### Our New Neighbor: PBS Welcomes the ILP



For several years, students, faculty, and staff at the Department of Psychological & Brain Sciences of UCSB have been watching and listening as a new neighbor rose from the ground. And with construction complete, UC Santa Barbara has a gleaming new building to show off to the community, and PBS, a brand new neighbor, one that immediately improved the department's teaching mission, and brought a level of joy and excitement to the campus. The newly completed Interactive Learning Pavilion (ILP) opened just in time for spring classes, with thousands of students and faculty already making themselves at home. It is the campus's first new classroom building in more than 50

years, and PBS, as one of the university's biggest majors, is one of its largest utilizers of the Pavilion, teaching many classes in Spring 2023.

The building provides roughly 2,000 seats of classroom space, increasing the university's capacity by 35%. These facilities will reduce student waitlists, increase flexibility

and improve access to classes students need to graduate in four years. "The Interactive Learning Pavilion has really changed how we are able to approach scheduling and management," said Registrar Anthony Schmid.

The ILP was designed with flexibility in mind and is fully equipped to support traditional lectures, hybrid teaching, group work and informal study. Five lecture halls occupy the first two floors, with capacities ranging from 180 to 350 seats. The upper floors feature 20 classrooms — which can each seat up to

30 students — along with three spaces for project-based learning and two group study rooms.

Professor Vanessa Woods, who is teaching Behavioral Neuroscience, Advanced Research Methods Laboratory, and Studying and Supporting University Learning in the ILP, noted, "As a teaching professor I design my courses with many opportunities for student engagement with other students and with myself. The layout of the rooms provide an ideal space to support engaged student learning activities and active teaching."

Undergraduate Senior Eliza Howard, a student in a PBS



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laboratory course, noted what it is like from the student's perspective to be within the modular laboratory environment: "I like how the tables are oriented to have a group of

Professor Hongbo Yu noted: "This Spring Quarter I taught Social Psychology for the first time. My uncertainty and nervousness of teaching a lower-division lecture, with 250 students, immediately went away when I walked into the lecture hall in ILP. Instead, my heart was filled with excitement and joy. The layout and the equipment in the lecture hall has made it so easy to engage with the students and to incorporate interactive learning elements in an otherwise lecture-heavy course."



Professor David Sherman, who teaches the Social Psychology Laboratory course in one of the modular teaching facilities, describes bounding up the large staircase to lecture, the theme from the Rocky movies echoing in his ears. He shared with his class a definition of pavilion on the first day in the new classroom as "a summerhouse or other decorative building used as a shelter in a park or large garden" which captures the relation of the building to the natural beauty of the UCSB campus. Moreover, he noted

students facing each other. I feel like it encourages more collaboration and has helped me meet people in class that I may not have talked to otherwise. I also like

that "the modular desks enable the students to work together in small groups collaboratively in a spacious and open environment."

Professor Tommy Sprague described the resources available within the ILP to transform lab courses in Biopsychology: "I've been in the lucky group of faculty able to use the problem-based learning classrooms in the newly-opened Interactive Learning Pavilion to teach an upper-level Biopsychology class where students con-

sider multiple behavioral and neural models of

working memory, a core cognitive function supporting goal-directed behavior. The class in its present form wouldn't be possible without

this excellent resource - each week, students work in small groups of 6-7 students to dissect the details of primary research articles and prepare short presentations for the entire class. I've been extremely happy with how well this has worked, and I believe the students have appreciated the interquestion-based activity and learning the classroom has enabled. In the future, I'm excited to further use the technologies available in the room to implement virtual "poster sessions"

the open layout of our classroom, it's easier to have whole-class discussions when you can see everyone and it's not just a row of heads in front of you.

where students can interactively explore and learn from one another around the room."

PBS Student Affairs Manager Chris McFerron summed up the positive impact of the new neighbor in town, the Interactive Learning Pavilion: "The new ILP building has brought desperately needed classroom space to campus with state-of-theart teaching technologies. It is the campus's first new classroom building in more than 50 years, and PBS, as one of the university's biggest majors, is one of its largest utilizers of the Pavilion, teaching 11 classes and 12 sections in ILP, for a total of 1919 students' classes in Spring 2023. The building offers new and innovative ways of teaching and engaging with students, not to mention the beautiful design and amazing views. Students have even told advisors "I chose this class because it was in the new ILP and the other course was not."

Adapted from original article by Harrison Tasoff https://www.news.ucsb.edu/2023/0 20896/interactive-place-learn



Graduate Student Connor Gibbs preparing for class in ILP.

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### **FACULTY TRIBUTE**

### Professor Mike Gazzaniga Retires

In 1967, the Department of Psychology (long before it was renamed Psychological & Brain Sciences) hired a young, hotshot psychobiologist from the California Institute of Technology. As Emeritus Professor Jerry Jacobs recalls of the time, this new player entered the arena with all the confidence of youth, asserting that his goal was to crack the brain code. That was quite an ambitious claim at the time—but not *totally* unreasonable from a young neuroscientist who had already shaken up our foundational assumptions about the mind and brain. It began with a simple surgical intervention used to treat intractable epilepsy: a single cut that separated the left and right hemispheres of the brain. But few could have anticipated that these innocuous halves of tissue would each seem to house their *own minds*. Except, of course, for this young assistant professor, who just one year after being hired was promoted with tenure and named chair of the department. His name is Mike Gazzaniga.

In another world, the story of UCSB and Mike Gazzaniga may have ended there. New York University eagerly sought his talents and recruited him away the following year. For him, however, it was just the start of a long and illustrious career that included moves to State University of New York at Stony Brook, Cornell University Medical School, Dartmouth Medical School, University of California, Davis, and back to Dartmouth College. At each step along the way,



Professor Mike Gazzaniga

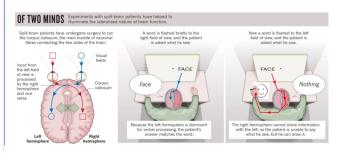
Professor Gazzaniga continued to transform our understandings of hemispheric specializations and the relationship between the mind and the brain. And on July 1, 2023, after 56 years as a professor, the last 17 of which have been at UCSB, Mike Gazzaniga will retire.

From his beginnings as a young undergraduate student at Dartmouth College, Gazzaniga aspired to join the lab of future Nobel Laureate, Roger Sperry, after learning about his work with split-brain patients. The prevailing wisdom at the time was that—while the surgery was effective at reducing the patients' seizures—it seemed to have no effect on their behavior or cognition. But the young Gazzaniga was eager to test these patients himself with some new lateralized procedures that he had begun to conceive in the previous years. He wrote directly to Dr. Sperry about his ideas and aspirations, and Dr. Sperry took him on as a graduate student. As his future labmate and fellow neuroscientist Mitch Glickstein said, "It wasn't just ambition, it was something else—he was gutsy."

In those first studies in Sperry's lab, Gazzaniga rapidly put his ideas to work, demonstrating the now-famous disconnection effect: the remarkable phenomenon where two distinct minds emerged from a severing of the corpus callosum, disrupting the brain's ability to communicate between hemispheres. For example, when Gazzaniga placed common objects (a pencil, cigarette, ring, hat, glasses, etc.) in the right hand of a blind-folded split-brain patient, he could easily name those objects—the sensation of holding these items traveled exclusively from the right hand to the left hemisphere, with a specialized property allowing it to produce spoken language. But when he placed those same objects in the left hand, meaning that the sensation now traveled to the non-speaking right hemisphere, the patient could manipulate and correctly use those objects—but he could no longer name them. His speaking left hemisphere had no idea what he was holding in his left hand, even though the hand itself knew what to do with them.

Many years later, now as an Associate Professor back at Dartmouth College, Professor Gazzaniga conducted another famous experiment with his graduate student Joseph LeDoux. It was a clever experiment in which pictures of common objects were displayed in front of the patient. His left hemisphere was then shown a picture of a chicken claw, while his right hemisphere was shown a picture of a snow scene. He was then asked to point with both hands to the object that was associated with what he saw. His right hand, controlled by the left hemisphere, pointed to the chicken, while his left hand, controlled by his right hemisphere, pointed to a snow shovel. When asked why he pointed to those two objects, his speaking left hemisphere instantly replied that he pointed to the chicken because he saw a chicken claw, and that he pointed to the snow shovel because "you need a shovel to clean out the chicken shed." His left hemisphere had no awareness that his right hemisphere saw a snow scene which prompted his left hand to choose a shovel, but the speaking left hemisphere wasted no time concocting a story that made sense of that action. As Professor Gazzaniga would later explain, we have this specialized system in the left hemisphere, which he dubbed "the interpreter," that instantly rationalizes our behavior, fills in the missing pieces of our perception, and creates a unified narrative of our lives. This remarkable discovery offers a unique glimpse into the nature of consciousness.

### **FACULTY TRIBUTE**



Description of split-brain patient research (image from Nature, March 14, 2012).

like fMRI, it was a heady time to be in the field.

But Professor Gazzaniga's career is not just defined by his extraordinary vision and work as a researcher: it is also defined by a man who had a grand vision, and a plan to carry it out, for a whole new field of study. He recognized early on that a scientific field needed to be created to merge the framework of neuroscience and the theories of psychology. He called this new field of study "cognitive neuroscience." With the support of his colleagues, he started by obtaining funding from the McDonnell Pew Foundation, establishing the Cognitive Neuroscience Institute, followed by the Journal of Cognitive Neuroscience and the Cognitive Neuroscience Society. In the 1990s, he began the Summer Institute in Cognitive Neuroscience which became a rite of passage for almost all cognitive neuroscientists. Along with emerging technologies

"Being a graduate student in Professor Gazzaniga's lab during this time was an amazing experience," says Professor Michael Miller, former graduate student of Gazzaniga's at Dartmouth College and now his colleague at UCSB. "He has this unique combination of joy for big, novel ideas, an insatiable curiosity, and a magnetic and affable personality. And he was so accessible on top of all of that. People just want to be around him. Being in that lab was like being in the center of the cognitive neuroscience universe. But what I appreciated the most about him was how caring and giving he was toward everybody in his lab."

In the early 2000s, the PBS department here at UCSB, then under the leadership of Department Chair Jim Blascovich and others, decided to branch out into this new field and hire a cluster of cognitive neuroscientists. They first hired Michael Miller (yes, the same) in 2002, followed shortly by Barry Giesbrecht, and then, eventually, hiring Scott Grafton to run the new Brain Imaging Center. But the *coups de grace* was in 2006 when the department hired the founder of cognitive neuroscience himself—and their former chair from 40 years ago—Mike Gazzaniga. In coming back to UCSB, Professor Gazzaniga agreed to be the first director of the newly-established Sage Center for the Study of the Mind. Over the next 17 years, the Sage Center has attracted some of the best minds across many disciplines, coming to our campus to spend time and to engage in thoughtful discussion about a profound breadth of topics beyond the nature of the mind itself, largely due to the magnetism and intellectually engagement of Professor Gazzaniga. His impact on the department and the campus has been transformative.

Chancellor Henry Yang noted, "Dr. Gazzaniga is a groundbreaking visionary whose work in the area of cognitive neuroscience has accomplished landmark achievements in psychology. For almost two decades, he has led with distinction our pioneering, interdisciplinary SAGE Center for the Study of the Mind, and has elevated the prestige of our Department of Psychological and Brain Sciences and been instrumental in its growth.



Professor Gazzaniga with two of his post-docs, John Sidtis and Jeffrey Holtzman, at Dartmouth College in a van he outfitted to test split-brain patients at their homes (photo from the NY Times 10/31/2011)

"I still remember my first meeting with Mike more than 20 years ago (October 5, 2001). Mike shared with me his vision for creating a center for the study of the mind, and the importance of building a space to house a fMRI facility. His forward-thinking vision inspired me that he was the kind of world-class scientific leader our campus was looking for.

"In 2001 we received state funding of \$11 million for renovation of the old psychology building and the building addition. During the spring of 2002, I went to Sacramento many times to see the chair of the Budget Committee of the Assembly, alumnus Tony Cardenas, for help with the UC budget. Finally, in



Mike Gazzaniga at Cal Tech with one of the first tachistoscopes used to lateralize visual stimuli to a single hemisphere

the fall of that year, UCOP gave special approval of our additional request to add \$2.3 million for the basement for the fMRI. In March 2004 we had our groundbreaking ceremony on the \$14million building project, and in Summer 2006, we moved in – with Mike successfully recruited as of Director the SAGE Center for the Study "His move to UC Santa Barbara was discussed the world over – when I traveled to Japan, Jerusalem, and beyond. It seemed the farther I traveled, the more I heard about him. He is the epitome of 'world-renowned.' His unparalleled scholarship and inspirational leadership have brought our campus to the forefront of the field, and helped us attract the best and the brightest. How fortunate we are that his name, research, reputation, and impact will forever be linked with our campus."

### **FACULTY TRIBUTE**

Over the course of his career, Professor Gazzaniga has trained 17 graduate students and 34 post-doctoral trainees, as well as 12 Sage Junior Fellows at UCSB. He has published more than 320 journal articles, reviews and chapters, and more than 40 books, textbooks and edited volumes. His most recent book was published in 2018, entitled *The Consciousness Instinct: Unraveling the Mystery of How the Brain Makes the Mind.* The Summer Institute in Cognitive Neuroscience, which he started at UC Davis in 1989, has been held at UCSB for over 12 years. He has an endless list of honors and awards throughout his career. When he arrived at UCSB, he was in the middle of serving a 7-year appointment on the President's Council on Bioethics. In 2009, he was invited to give the prestigious Gifford Lectures at the University of Edinburgh. And in 2011, he was elected to the National Academy of Sciences.

Mike Gazzaniga and cognitive neuroscience will always be synonymous. And the Department of Psychological & Brain Sciences has been thrilled to be along for the ride. While we look forward to many more joyful and enlightening engagements with Professor Gazzaniga for the foreseeable future, we also wish him a very well-deserved and happy retirement.

### **RESEARCH SPOTLIGHT**

### Professor Hongbo Yu Launches 'Emotions In History' Focus Group

Professor Hongbo Yu, along with UCSB History Professor Ya Zao launched the "Emotions in History" Research Focus Group to create a space where scholars can cross disciplinary lines and together investigate emotions in the human past. Led by a historian and a psychologist, the group aims to bring into dialogue two cutting-edge subfields—the history of emotions and historical psychology—and foster genuine collaboration among scholars who study the humanities, social sciences, neuroscience, and digital methods. The group aspires to facilitate inclusive and probing methodological conversations on how humanists can contribute to assessing human emotions, how psychologists can add historical nuance and depth to their inquiries, and how we can generate truly interdisciplinary research in a joint effort.



Professor Hongbo Yu

Historians and psychologists share a fundamental belief in the cross-cultural variation of emotions. The primary charge of Emotions in History is to extend cross-cultural reach and contribute to the increasingly global prospect of studying emotions. Contra conventional wisdom, emotions are neither constant nor universal across time and space; instead, they are systematically shaped by social and cultural environments. Nevertheless, the anglophone academy today still largely focuses on the global north. The new group proposes to systematically introduce Chinese materials



as a corrective to the West-centric orientation, with the expectation to foster comparative discussions by incorporating colleagues who study a variety of geo-cultural communities.

Another charge of the Emotions in History group is to identify new historical sources able to yield quantitative data. This is a critical place where history meets psychology and interdisciplinarity is in action. As Dr. Yum, who joined the faculty of PBS in 2019 and directs the Yu Emotion Science (YES)

lab put it, "the goal is to explore digital methods able to facilitate the construction of structured databases." For that purpose, the group has organized workshops on digital methods and invite humanists and social scientists alike to share their experiences with data processing. Additionally, the group has organized two public virtual talks, where a prominent scholar of history of emotion (Dr. Rob Boddice, Academy of Finland) and a historical psychologist (Dr. Joshua Jackson, University of Chicago) talked about their journey to the boundary between history and psychology. The group is joined by a robust body of faculty and graduate students from six departments, hoping to expand our reach across and beyond campus in years to follow. The ultimate goal is to make UCSB a new center for interdisciplinary studies of emotions.

Adapted from: https://ihc.ucsb.edu/emotions-in-history/

# Professor Nicole Albada and colleagues establish the UCSB Center for Longevity and Aging Studies

A few years ago, a Prudential billboard declared "The First Person to Live to 150 is Alive Today." Given recent breakthroughs in the science of aging and longevity, these words may one day amount to more than an advertising pitch for retirement savings. A major new research center at UC Santa Barbara, the <u>Center for Aging and Longevity Studies (CALS)</u>, which will be showcased to the public in April, is working to make this alluring message a reality.

This inauguration of California's newest research center devoted to the science of healthy longevity is motivated by recent discoveries revealing how time drives the inexorable process of aging and how its effects can be dramatically delayed. These breakthroughs, including ongoing research in CALS laboratories, mean that we may soon be able to extend the period of youthful vibrancy during the arc of life, and perhaps quite substantially.

Soaring medical costs are disproportionately attributable to age-related illness. "A major driver of biological research in CALS is understanding how to extend human healthspan, the period of life in which we abound with vitality," noted <u>Joel Rothman</u>, the director of CALS and a professor of biology. "It is likely that a large number of age-related diseases could simultaneously be reduced or eliminated in a single stroke simply by slowing the biological aging clock."

Even more boldly, CALS scientists are exploring the possibility of reversing aspects of the aging process. Indeed, the basis for F. Scott Fitzgerald's tale of Benjamin Button, who becomes progressively younger as the years go by, may not be a concept of pure fiction. Rather, Rothman cites recent findings, including by CALS researchers, that "raise the possibility of not only extending, but perhaps even reclaiming, some of the vigor of youth after it has slipped away."

These remarkable advances, and the public launch of CALS, will be celebrated at a special grand opening event Thursday, April 6, on the campus of the Music Academy of the West featuring a discussion by one of the world's leading experts in aging and longevity research, Dr. Cynthia Kenyon, VP of Aging Research at Google's Calico, LLC. Dr. Kenyon's research led to the stunning discovery that our genes drive the machinery of the biological aging clock, which can be slowed, resulting in pronounced

Professor Nicole Albada

extension of the youthful phase of life. The event will also include a musical interlude introduced by Maestro Nir Kabaretti of the Santa Barbara Symphony and performed by members of the Symphony.

As California's newest center devoted to aging and longevity research, CALS brings together 28 UCSB faculty and research groups from 15 departments and units that reach across biology, technology, psychology, communication and sociology. CALS researchers have a personal interest in this rapidly advancing science, said Rothman, adding that "as my eligibility for senior discounts has expanded, so has my stake in slowing the pace at which the inevitable depredations of age approach."

Professor Nicole Alea Albada, CALS Director of Education and Outreach, notes that CALS also promotes education in the issues of aging and longevity by "cultivating the next generation of scientists, entrepreneurs and healthcare professionals both through development of new courses and research experiences." These activities include a Careers in Aging event.

CALS provides a vital focal point for connections with the wider community. "The center is a resource for the Central Coast region on all things relating to the effects of aging on our community members and its impact on society overall," Albada explained. This includes, for example, a year-long public lecture series, "Aging in America," coinciding with the launch of CALS.

Given accelerating research discoveries from CALS and the worldwide scientific community, it may not be too early to start thinking about the savings that you'll need for a much longer retirement than you may have planned for.

Adapted from original article by Sonia Fernandez: https://www.news.ucsb.edu/2023/020853/toward-long-and-vibrant-life

### Most of What You Know about Body Language is Wrong

You've heard the come-ons. Signs that your partner is cheating! Seven ways to master the hidden language of power! Experts reveal what Harry and Meghan's body language says about their marriage! Anywhere you go these days—in the popular press, on TikTok and Instagram and Facebook, on YouTube—you're told that people's subtle faces and body movements give them away.

Is there any truth to this?

Professor Alan Fridlund, Miles Patterson, and Carlos Crivelli combined have spent more than 100 years working in the field of Nonverbal Communication (NVC). It's a fascinating area, chock-full of interesting findings. Unfortunately, it's sometimes

hard to tell the science from the pseudoscience, and often it's the pseudoscience that grabs more clicks. We felt it was time to set things straight.

### There Really Isn't Such a Thing as "Body Language"

Can people's posture, gaze, touch, tone of voice, and faces tell you what they *really* think or feel? A whole industry pushes the idea that "you can see it in their body language," when "it" can be whether people love or hate us, or whether they're interested customers, innocent defendants, or international terrorists.

Are there any reliable cues? If there truly were a body language, it would operate like a language! In language, words have fairly precise meanings. "Lava" is molten rock spewed by volcanoes, and "eat" means putting food in our mouths. The words can also be assembled to state facts, like "Aardvarks are quadrupeds."



Professor Alan Fridlund

In NVC, though, things are different. Outside of gestures like OK signs and extended third fingers, there aren't the kinds of precise meanings we see in language. If you ask a friend about the weather outside and she scowls, her face may mean that: (a) it's lousy outside; (b) it's so lousy outside that it is ridiculous to ask; or (c) she's still upset from the argument yesterday and the last thing she wants to do is talk to you, especially about the weather. Which one is it? We could look for other nonverbal clues, but the kicker is that we usually have to use language—a real language—to be certain: "Hey, what's with the face?"

#### We Don't Have a Stable Personal Space

We get upset when others don't "give us our space." The idea that we have a stable, insulating personal space that we defend from invaders is appealing, but we defy it all the time! People allow friends closer than strangers and children closer than friends. With romantic partners, the preference is often no space at all. A close approach can be intimate in one context and sexual harassment in another. With your children you treasure closeness, but when they misbehave you're happy—temporarily!—to have them out of sight. And the boundaries set with others depend not only on distance, but on the gaze, body orientation, posture, and faces exhibited during the interaction.

Physical closeness doesn't imply emotional closeness though, and this is revealed by electronic media. What do you make of two people, sitting a few seats apart in a coffee shop, each on a video call with others halfway across the world? Who is closer to whom?

#### **Our Faces Don't Read Out Our Inner Emotions**

How about those posters on every preschool wall showing cartooney faces with words like "Happy," "Sad", "Angry" and "Scared" underneath? Certain faces, everybody's been taught, mean that the people making them are feeling specific emotions. But is that true? Of course not. It makes a difference whether a big smile comes from a child at a birthday party or a

scammer after someone's money. A person who approaches you with a tearful pouty face to announce "My child has cancer" may make the same face the next week and say, "She doesn't have cancer after all!"

If faces don't generally express inner emotion, what do they do? If you ask someone, "How was the movie?" and he smiles, the smile is about the *movie*. Most of the time, faces are *about things*—things you know, things you want, things you want from others. The so-called "angry" face on the posters signals others to fess up or leave, the "sad" face gets support and hugs, the "scared" face says "I give up." And people in diverse societies make diverse faces, in ways very different from those preschool posters.

### You Can't Tell When People Are Lying from Their Bodies or Their Faces

You know the phrase "The body never lies"? Well, that's a lie, but one reason people cling to it is because the truth about lies leaves them feeling so vulnerable. As NVC research has shown for decades, there are no telltale nonverbal signs of lying. Yes, people may fidget, blink more or less, avert their eyes, twitch their lips or noses, stammer, and make fleeting facial "microexpressions," but these are all signs of stress, *not lying*. People may be giving off these signs *while* they are lying but it's not because of it.

And you might think that guilty people would be more stressed than innocent ones, but often that's not true. An inveterate liar may be far less stressed about being accused yet again. Innocent people may suffer overwhelming stress not because they are lying, but because they fear being wrongly accused of it, resent the fact that they are suspected of it, or are simply fraught at being put on the spot about it.

#### **Context and Culture Matter**

So what does nonverbal behavior tell you? As we hope we've made clear, *it depends*. You can only make sense of people's nonverbal behavior when you understand who the interactants are, what setting they're in, what they're saying to each other, and what culture they're from. The stakes are high—in relationships, in the boardroom and courtroom, in international affairs—when people cave to the simplistic pseudoscience on "body language."

Who said this was going to be easy?

Article by Alan Fridlund, Miles Patterson, and Carlos Crivelli. Adapted from: https://spsp.org/news/character-and-context-blog/fridlund-patterson-crivelli-body-language-misconceptions



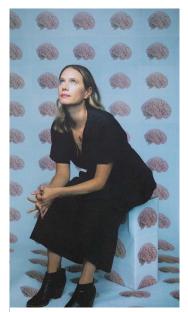
# Professor Emily Jacobs to lead new Ann S. Bowers Women's Brain Health Initiative at UCSB

Much of Emily Jacobs' research focuses on how sex hormones — estrogen, progesterone, testosterone — affect the brain. Where are they acting? On what circuits? And over what time span?

She studies these changes in both men and women, but Jacobs, a neuroscientist, and a professor of psychological and brain sciences, is keenly aware that the female brain has, historically, been overlooked.

"Most of what we know about health and disease is centered on the male body," Jacobs says. "Science and medicine have been fearful of women's bodies for millennia. This dates back to Hippocrates, who suggested that a woman's 'wandering womb' was to blame for any ailment she was suffering from. You can see traces of these myths today."

These myths persist not out of willful ignorance or malice, Jacobs posits, but due to a lack of representation. "Neuroscientists know little of how menopause, pregnancy, the menstrual cycle and hormone-based medications influence the brain," she says, "despite a growing awareness that gonadal hormones are critical neuromodulators of learning and memory."

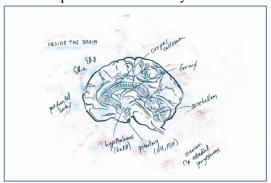


**Professor Emily Jacobs** 

Could it be, she asks, that male scientists don't think about the female body and brain because it is not central to their everyday lives? Jacobs has sought to correct this imbalance, pursuing studies that focus specifically on the brain during menopause, the menstrual cycle and pregnancy.

Therein lie the twin themes of her life: the power of scientific inquiry and the power of the female perspective. In all that she does, Jacobs puts women — their lived experiences, their health, their biology — at the forefront.

"For me and my lab," she says, "shining a floodlight on women's brain health motivates everything that we do." Named one of 10 scientists to watch by Science News in 2022, Jacobs, with her lab at UC Santa Barbara, is now leading a multicampus initiative to study female brain health, in partnership with UC Berkeley and UC Irvine.



The project, the Women's Brain Health Initiative, will pool data across several UC brain imaging centers to answer a large range of questions about how reproductive factors (such as the use of hormonal birth control or an irregular menstrual cycle) might shape the brain.

Jacobs says, "It all stemmed from a conversation with a postdoctoral scholar," who approached Jacobs in hopes of studying the impact of hormonal birth control on the brain. After realizing that no large, systematic study had been conducted on the topic, Jacobs, acutely aware of the biases women face in the biomedical sciences, was irked — and inspired.

"Our hands were forced," she says, "so we set out to create a large-scale brain initiative that was unabashedly, unapologetically for women's health."

After a successful pilot program, and with funding from the Noyce Trust and UC Partnerships in Computational Transformation, the Women's Brain Health Initiative is poised to roll out across UC campuses. Female participants who come in for brain scans will be given detailed health history questionnaires, further boosting the strength of the imaging data already being collected. Jacobs and her team will then use that data to answer any number of unique questions about how hormonal factors affect the female brain.

"I have always been drawn to the tools of science," says Jacobs, reflecting on what drives her to keep searching for solutions, "but the motivation to answer these questions comes, I suppose, from being raised in a feminist family, and

realizing early on that I could use the tools of science to drive discoveries for women who have historically lacked that support."

"I don't think any other university in the world could do this the way that the University of California can," Jacobs adds of the Women's Brain Health Initiative. "UC brain imaging centers generate data from 10,000 participants annually. By harnessing that power and integrating neuroscience discoveries across campuses, we can usher in a new era of women's brain health research."

And it comes none too soon, she says. "We are decades behind where we should be in research into women's health," Jacobs says, "in part because we haven't done the work necessary to hire, sustain and support women in senior scientific positions."

Research backs up this assertion. A 2018 study published in *JAMA Neurology* found that 86% of tenured neuroscience faculty are men and the gender imbalance grows as scholars move up the academic ranks.

Part of this imbalance stems from a system that does not adequately support caregivers at critical junctures in their academic careers. According to a recent report in Nature, half of all female scientists in the United States leave full-time science after having their first child.

"To be clear," Jacobs says, "women aren't leaving science because they're not good enough for the job. They may be leaving because the job is not good enough for them. What are the chances that a major scientific breakthrough will occur when you cut your pool of highly trained scientists in half?"

In addition to her research, Jacobs' advocacy work is focused on changing these tides. Her lab regularly partners with K-12 groups in Santa Barbara to advance girls' representation in STEM fields. She's even worked with members of Congress to advocate for sustained federal funding for women's health research.

Carving out her own niche in a traditionally male-dominated field, Jacobs has become a pioneer by ensuring that all of the spaces she leads serve the needs of women first. "I hope in my lab that I can signal a way to do good science while recognizing that this is one very enriching part of our life," Jacobs says, "but it is not the whole piece."

Adapted from original article by Nora Drake: https://magazine.ucsb.edu/fall-winter-2022/women-first

### **RESEARCH SPOTLIGHT**

# Professor Ikuko Smith Awarded Prestigious NIH Grant To Elucidate Mechanisms Of Dendritic Integration

Psychological & Brain Sciences Prof. Ikuko Smith has just been awarded a prestigious \$1.825 M grant from the National Institute of Health to understand precisely how dendrites integrate information. Her highly innovative project will examine how neuronal dendrites process information (including their role in filtering, amplifying, and integrating electrical signals) using *in vivo* cortical circuit activity in mice. Dendrites can fire electrical spikes much like axons, a mechanism which potentially underlies information processing at the subcellular level. With the support of this award, her team will measure and compare the level of membrane depolarizations and calcium activity within different neuronal compartments—from spines, dendrites, to soma—to quantify their amplification and strength of influence on neuronal output. To accomplish this methodological feat, Dr. Smith will use a custom two-photon microscope that



Professor Ikuko Smith

was specifically designed for this research. Findings from the study will not only contribute to our basic understanding of the computational capacity of a single neuron but will also aid in our understanding of subcellular dysfunctions in a range of neurological diseases, including Alzheimer's and Parkinson's disease, which are known to exhibit dendritic pathology.

# A Clear Vision: Professor Michael Beyeler receives \$1.5 million NIH Director's New Innovator award to enable a smart bionic eye

Good vision is essential to everyday living, yet approximately 12 million Americans aged 40 and over live with vision impairment, including 1 million who are legally blind, according to the Centers for Disease Control and Prevention. Although some affected individuals can be treated with surgery or medication, and recent advances in gene and stem cell therapies are showing promise, no effective treatments exist for many people who are blinded by severe degeneration of, or damage to, the retina, the optic nerve or the cortex. In such cases, an electronic visual prosthesis, or bionic eye, may be the only option.

Michael Beyeler, an assistant professor in the Psychological & Brain Sciences and Computer Science departments at UC Santa Barbara, aims to bring to the mainstream an AI-powered bionic eye that can generate artificial vision, in an effort to increase the quality of life for patients who are blind or visually impaired.

Professor Michael Beyeler

"I envision a smart bionic eye that could find misplaced keys on a counter, read out medication labels, inform a user about people's gestures and facial expressions during social interactions, and warn a user of nearby obstacles and outline safe paths," he said.

For his project, "Towards a Smart Bionic Eye: AI-Powered Artificial Vision for the Treatment of Incurable Blindness," Beyeler has been selected for a National Institutes of Health (NIH) Director's New Innovator Award. The five-year, \$1.5 million grant was one of 103 awarded this week by the NIH to enable exceptionally creative early-career scientists to push the boundaries of biomedical science and pursue high-impact projects that aim to advance knowledge and enhance health.

"I offer my sincerest congratulations to Professor Beyeler for having his innovative research recognized with the prestigious NIH Director's New Innovator Award," said Tresa Pollock, the interim dean of the College of Engineering and Alcoa Distinguished Professor of Materials. "His novel approach of using recent advances in computer vision, AI and neuroscience has tremendous potential to uncover new knowledge and provide millions of people with useful vision through a smart bionic eye."

"I am tremendously honored and excited to be given this award," said Beyeler, who has previously received the NIH Pathway to Independence Award. "As part of the NIH's High-Risk, High-Reward Research program, this award will allow my group to explain the science behind bionic technologies that may one day restore useful vision to millions of people living with incurable blindness."

Bionic eyes, as we know them, transform light, captured by a head-mounted camera, into electrical pulses that are delivered through a microelectrode array implanted in the eye or the visual cortex, which is then interpreted by the brain as visual perceptions, or phosphenes. Although current devices generally offer an improved ability to differentiate light from dark backgrounds and see motion, the vision they provide is blurry, distorted and often hard to interpret.

A major challenge for scientists trying to develop visual prosthetics is thus to predict what implant recipients "see" when they use their devices. Instead of seeing focal spots of light, current retinal-implant users perceive highly distorted phosphenes that often fail to assemble into more complex objects of perception. Consequently, the vision generated by current prostheses has been widely described as "fundamentally different" from natural vision, and does not improve over time.

Beyeler takes a different approach. Rather than aiming to make bionic vision as natural as possible, he proposes to focus on how to create practical and useful *artificial* vision that would be based on artificial intelligence (AI)-based scene understanding and be tailored to specific real-world tasks that affect a blind person's quality of life, such as facial recognition, outdoor navigation and self-care.

His novel, multidisciplinary strategy for this project will investigate the neural code of vision, studying how to translate electrode stimulation into a code that the human brain can understand.

"We want to address fundamental questions at the intersection of neuroscience, computer science, and human-computer interaction to enable the development of a Smart Bionic Eye, a visual neuroprosthesis that functions as an AI-powered visual aid for the blind," said Beyeler.



To enable a technology that provides cues to the visually impaired, much as a computer vision system talks to a self-driving car, Beyeler must first understand how visual prostheses interact with the human visual system to shape perception. He said that a common misconception in the field is that each electrode in a device's microelectrode array can be thought of as a pixel in an image, or a minute area of illumination on a display screen, and that to generate a complex visual experience, one simply needs to turn on the right combination of pixels. His research shows, however, that the visual experience provided by current prostheses is highly distorted and unrelated to the number of electrodes.

"Current devices do not have sufficient image resolution to convey a complex natural scene. Hence, there is a need for scene simplification," Beyeler said.

One way to simplify the visual scene and create useful artificial vision, according to Beyeler, is through deep-learning-based computer vision, which can be used to highlight nearby obstacles or remove background clutter. Computer vision is a field of AI that enables computers and systems to derive important information from digital images, videos and other visual inputs — and take actions or make recommendations based on that information. Computer vision relies on cameras, data, and algorithms, rather than retinas, optic nerves and a visual cortex.

He said that his project will be patient-centric, involving people at all stages of the design process to test out his group's theoretical predictions. The patients will be provided by his collaborators at four universities across the country and in Spain. Beyeler's team will design experiments that probe an implant's potential to support functional vision for real-world tasks involving object recognition, scene understanding and mobility. This method strays from the typical vision tests performed in clinics that measure acuity, contrast sensitivity and orientation discrimination.

Due to the unique requirements of working with bionic-eye recipients, such as constant assistance, setup time and travel, experimentation remains time-consuming and expensive. Beyeler proposes an interim solution.

"A more cost-effective and increasingly popular alternative might be to rely on an immersive virtual reality (VR) prototype based on simulated prosthetic vision (SPV)," Beyeler explained.

The classical SPV method relies on sighted subjects wearing a VR head-mounted display (HMD). The subjects are then deprived of natural viewing and allowed to perceive only phosphenes displayed in the HMD. This approach enables sighted participants to "see" through the eyes of the bionic-eye user as they explore a virtual environment. The visual scene can then be manipulated by researchers according to any desired image-processing or visual-enhancement strategy.

"The challenge in the field is less about dreaming up new augmentation strategies and more about finding effective visual representations to support practical, everyday tasks," said Beyeler. "This is why, in my project, we utilize a prototyping system that allows us to explore different strategies and find out what works before implanting devices in patients."

In the future, he said, the Smart Bionic Eye could be combined with GPS to give directions, warn users of impending dangers in their immediate surroundings, or even extend the range of visible light with the use of an infrared sensor, providing what he describes as "bionic night-time vision." But before any of that can happen, Beyeler said, the fundamental scientific questions must be addressed.

"Success of this project would translate to a new potential treatment option for incurable blindness, which affects nearly 40 million people worldwide," said Beyeler, who plans to make all of his group's software, tools and deidentified data available to the scientific community. "Overall, this will be a fantastic opportunity for my lab to contribute substantially in the field of sight restoration and make a difference in the world."

Adapted from original article by Andrew Masuda. https://www.news.ucsb.edu/2022/020732/clear-vision

### **RESEARCH TALK SPOTLIGHT**

### "BLOOD, SWEAT AND TEARS" SAGE TALK

We are delighted to feature an article by Robert Bernstein, who is a Visiting Scholar in the META (Memory, Emotion, Thought, Awareness) lab directed by Professor Jonathan Schooler. Robert Bernstein is a regular attendee of talks on campus and wrote the below summary of a SAGE Center talk for EdHat, a Santa Barbara publication, by neuroscientist Noam Sobel. This talk had been on hold for three years, due to COVID. The full article, including photos taken by Robert Bernstein of

Dr. Sobel's slides from the presentation is listed below the following

article excerpt.

"The UCSB SAGE Center for the Study of the Mind promotes the study of the relationship between brain, mind and behavior." We are privileged to have them here for the quality of the speakers they are able to bring.

On February 9, 2023, I attended their talk "Blood, Sweat and Tears: Human Social Chemosignaling in Health and Disease" by neuroscientist Noam Sobel of the Weizmann Institute of Science in Israel. That is also the title of his new book.

We think of humans as being very visual as our most refined sense and often think of our sense of smell as not very well developed or

important. COVID was certainly a wake-up call of the importance of our sense of smell (olfaction) as millions of Americans lost this sense, at least temporarily.

In fact, the human sense of smell is outstanding. Sobel said that it is better than most terrestrial mammals and better than any machine. Mercaptan is a foul-smelling gas that is added to natural gas so that we can detect its presence. We can detect less than one tenth of one part per trillion! Equivalent to one drop in two Olympic sized pools!

A 1986 cover of National Geographic showed a dog tracking a dead pheasant that had been dragged across the ground. It turns out humans can also track such a subtle fragrance if they bother to try. They just need to put their nose near the ground.

Dr. Sobel cited a research paper "Mechanisms of scent-tracking in humans" by Jess Porter (and others, including Sobel). Published in Nature Neuroscience in 2007, the researchers discovered that having two nostrils is important for human tracking ability.

We think of dogs as the prime example of an animal that is olfactory-centered. We see dogs sniff each other. But we also sniff our babies and our partners. But not strangers. Or do we?

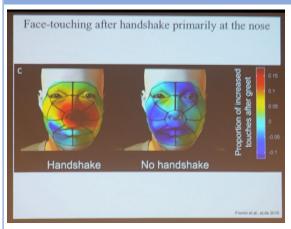
He showed some images of famous people meeting and seeming to get in sniffing distance of each other.

But he went on to show another way we sniff each other that is far less obvious. It starts with a handshake!

Shortly after this photo was taken of Angela Merkel shaking Putin's hand, Dr. Sobel noted that Merkel placed her hand near her face. It may be totally unconscious, but this is common behavior, once you know to look for it!



### **RESEARCH TALK SPOTLIGHT**



And humans are very good at detecting fragrances transferred by a handshake.

We also sniff ourselves, Dr. Sobel claimed. What messages are exchanged? What bodily sources? It is right there in the title of his talk and book: Blood, Sweat and Tears.

Why do we tear up at all? This is actually poorly understood. Darwin wrote about "Suffering and Weeping" in Chapter 6 of his book "The Expression of the Emotions in Man and Animals". Also in that book Darwin noted that our facial expression of disgust is the same as if we were spitting something out. We use the same expression for moral disgust.

Sobel cited a study where tears were collected for study. This is not an easy study to do! There was a gender bias as most of the volunteers were women. They were able to collect one milliliter of tears in fifteen minutes.

Tears are odorless to our conscious sense of smell. But sniffing tears has a powerful effect. The study showed a 10-15% drop in male testosterone levels from sniffing tears. But they must be fresh. Frozen and thawed does not work!

Sobel went on to talk about the "smell of fear". It really is a thing. They get people to do scary things like jumping from a plane and collect their sweat. Subjects smelling this later have a Galvanic Skin Response as if they are feeling that fear. Fear is literally contagious this way.

Interestingly, people with autism have the opposite response! This could actually be used to diagnose autism.

Sobel finished up with a final question about how odors may relate to reproduction.

He talked about the Margaret Bruce Effect with mice reproduction, published in 1959.

Female mice will self-abort their pregnancies if they smell a male mouse that is not the father of the mouse they are carrying! This happens 80% of the time. Some researchers are theorizing that something similar could

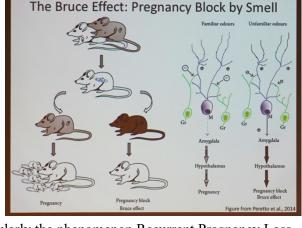
be happening with unexplained spontaneous abortions in humans. Particularly the phenomenon Recurrent Pregnancy Loss (RPL). This is defined by two or more failed pregnancies and is considered distinct from infertility.

Sobel then took some questions. I asked about this claim: If a woman goes on or off of birth control pills, her attraction to her partner's body odor can change. He said that is true. It can be a real problem! A couple might decide to have a child. The woman stops taking the pill and can become less attracted to her partner. There is no good theory for this.

I also asked if there is any idea what specific compound is involved in these different effects with tears and sweat. He said that millions have been spent on trying to find the answer, with no answer found so far. He said it is a very difficult problem to solve.

To learn more about the SAGE Center for the Study of the Mind and to see what events are coming up, please visit their web site at https://www.sagecenter.ucsb.edu/

Adapted from original article by Robert Bernstein. https://www.edhat.com/news/blood-sweat-and-tears-sage-talk





### **NEW FACULTY PROFILE**

### **NILS REIMER**

Nils Reimer is a new Assistant Professor in Psychological & Brain Sciences. Nils received his D.Phil. (Ph.D.) in Experimental Psychology (2019) from the University of Oxford and received the 2019 Early Career Award from the Social Psychology Section of the British Psychological Society. *Inside Psychology* was excited to learn more about Nils and his research.

Inside Psychology (IS): Nils, tell us about yourself. Where were you born, educated, and what is a key moment or moments that led you to become a social psychologist who studies intergroup conflict and social change?

Nils Reimer (NR): I grew up in Düren, Germany. I decided to become a social psychologist in my first few weeks at University College Maastricht, a small liberal arts college in the neighboring Netherlands. I had chosen this college because, unlike most other programs in Europe, it did not require me to choose a major and, at this point, I had only vague ideas of what I wanted to study and what I wanted to do with my life. Choosing this college turned out to be a fortuitous choice since I not only received an exceptional education but also, in my very first course, discovered my love for social psychology.



Professor Nils Reimer

What drew me to social psychology then is the same that draws me to it now: As social psychologists, we get to ponder some of the most intriguing questions about how we think and act as social animals. At the same time, we get to work on important problems that matter for addressing pressing challenges around social injustice and social change.

Having decided to become a social psychologist, I spent the remainder of my time as an undergraduate student involved in psychological research, first in psychology and law and then in intergroup relations. I then joined the University of Oxford in England where, for the next seven years, I completed my graduate studies and worked as a postdoctoral researcher. In 2020, I joined the University of Southern California as a postdoctoral researcher before moving to UCSB last summer.

IS: Tell us about your research. Please describe one project or set of findings that you have worked on thus far that exemplifies your approach to science and the questions you ask. And what's one goal you have for your research here at UCSB?

NR: Broadly, I am interested in motivations for, and responses to, social change in diverse societies. One goal of my research has always been to understand how intergroup contact—social relations with diverse others—affects awareness of, and opposition to, social injustice. Of late, I have been most excited about a new line of research in which we examine double standards in where people draw the line between acceptable and unacceptable means of protest for various causes.

What I hope to achieve with my new *Social Injustice and Social Change* group is to study what motivates some to challenge social injustice and how others respond to such challenges—and, in so doing, to better understand societies that are becoming more diverse but remain profoundly unequal and divided.

IS: You were hired in a quantitative methodology position - what are some of novel methodological approaches you have brought to your research? What are some of the innovations that you are bringing to teaching statistics and methodology to our graduate and undergraduate students.

NR: We often think of research proceeding somewhat like this: We start with a question, collect data to answer that question, and choose statistical methods appropriate for analyzing that data. But I think that the reverse is often true as well: The statistical methods we know determine the kinds of data we think to collect which, in turn, limits the questions we dare to ask.

### **NEW FACULTY PROFILE**

With that in mind, I use advanced quantitative methods to answer new questions about intergroup relations. One example I am particularly proud of is research led by my former graduate student, Dr. Chloe Bracegirdle, in which we apply social network analysis to understand how our ingroup and outgroup friends shape our beliefs about discrimination.

Last quarter, I redesigned and taught one of the core methods courses for our graduate students. I don't think I have ever worked this hard—but I hope to have made some progress toward my goal of creating a course aligned with the training needs of today's graduate students! Some of the changes I have made include teaching both Bayesian and classical statistics, introducing multilevel models, and featuring causal inference.

IS: You have launched a new reading group - ReproducibiliTea. Can you tell us what that the goals of the journal club are, and how "tea" is involved?

NR: I entered the field at a most confusing time. When I first learned about social psychology in 2010, I reveled in the thrill of the hard-to-believe findings that made social psychology so intriguing to me and other students. When I started my doctoral studies in 2014, I did so at the height of the reproducibility crisis when it became more and more clear that perhaps we shouldn't have believed some of those hard-to-believe findings—and that we needed to change how we do science.

In 2018, the *ReproducibiliTea* journal club was started by some of my fellow graduate students as a space for early career researchers to build a community around improving our science and



reckoning with our changing field. Since then, it has spread to spread to over 100 institutions in more than 20 countries—and, in Spring 2023, to our campus. To be



clear, bringing the journal club to UCSB has been a student-led effort and would not have happened without Ava, Amber, and Madhuri's initiative!

As a concession to moving *ReproducibiliTea* from England to California, we have admittedly been serving coffee, not tea.

IS: What experiences outside of academic research have shaped your research most and how?

I believe that was my semester abroad at UC Berkeley. In class, I learned about intergroup relations in Prof. Rudy Mendoza-Denton unrivalled course on that subject. I not only learned about my future field of study but also gained a role model for what excellent teaching looks like. Outside of class, I spent most of my time in the student cooperative where I lived among the most diverse group of people—in terms of their backgrounds, identities, politics, and worldviews—I had ever been around. I think this experience shaped who I am and what I ended up researching more than any other experience I can think of.

IS: What are some of your non-academic hobbies, interests, or pursuits?

When we moved to California, I got certified as a scuba diver and, in the process, discovered my love for the rough but beautiful underwater forests of California. My favorite dives so far were off the coast of Anacapa Island in the Channel Islands National Park.

### **PBS STAFF PROFILES**

#### **Pam Wilks**

Inside Psychology (IS): Describe what you do in your capacity as Academic Personnel Coordinator.

PW: Some of my main duties are the management of the annual Merit and Promotion cases for faculty/Academic Researchers and Recruitment for all academic positions, which includes helping post the positions, organization of visit schedules and preparing appointments. I also assist with temporary Visas for visiting scholars and academic positions, summer compensation, timekeeping, leave requests, payroll issues and hiring undergraduate students.

### IS: How long have you been at UCSB?

PW: I have been here for just a little over 3 years!

**IS:** What are your hobbies or favorite things to do? PW: My absolute favorite thing to do is cooking/baking (and most of all eating!). I like to try new reci-

pes and being a mom of three boys, Steven (9), Wayne (7) and Sammy (5), I have a lot of taste testers! The kids keep me busy between sports practices, games, cub scouts and I volunteer at their school. But on our time off as a family we love going to the beach and lake, camping, playing Mario bros video games and spending time with our two black labs (Chance and Jax).



Pam Wilks (Left) and Bailey Clincy (Right)

### **Bailey Clincy**

Inside Psychology (IS): Describe what you do in your capacity as Academic Personnel Coordinator.

BC: As the Financial/Contracts & Grants Manager - As the Contracts & Grants/Financial Manager I am responsible for all proposal preparation and submissions as well the overall management of departmental financial affairs.

IS: How long have you been at UCSB?

BC: It will be 5 years in June!

IS: What are your hobbies or favorite things to do?

BC: I enjoy spending time with my sweet dog Lucy, weekends at the beach and exploring where we live!



### **CONTRIBUTE TO INSIDE PSYCHOLOGY**



Inside Psychology is the official departmental newsletter of the Department of Psychological & Brain Sciences at UCSB. It features articles written by professors, graduate students, alumni, community members, as well as science journalists covering the research produced by the department. The first edition was published in 2005 and all volumes can be downloaded for free here:

https://psych.ucsb.edu/alumni/inside-psychology-newsletter

If you would like to contribute to Inside Psychology by either writing an article, highlighting relevant research, making a financial donation to the department, or contributing Class Notes, please contact us at: pbsalumni@psych.ucsb.edu



### **PBS GRADUATE STUDENTS**

### CPCN Creates the F. Greg Ashby Graduate Student Award



This year the Cognition, Perception and Cognitive Neuroscience (CPCN) faculty established a new graduate student award for outstanding achievements by a senior CPCN student. The award is named in honor of our recently retired colleague, Professor Greg Ashby. Professor Ashby is an unparalleled mathematical psychologist respected for applying his theoretical and quantitative rigor to problems in experimental psychology and cognitive neuroscience. He has received numerous awards for his contributions, including the Warren Medal in 2017. Greg Ashby was also a generous teacher and mentor, and was dedicated to service within the department (serving as chair), on the campus, and to the discipline. The qualities of outstanding research, mentorship, and service are qualities that graduate students and faculty strive for, so the CPCN faculty thought it

only fitting that the new award was named after one of their dear colleagues that exemplified them.

The inaugural F. Gregory Ashby Graduate Student Awardee is Carol He. Carol He's research is focused on visuospatial thinking processes and individual differences and she uses different realities (desktop, virtual reality, real-world) to understand these processes at different scales. While doing her PhD, she also completed a Masters in Statistics. Carol He's out-

standing publication record of nine papers (6 first author) work exhibits her outstanding quantitative, theoretical and empirical skills. She has been a prolific teacher and mentor of undergraduates, supervising ~30 undergraduates over the course of her career at UCSB. She is also an active reviewer, a generous collaborator, and has been an important contributor to the Research Center for Virtual Environments and Behavior, helping to plan and set up hardware, give tours, and training incoming students. She has been recognized as an outstanding student along the way including receiving the GradDiv Crossroads and Dissertation fellowships. In nominating Carol for this award, her PhD mentor Professor Mary Hegarty noted "Carol is an extremely highly skilled,



thoughtful, and productive researcher. I am amazed at how much she has been able to accomplish in our program."

### **PBS GRADUATE STUDENTS**

### ELLE MURATA GIVES TOUCHING AND INSPIRING TEDX TALK

Elle Murata, a third-year graduate student in the psychological and brain sciences department working with Professor Emily Jacobs, spent a significant portion of her life and the first two years of graduate school seeking answers about what was

happening with her body as she struggled with menstrual cycle abnormalities. She became increasingly frustrated when her concerns were not taken seriously by medical professionals and after two years, she finally received her diagnosis of Polycystic Ovary Syndrome (PCOS). Of course, this was not the first time Elle had encountered this term. As a neuroscientist studying women's health, Elle is all too familiar with PCOS and how common these issues are for women. Importantly, she noticed that her experience represented a pattern of how women's health is treated in the medical field and wanted to bring this to light.

Elle diligently kept notes of all of her experiences and brought them to her advisor, Professor Jacobs. "[Emily] threw out the idea of doing a TEDx talk." Elle said. "She had given one at a local high school, Laguna Blanca, a few years back and connected



me with a contact there. Within a few weeks, they had interviewed me and invited me to speak at their next TEDx event in February 2023." With the goal of shining a light on PCOS and ignorance in the biomedical community about women's health, Elle started a dialogue about women's health with her talk.

Two months after being released, Elle's talk has been viewed by over 1,300 people around the world. Elle hopes that this talk will reach those who are having or will have a similar experience as she had and help them.

### **PBS GRADUATE STUDENTS**

# The Vital Role of Graduate Students: Department Service and Community

Graduate students have served a vital role in our department for decades. However, this year has been especially important given some big changes happening in the department. These changes include 3 hiring, the start of a new Graduate Executive Committee (GEC), and significant work being done by students in the Diversity, Equity, and Inclusion (DEI) Committee. In all of these cases, graduate students play a vital role in helping the department function and create a welcoming environment.

This year the department conducted three faculty job searches. The department looked to hire a cognitive development faculty, a spatial neuroscience faculty, and an assistant teaching faculty. At many universities, graduate students are not part of the search process for hiring and rarely get to express their opinions about the hiring process. However, PBS actively includes graduate students in their hiring decisions and includes a graduate representative on each hiring committee. Bailey Immel, Sophie Peterson, and Laura Huerta Sanchez each served on hiring committees. They were charged with bringing the graduate perspective to the table and representing students' interests in the decision-making process. Thus far, the searches have been incredibly successful, and the department is looking forward to welcoming new faculty in the coming years!

While the search committees have been looking to add to the community here in the Psychological and Brain Sciences department, the GEC has been working on building a sense of community. Over the last year, GEC has put on several events for the entire department including a murder mystery party, a masquerade ball, and a trivia night. These events have helped students get to know each other across labs and area groups. Additionally, after calls from students for transparency within the department, the GEC has continued to put together a newsletter for the department with notes from all of the active committees.

Finally, graduate students Shreya Sodhi and Ava Ma de Sousa are the graduate student representatives on the DEI committee. They have been working through the data from the climate survey that was distributed last year to faculty and students. The students of the DEI committee will be assisting faculty on the committee with presenting the findings from this survey to the department in hopes of bringing about positive change to our community. Finally, Shreya and Ava are hosting a town hall for students to keep them informed on the happenings of the and have their voices heard as they continue to advocate for students.

Graduate students wear many hats in our department: from research, to teaching, to mentoring, to service; these students are part of what makes PBS such a special place to work!



### Sharing Research Broadly: Graduate Students Podcasting!

Ava Ma de Sousa, a PhD student in Psychological and Brain Sciences at UC Santa Barbara, and her co-host Beth Fisher, a PhD student in Philosophy and Psychology at Monash University, started the podcast Minds Matter as Master's students at the University of Amsterdam. Ava says, "We started Minds Matter as a way to stay connected and engaged during the pandemic, but it's become a real passion project that we've found ourselves continually excited to work on over the last three years."

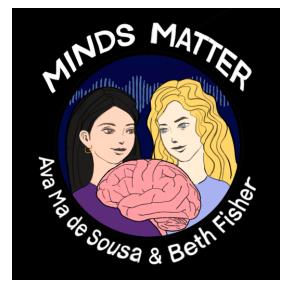
As close friends with a shared passion for research, Beth and Ava offer a unique approach to discussing cutting-edge findings, aiming to create an engaging learning experience for all. Their contrasting research interests and backgrounds allow for a varied perspective, with Ava specializing in social identity and emotions using social neuroscience, while Beth focuses on anxiety interventions through computational modeling methods. Beth says "Being able to make everyone feel they can engage in science regardless of their background is so rewarding. It has been amazing hearing the insights from our listeners and watch our community grow". In their newest season, they have expanded their scope to feature interviews focused on early career researchers and researchers from underrepresented



backgrounds, with the goal of increasing visibility and promoting equity in the field.

In their 25 episodes and counting, they aim to provide clarity on both new methods and exciting theories and research questions. They have explored innovative methodologies, featuring guest speakers such as Dr. Tessa Charlesworth (post-doc at Harvard) discussing Natural Language Processing and Dr. Elisa Baek (Assistant Professor at USC) discussing so-cial network analysis. Moreover, they have also delved into the latest theories and research questions, including intersectionality with Dr. Sa-Kiera Hudson (Assistant professor at UC Berkeley)

and predictive processing with Noor Sajid (PhD student at UCL).



Dr. Hongbo Yu, assistant professor at UCSB adds on the value of the podcast, "As someone who has already been amazed by Ava's academic achievement and departmental service, I am completely blown away again by this fascinating podcast. The breadth and depth of the conversation, the timeliness of the topics, and the lineup of the guests make this podcast a "must read" for anyone who wants to stay tuned about the trend in social psychology and social neuroscience. The hosts also do an excellent job in contextualizing the guests' research and make it easily accessible to anyone interested in the topics. I assigned one episode (with Dr. Yuan Chang Leong on the neural basis of political polarization) to the undergraduate students in my Social Neuroscience class and will assign another one (with Dr. Tessa Charlesworth on the long-term changes of implicit bias) to my Social Psychology class."

You can find all episodes and show notes on their website <u>mindsmatter-podcast.com</u>, or search for 'Minds Matter' wherever you get your podcasts!

### Alumnae Interviews: From UCSB Psych Major to Professor: The Academic Journeys of University of Michigan PhD Students Mayra del Carmen & Andrea Mora

On May 11, 2023, Mayra del Carmen, Class of 2014 Psychology and Chicana/o Studies Major, and Andrea Mora, Class of 2017 PBS Major with an Applied Psychology Minor, spoke at an event organized by the Society for Undergraduate Psychologists (SUP). Mayra del Carmen and Andrea Mora both began their PhD studies at the University of Michigan in 2017, and are both to soon graduate with their doctorates and about to embark on careers in the professorate. The soon-to-be Dr. del Carmen will begin a position in the Department of Psychology as an Assistant Professor at Montana State University and the soon-to-be Dr. Mora will begin a position in the Department of Psychology as an Assistant Professor at University of Pittsburgh.



Mayra Del Carmen

They were interviewed by Professor David Sherman, who had both students in his classes at UCSB for the SUP Event, which has been edited for space and clarity below.

Professor David Sherman (DS): Can you share a little bit about your career choice about going into academia and becoming professors. Why did you want to go to choose this route? What are some of the things that you are both most excited about? And what are the aspects of being a professor that you are most apprehensive about as you are taking this next exciting step in your careers.



Andrea Shannon Mora

Andrea Mora (AM): I thought as an undergrad, and even before that, as a community college student, because I transferred into UCSB that I wanted to be a psychologist, that I wanted to work in that therapeutic setting. But as you know UCSB is a very research intensive university. So in all our classes, we're reading these research studies. And we're understanding these intricacies of what's happening. And for me that was really interesting and really exciting.

And then I had questions of my own as we were reading. I think a great professor will teach you to think critically about the articles, like, what sample are they actually looking at? What questions did they actually ask? Was the question prompted by the researchers or by the community? I found myself having so many questions and being left with them, not necessarily answered, but having the tools to be able to answer them.

I just want to continue asking questions, and while I was at UCSB I had a lot of opportunities to engage in research through the McNair Scholars program. I conducted my own study with Professor Vanessa Woods, with transfer students, and so learning that the steps from the beginning of the research process to the end, just all of that excites me. So I wanted to continue to do that, and that's what you do in academia.

**Mayra del Carmen (MDC):** (Academia) seemed like a logical next step. In undergrad, I didn't even know what PhD programs were and what research was until I was into my third and fourth year. And so once I started doing that, I began working with professors. And that's where I was like, well, I could do what professors do if I continue on this track.

That was my first introduction to research: If you have a PhD, you can become a professor, and it was also just a space where I can continue to answer questions that I was interested in. While I was in my classes in psychology, I wondered a lot about the Latinx population. Why aren't we reading about them and that's why I took on my second major in Chicana/o Studies, and I was able to bridge those two, and that was really important to me. Conducting my own research (for my thesis) and bringing in the farm-working community into psychological research is important to me. And that's one of the one of the reasons and what I'm most excited about at Montana State. They have a great center for doing community-based research

and they have great funding opportunities and people to help you get in touch with community members and build those relationships.

I'm also excited to work with graduate students. I think that's going to be really great. And being in a community working with them are talking with them that I am bouncing ideas off of our friends and each other is the best way for me to move forward with my research and to do good research.

**DS:** You both mentioned things that happened while at UCSB that set you on this path. Could you talk more about what you found most helpful to prepare you for graduate school and also, what do you know now that you wish you knew when you started this process. Can you share with the undergraduates who are on the call?

**MDC:** Being a research assistant was very helpful for knowing what graduate school was, I don't think I even had any idea of thinking to apply to Masters programs until Professor Sherman said you should apply to Cal State, Northridge. So just talking with professors. I think that was also very helpful, and something I would recommend.

As for something I wish, I knew earlier, and something I still want to really embody is asking for help sooner than later. Early on, I think, is really important, because a lot of times, I think we feel some embarrassment or some shame that we don't know the answer right away. But when you get help from someone, it just helps the process move a lot quicker, you don't have to sit in it for so long. So, I would definitely recommend just asking for help, early on, or asking for clarification, or whatever you need, and not to feel shame. We're all just like learning and navigating these spaces.

AC: Being a research assistant that helped greatly. I was in 2 different labs, and that was helpful just to see the different dynamics because every professor works differently. So that really helped me prepare for graduate school. Specifically the McNair Scholars Program. Check the requirements, but if you are able to apply, it would definitely take advantage of that. They also have the summer program. They pair you up with an advisor. That was incredibly helpful for me. They give you professional development opportunities, how to give a research talk, how to make a poster, they really encourage you to apply to conferences.

I applied to my first conference as an undergrad, and went to my first conference as an undergrad, and that was amazing, because my first conference was the National Latinx Psychological Association Conference, and so I was surrounded by all these Latinos that were in research. And so it was very inspiring, and I felt like I'd belonged, and that was very important.

And what did I wish I knew then that I know today? I also want embody this still. As students we are constantly, we constantly have our aim on the next thing, so like right now, I'm really excited. I'm excited to go to my postdoc, and I'm excited to be a professor. Or when I was just starting out here at Michigan, I was like I can't wait until I become a candidate, I'm gonna be so happy and feel so fulfilled. Then once I became a candidate, I cherished it, for, like 5 minutes, and then I was like, I'm gonna be excited once I defend my prospectus. You know we're always thinking about the next thing.

But I think we need to really like sit back and really revel in our accomplishments, because the fact that you're at UCSB which is a great research institution is an accomplishment in and of itself and so I would just encourage you all to just celebrate and take a moment to really revel in all of those accomplishments that you that you're making, and all the milestones that you're meeting along the way, and not only look forward to the next thing.

**DS:** Thank you and Congratulations Mayra and Andrea on graduating! We wish you all the best in your personal and professional endeavors, and we look forward to seeing you back here at UCSB!

The full video, which includes presentations on their research, is available here: https://tinyurl.com/GauchoMichProfs.





### Deborah Bettencourt appointed Chair of PBS Alumni Council



A 1989 Graduate of UCSB with a BA in Psychology, Deborah Bettencourt was an inaugural member of the Alumni Council and was named Chair. PBS is appreciative of Deb for her passionate leadership and activity. Below is her inaugural PBS Alumni Council Letter from the Chair:

Greetings from the PBS Alumni Council.

As the newly appointed Chair, I am grateful and honored to represent the Council and share exciting updates and opportunities within the PBS alumni community.

The Council has been diligently working to foster a vibrant community that benefits both our alumni and the current students within PBS. Our primary goals are to inspire alumni engagement, raise attention to scholarly advances of PBS, assist undergraduates and graduates with career education, provide mentorship opportunities, and support the financial development of the department. By engaging with our

alumni, we are focused on creating

a community where knowledge, experiences, and resources can be shared to support personal and professional growth.

In line with these goals, I am delighted to share a range of initiatives and events we are continuing and a few new ones that we are planning for the coming year:

Fall ENGAGE – We had such fantastic participation last year that we will continue with this Zoom format in the Fall. Mock interviews are offered via Zoom for junior and senior undergraduates who plan to enter the job market. Alumni can volunteer as interviewers for one or two 30-minute interviews with undergraduates. Suggested interview questions are provided, and this is a great way to have a meaningful 1:1 mentoring experience.



Alumni Panel taking questions and sharing stories at EN-GAGE



Alumni Panel with Faculty Moderator and Student attendees at ENGAGE

Spring ENGAGE – This event just gets better and better each year. An in-person event that offers four different parts - panels, tabling, a mixer, and an after party. The panels are hosted by a PBS faculty member. Panelists have the opportunity to share their professional journey and provide advice to students. Tabling follows the panels and students may come to alumni hosted tables and ask student driven questions that are more specific. The mixer features a very relaxed informal opportunity for alumni to chat with faculty, staff, graduate students, and undergraduates amidst music and refreshments. The after party offers more conversations with faculty and staff.

**Mentorship Program** – New to our initiatives is a more structured program for mentoring undergraduates. We will connect experienced alumni with current students seeking guidance and support.

Alumni Speakers - At 2023 ENGAGE we had our inaugural PBS Alumni Council colloquium with Professor John Ruiz (Class of 1991). In the coming year, we again plan to have additional distin-

guished alumni who have made significant contributions to the field of psychological and brain sciences and industry present to faculty and students.

These initiatives are just a snapshot of what we are planning. We welcome your input, suggestions, and participation in shaping the future of our alumni community. We encourage you to stay connected with us through our LinkedIn page. We will be sharing updates, opportunities, and the latest happenings.

Thank you for your support and dedication to PBS.

With warm Gaucho regards,

Deb Bettencourt



Alumni Relations & Development Student Intern, Jessica Taghizadeh, preparing for EN-**GAGE** 

### **ALUMNI NEWS**

### MEET THE NEWEST MEMBER OF THE ALUMNI COUNCIL: JOHN RUIZ



In 2019, the Department of Psychological & Brain Sciences launched the PBS Alumni Council to engage students and connect with alumni. The mission of the Psychological & Brain Sciences Alumni Council is to develop a larger community of former and current students that transcends the time of their UCSB experience, that connects people, expands perspectives, leverages resources, and creates networks and pathways for career and intellectual growth. To learn more about the Alumni Council please check it its web page: https://psvch.ucsb.edu/alumni/psvchological-brain-sciences-alumni-council

And if you are interested, please contact: pbsalumni@psych.ucsb.edu

In 2022-2023, John Ruiz, Class of 1991, and Professor of Clinical Health Psychology at the University of Arizona, joined the Alumni Council. He was also the inaugural Alumni Council keynote speaker at ENGAGE 2023. Here is his brief biography:

John M. Ruiz began his academic journey by earning a BA in Psychology from the University of California, Santa Barbara in 1991. He went on to complete a Ph.D. in clinical health psychology at the University of Utah in 2001 as well as a clinical internship and postdoctoral fellowship in cardiovascular behavioral medicine at the University of Pittsburgh. Dr. Ruiz's program of research examines relationships between individual level psychosocial factors, social behav-John Ruiz, Professor of Clinical Health Psyiors, and cardiovascular and cancer diseases with an emphasis on biobehavioral mechanisms. In addition, he has recognized expertise in sociocultural aspects of

racial/ethnic health disparities, particularly the epidemiological phenomenon referred to as the Hispanic Health Paradox. His work is funded by the National Institutes of Health, the Centers for Disease Control, and other federal agencies and foundations. Dr. Ruiz is the Editor-In-Chief of the journal, Health Psychology, and began a 4-year, federal appointment to serve on the 16-member, US Preventive Services Task Force (USPSTF) in 2022. He is an elected fellow of the American Psychosomatic Society, Association of Psychological Science, Society for Health Psychology (APA, Division 38), and the Academy of Behavioral Medicine Research.

On the following pages, *Inside Psychology* interviewed John Ruiz as part of its Alumni Interview Series.

### Inside Psychology (IP): How would you characterize your path from UCSB to where you are now?

John Ruiz (JR): I came to UCSB in 1986 as a first generation, Hispanic student. To be honest, there wasn't much diversity among students at that time and I'm so heartened to see how that has changed. Like many, I didn't know how to succeed in college but I grew socially, found myself in many ways, and gained friendships that have lasted a lifetime. I also discovered academic interests and in time, confidence to pursue them. Although I had no intention of going to grad school at the time of my graduation, UCSB had planted the seeds of interest and the belief in myself that I could achieve academic goals if I applied myself. In many ways, my career remains based on this simple idea today.



IP: How did you come to be a UCSB Psychology major? What drove you to the topic of psychology, and eventually, to clinical health psychology?

**JR:** I'd like to say that I came to Psychology by some lofty academic inspiration, but the reality was that I was basically an academic "free-agent" and I think a cute girl I wanted to date said she was a Psych major and suggested I should come take a class with her. At some point my social life resulted in enough credits to be a major and well, the rest is history.

Of course, I also began to find an interest in the topic but mostly on the research and methods side. UCSB Psychology at the time leaned heavily on the science of perception and cognition. Methods gave me a door through which to pursue other questions such as the role of stress and relationships on physical health. As a master's student at the University of Colorado, I was formalizing my training in stress when the Alfred P. Murrah Federal Building in Oklahoma City became the target of domestic

John Ruiz as an undergraduate at terror on April 19, 1995. On April 20<sup>th</sup>, I arrived in OKC with my lab to study the stress effects of exposure to the event on survivors throughout the city. Our work showed that

the urinary concentrations of the stress hormone, cortisol, varied as a function of proximity to bombing. This research became my first publication and lead me to a career as a health psychologist interested in the role of stress and physiology.

I started in UCSB Psychology as a C(ish) student who sat in the back of the room when I attended class. Yet today, I have



the honor of serving as the 10<sup>th</sup> editor of the field's flagship journal, *Health Psychology*. I think my journey is a reminder that beginnings are just that – beginnings and not destiny. Faculty can take heart in that some of their least engaged students may still turn out alright and students can take note that life is a long journey and you can enjoy moments and still reach your goals.

IS: Are there any classes or professors in particular from Psych that you remember, and why? [SEP]

**JR**: I had the privilege of taking courses with many luminaries including but not limited to Drs. John Foley, Robert Sherman, Daphne Bugental, David Hamilton and many others. I recall taking Dr. Ben Reese's first course when he arrived in the late 80's. Perhaps the most important course and professor for me was the intro to methods course with Dr.

John Cotton. I was not a focused student and was merely taking the course as a requirement. He taught it in a way that was not only engaging but imparted agency and a sense of mastery. A few years later when I was considering graduate school, I asked him for a meeting. I was one of probably hundreds of anonymous students who had passed through his

course, yet he took the time and treated me as an individual with value. He was honest and candid about my academic record to that point but also caring, encouraging, and direct about a path forward. I would cite those 45 minutes as the turning point in my career and life.

IS: Tell us about your work in the Social Risk and Resilience Factors (SuRRF) Lab. What are the questions you are working on right now, and can you trace the trajectory from UCSB to U of A?

I serve as the Director of the Social Risk and Resilience Factors (SuRRF) Lab at the University of Arizona. Yes, the name is a homage to my Gaucho days! Our lab aims to investigate how our social lives influence our physical health, for better and worse. The lab utilizes a range of methodologies including but not limited to use of electronic medical records, medical imaging, ecological momentary assessment (EMA), ambulatory physiological data capture methods, and acute laboratory paradigms like those taught to me by Dr. John Cotton and others. We have a line of work examining social vigilance, effortful monitoring of the social environment of potential threats, as a moderator of stress-related health effects. Other work focuses on understanding a phenomenon called the Hispanic/Latino health paradox – the finding that Hispanics tend to live longer, healthier lives than other racial/ethnic groups despite greater health risks. Finally, we have a number of projects focused on building equity in communities including work on improving opioid



John Ruiz and friends during the UCSB undergraduate days.

care access, increasing racial/ethnic representation in blood donation to address the nation's critical blood shortage, and optimizing heart health care in rural communities.

### IS: What are your goals in joining the PBS Alumni Council? What do you see as the role that alumni can play in the department, and with students?

**JR**: Honestly, grow the family! The vast majority of UCSB graduates see being a Gaucho as part of their core identity. If we provide more opportunities for engagement, we can bring this community together to celebrate achievements and support the next generations. What an amazing opportunity to build a legacy and I'm so thrilled to have this chance to con-

Acknowledge to the state of the

Professor John M. Ruiz giving UCSB PBS Alumni Council ENGAGE Colloquium on "Latinx Health Paradoxes, Resilience, and the Pursuit of Health Equity," April 21, 2023.

### IS: Any advice for Gaucho psych majors and recent graduates?

Be Gauchos for life. Gauchos tend to be some of the friendliest, social, and frankly, "coolest" people you will ever meet. Personify that in everyday life and you will invest in the most important of resources – relationships. And, to quote one of my all-time favorite Gaucho professors, the late Dr. Frank McConnell, "Never forget how you shine like the sun."

### **FACULTY AWARDS**







Diane Mackie was awarded the 2023 Thomas Ostrom Award for Lifetime Contributions to Social Cognition Nils Reimer was awarded the Regents' Junior Faculty Fellowship

Leda Cosmides was elected to the American Academy of Arts and Sciences Dan Conroy-Beam delivers
Harold Plous Address: "The
Most Important Decision
You'll Ever Make"







### **FACULTY AWARDS**



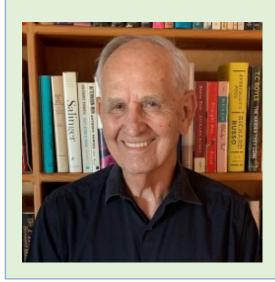




Regina Lapate was awarded the Regents' Junior Faculty Fellowship Heejung Kim received the Outstanding Contributions to Cultural Psychology Award

Gerald Jacobs received the 2022 Richard C. Atkinson Lifetime Achievement Award from Indiana University

Richard Mayer recognized as Most Productive Educational Psychologist







### **UNDERGRADUATE STUDENT AWARDS**

### **UNDERGRADUATE STUDENT AWARDS 2022**

### **Distinguished Graduating Senior**

The award for distinguished graduating senior is awarded in recognition of academic and research excellence, and service to the department, the university, and the community

Emily Machniak, Qi Zhang

### The Morgan Award for Research Promise in Psychology

The award for research promise in Psychology is for graduating seniors who demonstrate the most promise in the area of experimental research in psychology, as selected by the department faculty

Jessica Herbert, Brenda Mejia Espinoza, Mable Zhou

### The Morgan Award for Academic Excellence in Psychology

The award for academic excellence in Psychology is given to graduating seniors in recognition of outstanding scholarship, as selected by the department faculty

# Vanessa Chao, Alexandra Philips, Christina Villanueva Phillip S. Rethis Memorial Award

The Philip S. Rethis Memorial Award is given to a graduating senior in recognition of outstanding "character", "determination", and "scholarship"

Harita Udayashankar

### **Distinction in the Major**

Distinction in the major recognizes the completion of a senior honors project or thesis with distinction

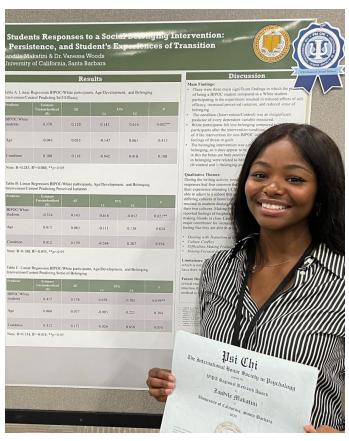
Annabelle Au, Julia Bainbridge, Aneri Bhatt, Victoria Carlin, Ella Carlsson, Riddhima Chandra, Vanessa Chao, Jasmine Chuey, Emma Cimino, William Cordett, Isabella DeRosa, Connor, Ding, Hoa Doan, Lauren Eckhardt, Maggie Grisco, Nicole Gutierrez, Jessica Herbert, Emma, Jedrzejewski, Elijah Knyazev, Christina Kushnir, Dharma Lewis, Taylor Li, Florence Lin, Alexa Lopez, Emily Machniak, Leah Mahler, Zandile Makatini, Allison Mendenhall, Nikki Motabar, Bill Nguyen, Jordan Nyitrai, Jeff Ouyang, Alexandra Parker, Jasmine Perry, Alexandra Philips, Julia Pratt, Laura Rosero, Navya Sharma, Patrick Sweeney, Samantha Tellefsen, Kayla Thorp, Kim Tran, Harita Udayashankar, Teya Weckerly, Chenhao Yin, Austin Zeng, Qi Zhang, Xinqiao Zhong, Mable Zhou



### **UNDERGRADUATE STUDENT AWARDS**

### WPA 2023 Psi Chi Research Award Winner, Zandile Makatini

Zandile Makatini is a 4th year Biopsych major working with Professor Vanessa Woods in the Woods Lab. Zandile presented her honors thesis work as a poster at the Western Psychological Association in May 2023, and was awarded the Psi Chi Research Award for her research. This award recognizes presenters who demonstrate exceptional abstracts of their empirical research and promotes their futures in the field of psychology. Zandile's project looks at the effects of belonging interventions that have been written considering intersectionality and uplifting racialized experiences informed by critical race theory, on an individual's perception of their academic capabilities, persistence, social support, and cultural congruence. Overall, the project will contribute to support services that universities can utilize to provide minority students a platform to be heard and acknowledged, as well as to increase academic retention rates. Zandile commented "Winning this Research Award was so unexpected, but exciting to me because the work I've done all year was acknowledged and rewarded by Psi Chi board members of the WPA regional conference. I'm hoping someone continues my important research project in the future with passion and grace."











### Jeremy D. Friedman Award

This award is presented annually to one graduating senior who has demonstrated outstanding leadership and superior scholarship who has—in a particularly innovative and creative way—contributed significantly to the quality for undergraduate life on campus.

Annika Sanchez

### Alyce Marita Whitted Award

This award is presented annually to one ono-traditional graduating senior who has demonstrated endurance, persistence, and courage in the face of extraordinary challenges while in the pursuit of an academic degree.

Jena Lee

### STUDENT AWARDS

### **Diversity and Inclusion Service Award**

Service award given to a recipient who actively seeks to increase their knowledge about diversity-related issues, participates in opportunities to raise awareness of diversity and inclusion, and/or provides service to diverse communities through leadership and volunteerism

Dharma Lewis, Zandile Makatini

### **Exceptional Academic Performance**

The award for exceptional academic performance is given to graduating seniors who have achieved a 3.9 or higher GPA in their upper division coursework of at least 36 units

Aidan Aguinaga, Alexa Albert, Grayson Arensdorf, Addison Barber, Leela Barlow, Max Barris, Ryan Bayliss, Riley Bloodworth, Chloe Bodman, Corina Bondi, Jingqi Cao, Ella Carlsson, Peyton Carroll, Nishay Chitale, Matt Christensen, Charles Crane, Dominick D'Agosta, Chau Dang, Evan Davis, Carlie Dew, Connor Ding, Thea Downs, Dorothea Duan, Lauren Ebrahimian, Lauren Eckhardt, Tara Ellingson, Mary English, Camille Friant, Daniel Garfio, Aline Giang, Joe Gibbons, Jack Gifford, Jordan Gray, Nicole Gutierrez, Palak Jain, Peter James, Mia Jeffrey, Zhouyuan Jiang, Aislinn Jones, Hannah Kim, Crystal Kodsuntie, Sofia Kone, Peyton Ledbetter, Raymond Lee, Brianna Li, Yuanshu Li, Xiran Lin, Emily Machniak, Gisell Madrigal, Leah Mahler, Zandile Makatini, Allison Mendenhall, Takumi Mitchell, Anna Morgan, Emma Nance, Destiny Ngoy, Amy Nguyen, Andre Nguyen, Frances Nolan, Patrick Nolan, Jordan Nyitrai, Jeff Ouyang, Jasmine Perry, Alexandra Philips, Skyler Phinney, Lillian Poe, Julia Pratt, Tara Pugliese, Gem Pulmano, Aneshma Rayen, Anisha Reimert, Dara Sadeghian, Melissa Sahlin, Gal Sendrovitz, Keqin Su, Patrick Sweeney, Madison Thomas, Sukhi Toor, Kim Tran, Mateo Vega, Melissa Veliz Navas, Christina Villanueva, Sylvie Vo, Hanna Von, Natalie Wang, Sijia Wang, Yaduo Wang, Lauren Yantzer, Wendy Ye, Chenhao Yin, Chloe Yip, Hannah Yoon, Aleyna Young, Halle Young, Jiani Zhang, Mable Zhou

### **Chairperson's Award**

The recipients of the Chairperson's award are students who have provided service to the Department of Psychological & Brain Sciences

Chloe Bodman, Kathleen Brahan, En Chen, Jasmine Chuey, Benjamin Cooperman, Kirsten d'Almada-Remedios, Isabella DeRosa, Alexandra Dewey, Hoa Doan, Lauren Eckhardt, Audrey Gehart, Avni Joglekar, Dharma Lewis, Emily Machniak, Eloisa Martinez, Estevan Mosqueda de Rosas, Skyler Phinney, Camille Raynaud, Ava Sanders, Mineh Shajanian, Tyler Slomiak, Jessica Taghizadeh, Madyson Tellkamp, Harita Udayashankar, Qi Zhang

### **CONGRATS TO ALL!**

### **GRADUATE STUDENT AWARDS**

### **GRADUATE STUDENT AWARDS 2023**

### Richard E. Mayer Award for Outstanding Research Contribution in Psychology

The Richard E. Mayer Award recognizes the second-year psychology graduate student who presents the best research paper at the Psychological & Brain Sciences Mini-Convention. The Graduate Affairs Committee receives nominations from all four areas and selects one student from the department whose research paper demonstrates outstanding contributions to the field.

### Lu Zang

### Harry J. Carlisle Award

The Harry J. Carlisle Award was established to recognize the important contributes of Professor Harry Carlisle, a long-time faculty member in Psychology. This award recognizes an advanced graduate student in the Neuroscience and Behavior (N&B) Area for their sound scholarship, strong research record, and a concern for others and the functioning of the N&B area.

### Leo Jimenez Chavez

### Charles G. McClintock Graduate Fellowship in Social Psychology

The Charles G. McClintock Award is a tribute to Charles (Chuck) G. McClintock, the first social psychologist at UCSB. This fund recognizes his contributions to social psychology, the UCSB graduate program in social psychology, and all those who benefited from knowing him. This fellowship recognizes an advanced graduate student in the Social Psychology Area for their outstanding scholarship.

### Delancey Wu

## <u>Greg Ashby Graduate Student Fellowship in Cognition, Perception, and Cognitive Neuroscience</u>

The award is intended to recognize students who exhibited Greg's example of research with high levels of theoretical and computational rigor, along with demonstrated excellence in service and mentorship.

#### Carol He

### National Science Foundation Graduate Research Fellowship

The National Science Foundation (NSF) Graduate Research Fellowship helps ensure the vitality and diversity of the scientific and engineering workforce in the United States. The program recognizes and supports outstanding graduate students who are pursuing research-based master's and doctoral degrees in fields within NSF's mission.

### Cora Baron & Shivang Shelat

### Jenessa Shapiro Award

The award is named in memory of UCLA professor Jenessa Shapiro, who thought it was extremely important to promote diversity and inclusion in her lab, at the university, and in the field more generally and recognizes a student who embodies those qualities.

### Elizabeth Quinn-Jensen

### **GRADUATE STUDENT AWARDS**

# PBS Graduate Student Laura Pritschet awarded Michael D. Young Engaged Scholar and Goodchild Graduate Mentoring Awards

PBS PhD Candidate Laura Pritschet has recently won two prestigious University and Graduate Division awards: the *Fiona and Michael Goodchild Graduate Mentoring Award* as well as the *Michael D. Young Engaged Scholar Award*.

The Michael D. Young Engaged Scholar Award is awarded to one student (graduate or undergraduate, from the 2023 graduating class of > 6,000) who has skillfully integrated their scholarly knowledge and values into action. The Fiona and Michael Goodchild Graduate Mentoring Award recognizes 1-3 graduate students who have distinguished themselves as mentors of undergraduates.



### **GRADUATE STUDENT AWARDS**

### **Students Receiving PhDs**

Viktoriya Babenko, Madeleine Gross, Nicole Han, Carol He, Melissa Hingorani, Alyssa Lawson, Kasie Mays, Anne Milner, Kevin Sit, Katy Walter, Ashleigh Wells, Delancey Wu, Shuying Yu



# CONGRATULATIONS! YOU DID IT!



### **PBS HISTORY**

### PBS Assembles Historical Record of Dissertations

In May 2023, PBS published on the departmental webpage a list of every alum who earned their Ph.D. degree from either the Department of Psychology or the Department of Psychological & Brain Sciences. Beginning in 1967 with William Harley's dissertation, "Monetary incentive in paired-associate learning and its effect on learning strategies" (Advisor: David Messick) to the 16 recipients of doctoral degrees in 2022, all students are listed, along with their advisors and dissertation titles. The project was spearheaded by Research Professor and Distinguished Professor Emerita Diane Mackie. Professor Mackie noted, "This line of Ph.D. recipients, unbroken since 1967, underscores not only the importance of graduate training to our department, but also the breadth and depth of the contributions our graduate students continue to make to fundamental knowledge in psychology." The department is pleased to recognize our distinguished doctoral recipients.



https://psych.ucsb.edu/alumni/phds

### **CLASS NOTES**

### What are your fellow Gauchos up to?

For more information on getting involved with the PBS alumni community, contact us at: pbsalumni@psych.ucsb.edu

Caroline (Chavez) Griffith, 2013, BA, Psychology and Anthropology. In 2020, I earned my Master of Arts in Industrial-Organization Psychology from Golden Gate University. I have worked as a Human Resources professional for the City and County of San Francisco for the past few years. In my free time, I enjoy spending time with friends and family, playing with my cats, and taking road trips around California. I was just in Yosemite, enjoying the breathtaking views.



Miles Ashlock Burke, 2007, BA, Psychology. I've been working at UCSB since then and completed my master's degree in education in 2011 and have completed my doctoral coursework (ABD) in the same discipline. After 13 years in the Office of Student Life and the Dean of Students Office, I assumed the role of Chief of Staff/Executive Director in the Office of the Vice Chancellor for Student Affairs in September 2020. In that role, I help oversee 30 student service departments and provide strategic planning, budget, human resource, and other leadership support alongside an outstanding team of UCSB staff. I live in Santa Barbara with my partner, a fellow UCSB alum and employee, and our two rambunctious miniature Australian shepherds.

Susan (Barr) Davis, 1972, BA, Psychology. Masters in Pupil Personnel/Counseling in 1975 from Cal State Hayward Career as School Psychologist with Certification as School Neuropsychologist in 2006 from Texas Woman's University Retired in 2010 and enjoying hiking, traveling, gardening, and time with our 3 grandchildren. Life is good!

Sema Quadir, 2015, BS, Biopsychology. During my time at UCSB, I taught CLAS and worked in Karen Szumlinski's lab as a researcher. My love of teaching and research has continued to grow. After finishing my PhD in Pharmacology at Boston University in 2020, I took a postdoctoral research position at the UNC Bowles Center for Alcohol Studies. Throughout my time here, I have been researching the role of brainstem neurocircuitry in alcohol use disorders. I hope to apply to faculty positions in the next couple of years. I have been actively involved in mentoring undergraduate research assistants, hoping to give them a phenomenal experience like the one I received with Professor Szumlinski.

Richard (Rick) Marken, PhD 1973. There's not much to tell about my activities now since I am retired. After getting my PhD I taught at Augsburg College (now Augsburg University) in Minneapolis. I taught all courses in the undergrad Psych curriculum, got tenure, was chair of the Dept for a couple years and was the first in Minnesota to bring PCs (Apple IIs) into the undergrad psych curriculum. I also consulted in Human Factors at Honeywell and eventually quit teaching and moved back to LA to work as a Human Factors engineer at The Aerospace Corp. I retired from Aerospace in 2000 and worked at RAND as a Senior Behavioral Scientist with a specialty in applying Human Factors principles in fields such as Healthcare and Pilot training. I am now retired "for real" though I do occasionally teach courses in Statistics and Research Methods at UCLA Extension and Antioch University, LA. I also continue my research program on applications of control theory to understanding behavior. My latest paper on this topic was published last year and can be seen here. A year before that I wrote The Study of Living Control Systems, a little book about the control theory approach to doing research in psychology.

**Lauren Ortosky**, **PhD**, **2022.**I graduated with a PhD in 2022, advised by David Sherman. After taking a year working part time and resting to be sure I was clear headed on next steps, I started as a Senior Quantitative Consumer Insights Researcher at Brooks Running this month! As a passionate trail runner, it's literally my dream job. Excited to start a new chapter in Seattle in the next few months, and happy to chat with any other alums in the area or with similar interests.

### **PBS DEPARTMENT DONORS**

### PSYCHOLOGICAL & BRAIN SCIENCES DEPARTMENT DONORS

The Department thanks the following individual and organizational donors for their philanthropic support in providing essential resources for student fellowships, faculty research, and departmental programs and priorities.

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