

MIND Matters

SUMMER 2021

SPECIAL FEATURE

UCI MIND in the spotlight

This summer, UCI MIND investigators are receiving international attention for their innovative research and progress towards an end to Alzheimer's disease (AD).

On July 21, the NIA released "Transforming Research to Prevent, Detect, Treat, and Provide Better Care for Dementia," the NIH's professional judgment budget for Alzheimer's disease and related dementias progress report that features summaries of key recent studies and recounts new advances spurred on in part by NIH funding.

Included is work from several prominent UCI MIND groups and investigators, like the MODEL-AD consortium, which recently published a highly visible article in *Nature Communications* of this multidisciplinary team's work to develop improved mouse models for AD (*Baglietto-Vargas et al., Nature Communications* 2021). The ABC-DS study, a national network led in part by UCI investigators that aims to characterize Alzheimer's disease biomarkers in people with Down syndrome, was acknowledged for their leading work, and progress toward elucidating the brain changes with age in this important population.

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Vivek Swarup, PhD (top left), María M. Corrada, ScM, ScD (lower left) and trainee Marina Ritchie (right) presented their work at AAIC.



Dear Friends of UCI MIND,

The summer of 2021 brought the Tokyo Olympics of 2020. Our UCI MIND researchers continue to earn gold medals for their work in fighting Alzheimer's disease and related disorders (page 1). Gold medals also go to Virginia Naeve and Steve O'Leary for establishing a remarkable resource for caregivers, Spotlight on Care (page 4), available through UCI MINDCast. Spotlight on Care is made possible by the generous support of Stephen Hamill and his family (page 5). And our REMIND trainees were also shining stars this summer—launching a new program to inspire local young people to consider careers in geriatric science and clinical care (page 6). The program received generous support from Joan and Don Beall and is anticipated to be held annually.

The summer closes with uncertainty about the delta variant of the COVID-19 pandemic. We at UCI MIND are closely monitoring this situation, especially as it relates to our various public activities. We are striving to bring as much back as soon as possible, but balancing with the need to protect our community.

Many of our fall events, including our annual research conference, will again be virtual (page 8).

These are interesting, albeit turbulent times. This is true for the field of Alzheimer's disease research as well. The approval of aducanumab for treatment of mild cognitive impairment (MCI) and mild AD dementia is an important milestone, more than 18 years in the making (page 3). Yet, the approval has been controversial and several important questions remain unanswered. The coming months will bring new information. We hope that you will stay tuned to our UCI MIND blog and other outlets to stay abreast of the most recent advances. Stay safe and be well.



Joshua D. Grill, PhD
Director, UCI MIND

Faculty members

Anatomy & Neurobiology

Aileen Anderson, PhD
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Christine Gall, PhD, Chair
Alan Goldin, MD, PhD
Kei Igarashi, PhD
Gary Lynch, PhD
Steven Schreiber, MD
John Weiss, MD, PhD
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Sunmin Lee, ScD

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Bin Nan, PhD



The progress report noted the outstanding work of the EXERT clinical trial, led in part by UCI MIND founding director Dr. Carl Cotman, to pivot amid the COVID-19 pandemic and continue to collect cognitive testing data remotely.

The report noted a NIA-sponsored meeting, convened in June by the National Academies of Sciences, Engineering, and Medicine, focused on preclinical AD that included UCI MIND Director, Dr. Joshua Grill. A variety of training efforts were also highlighted in the NIA report, including the IMPACT-AD training course that includes multiple UCI MIND faculty. The report also cited published work by UCI MIND investigators including Drs. Mark Mapstone, Liz Head, Ira Lott, Carl Cotman, and David Sultzer. These research advances are being used to justify the need for increased federal funding to support AD basic science, clinical research, and education.

Several UCI MIND scientists also gathered in late July in Denver, CO to present their work at the annual Alzheimer's Association International Conference (AAIC).

This year the event was offered as a hybrid program, attracting viewers from across the globe. Dr. Vivek Swarup presented his work on gene expression changes in AD. Dr. Maria Corrada presented new data on predicting cognitive changes in the oldest old. Dr. Grill spoke as part of a panel on the implications of approved drugs on the future of AD clinical trials (page 3) and then on the safety of biomarker disclosure among cognitively unimpaired persons. Numerous UCI MIND investigators and trainees presented posters, in person or online, as part of this important meeting.

Aduhelm® update

On June 7, the FDA granted accelerated approval to Biogen's aducanumab (Aduhelm®) for lowering brain amyloid levels in Alzheimer's disease. As we have followed closely through our UCI MIND outlets, this decision was controversial on multiple levels. Since the decision, the FDA has narrowed the indication for the drug from "Alzheimer's disease" to patients with mild cognitive impairment (MCI) and mild Alzheimer's disease dementia - the disease severity of patients enrolled in the clinical trials of this drug. But several important issues remain unresolved. Key among these is uncertainty related to coverage by Medicare and private insurers. The Centers for Medicare and Medicaid Services launched an open comment period on July 12 as part of a National Coverage Determination. This will be a key event in understanding the clinical use of aducanumab. Other looming events are the publication of the Phase 3 trials of aducanumab and announcement of the design of the Phase 4 trial required by the FDA to determine if aducanumab's ability to lower brain amyloid is indeed clinically effective in slowing

On June 7, the FDA granted accelerated approval to Biogen's aducanumab (Aduhelm®) for lowering brain amyloid levels in Alzheimer's disease.

disease progression. Two other compounds have been granted breakthrough status by the FDA, lecanemab (Eisai and Biogen) and donanemab (Eli Lilly). These drugs also have excellent data related to lowering brain amyloid and have entered Phase 3 efficacy trials. Lecanemab is also being tested in the AHEAD prevention trial and donanemab will begin a similar prevention trial in the coming year.

In total, these developments are exciting even if they bring new challenges. Ultimately, the field needs to build upon these events and determine the fastest and most effective ways to achieve the ultimate goal—treatments that alone or in combination can stop the progression of Alzheimer's disease or prevent symptoms completely.



Spotlight on Care: A podcast for caregivers



UCI MINDcast

Earlier this year, two longtime friends of UCI MIND, Virginia Naeve and Steve O'Leary, started a podcast to help people navigate the challenges that come with being a caregiver for a person living with dementia. They invite guests with unique experiences and expertise to tell their stories and provide listeners with advice for caregiving. Twelve episodes are currently available, and new episodes will be added every month.

In episode 2, Bill Edwards discussed with the co-hosts the challenges of recognizing the first symptoms of Alzheimer's disease. They reflected on the frustration that can come with navigating life with a loved one with undiagnosed dementia.

In episode 9, Mark Wilson, a retired human resources executive shared his experience finding professional support as he cared for his mother at home.

He helped listeners understand the differences between an agency and a registry, what to look for in a good caregiver, and how best to integrate new caregivers into the home.

Husband and wife, Lynda Everman and Don Wendorf, PsyD, were interviewed in episode 8 to discuss the importance of using a person-centered approach and empathy when caring for loved ones living with Alzheimer's disease. They recalled their own struggles and successes serving as caregivers for their family members living with dementia.

And former UCI MIND Associate Director of Education Chelsea Cox joined the podcast in episode 5 to share her very personal experience of helping care for her father, who was diagnosed with early-onset Alzheimer's disease while she was in high school.

To listen to these episodes and others from Spotlight on Care, go to:

<https://mind.uci.edu/mindcast/#spotlight>.

If you like the podcast, please rate, review, subscribe on your favorite podcast app and most importantly, share it with your friends and family.



Spotlight on Care
caregiver stories

UCI MINDcast



Recognizing the early signs of Alzheimer's disease
Bill Edwards



Investigating in-home care
Mark Wilson



Person-centered care and empathy
Lynda Everman and Don Wendorf, PsyD



Early-onset Alzheimer's: A daughter's story
Chelsea Cox

Stephen Hamill supports UCI MIND's podcast



Stephen Hamill is the founder of Shared Leadership Group LLC and a UCI class of '71 alum. He and his family generously donated to UCI MIND to fund our new caregiver podcast, Spotlight on Care. We sat down with Stephen to discuss what motivates him to support UCI MIND.

You are an Anteater. When were you at UCI and what was your major?

I attended Fall 1968 through Spring 1971 and majored in Comparative Culture.

What did you do after graduation?

I received a Master's degree in Public Administration and a Juris Doctor and worked in County government administration. I started a law practice and founded a public finance and services management company.

What motivates you to support Alzheimer's research?

My Dad, a WW II veteran and successful business person, was diagnosed with Alzheimer's. We watched

helplessly while this disease deprived him of his personality and all the things in life that brought him joy. He passed in 2007. The reality is that we lost our Dad long before the complications of the disease claimed his life.

Why do you donate to UCI MIND?

UCI MIND has gathered the talent and resources to be on the cutting edge of global progress, treatment and, hopefully someday, a cure of this devastating disease.

You have chosen to support Spotlight on Care. Is there something special about this topic for you?

Caregivers are equal Alzheimer's victims, who with patience and empathy bear the human toll and burden of the disease. The support, respite and community available through Spotlight on Care are much needed resources for those on the Alzheimer's frontline.

Thank you to our donors



To make a gift, call 949.824.3251 or visit www.mind.uci.edu/donate

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Mrs. Carolyn Rorman
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* Indicates multiple donors



Beall Scholar Program hailed as a success



During the inaugural Beall Scholar Program, the students heard lectures from faculty, participated in virtual laboratory tours, and even got a firsthand look into brain research, all via Zoom.

With the support of Don and Joan Beall, UCI MIND and REMIND (Research & Education in Memory Impairments and Neurological Disorders) hosted 16 rising 12th graders from various Orange County high schools for a week-long virtual education program designed to encourage students from diverse backgrounds to pursue careers in geriatric healthcare and research.

The event was held in mid-July and featured presentations by UCI MIND faculty members (Drs. Craig Stark, Elizabeth Head, Andrea Tenner, and Steve Tam) and trainee led demonstrations like those from Amanda McQuade (Blurton-Jones lab) and Dr. Nicole Schartz (Tenner lab). The program also consisted of several panel discussions on topics like dementia caregiving, undergraduate STEM majors at UCI, and career opportunities in healthcare. Representatives from various campus organizations volunteered to speak to the students about the abundance of unique STEM opportunities available to undergraduates at UCI.

Overall, students had an opportunity to learn cutting edge brain research, ask questions, and network with world famous faculty members and rising stars in the world of neuroscience. Additionally, the 16 students were matched with REMIND trainees who will guide them during their senior year as they transition into the next chapters of their lives.

The students overwhelmingly praised the program. Here is what they had to say:

"It was an honor to be able to engage in such a well-developed and comfortable setting. It was amazing seeing how there was diversity, different pathways, students' experiences, and recommendations! I hope this program continues in the future as I truly believe it has created a big impact on society."

– Scholar

"Before this program, I didn't know much about Alzheimer's disease and didn't have much interest in the field either. However, the talks during the week completely changed my perspective and I am determined to get involved in research that relates to Alzheimer's disease in college or even in high school. I want to pursue biomedical engineering or pharmaceutical sciences, and I am inspired to create medical devices and medications to help people with Alzheimer's and dementia."

– Scholar

"It's truly a wonderful opportunity for all types of students."

– Scholar

"I really enjoyed every part of the program but I would say my absolute favorite were the lab tours, 'hands-on' demonstrations and applications. Those parts allowed me to see everything in action and really made me feel like I was there experiencing everything first-hand."

– Scholar

Welcome Claire & Romina, best wishes to Danny Harper

In July we welcomed two new staff members, Romina Romero, PhD (right, top) and Claire Ghazal (right, center). Dr. Romero will manage the regulatory affairs for the Alzheimer's Disease Research Center. She received her doctorate in Public Health from the University of California, San Diego. Dr. Romero has been with UC Irvine since 2019 where she worked in the School of Medicine as a staff research associate. Ms. Ghazal joins UCI MIND's Administrative team, where she will play a variety of key roles in the Institute's operations. She worked previously at the Institute on Aging at Portland State

University, where she earned a graduate certificate in gerontology. We're honored to have Romina and Claire join the team and bring their expertise to UCI MIND.

This summer we say good bye to Danny Harper (right, bottom) who has been the Senior Director of Development for UCI MIND since 2017. Danny's dedication to end Alzheimer's disease remains steadfast as he joins the national organization Cure Alzheimer's Fund as their Senior Philanthropic Advisor. A search for a new leader of UCI MIND's development efforts is underway.



UCI MIND accolades



UC Irvine Alumni **Carol and Eugene Choi** received the UC Irvine Alumni Association's 2021 Lauds and Laurels Extraordinarius Award for their generous contributions to support undergraduate learning at UCI.



Dr. Claudia Kawas, Principal Investigator for the 90+ Study and Professor of Neurology will receive the UC Irvine 2021-2022 Academic Senate -Better World Award which awards faculty members, "whose professional contributions have positively influenced the world community in an extraordinary manner."



UC Irvine Alumni **Dr. Charles Quilter**, who with his wife **Ann** is a consistent supporter of UCI MIND, was recognized as a recipient of UC Irvine Alumni Association's 2021 Lauds and Laurels Distinguished Alumni Award for his outstanding personal and professional achievements.



Dr. Leslie Thompson, the Donald Bren and Chancellor's Professor of Psychiatry and Human Behavior won the 2020 Chan-Zuckerberg Initiative Collaborative Pairs Pilot Project Award to study RNA biology in Huntington's disease.



Institute for Memory Impairments
and Neurological Disorders
2643 Biological Sciences III
Irvine, CA 92697-4545



CONTACT US

General Information

mind.uci.edu
ucimind@uci.edu

Education & Outreach

949.824.9896
mwitbrac@uci.edu

Giving Opportunities

949.824.3251
lscheck@uci.edu

Research Participation

949.824.0008
research@mind.uci.edu



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OC COVID-19 RESOURCES

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Alzheimer's OC | covid@alzoc.org

ASSIST Program for Isolated Seniors

UC Irvine | 714.497.0315

Virtual Caregiver Support Groups

Alzheimer's Association | 800.272.3900
Alzheimer's OC | 844.435.7259

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211OC | Call 211 or Text Zip Code to 898-211

In Home Supportive Services (IHSS) Hotline

OC Social Services Agency | 714.825.3000 (Dial 4)

Mental Health Support

NAMI Warm Line | 877.910.9276
New Hope Crisis Hotline | 714.639.4673



Upcoming events

Ask the Doc Video Series

Guest Experts from UCI MIND

New Episodes Monthly
UCI MINDcast | mind.uci.edu/mindcast

Spotlight on Care Podcast Series

Steve O'Leary, Virginia Naeve, & Guests

New Episodes Regularly
UCI MINDcast | mind.uci.edu/mindcast



Past education sessions are archived on
UCI MINDcast and youtube.com/ucimind