Quarterly news and updates from the
Stanford Alzheimer's Disease Research Center
and the Healthy Brain Aging Study

2023 Summer Issue

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A·D·R·C
for healthy brain aging

MIND MATTERS

New treatments for mild Alzheimer's disease: Will they work?

An update from Dr. Victor Henderson, director of the Stanford ADRC -

Alzheimer's disease is characterized by two microscopic changes in the brain — plaques and tangles — and two related biochemical changes: beta-amyloid, found in plaques, and hyper-phosphorylated tau, found in tangles. The exact relation between amyloid and tau is still unknown. Amyloid by itself probably has no effect, or only minor effects, on memory and thinking, but it probably sets the stage for tangle formation and nerve cell damage. Since 2001, there have been many attempts to remove amyloid from the brain, and there have been spectacular clinical trial failures.

Recently, three new anti-amyloid drugs have attracted attention and controversy. Two of these received limited FDA approval (aducanumab in 2021 and lecanemab in 2023), and the third (donanemab) is likely to, as well.

All three are monoclonal antibodies (antibodies directed against part of the amyloid protein) given by intravenous infusion every two to four weeks for up to 18 months. They were tested in large randomized clinical trials, each involving over a thousand patients with mild Alzheimer symptoms. Like some of the anti-amyloid drugs before them, these infusion drugs remove amyloid from the brain. However, the effect on cognition and daily function was disappointing.

On average, everyone in these trials who received an antibody treatment and everyone who received placebo (inactive treatment) got worse. After 18 months, average differences in cognition and function were too small to be noticed by doctors, patients, and family members. Differences measured as a percent change, however, seemed more impressive, roughly 20% to 35% less worsening, depending on the drug and on the particular outcome measure. We do not know if these percent changes will be sustained over time and eventually lead to modest, meaningful benefit in, say, five or ten years – they may or they may not, and there could be long-term harm.

These drugs are expensive, require biweekly or monthly intravenous infusions at an outpatient infusion center for about 18 months, require careful monitoring, and have occasional serious side-effects (for example, brain swelling and bleeding).

The FDA approved aducanumab using an unusual, accelerated approval mechanism. This controversial approach did not require proof that the drug is effective, only that it removed amyloid. Lecanemab is poised to receive regular FDA approval. For now, Medicare and most insurance plans do not cover these drugs, but the situation could change in the future. Once lecanemab becomes available (it is not yet), some Stanford Medicine doctors may consider this drug for some patients with mild Alzheimer's disease symptoms.

Regardless, we need effective treatments that offer obvious benefit. We continue the search for better, more effective means of prevention and treatment through NIH-sponsored research in the Iqbal Farrukh and Asad Jamal Stanford Alzheimer's Disease Research Center.

Save The Date—Participant Appreciation Day 2023

Please save the date—**Thursday, November 2nd, 2023—**for our 6th annual Participant Appreciation Day!

This event will be hybrid (both in-person and online). The in-person gathering will take place at the **Center for Academic Medicine Grand Rounds Room, 453 Quarry Road, Palo Alto, CA.**

More information about registering for either in-person or online attendance, including information about parking, will be sent **via email from adrcstanford@stanford.edu** early this Fall.

The goal of Participant Appreciation Day is to show our appreciation for your involvement in our research and to provide you with research and other updates from our Center. Our theme this year is new diagnostic and drug interventions in Alzheimer's and Alzheimer's related diseases. We look forward to seeing you there!

UPDATE

Happy Summer! We are excited to announce that we have officially re-launched in-person visits to the Stanford ADRC. Our clinical core team will be reaching out to you soon (meet them on page 3). Thank you for your continued involvement in the Healthy Brain Aging Study. We look forward to seeing you soon!

2023 Walk to End Alzheimer's— Silicon Valley

Join the Alzheimer's Association on Saturday, October 14h, 2023 for their annual Walk to End Alzheimer's.

Click here for more information and to register.

ADRC CORES

Outreach, Recruitment, and Engagement Core

The Outreach, Recruitment, and Engagement Core (OREC) assists in recruiting volunteers for the Stanford Alzheimer's Disease Research Center (ADRC). Our recruitment emphasizes patients with mild Alzheimer's disease, Parkinson's disease, and Dementia with Lewy Bodies; patients with mild cognitive impairment; and healthy older controls without neurological disease or cognitive impairment.

The Core plays a crucial role in enrolling and retaining patients and controls who are Hispanic/Latino or Asian American. These groups are poorly represented in research programs on cognitive aging and neurodegenerative disorders. In many instances, Core efforts begin with educational programs and stress reduction programs for the caregiver, who is recruited along with the patient.

Other Core aims are to provide educational opportunities for medical students, medical residents and fellows, and health professionals who work with patients with Alzheimer's disease or Parkinson's disease and their families.

<u>Meet the Outreach, Recruitment, and Engagement Core (OREC)</u>

Lisa Goldman Rosas, PhD, MPH

OREC Leader

Assistant Professor (Research) of Epidemiology & Population Health and of Medicine (Primary Care & Population Health)

An epidemiologist by training, Dr. Goldman Rosas's research addresses disparities in chronic diseases in racial and ethnic minority groups. She received her MPH and PhD from the University of California, Berkeley. Her research features rigorous quantitative and qualitative methodologies and shared leadership with patient and community partners. She is passionate about integrating patients, caregivers, community organizations, and other key stakeholders in the research process to improve health and well-being. Dr. Goldman Rosas serves as the Faculty Director for the School of Medicine Office of Community Engagement and the Stanford Cancer Institute Community Outreach and Engagement Program. In addition to research, she teaches at the undergraduate and graduate levels and has a special focus on increasing diversity in biomedical research.

Patricia Rodriguez Espinosa, PhD

OREC Associate Leader

Instructor, Department of Epidemiology & Population Health

Dr. Rodriguez Espinosa serves as the Associate Director of Research for the Office of Community Engagement at the Stanford University School of Medicine and directs the ADRC program for Justice, Equity, Diversity, and Inclusion (JEDI). Her research aims to decrease health inequities among racial and ethnic minority populations, particularly Latinxs and immigrant communities, through transdisciplinary and community-engaged scholarship. She uses community-based participatory research and related approaches to understand factors that create and maintain health inequities, such as residential segregation. She uses these insights to develop novel multi-level interventions and health promotion programs that address the inequity gap. Dr. Rodriguez Espinosa is a native of Habana, Cuba, and a clinical psychologist by training.

Wei-ting Chen, PhD

OREC Community Engagement & Partnerships Specialist

Executive Director, Office of Community Engagement

Dr. Wei-ting Chen is the Executive Director of the Office of Community Engagement at Stanford Medicine. As a sociologist, she focuses on how social inequality shapes socially disadvantaged individual's family experiences, life chances, and health outcomes from a life course perspective. Prior to joining Stanford Medicine, Dr. Chen was field-based academic in the California Cooperative Extension system, working on applied research projects in close collaboration with community partners.

Juan Sebastian Perez

**OREC Bilingual Outreach Coordinator**

Juan Perez received his Bachelor's Of Science in Biobehavioral Health from Pennsylvania State University in 2021, where he gained experience in emergency medicine research from Hershey Medical Center, along with lab and outreach work with Penn State's Biofuels Lab. Working shortly as a phlebotomist, he transitioned over to research and moved across the country from New Jersey to join us here at the ADRC as the new bilingual outreach and engagement research coordinator for the ORE core.

Since Fall 2022, OREC has led the coordination of a community advisory board for the ADRC. The ADRC **Community Advisory Board (CAB)** provides guidance to the ADRC's center and research leadership team and strengthens the Center's efforts to conduct research that is responsive and accessible to our local communities. The goals of the ADRC Community Advisory Board are as follows—

⇒ Provide guidance to the Stanford ADRC on priorities related to Alzheimer's Disease services, education, and research

⇒ Provide guidance on development of community partnerships and outreach opportunities for the Stanford ADRC

⇒ Provide guidance on successful recruitment strategies to increase participation of under-represented communities in ADRC research projects

⇒ Provide feedback on the accessibility and cultural centeredness of ADRC research practices and policies

⇒ Serve as ambassadors to the community to facilitate outreach and recruitment

Additionally, on April 22, 2023, Dr. Wei-ting Chen presented at the **17th Annual Chinese Forum** sponsored by the Alzheimer's Association of Northern California. This is the largest dementia-specific event reaching Mandarin-speaking communities across the United States and Internationally. Dr. Chen provided an introduction of the Stanford ADRC, goals of the Outreach, Recruitment, and Engagement Core, and shared information to encourage audience members to join the ADRC's research efforts at Stanford. Two-hundred and seventy-seven unique viewers were reached during the live event. Event attendees watched from 25 U.S. states (including California), China, Taiwan, and Canada as well.
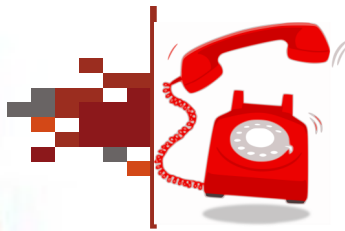
Look Who's Calling! ADRC Clinical Research Coordinators

We are happy to announce the return of in-person visits with the ADRC! When enrolling in a Stanford ADRC study, a clinical research coordinator will often be the first person from our team who you will meet. Our clinical research coordinators are critical to making our research happen—they greet and screen participants, coordinate visit schedules, perform neuropyschological assessments, and much more. We are so appreciative of the work that they do—meet them below! Welcome back to Christina Wyss-Coray, our Nurse Coordinator and meet Hannah Schmitz, our newest Clinical Research Coordinator.

Christina Wyss– Coray, BSN, PHN, RN—Nurse Coordinator (Welcome back!)
Christina Wyss-Coray is a Registered Nurse (RN) with over 20 years of expertise in memory disorders. She completed her Bachelor of Science in Nursing (BSN) and Public Health Nursing (PHN) from Holy Names University in Oakland. In 2009, she began her journey at Stanford University's neurology division as a Research Nurse and Nurse Coordinator for the Stanford Center for Memory Disorders. Christina was an instrumental part of the team that established the Alzheimer's Disease Research Center (ADRC) in 2015.

Prior to her current position, she spent over a decade working as a clinical nurse at the UCSF Memory ang Aging Center, where she gained extensive experience in managing memory disorders and actively participated in research projects. Her work involved enrolling participants with various neurological conditions, including Alzheimer's disease, Parkinson's disease, Frontotemporal Dementia, Huntington's disease, and Creutzfeldt-Jacob disease.

Veronica Ramirez, MS, BS—Clinical Research Manager
Veronica earned her bachelor's degree in psychology from the University of New Orleans. She recently earned her Master of Science in Neuroscience from Columbia University. Prior to joining Stanford ADRC, she worked as a neuropsychometrist and research assistant specializing in forensic neuropsychology. Her main area of interest includes statistical methodologies in neurodegenerative disease research.

Nicole Caceres, BA—Clinical Research Coordinator
Nicole Caceres graduated from Notre Dame de Namur University in 2018 with a Bachelor's degree in psychology. She is currently earning her Master of Science in Psychology with a concentration in forensic psychology from Palo Alto University. Nicole previously assisted children with autism spectrum disorder (ASD), developmental disorders, and emotional/behavioral disorders. In addition to working with children, she also volunteered as a sexual assault counselor and advocate at Rape Trauma Services.

Gabriel Hergenroeder, BS—Clinical Research Coordinator
Gabriel Hergenroeder received his Bachelor of Science in Microbiology, Immunology, & Molecular Genetics from University of California Los Angeles in 2019. Before joining Stanford's ADRC, he was part of a team of laboratory technicians that provided rapid COVID-19 PCR testing to help LAUSD students return to classrooms safely during the height of the pandemic. Within the ADRC, he works alongside faculty and staff in both the Clinical Core and the Neuropathology Core to coordinate autopsies that serve to prepare brain tissue for research.

T'lesa Meadowcrowft, BS—Clinical Research Coordinator
T'Lesa Meadowcroft earned her bachelor's degree in psychology with an emphasis in neuroscience from Westminster College in Salt Lake City, Utah. She worked as a research assistant in psychology and, after graduation in 2010, as a neuropsychometrist at the University of Utah Center for Alzheimer's Care, Imaging and Research. In 2015, she became a Certified Specialist in Psychometry and moved to Stanford Health Care as a clinical psychometrist, before joining us at the ADRC.

Alejandra Romo, BA—Clinical Research Coordinator
Alejandra graduated from San José State University having received her bachelor's degree in Communicative Disorders and Sciences. She is currently earning her Master of Science in Speech-Language Pathology to pursue a career around neurogenic disorders. Alejandra has previously worked in adult Aphasia treatment groups as a student clinician and has been a research assistant in communication disorders at San Jose State University.

Nora Sakiz, BS—Clinical Research Coordinator
Nora Sakiz received her Bachelor of Science degree in biological sciences from the University of California, Irvine in 2018. She gained experience in psychometry with UCI Newport Neurology, an off-campus affiliate of the University of California, Irvine. She subsequently received a graduate certificate in medical neuroscience from Michigan State University before joining the Stanford ADRC. With interests in memory disorders, neuropsychiatry, and neuroethics, she hopes eventually to pursue a career in medicine.

Hannah Schmitz, BS—Clinical Research Coordinator

Hannah Schmitz earned her Bachelor of Science degree in Cell Biology from the University of California, Davis in 2020. Prior to joining the Stanford ADRC, she conducted research in molecular biology and genetics, most recently studying genetic retinal diseases in the Vollrath Lab at Stanford University. Previously at UC Davis, she volunteered through the National Alzheimer's Buddies program to provide companionship and social support to Alzheimer's patients. At the Stanford ADRC, she is excited to combine her passion for research with her joy of working with patients and to make progress towards better understanding and treating neurodegenerative diseases.

Mohini Vaidya, BS—Clinical Research Coordinator
Mohini Vaidya earned her Bachelor of Science degree in biopsychology from the University of California Santa Barbara in 2020. Before the ADRC, she worked in behavioral neuroscience research at the UCSB Social Perception Lab and Keiflin Lab, and has published multiple literature reviews through the Stanford Autism Center. She also has experience as a medical assistant both in Santa Barbara and internationally and has worked in digital healthcare. Mohini is particularly interested in research related to neurocognition and hopes to eventually pursue a medical career within the field of neurology.
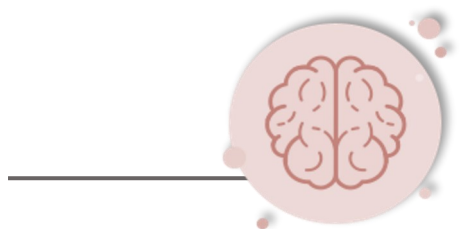
Stanford ADRC Affiliated Studies

Study: Healthy Brain Aging Study   **Study status:** Open, enrollment ongoing

Contact: Veronica Ramirez vramirez1@stanford.edu or (650) 721-2409

Study: Alzheimer Gut Microbiome Project   **Study status:** Open, enrollment ongoing

Contact: Veronica Ramirez vramirez1@stanford.edu or (650) 721-2409

Study: Sleep and Physical Activity Study   **Study status:** Open, enrollment ongoing

Contact: Joseph Winer jwiner@stanford.edu

Study: Longitudinal Early-Onset Alzheimer's Disease Study (LEADS)   **Study status:** Open, enrollment ongoing

Contact: Savneet Takhar sktakhar@stanford.edu or (650) 304-7428

Contact: Stephanie Tran trans@stanford.edu or (650) 521-7287

Study: Asian Cohort Study   **Study status:** Open, enrollment ongoing

Contact: Veronica Ramirez vramirez1@stanford.edu or (650) 721-2409

Study: Neighborhoods Study   **Study status:** Open, enrollment ongoing

Contact: Nicole Caceres ncaceres@stanford.edu or (650) 736-2893

Study: Eyes in Alzheimer's Disease and Mild Cognitive Impairment   **Study status:** Open, enrollment ongoing

Contact: Moss Lab moss_lab_studies@stanford.edu

Clinical Trials

Study: Janssen Research & Development (Autonomy Study)   **Study status:** Open, enrollment ongoing

Contact: Santi Decunto; decunto@stanford.edu; (650) 421-1284

Study: Indiana University and NIA (LEADS)   **Study status:** Open, enrollment ongoing

Contact: Stephanie Tran; trans@stanford.edu; (650) 521-7287

Study: Cognition Therapeutics (Shimmer Study)   **Study status:** Open to patients with diagnosed Lewy Body Disease

Contact: Stephanie Tran; trans@stanford.edu; (650) 521-7287