

Dear Friends & Supporters of ADNI,



Michael Weiner, M.D.
Fellow Participant & ADNI
Principal Investigator

As you know, when we began this process in 2004, the objective of ADNI was to define the rate of mild cognitive impairment (MCI) and Alzheimer's disease (AD) progression, develop methods of conducting AD and dementia trials, and establish a large database that would help improve the design of AD treatment clinical trials. For the last five years, we have been studying 800 people: 200 with Alzheimer's, 200 with normal cognition, and 400 with MCI. The ultimate goal is to determine whether some combination of imaging, laboratory values and psychological tests may provide better ways to identify individuals at high risk for AD, track disease progression, and monitor response to treatment.

We are having an even greater impact on AD research than we ever imagined. ADNI has helped identify a number of precise, clinically meaningful biomarkers that will be able to stand in for slower-to-budge cognitive measures, slashing time and cost from AD drug trials. The whole project has become more ambitious, ushering in a new way of carrying out large scale, data intense, collaborative research. Key findings from ADNI research conducted thus far have shown the importance of hippocampal volumes in both diagnosing and following the rate of progression of MCI and AD, demonstrating the existence of a unique cerebrospinal fluid biomarker signature for AD, validating the use of direct amyloid visualization in AD, and the impact of cognitive reserve on brain functioning in AD.

We could not have accomplished any of this without you. In short, we could not be conducting the crucial research we are today without your help. And for that we are eternally grateful. But, the information we are learning from ADNI is far from over. As we continue to move forward, we hope that you will stay in the study and help us continue to identify ways to combat this devastating disease.

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A Special Newsletter for
Participants in the Alzheimer's
Disease Neuroimaging Initiative

FALL 2009

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Voters View Alzheimer's Disease Research as a National Priority

A new voter survey shows that three-quarters of Americans find Alzheimer's disease personally important to them and believe that Congress should enact laws to speed up the Food and Drug Administration (FDA) review process for specific treatment therapies.

The telephone survey was sponsored by the ACT-AD Coalition (Accelerate Cure/Treatments for Alzheimer's Disease), a growing coalition of more than 50 national organizations representing patients, providers, caregivers, older Americans, researchers, and employers seeking to accelerate the development of potential cures and treatments for

AD. The research was conducted by Lake Research Partners and American Viewpoint, and included information from 2,600 likely voters across the nation.

An overview of key findings from the survey include:

- Three-quarters of voters say it is personally important to both find a cure for and to prevent Alzheimer's disease, with over one third saying it is extremely important.
- Even without hearing the facts on the disease, over three-quarters of voters think Congress should make it a national priority to speed up the FDA review

process for therapies that will potentially slow, halt, or reverse the progress of Alzheimer's disease.

- In an engaged debate, voters side with speeding up the review process for Alzheimer's treatments and letting patients, their doctors, and families make decisions.
- The cost of caring for Alzheimer's disease is significant to the majority of voters.
- Voters support a range of policies and proposals related to Alzheimer's disease.

To view full survey results, visit: <http://www.act-ad.org/activities.aspx> ●

Michael Weiner, M.D. **continued from page 1**

The National Institute of Aging, part of the National Institutes of Health, that funded 66% of the project, has recognized the extraordinary importance of continuing this project. We recently received word that federal stimulus funds in the form of a GO grant will fund another \$24 million over two years to study participants with early MCI. In addition, this grant will fund amyloid imaging on all participants in ADNI. This will be the largest study ever of amyloid imaging, and this research, together with the other measures, will provide new and invaluable information which will be used for improved diagnosis and treatment trials. We call this next phase **ADNI GO** and we again are asking for your help to realize this study's potential.

Our study sites will be looking for new participants with early MCI, a stage between people with normal memory and those with mild cognitive impairment. If you know of anyone who has begun to exhibit cognition or memory problems, we would be grateful if you would refer them to your local study site.

When **ADNI GO** concludes, we hope to continue to study our participants in yet another phase: ADNI2. We will continue to observe those people who enrolled in the original ADNI, as well as the **ADNI GO** trial for which we are now recruiting. We are now applying for ADNI2 funding—\$69 million for funds from 2010-2015—and will let you know the results.

With so much exciting progress and activity, we hope you will continue your critical contribution to our research. As both a scientist and a study participant (two lumbar punctures and counting!), I am indebted to you and to your family and support network for all you have done. On behalf of my team and fellow researchers, thank you and we hope that we can count on your participation for years to come.

Sincerely,



Michael Weiner, M.D.

Fellow Participant and ADNI Principal Investigator,
Professor of Radiology, Medicine, Psychiatry and Neurology University of California, San Francisco

New World Alzheimer's Report Released

A new report issued at the Alzheimer's Disease International (ADI) conference revealed there are approximately 35 million people living with Alzheimer's and dementia around the globe, a 10% increase from the 2005 report. The current analysis shows that the number of people with Alzheimer's is expected to nearly double every 20 years, to 65.7 million in 2030 and 115.4 million in 2050. These staggering numbers alone highlight the ever-growing need for increased Alzheimer's disease research. As the number of individuals affected with AD continues to grow exponentially, so too will the personal costs of the disease, with a significant impact on the world's economies and health care systems. To learn more and to access the full report, visit: http://www.actionalz.org/about_wad.asp ●

Can a Glass of Wine a Day Keep Alzheimer's Disease at Bay?

The following article—'Moderate Alcohol Intake is Associated with Nearly 40% Lower Risk of Dementia'—was condensed from a press release distributed at the International Conference on Alzheimer's Disease (ICAD) 2009.

Moderate alcohol intake, especially wine, has been associated with reduced risk of dementia in middle aged adults; however, it is not known whether this association is also true for older adults or those with mild cognitive impairment (MCI).

Researchers examined the relationship between alcohol intake and incident dementia in 3,069 community-living adults aged 75 years and older without

dementia. These participants were enrolled in the Ginkgo Evaluation of Memory Study (GEMS), an NIH-sponsored study of ginkgo biloba for the prevention of dementia. At the beginning of the study, 2,587 of the participants were assessed to be cognitively normal and 482 had MCI.

Alcohol consumption was self-reported by study participants and categorized by the researchers as none, 1-7 drinks/week (light), 8-14 drinks/week (moderate), and more than 14 drinks/week (heavy). All types of alcohol consumption were counted. After adjustment for demographics, smoking, co-morbidities, depression, social activity, and baseline cognition, moderate alcohol intake (1-2 drinks per

day) was associated with a 37% lower risk of dementia in participants with normal cognition at baseline but not those who began the study with MCI.

For older adults who started the study with MCI, consumption of alcohol at any amount was associated with faster rates of cognitive decline; and those who were classified in the heavy drinker category were almost twice as likely to develop dementia during the study, compared to non drinkers with mild cognitive impairment. ●



Why I Chose to Participate in ADNI... a look into one participant's experience

Leif Bollesen of Rochester, MN started to worry when he began to experience some memory problems. His concern prompted him to become involved in a local Alzheimer's disease study in hopes of learning more about his condition. It was through this local study that Mr. Bollesen found out about the ADNI trial.

Because of his positive experience with the local trial, Mr. Bollesen decided to be interviewed by researchers to determine if he fit the qualifications for participant involvement in ADNI. He was accepted into the trial over three years ago, and he has been engaged in the testing and evaluation process ever since. As part of his commitment, Mr. Bollesen is interviewed every six months by researchers, including one on one mental exercises that test his mental capacity and memory ability. Once a year, he undergoes an MRI and PET scan to measure any physical changes that may have occurred in his brain.

Researchers also question Mr. Bollesen's wife annually (she has no memory problems) and ask her to describe recent events that have occurred in their lives. Researchers can use this information to question Mr. Bollesen about these events to see if there are any discrepancies in his recollection of these same events.

Mr. Bollesen described his ongoing experience in the ADNI trial as a very positive one. He not only receives regular information and updates about his mental capacity, but he also receives useful handouts and materials. He revealed that his involvement in the trial has required very minimal time and that the individual researchers he has been working with, including Kris Johnson, R.N. and Lindsay Norgaard, M.A., have gone above and beyond to work around his schedule and make sure that testing is as convenient as possible for him and his wife.

Although some of the mental exercises proved frustrating because he felt like he wasn't able to remember perfectly, he has been extremely satisfied with his performance measures, particularly since the tests are designed to be difficult.

In addition to worries about his own memory, Mr. Bollesen described his desire to help others as a major reason for choosing to get involved in Alzheimer's disease research. He believes he is helping spread hope to people currently struggling with the disease and to countless others who may develop AD.

Mr. Bollesen knows how devastating AD can be on individuals and families, and he is committed to remaining an integral part of AD research for himself and for others like him around the world. It is people like Leif Bollesen who keep the fight to find a cure for AD alive and growing! ●

Brain Teasers: Give Your Brain a Workout

Just like exercise is good for your body, brain teasers or puzzles can be a good workout for your brain. Try these brain games below. Guess the meaning of the word pictures (answers below).

If word puzzles aren't for you, consider finding another mentally stimulating activity to keep your brain sharp!

- | | | | |
|--|--------------------|----------------------|---|
| 1. "derful" | 5. HARM good | 11. dashotrk | 15. t
o
w
n |
| 2. minl'LL BE THEREute | 6. CirKEEPcle | 12. p
o
o
r | 16. dance
a c
n n
c a
ecnad |
| 3. OdOoOmO | 7. Business :) | 13. nooutwhere | |
| 4. little LARGE
little LARGE
little little
little LARGE | 8. Cont_ol | 14. noon good | |
| | 9. a home home | | |
| | 10. ha ir
ha ir | | |

13. out in the middle of nowhere
14. good afternoon
15. downtown
16. square dance

9. a home away from home
10. splitting hairs
11. shot in the dark
12. downpour

5. more harm than good
6. keep in shape
7. business before pleasure
8. in complete control

1. wonderful
2. I'll be there in a minute
3. dominoes
4. a little on the large side

Source: Bill's Games <http://www.billsgames.com/brain-teasers>

Alzheimer's Disease Goes Hollywood

NIH/HBO Collaborate on Compelling Documentary

The National Institute on Aging at the National Institutes of Health collaborated with HBO Documentary Films to create The Alzheimer's Project, an insightful and heartfelt public health series which looks at the groundbreaking scientific discoveries in the field of Alzheimer's disease (AD) and seeks to bring a wider public understanding of AD research and care.

The Alzheimer's Project is centered on a four-part documentary film series—on science and research, children touched by Alzheimer's, and two films focused on people with the disease and their caregivers.

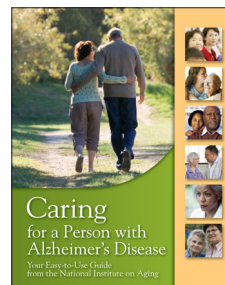
While there is no cure for the disease, The Alzheimer's Project shows there is now genuine reason to be optimistic about the future of treating and curing this devastating disease.

The series debuted May 10–12, 2009 on HBO, but all films are available to view free of charge at www.hbo.com/alzheimers

Who Wears Purple Best?

In recognition of World Alzheimer's Day on September 21, 2009, celebrities such as Bradley Cooper, Terrell Owens, Elisabeth Hasselbeck, and Soleil Moon Frye joined the Alzheimer's Association to support the Who Wears Purple Best? campaign. These stars, among others, shared their personal connections to Alzheimer's disease and donned purple shirts with big, block letters including the words "Act" and "Move"—Alzheimer's Association catch words. People were invited to log onto the Alzheimer's Association Web site and vote for their favorite celebrity. The contest was a way for the Alzheimer's Association to shed light on the importance of finding a cure for the millions of people worldwide living with Alzheimer's and dementia. The theme for this year's World Alzheimer's Day was Diagnosing Dementia: See It Sooner. To learn more about the Who Wears Purple Best? campaign—and to find out who won the celebrity contest visit <http://www.actionalz.org/celebrity-splash.asp> ●

Free Alzheimer's Resources



Caring for a Person with Alzheimer's Disease: Your Easy-to-Use Guide

Taking care of someone with AD can be truly rewarding and also very challenging. Sometimes caregivers feel like they are on an emotional roller coaster. This guide will help you understand and cope with the many challenges of caring for a person with AD.

Holiday Hints for AD Caregivers

The holiday season is a time for visiting and reconnecting with family, friends and neighbors. This season can sometimes be sad or stressful for those caring for a loved one with Alzheimer's disease. This publication provides hints to help you prepare for and enjoy your holiday season. ●

To order call 1-800-438-4380 or visit www.nia.nih.gov/HealthInformation/Publications

Could that Daily Cup o' Joe Help Decrease Your Risk for AD?

The following was condensed from an article entitled, 'Does Caffeine Help Decrease Beta-Amyloid in Alzheimer's Disease?' written by Michael S. Rafii, M.D., Ph.D., of the University of California, San Diego.

Back-to-back studies published in the Journal of Alzheimer's Disease show caffeine significantly decreased abnormal levels of beta-amyloid, the protein linked to Alzheimer's disease, both in the brains and in the blood of mice exhibiting symptoms of the disease. Both studies built upon previous research by the Florida ADRC group showing that caffeine in early adulthood prevented the onset of memory problems in mice bred to develop Alzheimer's symptoms in old age.

Researchers genetically altered mice to develop memory problems mimicking Alzheimer's disease as they aged. The genetically altered mice were tested at age 18 to 19 months—the equivalent to about 70 in human years—and after behavioral tests confirmed the mice were exhibiting signs of memory impairment, the researchers gave half the mice caffeine in their drinking water and the other half plain water. The Alzheimer's mice received the equivalent of five 8-oz. cups of regular coffee a day or 500 milligrams of caffeine—the same amount contained in two cups of specialty coffees like Starbucks, or 14 cups of tea, or 20 soft drinks.

At the end of the two-month study, the caffeinated mice performed much better

on tests measuring their memory and thinking skills. In fact, their memories were identical to normal aged mice without dementia. The Alzheimer's mice drinking plain water continued to do poorly on the tests.

In addition, the brains of the caffeinated mice showed a nearly 50 percent reduction in levels of beta amyloid, the substance that forms the sticky clumps of plaques that are a hallmark of Alzheimer's disease. Other experiments by the same investigators indicate that caffeine appears to restore memory by reducing both enzymes needed to produce beta amyloid. The researchers also suggest that caffeine suppresses inflammatory changes in the brain that lead to an overabundance of beta amyloid. ●