Many participants and supporters of our Shiley-Marcos Alzheimer’s Disease Research Center (ADRC) associate us with our research efforts in the evaluation, prevention, and treatment of Alzheimer’s and related disorders. We also, however, maintain an ongoing effort to enhance the quality of life and coping abilities of individuals and families who are living with these disorders. Over the years, we have developed a number of different “quality of life” programs to meet the varied needs of people with dementia and their families. Our programs are open to the community with no obligation to enroll in research.

Handwriting Movements in Alzheimer’s Disease

By Michael P. Caligiuri, PhD

The cognitive and behavioral changes that accompany Alzheimer’s disease (AD) are well known and have been the focus of scientific research for decades. Much of this research is aimed at identifying cognitive markers for early detection of AD or to differentiate AD from other related disorders. Interestingly, most neurodegenerative diseases that impair cognition also impair motor (movement) function. In some diseases, motor dysfunctions are the earliest clinical signs to appear, while in others, movement disorders develop late or only in a subset of patients. As with studies of cognitive impairment in AD, careful research on movement can help identify patterns that differentiate subtypes of dementia or characterize patients more likely to benefit from novel drug therapies.
Early-Stage Support

In the early 1990s, the ADRC became one of the first sites in the country to offer a support group for persons with early-stage Alzheimer’s disease (AD). As researchers and clinicians became better able to detect and diagnose AD in its early stages, we began to hear from persons with mild symptoms that their caregiver had access to support groups, but they did not find any support for themselves. At this prompting, we began to offer an 8-week educational early-stage support group that enrolled both the person with AD and the care partner. We were deeply moved by the messages we heard from persons with dementia, as there had previously been few opportunities for us to become aware of their concerns. We published a novel paper on common themes that arose for persons with early-stage AD during support group discussion including feelings of helplessness, devaluation, and unpredictability. Participants also reported feelings of purposefulness, gratification, and belonging as a result of being able to participate in a support group with peers who were experiencing the same symptoms and concerns.

In late 1994, at the end of one of the 8-week support groups, a participant with early-stage Alzheimer’s pointedly remarked, “My disease is not 8-weeks long! I still need support.” Two months later, in early 1995, we began to offer a weekly ongoing support group for people with early-stage dementia. It remains one of the few weekly ongoing support groups in the country to meet the needs of this population. In subsequent research, we have reported that as a result of participation in an ongoing support group, participants with early-stage symptoms are better able to accept and cope with their diagnosis and feel less isolated and alone. We observe deep bonds that grow between participants with memory loss and between their care partners who participate in a concurrent weekly support group. Participation in this early-stage support group requires pre-screening to determine whether this group experience will be a good match for a potential participant.

Getting Out and About

Participants with Alzheimer’s in our early-stage support group also influenced the creation of our Out and About program that began in Spring, 2005. Memory loss and other symptoms can lead to increased isolation and diminished activity for the person with dementia, and care partners struggle to meet the social and recreational needs of their loved one. Due to loss of driving privileges, some support group participants expressed the need for more meaningful ways to get out of the house and socialize with others. So, once again, a new program was developed as the result of an expressed need from persons with memory loss.

Out and About is a weekly program that offers up to 20 participants with mild-to-moderate dementia a 4-to-5 hour outing in the community. We partner with Lifeline (a care management company) to provide the staff and transportation for this popular program. It is our only fee-based quality of life program and is a not-for-profit endeavor. The program fee covers lunch in a restaurant followed by admission to, and a docent led tour of a museum or other cultural, historical, or ecological site. Out and About has visited over 90 destinations across San Diego county. Preliminary evaluation of this program has found that participants most value the mental stimulation, socialization and opportunity to “get out of the house” that the program provides. They also feel less isolated and alone and motivated to have more activity. Care partners greatly value the respite they receive when their loved one is on the outing and find relief knowing they are engaged in a dignified yet structured activity.

Another interesting finding from this program is that many docents who conduct tours at the various destinations report that their assumptions of persons with Alzheimer’s have been changed by facilitating these tours. They recognize that there are many abilities, insights, social skills, and humor that people with dementia can retain for quite some time. We can surmise that affording the opportunity for our participants to be out in the community and engaged in normal educational and recreational activities is helping to reduce the stigma and assumptions surrounding Alzheimer’s and related disorders.
Memories at the Museums

In January, 2007, our ADRC began a collaboration with the San Diego Museum of Art to replicate a Museum of Modern Art (MoMA, New York) program for people with dementia and their care partners. MoMA’s program offers persons with dementia an opportunity to express their thoughts, feelings, impressions, and memories that are inspired by looking at works of art. Based on the MoMA model, we trained docents at the San Diego Museum of Art to work with the specific needs of persons with dementia and to facilitate tours that are interactive and experiential. Other museums in Balboa Park took an interest in this inspiring program and we now collaborate with Timken Museum of Art, Mingei International Museum, and Museum of Photographic Arts, as well. These monthly tours occur on the second Friday of each month from 2:00 to 3:00 p.m. and alternate between the host museums. Museum admission and the tour are entirely free of charge to the person with dementia and an accompanying guest. We are very grateful to the museums for their ongoing generosity in making such a program possible in our community. To register for a tour, contact Lisa Snyder, LCSW at (858) 822-4800.

<table>
<thead>
<tr>
<th>SAN DIEGO MUSEUM OF ART</th>
<th>MINGEI INTERNATIONAL MUSEUM</th>
<th>TIMKEN MUSEUM OF ART</th>
<th>MUSEUM OF PHOTOGRAPHIC ARTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 11, May 10, September 13</td>
<td>February 8, June 14, October 11</td>
<td>March 8, July 12, November 8</td>
<td>April 12, August 9, December 13</td>
</tr>
</tbody>
</table>

Targeting Specialized Support Needs

As we work to find effective treatment for persons with Alzheimer’s and related disorders, we never lose sight of the care partners who are by their side and face their own significant stressors and challenges. Our Shiley-Marcos ADRC continues to reach out to community caregivers by offering a variety of support groups. Our monthly caregiver group is open to persons caring for a loved one in any stage of dementia and the forum provides a rich opportunity for education and peer support. This group meets at our Shiley-Marcos ADRC. We also provide a monthly support group for young caregivers under age 60. Younger caregivers are often adult children who face unique challenges when trying to juggle their families and careers while managing the role changes involved in caring for a parent with dementia. This monthly group meets at the Glenner Memory Center in Hillcrest. Finally, we facilitate San Diego County’s only support group for caregivers of persons with Frontotemporal dementia or Lewy Body dementia. These dementias are distinct from Alzheimer’s disease and symptoms can pose particular challenges for caregivers. Caregivers in this support group are able to get updated information about these less common dementias and participants share their strategies for managing these conditions. This monthly group meets at our Shiley-Marcos ADRC.

Moving Forward

The Shiley-Marcos ADRC continues to welcome thoughts from our research families and the community about the kinds of programs and services that could be helpful to you and your loved ones in maintaining your quality of life. While we advance our research aimed at preventing, treating, or curing Alzheimer’s and related dementias, we also consider it a priority to advance the well being of our families who are walking this path with us.

For more information on our Quality of Life Programs, contact Lisa Snyder, MSW, LCSW at 858-822-4800, or visit our website at www.adrc.ucsd.edu.
Researchers at the ADRC are evaluating motor control using a handwriting assessment technique. Studies conducted 30 years ago reported that handwriting movements of most AD participants remain relatively preserved throughout their lives; normal aging effects notwithstanding. These studies seemed to indicate that while AD participants eventually lose the ability to sign their name on command, this reflects a cognitive rather than neuromotor process and that one should not expect any decline in the neuromotor aspects of handwriting as severity of dementia increases. Unfortunately, these studies were limited by small samples and subjective visual inspection of handwriting. More recent research used quantitative procedures for assessing handwriting movements by analyzing individual pen strokes. Studies conducted in the past 10 years using sophisticated technologies have demonstrated that AD participants exhibited significantly greater variability in the duration, speed, and smoothness of handwriting movements than healthy subjects. This increased variability suggests a disturbance in the efficiency of the handwriting motor program.

The goals of the handwriting research at the ADRC are to first determine if the formation of handwritten signatures and sentences is motorically impaired in participants with dementia and second to develop new ways to separate cognitive from motor impairments in AD. Using procedures described below, we can examine if the impaired handwriting movements are limited to complex writing tasks such as sentences or also involve the more automatic forms of writing, such as signatures. Knowing this can help resolve the debate on whether the handwriting motor programming is a cognitive or purely motor construct.

The procedure used to digitally record handwriting movements enables a user to hand-draw images and graphics on a device that is connected to a computer and specialized software. Study subjects are asked to write a sentence and draw loops and circles, and given the option of writing their signature using an inkless pen. Pen movements are recorded and scores are obtained from each pen stroke. The figure on this page shows three examples from the sentence task. For each sample, the kinematic scores are provided for stroke duration, amplitude (size), speed (velocity) and dysfluency. Higher dysfluency scores (derived from a measure of jerk) reflect pen movements that contain interruptions and rapid changes in velocity. The top is an example of normal handwriting. The lower two examples from participants with AD are slower and written with smaller pen strokes, typical of parkinsonian handwriting. Handwriting movements for Subject 2 lack the fluency of the other two samples. Subject 3 also has apraxia, a handwriting feature common in AD, characterized by the insertion of additional letters or strokes.

We have collected handwriting data from over 100 individuals. In general, results support prior research showing that handwriting movements in AD participants are more variable as a group than healthy writers. We reasoned that likely sources of this variability might include cognitive status or the presence of motor signs consistent with Dementia with Lewy Bodies (DLB) – a condition that involves both progressive cognitive impairment and parkinsonism. Reduced size of handwriting movement is common in participants with Parkinson’s disease. Participants with DLB exhibited reduced movements for sentence and signature writing compared with healthy writers. A surprising finding was that AD participants with no clinical evidence of parkinsonism showed micrographia for

<table>
<thead>
<tr>
<th>Subject 1</th>
<th>Stroke Duration: 192 ms</th>
<th>Stroke Size: 0.99 cm</th>
<th>Stroke Velocity: 5.7 cm/s</th>
<th>Dysfluency score: 24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject 2</strong></td>
<td>Stroke Duration: 266 ms</td>
<td>Stroke Size: 0.8 cm</td>
<td>Stroke Velocity: 3.9 cm/s</td>
<td>Dysfluency score: 222</td>
</tr>
<tr>
<td><strong>Subject 3</strong></td>
<td>Stroke Duration: 301 ms</td>
<td>Stroke Size: 0.6 cm</td>
<td>Stroke Velocity: 3.1 cm/s</td>
<td>Dysfluency score: 76</td>
</tr>
</tbody>
</table>

CONTINUED FROM COVER PAGE
signatures but not sentences. These results support the validity of computerized handwriting measurement as a tool for assessing parkinsonism and suggest that some participants with AD exhibit parkinsonian-like movements, at least for handwriting.

To evaluate whether severity of the cognitive impairment in AD is related to impairment in handwriting, we examined the relationship between scores on a standard cognitive test and handwriting movements. We found that for AD participants (n=30), as cognitive impairment increases, the number of acceleration peaks (pen jerkiness measure) increases. Irregular, jerky pen movements are not necessarily indicative of a specific movement disorder, such as parkinsonism, but reflect a general breakdown in fine motor control. This suggests that as severity of the cognitive impairment increases, there may be an accompanying impairment within the neuromotor system, which may provide clues to the pattern of disease progression.

There is compelling evidence from decades of clinical research that cognitive and motor functions are governed by overlapping brain circuits and chemistry suggesting that careful assessment of motor function may be useful in understanding the more complex cognitive changes in neurodegenerative disease. As we start to accrue more data from participants at various stages of their disease progression, we hope to gain a better understanding of the key neuromotor features of handwriting that are functionally and biologically linked to disease progression and response to treatment in AD.

This year, as in past years, the Hispanic participants at the ADRC have made an important contribution to research on bilingualism. This report describes some recent developments in this field, and summarizes the contribution of our Hispanic participants to this work.

Researchers of Alzheimer’s disease (AD) and patient caregivers have known for a long time that individuals with AD often have trouble remembering the names of objects and that word-finding problems worsen as the disease progresses. At the ADRC, and in other Alzheimer’s centers around the country, we test the ability to retrieve names by asking participants to name pictures. Picture naming is also an important test for assessing bilingualism, but until a few years ago, very little was known about how AD affects bilingualism. At the ADRC we have begun to investigate this interesting question by asking Hispanic participants to name pictures in the language they prefer, and also in a second language. According to some theories, bilinguals with AD should quickly lose the ability to speak in their second language. Instead, we have found that bilinguals retain the ability to find words in both languages, especially in early stages of the disease.

Another use for a picture naming task is to answer the question: “How bilingual are you?” This question seems simple, but different people focus on different aspects of their language abilities when they answer this question, and this can make it difficult to know if and how bilingualism might affect one’s ability to answer test questions. By asking bilinguals to name pictures in both languages, the researcher then has an objective measure of language abilities. This makes it easier to say with confidence who speaks one language better than the other, who might be better characterized as a monolingual, and who is a relatively proficient bilingual.

One of the most frequently used picture naming tests in clinical settings is the Boston Naming Test or BNT. However, this test was originally designed for people who speak English only, and therefore is not optimal for assessing naming in people who speak other languages or in people who speak more than one language. With the help of ADRC participants, we have developed a new picture naming test, the Multilingual Naming Test or MINT, which can be used with speakers of multiple languages - Spanish, English, Mandarin, and Hebrew.

In addition, this year, again with the help of ADRC participants, we established that the MINT is also useful for testing how naming abilities change over time as Alzheimer’s disease progresses. Our introduction of this new naming test represents an important advance in research on bilingualism and Alzheimer’s disease. The value of the MINT has been acknowledged more broadly as currently Alzheimer’s Disease Research Centers across the United States are considering replacing the BNT with the MINT in their practice.
CLINICAL TRIALS

Alzheimer’s Disease Neuroimaging Initiative 2 (ADNI 2)

PRINCIPAL INVESTIGATOR: James Brewer, MD, PhD
TIME INVOLVED: 4 Years | CONTACT: Helen Vanderswag, RN - (858) 822-4800

The purpose of the study is to examine how brain imaging technology and biomarker tests, along with measurements of memory and daily functioning, can be used in the future conduct of studies that focus on the identification and treatment of AD at an early stage.

REQUIREMENTS:
- Early memory problems, a diagnosis of MCI or AD, and those without memory changes
- 55-90 years old; 65-90 for normal controls
- Have a study partner for all visits
- Able and willing to undergo MRI, PET scans, and lumbar puncture procedure (LP)
- MMSE score of 20 or above

Roche WN25203B (SCarlet RoAD)

PRINCIPAL INVESTIGATOR: Michael Rafii, MD, PhD; Judith Rivera, NP
TIME INVOLVED: 24 Months | CONTACT: Kacie Smith - (858) 246-1303

Randomized, double-blind, placebo-controlled, parallel-group two year study to evaluate the effect on cognition and function in prodromal Alzheimer’s disease of subcutaneous gantenerumab.

REQUIREMENTS:
- 50-85 years old
- Prodromal AD with MMSE greater than 24
- Have a study partner for all visits
- On no memory medications

Resveratrol (ADC-037-RES)

PRINCIPAL INVESTIGATOR: Michael Rafii, MD, PhD; Judith Rivera, NP; Holly Bowron Hainley, NP
TIME INVOLVED: 12 Months | Jennifer Foster - (858) 246-1306

Phase II, double-blind, placebo-controlled, parallel arm drug trial to evaluate the safety, tolerability and effectiveness of resveratrol when given to people with mild to moderate AD. All participants will undergo CSF collection (lumbar puncture) and volumetric MRI.

REQUIREMENTS:
- Age 50 or older with mild-to-moderate AD
- MMSE score 14-26 (inclusive);
- Have a study partner for all visits
- Able to abstain from eating large quantities of resveratrol containing foods or resveratrol dietary supplements

New Resource

Preventing Alzheimer’s Disease: What Do We Know?

Although Alzheimer’s disease currently has no cure, recent research results point toward a day when it might be possible to delay, slow down, or even prevent this brain disorder. This 24-page booklet describes the latest National Institute on Aging-funded research about prevention of Alzheimer’s disease and age-related cognitive decline, from physical exercise and diet to social engagement and cognitive training. Also included are tips for staying healthy as you grow older.

Available to download or order at:
For more than 25 years, the Neuroscience Community in San Diego has been a leader in research into the cause, effects, and treatment of Alzheimer’s disease (AD) and related neurodegenerative disorders. In order to continue and enhance this tradition of cutting-edge research, the Shiley-Marcos ADRC hosted our third “Data Blitz” on Monday, October 22nd. Twenty-five research scientists from leading laboratories at UCSD, Sanford Burnham Medical Research Institute, and the Salk Institute gave brief presentations describing their most recent research findings related to Alzheimer’s and related dementias (ADRD) and Parkinson’s disease (PD). It was our hope that this event would help investigators become familiar with the breadth and depth of ADRD and PD research being carried out in our community and identify potential collaborations that would enhance everyone’s research efforts. In addition, it allowed Dr. Douglas Galasko (Co-Director of the UCSD Shiley-Marcos ADRC) to describe the resources and research support available to ADRD and PD researchers through our large, nationally funded center.

Dr. Galasko hosted the Data Blitz which was organized around several themes of clinical and basic research being conducted in our local scientific community, including the basic biological mechanisms that cause ADRD and PD; the clinical aspects of ADRD; the treatment of ADRD; and neuroimaging techniques underway in AD and PD research. Several researchers whose work fit under a variety of these unique themes, looked for ways in which our understanding of various aspects of ADRD could impact our understanding of PD and vice versa.

Researchers interested in the basic biological mechanisms of neurodegenerative disease presented data that identified some of the potential overlap between AD and PD pathology, including some common pathways of neurodegeneration shared between AD and PD. Researchers at Sanford Burnham are studying oxidative damage to proteins, and in particular, a process called S-nitrosylation to develop biomarkers and treatment targets for AD and PD.

Several researchers interested in clinical aspects of ADRD presented data on how AD and PD can interact to produce unique learning and visual processing deficits. These deficits may eventually help to distinguish between AD and Dementia with Lewy Bodies in clinical evaluations. Novel findings about how the amyloid protein of AD may contribute to cognitive impairment in HIV were also presented.

An important research focus is developing new therapies for AD. Two promising approaches to block the production of beta-amyloid in mouse models of AD were presented. A UCSD scientist showed that introducing a growth known as BDNF (brain derived neurotrophic factor) could slow or prevent the death of neurons in Alzheimer’s animal models. A highlight of the Data Blitz was a panel discussion that focused on clinical trials to test the “Amyloid Hypothesis”. The panelists discussed whether beta amyloid was an initiating factor, trigger, or driver of Alzheimer’s pathology and how this would impact anti-amyloid clinical trials. Beta amyloid abnormally clumps to form the “plaques” in brains of individuals with AD. The panel also considered how best to use biomarkers and clinical measures to evaluate effects of novel treatments. This has an impact on trials that are designed to prevent Alzheimer’s or to slow the progression once symptoms are present.

Researchers interested in neuroimaging of early AD presented data on the effects of age, sex, and APOE e4 status on rates of atrophy and cognitive decline in healthy aging, MCI, and AD. Results of a study of Parkinson’s dementia brain changes as observed on MRI scans analyzing spatial and temporal atrophy were also presented.

The Shiley-Marcos ADRC is proud to host this annual data blitz to serve as a liaison between researchers at the various academic institutions that comprise the rich neuroscience and biotechnology community in San Diego County. We continue to build bridges between these various groups so that ideas and resources can be exchanged to maximize collaborative efforts in these exciting and critical areas of research.
ADRC Staff, Students, and Volunteers

John Recchio has been employed at our Shiley-Marcos ADRC since December of 2011. His current projects involve database design and maintenance. John is currently enrolled in his fourth year as an undergraduate at the University of California, San Diego, where he is pursuing a B.S. in Electrical Engineering. Computer architecture and optical processes are the areas of focus John is most passionate about, and he is determined to improve the lives of individuals through making electronics more accessible. Having been enrolled in a laptop program during his primary education, John experienced first-hand how profound of an impact technology can have on someone’s life, and wants to give as many others accessibility to the same experiences he was fortunate enough to have.

Iva Ivanova, PhD. is a Postdoctoral Fellow in the UCSD Departments of Psychiatry and Psychology. Under the mentorship of Prof. Tamar Gollan, PhD., she investigates the mental processes which allow us to understand and produce language, and specifically, the nature of such processes in people who speak more than one language (bilinguals and multilinguals) and people with Alzheimer’s disease. Iva was born and raised in Bulgaria. She received a B.S. degree in British and American studies from the University of Sofia in Sofia, Bulgaria, and a PhD. in Experimental Psychology from the University of Barcelona, Barcelona, Spain. Iva is fluent in Bulgarian, English, Spanish, and Catalan and is currently focusing on becoming fluent in German. In her spare time, she dances, plays the piano, studies languages, reads fiction, and goes hiking and rock climbing.

Brian J. Nagle, MPH began volunteering with our Shiley-Marcos ADRC in September, 2012. He has a B.S. in Neurobiology from the University of Wisconsin and recently received his Master’s degree from the Graduate School of Public Health at San Diego State University with a concentration in Health Promotion and Behavioral Sciences. During graduate school Brian interned at the San Diego/Imperial Chapter of the Alzheimer’s Association and independently designed and implemented a study of medical students’ knowledge of Alzheimer’s disease (AD) for his Master’s thesis. Complications arising from his grandmother’s delayed diagnosis of AD galvanized Brian’s passion of improving diagnosis and management of Alzheimer’s disease and related dementias through professional education to alleviate heartache and frustrations for other families. Brian is currently applying to medical school with the hope of working in geriatric psychiatry or geriatrics. In his free time, Brian enjoys singing with the San Diego Gay Men’s Chorus, swimming, cooking and baking, reading, and photography.
Do You See What I See?
Understanding Visual Processing in Alzheimer’s and Lewy Body Dementias
BY KELLY LANDY, DOCTORAL CANDIDATE

Much of the research conducted at the Shiley-Marcos ADRC is focused on Alzheimer’s disease (AD), but we are also interested in a condition known as Dementia with Lewy Bodies (DLB). DLB shares many features with AD, and it is the second most common cause of dementia. Neuropsychological studies have shown that DLB patients have a pattern of cognitive (thinking) impairment that is very similar to AD, but visuospatial skills are disproportionately impaired in DLB patients. Patients with visuospatial difficulties may have trouble with spatial relationships and their visual perception might be impaired. For example, it might be extremely difficult to draw a clock, copy a simple line drawing, or detect a simple visual pattern. In addition, DLB patients have impairments in executive function (planning and problem solving) and attention, but less memory impairment than AD patients.

We designed a study of visual search to explore visual processing in DLB and Alzheimer’s disease. Visual search is the process by which we search the environment to locate distinct items. We all engage in multiple visual search processes each day. If you’ve ever looked for your keys on a cluttered counter, tried to find the last slice of pumpkin pie in a refrigerator stuffed with Thanksgiving leftovers, or strained to find a familiar face in a crowd of people, then you have completed a visual search task. Visual search tasks require both visuospatial ability and sustained attention.

We administered two types of visual search tasks to a group of DLB patients, AD patients, and healthy older adults. In the first task, we asked participants to press a button when they saw a black circle among a background of varying numbers of white distractor circles. In this type of “pop-out” search, the target literally appears to pop out from the background. Whether there are two distractors or 25 distractors, a person should be able to find the target in the same amount of time.

In the second more complex visual search task, we asked participants to press a button when they saw a black circle among a background of varying numbers of distractors. The distractors included both white circles and black squares. To identify the target in this task, called a serial search task, patients had to correctly integrate information about color and shape. In serial search, it is expected that as the number of distractors increases, so does the amount of time needed to identify the target.

As participants completed the search tasks, we recorded their accuracy and the amount of time it took to find the target. We compared results across participants to determine if there were different patterns of performance in DLB patients compared to Alzheimer’s disease patients. Because DLB patients have deficits in visuospatial skills as well as in attention, we expected that DLB patients would have greater difficulty than AD patients on both tasks. In the pop-out search tasks, DLB patients were significantly slower than the AD patients and healthy older adults, but there was not a significant increase in reaction time when the number of distractors increased. In the more complex serial search task, AD patients took longer than healthy older adults to identify the target as the number of distractors increased. In the DLB group, as the number of distractors increased, so did the time to identify the target – but they took longer than the healthy older adults and the AD group to find the target.

These studies demonstrate that there are differences in the way that patients with DLB and AD search their visual environments. The findings may be useful for improving our diagnostic accuracy. More importantly, these findings may help us to better understand the key features that distinguish DLB from AD, including the greater frequency of visual hallucinations and visual misperceptions. As we gain more insight into the underlying cause of these disease features, we will be better positioned to help patients and their families manage difficult changes.
It was 100 degrees outside and I had just finished an all day grading meeting. My brain felt muddled and I was fighting off tears as I stood in a high school parking lot where my stepmother just informed me over the phone that my dad might have Alzheimer’s. The emotions spilled out publicly again in a mall when the diagnosis was finally confirmed as being stage 2. But that initial moment in the high school parking lot defined the emotions that would determine how I dealt with my father’s diagnosis. Sadness was the first emotion, and still crests as the strongest, even now. Anger, however, was a close second. I felt my dad and stepmom had been keeping most of this a secret from me, and fear for my own future made me even angrier since I then felt selfish, as well.

As I have spent more time with my Dad in ensuing months, a lot of these emotions have ebbed, changed, or been removed almost entirely. I understand the fear, and even embarrassment he went through as he and others realized what was happening to him. Living six hours away I had thought he was not making the effort to maintain the strong bond we shared. My anger has since been replaced with compassion and understanding. I still feel sad, but I do my best to utilize the lucid time my dad has left. What is new and persistent, however, is the feeling of futility. I can be there for my dad, but I cannot help his condition in a palpable way.

This is why I decided to plan a fundraiser for Alzheimer’s research. The fact that it will be a stand up paddleboard race mixed with a kayak fishing derby is quite fitting since my dad was the first person to introduce me to paddle sports when we kayaked together on the Rogue River in Oregon. This upcoming event reflects his love of the ocean; he grew up surfing in La Jolla, and still tells stories of lugging the heavy balsa wood surfboards he used to ride. My own love of standup paddling strongly influenced my decision for a fundraiser, too, but I am happy knowing that this is a sport my dad would have embraced were the circumstances of his life different when the sport became popular. The fact that the UCSD Shiley-Marcos Alzheimer’s Disease Research Center is such a well known and respected institution made the decision of where to have the fundraiser even easier. San Diego is already a haven for standup paddleboarding and kayak fishing. When I factored in that I have countless positive memories from my time as an undergrad at UCSD, including meeting my wife, then having the event in San Diego and donating to the Research Center was an easy decision.

My passion for the event was bolstered even more when my college friend, who was already committed to helping, informed me that his grandmother had also recently been diagnosed with Alzheimer’s. The distance between him and her is even more significant since she lives in Japan and he in San Diego. This made me realize how many people can be affected by the same emotions I had when I was dealing with my Dad’s diagnosis.

I know that this event will not be the final catalyst that finds a cure, but it allows me to think about and honor my dad. Even if this fundraiser does not impact him directly, it can save others from the same tortured emotions I felt, and certainly that he felt, when hearing the diagnosis of Alzheimer’s.

### Alzheimer’s Paddle

**DATE:** March 16, 2013  
**LOCATION:** Bahia Point, Mission Bay, San Diego  
**PRICE:** $40.00 per event  
$25.00 for youth race  
Shirt and lunch included with entry fee  

**SCHEDULE OF EVENTS:**  
6:00 a.m. Registration opens  
Registration ends 15 minutes before respective events.  
7:00 - 12:00 Fishing Contest  
8:00 - Introductions and explanation of event’s purpose  
10:00 - 5-mile race  
10:15 - 1-mile race and youth race  
12:00 - Lunch  

**For registration or more information contact:**  
Bret Warner  
bretrwarner@gmail.com

**Website:**  
www.standuptoalzheimers.weebly.com
Helpful Ways to Support Research and Family Support Efforts at the Shiley-Marcos Alzheimer's Disease Research Center (ADRC)

The UC San Diego Shiley-Marcos Alzheimer's Disease Research Center (ADRC) is funded largely through a grant from the National Institute on Aging. This grant, however, only provides partial support for our research and family support efforts. We also rely on donations to sustain our projects and programs. We are deeply grateful for any and all contributions to our Center and provide the following information as an overview of the many paths available towards making a difference.

Gifts of Cash: Nothing is as simple and direct as giving cash. You can make an unrestricted donation to the Shiley-Marcos ADRC, and we will use the gift to meet our greatest current research need, or you may specifically designate that your donation go towards patient and family services to support our quality of life programs and other efforts. A gift of cash may be deductible up to 50 percent of your adjusted gross income, and gifts in excess of 50 percent may be carried over as deductions into the next five years. To make your gift today, simply visit our website http://adrc.ucsd.edu/giving.html.

Gifts of Securities: Stocks or other investments that have grown in value and that you have owned longer than one year can become a substantial gift with a low net cost to you. You receive a charitable deduction for the donation, which is based on the stocks’ fair market value on the date of the gift. And, there is a potential bonus—you eliminate all federal capital gains tax that would otherwise be owed on a sale of the assets. Please visit www.giftplanning.ucsd.edu for more information.

Life Income Gifts: Are you looking for additional income or a possible tax deduction, while making a charitable contribution to the Shiley-Marcos ADRC at UC San Diego? Have you thought about how a charitable gift annuity could help you achieve these goals? Our gift annuity program provides you with attractive rates of return, partially tax-free payments, an income tax deduction, and fixed payments for your lifetime. For more information on charitable gift annuities and current rates, please visit www.giftplanning.ucsd.edu/cga.

Bequests: Another opportunity available to you is to include the Shiley-Marcos Alzheimer’s Disease Research Center in your estate plan through a bequest or in your trust. Gifts made by bequest play a vital role in fulfilling our mission. Simply use the following when working with your attorney:

The trustee shall distribute. . . .[insert amount, percentage of the estate, or “the rest and remainder of my estate] to the U.C. San Diego Foundation, a not for profit corporation, located in La Jolla, California, Tax ID 95-2872494, to establish a current use fund to support Alzheimer’s Disease research at The Shiley-Marcos Alzheimer’s Disease Research Center at the University of California, San Diego. I understand that the Director of The Shiley-Marcos Alzheimer’s Disease Research Center at UC San Diego shall administer the fund.

For more information about these year-end giving opportunities, please visit our website at http://adrc.ucsd.edu/giving.html and/or contact Mary Sundsmo at (858) 822-4800; msundsmo@ucsd.edu.

Please note the UCSD Office of Gift Planning and ADRC are not engaged in rendering tax or legal advice. As you consider charitable gifts, we strongly encourage you to consult with your own attorney, CPA and/or other financial advisors as needed.
SAVE THE DATE!

annual Shiley-Marcos ADRC OPEN HOUSE

Wednesday, January 16th
The Sheraton Hotel First Floor Ballroom
3299 Holiday Court, La Jolla, CA

Refreshments from 9:30 to 10:00
Presentations from 10:00 to 12:00

Please RSVP to 858-822-4800