**Message from the Director**

*The Florida Alzheimer’s Disease Research Center (ADRC)* is now in its fifth year, and we recently submitted a proposal to the National Institute of Health to extend the ADRC grant to do further research on Alzheimer’s disease.

The ADRC faculty are very busy conducting all types of research, including biomedical, clinical, behavioral and longitudinal, all focused on understanding Alzheimer’s disease and memory loss. We also coordinate the Florida ADRC Brain Bank and provide education and training on Alzheimer’s disease to health care providers, caregivers and lay audiences.

This issue of the newsletter highlights some of the research done by our faculty and researchers and gives you an inside look at the role of one of our staff.

On behalf of the Florida ADRC staff, we appreciate your participation and look forward to seeing you at your next visit.

Sincerely,

Huntington Potter, PhD, Director
Florida Alzheimer’s Disease Research Center

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**Update on Research**

It is important for individuals with memory problems to get a correct diagnosis so their doctor can determine the appropriate treatment. It is also important to find ways to standardize the diagnosis so different doctors agree on who has Alzheimer’s and who does not. The Florida ADRC decided to review how the diagnosis was being made and what we could do to improve the process. This analysis enabled us to develop two new tools to help doctors diagnose Alzheimer’s disease in the very early stages and to improve consistency.

The Florida ADRC first developed a way to standardize decision making, so that doctors who see patients with memory problems are able to use the same rules in making a diagnosis with every patient. The decision making approach combines information about whether the person can still carry out daily activities, results from memory testing and data from brain scans.

Our efforts to incorporate brain scan data into diagnostic decision making was also a big step forward. Radiologists have used MRI and CT scans of the brain only to exclude conditions such as brain tumors, strokes and hydrocephalus (excess fluid in the brain) as a cause of memory problems. The Florida ADRC developed a computer program to enable a physician to detect even the earliest stages of degenerative conditions, such as Alzheimer’s, from these scans. The computer program provides images showing the brain regions where Alzheimer’s disease first affects the brain and then provides examples of different levels of degeneration so the physician can recognize these changes on the patient’s scan. This method had been shown to assist in the diagnosis of very early stages of Alzheimer’s disease and other conditions that cause memory problems.

We expect this work will be helpful to doctors throughout the world in improving the diagnosis of memory problems. The Florida ADRC thanks the participants in our research for being a part of our study. This is a wonderful example of how the partnership between our researchers and individuals like yourself can result in scientific advances to benefit so many.
The Value of Clinical Trials

Alzheimer's disease has a significant financial and emotional impact on its victims, their families, and society. This problem is expected to grow worse as people live longer. Current treatments for this illness are few, and though they have some impact on slowing its progression, they can not stop or reverse memory loss and functional decline.

New medications become available through years of testing in animals and then in people to determine safety and efficacy (how well they work.) Only after this long process can treatments become available through prescription. Without human volunteers, successful new treatments can not become available.

A number of clinical trials for healthy elders, people with minor memory problems, and people with Alzheimer's disease are now enrolling. If you desire more information or wish to screen for one of these studies, please contact your Florida ADRC site for a referral.

Exercise your Brain

Just as you exercise your body to keep it in good shape, it is important to exercise your brain. Mental aerobics are activities that challenge both sides of the brain. Pick activities that are challenging but not frustrating and that you enjoy. Here are a few ideas:

- Listen to music
- Put a jigsaw puzzle together
- Read a book
- Do crossword puzzles, cryptograms and word searches
- Write a poem
- Write your name with your other hand
- Learn to knit
- Do brain teasers
- Take a class or go to a lecture
- Dance
- Solve a sudoku puzzle
- Try to paint or draw
- Learn words in a different language
- Memorize the words to a song and SING!
- Learn something new on the computer

The Importance of Stroke Prevention

A stroke is a “brain attack” that causes the loss of blood and oxygen to brain cells. Most strokes are ischemic, from a blocked blood vessel, but some are hemorrhagic, from bleeding into the brain. Large strokes can affect many functions of the brain. Symptoms of this medical emergency can include numbness or weakness of the arm, leg, or face, unsteadiness, difficulty understanding or speaking, vision changes or difficulty with thinking and memory.

One-third to one-fifth of people who suffer a stroke will develop a decline in their mental abilities, a condition known as vascular dementia. In some cases, memory problems develop as a result of the buildup of many tiny strokes that caused no symptoms but are visible on a brain scan. These “silent” strokes can go unnoticed for years until enough have accumulated to cause problems. People who develop these vascular memory problems often have forgetfulness, slow thinking, slow movements, and inability to perform simple tasks.

Some of the biggest risk factors for memory problems due to these small strokes include age, high blood pressure, diabetes, and a condition called left ventricular hypertrophy (a thickening of the heart muscle).

Other stroke risk factors include smoking, excessive alcohol use, high cholesterol, obesity, heart disease, and a type of irregular heartbeat called atrial fibrillation. Therefore, the biggest way to avoid developing memory problems due to stroke is to prevent them in the first place. Exercising, eating healthy foods low in fat and cholesterol, controlling blood sugar, and quitting smoking and drinking can all decrease the risk of having a stroke. Make sure to have regular check-ups with your doctor to monitor your blood pressure, heart-beat, cholesterol level, and blood sugar. This is especially important in African Americans and Hispanics, because studies have shown that these populations tend to have more risk factors and higher rates of strokes than other groups.

If you experience any symptoms that make you think you are having a stroke, call 911 or seek emergency medical treatment right away. There are treatments that can help, but every minute counts. The longer brain cells go without blood and oxygen, the more likely they are to suffer permanent damage.

FOR MORE INFORMATION ON STROKES

National Stroke Association: 1-800-STROKES or www.stroke.org

American Stroke Association (A division of the American Heart Association) 1-888-4STROKE or www.StrokeAssociation.org

Adapted from Dr. Amanda Smith's article that appeared in the Tampa Tribune 5/31/08.
The following is an interview with Nancy Teten, LCSW, CAP, Brain Bank Coordinator for the Florida ADRC.

What is a Brain Bank?
Just as a bank stores money, a “Brain Bank” stores brain tissue. Our researchers study donated brain tissue to understand the aging process and why some people develop dementing disorders and some do not. The Brain Bank is a way for ADRC participants to donate their brain for research. Brain donation is also a way for your loved ones to receive information after your death about the health of your brain and to confirm whether or not you had a dementing disorder, like Alzheimer’s disease.

What do you do as a Brain Bank Coordinator?
As Coordinator and part of our team, I provide ADRC participants with information about the benefits of Brain Bank participation and I maintain contact with those who choose to participate in the Brain Bank. I am the person to call upon the death of a Brain Bank participant, and I make all of the necessary arrangements for the autopsy of the brain.

Are there any misconceptions about brain donation that you hear from people?
Common misconceptions have to do with cost and the possible delay in the funeral arrangements. The facts are: There is NO cost to the ADRC participants or their loved ones and there is NO delay in the funeral arrangements. And, yes, you can still have an open casket service. No one will be able to tell that you have had a brain autopsy.

Are most people receptive to participating?
Yes. Most ADRC participants want to make a difference and understand the value to their loved ones and most cultures and religions allow and support brain bank donation.

How important is the Brain Bank to discovering new treatments and potentially a cure for Alzheimer’s?
Extremely important. Brain bank donation is the way that researchers will find new treatments and eventually a cure for dementing disorders, like Alzheimer’s disease. While our scientists do research with animal models of Alzheimer’s disease, there is no substitute for studying human brains.

Are there any problems you encounter?
Some problems or reluctance are usually because people are misinformed about donation. As the Brain Bank Coordinator, I help ADRC participants get answers to their questions and get the correct facts. Another problem is when an individual agrees to participate in the brain bank but doesn’t tell his or her family members. When the individual passes away, the family is not aware of their loved ones wishes and does not contact me to coordinate the brain autopsy.

For more information about the Florida ADRC Brain Bank, please contact Nancy Teten at (813) 974-4355.
Driving and Dementia

When a person’s cognitive skills become impaired, driving can be very dangerous for them and for others on the road. Often, caregivers will act as the “co-pilot” and give the person directions. Being the navigator is not enough. The driver must be able to operate the car safely, react to other cars, understand traffic signs and follow the traffic laws. Caregivers need to watch their loved ones who have memory problems to ensure it is safe for them to drive.

**Your loved one should no longer drive if he or she:**

- Gets lost in familiar places.
- Does not comprehend traffic lights or signs.
- Has poor judgment of distance. (turns too wide or too tight, or runs over curbs)
- Makes poor decisions in traffic (doesn’t yield right of way, changes lanes without looking, tailgates, slams on the brakes)
- Drives too slow or too fast.
- Becomes easily confused or agitated while driving.
- Takes too long to come back from a familiar shopping trip.
- Confuses the brake and gas pedals.
- Doesn’t react, or reacts too slowly to emergencies.
- Can no longer drive defensively or anticipate potential dangerous situations.
- Has scrapes or dents on the car, garage or mailbox.
- Has difficulty processing multiple stimuli simultaneously—signals, pedestrians, construction, signs, other cars, etc.

The Hartford and the MIT AgeLab developed an excellent guide to help family members determine if their loved with dementia is still able to drive safely. The 28-page guide, “At the Crossroads: Family Conversations about Alzheimer’s Disease, Dementia and Driving” is available at no charge. Go to their website at www.thehartford.com/alzheimers and click on “brochure” to place your order. Or you can request a copy of “At the Crossroads” by writing to The Hartford, 200 Executive Boulevard, Southington, CT 06489.

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The Florida Alzheimer’s Disease Research Center (ADRC) was established in 2005. It is funded by the National Institute on Aging, and is part of a national network of ADRCs. For more information, call the site near you.

MIAMI
**Wien Center at Mount Sinai Medical Center**
(305) 674-2543

SARASOTA
**Sarasota Memorial Memory Disorder Clinic**
(941) 917-7197

TAMPA
**Byrd Alzheimer’s Institute**
(813) 866-1611

Check out our NEW webpage
www.fladrc.org