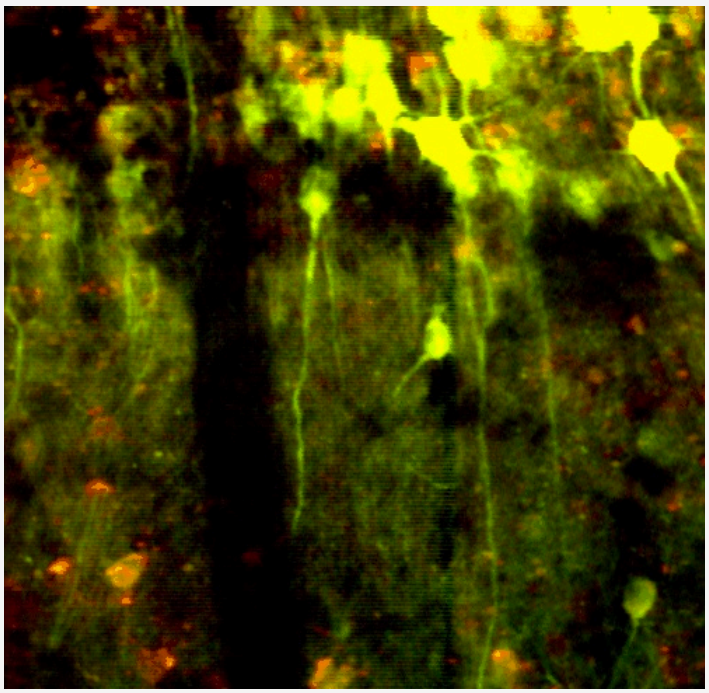
UCLA BRI NEWSLETTER

Fall 2025 Edition

Issue No.05



ON THE COVER

Top: Calcium dynamics in single dendrites during free behavior, captured using the newly developed UCLA 2P Miniscope. Read more on page 4.

Bottom: Faculty, trainees, staff, media, state representatives, and community members gather for the "Suspended Science" showcase, September 2025. More on page 13.

IN THIS EDITION

The Power of Neuroscience

A note from the Director

While the past few months have seriously challenged our community with federal funding freezes and intra-university spending restrictions, we have responded as a community and have much to be proud of: we have been cool under pressure, persisting in asking for what we need, and coming together to navigate our moves together. My respect and admiration for you, my UCLA neuroscience community, has grown immensely in watching how you have stepped up and risen to the challenges.

To highlight just a few of many heroes: ***Carlos Portera-Cailliau*** *led the charge in communicating with university leadership about why they should care.* ***Carrie Bearden****, along with* ***William Zeiger*** *and* ***Michael Chwe,*** *helped organize the Suspended Science Research Fair, bringing visibility to our efforts and informing state leaders about what's at stake.* ***Vidya Saravanapandian*** *and others visited Sacramento, collected stories of scientists and the economic impact of our scientific enterprise, and brought national media attention.*

The extra efforts of these and many more of us has started a wave of public engagement and advocacy that we must continue to build to restore public support for science. If you'd like to commend a colleague who stepped up to meet these challenges, please share your commendation note here so we can honor and celebrate all efforts.

Looking ahead, the California State Assembly will begin discussions in ***January*** *on establishing a state institute for science and, in the shorter term, an emergency science fund. In the lead-up, we can continue showing policymakers and the public the power of neuroscience.*

Join us on ***December 2*** *for a full-community poster session, and short impactful science talks showcasing our discoveries and celebrating neuroscience at UCLA, and a panel on The Power of the Brain vs AI. A second, more public event in* ***winter quarter*** *will highlight the power of neuroscience in creative expression, linking the brain with the arts including visual and performing arts as well as music, theatre film and television across UCLA and Los Angeles.*

Throughout these challenging months, despite limited resources, our community continues to gather in JSNs, Affinity Groups, and Integrative Centers, to innovate, host public events, and support student travel to conferences. Indeed, there is no better impetus and accelerator for science than the act of presenting at meetings. So please, GO, present, represent, absorb, network, and get inspired. In ***mid November*** *we are launching a UCLA GoFundMe campaign to support trainee travel fellowships. Be on the lookout for announcements and be ready to spread the word.*

Faculty, staff, and trainees from UC campuses joined the Save Our Science coalition as concerned citizens—independently advocating for research and education—during meetings with state leaders at the California State Capitol, August 2025.

Huge thanks to all the BRI Staff and to each one of you for stepping up and working together so that we survive and, yes, thrive through it all. I am proud of us. Keep it up!

-Gina Poe, Ph.D
Director, Brain Research Institute

LATEST DISCOVERIES

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The BRI community continues to push the frontiers of neuroscience, uncovering new insights into how the brain develops, functions, and adapts. The studies featured here reflect the innovation, collaboration, and curiosity that drive our work.

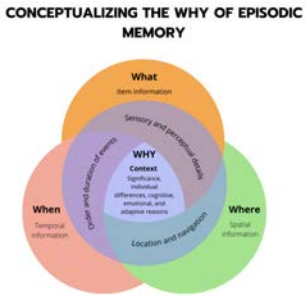
A Journey into Memory and Emotion *Featuring Dr. Stephanie Leal and team*

Emotion regulation strategies differentially impact memory in hormonal contraceptive users

A new study led by Dr. Stephanie Leal examined potential differences in females taking hormonal contraceptives (HC) versus those naturally cycling on several emotion regulation and memory measures. They found that while HC users were generally more reactive to emotional images (both negative and positive), HC users were better able to employ “distancing”, an emotion regulation strategy aimed at reducing negative feelings toward an experience. When examining subsequent memory for these images, the group found that HC users were better able to reduce negative memory for details of the experience, as measured via a mnemonic discrimination task that taxes hippocampal pattern separation, suggesting that HC use may be associated with emotional and cognitive benefits, and provides important context in better understanding how HCs impact cognition and brain function. Read the article

Tell me why: the missing w in episodic memory’s what, where, and when

An article written by Fernanda Morales-Calva and Dr. Stephanie Leal was recently chosen as the *2025 Best Article Award for Cognitive, Affective, and Behavioral Neuroscience (CABN)!* In this review, the team discusses the concept of episodic memory examining the what, where, and when, and how the why is essential to each of these key components of episodic memory. They discuss the individual differences that may further drive why we remember certain experiences over others. Read the article



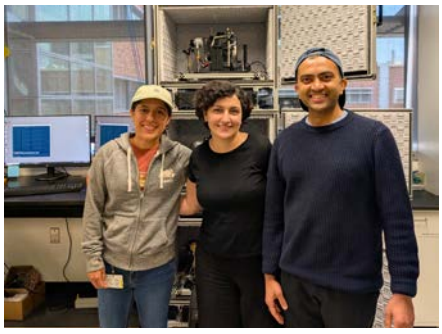
Stephanie Leal, Ph.D.
Assistant Professor
Integrative Biology & Physiology
UCLA

Team science in decision making *Featuring Dr. Anne Churchland and team*

A large scale science collaboration discovers brainwide decision-making circuits

The Churchland Lab, as part of the International Brain Laboratory, is excited to announce the publication of two Nature papers. Lab members Felicia Davatolhagh, Anup Khanal, Marsa Taheri, and Max Melin, along with Karolina Socha from the Huk Lab, contributed to this collaborative effort. These studies reveal new insights into brainwide decision-making circuits and demonstrate how large-scale, team-based science can tackle questions beyond the scope of a single laboratory. Access the full articles below.

Article 1 Article 2



Left to right: Felicia Davatolhagh, Marsa Taheri, Anup Khanal

LATEST DISCOVERIES

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Tools that make the brain more accessible

Miniature 2-photon microscopy systems for freely behaving animals

Understanding the ways in which single neurons compute and represent information during complex natural behaviors is a challenging task. To do so, many labs rely on multiphoton microscopy to capture exceptionally high-resolution images of the brain, even deep into tissue. However, because two-photon microscopes often weigh hundreds of pounds, mice are traditionally fixed in place underneath them, thus limiting vestibular inputs to the brain and the scope of behaviors they can perform.

Recently, a BRI research team led by Dr. Peyman Golshani and Dr. Blake Madruga (NSIDP alumnus, now postdoctoral fellow at MIT) developed a miniaturized two-channel two-photon microscope that is lightweight enough for mice to wear as they freely behave, forage for sugar pellets, and explore new environments. Using this tool, single granule cells in a deep region of the hippocampal formation known as the Dentate Gyrus were resolved for the first time during free behavior, without anatomical disruption to the intact circuit — enabling new insights into how the brain encodes space and discriminates unique contexts. Read the article

Blake Madruga, Ph.D.
Postdoctoral Scholar
Picower Institute for Learning and Memory, MIT

Peyman Golshani, M.D., Ph.D.
Professor-In-Residence
Neurology

The 2-channel image on the cover, captured from the retrosplenial cortex in collaboration with BRI Professor Dr. Alcino Silva, illustrates calcium dynamics in single dendrites during free behavior using this advanced UCLA 2P Miniscope.

Technologies that shape the future

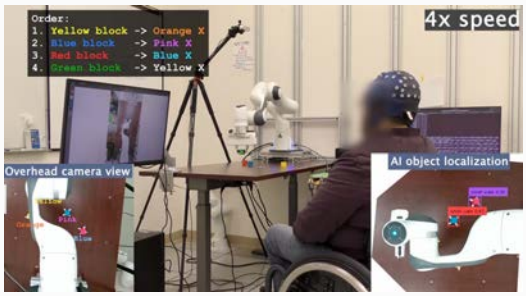
AI copilots facilitate non-invasive brain-computer interface

Brain-computer interfaces (BCIs) have existed for over two decades, but aren't ubiquitous. Why? There is a core cost-benefit calculation. Invasive BCIs can control robotic arms, but require neurosurgery. Non-invasive BCIs are minimal risk, but so low performing that they can be frustrating to use. This study, led by Dr. Jonathan Kao and his graduate student Johannes Lee, takes a step towards dramatically increasing non-invasive BCI performance by incorporating AI copilots. The AI copilot infers the user's goal and helps to complete it. We developed two copilots, one that assists cursor control in computer tasks, and another that uses computer vision to help a BCI user pick and place objects. In the computer task, we found the AI copilot increased performance by 3.9x for a paralyzed participant, and in the robotic arm task, it enabled the participant to perform a task he was otherwise unable to do. We believe that AI copilots will be critical for clinically viable BCIs.

Read the article

Jonathan Kao, Ph.D.
Associate Professor, Electrical Engineering and Computer Science

AI copilots categorically increase BCI performance, and we believe they will be a critical component towards making BCIs clinically viable and widespread.
– Jonathan Kao, Ph.D.



Participant controlling robotic arm
Watch full video

Want to highlight your research?
Submit through our Quarterly Newsletter Submission Form

CELEBRATING OUR WORLD-CHANGING UNDERGRADS

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We are thrilled to share that the UCLA College Magazine is highlighting the incredible work of our undergraduate students and the programs that shape them in a feature titled ***Molecules to Minds, Exploring Neuroscience: Turning undergraduates into experts.*** This extensive piece showcases the extraordinary journeys of Bruins who are pushing the frontiers of brain research, demonstrating the strength of the neuroscience program rooted in the UCLA Life Sciences and supported by the BRI including neuroscience faculty in the Life Sciences and DGSOM.

A Testament to Faculty Vision and Commitment

The students' impactful experiences are a direct result of the dedication and visionary leadership of our faculty and program founders.

As Dean Tracy Johnson recently affirmed:
"The student voices in the Molecules to Minds piece are powerful, and they describe how their experiences at UCLA have been defined by programs you started and/or supported. I want to take this opportunity to thank you for your vision, time, passion, and commitment to our students. UCLA would not be the great educational institution it is without you."

We salute our faculty, teaching assistants and associates, and student counselors and support staff, for creating an environment that transforms undergraduates into world-changing researchers, educators, and leaders.

Image Credit: UCLA Newsroom

The stories shared by students like **Gabrielle Malte, Harshikasai Kellampalli, Rachel Fox, Isabella Yuan, Chaya Manjeshwar, and Jamie Lee** are an inspiring reminder of the profound impact of our neuroscience community. We encourage everyone to read the full UCLA Newsroom feature!
UCLA Newsroom: Exploring Neuroscience - Turning Undergraduates into Experts

Cultivating Experts Through Hands-On Experience

The feature spotlights the unique, multidisciplinary opportunities that prepare our students for success:

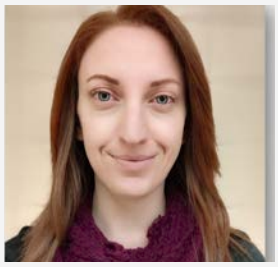
- **BRI-Affiliated Outreach**: Students are passionately sharing their knowledge through clubs like InterAxon and Project Brainstorm, which perform science outreach to local K–12 schools, often serving low-income families. Their work is directly inspiring the next generation of scientists.
- **Cutting-Edge Interdisciplinary Research:** Students are engaged in critical conversations and research through initiatives like the Livescu Initiative on Neuro, Narrative and AI (NNAI), exploring the ethical and philosophical intersections of neuroscience, humanities, and technology.
- **Research Leadership:** Recipients of the prestigious Scheibel Scholarship have leveraged the support to focus intensively on their research, leading to major achievements like publishing first-author papers and presenting at national conferences.
- **Diverse Career Paths:** Our alumni are highly competitive and pursuing diverse, impactful careers, including MD–PhD physician-scientist tracks (focusing on neurodegenerative diseases), pediatric neurology, clinical research, and even Intellectual Property Law, demonstrating the program's comprehensive preparation for life beyond Westwood.

The uNSIDP continues to offer one of the most comprehensive, research-intensive, and community-engaged neuroscience undergraduate programs in the UC system. Its growth, innovation, and dedication to inclusive excellence since its inception in 1992 have been remarkable.

-Stephanie White, Ph.D.
Chair, Undergraduate Neuroscience Interdepartmental Program

CLASS OF 2025 PH.D. GRADUATES

The BRI proudly celebrates the outstanding achievements of our Ph D. students completing their degrees in the 2024–2025 academic year. **Join us in congratulating the Class of 2025 for their dedication, perseverance, and exceptional accomplishments throughout their doctoral journey!**



JESSIE BUTH

Ph.D., Neuroscience

Modeling neuro-development and disease using human pluripotent stem cells and mouse models

ELENA COLEY-O'ROURKE

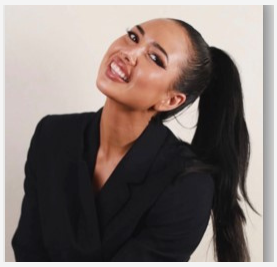
Ph.D., Neuroscience

The microbiome responds to environmental perturbations during critical periods to shape neurodevelopmental outcomes

CONOR DORIAN

Ph.D., Neuroscience

Non-spatial hippocampal behavioral timescale synaptic plasticity during working memory is gated by entorhinal inputs



LAUREN KUPIS

Ph.D., Neuroscience

Brain Dynamics Underlying Cognitive Flexibility in Typical and Atypical Development

ROY MCREYNOLDS III

Ph.D., Neuroscience

Investigating morphological and cytoskeletal dynamics of hippocampal astrocytes across progressive tauopathy

MIKHAIL MELNIK

Ph.D., Neuroscience

Microglia in the context of AD pathology and synaptic phagocytic pathways related to CD47

STEPHANIE NJAU

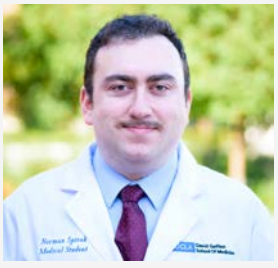
Ph.D., Neuroscience

Investigating Euthymia in Bipolar Disorder and Neurochemical Mechanisms of Ketamine Infusions in Treatment-Resistant Depression

KATHLEEN O'HORA

Ph.D., Neuroscience

Exploring Sleep as a Window Into Neurodevelopment in 22q11.2 Deletion Syndrome



NORMAN SPIVAK

Ph.D., Neuroscience

Evaluating Transcranial Focused Ultrasound for Human Neuromodulation

LAUREN WAGNER

Ph.D., Neuroscience

Early Neurodevelopmental Trajectories Underlying Typical and Atypical Behavioral Development

FACULTY SPOTLIGHT

CAROLYN PARKINSON, PH.D.

S4SN Early Career Award 2025

Dr. Carolyn Parkinson, Associate Professor in the Department of Psychology, has received a 2025 Early Career Award from the Society for Social Neuroscience (S4SN). Dr. Parkinson's research at UCLA examines how the human brain represents and navigates social environments, combining social network analysis with neuroimaging to understand how social relationships shape cognition and behavior. Read more about the 2025 S4SN Early Career Award.

Fulbright U.S. Scholar

Dr. Martin M. Monti, Professor in the Departments of Psychology and Neurosurgery, has been selected as a Fulbright U.S. Scholar for 2025-2026 for Japan. Dr. Monti's work at UCLA focuses on understanding consciousness in patients with coma and vegetative states, using advanced brain imaging and neuromodulation techniques.
Read more about the Fullbright Scholarship awards.

MARTIN MONTI, PH.D.

CHUCHU ZHANG, PH.D.

Hypothesis Fund Seed Grant

Dr. Chuchu Zhang, Assistant Professor in the Department of Physiology at the David Geffen School of Medicine, has been awarded a Hypothesis Fund seed grant for her project "Exploring interoceptive sensory logic reshaped by pregnancy." Dr. Zhang's research focuses on the neural mechanisms of nausea and interoception, investigating how the brain processes internal body signals in conditions such as pregnancy, food allergy, and radiation.
Read the press release.

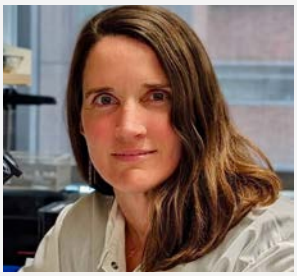
FACULTY SPOTLIGHT

Chair of the Department of Neurobiology
David Geffen School of Medicine

GENEVIEVE KONOPKA, PH.D.

Dr. Genevieve Konopka has been appointed as Chair of the Department of Neurobiology in the David Geffen School of Medicine at UCLA, effective July 1, 2025. Dr. Konopka is currently Professor and Vice Chair of Neuroscience at UT Southwestern Medical Center. She received dual BS degrees in Brain and Cognitive Sciences and Biology from MIT and completed her PhD in Neurobiology at Harvard University. Dr. Konopka's research focuses on understanding the molecular pathways important for human brain evolution that are at risk in cognitive disorders such as autism, schizophrenia, and Alzheimer's disease. Her lab uses human neurons, animal models, and primate comparative genomics to uncover human-specific, disease-relevant patterns of gene expression.

Read the press release.



ANNE CHURCHLAND, PH.D.

Neuroscience Theme Leader
David Geffen School of Medicine

We are delighted to announce that Anne Churchland, Ph.D., has been appointed the new DGSOM Neuroscience Theme Leader.

Dr. Churchland leads an active research lab investigating neural circuits underlying decision-making in healthy and diseased brains. With her strong record in science communication and outreach, she brings fresh energy to fostering collaboration across basic and clinical neuroscience.

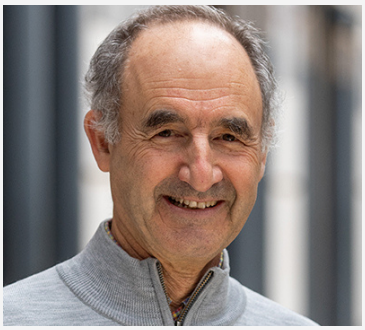
"I am thrilled to play a role in creating synergies among neuroscience labs, including both fundamental science and clinical departments."

— Anne Churchland, Ph.D.
Professor, Neurobiology

We extend our sincere gratitude to Dr. S. Lawrence ("Larry") Zipursky for his years of exceptional leadership and mentorship as Neuroscience Theme Leader. During his tenure, he helped recruit outstanding neuroscience faculty and championed resources that strengthened UCLA's research infrastructure.

Having served on the Theme's advisory council, I can attest to power and vision of Dr. Larry Zipursky's leadership and the importance of his influence in finding funds for equipment, swaying department Chairs toward neuroscience, and smoothing over rough patches for scientists.

— Gina Poe, Ph.D.
Director, BRI



S. LAWRENCE ZIPURSKY, PH.D.

SAY HELLO TO MORE OF OUR BRI STAFF

Director, Microscopy Core Facilities
Brain Research Institute

Dr. Chunni Zhu serves as facility director for BRI light and electron microscopic core facilities. The core facilities offer cost effective service and training for light and transmission electron microscopic techniques. Chunni provides service, advice and training for TEM sample processing and imaging, as well as various preparation for light microscopy.

In her spare time, she enjoys outdoor activities such as hiking and exploring national parks.

CHUNNI ZHU, PH.D.

Department of Neurology
Geffen School of Medicine UCLA

LOUIS PEREZ, M.ED.

UCLA Undergraduate Neuroscience Interdepartmental Program

Academic Advisor, Undergraduate Neuroscience IDP
Brain Research Institute

Louis Perez serves as a Student Services Advisor for the Undergraduate Neuroscience Interdepartmental Program (uNSIDP). He supports undergraduate students through individualized academic planning, workshop facilitation, and referrals to various campus resources. He also supports the uNSIDP with the hiring of teaching assistants and its large-scale programming, such as the Neuroscience Poster Day and Neuroscience Commencement Ceremony. His commitment to empowering students informs his holistic approach to advising, and he is constantly searching for ways to enhance students' experiences within the uNSIDP and at UCLA overall

In his personal life, Louis enjoys going to the movie theaters, trying different coffee shops, attending concerts, traveling, and spending time with loved ones.

COMMUNITY ENGAGEMENT

Building awareness, advocacy, and access through outreach, education, and policy.

From training high schoolers and K–12 teachers to expanding collaborations with the UCLA–CDU Dana Center and summer program partner institutions, our BRI community brought brain science to more people in more places this summer. At the same time, we amplified our advocacy—hosting BRI town halls, meeting state leaders in Sacramento with the Save Our Science coalition, and organizing a Science Fair for Suspended Research that drew wide public attention. Together, these efforts reflect the BRI's core belief: science thrives when discovery, education, and public engagement move forward side by side.

Hands-on neuroscience for LA high schoolers

NEUROCAMP

Each summer, Professor **William Grisham, Ph.D.**, and **Elena Dominguez, Ph.D.,** welcome high school students to UCLA for a two-week introduction to neuroscience methods. Thousands of students begin the application each year—reflecting the strong and growing demand for neuroscience education at the pre-college level.

This year, the BRI's Neurocamp program partnered with the UCLA–CDU Dana Center for Neuroscience and Society, expanding the class size by 50% to include **30 high school students** from across the Los Angeles area, divided into two parallel cohorts. Professors **Felix Schweizer, Ph.D.**, and **David Krantz, M.D., Ph.D.,** joined Dr. Dominguez, along with neuroscience Ph.D. candidates, to deliver this hands-on program.

Dr. David Krantz and Dr. Felix Schweizer with Neurocamp students, sharing insights and inspiration.

Students explored brain anatomy, examined how chemical exposures from hair and cosmetic products can affect neurological health, and analyzed whether neuron numbers differ in language-associated brain regions across species. With continued donor support and partnerships like the Dana Foundation, the BRI aims to keep growing this program—bringing neuroscience to even more high school students in the years ahead. Read more about Neurocamp.

CELL SCHOLARS

In July, the CELL Scholars Program hosted a hybrid end-of-year symposium celebrating the achievements of **six remarkable high school mentees**. Each student presented an impressive research poster, showcasing their year-long projects and growth as young scientists.

CELL Scholars celebrate their year of growth and discovery during the 2025 end-of-year poster symposium

> *"CELL Scholars hopes to inspire others, strengthen connections, and continue building a supportive network that uplifts the next generation of STEM leaders."*
>
> *-The CELL Scholar Team*

Three of the scholars graduated from University High School this year and are now beginning their journeys in STEM fields at the university level — a milestone that reflects both their dedication and the support of mentors, families, and community partners. Learn about CELL scholars here.

UCLA-CDU Dana Center's Inaugural Open House & Poster Fair

Fellows and faculty from the UCLA–CDU Dana Center engage visitors during the inaugural Open House and Poster Fair, showcasing research and fostering community connections.

The UCLA–CDU Dana Center hosted an inaugural Open House & Poster Fair on Saturday afternoon, June 28th, at the Semel Green Deck. The event brought together center fellows, seed grant awardees, students, staff, faculty, and community members from UCLA, CDU, and the greater LA area. Fellows presented projects at the intersection of neuroscience and society—spanning music & the brain, rethinking ethics in research, and community-engaged research. The event highlighted a shared commitment: advancing brain science that responds to real-world needs through collaboration, inclusion, and public voice. Read more about the UCLA-CDU Dana Center.

"It was amazing to see all the fellow's hard work displayed together; the Dana Center team is incredibly proud of how far they've come in the past year!"

-Erin Ewalt
Fellowship Program Manager
UCLA-CDU Dana Center

NO SCREENS, MORE SCIENCE!

A mindful approach to collaboration and scientific focus.

At the **UCLA Brain Injury Research Center** (BIRC), weekly Tuesday meetings have taken a refreshing step back from screens—no laptops, no phones, just focused discussion and shared curiosity. Amid growing uncertainty and pressure in the scientific landscape, this simple change was designed to help everyone be more present, connected, and engaged.

The result? More genuine interaction, stronger social bonds, and renewed energy around the science of traumatic brain injury.

After two weeks there has been a change in interaction, social support and reminder of why we love science.

-Mayumi Prins, Ph.D.
Professor
Director BIRC Education Program

BRAINWAVE: Brains in Rest - A Professional Development Workshop for K-12 Teachers

This summer, BRAINWAVE's "Brains in Rest: The Neuroscience of Sleep and Its Role in Learning, Behavior, and Development" workshop brought together **36 teachers from across Los Angeles** for a full day of immersive learning at UCLA. The program connected neuroscience with classroom practice—helping teachers translate brain research into lessons that promote healthy sleep, support learning, and foster emotional well-being among students.

"This was one of the best professional developments I've been to in my 25 years of teaching."

"I came with very little knowledge about the theme and finished feeling prepared to implement this material."
-Teacher participants

Educators explored how the brain learns best, the role of sleep in memory and behavior, and how evidence-based teaching can reach every learner. They engaged with postdoctoral fellows and faculty scientists about ongoing sleep research at UCLA and discussed strategies for helping students—from elementary to high school—understand the importance of healthy sleep.

Teachers also received classroom materials and activity guides to take back to their schools and collaborated in teams to design lesson plans that translate neuroscience concepts into age-appropriate, engaging classroom experiences. The workshop's impact was immediate—many teachers have already begun adapting their lesson plans to incorporate what they learned.

Educators brainstorm creative ways to bring neuroscience and sleep science into their classrooms—turning research into real-world teaching.

The event also marked a major milestone: **BRAINWAVE is now approved by the Los Angeles Unified School District (LAUSD) for salary-point credit, allowing participating teachers to receive professional development recognition.** This partnership with LAUSD reflects the growing demand for neuroscience-informed teacher training and strengthens our connection with local schools.

"Really great in depth breakdown of sleep research, sleep habits and good sleeping habits, and how to engage students in a kind and adaptable manner."
-Teacher participant

Special thanks to the BRAINWAVE instructors — **Dr. Ceazar Nave, Dr. Kat Silaj, Dr. Merel Dagher, Dr. Olivia Justynski,** and **Dr. Takahiro Ohara** — our guest speakers, **Dr. Christopher Colwell**, and **Dr. Ketema Paul**, and the BRI staff — **Aaron Michner, Joseph Quintero, Patricia Lowe,** and **Priyanka Samra** — for their support, energy, and enthusiasm in making this event possible.

Read more about BRAINWAVE.

Teachers and BRAINWAVE instructors come together after a day of learning, and collaboration.

It was deeply rewarding to see teachers already rethinking their lesson plans based on what they learned. Seeing neuroscience translate directly into classroom practice is exactly the ripple effect we envisioned."

— Dr. Vidya Saravanapandian

Founder & Director
BRAINWAVE

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Undergraduate Summer Research Programs, June 6 – August 8, 2025

Each summer, the BRI welcomes undergraduate scholars from partner institutions across the country to participate in three cornerstone programs — HBCU Pathways, BRI-SURE, and HSI-SOMA. Over eight weeks, students immersed themselves in UCLA neuroscience labs, conducting hypothesis-driven research alongside faculty mentors while participating in professional development workshops on communication and ethics, and mentorship experiences that build lasting scientific connections.

Summer Research cohort kicking off the program with a weekend trip to the beach — building friendships and community before diving into a summer of neuroscience.

"I feel more qualified and prepared to apply to graduate school after receiving many resources through the program. UCLA is now one of the top universities I will be applying to."

-2025 Summer program participant

***Participating Institutions, Summer 2025**: Barnard College, Oxnard College, UC Santa Cruz, Delaware State University, Fisk University, Howard University, Spelman College, CSU San Bernardino, CSU Long Beach, The University of Texas at El Paso*

Summer scholars present their neuroscience research at the 2025 BRI Undergraduate Poster Fair

The summer culminated in the Undergraduate Research Poster Fair on August 7 in the Gonda Courtyard, featuring nearly 100 attendees from the UCLA neuroscience community. Students presented projects spanning molecular neuroscience, sleep and behavior, and neuroimaging.

Mentoring Labs at UCLA

Faculty mentors across UCLA's neuroscience community opened their labs to this year's scholars, including **Dr. Pavak Shah, Dr. Andrew Wikenheiser, Dr. Jeff Donlea, Dr. Ketema Paul, Dr. Laura DeNardo, Dr. Fayal Abderemane-Ali, Dr. Stephanie White, Dr. Peyman Golshani, Dr. Carrie Bearden, Dr. Valerie Tornini, Dr. Arpana Church, Dr. Lara Ray, Dr. Jaime Castrellon, and Dr. Nicolas Massaly.**

Under the leadership of program directors **Dr. Alicia Izquierdo, Dr. Hakeem Lawal, and Dr. Ketema Paul,** these summer pathways continue to strengthen UCLA's commitment to inclusive excellence in neuroscience—empowering students to pursue advanced study and impactful careers in brain research.

Expanding Pathways: Renewed UCOP Support for the UCLA–HBCU Neuroscience Program

The **UCLA–HBCU Neuroscience Pathways Program has been awarded three years of funding from the University of California Office of the President (UCOP),** ensuring the continued growth of this vital initiative that fosters inclusive excellence in neuroscience research and mentorship.

Led by Dr. Ketema Paul, Professor of Integrative Biology & Physiology and Psychiatry & Biobehavioral Sciences, this competitive summer research training program brings talented undergraduate students from Historically Black Colleges and Universities (HBCUs) to UCLA. With renewed UCOP support, UCLA continues to expand opportunities and strengthen pathways for students from all backgrounds.

"As in past summers our summer cohort were engaged, inquisitive, and inspiring. Their hard work was well represented at the poster sessions which culminated the summer program. However, this year they provided an enormous boost in our south campus morale by helping remind us how important it is to support training in our current research climate."

-Ketema Paul, Ph.D.
Director
BRI Summer Programs

A visit to Charles Drew University in South Los Angeles. Pictured (not in order) — Jessica Garcia, Stephanie Gomez, Nicholas Hoa, Sara Lopez, Christina Nguyen, Jacob Anil, Naomi Cole, Penelope Figueroa, Ella Kye, Oroboogheneh Oboh, Favour Badewole, Rhys Coleman, Lindsay Fomundam, Brandy Jacob, and Loren Lewis — joined by the Honorable Judge Kelvin Filer; Pat Lowe, Chief Financial Officer of the UCLA Brain Research Institute; and Dr. Ketema Paul.

From Campus to Capitol: A Collective Voice for Science

California State Capitol, Sacramento — Faculty, staff, and trainees from the UCLA BRI joined colleagues from across UC campuses to meet with lawmakers and advocate for the future of science. Each attended as a concerned citizen, united by a shared commitment to protect and sustain research in California.

In response to the federal research funding freeze, the UCLA BRI faculty, staff, and trainees together with the Save Our Science coalition—bringing together researchers and administrators from across UC campuses—to advocate for sustained support of scientific research in California.

The team traveled to Sacramento to meet with Assembly Members Sade Elhawary, Isaac Bryan, and Tina McKinnor, and State Senators Christopher Cabaldon, Lola Smallwood-Cuevas and Scott Wiener, sharing firsthand the impact of halted research on our state's innovation, education, and economy. Lawmakers emphasized the importance of data and personal stories in shaping future policy, and our community responded—collecting testimonials across every level of research, from trainees and lab staff to vendors and administrators. **A heartfelt thank you to everyone who attended BRI townhalls, submitted stories, and raised your voice during this critical time. Your advocacy made a difference.** Our state leaders heard us and continue to engage with the BRI in ongoing discussions on how to protect California's research infrastructure.

Something positive emerging from this growing state support is that Senator Scott Wiener and Assembly Member José Luis Solache Jr. have introduced Senate Bill 607, which would create the California Institute for Scientific Research Fund — a long-term investment ensuring that research across the state remains strong, independent, and resilient in the face of federal policy shifts.

When Science Pauses, Stories Speak

In a powerful show of unity and creativity, the UCLA BRI, in collaboration with the UAW and the UC Faculty Association, helped organize the Science Fair for Suspended Research, a two-day event that spotlighted the human and scientific impact of the federal research funding freeze. Held on September 10 and 11, the fair featured nearly 100 research posters from faculty, staff, trainees, and students—projects that had been paused or disrupted by the suspension of federal grants.

A campus-wide Science Fair for Suspended Research spotlighted the real-world impact of suspended projects—and drew broad media attention. September 10–11, 2025 | UCLA Campus

Researchers transformed the intersection of Westwood Plaza and Le Conte Avenue into a vivid display of science and resilience. The fair drew broad attention from the UCLA community, media, and visiting state officials—including aides and representatives from several California Assembly Members' offices—as well as members of the public who stopped along Westwood to learn, ask questions, and show support. The event demonstrated growing solidarity with the research community and a shared commitment to preserving science in California.

Media Spotlight: Science in the Public Eye

The BRI's advocacy and outreach efforts reached audiences across California and beyond, with extensive coverage from Los Angeles Times, LAist, Spectrum News, and other media channels, highlighting the creativity and determination of the research community:

Sep 12, 2025 Los Angeles Times

The **Los Angeles Times** captured the urgency and creativity behind the Science Fair for Suspended Research, where UCLA scientists brought stalled projects out of the lab and into public view—illustrating both the scale of halted NIH research and the determination to keep discovery visible despite $500 million in frozen grants.

Watch the full video here

Yes, that's a human brain on a cafeteria tray. UCLA fair shows off science cuts under Trump

By Jaweed Kaleem

Read the full article here

Sep 12, 2025 LAist

UCLA researchers host science fair to showcase work suspended by the Trump administration

By Julia Barajas

LAist focused on the breadth and urgency of the scientific projects at stake. The coverage detailed how the freeze is impacting breakthroughs in fields like pediatric cancer immunotherapy, Alzheimer's research, and the development of new joint replacements, underscoring the severe and immediate setbacks caused by the loss of funding.

Read the full article here

Sep 16, 2025 SPECTRUM NEWS

Spectrum News 1 (in a segment by Chase Beech) focused on the personal and human impact of the freeze. The piece spotlighted individual BRI researchers, featuring **Dr. William Zeiger** demonstrating the high-powered microscopes essential for studying brain circuits, and **Dr. Carrie Bearden** describing how the freeze immediately stalled her vital training program, emphasizing the livelihoods and career futures hanging in the balance.

Watch the full video here

In Memoriam

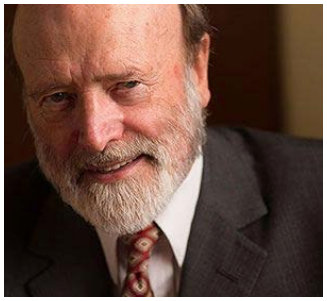
SCAN FOR DIGITAL COPY OF THIS PAGE TO ACCESS LINKS

Honoring the Legacies that Shaped Our Neuroscience Community

As we celebrate the voices and stories that amplify neuroscience in the public eye, we also pause to honor those whose lifelong dedication continues to illuminate our path forward.
This year, we remember three extraordinary members of the BRI whose wisdom, mentorship, and humanity left an enduring imprint on our community. Though their journeys were distinct, each devoted their life to advancing our understanding of the brain and inspiring the generations who carry that work onward.

ROBERT BILDER, PH.D.

Dr. Robert ("Bob") Bilder was a **pioneering neuropsychologist whose creative vision redefined how we study cognition and mental health**. His groundbreaking research on brain-behavior relationships, creativity, and schizophrenia helped illuminate the intricate architecture of human thought. Beyond the science, Dr. Bilder was known for his humor, his music, and the warmth he brought to every collaboration. His legacy lives on through the students and colleagues he inspired to explore the mind with curiosity and compassion. Read the Full Obituary..



PETER WHYBROW M.D., D.P.M., M.B., F.R.C.P.

Dr. Peter Whybrow was an internationally renowned psychiatrist, author, and academic leader whose career spanned over five decades and helped define modern neuropsychiatry. Dr. Whybrow **specialized in the neurobiology and treatment of mood disorders,** with a particular focus on thyroid function and bipolar illness. His pioneering work on thyroid hormones and mood regulation transformed clinical care for patients with treatment-resistant depression. Beyond the lab and clinic, he was a gifted communicator and author; his leadership and scholarship shaped the field for decades, and his reflections on balance and well-being continue to resonate widely. Read the Full Obituary and the Nature Neuropsychopharmacology tribute.

DENNIS MCGINTY, PH.D.

A foundational figure in sleep research, Dr. Dennis McGinty **dedicated his career to uncovering the neural mechanisms of sleep and wakefulness.** At UCLA and the VA Medical Center, he pioneered fine-wire recording techniques that transformed how scientists study the sleeping brain. Equally devoted to mentorship and teaching, Dr. McGinty inspired generations of researchers through his warmth, curiosity, and humility — viewing science as both discipline and joy. The UCLA Sleep Center and the global sleep community remain lasting testaments to his impact. Read the Full Obituary.

These three men brought the light of new knowledge, the peace that great leaders instill, and the joy of discovery and service to UCLA and the world. We thank them for their enduring gifts and will miss them as we build upon and carry on their legacy.

— Gina Poe, Ph.D.
Director, BRI

We honor their enduring impact on science and on the countless lives they touched. Their vision, generosity, and curiosity remain woven into the fabric of the BRI — reminders that progress in neuroscience is built not only on discovery, but on the people who inspire it.

*A **celebration of life honoring Dr. Peter Whybrow** will be held on **November 7, 2025 (12-1 PM, Neuroscience Research Building; RSVP details to follow).***
*A **spring 2026 memorial for Dr. Robert Bilder** is also being planned. Please look for updates via BRI announcements and website postings..*

OPPORTUNITIES

Funding Alert: McKnight Scholar Awards

The McKnight Scholar Awards are given to exceptional young scientists who are in the early stages of establishing an independent laboratory and research career.

Up to 10 awards of $225,000 over 3 years for early-career scientists establishing independent neuroscience laboratories. Applicants must hold Assistant Professor rank (or equivalent) for less than 5 years as of deadline.

Deadline: **Dec 1, 2025.** Application Link

BRI SfN/SEMEL Travel Awards

Deadline: **Thursday, October 30, 2025, 11:59 p.m. PT**

Who's eligible: Currently enrolled undergraduates, graduate students, postdoctoral scholars, and assistant researchers (within 7 years of a Ph.D. or equivalent doctoral degree).

Award: $1,000 toward travel expenses to attend the 2025 Society for Neuroscience (SfN) meeting. Processed as reimbursements after the conference.

How to apply: Send one PDF with all application materials to Joe Quintero at jmquintero@mednet.ucla.edu. Application details.

PROFESSIONAL DEVELOPMENT

If you are traveling to SfN, check out the **SfN Satellite Symposium on Neurotechnology**

Hosted by: Japan Science and Technology Agency (JST), "Multisensing" CREST-Project.

Thursday 13 November - Friday 14 November 2025
Venue: Cortez Hill Room (3rd Floor), Manchester Grand Hyatt San Diego

Free Registration Link here.

Participate in Research: The MAEVE Study

Dr. Arpana Church, Associate Professor and BRI member, is recruiting participants aged 50+ with an immediate relative with Alzheimer's or dementia for the MAEVE Study—a year-long investigation of how dietary polyphenols from a Mediterranean diet may protect cognitive function and brain health. A traditional Mediterranean diet, rich in polyphenols (PPs), may prevent or delay the onset of cognitive dysfunction in older adults, preserving healthy brain structure and function, and lowering the risk of AD.

Participation involves four in-person visits (cognitive testing, blood draws, and brain MRIs). Interested in participating or willing to help promotoe recruitment?
Email: ChurchLab@mednet.ucla.edu

Get Involved with the BRI Community

Support Brain Awareness Week 2026
Join us in bringing neuroscience to life for students across Los Angeles! We're looking for passionate volunteers to help plan Brain Awareness Week 2026 — from coordinating school visits and interactive exhibits to creating hands-on neuroscience games and activities for K–12 classrooms.

Read about UCLA Brain Awareness Week.

Contribute to the BRI Newsletter Team
Help us capture the spirit of the UCLA neuroscience community! The BRI Newsletter Team is seeking contributors for research highlights, student spotlights, and creative design or style editing.

Whether you're a researcher, student, or science communicator, your voice can help inspire our growing community.

Interested? Contact vidyas@ucla.edu

ADDITIONAL BRI RESOURCES & WAYS TO GET INVOLVED!

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New UCLA Neuroscience Genomics Core. Services: Long-read sequencing, Spatial transcriptomics & Proteomics email Joe DeYoung at ungc.info@mednet.ucla.edu

BRI's shared equipment library—borrow, lend, & discover tools you didn't know you needed! BRI equipment-library

Looking for a scientific forum to exchange ideas? Explore BRI Affinity groups and Join our Integrative Centers

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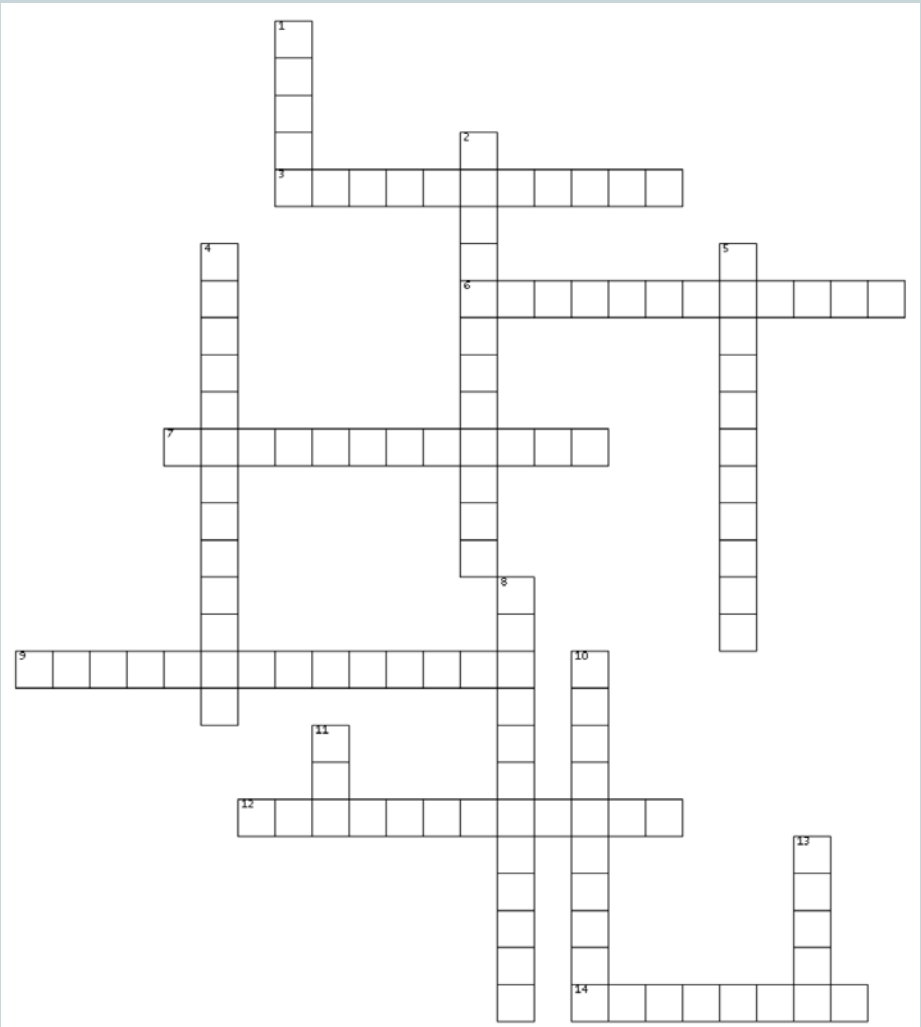
BRAIN PUZZLE



Use the clues to fill in the words above.
Words can go across or down.
Letters are shared when the words intersect

Answer key available at:

ACROSS

3. Molecular tag added to histones, shaping memory formation
6. Loops that sculpt decisions
7. Technique using light to control neurons
9. Cortical folding anomaly linked to epilepsy and developmental delay
12. Tiny messenger, big mood
14. Genetic disorder characterized by loss of UBE3A expression

DOWN

1. Brain area essential for speech production
2. Aggressive malignant brain tumor
4. Inability to recognize faces
5. Neural region first affected in Alzheimer's disease
8. Paralysis of all four limbs
10. Involuntary, repetitive movements due to basal ganglia dysfunction
11. Early marker of neurodegeneration detected via CSF
13. Rhythm big in hippocampal routes

“What you do makes a difference,
and you have to decide what kind of difference
you want to make.”

— Jane Goodall