How is the ADRC funded? The main funding for the ADRC comes from research grants, particularly from the National Institute on Aging (NIA). The NIA created a Centers Program, to establish clusters of researchers with diverse expertise to expand Alzheimer’s disease research. UCSD was one of the 5 original centers, and we and the Massachusetts AD Center are the only two that have maintained continuous funding from NIA for 30 years. Centers provide Core resources, such as well-characterized patients and cognitively normal controls (many of whom are likely to read this newsletter), Neuropathology (including a brain bank), Database and Data analysis capabilities, and a Core responsible for Outreach, Recruitment and Education. By using the Center’s resources, researchers can efficiently test an idea, without having to recruit their own group of well-characterized research volunteers. In each five year grant cycle, the Center provides funding for pilot research projects for researchers who are junior or who have promising early-stage ideas to test. There are currently 28 AD Centers across the country. All of the Centers provide standardized data and DNA samples to a national database (the National Alzheimer’s Coordinating Center, or NACC), which allows for large-scale data analyses; this has been an invaluable resource for identifying genetic risk factors for Alzheimer’s. The UCSD ADRC also participates in multi-center studies.

Leveraging the resources of the ADRC helps investigators to obtain additional research funding for their projects from NIH, the major funding source for biomedical research in the USA. We also can apply for funding from sources such as the Veterans Administration, Department of Defense, and foundations such as the Alzheimer’s Association, Bright Focus Foundation, Michael J Fox Foundation and others.

Private philanthropic donations supplement these opportunities and help the Shiley-Marcos ADRC in many ways. We are profoundly grateful to the many people who have donated money to support our efforts over the years. These range from large donations that have supported faculty recruitment and major research efforts (the Riford and Shiley Endowed Chairs are examples) to a host of smaller donations that have helped us with a variety of activities that support research and care.

Continued on Page 2 >
What are some of the most significant contributions that scientists from the ADRC have made to the field in the past 30 years?

During early years of the Center, under Dr. Robert Katzman, we made major contributions to charting the clinical course of Alzheimer’s and developing clinical methods to allow early diagnosis and track change over time. Dr. Katzman, together with the (then) young investigators Drs. Salmon and Galasko, identified the clinical features of Dementia with Lewy Bodies (DLB), and the young Dr. Hansen identified its characteristic pathology. Dr. Robert Terry, together with Dr. Eliezer Masliah, identified that loss of biochemical markers of synapses, the connections between nerve cells, provided the strongest correlation between cognitive loss and underlying pathology. Dr. Katzman noted that some patients were able to maintain relatively better cognitive performance despite having Alzheimer pathology in their brains, and coined the term ‘cognitive reserve’ as a mechanism that may explain this resistance. This has sparked decades of research into trying to determine mechanisms that may contribute to reserve.

Dr. Tsunao Saitoh identified a new protein initially associated with some cases of Alzheimer’s pathology that he called NAC – soon after, this was identified as alpha-Synuclein, a molecule that is central to Parkinson’s disease pathology, and in the context of Dr. Saitoh’s observations, to DLB. Dr. Saitoh also made the important and original observation that a variant in the TAU gene was associated with increased risk of developing Progressive Supranuclear Palsy (PSP), a neurodegenerative problem in which tau forms aggregates in nerve cells.

Dr. Fred Gage identified that neurons in areas of the brain related to memory and learning showed functional changes during aging that could be improved with treatment with nerve growth factor (NGF). Dr. Mark Tuszynski, whose initial research training was with Dr. Gage, has carried out a program of translational research to explore the potential of NGF and a related molecule, BDNF, to improve memory in Alzheimer’s disease. Dr. Tuszynski’s efforts resulted in the first clinical trial of gene therapy for Alzheimer’s disease in humans.

Dr. Leon Thal, ADRC Director after Dr. Katzman, is best known for his pioneering work in clinical trials for Alzheimer’s disease. He led the original trials of the first cholinesterase inhibitor shown to have beneficial effects on cognition. His vision that an academic consortium could contribute to advancing Alzheimer therapeutics led to the founding of the Alzheimer’s Disease Cooperative Study (ADCS), which has developed novel approaches and outcome measures for Alzheimer clinical trials. He also helped to plan the Alzheimer’s Disease Neuroimaging Initiative (ADNI), a multi-center study that standardized brain imaging and CSF biomarkers for use in clinical trials.

Dr. Eliezer Masliah performed some of the first studies that demonstrated that antibodies directed against A-beta could decrease amyloid in mouse models. He recently showed that abnormal forms of alpha-synuclein can spread from one nerve cell to another in animal models of Parkinson’s disease.

Dr. Edward Koo, co-Director after Dr. Thal, performed an elegant series of studies to identify pathways and mechanisms that cells use as they form and process APP, the parent molecule of A-beta. More recently, he has led research that showed that it was feasible to selectively inhibit the gamma-secretase enzyme, resulting in decreased production of longer, potentially toxic forms of A-beta. This has resulted in new efforts to develop safe and potent drugs that target this mechanism to treat Alzheimer’s.

What do you hope to accomplish in the next five years?

The Alzheimer’s research field has recognized that the pathology underlying the disease builds up slowly for over a decade before the earliest symptoms develop. Therefore early (presymptomatic) intervention may be feasible, to delay or prevent the onset of cognitive decline. We are studying people who enter the ADRC as cognitively normal or with very mild cognitive changes in great detail. One goal is to identify who is at risk for decline and when this might begin. Our overall strategy is to study the structure of the brain as well as CSF and blood biomarkers and sensitive cognitive
tests to improve prediction. This will help us to contribute to developing efficient methods of identifying who is at greatest risk for late-onset Alzheimer’s. At the same time, we also are interested in developing a more holistic idea of factors that may change the balance of cognition in aging. This includes lifestyle factors that may confer protection, such as cognitive stimulation and exercise, and risk factors, such as cardiovascular risk factors and sleep changes.

We are trying to understand why some people develop Alzheimer’s with relatively younger onset than expected, especially in the age range of 50-65. At this age, a family history is not necessarily present, and symptoms may vary. Besides the more common early symptoms of forgetfulness, people in this age group may start with difficulty with visual perception or difficulty with language.

We continue to study the earliest cognitive changes that can be identified as Mild Cognitive Impairment (MCI), to make this identification more robust, and to understand factors and mechanisms that may influence the risk of prevention.

We will expand our research and educational outreach among elderly Latinos in San Diego, particularly in the South Bay. We aim to increase enrollment of Latino elders in the ADRC, to include this growing community in our general research efforts, and also to investigate the intriguing findings that bilingualism may attenuate some cognitive changes in aging.

The ADRC supports clinical trials in AD and in related disorders. Our Center is one of the participating sites for two important prevention clinical trial efforts. Through the A4 clinical trial, we are recruiting people between the age of 65 and 85 whose cognition falls within a normal range, and who undergo a brain amyloid imaging study during screening. Those who test positive are offered participation in a clinical trial of an antibody (solanezumab) directed against the amyloid protein. In the DIAN study, we will enroll people who are members of families where genetic mutations cause early onset familial Alzheimer’s disease (eoFAD), and offer treatment with one of two different antibodies (solanezumab or gantenerumab).

Through research projects, strong interactions with clinical and basic researchers, training programs for junior researchers, and educational programs for the public we will continue to leverage the resources of the ADRC. We will continue to develop and promote quality of life programs – described in more detail in this issue.

**Who will the ADRC scientists be collaborating with to achieve their goals?**

**Scientific collaborations:** We collaborate with many talented clinicians and researchers in San Diego: at UCSD in the Departments of Neurosciences, Pathology, Radiology, Psychiatry, Internal Medicine and with basic researchers. A special collaboration is with researchers at the Sanford-Burnham Medical Research Institute (SBMRI), the Salk Institute and the Scripps Research Institute (TSRI), and with stem cell researchers who interact through the Sanford Consortium for Regenerative medicine.

We continue to strengthen interactions with AD Centers in California, namely at UC Irvine, UCLA, USC, UC Davis and UCSF. As mentioned earlier, we share resources with national studies/centers funded by the National Institute on Aging such as the NACC. We also recruit subjects and contribute data to the Alzheimer’s Disease Neuroimaging initiative (ADNI), a clinical, imaging and biomarker study, and to the Alzheimer’s Disease Cooperative Study (ADCS) when we are a site for clinical trials.

**Clinical trials:** We are making strong efforts in the A4 prevention trial, and also participate in clinical trials for people with MCI and mild to moderate Alzheimer’s disease. This includes clinical trials sponsored by NIH, through the ADCS, and trials sponsored by Pharmaceutical Companies. The ADRC continues to engage in multicenter biomarker studies for novel methods such as amyloid imaging and in the Michael J Fox Foundation’s PPMI study for Parkinson’s disease.

**Promoting support, education and programs in the Community:** We greatly value our interactions with groups that provide services and information for patients and families who are affected by Alzheimer’s disease and other types of dementia. We will continue to provide information and speakers at events, and will help to develop and share programs (see the Quality of Life article in this issue). We also are helping to get the word out about healthy brain aging. Our partners in these efforts include the Alzheimer’s Association, Southern Caregivers Resource Center, the Glenner Center, the Lewy Body Dementia Association, and the Association for Frontotemporal Degeneration. We look forward to providing input towards developing a San Diego County plan regarding Alzheimer’s disease (the Alzheimer’s Project Initiative, which was recently announced) [http://www.diannejacob.com/news/news-releases/county-launches-regional-initiative-to-tackle-alzheimers-epidemic/](http://www.diannejacob.com/news/news-releases/county-launches-regional-initiative-to-tackle-alzheimers-epidemic/).
Research Opportunities at the UC San Diego Shiley-Marcos Alzheimer’s Disease Research Center

ADRC Longitudinal Study

The backbone study of the Shiley-Marcos Alzheimer’s Disease Research Center is our NIA-funded, observational, Longitudinal Study. This study has followed a cohort of individuals both with changes in thinking due to a neurodegenerative disease, such as Alzheimer’s disease, Lewy Body dementia, Parkinson’s disease, and Frontotemporal dementia, as well as a control group of seniors 65 yrs and older without any changes in their thinking since 1984 when UCSD became one of the first five federally funded Alzheimer’s Disease Research Centers. The Longitudinal Study provides eligible participants with an annual assessment that includes a physical exam, neurologic evaluation, and battery of neuropsychological tests as well as an autopsy at the end of life and biomarker assessments (including a volumetric MRI scan and lumbar puncture procedure) in the first year of participation. Each year, participants receive written feedback about their cognitive status and research diagnosis based on our multidisciplinary team’s analysis of their most recent assessment. We are still interested in enrolling new participants in this study at this time. In particular, we are interested in older adults (65 and older) without any abnormal changes in their thinking. In addition, we are interested in enrolling persons with a diagnosis of Alzheimer’s disease who are younger than 65 years old and persons with a diagnosis of Frontotemporal dementia, Lewy body dementia, and Mild Cognitive Impairment (including persons with Parkinson’s disease with Mild Cognitive Impairment). We are also in great need of volunteers who are of Hispanic decent both with and without memory/thinking changes. All of our assessments can be provided in Spanish for this study. For more information about participation, please contact Christina Gigliotti, PhD (cgigliotti@ucsd.edu) or for persons who are spanish speaking, Frances Martinez-Goodrich, MSW (fgoodrich@ucsd.edu) at 858-822-4800.

Clinical Trials for Alzheimer’s disease

**Lundbeck: LuAE58054**

**PRINCIPAL INVESTIGATOR:** Douglas Galasko, MD  
**TIME INVOLVED:** 28 weeks of treatment  
**CONTACT:** Deborah Fontaine, NP - (858) 822-4800

Randomized, double-blind, parallel-group, placebo-controlled, fixed-dose study of LuAE58054 in patients with mild-moderate Alzheimer’s disease treated with donepezil.

**REQUIREMENTS:**
- Age 50 and older, with study partner  
- Diagnosed mild-moderate AD  
- Stable dose of 10mg/day of donepezil for at least 6 months  
- MMSE 12-22  
- MRI required; Lumbar puncture optional

Clinical Trials for Mild Cognitive Impairment

**Navidea: (NAV4-04)**

**PRINCIPAL INVESTIGATOR:** James Brewer, MD, PhD  
**TIME INVOLVED:** 28 weeks of treatment  
**CONTACT:** Helen Vanderswag, RN - (858) 822-4800

The primary goal of the Navidea study is to investigate whether a radioactive tracer called [18F]NAV4694 has the ability to distinguish subjects with Mild Cognitive Impairment (MCI) who progress to Alzheimer’s Disease (AD) from those who do not with the use of a positron emission tomography (PET) scanner. This study is designed to establish imaging with the PET tracer [18F]NAV4694 as a diagnostic method to help identify subjects at increased risk of progression from MCI to AD dementia.

**REQUIREMENTS:**
- Age 55 and older, with study partner  
- Diagnosed with MCI  
- Female subjects not of child-bearing potential
Clinical Trials for Persons with Normal Cognition

A4: Anti-Amyloid in Asymptomatic AD

PRINCIPAL INVESTIGATOR: Douglas Galasko, MD | TIME INVOLVED: 3 years
CONTACT: Christina Gigliotti, PhD (858) 822-4800 or cgigliotti@ucsd.edu

This randomized, double-blind, placebo-controlled trial will assess solanezumab (a passive, monoclonal antibody that helps the body rid the brain of beta amyloid) on persons with no symptoms of AD. Solanezumab is administered via monthly infusions. Eligible persons will undergo an amyloid imaging scan to determine their potential risk for developing AD, based on the abundance or lack thereof of amyloid beta protein deposits in the brain tissue. Those individuals with greater risk for AD, on the basis of the amyloid imaging scan, will be randomized into one of two groups to receive monthly infusions of solanezumab to determine whether it can stop the progression of the AD pathology and hence prevent AD symptoms from developing.

REQUIREMENTS:
- Age 65-85, with a study partner
- Normal cognition
- MRI and PET scans required
- Lumbar puncture optional

CIRM: California Institute of Regenerative Medicine

PRINCIPAL INVESTIGATOR: Douglas Galasko, MD | TIME INVOLVED: 1 visit
CONTACT: Christina Gigliotti, PhD (858) 822-4800 or cgigliotti@ucsd.edu

This study will obtain a blood sample and a skin sample in some cases, from older adults with normal cognition to make pluripotent stem cells that can be reprogrammed into nerve or other cells to study Alzheimer’s disease mechanisms.

REQUIREMENTS:
- Age 65 and older, with a preference for persons 75 and older

Michael J Fox Foundation: Pre-Parkinson’s Progression Markers Initiative

PRINCIPAL INVESTIGATOR: Douglas Galasko, MD
TIME INVOLVED: 3 years (four visits in the first year then two visits/year)
CONTACT: Deborah Fontaine, NP - (858) 822-4800 or Christina Gigliotti, PhD - cgigliotti@ucsd.edu

A landmark study launched in 2010 to find biomarkers— disease indicators that are critical missing links in the search for better Parkinson’s disease (PD) treatments. This arm of the study is for persons who are 60 and older who do NOT have Parkinson’s disease but who do have a decline in their sense of smell. Participants will take part in a multi-year observational study that provides them with neurologic evaluations, brain imaging, analysis of cerebrospinal fluid and blood, cognitive tests, and smell tests.

REQUIREMENTS:
- Age 60 and older
- No diagnosis of Parkinson’s disease
- Smell loss

For more information or to take the smell survey online at: https://www.michaeljfox.org/foundation/news.html

Clinical Trials for Parkinson’s Disease

Michael J Fox Foundation: Parkinson’s Progression Markers Initiative Genetics

PRINCIPAL INVESTIGATOR: Douglas Galasko, MD | TIME INVOLVED: 3 years
CONTACT: Deborah Fontaine, NP - (858) 822-4800 or Christina Gigliotti, PhD - cgigliotti@ucsd.edu

The Michael J. Fox Foundation’s flagship biomarkers study seeking to learn more about the genetics of Parkinson’s disease. PPMI is currently studying the connection between PD and having a mutation in the LRRK2 gene — the single most common genetic contributor to PD. Whether you have PD or not, you may be eligible to receive genetic counseling and testing at no cost to determine if you qualify to participate in PPMI.

REQUIREMENTS:
- People with Parkinson’s who are of Eastern European (Ashkenazi) Jewish, North African Berber, or Basque ancestry, and for people without PD who are related to someone with said ancestry.

For more information or to take an online survey to determine your potential eligibility for participation. Please visit: https://www.michaeljfox.org/get-involved/genetics-survey-screen.php
Assessing the Outcomes of our QoL Programs

BY LISA SNYDER, LCSW

Our Shiley-Marcos ADRC has long been a beacon for innovative research and scientific discovery in Alzheimer’s disease (AD) and related dementias. This year, as we celebrate our 30th anniversary as a research center, we also honor the achievements we have made in attempting to improve the quality of life for families living with these challenging conditions. In this article, we highlight and summarize a few of the milestones in the path we have walked with persons with dementia and their caregivers and our attempts to support them along the way.

Providing Social Support and Education in Early-Stage Dementia

In 1992, our Shiley-Marcos ADRC was one of the first sites in the nation to develop a support group for individuals with early-stage Alzheimer’s disease (AD). At that time, support groups across the country were solely for caregivers. We developed an 8-week educational support group for both the person with AD and an accompanying care partner as a means of better understanding and addressing the concerns of both the person diagnosed and the caregiver. We repeated this series multiple times over the next three years. We also developed a 75-page manual from this series that was subsequently used at various sites across the US and Canada as they began to develop their own groups for persons with AD.

In 1995, at the request of a man with AD who had completed the 8-week support group series and wanted it to continue, we expanded our support group to a weekly, ongoing group of participants with early-stage AD with a separate but concurrent support group for an accompanying caregiver. This model continues today at our Shiley-Marcos ADRC and remains one of a small number of weekly ongoing support group programs for people with AD and their care partners in the country.

Since the inception of our work in early-stage support groups, we have published a number of papers based on our research or clinical observations of these groups. Participants with memory loss have reported on the educational value, positive socialization, and improved ability to cope with symptoms and to accept their diagnosis as a result of participating in a support group. We also partnered with the University of Washington to conduct research on the efficacy of our initial 8-week support group model that was replicated across western Washington. Findings included improved quality of life with decreased symptoms of depression for people with dementia who participated in a support group. In the ensuing years, we have been pleased to see the burgeoning movement across the country and the world in the development of early-stage memory loss support groups. We are proud of what we have accomplished at our ADRC in helping to spearhead this international movement and train other early-stage support group facilitators nationwide.

Recognizing the Unique Needs of Dementia Caregivers

The concerns of family caregivers have been a target of our attention since the inception of our research center. We started with one monthly caregiver support group and over the years, have expanded to four distinct groups that aim to meet the diverse needs of family caregivers. We maintain a monthly group for young caregivers (generally adult children) caring for a loved one; a monthly group for Frontotemporal or Lewy Body dementia caregivers; a monthly general dementia caregiver group; and our early-stage memory loss caregiver group that is graciously facilitated by two volunteers, Jayne Slade and Joyce Camiel, who walked the long caregiving path with their husbands’ dementias and now offer their wisdom and guidance to others. It has become clear over our years of facilitating these caregiver groups, that caregivers benefit a great deal from the peer support and education derived from these groups. Many caregivers report a reduced sense of isolation, and long-term bonds are forged that sustain caregivers through challenging times and build an essential sense of community. We are privileged to be able to offer these groups to our San Diego community caregivers and learn a great deal from the effective problem-solving and wisdom that is shared in these groups.

Developing Innovative Activity for Persons with Dementia

Many of our Quality of Life programs are inspired by the expressed needs of persons with dementia or their caregivers. Based on the requests of persons with dementia in our early-stage support group who said they wished they could get “out and about” with each other and do things together, we launched Out and About in Spring, 2005.
This program provides people with mild-to-moderate dementia an opportunity for lunch and an outing to a cultural, historic, environmental, or unique site in San Diego County. The program began as an 8-week series, but due to popular demand and the steadfast and exemplary teamwork of our program partner, Lifeline Healthcare, we now provide weekly four to five hour outings for 16 participants with dementia year-long. Our participants report that they most enjoy the socialization with others and the opportunity to see interesting places in the county. Caregivers report that they greatly value the respite they experience in knowing that their loved one is actively engaged for four or five hours and that they can then be free to use that time for themselves, as needed. Although this not-for-profit program is our only program with a fee (solely to cover costs), we have a steady wait list for this program which testifies to its success and popularity for our San Diego families.

January, 2007 marked the beginning of yet another creative endeavor to promote meaningful engagement for persons with dementia and their families. Based on a novel program at the Museum of Modern Art in New York whereby docents facilitate special discussions and tours for people with dementia and their families, we launched our own San Diego based program, Memories at the Museums in partnership with the San Diego Museum of Art in Balboa Park. Lisa Snyder conducted a training for over 40 docents that included an overview of dementia and effective ways to communicate and facilitate discussion. From 2007-2009, we had tours on a quarterly basis until other museums in Balboa Park caught wind of the initiative and wanted to participate in the program! A second training for docents from Mingei, Timken, and Museum of Photographic Arts was held in 2009 and in January, 2010, Memories at the Museums expanded to monthly tours that rotate between the four participating museums.

We have been so moved by the generosity of our partnering museums who waive admission fees and provide such dedicated and inspiring docents for these events. Participants with dementia have a chance for stimulating discussion that is facilitated at a measured pace that draws on their strengths and often astute observations. And accompanying family members or friends report that they enjoy a chance to have an enjoyable activity with their loved one in a beautiful museum that is accommodating to the needs of persons with dementia. We were honored when the UT San Diego featured an article on Memories at the Museums and acknowledged the great value of this program in our community. See the back page of this newsletter for our 2014 tour schedule.

Reducing Stigma Through Community Engagement

Many people with AD have described feelings of stigma associated with having the diagnosis. Some report a concern that others treat them differently when they hear the word Alzheimer’s and immediately assume that they are more disabled than they are.

In 2012, Alzheimer's Disease International (ADI) released a report titled “Overcoming the Stigma of Dementia” that reviewed research on the experience of stigma and dementia around the world. ADI carried out an anonymous online survey among people with dementia and their family caregivers. Nearly two out of three of 2500 respondents from 52 countries felt that there was little understanding of dementia in their country and that this contributed to misunderstanding or stigma about the condition. Respondents felt that greater education about AD – about its varied stages and about the many enduring abilities of people with dementia – would help to reduce stigma in their communities.

At our Shiley-Marcos ADRC, we have discovered an innovative and gratifying way to reduce stigma associated with AD. Two of our Quality of Life programs, Out and About and Memories at the Museums, enroll persons with mild-to-moderate AD or a related disorder. We partner with docents from museums, historical sites, ecological preserves, and a variety of community destinations to provide guided on-site tours to program participants.

Continued on Next Page >
These programs provide meaningful and engaging ways for people with AD to reduce risk of isolation and to stay involved in the community. Feedback from participants about these programs is consistently very positive.

Over the years, an unexpected outcome of these programs is the encouraging feedback we have also received from many of the docents about their enjoyment in facilitating a tour for these program participants. Some docents report that they had little exposure to persons with AD prior to the tour, and they were surprised by how animated and engaged the participants were. This feedback prompted a pilot survey to better understand how our program may be helping to change assumptions about persons with AD in the community. We asked 16 docents from our community partners: Prior to giving the tour, what were the first words to come to mind when thinking of a person with Alzheimer’s? Approximately 85% of pre-tour responses fell into themes of disability, including memory loss, confusion, and pity. One docent wrote, “Disoriented, lost – all of my characterizations [of people with Alzheimer’s] would have been described in terms of deficits.”

We then asked: After giving the tour, “What words would you use to describe the persons with Alzheimer’s on your tour? Approximately 88% of post-tour responses fell into themes of ability, including engagement, communication, relationship, and positive temperament. Statements included: “What I thought would be my least participatory tour turned out to be the most lively.” “There is a whole spectrum of people with Alzheimer’s.” “I view the participants as people first and then secondarily as people who have Alzheimer’s disease.”

Although this is a small pilot survey, the responses suggest that members of the community (in this case, docents) may have their assumptions about people with dementia changed for the better when they are able to engage them in a community-based activity that capitalizes on their preserved social skills and abilities. Thus, stigma may be reduced through increased education and awareness of the many faces of Alzheimer’s.

If you have any questions about our Quality of Life programs, or any suggestions on future programs you would like us to develop, please contact Lisa Snyder at 858-822-4800 or lsnyder@ucsd.edu.
Potential Challenges in Diagnosing Alzheimer’s Disease in Hispanic Older Adults

BY GALI WEISSBERGER, SDSU/UCSD GRADUATE STUDENT RESEARCHER

The Hispanic population in the United States is growing. Currently, English-Spanish bilinguals represent greater than fifty percent of bilinguals in the United States and according to the Alzheimer’s Association, the population of Hispanics is projected to be eleven times greater by the year 2050. Some studies suggest that there may be a greater rate of Alzheimer’s disease (AD) and other dementias in Hispanic older adults relative to non-Hispanic older adults. However, despite these figures, little is known about our ability to diagnose AD in the Hispanic population and further research is needed to ensure that we are accurately classifying Hispanic older adults with dementia.

Alzheimer’s disease cannot be diagnosed with 100% certainty prior to death because examining the brain under a microscope is a definitive way to ensure that AD pathology is present. The strongest clinical approaches include rigorously evaluating a patient and administering a battery of cognitive tests to determine the likelihood that an individual suffers from AD. The diagnosis is called “probable AD”, reflecting high likelihood but not certainty of the diagnosis. Autopsy verification provides a readout of the markers of Alzheimer’s or other disease processes that are present, and their severity. Based on research studies that look at autopsy confirmation of AD, we know that we are able to diagnose AD in non-Hispanics based on neurological and neuropsychological tests with 90% accuracy. We and others are investigating whether this is also the case in Hispanic older adults. For several reasons, diagnosing probable AD in Hispanic older adults poses potential challenges. Many Hispanic older adults are bilingual and bilingualism has been shown to impact performance on the very tests used to diagnose probable AD. For example, knowing two languages has been shown to improve performance on some tests that are used to diagnose AD. On the flip side, bilinguals have a more difficult time with language tests compared to monolinguals. Another challenge in assessing Hispanic bilinguals is that there is less information about how Hispanic older adults should perform on tests that are used to diagnose AD. On the flip side, bilinguals have a more difficult time with language tests compared to monolinguals. Another challenge in assessing Hispanic bilinguals is that there is less information about how Hispanic older adults should perform on tests that are used to diagnose probable AD; this is what we call normative data. Normative data may be influenced by cultural factors, and we cannot assume a one-size-fits-all approach. In other words, we are less certain about what cutoff points to use on test scores in the Hispanic population.

To begin to address this question, we examined data from 29 Hispanic older adults who participated in the ADRC study and who graciously donated their brains to research upon death. Of these 29 older adults, 21 showed Alzheimer’s disease pathology in their brain on autopsy. Of the 21 people with AD on autopsy, 18 were given a clinical diagnosis of probable AD during life on their first year of testing at the ADRC. One measure of our accuracy in detecting cases later proven to have Alzheimer’s Disease is called sensitivity; 18/21 translates to 86% sensitivity. These findings are promising and suggest that our ability to detect true cases of Alzheimer’s disease using neuropsychological tests in Hispanics are in line with our ability to do so in the non-Hispanic population. Future studies with larger samples of Hispanic older adults will be important to confirm these results.

Gali Weissberger is a 5th year graduate student in Clinical Psychology at San Diego State University and University of California, San Diego. She recently defended her dissertation entitled “The Cognitive Effects of Alzheimer’s Disease in Hispanic Older Adults” and will be moving to Boston in August to attend a year-long clinical internship program.
### New Staff

**Martha C. Muñiz, M.A.** was born and raised in Mexicali, Baja California and moved to San Diego at the age of sixteen. She graduated from San Diego State University with a B.A. in psychology and then pursued and received her Master of Arts degree from Boston University. There, she assisted in neuroimaging studies of familial Alzheimer’s disease research. Recently, Martha joined our Shiley-Marcos ADRC team as a psychometrist and is also a part of our Hispanic program. Her plans include going back to school for a doctoral degree in Clinical Psychology with an emphasis in Neuropsychology. Her end goal is to offer direct access to mental health services to Hispanics in the United States. Martha loves to spend time with her family, including her grandparents, nieces and nephews, whom she adores, as well as spending time with her friends. A few of her other interests include reading at the beach, traveling, and trying out new restaurants.

### Visiting Fellow

**Mohammed Ahmed, MD** joined the Shiley-Marcos ADRC team as a part of his fellowship training in Behavioral Neurology. At the ADRC, he performs neurologic examinations and participates in the scholarly activities and clinical trials. Dr. Ahmed completed his residency training in Psychiatry with a focus on Neuropsychiatry and Traumatic Brain Injury at Wake Forest University Baptist Health in Winston-Salem, North Carolina. He completed a fellowship in Neurorehabilitation with the department of Neurology wherein he managed patients with acquired brain injury. He simultaneously attended the graduate program in Clinical, Population, and Translational Science at Wake Forest. He also worked at Wake Forest Institute of Regenerative Medicine Lab with adult stem cells in a mice model of Muscular Dystrophy. Dr. Ahmed wants to provide holistic care to people suffering from various cognitive symptoms deriving from neurodegenerative disorders such as Alzheimer’s disease and Traumatic brain Injury. He also wants to pursue clinical research, specifically conducting clinical trials in Alzheimer’s disease for future innovative treatment options. He also has an interest in arts and film making and made a short film, “The Art of Remembering” which was screened at the Neuro Film Festival at the American Association of Neurology conference in San Diego, 2013. It can be accessed on youtube at; [http://www.youtube.com/watch?v=77OdIP9W78o](http://www.youtube.com/watch?v=77OdIP9W78o). He loves to travel, watch cricket and soccer, and is hoping to make it to the World Cup in Brazil this year.

### Retired Staff

**Mary Margaret Pay, NP** was the founding nurse practitioner at the UC San Diego Alzheimer’s Disease Research Center, working alongside Dr. Robert Katzman in 1984 at the program’s inception. She continued her work as a research coordinator and clinician working on a wide array of research projects at the ADRC including the longitudinal study, gene therapy research, Parkinson’s research, and many clinical drug trials. She provided 30 years of dedicated service working under several directors, including Leon Thal, MD and Douglas Galasko, MD. Mary Margaret retired in January of 2014 and has been traveling and spending quality time with her husband and family. She wishes to thank all of the individuals and families she worked with in the ADRC for the privilege to have shared in their lives.
Japanese Visitors to the ADRC
April 3-4, 2014

An exchange team of health care professionals and a Rotarian leader from Saitama, Japan came to San Diego from March 30-April 12 to learn about Alzheimer’s disease work here in San Diego and how we care for Alzheimer’s disease patients and their families/caregivers in the United States. The six member team consisted of a medical doctor, two care managers, a care worker, a medical radiographer and a non-medical team leader and they were sponsored by the Rotary Club of Saitama Shintoshin in Saitama, Japan. This visit was actually a resurrected project, as the team had intended to come in 2011, but their trip was planned two weeks after the large earthquake in Japan so they had to cancel their trip at the last minute. Luckily, they were able to reschedule their Rotary grant funded trip on relatively short notice. We learned about the organization of diagnostic and care services at their center in Japan, and they enjoyed and appreciated meeting with ADRC faculty and staff. Several ADRC research participants agreed to have the visitors sit in on parts of their annual evaluation. We shared information about specific methods of assessment such as advanced neuroimaging and neuropsychological testing, and also about quality of life programs.

New Resource
2012-2013 Alzheimer’s Disease Progress Report: Seeking the Earliest Interventions

The NIA is the lead Federal agency sponsoring research on many aspects of Alzheimer’s disease. The online annual report presents current research findings and summarizes recently complete and ongoing clinical trials and studies. This year, the publication is only available online at http://www.nia.nih.gov/alzheimers/publication/2012-2013-alzheimers-disease-progress-report, but the format enables readers to skip around to topics most interesting/pertinent to them easily and there are a number of video-taped interviews with leading researchers discussing a variety of AD-specific topics.

The booklet is broken down into two main sections. The first section, the introduction which includes a video interview with NIA director, Dr. Richard J. Hodes, also contains information on the following: The national plan to address AD, advancing discovery in AD and a primer on AD and the brain. The second section of the progress report is focused on research advances and includes the following chapters/topics: deciphering Alzheimer’s biology, biomarkers reveal Alzheimer’s onset progression (video included), the genetics of AD, assessing risk factors for cognitive decline and dementia, advances in detecting AD, translating knowledge into new treatments for AD (video), testing therapies to treat, delay, or prevent AD (video), ongoing NIA-funded clinical trials (with live links to the clinicaltrials.gov identifier and extensive description of the studies), caring for people with AD, and health disparities and AD. A comprehensive list of references is also provided for further reading.
2014 SERIES

Memories at the Museums

SAN DIEGO MUSEUM OF ART
January 10, May 9, September 12

MINGEI INTERNATIONAL MUSEUM
February 14, June 13, October 10

TIMKEN MUSEUM OF ART
March 14, July 11, November 14

MUSEUM OF PHOTOGRAPHIC ARTS
April 11, August 8, December 12

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 required. Please call Lisa Snyder, LCSW at the Shiley-Marcos Alzheimer's Disease Research Center at (858) 822-4800 to register for a tour.