Breakthrough Ride Hits Goal of 100,000 Signatures in Pittsburgh

On September 14, Alzheimer’s disease (AD) researchers participating in the Alzheimer’s Association Breakthrough Ride cycled through Pittsburgh as part of a cross-country, relay-style ride from San Francisco, Calif., to Washington, D.C. Along the route, the riders had a goal to collect 100,000 signatures for a petition urging lawmakers to make AD a national priority. They hit that goal in Pittsburgh, achieving the 100,000th signature before midnight.

The Alzheimer’s Association organized the event. After an official welcome to Pittsburgh from ADRC Director Oscar Lopez, MD, doctors, riders, and the association’s CEO shared their thoughts. The ride was the brainchild of Cleveland Clinic’s Bruce Lamb, MD. “We’re not always the most athletic out there on the road—we’re usually in the lab,” he admitted. “Times when we thought we couldn’t go one more mile; times where we thought we saw a hill and couldn’t reach the top; I think it’s a similar theme for those who deal with Alzheimer’s disease on a daily basis,” Lamb said.

“For every $250 spent on Alzheimer’s care,” points out Bob LeRoy, the Alzheimer’s Association CEO, “less than a dollar is invested in Alzheimer’s research.” William Klunk, MD, PhD, codirector of the ADRC, urged everyone over 30 years old to take a closer look, because that is the group that is most at risk for developing AD. “Look, in the mirror tomorrow morning because you and I are the epidemic, we’re it. We’re what’s going to break the bank,” Klunk said.

The riders started in San Francisco on July 17 and then continued across the country on a 67-day journey. The riders presented the more than 100,000 signatures to Congress on September 21, World Alzheimer’s Day.

Alzheimer’s Disease Medication Update

By Oscar Lopez, MD, ADRC Director

One of the most important advances in the field of dementia has been the introduction of symptomatic treatment for Alzheimer’s disease (AD): cholinesterase inhibitors (ChEIs), which are tacrine, donepezil, rivastigmine, and galantamine, and n-methyl-D-aspartate receptor modulators (memantine). ChEIs are a class of medication that increases brain levels of a chemical called acetylcholine, which plays a key role in promoting memory and attention. Memantine belongs to another class of medications and works by interfering with the toxic effect of amyloid, thereby providing a protective effect on the brain. Clinical trials with ChEIs and memantine, and one-year open-label studies, have shown the efficacy of these drugs. However, AD is a chronic degenerative disease with a clinical syndrome that may extend over not just one, but many years. Studies conducted at the ADRC have explored the long-term response of AD patients to ChEIs and found that those treated with ChEIs had

(Continued on page 2)
Exercise Helps Your Brain Work Better

Kirk Erickson, PhD

What can be done to improve brain health in late adulthood? It turns out that exercising your muscles may also help your brain work better! Recent studies have found that even small amounts of light exercise, like walking at a comfortable pace, are beneficial for overall brain health.

In a new study being led by Kirk Erickson, PhD, at the Alzheimer’s Disease Research Center (ADRC), in conjunction with the Brain Aging and Cognitive Health (BACH) Lab of the University of Pittsburgh, researchers are examining how different lifestyles influence brain health as people age. It is believed that lifestyle factors like physical activity could help people to improve their memory and learn new skills more easily, and could even play a role in preventing Alzheimer’s disease.

Researchers will ask some participants coming into the ADRC for an initial or annual visit to wear a BodyMedia SenseWear armband for one week. The armband contains a lightweight accelerometer that collects detailed information about participants’ movements throughout the day, similar to using a pedometer to track how many steps a person takes in a day.

Accelerometers have become commonplace in our society: automobiles, laptop computers, cell phones, and other electronics often have built-in accelerometers. The SenseWear armband accelerometer used in this study will allow researchers to measure lifestyle factors in each participant.

The armband is small and low maintenance so participants are free to continue their normal daily routines. This device also will allow researchers to monitor sleep patterns, stress levels, sweat responses, steps taken, and calories burned without having to actually watch the participant.

Researchers will try to determine if increasing physical activity could be a simple and low-cost way to prevent or even treat Alzheimer’s disease. By combining this physical activity and lifestyle information with data from other ADRC studies, the researchers expect to find that even small changes in lifestyles during late adulthood, like being active, will be related to better memory, learning, and an overall healthier brain.

It’s never too late to take care of ourselves, and with this in mind, the ADRC and BACH Lab are moving toward understanding new ways that our bodies are linked to our brains. For more information about this study, contact MaryAnn Oakley at 412-692-2721 or oakleym@upmc.edu.

ADRC Mission

The overall objective of the ADRC is to study the pathophysiology (changes in the brain) of Alzheimer’s disease (AD), with the aim of improving the reliability of diagnosis of AD and developing effective treatment strategies. The ADRC is funded by the National Institute on Aging and, as part of the research program, provides a comprehensive outpatient evaluation, including medical, neurological, psychiatric, social, and cognitive assessments. The success of the ADRC depends on scientists, clinicians, patients, and families working together with a shared commitment to AD research. A major focus of the ADRC is to match participating patients and their family members with opportunities to volunteer for additional AD-related studies based on their interests and the eligibility requirements of the research.
ADRC Joins NIH-supported Study to Find Earliest Changes in the Brain that May Lead to Alzheimer’s Disease

Volunteers in the Pittsburgh area are being sought for a clinical study examining the subtle changes that may take place in the brains of older people many years before overt symptoms of Alzheimer’s disease appear.

Researchers at the Alzheimer Disease Research Center (ADRC) are specifically looking for people with the very earliest complaints of memory problems that affect their daily activities. The study will follow participants over time, using imaging techniques specifically developed to advance research into changes taking place in the structure and function of the living brain, as well as biomarker measures found in blood and cerebrospinal fluid.

More than 5.3 million people across the United States have Alzheimer’s disease. Every 70 seconds, another person develops this devastating disease. In Pennsylvania alone, approximately 280,000 people age 65 and older currently are living with Alzheimer’s disease, making finding a cure a pressing need in local communities.

“We cannot end this terrible disease unless we know more about it,” says Oscar Lopez, MD, principal investigator, professor of neurology at the University of Pittsburgh, and director of the ADRC. “This is where amazing volunteers, their friends, and their families can make the difference in our success.”

The National Institute on Aging (NIA), part of the National Institutes of Health (NIH), and the NIH Office of the Director are funding the two-year $24 million Alzheimer’s Disease Neuroimaging Initiative Grand Opportunity (ADNI-GO) study. Researchers are seeking to recruit local volunteers between the ages of 55 and 90 who may be transitioning from normal cognitive aging to an early stage of amnestic mild cognitive impairment, a condition that may progress to Alzheimer’s disease, but otherwise are healthy. In addition to the ADRC, there are 49 other sites across the United States participating in the study.

The grant expands the efforts of the Alzheimer’s Disease Neuroimaging Initiative (ADNI), a research partnership supported primarily by the NIA with private-sector support through the Foundation for the National Institutes of Health. ADNI began in 2004 to establish neuroimaging and biomarker measures to track the changes taking place in the brains of 800 older people who were either free of symptoms or diagnosed with late-stage mild cognitive impairment (MCI) and early Alzheimer’s disease.

The new ADNI-GO effort enables researchers to continue studying nearly 500 of the original ADNI volunteers, including those in Pittsburgh, while expanding the study to include the new participants with early amnestic MCI. Newly enrolled participants and some original study volunteers will undergo imaging studies and a lumbar puncture to collect cerebrospinal fluids.

To volunteer or to learn more about the study, contact MaryAnn Oakley at the ARDC by calling 412-692-2721 or by e-mailing her at oakleym@upmc.edu. Volunteers must have a person willing to assist them during at least five clinic visits and with telephone contacts from researchers.

Patients and Family Members Spend a Morning at The Andy Warhol Museum

As introduced in the last issue of Pathways, the ADRC is partnering with The Andy Warhol Museum on Pittsburgh’s North Side to offer a new program for patients and family members affected by memory loss and other cognitive changes. The goals of the program are to promote community engagement and to encourage creative expression among those affected by Alzheimer’s disease and related disorders.

The Warhol staff and ADRC outreach personnel are inviting patients and their family members to participate in a monthly series at the Warhol. Through this series, ADRC patients and their family members will participate in guided tours and small group discussions, followed by an art-making activity inspired by the Warhol tradition.

The first session was held on August 18. In attendance were MaryAnn Oakley, MA, and Jennifer H. Lingler, PhD, CRNP, as well as four individuals from the ADRC. Feedback from those who participated was resoundingly positive. Josie Romatowski, wife of an ADRC participant stated that it was a “fantastic experience,” despite the fact that her husband “had never really been into art” before attending. She added that both she and her husband are looking forward to coming back to the Warhol for another session.

Please note that there is no charge associated with this program. To learn more or reserve a space in an upcoming session, call MaryAnn Oakley at 412-692-2721 or e-mail her at oakleym@upmc.edu.
Snitz Receives K-23 Research Career Development Award

Beth Snitz, PhD, ADRC staff neuropsychologist, was awarded a Patient-Oriented Research Career Development Award from the National Institute on Aging. This award provides support for mentored training and research for up to five years to qualified candidates early in their careers, based on their potential to develop into productive clinical investigators.

Snitz’s project will focus on how beta-amyloid in the brain may relate to memory and thinking in older adults without Alzheimer’s disease (AD) or early in the course of the disease. Beta-amyloid is the main constituent protein of the brain plaques that appear to be critical in leading to the diagnosis of AD. With the recent development of Pittsburgh Compound B (PiB)–PET imaging, researchers all around the world are now able to see the buildup of beta-amyloid in the brains of those diagnosed with AD. The buildup can be seen in about half of older adults with mild cognitive impairment and in about 20 percent of older adults without any obvious cognitive deficits.

The research part of Snitz’s career development award will focus on better understanding the meaning of beta-amyloid buildup in the brains of healthy, normal, older adults. For instance:

- Does the presence of beta-amyloid have subtle effects on memory and other thinking abilities that have so far been difficult to measure?
- Will different, more subtle kinds of cognitive tests better capture early psychological effects of beta-amyloid, if there are any?
- Do subjective memory complaints in otherwise cognitively healthy older adults mean that there is a greater likelihood that beta-amyloid will be seen on a brain scan?
- Do other factors like mood, life stress, or personality traits better explain subjective memory complaints?
- When psychologists measure subjective memory complaints in individuals, how can we tease these different factors apart?

The answers to these questions may eventually lead to better early detection and screening tools in the community or in the doctor’s office. This would be especially important for the day when disease-modifying treatments for AD become available.

During the award period, Snitz will work closely with her mentors, ADRC Codirector William Klunk, MD, PhD; ADRC Clinical Core Director Judith Saxton, PhD; and ADRC faculty member Mary Ganguli, MD, MPH. The research will involve administering a number of psychological test and questionnaire batteries to interested volunteers who are already enrolled PiB-PET research studies.

Later in the award period, Snitz will conduct her own study of individuals coming to the ADRC with subjective memory complaints but who perform normally on objective tests. Through these planned research studies, as well as through courses, seminars, and meetings with senior researchers, she hopes to learn more about PiB-PET imaging, as well as better ways to measure memory, both objectively in the clinic and from an individual’s point of view.

Ultimately, the goal of the career development award is to foster Snitz’s independence as an investigator continuing this line of research into the future.

In Memoriam

The University of Pittsburgh Alzheimer Disease Research Center thanks the following individuals and companies for their generous donations received April 1, 2010–September 30, 2010.

In Memory of George Baker Sr.  
George and Elizabeth Baker  
Sherchem Federal Credit Union  
Millennium Inorganic Chemicals

In Memory of Phoebe Bernstein  
H. David and Carol A. Aliskowitz  
S. Lee Hott  
Charles and Marjorie Mergen  
Michael and Randi Sigal  
Ronald and Andrea Wedner

In Memory of John Booth  
Joseph A. Zikor Jr.

In Memory of Charles Frederick Clark  
Tina Coury Hapanowicz  
Charles and Barbara McAnany Jr.  
Mary Winzelberg

In Memory of Eileen A. Dowling-Walsh  
W. Thomas and Jeanne M. Clark

In Memory of Donald John Duke  
Paul and Sharon Conley Jr.  
Jan Richard and Cynthia Garda  
Edgar and Susan Mickey  
Charles and Donna Rose  
Washington Area Senior Citizens Center, Inc.

In Memory of Steve Finney  
Mark and Jeanne McKenzie

In Memory of James Hassen  
Janet and James Hassen III  
Robert and Janet Hassen

In Memory of Edith M. Hummel  
Arlin and Dalores Hummel

In Memory of Elaine King  
Michelle Browne

In Memory of Kathryn LaRue  
John LaRue  
Lori Louche  
Florence and Duke Rakich  
Gloria T. Sergakis  
Thomas and Kori Smith

In Memory of Robert Masterino  
David and Janet Batlan  
Morton Batlan  
Kenneth and Regina Betsch  
Sean and Sharon Burnham  
Judith Clack
**ADRC Welcomes Eric McDade, DO**

Eric McDade, DO, joined the neurology team at the Alzheimer Disease Research Center (ADRC) in August 2010. He completed his residency at the University of Maryland, where he was co-chief resident and was awarded the Arnold P. Gold Humanism Award in recognition of excellence in teaching and humanistic care. He most recently completed a two-year fellowship at the Mayo Clinic in behavioral neurology, focusing on spontaneous and familial neurodegenerative dementia syndromes and mild cognitive impairment.

McDade’s clinical interests are in Alzheimer dementia; Frontotemporal dementias, including Primary Progressive Aphasia; dementia with Lewy Body; young-age-onset dementia; dementia in Corticobasal degeneration; and familial dementia syndromes.

His recent research has focused on the correlations between gait and cognition in mild cognitive impairment and how gait changes can be used to predict cognitive decline. Additionally, he has a strong interest in radiological biomarkers in mild cognitive impairment.

A native of Rochester, N.Y., McDade (right) spends his free time with his wife Lisa (left), a pediatric nurse, and their 4-year-old son, Maximilian (center). McDade’s hobbies include cycling, hiking, and recently learning to play the piano with Max.

---

**Free Workshop Available for Caregivers, Professionals, and Arts Organizations**

Alzheimer’s disease (AD) caregivers, health care professionals, and arts organizations are invited to learn how In the Moment at Carnegie Museum of Art creates an accepting and engaging environment for individuals living with AD and their caregivers. The workshop is FREE, but registration is required.

**When:** Monday, December 6, 2010, 8 a.m.–noon

**Where:** Carnegie Museum of Art, 4400 Forbes Avenue, Oakland

**Reservations must be received by December 1.**

*More information on page 7*

---

**Research Donations**

- George and Beatrice Lamprinakos
- John and Betty Manes
- Lawrence and Claire Levine
- Paul Ressler

Your contributions are greatly appreciated and help to support research and education in the area of Alzheimer’s disease. You can remember or honor a loved one by using the envelope enclosed in this newsletter to send in your donation.
A group of ADRC faculty and staff participate in the Memory Walk.

Memory Walk a Success

The Alzheimer’s Association’s annual Memory Walk was held at the Pittsburgh Zoo & PPG Aquarium on October 2, 2010. There was a tremendous turnout, with more than 3,000 participants. The event is designed to raise awareness and funds for Alzheimer care, support, and research. More than $260,000 has been raised so far this year. Faculty and staff from the Alzheimer Disease Research Center attended this year’s walk. The weather certainly cooperated as it was a beautiful day to walk through the zoo and also support the Alzheimer’s Association.

Outreach Center Coordinator to Retire

Shirley Portis, MSW, is planning to retire effective January 2011, after serving as social worker and outreach coordinator at the Alzheimer Outreach Center (AOC) at Hill House, the community satellite and outreach program of the Alzheimer Disease Research Center (ADRC), since 1996.

Shirley earned a master’s degree in social work and a Master of Public Administration degree from the University of Pittsburgh in 1987. Prior to coming to the ADRC, she worked as a clinical social worker at Matilda Theiss Health Center in Pittsburgh and on a research project at the Pittsburgh Veterans Administration Medical Center—what is now VA Pittsburgh Healthcare System—on University Drive.

As coordinator of the AOC, Portis recruits subjects into the satellite program, conducts social work assessments, and refers patients and families to appropriate community services. She runs a monthly caregiver support group that is part of the Greater Pennsylvania Alzheimer’s Association Support Group program. In addition, she organizes what has become a yearly holiday luncheon honoring the AOC’s healthy volunteers and family caregivers. The event is held at a local assisted living center and includes a guest speaker who provides ongoing healthy aging education to participants.

Over the years, Portis has conducted outreach efforts at numerous health fairs at Hill House, urban churches, and local community centers and participated in educational programs at senior centers and high-rise senior apartment buildings. She has represented the AOC at the monthly Hill House Campus Partners Meetings and previously had served on the program committee of the local Alzheimer’s Association chapter, and the aging discussion group of the Area Agency on Aging. She also worked closely with the Pittsburgh Housing Authority regarding education programming and training of housing authority staff and building managers. Her other training and mentorship activities included serving as a field preceptor for master’s degree candidates at the University of Pittsburgh School of Social Work.

The faculty and staff of the ADRC would like to thank Shirley for her efforts in our satellite program and wish her the very best as she transitions into a new phase in her life. Shirley hopes to continue doing part-time consulting and contract work and volunteering at a community food bank and a local library. She also plans to have more time to spend with her family and friends as well as more time for reading and attending movies.

AOC Sponsors Seminar Series

The Alzheimer Outreach Center (AOC), the community satellite and outreach program of the Alzheimer Disease Research Center (ADRC), sponsors the Walter Allen Memorial Seminar Series twice a year. This series features community lectures about topics relevant to the African American geriatric population. Meryl Butters, PhD, and Charlotte Brown, PhD, of the University of Pittsburgh Late Life Mood Disorders Center spoke about depression and its relationship to memory impairment at the fall lecture on September 2. Their joint presentation made for a very interesting and informative talk enjoyed by all who attended. If you would like information about upcoming lectures, please contact MaryAnn Oakley at 412-692-2721 or oakleym@upmc.edu.

The AOC is located in room 210 of Hill House, 1835 Center Avenue. Feel free to stop by the office if you are interested in learning more about the center or to pick up literature about Alzheimer’s disease.
Volunteers Needed for Studies

### Lifestyles and Behavior on Cognitive Function

**Description** This study will look at the effect of various life factors, such as physical activity, on brain health in late adulthood. Participants will be asked to wear an armband that measures activity for a one-week period.

**Study Length** One week

**Study Requirements** Participants who are 65–90 years of age and are coming to the ADRC for an initial or annual evaluation

**Contact** Call MaryAnn Oakley at 412-692-2721 or e-mail her at oakleym@upmc.edu.

### ADNI-GO Study

**Description** The purpose of this study is to determine whether imaging of the brain (through MRI, PET, and amyloid imaging scans) can help to predict and monitor the onset and progression of Alzheimer’s disease. In addition to conducting neuroimaging, the study will collect and test blood and cerebrospinal fluid to determine if biomarkers can predict and monitor the disease.

**Study Length** Two years

**Study Requirements**
- 55–90 years of age
- Caregiver or family member able to attend all clinic visits with patient
- Memory complaint by participant and/or caregiver or family member

**Contact** Call MaryAnn Oakley at 412-692-2721 or e-mail her at oakleym@upmc.edu.

### PeRBA Study

**Description** The purpose of this study is to learn how individuals with cognitive impairment and their family members feel about participating in research.

**Study Length** One interview lasting approximately 45 minutes to one hour

**Study Requirements** Diagnosis of mild cognitive impairment, Alzheimer’s disease, or other dementia

**Contact** Call MaryAnn Oakley at 412-692-2721 or e-mail her at oakleym@upmc.edu.

### Pittsburgh Compound B (PiB) Project 5 Study

**Description** This study will use PET imaging to determine why one person with a certain amount of amyloid might only show the mild symptoms of mild cognitive impairment (MCI) while another person with the same amount of amyloid may show symptoms of Alzheimer’s disease.

**Study Length** Varies

**Study Requirements**
- 21 years of age or older
- Diagnosed with MCI by the ADRC

**Contact** Call Claire McConahaya at 412-692-2727 or e-mail her at mcconahacw@upmc.edu.
Ask the Medical Professional

By Donna Simpson, CRNP, MPH

Q: How do you select participants for clinical trials?

A: Research is vital to the development of treatments, and ultimately cures, for conditions such as Alzheimer’s disease (AD). Individuals and families affected by AD often are searching for ways to help, and some seek out opportunities for participation in clinical drug trials. Clinical drug trials are research studies that follow specific protocols to determine whether new medications are safe and beneficial.

The process of selecting potential candidates for a clinical trial is guided by a predefined protocol for a particular study. A protocol is a detailed document that outlines the goals and procedures of the clinical trial and specifies the desired characteristics of potential candidates. Alzheimer’s Disease Research Center (ADRC) staff members serve as clinical trial coordinators and work closely with our recruitment coordinator to identify potential study candidates.

Within the ADRC, certain information is readily available for coordinators to review when identifying study candidates. For example, information concerning a person’s interest in being contacted for studies, his or her medical history and current medications, and ADRC test results are all on file and can be matched against the criteria outlined in a research protocol. Once identified through this matching process, potential candidates are contacted by ADRC staff members and provided with information about the opportunity for participation in the clinical trial.

If an individual is interested in possibly participating in the trial, the process of communication then continues and additional information is obtained about the potential candidate. Those who meet initial protocol criteria are invited to come to the ADRC in person to learn more about the next steps for participating in a particular clinical trial.