Alzheimer's SAN DIEGO

PRESENTS:

DATE WITH A CURE

A FREE ALZHEIMER'S RESEARCH FORUM
Welcome!

Eugenia Welch
President & CEO
Thank you!
Alzheimer's SAN DIEGO
FREE services and support!
www.alzsd.org | 858.492.4400
84K ≈ 100,000 people in San Diego County living with dementia
Join us!

SD Rides4Alz '21
Motorcycle Ride to Benefit Alzheimer's San Diego

July 10, 2021

Balboa Park • Walk4Alz
Alzheimer's San Diego

October 16, 2021
Alzheimer's SAN DIEGO

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About the program

• All attendees have been muted
• This program is being recorded
• Program materials will be emailed
• Use “Q&A” to submit questions
• A live “closed caption” transcript of this program is available
Alzheimer’s San Diego’s Volunteer Tech Team is here to help! Call our office (858-492-4400) or send a message in the webinar “chat” if you need technical assistance during the program.
Amy Abrams, MSW/MPH
Moderator
Director of Education
Alzheimer's San Diego

Dr. Paul S. Aisen
Director
USC Alzheimer's Therapeutic Research Institute

Dr. Jim Brewer
Director
UCSD's Shiley-Marcos Alzheimer's Disease Research Center

Dr. Jerold Chun
Senior Vice President,
Neuroscience Drug Discovery
Sanford Burnham Prebys Medical Discovery Institute

Dr. Brent Mausbach
Clinical Psychologist
UC San Diego Health

Dr. Michael Plopper
Medical Director
Sharp Clinical Research Center

Dr. Robert Rissman
Associate Professor of Neurosciences
UCSD Center for Neurodegeneration & Experimental Neuropathology

Dr. Sherry Soefje
COO and Medical Director
Excell Research
≈100,000 residents of San Diego County 55+ are living with dementia.

3rd leading cause of death

By 2030, there will be over 115,000 San Diegans living with dementia, requiring nearly 300,000 caregivers to provide over 333 million hours of unpaid care annually.

Source: County of San Diego Health and Human Services Agency
Dementia is not a specific disease

Between 60-80% of dementias are believed to be caused by Alzheimer’s disease

Non-Alzheimer’s dementias:
- Lewy Body dementia
- Vascular cognitive impairment
- Frontotemporal disorders
- Other dementias
Risk factors for dementia

- Age
- Genetics and family history
- Education level
- Head trauma
- Down syndrome
- Health factors: hypertension, heart disease, diabetes, hearing loss
- Sex

Ethnic disparities in the U.S.
No known environmental risk factors or causes
Staying healthy

• Diet and nutrition
• Exercise and movement
• Cognitive activity
• Social connection
• Sleep and relaxation

What’s good for your heart is good for your brain.
The needs of people living with dementia, family caregivers, and the community at large

- Information
- Emotional support
- Respite
- Social connection
- Safety resources
• Information and resources
• Printable tip sheets
• Video library

alzsd.org

• Information and referral
• Care consultation
• Emotional support

(858) 492-4400
info@alzsd.org

Alzheimer’s SAN DIEGO
Brain Health for All
A groundbreaking local initiative that combines San Diego’s resources in order to accelerate research and drug discovery projects to find a cure.

When you join a clinical trial, you contribute to critical research that could change the course of Alzheimer’s disease treatment and cure.
High Throughput Screening Studies for Novel N-Terminal CRFR1 Antagonists for AD

Robert Rissman, PhD
Associate Professor of Neurosciences
Director, ADCS Biomarker Core
Director, ADRC Neuropath & Biomarker Cores
University of California, San Diego

Director, ATRI Biomarker Unit
Director, National Clinical Trial Repository for AD
University of Southern California

Principal Investigator and Research Biologist
VA San Diego Healthcare System
Corticotropin-Releasing Factor Receptor 1 (CRFR1) as a target for AD

CRF System Involvement in AD?

- CRF-immunoreactivity is reduced early in AD
- Occurs in areas vulnerable to AD pathology
- Abnormal CRF neurites surround Aβ plaques
- CRF binding upregulated in vulnerable cortical areas
Stress and CRF Signaling in Alzheimer’s Disease: Extension to Mouse Model of AD

- CRF antagonist treatment can retard/limit development of plaque pathology in mouse AD model independent of stress experience
  - also lessen β-amyloid production, cognitive impairment
  - similar, though more subtle effects seen in older animals

- CRFR1 antagonists target both pathological hallmarks of AD

- CRFR1 is a candidate target for intervention in AD
  - Small molecule CRFR1 antagonists have been tested in human trials
  - Route of administration may be an important determinant of efficacy
C4C Update

Reverse transcriptase inhibitors and sphingosine 1-phosphate (S1P) receptor 2 (S1P<sub>2</sub>) antagonists

Jerold Chun, M.D., Ph.D.

La Jolla, CA   USA
jchun@SBPdiscovery.org
Reverse transcriptase inhibitors to reduce AD genomic complementary DNAs: gencDNAs

AD gencDNAs are produced by reverse transcriptases (RTs): this C4C goal is to find inhibitors of human brain RTs

gencDNAs produced by somatic gene recombination involve myriad normal or pathogenic gene forms in AD
This C4C goal is to reduce neurodegeneration in AD by decreasing glutamate neurotoxicity by inhibiting S1P₂
The EphA4 Receptor as a Novel Target against Alzheimer’s Neurodegeneration

Brain cell

Amyloid-β oligomers

EphA4 receptor

Activating ligand

Active

Inactive

Neurodegeneration

Neural repair

COGNITIVE DECLINE
Ask the experts

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Dr. Sherry Soefje
Thank you for joining us!

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