BU ADC Bulletin

Boston University Alzheimer's Disease Center

FUNDED BY THE NATIONAL INSTITUTE ON AGING

BOSTON UNIVERSITY

SPRING 2009
volume 8, issue 1

In This Issue:

First BU ADC Memory Fair a Huge Success

On March 13th, Boston University Alzheimer's Disease Center (BU ADC) faculty and staff joined members of the Carleton-Willard Village (CWV) staff in Bedford, MA to host "Pump Up Your Brain!" Perhaps the first Memory Fair of its kind in the New England area, this event attracted over 150 residents from CWV and the surrounding area who showed up to learn about brain health and methods for sustaining positive brain aging.

The underlying theme of the Fair focused on dispelling memory loss and aging myths, and each information table that lined the Fair presented a myth along with information to debunk the myth. The topics included heart and brain health, driving safety, caregiving, intellectual stimulation, and nutrition. Attendees engaged in drumming demonstrations, blood pressure checks, and demonstrations of physical fitness equipment. Raffle prizes included items donated by the BU Bookstore, CWV, and Nintendo Corporation. Other participating organizations included the Alzheimer's Association, the BU Vision and Cognition Lab, and the Center for Translational Cognitive Neuroscience at the Edith Nourse Rogers Memorial Veterans Hospital in Bedford, MA.

Memory Fair continued on page 3 >

BU ADC faculty presenters at the Memory Fair (left to right): Dr. Brandon Ally, Dr. Andrew Budson, and Dr. Robert Stern

Driving and Dementia: Balancing Independence and Safety

Driving with dementia is a complicated and emotional issue for patients and their families. Alzheimer's disease (AD) and other dementias result in the progressive impairment of thinking abilities necessary for safe driving, but there is much individual variability in how and when these disorders impact driving ability. Some individuals with mild dementia drive safely for a period of time, while others are unsafe to drive soon after the onset of memory loss symptoms.

Deciding when an individual with dementia must reduce or stop driving can be one of the most stressful issues faced by a patient and their family, who often struggle with the balance between personal independence and public safety. Driving allows individuals to stay engaged and connected to friends and family, enjoy an active lifestyle, and spontaneously meet their daily needs. Driving is not merely a means of transportation, but also a major aspect of overall independence, autonomy, and freedom. Driving cessation is considered by many to be one of the most significant and deeply personal losses they will face in advanced age.

Currently, there are no laws or policies in Massachusetts or in most other states that govern driving safety evaluation or driving cessation in the elderly, including those with dementia. A common recommendation for the older driver is to undergo a formal on-road driving evaluation. These evaluations are not readily available to many drivers, and they can cost several hundred dollars, an expense not covered by Medicare. Recognizing the significance of this issue, Dr. Robert Stern, Boston

Driving continued on page 3 >

A Commitment to Caregiver Health

Sitting in a caregiver support group, a woman looked around the room and silently guessed which attendees were the caregivers and which were the individuals with Alzheimer's disease (AD). When the participants introduced themselves, she was embarrassed to discover that her guesses were completely off. The more tired-looking individuals turned out to be the caregivers and those with AD were the ones who looked healthy and content.

This true story is a striking example of how AD impacts more than just the person with the disease. Many caregivers suffer from negative emotional and physical problems that often go unrecognized. Such health concerns, which include depression and high blood pressure, have an effect on balance at the workplace and relationships with extended family.

The Boston University Alzheimer's Disease Center (BU ADC) is committed to advancing caregiver health research, conducting caregiver education, and raising awareness about caregiver well-being. The BU ADC reaches out to caregiver support groups and collaborates with local chapters of the Alzheimer's Association to assess caregiver needs in the community. In addition, the BU ADC sponsors a number of caregiver-focused studies. For example, *Home Safety Education* is a study that provides education to caregivers to increase home safety for patients with dementia. *Health Pathways* measures how caring for a loved one with AD affects one's physical and emotional health. *CARE Plus* teaches caregivers behavior management skills with the goal of improving well-being for both the individual with AD and the caregiver. New assessment tools gauging the patient's well-being and the caregiver's quality of life are being tested in the new BU ADC study, *AD Care*. If you care for someone with AD or a related dementia, you may be eligible to participate in these caregiver studies. For more information on any of these caregiver studies or for questions regarding local caregiver resources, please contact Stephanie Sikora at 617-414-1078 or sasikora@bu.edu.

Stephanie Sikora, BU ADC Outreach & Recruitment Coordinator

HBO Documentary on Alzheimer's Disease

On Sunday, May 10th, HBO will premiere the first installment of its four-part documentary entitled *The Alzheimer's Project*, which will air at 9:00 pm EDT. The documentary examines recent discoveries in Alzheimer's disease (AD) research and the impact of the debilitating disease on those who have AD and their loved ones. The film is intended to change the way America thinks about AD by putting faces to the disease and bringing hope for future treatments.

On April 6th, the Massachusetts/New Hampshire Chapter of the Alzheimer's Association and the Massachusetts Alzheimer's Disease Research Center previewed *The Alzheimer's Project* at Massachusetts General Hospital in Boston, MA. The event, which was open to the public, featured a panel of AD experts, including Dr. Robert C. Green, Boston University Alzheimer's Disease Center (BU ADC) Clinical Core Director.

An ancillary series to the HBO documentary will include commentary by Dr. Green, who was the BU ADC Principal Investigator of the recently completed Phase III clinical trial of tarenflurbil (Flurizan). Dr. Green commented, "it was a great privilege for us that HBO chose to feature our faculty and staff at BU in the documentaries. The tarenflurbil trial was the world's largest medical trial of AD ever completed, and while the compound was clearly shown to be ineffective, the data and samples from that trial will continue to be valuable in related research studies for years to come."

The Alzheimer's Project is produced by HBO Documentary Films, the National Institute on Aging, the Alzheimer's Association, The Fidelity® Charitable Gift Fund, and Geoffrey Beene Gives Back Alzheimer's Initiative.

< *Memory Fair continued from page 1*

The Memory Fair also included lectures from BU ADC faculty, who addressed current topics in Alzheimer's disease (AD) research. Dr. Robert Stern, BU ADC Clinical Core Associate Director, began the forum by speaking about the importance of distinguishing fact from myth when it comes to your brain health. Dr. Stern also spoke about a number of clinical research studies currently underway at the BU ADC that provide hope for finding answers about early detection and treatment of AD. Dr. Stern stated that "recent scientific advances provide incredible hope for patients, their caregivers, and the countless millions of individuals who may be at risk of developing AD in the future. As we become better able to diagnose AD at the very earliest stages, new treatments will likely delay the onset of symptoms or prevent the symptoms of dementia in the first place." Attendees listened as BU ADC clinical researchers, Drs. Andrew Budson and Brandon Ally, presented findings based upon their ongoing studies at the Edith Nourse Rogers Memorial Veterans Hospital.

Throughout the day, the CWV clinic was busy with memory screenings overseen by BU ADC faculty member and licensed psychologist, Dr. Angela Jefferson. Dr Jefferson stated, "we were overwhelmed by the large number of both local area and CWV residents who signed up to participate in the brief memory screen. Attendees came to the feedback sessions with numerous questions about brain health and methods for preventing abnormal memory loss." The screening received such interest that a second screening will be scheduled later this spring to accommodate the volume.

Event co-coordinators Stephanie Smith, Director of Public Relations at CWV, and Stephanie Sikora, BU ADC Outreach & Recruitment Coordinator, were thrilled with the outcomes. Ms. Smith commented, "Carleton-Willard could not have been more pleased with the Memory Fair. In the days that followed the event, our residents were still talking about how wonderful it was, and residents from the surrounding towns who attended were clearly impressed and glad to receive so much positive information about practical steps for improving their memories."

The Memory Fair was so successful that similar events sponsored by the BU ADC are on the horizon in other communities and venues. For more information about the Memory Fair or to learn how to host a similar event in conjunction with the BU ADC, please contact Stephanie Sikora at 617-414-1078 or sasikora@bu.edu.

The BU ADC is seeking older drivers to participate in the SAFE Drivers study

< *Driving continued from page 1*

University Alzheimer's Disease Center (BU ADC) Clinical Core Associate Director, was recently awarded a $240,000 grant from the Alzheimer's Association to study driving safety in the elderly.

Dr. Stern's project, the *SAFE Drivers* study, will examine 80 older drivers between 55 and 90 years of age. Participants will include cognitively healthy individuals, as well as individuals with mild cognitive impairment or dementia. The goal of the study is to evaluate a battery of existing office-based tests in order to determine which combination of tests most closely relates to real-world, on-the-road driving safety. Participants are asked to attend two appointments. During the first visit, participants are given office-based tests of attention, reaction time, problem-solving, memory, vision, and movement. The second appointment involves a free, on-the-road driving evaluation, which takes place in a Boston suburb and is conducted by a certified driving examiner. This study is an opportunity for older drivers to receive a formal on-road driving evaluation at no cost. Study results will lead to a brief, cost-effective, and highly valid alternative to formal on-road tests for evaluation of safe driving. This office-based alternative could eventually be used in doctors' offices or at the Registry of Motor Vehicles. The alternative of a shorter, more cost-effective method may help drivers and their family members make better informed decisions about driving cessation. These informed decisions will lead to increased public safety and the maintenance of independence for those older adults with memory loss who are driving safely. For more information about the *SAFE Drivers* study, contact Linda Snyder (617-638-5619 or lmsnyder@bu.edu) or visit www.bu.edu/alzresearch/research/driving.

Actively Recruiting Studies

Study Type	Study Title	Study Description
BU ADC Research Registry	Health Outreach Program for the Elderly (HOPE)	This longitudinal study examines age-related changes in memory and thinking. It serves as the Boston University Alzheimer's Disease Center (BU ADC) research registry, where participants agree to be contacted about other BU ADC-approved studies. HOPE participants are encouraged to participate in the actively recruiting studies summarized below.
Caregiving Support & Education	Alzheimer's Disease (AD) Care *new study	This one year study examines a new data instrument to assess caregiver burden and the well-being of the person with dementia for whom the caregiver provides support. Participation includes three to five in-person study visits and periodic phone calls.
	CARE-Plus	This study examines whether an educational intervention with caregivers can reduce behavioral problems in AD patients and improve caregivers' well-being. Participation includes a 5-week intervention with weekly sessions on AD and tips to improve interactions. The individual with AD is not involved in this study.
	Health Pathways	This study looks at how caregiving affects one's physical and emotional health among caregivers age 60 and older who currently care for someone with AD. Participants attend four yearly face-to-face interviews where they will be asked questions about their health and about the person they care for.
	Home Safety Education	This study compares two types of education to find out if they help caregivers living with a person with AD or dementia make home safety modifications. This study includes two home visits for data collection and safety education. After three months, each participant is offered the alternative education.
	PAIRS Program	This program pairs first-year Boston University medical students with patients with early-stage AD. The program educates medical students about the care and support-related issues faced by patients with AD. Student-patient pairs meet monthly to participate in activities throughout the academic year.
Evaluation of Daily Living	Functional Assessment in Dementia *new study	This study investigates the relationship between office-based cognitive tests and independent functioning in the home. Individuals with dementia, who are not living in an assisted living facility or nursing home, may be eligible to participate.
	SAFE Drivers *new study	This study aims to develop a brief, office-based evaluation of driving safety for older drivers that accurately predicts on-road driving performance. Study participation is for older drivers with or without memory problems between 55 and 90 years of age. The two study visits involve office-based cognitive tests and an on-the-road driving evaluation conducted by a certified driving instructor.
Memory & Cognition	False Memory in AD	This study seeks to understand why patients with AD and other dementias frequently remember things that never happened. The goal of this study is to provide ways to reduce false memories in patients with dementia.
	Vision & Cognition	This study examines visual change in AD, how it affects cognition and daily activities, and how visual interventions may improve cognitive abilities. Participants perform tests of vision, cognition, and daily functions, and a free eye exam is included.
Neuroimaging	Heart & Brain Aging	This study uses heart and brain imaging and cognitive measures to better understand relations between heart and brain health among aging adults with mild memory loss. Participants attend a single study visit, and laboratory results are shared with the participant's physicians.

continued on page 5 >

Study Type	Study Title	Study Description < *continued from page 4*
Treatment	IDENTITY	This multi-center treatment trial will evaluate if an oral medication, "LY450139," can slow the progression of mild or moderate AD. This new compound attempts to reduce amyloid beta (Abeta) in the brain. Abeta has been linked to AD. Study participation is for adults over 55 years of age with a diagnosis of AD.
	Investigational Clinical Amyloid Research in Alzheimer's	This multi-center treatment trial will evaluate whether a new medication, Bapineuzumab, increases the clearance of Abeta from the brain. Abeta is believed to be the initial cause of AD. This treatment study is for adults 50-89 years of age with an AD diagnosis. Participants will need a study partner to accompany them to study visits.

For more information, please contact the BU ADC Outreach & Recruitment Coordinator, Ms. Stephanie Sikora, at 617-414-1078 or sasikora@bu.edu

Research Update

Anti-Aging Genes and Potential Alzheimer's Disease (AD) Treatments

At the 9th International Alzheimer's Disease/Parkinson's Disease (AD/PD) Conference in Prague, Czech Republic, Dr. Carmela Abraham chaired a session on "AD–Treatment Targets" and delivered an oral presentation entitled, "Screening for anti-aging and anti-AD drugs." Dr. Abraham described a high throughput screening for small molecules aimed at enhancing the expression of Klotho, a protective anti-aging gene. Dr. Abraham's group has demonstrated Klotho to be significantly reduced in the aging brain and in the brains of amyloid-containing mouse models of AD. A second screening was done for inhibitors that would interfere with the formation of the toxic amyloid peptide.

Cellular Mechanisms of AD Pathology

Dr. Ben Wolozin also recently presented his work at the AD/PD Conference in Prague, Czech Republic, describing how the protein, LRRK2, stimulates formation of AD and PD pathology. He presented further developments relating to his observations on the protective effects of angiotensin receptor blocker for individuals with dementia.

Picture Memory in Mild AD

Dr. Brandon Ally's work attempts to understand how memory breaks down in the earliest stages of AD. In a recent study published in *Neuropsychologia* using event-related potentials, Dr. Ally's group showed that patients with very mild AD were able to rely on intact frontally-based cognitive processes, such as conceptual priming and memorial familiarity, to remember pictures but not words. These findings suggest a promising role in the development of interventions to help circumvent memory difficulties among patients with AD.

Recent Publication on Chronic Traumatic Encephalopathy

The Boston University Center for the Study of Traumatic Encephalopathy (BU CSTE) recently completed a study reviewing 47 neuropathologically verified cases of Chronic Traumatic Encephalopathy (CTE). Drs. Ann McKee and Robert Stern, Co-Directors of the BU CSTE, added 3 new cases, including one professional football player and two professional boxers. The study will be published in an upcoming issue of the *Journal of Neuropathology & Experimental Neurology*.

Risk Evaluation and Education for AD

At the recent American College of Medical Genetics Meeting in Tampa, FL, Dr. Robert Green and colleagues presented data from the REVEAL Study showing that those with the risk-increasing apolipoprotein E (APOE) ε4 gene were significantly more likely to initiate nutritional supplements after learning their genetic results than ε4 negative participants. APOE ε4 positive individuals were also more likely to purchase long-term care insurance than ε4 negative individuals.

BU ADC Happenings

Welcome

The Boston University Alzheimer's Disease Center (BU ADC) welcomes new staff member, Linda Snyder, MA, who will be coordinating the SAFE Drivers Study. We also extend a warm welcome to our new student trainees: Jeff Brooks, a freshman at Tufts University who is working with the HOPE study; Vlada Doktor, a Master's in Medical Sciences candidate at BU doing her thesis work with Dr. Robert Stern; Susan Lambe, MEd, a prior BU ADC staff member who is now a Clinical Psychology PhD candidate at UMass Boston and is currently working on multicultural outreach projects with the Education Core emphasizing racial disparities in Alzheimer's disease (AD); Kathy Lou, a graduate of Tufts University who is working with the HOPE study; and Jessie Meyer, a recent graduate of Kenyon College who is assisting with the new Center for the Study of Traumatic Encephalopathy.

Congratulations

The BU ADC is pleased to announce the 2009-2010 Pilot Program Award recipients: Dr. Tiffany Mellott for a project entitled, *"The effects of perinatal choline supplementation on AD models,"* Dr. Juliet Moncaster for a study entitled, *"Evaluation of a Non-Invasive Early Detection Instrument for AD,"* and Dr. Chantal Stern for a project entitled, *"Imaging Studies in Presymptomatic Early-Onset Familial AD."*

The BU ADC would like to congratulate Dr. Andrew Budson for his recent receipt of the Research Award in Geriatric Neurology at the 2009 American Academy of Neurology Annual Meeting in Seattle, WA. Dr. Budson has also been promoted to Professor of Neurology at the Boston University School of Medicine (BUSM) and Associate Director of Research for the BU ADC. Dr. Robert Green recently participated as a guest speaker and panelist on personal genomics at the National Press Club in Washington, DC. Dr. Green was also selected as a keynote speaker to present data from the REVEAL Study for a Symposium on the Integration of Genetic Healthcare Technologies. Dr. Angela Jefferson has recently been promoted to BUSM Associate Professor of Neurology and Medicine and Director of the Education & Information Transfer Core. Congratulations also to Dr. Anil Nair for his receipt of the Palatucci Leadership Award from American Academy of Neurology, his recent appointment as Chairman of the Certification Examination Committee in Geriatric Neurology, and his selection to the Board of Directors for the Massachusetts Neurology Association.

Goodbyes

Thank you and best wishes to our recent student trainees: Vanessa Holley, a BU School of Public Health student who did her public health practicum with the Education Core, is graduating; Lyndsay Root, a student trainee who worked with Dr. Brandon Gavett on the ecological validity of neuropsychological assessment, is continuing her coursework at Northeastern University; and Mari Stackpoole, a nurse practitioner student who worked with Eric Steinberg, Project Manager of the HOPE Study, is completing her coursework at Massachusetts General Hospital (MGH) Institute of Health Professions. Best wishes to Kristen Huber, Education & Information Transfer Core Coordinator, who has taken a position at MGH.

Reflections of Early-Onset Alzheimer's Disease (AD)

Tom Rice, a former patient of Dr. Andrew Budson, Associate Director of Research at the BU ADC, wrote the following poem as a reflection of living with early-onset AD.

ARTIST

There it is
It strikes
Not bullet loud
Not arrow silent

More personal
Like a knife

How it hurts
As it steals my life

Now a hammer and chisel
Chips fly
This artist has control
This artist
Has no passion
No desire
To create

Chips
How they fly

Alzheimer's Disease Center Leadership

The Boston University Alzheimer's Disease Center (BU ADC) is primarily supported through a grant from the National Institute on Aging. The BU ADC supports cutting-edge research and provides education and clinical care to families affected by Alzheimer's disease. Its leadership is listed below, alphabetically by Center Core.

Neil Kowall, MD, *Center Director, Administrative Core Director*

Andrew Budson, MD, *Center Associate Director of Research*

Richard Fine, PhD, *Pilot Grant Program Director*

Robert Green, MD, MPH, *Clinical Core Director, Center Associate Director*

Robert Stern, PhD, *Clinical Core Associate Director*

Christine Chaisson, MPH, *Data Management & Statistics Core Director*

Angela Jefferson, PhD, *Education & Information Transfer Core Director*

Ann McKee, MD, *Neuropathology Core Director*

Alpaslan Dedeoglu, MD, PhD, *Translational Animal Core Co-Director*

Lee Goldstein, MD, PhD, *Translational Animal Core Director*

The *BU ADC Bulletin* is published twice annually (**Dr. Angela Jefferson,** *Editor*; **Dr. Kathy Horvath,** *Co-Editor*; **Kristen Huber,** *Editorial Assistant*).

Honorary and Memorial Donations

The Boston University Alzheimer's Disease Center (BU ADC) is involved in a variety of clinical, research, and education activities. These activities are funded by grants awarded from the National Institutes of Health and non-profit organizations. Often, research study participants, families, or community members wish to contribute to the fight against AD, and these private donations are equally important to advancing the BU ADC's mission. The BU ADC welcomes honorary or memorial donations, as these gifts are an excellent way to pay tribute to a family member or friend while making a contribution to the advancement of research in the field of AD. Please call **Catherine Pfau** at **888-458-2823** or visit us online at www.bu.edu/alzresearch if you would like to make a donation.

In Honor of Brandon Ally
Alzheimer's Services of
Cape Cod & the Islands

In Memory of Marie Bruno
Lisa and Anthony Bruzzese
Kathy Curley
Robert and Roberta Mulcahey
Gloria and John Pelose

In Memory of Benjamin Chinitz
Daniel and Libby Sands
Burt and Long Visnick

In Honor of Emedio Di Virgilio
Myrna and Barry Bernard

In Honor of Donna Eaton
Adele A. Madden for Phunky Pretty

In Memory of Helen Klein
Stephen Klein

In Memory of Kenneth Lumsden
Kristina Lumsden

In Memory of Don Rodman
Julie Crasafi

In Memory of Jeanne Rousseau
Roger and Palma Beauregard
Linda Goldstein
Mr. and Mrs. Jason Sears

In Memory of Azatui Seferian
Mr. and Mrs. Joseph Keikian
Manouk and Anahid Keushgerian
Pam Petropoulos
Christine Porcello
Srbui Seferian
Mary and Dave Waters

In Memory of Chet Sikorski
Olga Rakich

In Honor of Robert Green and Robert Stern
Janet Abrams

Clinic Information

The memory clinics affiliated with the Boston University Alzheimer's Disease Center (BU ADC) provide comprehensive care for older adults with memory loss. BU ADC clinicians offer memory diagnostic workups, medical treatment, support to patients and families, ongoing consultation, and cutting-edge research opportunities, including clinical trials. BU ADC clinicians are available at the following locations:

Alzheimer's Disease Clinical & Research Program (ADCRP)

ADCRP Memory Clinic
Boston Medical Center
72 East Concord Street
Robinson Suite 7800
Boston, MA 02118
Telephone: 617-638-7100

Boston University Neurology Associates (two locations)

Memory Assessment Clinic
Boston Medical Center
Doctor's Office Building, 7th Floor
720 Harrison Avenue
Boston, MA 02118
Telephone: 617-638-8456

Memory Assessment Clinic
1221 Main Street, Suite 401
Weymouth, MA 02190
Telephone: 781-331-9944

Edith Nourse Rogers Memorial Veterans Hospital Geriatric Research, Education, & Clinical Center (GRECC; for veterans only)

GRECC Dementia Management Clinic
200 Springs Road, GRECC
Bedford, MA 01730
Telephone: 781-687-2701

GRECC Memory Diagnostic Clinic
200 Springs Road, GRECC
Bedford, MA 01730
Telephone: 781-687-3240

BU ADC Bulletin
Boston University Alzheimer's Disease Center
72 East Concord Street, B-7800, Boston, MA 02118

Non-Profit
US Postage
PAID
Boston, MA
Permit No. 1839