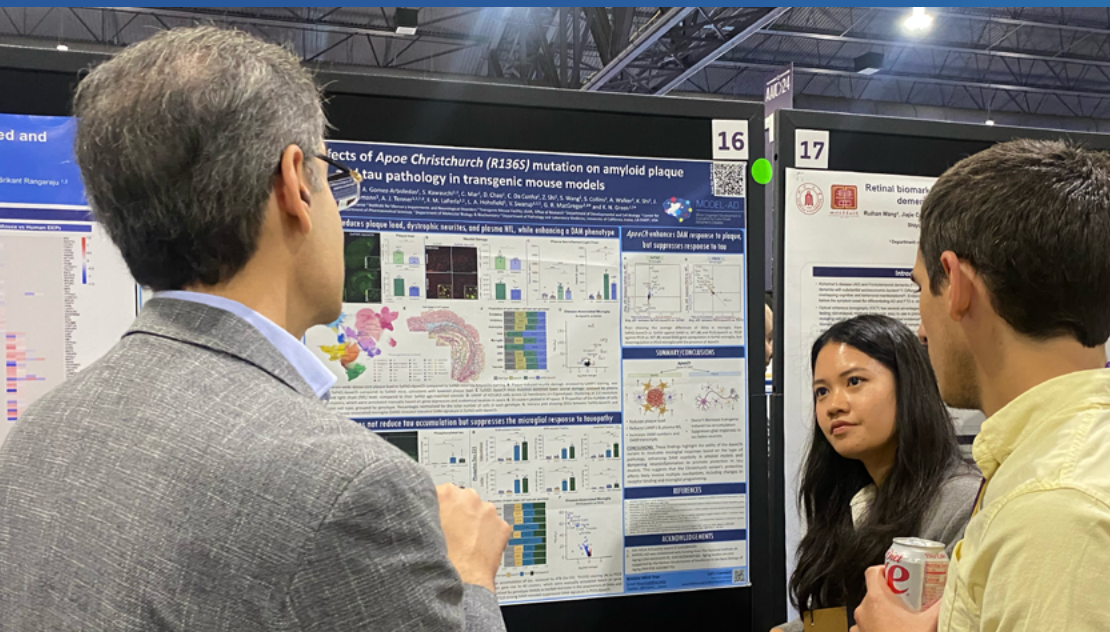


MIND Matters



IN THIS ISSUE

- 3** Highlights from AAIC
- 4** AAPI Brain Health Research
- 5** Podcast; Wine for the MIND
- 6** Annual Conference
- 7** Advancements at UCI MIND
- 8** START Study

UCI MIND HEADS TO PHILADELPHIA FOR AAIC

There was a feeling of hope this year at the Alzheimer’s Association International Conference (AAIC), as the field came together to celebrate the recent progress made in Alzheimer’s disease and related dementias (ADRD), as well as to discuss the immense work still needed. The conference was held from July 27th to August 1st in Philadelphia and was attended in person



Philadelphia welcomes AAIC

and online by a record 14,000 scientists and advocates, with hundreds of people giving talks and more than 5,400 people presenting posters. Numerous UCI MIND faculty, staff and trainees were in attendance and presented their work, including 36 poster presentations, 4 oral presentations and many more who presented online to a hybrid audience.

The [MODEL-AD](#) team from UCI was heavily featured at the conference. Faculty and trainees shared progress on several projects using transgenic mouse models including 8 posters by trainees and oral presentations by UCI MIND faculty members and trainees. Vivek Swarup, PhD, presented his work using advanced molecular techniques to understand differences in gene expression between mice and humans with Alzheimer’s disease (AD). Kim Green, PhD, discussed the work in his lab to characterize the phenotypes of mice with protective gene mutations. Postdoctoral scholar, Claire Butler, PhD, gave a “lightning talk” on a gene mutation that affects amyloid beta pathology and microglia function in a transgenic mouse model of AD. Kristine Tran (pictured in photo above), a graduate student in the Green Lab, received the ISTAART Student and Postdoc Poster Award for her research on Alzheimer’s pathology in transgenic mice with the APOE Christchurch mutation. ■



Dr. Swarup presents at AAIC

Dear Friends of **UCI MIND**,

Alzheimer's disease research is a year-round activity. Our fall newsletter finishes telling the story of our investigators' busy summer, including playing active roles at the Alzheimer's Association International Conference in Philadelphia (p1). That conference was replete with presentations that drew major headlines (p 3), and some of the researchers who drew such headlines joined us at our 35th Annual Southern California Alzheimer's Disease Research Conference (p6). This conference, co-sponsored with the Alzheimer's Association and Alzheimer's Orange County, traditionally features visiting faculty as well as our UCI talent, and this year was no exception. Our investigators remain highly productive, generating numerous high impact publications in our field (p7).

More locally, UCI MIND continues efforts to engage Orange County's diverse communities to ensure our research will discover solutions for people of all backgrounds. Dr. Hye-Won Shin leads our Asian

American outreach efforts and numerous ongoing projects focus on these communities.

This issue also highlights our good friend Virginia Naeve. Virginia and her husband Bob have hosted the Wine for the Mind kick off for the UCI MIND gala for 8 years. With Steve O'Leary, Virginia is also co-host for UCI MIND's Spotlight on Care podcast, which recently published its 44th episode and now has its own YouTube channel.

As the year winds down, keep an eye out for our end-of-year report and please have a safe and happy holiday season.



Joshua D. Grill
Joshua D. Grill, PhD
 Director, UCI MIND

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HIGHLIGHTS FROM AAIC

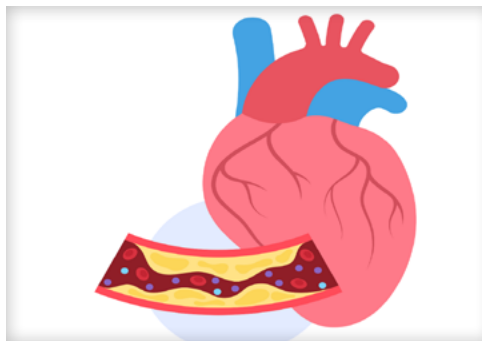
Due to its national prominence, AAIC is often a meeting where highly impactful topline results are shared with the public for the first time. This year was no exception with scientists presenting on diagnostics, new drug targets, risk factors and more.



More good news about blood tests to help diagnose Alzheimer's

Data presented at AAIC indicate that blood tests are even more accurate than previously reported in helping physicians diagnose Alzheimer's disease. A study of 1,213 people showed that the PrecivityAD2 test by C2N Diagnostics was 90% accurate in diagnosing AD in people being evaluated for cognitive impairment. The test measures ratios of specific tau molecules and specific amyloid molecules and it indicates the likelihood of amyloid plaques. Larger scale studies are still needed,

particularly in more diverse populations, but these data provide further hope that one day soon, we will have diagnostic tools that are available for everyone who needs them.



New dementia risk factors identified

Epidemiological data presented at AAIC (and published simultaneously in the [Lancet](#)) identified 14 factors across the lifespan associated with dementia risk, updated from 12 factors reported in the [2020 Lancet Commission](#) report. This year, high LDL cholesterol in midlife and visual loss in late life were added to the report and account for an estimated 9% of dementia risk. The authors suggested that 45% of dementia cases could be prevented by globally addressing these modifiable risks including low education, hearing loss, high LDL cholesterol, depression,

traumatic brain injury, physical inactivity, diabetes, smoking, hypertension, obesity, excessive alcohol, social isolation, air pollution, and visual loss. Moreover, longitudinal data presented at AAIC this year provided further evidence that aggressive lowering of blood pressure decreased risk of dementia even 5 years after the SPRINT MIND intervention.



Weight loss drugs demonstrate promising data in Alzheimer's

Results were presented from a Phase 2b trial comparing daily subcutaneous injections of liraglutide, a GLP-1 receptor agonist, versus placebo in people with mild AD. Liraglutide did not meet its primary endpoint, cerebral glucose metabolism. It did, however, have interesting data suggesting it may have slowed cognitive decline and resulted in less regional brain shrinkage after 12 months of treatment (compared to placebo).

The most common reported side effect was nausea. Phase 3 studies are needed to confirm the safety and efficacy of liraglutide and more work is needed to understand the mechanism(s) driving the apparent brain volume and possible cognitive effects.

STUDYING BRAIN HEALTH ACROSS THE ASIAN AMERICAN DIASPORA

People of Asian American, and Pacific Islander (AAPI) backgrounds have not been adequately represented in biomedical research, meaning that the safety and efficacy of approved and emerging treatments are frequently not well understood in these populations. Orange County is home to 800,000 Asian American residents who represent diverse cultural groups.

Recognizing this opportunity and critical need, UCI MIND has been working closely with community leaders and local organizations to increase AAPI representation in brain aging research. Our longitudinal study has one of the largest cohorts of Asian American participants (28%) across the network of Alzheimer's Disease Research Centers (ADRC). We also have three active studies that are specifically engaging people who identify as AAPI in research including, the CARE Registry, the Asian Americans and Racism: Individual and Structural Experiences (ARISE) Study, and the Asian Cohort for Alzheimer's Disease (ACAD) Study. Dr. Joshua Grill is one of multiple Principal Investigators of the CARE Registry, a recruitment registry study started by Van Park, PhD, from UCSF and designed to bring more Asian American, Native Hawaiian and Pacific Islander (AANHPI) people into aging, caregiving, and dementia research. CARE has enrolled more than 10,000 people and referred participants to 80 studies. ARISE is an observational study aiming to understand whether and how Asian discrimination is related to Alzheimer's disease risk. ACAD is the first large scale effort to examine genetic risks associated with AD in Asian communities.

Leading these efforts at UCI MIND is Hye-Won Shin, PhD, Director of Asian American Outreach and Executive Director of the Somang Society, a non-profit organization

committed to improving the lives of Asian American seniors. "UCI MIND is dedicated to addressing brain health disparities within the AAPI communities. This effort is critical because, despite being the fastest-growing racial group in the US, AAPI communities remain significantly underrepresented and understudied in clinical research aimed at improving the diagnosis, treatment, and prevention of diseases like Alzheimer's," says Dr. Shin. She and others have been instrumental in developing relationships with local organizations, including Somang Society, Project Next Foundation, OCAPICA, the Vietnamese American Cancer Foundation, Clever Care, South Coast Chinese Cultural Center, Vital Access Care Foundation, the Taiwanese Presbyterian Church, Ye Media, and Happy 50 Plus. She has also led UCI MIND's Asian American Community Advisory Board,



Dr. Shin meets with the AAPI Community Advisory Board

which meets to discuss how to increase brain health awareness and access to research in our local communities. Board member George Nguyen writes, "UCI MIND has established an amazing AAPI Advisory Board led by Dr. Hye-Won Shin, whom I have had the pleasure and honor of working with." In 2024, UCI MIND reached more than

10,000 people with in-person educational talks; 20% of these audiences identified as Asian American, and talks were given in Korean, Mandarin and Vietnamese.

Notably, Dr. Shin, together with UCI MIND researchers Drs. Melanie Tallakson and Christian Salazar, led a novel study partnering with the Korean, Filipino and Hispanic Nurses Associations here in Southern California to improve enrollment of underrepresented individuals into a preclinical Alzheimer's disease clinical trial, the AHEAD Study. Their study resulted in a significant increase in screenings into the study, and they published a first paper for their work in [Alzheimer's and Dementia](#). ■

"As an Asian American researcher and community leader serving older Korean Americans and the broader Asian American senior population, I truly appreciate UCI MIND's efforts to build strong collaborative relationships with AAPI communities through culturally tailored community education led by bilingual researchers and staff, AANHPI Community Advisory Boards, and ADRC research studies specifically targeting AAPI communities. Through these efforts, AAPI communities have opportunities to voice their unmet research needs related to dementia and caregiving." - **Dr. Hye-Won Shin**



PHILANTHROPY & ADVOCACY



Steve and Virginia prepare for an interview

SPOTLIGHT ON CARE GOES TO YOUTUBE

Spotlight on Care is a podcast produced by UCI MIND that shares stories, experiences, and advice on caring for loved ones with ADRD. Hosted by former caregivers Steve O'Leary and Virginia Naeve, episodes feature a diverse slate of guests ranging from physicians, psychologists, and nurses to community resource organizations and fellow caregivers. Listeners are provided with expert insights on the physical, emotional, and logistical aspects of caregiving to help listeners navigate the challenges of dementia care. Spotlight on Care has published 44 episodes to date and has been downloaded 18,000

times. It was rated one of the top Alzheimer's podcasts by Feedspot in 2022.

This September, UCI MIND launched our Spotlight on Care YouTube channel, which houses all of our episodes available for free and with closed captioning. Our goal is to build a community of caregivers and advocates who can listen, comment, and stay connected. Be sure to check out and subscribe to *Spotlight on Care* on [YouTube](#) today!



UCI MIND staff stand with hosts Virginia and Bob Naeve

A CAUSE FOR CELEBRATION

For eight years, Bob and Virginia Naeve have graciously hosted the annual "Wine for the MIND" event at their home. The afternoon brings together a diverse group of supporters, including UCI MIND faculty and staff, researchers, and longtime friends. Attendees share their passion for the cause over thoughtful conversations, good food, and a shared commitment to the progress being made in Alzheimer's research. The event's entry requirement is a bottle of wine which will later be auctioned off at the "December to Remember Gala", with all proceeds supporting UCI MIND's initiatives.

Virginia's mother passed away from Alzheimer's disease in 2013. "I knew nothing about the disease until she had it, and after she passed, I wanted to learn what research was being done regarding prevention

or a cure," says Virginia. Virginia found UCI MIND and shortly after became a volunteer and a member of the Gala Committee. Wine for the MIND started when Bob and Virginia "realized that if we received donations of good wine in a casual, friendly backyard setting, we could raise funds for research during the Gala auction or wine pull". Virginia mentioned that one of her favorite things about Wine for the MIND is that **"everyone at the event has a personal reason to support Alzheimer's disease research, and it's encouraging to hear about all of the hard work that is being done at UCI MIND."**

Bob and Virginia's gracious hospitality and long-standing dedication to the mission of UCI MIND make this event particularly special. "Wine for the MIND" has become a highlight in the annual calendar for UCI MIND, and we are grateful for Bob and Virginia Naeve.



Partygoers enjoy refreshments and good conversations



Dr. Suzanne Schindler discusses blood tests for Alzheimer's disease

UCI MIND continues its mission of advancing scientific breakthroughs while engaging and educating the community about ADRD. On September 6, 2024, remarkably, we hosted the 35th Annual Southern California Alzheimer's Disease Research Conference at the Hilton Irvine. Again held in partnership with the Alzheimer's Association Orange County Chapter and Alzheimer's Orange County, this year's conference



Conference attendees

theme was "Advances in Dementia Care." The conference shone a spotlight on treatment and diagnostic innovations and emerging research aimed at

improving the quality of life for individuals affected by dementia.

Aimee Pierce, MD, associate professor in neurology at Oregon Health Sciences University, opened the conference by highlighting the exciting new FDA-approved treatment options for AD. Scott Roberts, PhD, professor of Health Behavior and Health Equity at the University of Michigan followed with his talk exploring how genetic advancements are reshaping both our understanding of Alzheimer's and its contribution to the development of personalized treatment plans for earlier and targeted care. The conversation then shifted to critical issues in bioethics as Leigh Turner, PhD, professor from the department of Health, Society, and Behavior at UCI brought attention to the growing concern around

ANNUAL RESEARCH CONFERENCE HIGHLIGHTS DEMENTIA CARE

unapproved treatments for ADRD, particularly stem cells. Lydia Ann, MD, a new faculty member in the department of Psychiatry at UCI spoke about new behavioral therapies including Brexpiprazole, an FDA-approved medication to treat agitation in people with AD. Elena Tsoy, PhD, assistant professor and neuropsychologist from UC San Francisco, delivered a presentation urging the field to address diagnostic disparities for underserved communities to ensure that all patients have access to accurate and timely diagnoses. After lunch, Suzanne Schindler, MD, PhD, associate professor in Neurology at Washington University, shared how the evolution of blood tests are transforming ADRD diagnoses. Lisa Gibbs, MD, professor of Family Medicine from UCI, discussed the importance of holistic, multidisciplinary approaches to ADRD and geriatric care, underscoring the importance of integrating medical, emotional, and practical support for both patients and caregivers.

In addition to these presentations, attendees were able to visit a resource fair that featured a variety of community organizations, patient services, and information for individuals and families navigating cognitive disorders. The event concluded with a caregiver panel where personal experiences and insights were shared, offering additional support and community connections for those caring for loved ones. Video recordings of this year's sessions will be available on our website in the coming months. ■



Panelists Patti Jo Kiraly, Denise McKeever, and Catherine McAdams

ADVANCING OUR FIELD

UCI MIND faculty and trainees have been busy publishing their work this summer and fall. Here is a snippet of some of our latest research.



Lecanemab Binds to Brain Tissue in Down Syndrome

Dr. Liz Head, in collaboration with researchers from Columbia University, Brigham and Women's Hospital, Indiana University, New York University, University of Kentucky and Massachusetts General Hospital, recently published a landmark paper in the journal [JAMA Neurology](#) examining the binding of lecanemab, the first FDA approved disease modifying drug (antibody) in AD, to amyloid plaques in post-mortem tissue from people with Down syndrome. Because this population is not typically included in clinical trials for AD, there is little known about the safety or efficacy of drugs like the monoclonal

antibodies in people with Down syndrome. Dr. Head and her team found that lecanemab attached to plaques in the cerebrovascular system of post-mortem tissue of people with Down syndrome suggesting this drug may be promising for reducing plaques in the brain. However, the team also saw that lecanemab attached to the blood vessels in the brain indicating that the safety profile of lecanemab may be different in people with Down syndrome.

Neurons Responsible for Item Memory Identified

Dr. Kei Igarashi, Chancellor's Fellow and associate professor of Anatomy and Neurobiology, led a study published in [Nature](#) demonstrating that neurons in the medial prefrontal cortex and lateral entorhinal cortex are needed to code for item memory, a process that helps mammals store information about novel items. Dr. Igarashi used odor detection in mice to show that the specific neurons in these regions of the brain rely on each other to accurately differentiate items.



Considering CMS Coverage of PET Biomarkers

Dr. Joshua Grill and his colleague, Dr. Jen Lingler at the University of Pittsburgh, recently published a commentary in [JAMA Neurology](#) discussing the recent change in the Centers for Medicare and Medicaid Services (CMS) coverage of amyloid PET biomarkers for diagnosing AD. Drs. Grill and Lingler argue that while retirement of the Coverage with Evidence Determination (CED) to cover PET biomarkers only as part of participation in a clinical trial is a step forward in expanding access to diagnostic tests, it will be imperative to ensure coverage is not limited to people seeking treatment with

new anti-amyloid therapies. Doing so could widen the disparity in access to expert diagnoses and testing.

A Computer Task as a Potential Digital Biomarker of Alzheimer's Disease

Dr. Craig Stark and MD/PhD student, Casey Vanderlip along with Dr. Michael Lee, a professor of Cognitive Sciences at UCI, published an article in [Alzheimer's & Dementia](#) showing that cognitive modeling of performance on the Mnemonic Similarity Task (MST), a memory task invented by Dr. Stark, correlated with Alzheimer's pathology in cognitively unimpaired individuals. The study allows for the possibility that the MST could be used as a non-invasive, accessible tool to detect Alzheimer's disease pathology in people before they experience noticeable symptoms.





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TOGETHER, WE CAN START ON A NEW PATH TO TREATING ALZHEIMER'S DISEASE.

A research study for a potential new treatment for Alzheimer's disease is looking for qualified people to enroll.

The **START** (Synaptic Therapy Alzheimer's Research Trial) Study is testing an investigational treatment to see if it can safely slow memory loss from Alzheimer's disease (AD). It lasts about two years and you will be asked to make about 24 visits to the study site to see doctors who will closely monitor your health. By participating, you or your loved one could be an important part of finding new treatments for people with AD.

TO QUALIFY FOR THE STUDY, YOU OR YOUR LOVED ONE MUST:

- ✔ Be between 50 and 85 years old.
- ✔ Have a diagnosis of mild AD dementia, OR a diagnosis of mild cognitive impairment (MCI) due to AD, OR memory concerns noticed by another person.
- ✔ Have a study partner who can come with you to some visits and take part in some testing.

There are more requirements to qualify for the START Study. The screening process includes testing. Someone on the study team can discuss the testing with you.

Study Sponsors and Leadership: The START Study is funded by the National Institute on Aging (NIA) of the National Institutes of Health (NIH) and sponsored by Cognition Therapeutics. The study is being conducted by the NIH-funded Alzheimer's Clinical Trial Consortium (ACTC), a network of leading academic Alzheimer's research centers. The study is led by Alzheimer's disease research experts and academic leadership at the ACTC, Yale School of Medicine, and Cognition Therapeutics.

START

To learn more about the **START** Study, visit START-Study.org or call 1-833-START-33.

STUDY SITE INFORMATION

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UCI MINDcast

Explore our video and podcast library: A resource for people interested in learning more about Alzheimer's disease research at UCI MIND (mind.uci.edu/mindcast/)



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caregiver stories



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