energy, presented him with a 1961 issue of *Time* magazine featuring Dr. Glenn T. Seaborg on its cover. “In a way, it feels like a message across time—almost as if Seaborg himself is joining us tonight to recognize and celebrate Ric’s remarkable career, his impact on science, and his legacy through all of us,” El-Kady said. “Ric, on behalf of your students—past and present—it is my honor to present this to you.”

Attending the dinner were Seaborg Medalists Professors David Eisenberg (2004), Kendall Houk (2013), Fred Wudl (2014), Michael Jung (2016), William Gelbart (2017), and Juli Feigon (2023-24).

The department gratefully acknowledges this year’s generous contributions, including a donation from symposium speaker Kourosh Kalantar-Zadeh and student dinner sponsorships from Jane Valentine, Nancy and Larry Davis, William “Kibby” and Janet Stovall, and Lee Cooper.

To read more about the 2026 Seaborg events and Kaner Reunion, visit <https://bit.ly/UCLASeaborg26>.



Maher El-Kady presented Kaner with a 1961 *Time* magazine featuring Seaborg on the cover.



2026 Seaborg Symposium speakers (from left): Kourosh Kalantar-Zadeh, Zhenan Bao, Richard Kaner, Sarah Tolbert, and Fred Wudl.



2026 Seaborg Symposium Industry speakers with Kaner (from left): Maher El-Kady, Brian McVerry, and Chris Turner.



Kaner group reunion guests gather for a group photo on the stairs of Young Hall.

New “Chemistry and Biochemistry 1” Course Helps First-Year Students Succeed



Open to all first-year Chemistry and Biochemistry majors, “Chemistry and Biochemistry 1” is designed to help students build academic skills, navigate challenges, and thrive in their studies and beyond.

As students embark on their journey as a Chemistry or Biochemistry major, it is crucial that they not only master the fundamental concepts of the discipline but also cultivate effective study habits, learn how to navigate academic challenges, build a supportive community among their peers, and connect with older students in these majors to form a support system for their social, academic, and professional growth.

The course was co-developed by Department Chair Professor Alex Spokoyny and Assistant Teaching Professor Dory DeWeese, who together taught its inaugural class in Fall 2025. DeWeese, who joined the UCLA faculty in 2024, is an expert in inclusive chemistry education. She will continue to lead the course with fellow Assistant Teaching Professors Jazmin Aguilar-Romero and Patrick Wilson, who both joined the department in July 2025 and are also specialists in chemistry education. The next class will be taught in the 2026 Fall Quarter.

“It is extremely exciting to see how we are able to provide our students with a higher-quality and more nuanced educational experience,” says Department Chair Professor Alex Spokoyny. “I am very grateful to everyone in the department who contributed to developing this course from the ground up and who provided thoughtful feedback throughout the process. Having been an undergraduate student at UCLA myself more than 20 years ago, I can’t help but wish that opportunities like this had existed when I was a student.”

Through the course, students developed valuable study skills, including time management and meta-cognitive skills, while exploring the landscape of chemistry and biochemistry research—from core subdisciplines to current research taking place within the department and university. They also learned about careers in Chemistry and Biochemistry and how they could apply the fundamentals they learn at UCLA to solve some of our most pressing challenges.

“This course is about helping students feel supported, confident, and connected from the very start of their time at UCLA,” says Assistant Teaching Professor Dory DeWeese. “By centering community, belonging, and practical academic skills, we’re working to create a more equitable learning environment where all students can thrive in Chemistry and Biochemistry and see a clear path forward.”

Students also became familiar with the department’s resources, faculty, research opportunities, and professional development activities, which will help them plan their academic paths, participate in research, and build connections with faculty and fellow students. At the end of the quarter, guest speakers from UCLA research labs shared insights into undergraduate research opportunities and the role of research in advancing scientific knowledge and improving lives.

“I feel that Chem 1 helped me build a foundation for success through assignments such as making SMART goals, exploring potential research groups, and creating a professional LinkedIn profile,” says Biochemistry undergraduate student Celeste Willey. “By taking Chem 1, I gained a community within the department and connected with my peers over a shared interest in chemistry. The existence of Chem 1 as a course for students demonstrates the care the department has for its student experience and success, boosting my confidence that this is a place where I can thrive and find the support I need in pursuit of a degree in Biochemistry at UCLA.”

The course also emphasized student wellness strategies, which help students develop best practices for overall wellness during their transition to college, acknowledging each student’s own individual experience.

While this course is currently only available for incoming freshmen students, plans are also underway to develop a similar course for transfer students, who face a distinct set of logistical onboarding challenges when coming to UCLA.

The Department of Chemistry & Biochemistry is supported by dedicated staff whose expertise and commitment shape the department in lasting ways. This year, we recognize three individuals whose work has had a meaningful impact on the department.

CHEMISTRY AND COMPUTING ON CAMPUS

Dr. Max Kopelevich



Born in Lithuania, which was a part of the Soviet Union at the time, Dr. Max Kopelevich came to the U.S. to study chemistry at UCLA, earning his bachelor's degree in 1983 and Ph.D. in 1989 with Professor Frank Anet. After completing a postdoctoral fellowship with Professor Charles Strauss, he transitioned to

Information Technology (IT) in 1990. What he thought would be a short-term move became a decades-long career in IT up until his retirement in 2025.

He recalls a very different "pre-PC" era of computing, when students submitted FORTRAN jobs using punch cards and worked on early mainframe systems. As the department's IT lead, Kopelevich oversaw computing and networking operations during a period of rapid technological change. He helped introduce email systems, web services, and networked computing environments, while supporting both commercial and open-source software used in research and teaching.

In 1993, Kopelevich built the department's first website, only the second at UCLA. At this time there were around 100 websites worldwide. He later contributed to early web indexing efforts, helping expand access to online chemistry resources as the internet grew.

Beyond the department, Kopelevich played a key role in developing networking infrastructure across the Division of Physical Sciences, supporting the expansion from a small number of connected computers to today's

high-speed, large-scale systems. His work also included participation in campus-wide technology initiatives and advising on cybersecurity and instructional technology.

As an instructor, Kopelevich taught a number of courses, most notably "Chem 125: Computers in Chemistry," for more than 30 years.

"It has been a privilege to learn, work, and teach at UCLA for more than 40 years," Kopelevich says. "Young Hall has been a second home with a large extended family of faculty, staff, and students."

THE SCIENCE OF KEEPING SCIENCE RUNNING

Dr. Janette Kropat

Dr. Janette Kropat has been a vital presence in the department for more than two decades. As a child growing up in a small city at the foot of Germany's Black Forest, she showed an interest in the physical sciences at an early age. Kropat earned her Ph.D. in biochemistry from the University of Freiburg and then came to the U.S. in 2000 to join the group of Professor Sabeeha Merchant as a postdoctoral researcher.



After discovering that a traditional academic path was not the right fit, Kropat remained with the department, first as a lab manager and later moving into administration. Since 2013, she has served as Facilities and Operations Manager, overseeing the day-to-day function of research spaces and addressing issues that range from equipment failures to building emergencies.

"You have to care about what you are doing," she notes. "It's not something you can get done by just pressing a button."

Her scientific background continues to shape her approach to problem-solving. "As a researcher, you learn how to learn," she says. "You figure out how to identify problems and find solutions." That mindset guides her work in maintaining complex facilities and supporting the needs of faculty and students.

THE BACKBONE OF THE DEPARTMENT

Nati J. Alcaraz



In the spring of 1994, Nati Alcaraz joined the department as an assistant to the operations manager and quickly became an essential part of its daily operations. Today, his work touches nearly every department space, helping ensure that labs, offices, and classrooms remain organized and functional.

When he is not moving through department buildings coordinating a steady stream of tasks and issues, Alcaraz can be found in the information center at Young Hall 3034. There, he greets guests and representatives from outside organizations, assists students, and helps address the wide range of questions and concerns that arise each day. He is always willing to lend a hand.

Much of his work takes place behind the scenes, including preventive measures to avoid facility problems and inspections conducted during off-hours. Even during campus breaks, he helps ensure that department spaces remain secure and in good order.

"The department has been a great part of my life," Alcaraz says.

Impact of Giving



Chairholders and donors at the 2026 Chemistry & Biochemistry Chair Installations Celebration

2026 UCLA Chemistry & Biochemistry Chair Installations Celebration

On an evening dedicated to both celebration and vision, the UCLA Department of Chemistry & Biochemistry community gathered at UCLA's Carnesale Commons on February 17, 2026, to mark the installation of 13 endowed chairs, an achievement that reflects both the strength of the department and the generosity of the community that sustains it.

Endowed chairs are among the most impactful and enduring investments, providing stable support for innovative research, mentorship, and the training of future scientists while shaping the academic experience for students at all levels.

The donors in attendance whose gifts established endowed chairs included Professor Michael Jung and his wife, Alice Jung; Professor Charles Knobler; and Professor Jeffrey Zink and his wife, Helo Zink. Family members of the late John P. McTague, whose gifts established the McTague and Reiss Chairs, were also recognized, including his daughters, Cathy Bregenzner and Margaret McCreary, and his son, Kevin McTague.

UCLA leaders in attendance included Executive Vice Chancellor and Provost Darnell Hunt; Senior Dean of the UCLA College and Dean of the Division of Physical Sciences Miguel García-Garibay; Vice Chancellor for Academic Affairs and Personnel Michael Levine; Vice Provost for Teaching and Learning Erin Sanders O'Leary; and former Vice Provost, Dean, and Professor Emerita Robin Garrell.

The following chairholders were honored at the event:

Anastassia Alexandrova (inaugural holder) - Charles W. Clifford Junior Chair in Chemistry and Biochemistry

Soumitra Athavale (inaugural holder) - John D. and Edith M. Roberts Term Chair in Organic Chemistry

Victoria Barber - John P. McTague Career Development Chair

Stuart Conway (inaugural holder) - Michael and Alice Jung Endowed Chair in Medicinal Chemistry and Drug Discovery

Abigail Doyle - Saul Winstein Chair in Organic Chemistry

Xiangfeng Duan (inaugural holder) - Raymond A. and Dorothy A. Wilson Endowed Term Chair

Oswaldo Gutiérrez (inaugural holder) - Fraser and Norma Stoddart Chair in Contemporary Chemistry

Michael Jung (inaugural holder) - Walter and Shirley Wang Endowed Chair in Medicinal Drug Discovery

Kalli Kappel - Linda and Fred Wudl Term Chair

Michael Lawson (inaugural holder) - Randy Schekman and Sabeeha Merchant Centennial Term Chair

Prineha Narang - Howard Reiss Career Development Chair

Matthew Nava - Jeffrey and Helo Zink Endowed Professional Development Term Chair in Chemistry

Sarah Tolbert (inaugural holder) - Charles and Carolyn Knobler Endowed Term Chair

To read more about the 2026 Chemistry & Biochemistry Chair Installations Celebration, visit <https://bit.ly/UCLACHairInstallations26>



Charles Knobler and Sarah Tolbert (Knobler Chairholder).



Vice Provost for Teaching and Learning Erin Sanders and Executive Vice Chancellor and Provost Darnell Hunt.



Jeffrey and Helo Zink with Zink Chairholder Matthew Nava (center).



Osvaldo Gutiérrez (Stoddart Chairholder) poses with his award alongside faculty member Antonio Tinoco Valencia and lab members Achyut Gogoi and Ángel Rentería-Gómez.



Michael Jung, Alice Jung, and Stuart Conway (Jung Chairholder).



Family members of the late John P. McTague, whose gifts established the McTague and Reiss Chairs, from left daughters Cathy Bregenzer and Margaret McCreary and son Kevin McTague with Victoria Barber (McTague Chairholder) and Prineha Narang (Reiss Chairholder).



Chair's Council members and 2023 Alumni Legacy Awards recipients, Karen and Bill Timberlake, with Dean Miguel García-Garibay.

Student Awards and Fellowships

Donor support is transforming students' academic and professional journeys by expanding access to research, teaching, and mentorship opportunities while providing hands-on experience that prepares them for the workforce. Awards and fellowships not only provide critical funding but also empower students to pursue ambitious ideas, collaborate across disciplines, and engage with the broader scientific community. Just as importantly, this generosity helps students grow beyond their research, strengthening their development as educators. Together, these experiences show how philanthropy directly shapes the next generation of scientists and amplifies their impact.



Glenn Nurwono
Graduate student,
Park/Tang groups

Receiving the Michael E. Jung Excellence in Teaching Award has helped me see my Ph.D. as much more than research. The Jung's generosity has shown me that developing as an educator truly matters here. That recognition has encouraged me to keep refining my pedagogy and to pursue teaching opportunities across disciplines, reaching students from Chemistry majors to first-year students encountering science for the very first time. Donors like the Jung make it possible for Ph.D. students to grow into something bigger than their dissertation, benefiting every student they teach.



Kasey Parks
Undergraduate student,
Schmitt group

Receiving the 2025 Atkinson West Undergraduate Award was incredibly meaningful to me. It gave me the freedom to spend more time in the lab and invest more deeply in my research, which I was able to publish shortly after. Beyond the financial support, this award motivated me to keep growing as a researcher and played an important role in my decision to continue in research and pursue a Ph.D., beginning in the fall.



Shelby Vexler
Graduate student,
Chen group

I'm incredibly grateful to the department and donors for the Herbert Newby McCoy Mentorship Award. Not only did this award help financially support my Ph.D., but it highlights our department's commitment to supporting students through peer mentoring. Thank you to our donors for their continued investment in the IGNITE program, which ensures that no student has to navigate their first year alone.



Lajoyce Mboning
Graduate student,
Bouchard/Pellegrini groups

I was honored to receive the 2025 Jim and Barbara Tsay Excellence in Research Award. This award helped enable opportunities to present my research and engage with leading scientists. More importantly, it reinforced how philanthropy directly empowers early-career researchers to pursue ambitious ideas. I am deeply grateful for the mentorship and support that continue to shape my scientific journey.



Tiffany Thai
Undergraduate student,
DeWeese group

Through the Baumgarten Fellowship, I had the opportunity to learn how to design a course and develop surveys to engage deeply in the process of research, teaching, and learning. This experience helped me understand the responsibilities of being an instructor and the level of care, intention, and thoughtful planning required to support students effectively. It also strengthened my ability to adapt and analyze situations in order to improve my approach to student success as a future educator.



Timothy Chao
Undergraduate student,
Barber group

The Daniel Kivelson Summer Undergraduate Research Fellowship has greatly impacted my undergraduate experience. It has not only supported my research but also my overall undergraduate education. After graduating, I hope to pursue a Ph.D., and this fellowship has given me the research experience necessary to succeed in graduate school. Receiving this fellowship has shown me how important it is to support undergraduate research and how donors play a significant role in this.

ALUMNI SPOTLIGHT:

Dr. Bruce Morimoto ('84, Ph.D. '89)

Dr. Bruce Morimoto has built a distinguished career at the intersection of science, leadership, and innovation in the biotechnology industry. A UCLA alumnus, he earned his Bachelor's degree in Biochemistry in 1984 and his Ph.D. in 1989 under Professor Daniel Atkinson. He has spent nearly three decades advancing drug development efforts, particularly in central nervous system (CNS) disorders.

After completing a postdoctoral fellowship at UC Berkeley, Morimoto began his academic career as a faculty member at Purdue University before transitioning to the biotech sector in search of a more collaborative, interdisciplinary environment. He went on to hold leadership roles at several companies, including Allon Therapeutics, Alkahest, Cerecin, and Alto Neuroscience, guiding teams in manufacturing, nonclinical and clinical development, and regulatory strategy.

His work has focused on therapies for neurodegenerative diseases, including Parkinson's and Alzheimer's. Reflecting on his career, he emphasizes resilience in the face of challenges. Morimoto says, "I learned more from

my failures than my successes and came to realize that the true test of leadership is how we conduct ourselves during intense and stressful times and navigate a path forward."

Continuing to be deeply engaged in the scientific community, Morimoto now serves in advisory roles for biotech companies and foundations, including the Michael J. Fox Foundation for Parkinson's Research and the vATPase Alliance. In these roles, he shares his experience and mentors emerging scientists, helping them navigate the drug development landscape.

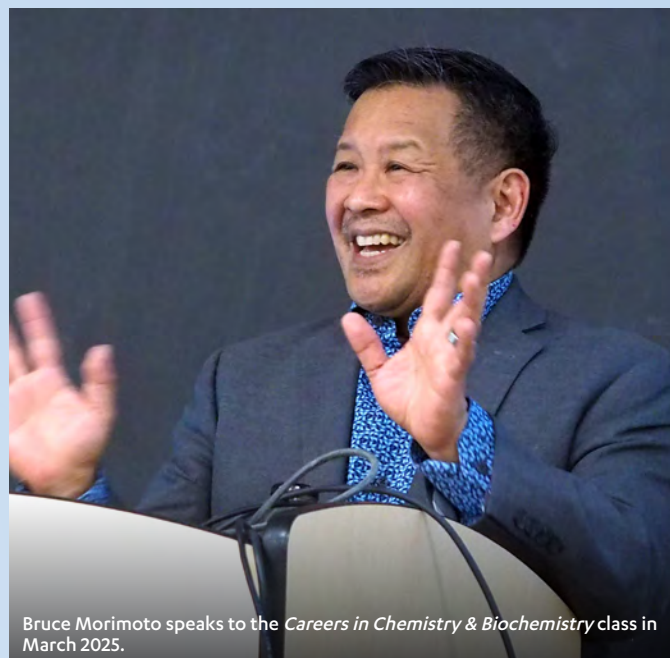
He traces his passion for science to his time at UCLA, where undergraduate research proved formative. Encouraged by a teaching assistant to explore research, he was introduced to Professor Atkinson and joined his lab. As a graduate student, a rotation in Professor Steve Clarke's lab and training in Molecular Biology from Professor Sabeeha Merchant "catalyzed my love of exploration and problem-solving," he says. "It all started with undergraduate research, which opened my eyes to a new world, and I never looked back."



Morimoto remains closely connected to UCLA, saying, "I am grateful for the education, mentorship, and friendships I found at UCLA." In addition to speaking at the department's *Careers in Chemistry & Biochemistry* undergraduate course, he was among the donors who helped establish the Daniel E. Atkinson & Charles A. West Prizes in Metabolic Biochemistry, which are awarded to undergraduate and graduate students for excellence in metabolic biochemistry. The university also holds special personal significance: it is where he met his wife, Joy, continuing a family tradition - his parents met there as well. Morimoto says, "UCLA was absolutely the best of times, a very special place."



Joy and Bruce Morimoto with Atkinson West Prize recipient Jason Gosschalk at Commencement in 2017.



Bruce Morimoto speaks to the *Careers in Chemistry & Biochemistry* class in March 2025.

www.chemistry.ucla.edu

Matching Funds

The department is matching all qualifying gifts of \$100,000 or more on a one-to-one basis while funds last, ensuring even greater support for generations of students and educators. Please join us in this investment by contacting the chair's office at (310) 825-3958 or cbchair@ucla.edu.

Our Donors

Thank you to all our donors who have contributed \$5,000+ to the Department of Chemistry & Biochemistry from February 1, 2025, to April 14, 2026.

Charlene Bauer**Paul Cheng****Steven and Catherine Clarke****Edwin and Marilyn Follick****William and Nina Gelbart****Diana Hawthorne****Kendall Houk and Fang Liu****June Kim****Charles and Carolyn Knobler****Emmy L. Manning and Fred Keller
Revocable Trust****Edward Alfonso Mena, Jr.****Bruce and Joy Morimoto****James and Doris Murai****Emil and Hanna Reisler****Nancy Remy****Lisa Schoneman****Eleanor and Raymond Siebert****Alexander Spokoyny and Tina Li****Suzanne Stein****Jane and Charles Strouse****Karen and William Timberlake****Jim and Barbara Tsay Foundation****Jeffrey and Helo Zink**