The Journey Continues…
and Help Is On Its Way!

By Jamie Tyrone

Some of you may remember my story that was published in the summer 2012 issue of Currents, and some of you may be unaware of my journey about knowing my genetic status for Alzheimer’s disease (AD).

So with that being said, here is a brief refresher. In 2009, I volunteered to participate in a study to see whether persons would change their lifestyle if they knew they were at genetic risk for certain diseases. The study design was much like 23andMe’s process for genetic testing, which is enrollment online and results received via email. My motivation to enroll in the study was to discover what my risk was for another disease, not Alzheimer’s. I have a strong family history of AD and there was NO genetic counseling involved to help me make this decision that would impact my life so dramatically. I should not have been surprised to have been informed that I have 2 copies of the ApoE 4 allele which could put me at a 91% lifetime risk of having AD. I can honestly say that if I had been educated on what was being tested for, and what the results would mean in the way of risk, I would NOT have chosen to be tested. My days were filled with fear and anxiety. I knew of no one who had this genotype and I felt extremely lonely and isolated. I was subsequently diagnosed with Post Traumatic Stress Disorder (PTSD). Only 2% of the population has this genotype, and there was no one that I felt that I could turn to for support. I truly believe that had there been support, I would never have been challenged with the level of anxiety I was living with.

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Alzheimer’s Disease Genetics in the 21st Century

By Douglas Galasko, MD

Before genetic methods enabled researchers to identify specific DNA variations, studies of twins had suggested that 50% or more of the risk of getting Alzheimer’s disease could be attributed to genetic factors. A series of specific genes that are altered in young onset familial Alzheimer’s were identified by studies of families with multiple affected members across generations. In the 1990’s, the genes responsible for Alzheimer’s in these families, in which the onset of Alzheimer’s symptoms was unusually young (usually ranging from 30 – 50), were identified. We now know that mutations in 3 genes, Amyloid Protein precursor (APP), Presenilin 1 (PS1) and Presenilin 2 (PS2) cause the vast majority of cases of young onset Alzheimer’s. Inheritance follows a dominant pattern: there is a 50% chance that someone in an affected family will carry the altered (mutated) gene, and if someone who carries a gene mutation lives to the age of typical clinical onset, they will develop symptoms of memory loss and other features of Alzheimer’s. Young onset familial Alzheimer’s is being studied worldwide, and networks of researchers are trying to map the time course of biomarker and cognitive changes in these families and test new types of treatment (information at
But that is about to change! With the recent FDA approval of 23andMe to begin testing for the ApoE risk gene, the UCSD Shiley-Marcos Alzheimer’s Disease Research Center (ADRC) and UCSD genetic counselors, to field calls for those who are now finding out their genetic status. Because this is so new, there has not been a place to go to for support. Anxiety levels are elevated and people are asking, “what do I do with this information?” “What now?” The SMADRC understands our needs and is ready to help! In collaboration with “Beating Alzheimer’s by Embracing Science” (B.A.B.E.S.) and the UCSD Shiley-Marcos ADRC, we are excited to announce the formation of a peer support group for those who are at the highest risk for AD by having 2 copies of the ApoE4 allele (ApoE 4/4).

If you know that you have the ApoE 4/4 genetic status, we invite you to join us on the Second Tuesday of each month starting January 9th, at 3:00PM to 4:30PM, to be held on the UCSD campus. The support group will be facilitated by Tracey Truscott, LCSW with the ADRC, and UCSD genetic counselor Lauren Korty. Registration is required by contacting Tracey at (858) 822-4800. We look forward to helping you through your journey!

Understanding Alzheimer’s Genes

If you are interested in reading more about the relationship between Alzheimer’s risk and genes, the The National Institute on Aging (NIA) publication, “Understanding Alzheimer’s Genes: Know Your Family History” is a great resource. This booklet aims to help families understand the role of genetics in Alzheimer’s disease and will help you learn:

• what genes are
• how genes relate to Alzheimer’s disease
• what it means if you have a family history of Alzheimer’s
• what you can do if you are at increased risk for Alzheimer’s
• how to obtain more information, if needed

Read the booklet online or print it out at:
https://www.nia.nih.gov/alzheimers/publication/understanding-alzheimers-genesis/introduction

Lauren Korty is a licensed, board-certified genetic counselor. Genetic counselors have specialized education in genetics and counseling to guide and support patients seeking more information about their genetic health. Genetic counselors help families review their health history, navigate the genetic testing process, and understand and adapt to the medical or psychological implications of hereditary conditions. Lauren obtained her MS in Genetic Counseling from the University of California, Irvine and has worked at the University of California, San Diego for over 10 years. Her main clinical areas are prenatal genetic counseling for high-risk pregnancies at the UCSD Maternal Fetal Care & Genetics clinic, assessing for hereditary cancer risk at the Family Cancer Genetics Program, and pre- and post-test genetic counseling at the Huntington’s Disease Predictive Testing Program. She is an adjunct professor for the Augustana -Sanford genetic counseling graduate program and enjoys training future genetic counselors. She believes that genetic counselors are crucial to help interpret complex genetic information and provide emotional support as genetic testing technology rapidly evolves and becomes more accessible.
Alzheimer’s Disease Genetics
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dian.wustl.edu). Of great interest, a rare genetic variant in the APP gene may protect against the development of Alzheimer’s. APP, PS1 and PS2 are all related to the handling (called processing) of the APP protein by nerve cells. Convergence of mutations that cause early onset Alzheimer’s across this pathway has reinforced the amyloid hypothesis of Alzheimer’s, and led to treatment efforts that target APP and its breakdown products.

Mutations in APP, PS1 and PS2 do not cause later onset Alzheimer’s. Other genes have been identified that alter the risk of developing late onset Alzheimer’s. Variation of a gene called APOE that codes for the Apolipoprotein E protein is the most prominent factor that alters the risk of getting Alzheimer’s in later life. There are 3 variants of APOE, called e2, e3 and e4, and because genes have two copies, one inherited from one’s mother and one from one’s father, people have different combinations of the APOE4 gene, such as e3/e3, e2/e4, etc. Among Caucasians, e4 occurs in about 20-25% of the population at large. About 1-2% of people have 2 copies of e4 (called e4/e4). Studies have shown that people who have 1 copy of e4 have a 2-3 times increased lifetime risk of developing Alzheimer’s, and people with 2 copies of e4 have a 4-8 times increased lifetime risk. Unlike the genes that cause early onset Alzheimer’s, people with e4 will not inevitably develop Alzheimer’s, and e4 is therefore called a genetic risk factor. We do not understand how APOE4 modifies the risk of Alzheimer’s, and mechanisms that relate to Amyloid, tau, inflammation and synapses have been proposed.

Technical advances in how DNA can be analyzed have led to the latest wave of genetic studies for many types of disorders, including Alzheimer’s. These methods compare large numbers of people with a disease such as Alzheimer’s with large numbers who are unaffected. They depend on sequencing someone’s DNA in detail, either using a series of markers across the genome that cover many thousands of variants (called Genome Wide Association Study [GWAS]), or sequencing all of the coding regions of all known genes (called Whole Exome Sequencing) or sequencing all coding and non-coding regions (called Whole Genome Sequencing). Studies using GWAS for Alzheimer’s now rely on international collaborations and examine and compare thousands of patients and controls. GWAS studies have identified over 20 genetic variants that alter the risk of developing Alzheimer’s. Each variant alters risk by a small extent, typically by much less than 2-fold. There are ways to combine the different genetic variants into an overall risk score (called a Polygenic Risk Score) and this may allow prediction of Alzheimer’s risk with greater accuracy than using APOE alone. However, we do not currently have a completely reliable way to predict lifetime risk of Alzheimer’s. The different genetic variants identified through GWAS and related studies have implicated different pathways that may be relevant to Alzheimer’s, in particular inflammation. Knowledge about these genes and the pathways they are involved in may help to guide new treatment approaches for Alzheimer’s.

Given this background, genetic testing for Alzheimer’s is not yet ready for widespread use. Testing should always be preceded by genetic counseling.

The Shiley-Marcos ADRC is participating in ongoing genetic studies of Alzheimer’s disease and related disorders such as Lewy Body Dementia and Fronto-Temporal Degeneration.
The Shiley-Marcos ADRC Welcomes New Faculty Member, Hector Gonzalez, Ph.D.

How did you become interested in Neurocognitive disorders in Latinos?
My interest was born out of necessity and opportunity. I was a memory clinic tech at the Albuquerque VA when I was asked to test my first Spanish-speaking patient. I had to translate the tests first, there were no appropriate norms, and so I pursued developing appropriate tests and norms for Latinos with my mentor, Dan Mungas at the UC Davis ADC. As part of my clinical fellowship, I saw older Latinos in clinic. My research assignment was to the Sacramento Area Latino Study of Aging (SALSA). Being part of the first neuroepidemiologic study of Alzheimer’s disease and related dementias among Mexican-origin Californians and developing the necessary tests is how I became interested in neurocognitive disorders among Latinos.

Tell us about your specialized work in the Latino community
I am specialized in the population neuroscience (aka neuroepidemiology) of Latinos. My “lab” is the community at-large. We are able to see associations in populations that might not be detected with individual patients or participants. I focus on an understudied, but very important population, Latinos. What is unique about my work is that we have a large study population (16,415) of diverse Latinos who are very well phenotyped (e.g., electrocardiograms) and genotyped. Furthermore, we have been following the same study population for nearly 10-years, and will continue to do so for years to come. SOL-INCA is the largest study (we began with nearly 10,000 participants) of middle-aged and older, diverse Latinos (Central Americans, Cubans, Dominicans, Mexican Americans, Puerto Ricans and South Americans), which makes it unique. The SOL-INCA goals are to determine psychosocial, cardiometabolic and genetic risks for neurocognitive decline and dementia.

Are there any particular challenges you’ve encountered conducting research in the Latino community?
The biggest challenge has been that many tests and protocols developed for Whites are not available in Spanish and may not be appropriate for use among Latinos, especially diverse Latinos. Therefore, we also have to build our own tools to do the work. One challenge facing scientists studying minorities, like Latinos, is research participation stigma. I have not had this problem in my work. If Latino communities understand the importance and value of their study participation then stigma falls to the wayside.

What excites you about the research you conduct?
Discovery. We are venturing into new territories with our diverse Latino population that will have major scientific impacts on the health of Latinos. Our population is so well characterized that we can take our work into many directions and fill scientific gaps. I would like to share my excitement about our work with other scientists. Our team is small, and I want to grow our program by providing opportunities for outstanding new and experienced investigators to help expand the scope of our studies.

What strengths would you like to build at ADRC?
The Shiley-Marcos ADRC has remarkable clinical scientists and I feel so very privileged to be among such esteemed scientists. The Shiley-Marcos ADRC has a long commitment to Latino Alzheimer’s disease outreach. If I can enhance this Latino effort with our work, I believe we will develop an even stronger Shiley-Marcos ADRC. Our job is to serve our patients, participants and the taxpayers. This fundamental belief is a strength I want to build on by ensuring that we serve all taxpayers.

Are there any new directions you’d like to explore?
Yes, Neuroscience and other areas of research have been critiqued for relying on convenience samples, which may bias findings. The direct impact of sampling bias is that norms are based on study participants who might be very different from diverse Latinos. I saw several patients who had been misdiagnosed with Alzheimer’s disease because the normative data was simply not applicable to older Latinos. In the research literature, I have seen some very high dementia prevalence estimates for older Latinos, like four times higher than Whites. As such, it remains an open question, “Are Latinos at increased risk for Alzheimer’s disease or Are these differences due to methodologic problems, like using inappropriate tests?”. Indeed, these are important questions we are addressing in the Study of Latinos-Investigation of Neurocognitive Disorders (SOL-INCA). Because we included middle-aged Latinos (starting in their mid-40s), I believe we will be able to discover therapeutic opportunities for preventing Alzheimer’s disease before this devastating disease takes hold.
Why do so many studies require MRI scans?
Recent studies suggest that the ability to monitor how the brain actively changes as it ages is one of the most powerful tools in predicting whether a person will develop Alzheimer’s disease. The resolution of modern MR technology is so high that the entire brain can be reconstructed digitally with great accuracy. We can analyze this image of the brain with incredible detail using automated computer software to make calculations about the brain’s structure and function. These images enable us to make measurements across hundreds of regions within the brain, including those in which Alzheimer’s disease first manifests as the loss of brain volume and thickness. We can compare these measurements to expected values given a person’s age, and also track changes in the same individual over time when he or she returns for follow-up scans. We hope our research will impact the clinical approach to Alzheimer’s by allowing physicians to identify individuals at risk, detect the disease in its earliest stages, and monitor the success of treatments.

Newly Enrolling Neuroimaging Studies

Mild Cognitive Impairment (MCI)
Emily Edmonds, Ph.D. and her research associates at the VA San Diego are conducting a study to learn more about Mild Cognitive Impairment (MCI), a condition associated with risk of developing Alzheimer’s disease. The process of Alzheimer’s disease is believed to begin many years prior to a clinical diagnosis. Therefore, the purpose of this study is to characterize early phases of the disease and improve our ability to identify who is at risk for future memory decline.

You may be eligible for the study if you are (1) a Veteran, (2) age 65 or older, and (3) have normal cognition or MCI.

Participants will undergo paper-and-pencil cognitive testing, an MRI brain scan, and collection of samples (blood and cerebrospinal fluid) for analysis of proteins called “biomarkers.” These assessments are completed over 2-3 visits. We ask that participants return once a year for a follow-up visit (paper-and-pencil tests only). Participants will be compensated $150 for completion of all assessments, plus $50 for each annual follow-up visit.

For more information, contact Alex Weigand at (858) 552-8585 extension 3675.

Early Risk Factors for Alzheimer’s Disease
Eric Granholm, Ph.D. and Mark Bondi, Ph.D. and their colleagues at UC San Diego are conducting a study to learn more about early risk factors for Alzheimer’s disease. The purpose of this study is to determine if pupillary responses can serve as an early biomarker of Alzheimer’s disease development and staging.

You may be eligible for the study if you are (1) 65 years or older, 2) literate in English, 3) and have normal cognition, MCI, or Alzheimer’s disease.

Participants will complete tests of memory and thinking abilities, an MRI brain scan, and collection of a sample of cerebrospinal fluid for analysis of special proteins related to Alzheimer’s disease. If you have already completed any of these procedures at the UCSD Alzheimer’s Disease Research Center, the data can be provided to the researchers with your permission. These assessments are completed over 1-2 visits and you may be asked to return for a follow-up visit. Participants will be compensated $150 for completion of all assessments.

For more information, contact Tanya Mikhael at (858) 246-2515.
Observational Studies

COGNITIVE AGING LONGITUDINAL STUDY (ALSO AVAILABLE IN SPANISH)

PI: Douglas Galasko, MD
CONTACT: Tracey Truscott, LCSW
(858) 822-4800 or ttruscott@ucsd.edu

TIME INVOLVED: minimum 5 years

DESCRIPTION: The purpose of this study is to learn how the brain changes as we age. This is an observational study with no medication, with behavioral, medical, and cognitive data collection and testing as well as a neurological exam. This is done annually from the time of enrollment to death. Information about strategies for healthy brain aging is provided, as is feedback about one’s annual performance on cognitive testing. We continue to obtain blood and CSF samples to match up changes in chemicals we can measure in the blood and CSF with changes in cognition and brain structure.

REQUIREMENTS: Age 65 and older if normal cognition or diagnosis of MCI or early dementia due to Alzheimer’s, FTD, or DLB; study partner; LP and MRI required; brain autopsy required.

ALZHEIMER’S DISEASE NEUROIMAGING INITIATIVE 3 (ADNI)

PI: James Brewer, MD, PhD
CONTACT: Tracey Truscott, LCSW
(858) 822-4800 or ttruscott@ucsd.edu

TIME INVOLVED: minimum 5 years

DESCRIPTION: The primary goal is to discover, optimize, standardize, and validate clinical trial measures and biomarkers used in ongoing Alzheimer’s disease research. The Alzheimer’s Disease Neuroimaging Initiative (ADNI) plays a central role in improving treatment trials. Since the study’s launch, ADNI Investigators with regulators in both the US and abroad have facilitated the design of major completed and ongoing drug trials. ADNI 3 is a continuation of this work. ADNI 3 is a non-randomized, natural history, non-treatment study. Clinical/cognitive, imaging (MRI and PET scans), biomarker, and genetic characteristics will be assessed across the three cohorts: Normal controls (NC), Mild Cognitive Impairment (MCI), and mild Alzheimer’s disease (AD). Visits will occur annually for MCI and AD subjects and biennially for NC subjects.

REQUIREMENTS: Age 55-90; have normal cognition or a diagnosis of MCI, or AD; have a study partner; have overall good general health. Subjects are required to undergo MRI and PET scans and undergo a lumbar puncture.

Clinical Trials for Persons with Normal Cognition

A5-EARLY AD

PI: Douglas Galasko, MD
CONTACT: Tracey Truscott, LCSW
(858) 822-4800 or ttruscott@ucsd.edu

TIME INVOLVED: 54 months of treatment (4.5 years); 35 visits over 54 months

DESCRIPTION: A5 is a clinical trial aimed to prevent Alzheimer’s in people at risk because they have brain amyloid. It is similar to the A4 trial. The purpose of the study is to test a new drug (JNJ-54861911) which is being developed by Janssen Pharmaceuticals. JNJ-54861911 is a beta-site amyloid precursor protein cleaving enzyme inhibitor (BACEI) that is being developed for the treatment of Alzheimer’s disease (AD) by reducing production of amyloid-beta (Aβ) fragments. Accumulating amyloid aggregates triggers a pathophysiological cascade (including acceleration of tau pathology) that leads to progressive neurodegeneration, neuronal loss, and cognitive impairment. We are recruiting subjects who are asymptomatic and at risk for developing Alzheimer’s dementia due to evidence of elevated amyloid accumulation based on CSF biomarkers or amyloid PET imaging. Study drug is administered orally once a day. Some people who were screened for the A4 trial but did not qualify may be eligible for A5.

REQUIREMENTS: Age 60-85; Subjects 60 to 64 years of age must also have 1 of the following 3 conditions: a. A positive family history for dementia (minimum of 1 first degree relative) b. A previously known APOE4 genotype c. A previously known biomarker status demonstrating elevated amyloid accumulation in CSF or PET With or without subjective memory complaints, should not be receiving acetylcholinesterase inhibitor and or Memantine, 7 MRIs, 4 Lumbar punctures, 4 PET scan, study partner is required.
Trials for MCI and Early Alzheimer’s Disease

**DISCOVER**

**PI:** Douglas Galasko, MD  
**CONTACT:** Asmaa Al-Hamdani  
(858) 822-4800 or alhamdani@ucsd.edu

**TIME INVOLVED:** Up to two months and will require at least five study clinic visits including a three-day stay at the UCSD clinical research unit. Compensation will be provided to enrolled participants.

**DESCRIPTION:** Posiphenn is an experimental drug with a novel action against amyloid and potentially other brain proteins that build up pathologically in the brain in persons with early Alzheimer’s disease. Posiphenn may delay Alzheimer’s disease (AD) onset or slow the progression of possible AD-related brain damage due to amyloid buildup. Participants in Discover will help researchers learn if the experimental drug is both safe and tolerated. This is a randomized, double-blind, placebo-controlled study with a 75/25 chance of receiving the experimental drug.

**REQUIREMENTS:** Age 55-85; diagnosis of MCI or mild Alzheimer’s disease; MMSE 21-27; study partner, MRI scan, lumbar puncture, willing to undergo extended stay in clinical research unit (2 nights).

**EMERGE: BIOGEN (BIIB037)**

**PI:** James Lohr, MD  
**CONTACT:** Lorraine Cheng, MA  
(858) 229-2283 or Locheng@ucsd.edu

**TIME INVOLVED:** 2 years

**DESCRIPTION:** The purpose of this study is to evaluate the efficacy and safety of Aducanumab (BIIB037) in persons with early Alzheimer’s disease. Aducanumab is a human monoclonal antibody, and it is being evaluated to determine whether it can remove the amyloid plaques and slow the progression of symptoms in early AD.

**REQUIREMENTS:** Age 50-85; diagnosis of Alzheimer’s disease; MMSE 24-30; study partner; PET and MRI scans; able to have monthly infusions.

**UC CURES SAL-AD**

**PI:** James Lohr, MD  
**CONTACT:** Asmaa Al-Hamdani  
(858) 822-4800 or alhamdani@ucsd.edu

**TIME INVOLVED:** 52 weeks

**DESCRIPTION:** Double blind, randomized, placebo controlled, pilot PK/PD, evaluating tau acetylation inhibitor salsalate for mild-to-moderate Alzheimer’s disease. Salsalate is a non-steroidal anti-inflammatory (NSAID), which is used to treat arthritis. Salsalate is being tested here for its property to inhibit tau acetylation, which may play a role in tau aggregation.

**REQUIREMENTS:** Age 50-85 with diagnosis of AD; MMSE 14-30. Subject agrees to LP, MRI, PET (amyloid and tau), cognitive testing and must have a study partner.

**ABBVIE M15-566**

**PI:** James Lohr, MD  
**CONTACT:** Tracey Truscott, LCSW  
(858) 822-4800 or ttruscott@ucsd.edu

**TIME INVOLVED:** 92 weeks of treatment; 33 visits over 24 months

**DESCRIPTION:** The purpose of the study is to test a new drug (ABBV-8E12) which is being developed by AbbVie Pharmaceuticals. ABBV-8E12 is a humanized IgG4 monoclonal antibody against human microtubule associated protein tau. It targets soluble extracellular tau in the brain, which has been implicated in the development and spreading of tau pathology. ABBV-8E12 may be able to block soluble tau aggregates, or seeds, from propagating between cells and thereby decrease the spreading of tau pathology and slow down Alzheimer’s disease. Drug is administered an infusion once a month.

**REQUIREMENTS:** Age 55-85; stable on memory medication for 3 months or no memory medications; 8 MRIs, 3 Lumbar punctures, 1 PET scan; study partner is required.
**The Shiley-Marcos ADRC Welcomes Our New Trainees**

Xinyi Cao, MD, PhD completed a medical degree from Shanghai Medical College, Fudan University, Shanghai, China in 2007 and a psychiatry residency at Shanghai Mental Health Center in 2012. She received her PhD in Psychiatry and Mental Health from Shanghai Jiao Tong University School of Medicine in 2016. She has been a visiting scholar at the SMADRC working with Dr. Salmon to advance her training of neuropsychological testing. Her research focuses on behavioral and neural changes after cognitive stimulation and physical exercise in normal aging and dementia.

Priscilla Vásquez Guevara, PhD, MPH is a postdoctoral fellow working with Dr. Hector González. Her research focuses on maintaining the cognitive health of diverse middle-aged and older Latino adults who are participating in the Study of Latinos Investigation of neurocognitive aging (SOL-INCA). She earned her PhD in Kinesiology, Nutrition, and Rehabilitation Sciences at the University of Illinois at Chicago in 2017 and Master’s in Public Health, Community Health Sciences at UIC in 2013. She has extensive experience working with the Hispanic Community Health Study/Study of Latinos (SOL) studying associations between physical activity, risk factors, and quality of life.

Hector L. Gonzalez is completing his undergraduate studies at San Diego State University, as part of the Advancing Diversity in Aging Research Program. His plan is to progress into a Clinical Neuroscience PhD program upon graduation. He is currently a research assistant working under the supervision of Dr. Salmon at the SMADRC. His professional interests revolve around aging research and cognitive/psychological disorders. He hopes to make a meaningful difference during his time at the SMADRC and play a role in furthering research on Alzheimer’s disease progression.

**Staff Updates**

**The Shiley-Marcos ADRC Extends a Warm Welcome to our New Staff Members and Volunteers!**

Daniel Szpak, joined the Shiley-Marcos Alzheimer's Disease Research Center (ADRC) as a Clinical Research Nurse with over 15 years of experience managing clinical trials and research staff in oncology, psychology, and HIV at UC San Diego. He earned a B.A. in Journalism from the State University of New York at Buffalo, and worked as a Human Resources Manager prior to earning his A.D.N. with honors from Los Angeles County/USC School of Nursing in 2001. Fulfilling his long term career goal of offering hope to individuals and their families at the ADRC, Daniel is honored to be part of such a dedicated and compassionate team in search of new ways to prevent and treat Alzheimer’s disease.

Asmaa Al Hamdani was born in Baghdad-Iraq and immigrated to the United States in 2009. She graduated from AL-Mustansria School of Medicine in Baghdad where she received her bachelor’s degree in medicine and general surgery. She practiced as an Internist in Jordan Hospital and Medical Center in Amman-Jordan. In the United States, she completed her Master’s degree in Clinical Research at UCSD. Her thesis focused on how subjective memory complaints predicted performance across the lifespan. Shortly after, she joined the ADRC as a research study coordinator for clinical trials and assists in overseeing the UCSD Adult Down Syndrome Program which provides, cutting-edge health care, resources and research opportunities for Adults with Downs. Asmaa feels privileged to be working with extraordinary people whom are a true inspiration.

Cecilia Salcedo Borrego grew up in Mexico and returned to the US at the age of nine. She attended the University of California San Diego, where she obtained a Bachelor’s degree in Psychology and double minor
Brandon Pulido received a degree in Psychology with a minor in Applied Developmental Psychology from the University of California, Los Angeles in 2015. After graduating, he worked at the Semel Neuroscience Institute at UCLA as a Bilingual Research Assessor conducting assessments designed to measure intelligence and impulsiveness in young children. Additionally, as his interests revolve around neurodegenerative diseases, such as Alzheimer’s and Parkinson’s, he worked as a research assistant, and later an author, on a study focusing on Traumatic Brain Injuries. These studies, at UCLA’s Brain Research Institute enabled him to acquire research experience in the field he is passionate about. After two years at UCLA, he wanted to focus his experience directly on his interest in neurodegenerative diseases, so he moved to the San Diego area and began working at the UCSD SMADRC as a bilingual psychometrist.

Kimberly Lopez received her bachelor’s degree in Human Development at the University of California, San Diego and has been working at the ADRC as a student worker since June 2016 assisting with administrative, data entry, and recruitment related tasks. She became interested in the ADRC because of her desire to learn more about the brain and research. In the future, she is planning to apply to a master’s program with the eventual goal of applying to medical school. She has now joined the ADRC team as a full time staff member managing the ADRC lab, applying her bilingual skills at outreach events in the community and assisting in the recruitment of new participants for the many research studies underway.

Mollie Paster graduated from UC San Diego with a Bachelor of Arts in psychology and a minor in theatre. Prior to working at the ADRC, she volunteered at the UCSF Autism and Neurodevelopment Clinic, where she trained to administer neuropsychological tests on a longitudinal study of the efficacy of Applied Behavioral Analysis. She also performed clinical interviews and diagnostic assessments at the Autism Center of Northern California. She contributed to a research project studying stress and relationships in caregivers of children with autism. During her undergraduate career at UCSD, she worked in a cognitive neuroscience lab, where she studied prefrontal stopping mechanisms and transcranial magnetic stimulation. Mollie is currently working as a psychometrist and study coordinator at the ADRC and plans to attend graduate school in the future for a Ph.D. in clinical psychology.

Mayra Murillo Beltran is a San Diego Native & a graduate from UC San Diego with a BA in Psychology. She is currently working as a part time bilingual spanish/english psychometrist for the ADRC. In addition to her work at the ADRC, Mayra works as a Research Assistant for the UCSD Bilingual Lab under Dr. Tamar Gollan. In her spare time, Mayra enjoys spending time with friends, singing and baking. She is currently expecting a beautiful baby girl due December 2017.

Christopher Slowik is currently a senior at University of California, San Diego working towards his Bachelors of Science degree in Biochemistry and Cell Biology. Driven by his curiosity towards the neurosciences and the workings of the brain, Christopher started volunteering at the ADRC in June of 2017 and plans on continuing his work there for the foreseeable future. After watching the progression of Alzheimer’s disease in his grandmother, Chris became interested in being involved in the research and advancements at the SMADRC. He ultimately intends to pursue a profession in the medical field.

Cynthia Avalos is currently pursuing a Bachelor’s degree in Biochemistry and Cellular Biology with a minor in Psychology at UCSD and has been working at the SMADRC as a volunteer assisting with administrative, data entry, and recruitment related tasks. She became interested in the SMADRC because she desired to learn more about neurodegenerative diseases and help be a bridge between the Hispanic community and the SMADRC by increasing awareness about Alzheimer’s. She will be graduating in June 2018 and hopes to work with the SMADRC during her gap years before she applies to medical school. She joined the SMADRC team as a student employee in June 2017, and will be contributing to recruitment efforts for the longitudinal study and quality of life programs in the Hispanic/non-Hispanic communities. She is bilingual in English and Spanish and has lived in South bay San Diego all her life.

in Spanish Literature and Business. She aspires to obtain a PhD in Psychology and conduct her own research in the future. She became passionate about research when she became interested in language acquisition and retention, as she had to learn English when she moved from Mexico. Her interest in language flourished as an undergraduate after participating first as a subject in a study, and later as an undergraduate research assistant. The enjoyment of these experiences influenced her decision to pursue a career in neuropsychology and she is now a bilingual psychometrist at the SMADRC.
Leveraging Partnerships to Offer Community-Based Free Memory Screening in South Bay

The Shiley-Marcos Alzheimer’s Disease Research Center (SMADRC) is excited to announce that we have formally partnered with the George G. Glenner Alzheimer’s Family Centers, Inc. to offer free community-based memory screening to bilingual Spanish/English seniors living in South Bay. While the SMADRC has offered community-based free memory screening services for many years at our research center in La Jolla, we are grateful to the George G. Glenner Alzheimer’s Family Centers for enabling us to make this valuable service more accessible to a diverse group of seniors living in South Bay. Although memory screening is not used to diagnose any particular illness and does not replace consultation with a qualified physician or other healthcare professional, it can be very helpful. A screening can check a person’s memory and other thinking skills. It can indicate if someone might benefit from a more complete medical visit. Beginning in September, 2017, the Shiley-Marcos ADRC began sending bilingual, bicultural staff members to the George G. Glenner Alzheimer’s Family Centers at 280 Saylor Drive in Chula Vista to provide free, 30-minute memory screening assessments that include written feedback to the participants. Following the assessment, participants are given the opportunity to have one-on-one discussions with bilingual ADRC staff members to obtain additional information, gather resources, and discuss research opportunities. The demand for more memory screening services in Spanish has been identified, and we are excited to proceed with ongoing offerings for free memory screening services on a monthly basis. The Shiley-Marcos ADRC and George G. Glenner Centers Inc. will now offer this service in South Bay the last Friday of every month. To make an appointment or obtain additional information, please call the Shiley-Marcos Alzheimer’s Family Centers at (858) 822-4800.

A Time for Gratitude

The Shiley-Marcos team would like to extend our most sincere gratitude to all the generous individuals that contribute to our ongoing commitment to ending Alzheimer’s and related diseases through donations, research participation, and other acts of volunteerism. Without committed research participants, we could not make progress in our research efforts focused on identifying the causes, treatment, and prevention of Alzheimer’s disease. Your contributions to our program are immeasurable and our work is impossible without you.

“ We make a living by what we get, but we make a life by what we give. ”

— Winston Churchill

We are also grateful to the many community partners that work with us to provide outreach, education, and meaningful Quality of Life programs to the San Diego community. Our ongoing commitment to providing no cost stimulating activities designed to support individuals living with memory loss and their family members is paramount to our mission. The quality and innovation of these programs is not possible without the generosity of and commitment from the numerous not-for-profit organizations with whom we collaborate.

We thank you all for your investment of resources, time, enthusiasm, and innovation. We feel privileged to be part of such an amazing community all working together to end Alzheimer’s disease and support those currently living with it.

The Next SMADRC Memory Screening Day in La Jolla will be January 30th, 2017!

Call (858) 822-4800 to make an appointment.
The Innovation of the Discover Trial

The Discover trial, currently enrolling at the UC San Diego, Alzheimer’s Disease Research Center under the leadership of Douglas Galasko, MD, is a scientifically innovative new approach to the assessment of drug effectiveness in Alzheimer’s disease. The study has the potential to improve the way in which trials are conducted in the future by shifting the focus from measuring whether symptoms change, which take a great deal of time to assess, to direct measurement of how well the drug is hitting its intended target. Historically, Alzheimer’s drug development has relied extensively on animal models of Alzheimer’s disease to determine target engagement which has been problematic for a number of reasons. Many scientists in the field refer to the Alzheimer’s mouse model as “mouseheimer’s” to reflect the reality that the disease in human beings does differ in important ways and is more complex than that in a rodent brain. Making the leap from those early phase studies to large scale studies in humans without truly knowing whether the mouse model accurately simulates the way that Alzheimer’s develops in the human brain has proven problematic. The Discover trial is a proof of concept study in which the investigators will be assessing how well the study drug hits its target. We are testing a compound called Posiphen, which decreases the production of amyloid protein precursor (APP) and may also reduce inflammation, which are potentially relevant to Alzheimer’s. It has weak actions as an acetylcholinesterase inhibitor, and has been well tolerated in a small prior human study. Participants in this trial will be followed for a short, intensive time frame, so the researchers can measure biomarker data in the blood and cerebrospinal fluid in real time while the drug is in their system. This will provide precise information about how effectively the drug is affecting its target in human Alzheimer’s disease. The study is looking for volunteers with a diagnosis of MCI or early Alzheimer’s disease who would be willing to undergo an MRI scan, lumbar puncture procedure, and are able to stay in a UCSD clinic overnight. Compensation is provided to study participants. Please see additional details and links to the study flyer and PowerPoint presentation below.

CONTACT: Asmaa Al-Hamdani (858) 822-4800 or aalhamdani@ucsd.edu (study coordinator, Helen Vanderswag, RN)

Support the Shiley-Marcos ADRC Mission

The UC San Diego Shiley-Marcos Alzheimer’s Disease Research Center is dedicated to finding the causes of Alzheimer’s disease, creating therapies and caring for those affected by them. If you would like support our work through an immediate gift, please donate online at: https://giveto.ucsd.edu/?sk=205. If you would like to learn more about our giving opportunities, please contact Laura Adler at madler@ucsd.edu or by phone at (858) 246-1141.

The SMADRC Annual South Bay Open House

On November 16th, the UC San Diego, Shiley-Marcos ADRC hosted its annual Open House in South Bay at the Chula Vista Golf Course. Bilingual (Spanish/English) members of the South Bay community were invited for a morning educational program, continental breakfast, raffle, and community partner showcase. UC San Diego faculty members including, Hector Gonzalez, PhD, Zvinka Zlatar, PhD, Tamar Gollan, PhD, and Guerry Peavy PhD all presented in Spanish and English about the many research studies designed to enhance our understanding of Latino brain health and aging. Studies looking at the importance of both risk factors, such as cardiovascular disease and stress, as well as protective factors, such as exercise and bilingualism were highlighted. Speakers emphasized the critical importance of Latino engagement in research to better understand how these and other factors (such as genetics) impact this growing population of Americans. SMADRC community partners including Southern Caregiver Resource Center, Museum of Photographic Arts, the George G Glenner Family Centers, Alzheimer’s San Diego, and the Alzheimer’s Association all donated raffle prizes and disseminated resources and information about upcoming programs and services.

“The most useful and influential people in America are those who take the deepest interest in institutions that exist for the purpose of making the world better.” — Booker T. Washington
2018 SERIES

Memories at the Museums

SAN DIEGO MUSEUM OF ART
January 12, May 11, September 14

MINGEI INTERNATIONAL MUSEUM
February 9, June 8, October 12

TIMKEN MUSEUM OF ART
March 9, July 13, November 9

MUSEUM OF PHOTOGRAPHIC ARTS
April 13, August 10, December 14

Join us on the second Friday of each month from 2:00 - 3:00 at one of these exceptional San Diego museums for a unique docent-led discussion and tour. Museum docents engage people with mild-to-moderate Alzheimer’s or a related disorder and an accompanying family member or friend in discussions about the artwork to stimulate visual and verbal abilities and to spark memory. Memories at the Museums alternates between the four co-sponsoring museums that are all located in central Balboa Park. Museum admission and tours are free of charge to participants.

Each monthly tour is limited to 8 pairs (16 participants total). Pre-registration is requested. Please call Tracey Truscott, LCSW at the Shiley-Marcos Alzheimer’s Disease Research Center at (858) 822-4800 to register for a tour.