



Alzheimer's Disease Research Center Newsletter

WINTER '06-'07

MEG SEWELL, PH.D.
EDITOR, DIR. EDUCATION CORE
MARY SANO, PH.D.
DIRECTOR, ADRC
HILLEL GROSSMAN, MD
MEDICAL DIR., CLINICAL CORE

Can an Omega-3 Fatty Acid Slow Alzheimer's Disease? Help us find out.

Omega-3 fatty acids have been in the news a lot recently. You may have heard of these nutrients which have been showing some promising results for both heart and brain health. Now, a new study is about to be underway sponsored through the National Institutes of Health, through a grant to the Alzheimer's Disease Cooperative Study.

Scientists at Mount Sinai (and at other major universities and medical centers in the U.S.) want to learn if one omega-3, called DHA (Docosahexaenoic acid) can slow the progression of Alzheimer's disease (AD). What is DHA? It is a nutrient found in, among other things, fish and algae. Previous studies suggest that DHA is the key part of fish oil

that protects the brain. The study will use a pure form of DHA made from algae, so that there are no contaminants from fish. Mount Sinai researchers are looking



Above: Dr. Mary Sano, Director of Mount Sinai's ADRC

for those with mild to moderate Alzheimer's disease who are age 50 or older.

Frequently Asked Questions about DHA:

***What is unique about DHA?**

DHA has potential neuroprotective effects and potential anti-amyloid effects.

***Are there side effects to taking DHA?**

There have been no reports of serious side effects in those taking DHA supplements.

***Don't we get enough in our daily diet?**

Unfortunately, the average daily DHA consumption based on a typical American diet is less than 100mg. To learn more, call us at 212-241-8329.

For more information, call 212-241-8329

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Special Points of Interest

- **Need a support group or information about our Caregivers Program?** Call Elizabeth Fine at 212-241-5673.
- **Please visit our website!**
www.mssm.edu/psychiatry/adrc

Ask The Guest Expert: Christine Bergmann, M.D., Ph.D., (and new baby boy) Dementia Research Fellow



Q: I have been hearing that drinking wine can lower the risk of getting dementia—is that true? Does this apply to all kinds of alcohol? How much alcohol should I drink?

R: The story of how drinking wine may protect against Alzheimer's disease is a complicated one. Several observational studies have suggested that red wine consumption may be associated with a lower risk of dementia. This research, along with animal and laboratory studies, suggests that the important ingredient may not be the alcohol, and that the mechanisms by which wine may have its benefits may be by modifying oxidative stress.

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ADRC News

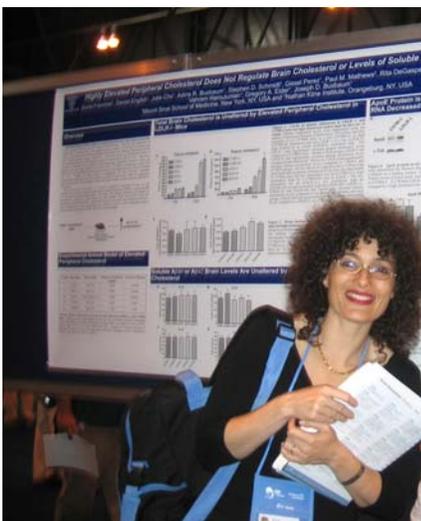


Fall Memory Walk A Success!

Mount Sinai's ADRC, together with the Alzheimer's Association and the Alzheimer's Centers from Columbia and NYU, raised over \$6,000 for the local Alzheimer's Association. Our collaboration is called "NYCARE" (New York Consortium for Alzheimer's Research and Education). Pictured above: Dr. Karen Bell from Columbia; Kathleen Van Dyk and Dr. Margaret Sewell from Mount Sinai.



Above: Research Coordinators from NYCARE distributed information at the Memory Walk and sponsored a raffle. Pictured Above: Hillary Lewin, Jane Scholl (Sinai), Sarah Downs (Columbia), Sunnie Kenowsky Irving, Ronit Notkin (NYU).



Left: Congratulations to Dr. Michal Beeri, pictured left, who presented results of her research in Spain at the International Alzheimer's Disease Conference in July. Dr. Beeri discussed her data that indicates that Methylglyoxal (a material that is elevated in the blood of people with diabetes), was also elevated in people who have normal memory function (but in the lower range) compared to other people with normal memory (but in the higher range). Methylglyoxal may be affected by diet, so future studies may investigate it as a potentially modifiable risk factor for dementia.

Right: Dr. Mary Sano with Dr. Nick Robakis, who was chairing a plenary session at the International Alzheimer's Disease Conference in July. Dr. Sano discussed the pros and cons of caloric restriction and other new advances in research.



Continued from page 1 Ask The Doctor...

Oxidative stress may be important in the development of dementia and intervention studies have tested the effect of administering antioxidants to elderly subjects. What is oxidative stress? Accumulation of destructive molecules called *free radicals* can lead to cell death. Free radicals damage components of the cells' membranes, proteins, or genetic material by "oxidizing" them, with a similar chemical reaction that causes iron to rust. Wine, especially red wine, is enriched in antioxidant compounds with potential neuroprotective activities which may reduce the occurrence of dementia. The most prominent compound in wine thought to be responsible for these antioxidant effects is called *resveratrol*.

A recent pilot study in patients with Alzheimer's disease who were receiving resveratrol in addition to medication for dementia showed promising results. The Alzheimer's Disease Research Center of Mount Sinai's Medical Center is about to begin a

bigger clinical trial with resveratrol in patients with mild to moderately severe Alzheimer's disease.

Study information on
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What should we make of this data? Should doctors advise their patients to drink wine moderately to decrease their chances of developing dementia? Epidemiological studies have shown beneficial effects of wine consumption on health only to be apparent in men after the age of 40 and in women after the age of 50. Prior to that age the risks of alcohol consumption may outweigh the benefits in terms of accidents, diseases directly linked to alcohol intake, and the risk of alcohol addiction. After age 50 and especially in elderly subjects whose occupational activity has stopped, a moderate daily alcohol intake –for instance one or two glasses of wine with dinner- should not be prohibited.

A cautionary note to keep in mind is that there are other types of dementia, such as vascular dementia,

and some people may have added risks from cardiovascular risk factors such as high blood pressure, diabetes, and high cholesterol. For these people, drinking may be associated with more risks than benefits.

It seems premature to advise people who do not drink to start drinking, since the risk of addiction is not negligible. Until more data are collected, alcohol consumption should remain a social pleasure and should not be regarded as a medication.



Memory Enhancement Program: Is it for you?

Mount Sinai's Memory Enhancement Program, directed by Dr. Margaret Sewell of the ADRC, was established to help healthy adults improve their day-to-day memory functioning. The seminar program, aimed at those over the age of 65 who do not have a memory disorder, runs for four consecu-



Above: Jane Martin, Ph.D.,
neuropsychologist and Assistant
Clinical Professor of Psychiatry

and who you meet; latest updates in memory and aging research and treatment; how attention affects memory; and how to maintain a healthy memory.

Dr. Jane Martin, a lively and enthusiastic instructor, will be teaching the next series of classes, beginning in early 2007.

For more information, or to register for a class, please call Dr. Margaret Sewell at 212-241-0188.



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Memory and Aging in Healthy Women

The ADRC is about to begin a study to investigate memory and aging in women. This telephone assessment study is funded by the National Institute on Aging, a part of the National Institutes of Health.

What is involved?

*You will be asked to complete a health questionnaire and inform us of your current medications. At your convenience we will ask you to complete a number of memory tests.

*If you agree to participate, you will receive 2 assessments in a 4 week period. One visit is in person, the other is on the telephone. For more info: 212-241-8329.

What is The MAC?

The ADRC's **Memory and Aging Center (MAC)** provides comprehensive, streamlined evaluation, treatment, and management for those who have memory complaints.

Experts: Our team includes experts in geriatrics, geriatric psychiatry and neuropsychology, neurology, and radiology.

Quick: The evaluation can be completed in one visit, including evaluation by a geriatric memory specialist, neuropsychological testing, and neuroimaging.

Consistent: Patients see the same clinicians each time, and may choose to be followed on a yearly basis or have their report sent to their primary physician.

To make an appointment please call our coordinator, at 212-241-1844.

ADRC Studies: Current and Upcoming

A Multi-Center, Double Blind, Placebo-Controlled Therapeutic Trial To Determine Whether Natural Huperzine-A Improves Cognitive Function

The objective of this research study is to determine whether natural Huperzine-A improves cognitive (thinking/memory) function of patients diagnosed with Alzheimer's disease (AD). Huperzine-A is a natural cholinesterase inhibitor (stops the breakdown of helpful chemicals in the brain) and is extracted from the Chinese herb Huperzia serrate. There is evidence which suggests that Huperzine-A may be as effective as the medications currently approved by the FDA for the treatment of AD. Patients over the age of 55 who have a diagnosis of Alzheimer's disease and who are not currently taking one of the FDA approved medications for AD (except namenda) are eligible to participate. For more information, please call our ADRC research coordinator at (212) 241-8329. GCO #04-0418, Principal Investigator: Dr. Hillel Grossman, MSSM IRB approved through 8/31/07.

The ADRC is committed to developing new treatments for AD and memory loss. We are recruiting for many studies sponsored by the National Institute of Aging and by Industry, which will provide answers about new drugs and better ways to assess treatment effects. This list is always changing and new studies are always in the planning process. Please call us for more information (212-241-8329).

Alzheimer's Disease Neuroimaging Study:

The objective of this study is to determine whether imaging of the brain (through MRI, PET, or CAT scans) every six months can help predict and monitor the onset and progression of AD. In addition to neuroimaging, the study will collect and test blood and, for some participants, cerebral spinal fluid to determine if biomarkers can predict and monitor the disease. Researchers are looking for patients 55-90 years old. Healthy controls, those with memory complaints, and those with AD are eligible to participate. Patients will be compensated for their time. For more information, please call our ADRC research coordinator at 212-241-8329. GCO#91208-12, Principal Investigator: Mary Sano, Ph.D., MSSM IRB approved through 5/31/07.

Trial of a Nutritional Supplement in Alzheimer's Disease:

We are seeking patients with Alzheimer's disease to participate in a research study on an antioxidant formula containing resveratrol. Some study participants will receive the formula and some will receive a placebo (sugar pill). Participation in the study includes memory testing, neurological exams and blood tests. Resveratrol may reduce brain cell damage caused by harmful chemical byproducts. This study is investigating if resveratrol can help the cognition of Alzheimer's disease patients. The study will be conducted over 12 months and is funded by the Alzheimer's Association. For more information, please call 212-241-1514. GCO# 05-1394(0001); Principal Investigator: Mary Sano, Ph.D. MSSM approved through 4/30/07.

Note:
Spanish-speaking participants are welcome in all studies. All study participants receive reimbursement for any related expenses. Participants without AD receive monetary compensation for their time.

Age at Onset and Cardiovascular Risk Factors in Very Late Onset AD:

The overall aims of this project are to examine the role of cardiovascular risk factors for cognitive decline and AD in elderly men. A growing body of evidence indicates that risk factors for cardiovascular disease also increase the risk of developing both vascular dementia and AD. Most, but not all, of the evidence comes from research that has studied predominantly women, especially among the very old. In this project, we will conduct an extensive CvRF assessment in an elderly male veteran sample. Male veterans, 75 years old and older with no memory problems and no history of stroke (TIA and mini-strokes are acceptable) may qualify to participate in this research study which consists of a comprehensive interview including memory and thinking tasks, health and medical histories and a blood draw (approximately 3 tablespoons). We will also look to follow-up every year. For more information call 718-367-5727. GCO#79-141, Project 4, Principal Investigator: Jeremy Silverman, Ph.D., IRB approved through 3/31/07.

Brain Tissue Donation Program

The goal of this program is to improve existing treatments and to develop new treatments for AD, which is not possible without the generosity and altruism of individuals who partner with Mount Sinai by participating in our brain donation program. Therefore, men and women, with and without memory impairment are eligible to provide their "intent" to consent for this program. There are several benefits to participation and we have specially trained staff available to discuss these benefits, the donation process, and any related concerns that you and your family might have. For more information, please contact Dr. Karen Dahlman at (212) 241-2968. GCO #84-119 and #79-141, Principal Investigator: Dr. Vahram Haroutunian, MSSM IRB approved through 3/31/07.

Coming Soon:

A study of **d-pinitol**, a natural product, in those with probable Alzheimer's disease. D-pinitol may interfere with the accumulation of beta amyloid, an important step in the development of Alzheimer's pathology. For more information, call 212-241-8329.

A **telephone study** to study memory and aging in healthy women over the age of 65 with no memory problems. For more information, please call 718-584-9000, extension 1702.



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ADRC
1 Gustave L. Levy Place, Box 1230
NY NY 10029

Phone: 212-241-8329
Fax: 212-996-0987
Email: margaret.sewell@mssm.edu

Meet our researchers:



Dr. Giulio Maria Pasinetti, M.D., Ph.D.,
ADRC faculty.

Dr. Pasinetti is Professor of Psychiatry and
Neuroscience, and Director of the Neuroin-
flammation Research Center at Mount Sinai
School of Medicine.

A new study has found that moderate red wine consumption in a form of Cabernet Sauvignon may help reduce the incidence of Alzheimer's disease (AD). The study by Dr. Pasinetti, Dr. Jun Wang and others, entitled "Moderate Consumption of Cabernet Sauvignon Attenuates Beta-amyloid Neuro-pathology in a Mouse Model of Alzheimer's Disease," has been published in the November 2006 issue of *The FASEB Journal* (Federation of American Societies for Experimental Biology). Dr. Pasinetti, a member of the ADRC, states, "Our study is

the first to report that moderate consumption of red wine in a form of Cabernet Sauvignon delivered in the drinking water for seven months significantly reduces AD-type Beta-amyloid neuropathology, and memory deterioration in 11-month-old transgenic mice that model AD. This study supports epidemiological evidence indicating that moderate wine consumption, within the range recommended by the FDA dietary guidelines of one drink per day for women and two for men, may help reduce the relative risk for AD clinical dementia."

***"This new breakthrough is
another step forward in
Alzheimer's research at
Mount Sinai and across
the globe for this growing
health concern that has
devastating effects."***

*This article was adapted from a September 2006
Mount Sinai Press Release.*

*Have you participated in a research
study? Would you like to share your
story with us? If so, call Dr. Margaret
Sewell at 212-241-0188*