

Exploring M_Emory@

EMORY UNIVERSITY SCHOOL OF MEDICINE

ALZHEIMER'S DISEASE RESEARCH CENTER

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The Emory Alzheimer's Disease Research Center is a coalition of Emory faculty, staff, and programs that focuses on Alzheimer's disease and related disorders across research, teaching or clinical activities. The mission of the Emory Alzheimer's Disease Research Center is to support multidisciplinary activities related to Alzheimer's disease and related disorders. We provide compassionate, cutting edge diagnosis, treatment and education for people with Alzheimer's disease and their families. We focus on research for early diagnosis, to advance treatment and find a cure, and place importance on education for the next generation of clinicians and researchers.

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Message from our Director...

On behalf of everyone at the Emory Alzheimer's Disease Research Center (ADRC) we would like to thank you for your interest and support for our first edition of the Emory ADRC newsletter. You may not know that the Emory ADRC is one of 30 centers in the nation supported by the National Institutes of Health. It is also one of 15 centers with research as its primary mission.

The goal of these centers is to bring together scientists and facilitate their research to help learn more about Alzheimer's and related diseases. We are also committed to the



education of health care professionals, persons with Alzheimer's disease, their families, and our community to aid in understanding, diagnosing and treating these illnesses.

Memory, the ability of the brain to store, retain, and subsequently recall information is key to understanding Alzheimer's disease and related disorders. We invite you to join us in exploring memory at family caregivers.

Emory through understanding the importance of research in discovering answers.

Research is crucial to gain more information about disease, provide better care, and ultimately, prevent the burden of neurological diseases for future generations. A major thrust of the ADRC is to gain a better understanding of mild cognitive impairment which is likely key in determining early

We hope this newsletter will provide you with new information and a better understanding about the goals of the Emory ADRC. If you have any suggestions or comments about the changes with normal aging compared to those with Alzheimer's disease. We are also interested in involving persons who are often underrepresented in research. For example, more African Americans are affected by Alzheimer's - a journey that ends with a cure.

Alzheimer's Research Requires Volunteers

Alzheimer's disease (AD) increases with age. Some research studies report that as many as 19% of those over 75 and nearly 50% over age 85 have AD. While these are concerning statistics, we need to remember that most elderly individuals do not have AD; AD is **NOT** a normal consequence of aging. Alzheimer's Disease Research Centers (ADRC) look for reasons that people have a higher risk of AD as they age. To help find answers, volunteers are enrolled in a "research registry."

What is an Alzheimer's Disease Research Center "research registry"?

Research Centers enroll volunteers in a long term study. People who join the study are interviewed and have tests that measure "thinking ability" about once a year. These visits take two to four hours. Most Research Centers want each enrolled person to have a "study partner." Spouses, an adult child or grandchild, a brother or sister, or a friend all make good study partners.

The yearly testing that volunteers receive is sensitive to changes in memory. To learn more about the earliest signs of memory changes Alzheimer's Disease Research Centers enroll three or more groups of people. First they enroll people over age 65 with no diagnosed memory disorder. The second group is people of any age who have mild memory problems or mild cognitive impairment (MCI). The third group is people diagnosed with early Alzheimer's disease. At Emory, we also enroll people with other neurological conditions that can cause memory loss and dementia, including Parkinson's disease, and other conditions.

Following people over many years helps unlock mysteries about Alzheimer's disease. One mystery is "when does Alzheimer's disease begin?" Past research has led to earlier diagnosis of memory problems. Mild cognitive impairment (MCI) is a new category of memory loss. People with MCI have short term memory loss, but otherwise function independently. Some people with MCI will develop Alzheimer's within three years.

Why have an ADRC "research registry"?

One reason to have a research registry is to have a group of people to participate in new studies. A researcher may need as many as 30 people for a study. He or she may need 10 people in three different categories: normal aging, MCI and early AD. Research Center staff contact volunteers

in the research registry and ask if they would be interested in joining this study. Registry volunteers always have the right to say no.

Another important reason to have a research registry is to look at large numbers of people with a similar condition. Researchers look for patterns in the information. These patterns could yield important clues about the disease. An example is genetic research to help decide if a condition is inherited. Blood samples from many people are needed to look for inherited patterns. ADRC's around the country share information to help look for patterns. ADRC's remove all personal information about their volunteers before they combine the information. Maintaining confidentiality of research volunteers is very important.

Does the Emory Alzheimer's Disease Research Center have a research registry?

Yes! Volunteers over the age of 65, without memory problems are critical to several new research studies. People with MCI or AD are also needed for these studies.

New Neuroimaging Study

Finding the earliest signs of memory loss is the first step in preventing Alzheimer's. Researchers are searching for ways to identify who will get Alzheimer's disease in the future. The goal of a new study is to determine if pictures of the brain every six months can help predict the onset and monitor the progression of Alzheimer's disease.

This neuroimaging (brain picture) study is starting at 50 research centers. Researchers will examine how positron emission tomography (PET) and magnetic resonance imaging (MRI) can be used to measure memory changes. 800 people with normal memory, mild cognitive impairment (MCI) or early Alzheimer's disease will be participating in the study. Participants will be followed for three years. The Emory Alzheimer's Disease Research Center is taking part in this study. For more information call 404-728-6950. Other research centers taking part in this study can be found at www.alzheimers.org.

New Publication on Alzheimer's Research

The National Institute on Aging has published a booklet titled "Progress Report on Alzheimer's Disease 2004-2005: New Discoveries, New Insights." Order a free copy by calling 1-800-438-4380. You can read the report at www.alzheimers.org.

Dr. Donald Bliwise



Donald L. Bliwise, PhD, is Professor of Neurology at Emory University Medical School. He established and serves as Director of the Program in Sleep, Aging and Chronobiology in the Department of Neurology. Dr. Bliwise received his PhD in Behavioral Science from the University of Chicago and completed a fellowship in sleep disorders medicine at Stanford University Medical Center.

He is a licensed psychologist and also a fellow in the American Academy of Sleep Medicine. His specific area of interest has been the description, explanation of pathophysiology, and treatment of sleep disorders in the aged, with special interest in sleep in neurodegenerative conditions such as Alzheimer's disease and Parkinson's disease.

Dr. Bliwise has been active in the field of sleep for 30 years and is internationally recognized for his work. He has published over 125 peer-reviewed papers and 185 abstracts.

Dr. Bliwise is a lead investigator for the Clinical Core of the Emory Alzheimer's Disease Research Center. The Clinical Core is responsible for providing state of the art diagnostic assessment of patients with Alzheimer's disease and other dementias and has a special interest in other medical conditions that may contribute to impaired cognition. The core also recruits and organizes the ADRC registry, a pool of patients that have an interest in participating in research.

Dr. Bliwise was awarded an investigator initiated Alzheimer's Association grant to study the role of sleep apnea as a risk factor for developing Alzheimer's disease. Sleep apnea occurs when breathing stops or gets very shallow while an individual is sleeping. Research studies have found that sleep disturbances occur in up to 54% of patients with Alzheimer's disease (Carpenter et al., 1995; Chen et al., 2000; Hart et al., 2003; McCurry et al., 1999). He has studied over 300 elderly subjects using microprocessor/computer processor technology to record breathing during sleep.

Dr. Junmin Peng

Dr. Junmin Peng is an Assistant Professor in the Department of Human Genetics and Biochemistry from the University of Iowa and after completing a post doctoral fellowship in neuroscience and proteomics at Harvard Medical School.

Dr. Peng's current work includes a mix of three research projects supported by the ADRC. His area of specialization is Proteomics Technologies, specifically Mass Spectrometry. Proteomics is the study of the structure and function of proteins and mass spectrometry is an instrument that can be used to look at and explore proteins. Dr. Peng is currently using this innovative technology to look at protein

changes in the development of neurodegeneration. Neurodegeneration is a break down of brain and nerve cells that can lead to problems with movement and memory.

Alzheimer's and Parkinson's disease are the two most common neurodegenerative diseases. They both share a common feature: an abnormal build up and change in proteins with aging. These common features have been recognized as hallmarks of neurodegeneration; however, the role they play in the development of disease is



poorly understood. Dr. Peng's research uses mass spectrometry-based technologies to identify and validate protein changes in post-mortem brain cell samples of individuals with Mild Cognitive Impairment, Alzheimer's disease and Parkinson's disease. His goal is to develop strategies that will lead to improved diagnosis and treatment for neurodegenerative diseases.

Dr. Peng has always been fascinated by teaching and research. He leads one of how the brain works and how we remember and learn things. While performing his first post-doctoral training in a lab focused on neurodevelopment and neurodegeneration, he began to recognize that understanding the mechanism of memory loss in Alzheimer's disease will not only help treat patients but also deepen our insights into the acquisition and consolidation of memory. He also began to recognize that the research tools available in the field were limited and could not address how protein networks work together in a systematic manner.

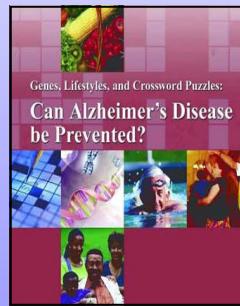
Therefore, he switched to another lab in proteomics and developed the technologies for large scale analysis. He is now striving to apply these advanced technologies to Alzheimer's disease research. When Dr. Peng is not teaching or performing research he enjoys spending time with his two year old son. He is also an avid sports fan and plays soccer in his free time.

Free Booklet Stresses AD Prevention

A free 28-page booklet from the National Institute on Aging (NIA) Alzheimer's Disease Education and Referral Center (ADEAR) — *Can Alzheimer's Disease be Prevented?* — provides the latest research findings on risk factors for developing Alzheimer's Disease (AD). It describes the ongoing search for prevention strategies and how heart disease, high blood pressure, diabetes and insulin resistance, and inflammation may affect development of (AD). The booklet discusses new research from observational studies of AD.

The findings and NIA's continuing research programs are renewing hope that someday we will be able to delay the onset of AD, slow its progress, or even prevent it altogether.

The booklet can be viewed and ordered online at : www.alzheimers.org/pubs/PreventingAD/TOC.htm You can also order copies by calling the ADEAR Center at : 1-800-438-4380.



Clinical Trials

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Listed below are current research studies taking place. If you are interested in participating or would like more information, please contact the Study Coordinator listed with each trial.

Condition Being Studied

Normal Aging, Mild Cognitive Impairment & early Alzheimer's Disease

Procedure Being Tested

Neuroimaging and biomarkers study

Design

- 2-3 years
- Visits every 6-12 months
- Blood tests, memory testing, MRI scans, PET scans and optional lumbar puncture

Eligibility Criteria

- Age 55-90
- Study partner available
- Stable on medications

Contact Person

Janet Cellar, RN, NP
404-728-6453
jcellar@emory.edu

Condition Being Studied

Healthy aging & all neurological disorders

Procedure Being Tested

No medication treatment

Design

- 1 study visit
- Blood sample
- Brief memory testing
- Brief history

Eligibility Criteria

- Any age
- Either with or without a neurological disorder

Contact Person

Ami Rosen, MS, CGC
404-728-4956
arosen@emory.edu

Condition Being Studied

Moderate Alzheimer's Disease

Medication Being Tested

Valproate

Design

- 26 month study
- 12 visits to the clinic
- Placebo-controlled
- Memory testing
- Physical exams and laboratory assessments

Eligibility Criteria

- Diagnosis of probable Alzheimer's disease
- Age 55-90
- Have not experienced agitation or psychosis since the onset of Alzheimer's disease

Contact Person

R.D. Jewart, PhD
404-728-6414
rjewart@emory.edu

Condition Being Studied

Alzheimer's Disease

Procedure Being Tested

Increasing knowledge of vascular risk factors

Design

- Memory testing
- Blood tests, EKG, and blood pressure taken
- 1 visit. Some patients might be asked to be seen 12 months after initial visit

Eligibility Criteria

- Diagnosis of Probable Alzheimer's disease
- Any age

Contact Person

Felicia Goldstein, PhD
404-728-6680
fgoldst@emory.edu

Condition Being Studied

Mild to moderate Alzheimer's Disease

Medication Being Tested

Huperzine (Chinese herb)

Design

- 24 week study
- 9 study visits
- Placebo-controlled for first 16 weeks, however all patients will receive active Huperzine the final 8 weeks of study
- Memory testing, brief physical exams

Eligibility Criteria

- Diagnosis of probable Alzheimer's disease
- Have not taken Aricept, Exelon, or Reminyl in the past 2 months
- Can be on Namenda

Medication Being Tested

ONO 2506PO

Design

- 56 week study
- 11 study visits
- Memory testing, brief physical exams
- Placebo-controlled

Eligibility Criteria

- Mild to moderate Alzheimer's disease
- 50-90 years of age

Contact Person

R.D. Jewart, PhD
404-728-6414
rjewart@emory.edu

Condition Being Studied

Mild Cognitive Impairment

Procedure Being Tested

No medication treatment

Design

- 2-hours of computerized cognitive tasks or virtual reality device
- 1 or 3 year study
- 1 visit per year

Eligibility Criteria

- Diagnosis of Mild Cognitive Impairment

Contact Person

Felicia Goldstein, PhD
404-728-6680
fgoldst@emory.edu

Contributions to the ADRC ...

spring 2006

Thanks to friends and family members for these special contributions.

In memory of Mrs. B. June Baggett

Mr. and Mrs. Robert B. Ansley, Jr.
Mr. and Mrs. Jack Bagwell
Mr. Terry J. Bagwell
Mr. and Mrs. Maxie C. Baughan
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In memory of Mr. Harold D. Jones

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In memory of Mr. Joseph B. Vermeulen

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Mr. & Mrs. Joel E. Matthews

In memory of Mrs. Laura Whitlock

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Other Donations

Clayton School Employees Foundation
The Dr. Lloyd Westley Luttrell Memorial Foundation
Wadleigh C. Winship Fund

Contributions

If you would like to make a contribution to support the Alzheimer's Disease Research Center, please use the following contribution form.

Enclosed is my tax deductible gift of _____

Please note that this contribution is In Memory of In Honor of
Name _____

Please send of Acknowledgement of this donation to:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Donor Name: _____

Address: _____

Please make checks payable to:

Emory Alzheimer's Disease
Research Center
1841 Clifton Road
Atlanta, GA 30329

ADRC Educational Events

April—June 2006

Middle Stage Alzheimer's Challenges

6 week class
Fridays, April 14, 21, 28 and May 5 & 12
10:30-12:00
Location:
Wesley Woods Health Center
Susan Peterson-Hazan

Research Update

Dr. James Lah
March 10, 2006
10:30 – 12:00
Location:
Budd Terrace Auditorium
1841 Clifton Rd.
Atlanta, GA 30329

Alzheimer's Disease Research

Dr. Allan Levey
March 21, 2006
7:00 pm
Hearthstone
at Presbyterian Village
Austell, GA

Late Stage Alzheimer's Disease

4 week class
Fridays 10:30-12:00
May 19, 26 and June 2 & 9
Location:
Wesley Woods Health Center
Susan Peterson-Hazan

Research Update

April 20, 2006
1:00 - 3:00 pm
Susan Peterson-Hazan, MSW
Alzheimer's Association Provider
Intensive
404-728-1181
1:00 - 3:00 pm
Susan Peterson-Hazan

ADRC Caregiver Seminar Legal Planning when Alzheimer's disease is the Diagnosis

Elder Lawyer
June 22, 2006
6:00 pm

Stages of Alzheimer's Disease

Susan Peterson-Hazan
June 6, 2006
7:00 pm
Sugarloaf Alzheimer's Support Group
Sugarloaf UMC, Duluth, GA



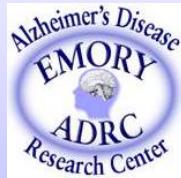
Memory Assessment Clinics

Wesley Woods Health Center
1841 Clifton Road, NE
Atlanta, GA 30329
404-728-4936

Grady Memorial Hospital
80 Butler Street, SE
Atlanta, GA 30335
404-616-4567

Contact Information

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