

New \$9.6 Million Grant to Support Memory and Aging Research

Aging and Alzheimer's disease (AD) research at Washington University School of Medicine recently received a \$9.6 million boost. The five-year grant from the National Institute on Aging launches the University's Healthy Aging and Senile Dementia program into its 21st year!

The grant will advance the MAP-ADRC's efforts to identify biological markers (i.e., measurable biochemical changes specific to AD) that ultimately may help predict who will develop dementia and how individual patients will respond to treatment. The researchers also plan to examine whether their diagnostic approach is useful in detecting early signs of dementia in African-Americans and if it can be adapted to a variety of clinical settings.

The team's diagnostic approach is one of the most well recognized achievements of the program to date. Originally developed in the early years of the project as a tool for research on AD, the Clinical Dementia Rating system proved equally valuable in clinical diagnosis and has become the standard global scale by which clinicians rate the severity of dementia. The group also pioneered the use of collateral source interviews, in which information provided by a patient's relative or close friend is incorporated into the clinical assessment.

"Over the past two decades, our program and its approach to studying dementia have come to stand for a very careful, clinical characterization of individuals,

even those at the very earliest symptomatic stages of Alzheimer's," says the study's principal investigator, John C. Morris, M.D., who also is principal investigator of Washington University's Alzheimer's Disease Research Center, the Harvey A. and Dorismae Hacker Friedman Distinguished Professor of Neurology and a neurologist at Barnes-Jewish Hospital.

"We also have amassed a lot of data on a remarkable group of healthy elderly people," he adds. "That has enabled us to learn a great deal about aging, to the point where we've challenged some commonly held assumptions and shown that elderly individuals who do not develop Alzheimer's disease do, by and large, maintain their cognitive abilities."

Having already made significant strides in detecting the earliest clinical symptoms of Alzheimer's disease, the group has begun searching for biological markers, including protein levels in blood or characteristic patterns in brain images. Such tests could in the future help physicians determine the ideal course of treatment for individual patients.

"Though there are no cures for Alzheimer's disease yet, there are many treatments being studied," says David M. Holtzman, M.D., the Andrew B. and Gretchen P. Jones Professor and head of the Department of Neurology, the Charlotte and Paul Hagemann Professor of Neurology, professor of molecular biology and pharmacology and a neurologist-in-chief at Barnes-

Jewish Hospital. "If we don't simultaneously develop ways to predict the progression of a patient's disease and his or her response to different types of treatment, we'll be way behind when therapies finally arrive."

Pinpointing biological markers of dementia also may help predict, and ultimately prevent, the onset of the disease, according to Holtzman, who will lead the effort to identify biological markers.

New Initiatives in 2005: AD Neuroimaging Initiative

The National Institute on Aging (NIA) in conjunction with other Federal agencies, private companies and organizations have launched a \$60 million, 5-year public-private partnership—the Alzheimer's Disease Neuroimaging Initiative (ADNI)—to test whether serial magnetic resonance imaging (MRI), positron emission tomography (PET), other biological markers, and clinical and neuropsychological assessment can be combined to measure the progression of mild cognitive impairment (MCI) and early Alzheimer's disease (AD).



The study could help researchers develop new treatments and monitor their effectiveness, as well as lessen the time and cost of clinical trials. The project is the most comprehensive effort to date to find neuroimaging and other biomarkers for the cognitive changes associated with MCI and AD.

The ADRC will participate as an ADNI site in 2005 under the leadership of Dr. John C. Morris.

Medication Assistance Resources for Seniors

R_x The high cost of medication is an important and challenging issue for seniors and their families. For many, paying for multiple medications is a burdensome proposition. The good news is that there are several government and industry-sponsored resources available to help.

Patient Assistance Programs (PAPs): PAPs are sponsored by pharmaceutical companies and cover medications that have not yet gone off patent (i.e., no generic form). The patient and physician must complete paperwork to verify diagnosis and income eligibility. If eligible, the patient receives the medication from the manufacturer at no cost. The medication is mailed directly to the patient's home or to the prescribing physician's office for pick up.

Discount Card Program (DCP): Another program offered by many pharmaceutical companies is the DCP. Income requirements apply, but the application process does not require physician involvement. Card holders receive drug discounts at various local pharmacies. The amount of each discount varies from drug to drug and from manufacturer to manufacturer. Information about Medicare-approved drug discount cards is available on-line at www.medicare.gov (or call 1-800-MEDICARE).

Federal and State agencies also offer prescription assistance. Exam-

ples include the Veterans Administration (www1.va.gov/Elig), the Missouri SeniorRx Program (www.dhss.mo.gov/MoSeniorRx; 866-556-9316), and the Illinois SeniorCare Program (www.seniorcareillinois.com; 800-252-8966).

For patients who do not meet eligibility requirements for any of the above programs, using mail-order pharmacies to order routine medications in 90-day supplies can lead to substantial savings.

To obtain a complete listing of all medication assistance programs in the Bi-State area and their guidelines, please contact the St. Louis Alzheimer's Association at 314-432-3422 or look under "Resources" on their website, www.alzstl.org.

Immunotherapy for AD

The ADRC is pleased to be a participating site for a new treatment trial. Elan Corp. and Wyeth Pharmaceuticals are testing a passive immunization therapy targeting amyloid plaques. Phase 1 safety trials are currently underway at sites across the US. "This is a promising approach targeting one of the constituent pathologies of AD," says Dr. John C. Morris, "and could prove to be a major advance in AD treatment and even prevention." For information on this and other trials, visit ClinicalTrials.gov.

Studying Adult Children

As more is learned about the likely causes and the clinical progression of Alzheimer's disease (AD), researchers are becoming increasingly interested in understanding how AD pathology forms in the brain *before* the onset of memory loss.

It is now known that AD has a long "preclinical" phase—10 years or more—when amyloid plaques and other pathologies are forming in the brain, but not yet toxic. Brain cells appear to operate normally during this phase, and affected individuals are unaware of a problem. As time goes on, however, cells inevitably die and dementia symptoms appear.

What if we could identify affected individuals during this preclinical phase? And, what if a treatment was available that could rid the brain of AD pathology before cells die? Could clinical AD be prevented? These are questions at heart of the ADRC's Adult Children Study ACS).



Individuals with a parent affected with AD face a greater risk of getting the disease themselves and may manifest preclinical changes in the brain in late middle age. The ACS is designed to study cognitive functioning over time in this group and to identify testable markers for such preclinical changes, both in those at risk for AD (with an affected parent) and in lower-risk control individuals (without an affected parent).

HORIZONS is the newsletter of the **Alzheimer's Disease Research Center** (ADRC) — a research program in the Department of Neurology, Washington University School of Medicine, funded by grants from the National Institute on Aging and private donations. The ADRC supports and promotes interdisciplinary research on Alzheimer's Disease. The Memory & Aging Project (MAP) — the clinical research office of the ADRC — provides expert clinical assessments of cognitive functioning in normal aging and dementia.

Alzheimer's Disease Research Center

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John C. Morris, M.D., Director, ADRC, & Director, MAP
Eugene M. Johnson, Ph.D., Associate Director, ADRC
David M. Holtzman, M.D., Associate Director, ADRC
Martha Storandt, Ph.D., Psychometric Core Leader
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Alison Goate, D.Phil., Genetics Core Leader
Randy L. Buckner, Ph.D., Imaging Core Leader
J. Philip Miller, M.A., Biostatistics Core Leader
Dorothy F. Edwards, Ph.D., Minority Satellite Leader
Thomas M. Meuser, Ph.D., Education Core Leader &
Editor of the *Horizons* Newsletter

 **Washington University in St. Louis**
SCHOOL OF MEDICINE

ADRC Education Calendar

Events for Family Members

Communicating Effectively with Health Care Professionals: Strategies to Improve Understanding & Care

A Free Workshop for Family Caregivers

Presenters:

Brian Carpenter, PhD, & Roz Marx, MSW, LCSW

- When?** Wednesday, 1/12/05
11:30 AM - 3:00 PM
(a light lunch will be served)
- Where?** **Memory and Aging Project**
4488 Forest Park Ave. (at Taylor)
Lower Level Conference Room
- RSVP?** Call **314-286-2683** to reserve your seat. Space is limited, so call early.
-

Driving & Dementia in Older Adults: Steps in the Process of Driving Retirement

A Free Workshop for Family Caregivers

Presented by

Washington University ADRC
& Alzheimer's Association, St. Louis Chapter

- When?** Wednesday, 2/23/05
9:45 AM - 12:00 Noon
- Where?** **Alzheimer's Association**
9374 Olive Blvd (1 mile west of 170)
- RSVP?** Call **314-432-3422** (Ext. 152) to reserve your seat. Space is limited, so call early.
-

Grief & Loss in Dementia Caregiving: Coping with Challenging Reactions

A Workshop for Family Caregivers

Presenters:

Tom Meuser, PhD, Samuel Marwit, PhD, &
Betsy Peterson - Author of *Voices of Alzheimer's*

- When?** Wednesday, 4/13/05
11:30 AM - 3:00 PM
(a light lunch will be served)
- Where?** **Memory and Aging Project**
4488 Forest Park Ave. (at Taylor)
Lower Level Conference Room
- Register?** Call **314-286-2882** or E-mail **meusert@abraxas.wustl.edu** to reserve your seat. \$10 registration fee will cover lunch and handouts.

Events for Professionals

Providing Quality Dementia Care: The Critical Role of the Primary Care Clinician

A CME Conference for Primary Care Clinicians

Presented by:

Washington University ADRC & 5 Other Midwest AD Centers

Featuring Presentations on Dementia Diagnosis, Treatment, Neuropathology, Referral Options, & Reimbursement

- When?** Friday, June 24, 2005
7:30 AM - 5:00 PM
- Where?** **Eric P. Newman Education Center**
Washington Univ. School of Medicine
- Register?** Program and registration information on-line at <http://alzheimer.wustl.edu>.
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5th Leonard Berg Symposium: Antecedent Biomarkers for Early & Preclinical Detection of Alzheimer's Disease

A 2-Day CME Conference for
Clinicians & Researchers

Presented by

Washington University ADRC

- When?** Friday-Saturday, October 7-8, 2005
- Where?** **Eric P. Newman Education Center**
Washington Univ. School of Medicine
- Register?** Program and registration information on-line at <http://alzheimer.wustl.edu>.
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Clinician Partners Program (CPP): A 3-Day Mini-Residency in Dementia Diagnosis, Treatment & Care for Rural Clinicians

*An All-Expense-Paid CME Opportunity for Qualified
Physicians, Advanced Practice Nurses & PAs*

The Washington University ADRC is committed to improving dementia diagnosis and care in rural Missouri and in surrounding States. Our National Institute on Aging grant includes "satellite" funding to educate rural clinicians. The CPP is at the heart of this effort. To qualify, clinicians must be based in a rural location, provide primary care to older adults 3+ days per week, and have a strong interest in receiving specialty training in dementia care. Candidates may be nominated for consideration or apply directly themselves. For more information or to apply, call Dr. Tom Meuser at 314-286-2882 or visit our website (<http://alzheimer.wustl.edu>).

New Faces in 2004



Brian Weber
Psychometric Tester



Faye Stith
Data Entry



Linda Krueger
Assistant to Dr. Morris



Dr. Randall Bateman
ADRC Fellow



International Fellows (L-R): Dr. Maria Behrens (Chile), Dr. Wee-Shiong Lim (Singapore), & Dr. Rajka Liscic (Croatia).



Dr. Nigel Cairns
Neuropathology Core
Leader



Todd Rupp
Nurse Clinician

Notables

Monique Williams, MD, Instructor in Geriatric Medicine and ADRC-affiliated investigator, recently received a \$100K minority supplement award from the National Institute of Diabetes and Digestive and Kidney Diseases (one of the National Institutes of Health) to support her research efforts.

Jeffrey M. Zacks, PhD, Assistant Professor of Psychology and ADRC-affiliated investigator, has been awarded the Division of Experimental Psychology 2004 Young Investigator Award in Experimental Psychology: Applied. Nominations for this award are made by the Editors of each of the five sections of the Journal of Experimental Psychology, based on their evaluations of the most outstanding empirical papers published during the publication year.

Sami Barmada, MD/PhD student in the Lab of Dr. David Harris, Department of Cell Biology & Physiology, was recently named as recipient of the 2004 Richard & Mildred Poletsky Education Award from the ADRC. This \$1,000 award recognizes the achievements of young scientists on the student and postdoctoral level.

A Helpful New Book for Caregivers

Voices of Alzheimer's: Courage, Humor, Hope, & Love in the Face of Dementia
By Betsy Peterson, Da Capo Press / Perseus Books (2004)

For more information on the book, visit <http://www.voicesofalzheimers.com>

Participants Breakfast in 2005

Mark your calendars for the 2005 Participants Breakfast: 9-11 AM, Saturday, June 4, 2005, at the Frontenac Hilton.



MAP participants are invited to attend with a guest. Look for your invitation in the mail or call 314-286-2683 for more information.



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