UC San Diego
School of Medicine
SHILEY-MARCOS ALZHEIMER'S DISEASE RESEARCH CENTER

6th Triennial

ALZHEIMER'S DISEASE "DATA BLITZ"

PRESENTED IN CELEBRATION OF OUR 40TH ANNIVERSARY & THE 8TH RENEWAL OF THE NIA-FUNDED SHILEY-MARCOS ALZHEIMER'S DISEASE RESEARCH CENTER AT UC SAN DIEGO

June 6, 2024
9am – 2:30pm

Altman Clinical and Translational Research Institute (ACTRI) First Floor Auditorium and Lobby

(858) 822-4800
adrc.ucsd.edu

For 40 years, the Neuroscience Community in San Diego has been a leader in basic and clinical research into the cause, effects, and treatment of Alzheimer's disease and related neurodegenerative disorders. This long and distinguished tradition has been made possible by the expertise and vision of the diverse body of neuroscientists that makes up our community, and by the collaborative spirit that characterizes their scientific endeavors.

In order to continue and enhance this tradition of cutting-edge collaborative research, the Shiley-Marcos ADRC will host a **"Data Blitz"** in which leading research scientists from UCSD, Scripps, Salk, Burnham and SDSU will give very brief presentations of their most recent and exciting findings on Alzheimer's disease, neurodegeneration, and brain aging. We hope that this event will help investigators currently working in these areas, or interested in doing so, to become familiar with the breadth and depth of research being carried out by their colleagues and to identify resources and potential collaborations that will enhance their own research efforts.

Please join us on **Thursday June 6 from 9am – 2:30pm** in the ACTRI auditorium for what we believe will be a stimulating, rapid-fire tour of the visionary research on Alzheimer's disease and related disorders that is being carried out in the San Diego Neuroscience Community.

SMADRC DATA BLITZ, JUNE 6, 2024
SCHEDULE

Time	Speaker	Title
8:00 AM		**CONTINENTAL BREAKFAST**
8:30 AM		**POSTER SET-UP**
9:00 AM	*David Salmon, PhD*	**Welcome & ADRC opportunities for collaboration**
9:05 AM	*Erin Sundermann, PhD*	**Sex Differences in Clinical Trajectories in preclinical Alzheimer's Disease and MCI**
9:10 AM	*Hector Gonzalez, PhD*	**Cognitive aging and impairment among diverse Latinos in the US**
9:15 AM	*Raeanne Moore, PhD*	**Identifying Digital Phenotypes of Risk for Alzheimer's Disease and Related Dementias Among Hispanics/Latinos**
9:20 AM	*Mark Bondi, PhD*	**Neuropsychological definitions of subtle cognitive decline and MCI improve prediction of progression**
9:25 AM	*Dalia L. Garcia, ABD*	**Sprinting in Two Languages: Leveraging Spanish-English bilinguals to develop new tasks that are sensitive to AD biomarkers**
9:30 AM	*Atul Malhotra, MD*	**Sleep issues, memory consolidation and cognitive impairment**
9:35 AM		**10-MINUTE BREAK AND TIME CATCH-UP**
9:45 AM	*Doug Galasko, MD*	**Fluid biomarkers for ADRD – progress and opportunitiesrs**
9:50 AM	*Mridu Kapur, PhD*	**tRNAs as modifiers of neurological disease**
9:55 AM	*Hiruy Meharena, PhD*	**Microglia in Down syndrome associated Alzheimer's Disease (DS-AD)**
10:00 AM	*Don Cleveland, PhD*	**Reactivating neurogenesis in the aging brain**
10:05 AM	*Kim Dore, PhD*	**Increasing palmitoylation of synaptic proteins as a therapeutic strategy for AD**
10:10 AM	*Jerome Mertens, PhD*	**Direct neuronal reprogramming to study Alzheimer's disease in the context of cellular aging**
10:15 AM		**10-MINUTE BREAK AND TIME CATCH-UP**
10:25 AM	*Courtney Glavis-Bloom, PhD*	**The common marmoset as a model for age-related cognitive impairment**
10:30 AM	*Eric Granholm, PhD*	**Pupillary responses as a biomarker for risk of AD**
10:35 AM	*Katherine Bangen, PhD**	**Arterial stiffening interacts with AD biomarker status to predict cognitive decline in older adults without dementia**
10:40 AM	*Carrie McDonald, PhD*	**BRain Aging and Cognition in Epilepsy (BRACE)**
10:45 AM	*Diane Jacobs, PhD*	**Visual Sensory Binding: A Novel Behavioral Marker of Preclinical AD**
10:50 AM	*Jingjing Zou, PhD*	**Novel Functional Data Analysis of Eye-Tracking (ET) Markers in Preclinical AD**
10:55 AM		**10-MINUTE BREAK AND TIME CATCH-UP**

* ADRC Research Education Component Scholar

SMADRC DATA BLITZ, JUNE 6, 2024: SCHEDULE

Time	Speaker	Title
11:05 AM	*Howard Feldman, MD*	**Topline results from recent ADCS trials**
11:10 AM	*Vivian Hook, PhD*	**Alzheimer's drug target discovery via signaling mechanisms to repurposing of FDA drugs**
11:15 AM	*Mark Tuszynski, MD, PhD*	**A Clinical Trial of AAV2-BDNF Gene Therapy in Alzheimer's Disease**
11:20 AM	*Aksinya Derevyanko, PhD*	**Delivery of astrocyte secreted Chrdl1 to target synapse loss in Alzheimer's disease**
11:25 AM	*Subhojit Roy, PhD*	**Therapeutic Gene Editing in Alzheimer's Disease**
11:30 AM	*Lucas Patel*	**Exploring the gut-brain axis in Alzheimer's Disease using metagenomics**
11:35 AM		**LUNCH AND POSTERS**
12:40 PM	*David Coughlin, MD**	**Tau seeding**
12:45 PM	*Xu Chen, PhD**	**Lipid droplets in tauopathy brain**
12:50 PM	*Tomohiro Nakamura, PhD*	**Redox biomarkers for ADRD**
12:55 PM	*Joy Zhou, PhD*	**Uncovering Spatial Molecular Signatures of Microglia Phenotypes in Alzheimer's Disease**
1:00 PM	*Anne Bang, PhD*	**Modeling long term potentiation using iPSC neurons of multi-electrode arrays**
1:05 PM	*Cristina Sigurdson, DVM, PhD*	**Unraveling the signaling pathways to synaptic loss and neurodegeneration in prion disease**
1:10 PM		**10-MINUTE BREAK AND TIME CATCH-UP**
1:20 PM	*Aladdin Shadyab, PhD*	**Accelerated epigenetic aging as a predictor of cognitive decline**
1:25 PM	*Paula Desplats, PhD*	**Time's Rhythm: Harnessing Circadian Modulation to unlocking Alzheimer's**
1:30 PM	*Nicole Coufal, MD, PhD*	**Epigenetic regulation of microglial biology in AD**
1:35 PM	*Nathen Zemke, PhD*	**Single cell epigenomics in aging human hippocampus**
1:40 PM	*Seoyeon Lee, PhD*	**Single-Cell Multiomic Analysis of AD-Associated Gene Regulatory Programs in the 5xFAD Mouse Hippocampus**
1:45 PM	*Gene Yeo, PhD, MBA*	**RNA binding protein dysfunction and opportunities in aging and AD**
1:50 PM		**10-MINUTE BREAK AND TIME CATCH-UP**
2:00 PM	*Kelsey Thomas, PhD**	**Alpha-synuclein and amyloid biomarker groups in older adults**
2:05 PM	*Matt Panizzon, PhD*	**Age at menopause and Alzheimer's disease risk**
2:10 PM	*Melody K Schiaffino, PhD, MPH*	**ADRD and cancer**
2:15 PM	*Carl Hoh, MD*	**AD SPECT/CT imaging project**
2:20 PM	*Emilie Reas, PhD**	**Neuroimaging blood-brain barrier permeability in early Alzheimer's disease**
2:25 PM	*Steven Edland, PhD*	**Is neocortical CAA an etiologically relevant Alzheimer's disease lesion?**

* ADRC Research Education Component Scholar

1. *Carlos E. E. Araujo-Menendez* — **Cognitive Aging Trajectories among English- and Spanish- Test Takers**

2. *Oliver Borgogno, PhD* — **Modeling Mild Cognitive Impairment and the early Alzheimer's disease trajectory with directly induced neurons (iNs)**

3. *Ali Boustani, MD* — **JGDF15 Levels Increase in the Brains of People with HIV**

4. *David Coughlin, MD** — **Digital Histological Measurements of Alzheimer's Disease Pathology Are Reliable and Reveal a Range of Disease Severity within Traditional Assessments**

5. *Suborno Jati, PhD* — **Chromogranin A (CgA) Deficiency Attenuates Tauopathy by Altering Epinephrine–Alpha-Adrenergic Receptor Signaling**

6. *Jessica Lagerwall, PhD* — **Age-dependent mislocalization of Tau in human neurons**

7. *Anna Laird BS* — **Sera from People with HIV Alters Mitochondrial Activity in Cultured Human Astrocytes, which are Correlated with Depressive Symptoms and Cognitive Function**

8. *James Lo* — **Alzheimer's brain and control brain show distinct ultrashort echo time magnetization transfer ratio (UTE-MTR): an ex vivo study**

9. *Kitty Lui, M.*** — **Sleep apnea, hypertension, and tau pathology in older women with increased Alzheimer's risk**

10. *Yury Miller, MD, PhD* — **AIBP controls TLR4 inflammarafts and mitochondrial dysfunction in a mouse model of Alzheimer's disease**

11. *David J. Moore, PhD* — **TBD**

12. *Sara Moukarzel, PhD* — **Hispanos y el ALTo a la Demencia (HALT-AD) Program: A culturally adapted online program to improve knowledge and support healthy lifestyle modification among Latino/as for dementia risk reduction**

13. *Jenn Page, PhD* — **The ADRC iPSC Core provides high-quality cell line models for the study of Alzheimer's and related dementias**

14. *Anny Reyes, PhD** — **The Clinical and Cognitive Profiles of Individuals with Alzheimer's Disease and Co-morbid Seizures**

15. *Johannes Schlachetzki, MD** — **Transcriptional regulation of microglia in Alzheimer's disease**

16. *Fiza Singh, MD* — **Frontal Gamma as a Marker of Effective Training During Neurofeedback to Improve Memory in Patients with Mild Cognitive Impairment**

17. *Christine N. Smith, PhD* — **News event memory predicts white matter hyperintensity burden in individuals with variable risk for Alzheimer's Disease****

18. *Azin Tavasoli, MD* — **Increasing Neuroinflammation relates to Increasing Neurodegeneration in PWH**

19. *Kyle Walter* — **Chronicity of Cannabis Use is Linked to Disrupted Immunomodulatory Role of TREM2 in HIV**

20. *Chengbiao Wu, PhD* — **Molecular and cellular mechanism of RIN3 in neurodegeneration in Alzheimer's disease**

21. *Lucia Zhou Yang, MSc* — **Alzheimer patient-based 3D iN-Glia constructs to study age-dependent pathological and resilience mechanisms**

22. *Li Yuan, PhD* — **Effects of the Persistence of Theta Oscillations during Working Memory Retention on the Information Flow between Hippocampus and Medial Prefrontal Cortex**