



## THE AGING & ALZHEIMER'S UPDATE

PUBLISHED BY THE LAYTON AGING & ALZHEIMER'S DISEASE CENTER  
A NATIONAL INSTITUTE ON AGING ALZHEIMER'S DISEASE CENTER

JANUARY 2007

### Layton Center Joins with Intel and Other Partners on Major Technology & Aging Initiative

This fall, the Layton Center, in collaboration with its partners in the Oregon Center for Aging & Technology (ORCATECH), enrolled volunteers for the pilot phase of a major new study funded by the National Institute on Aging. This \$7 million grant, the Bioengineering Research Partnership (BRP), will develop technologies that will help elders live independently. Through ORCATECH, the Layton Aging and Alzheimer's Disease Center is working closely with the OHSU Departments of Biomedical Engineering and Medical Informatics

and Clinical Epidemiology, as well as industry partners Spry Learning and Intel Corp's Digital Health Group. Portland-area retirement communities are important community partners, as recruitment efforts will focus on enrolling volunteers at several sites around the city.

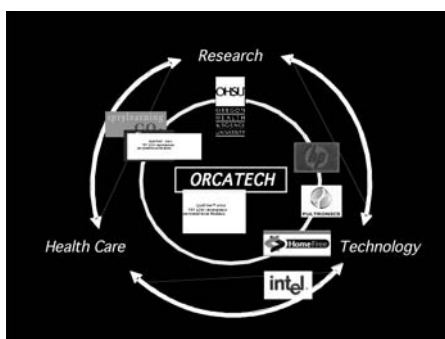
#### Advancing knowledge through new methods of data collection

The BRP study will test in-home technologies, motion sensors placed in the home and computers, as means to detect changes in activity and memory. These innovative methods provide information on a continuous basis and thus, improve

the ability to detect change in activity and memory functioning. The standard way of assessing patients is to see research subjects in the clinic once a year or perhaps every six months. At these visits, motor function - how quickly one moves over a certain distance - as well as memory is assessed. It takes a number of visits that span months or even years to collect enough information to make good comparisons from visit to visit.

More importantly, periodic visits do not capture the normal ups and downs that people experience every day. By collecting information every day about people's activity in their

*Continued on page 2*

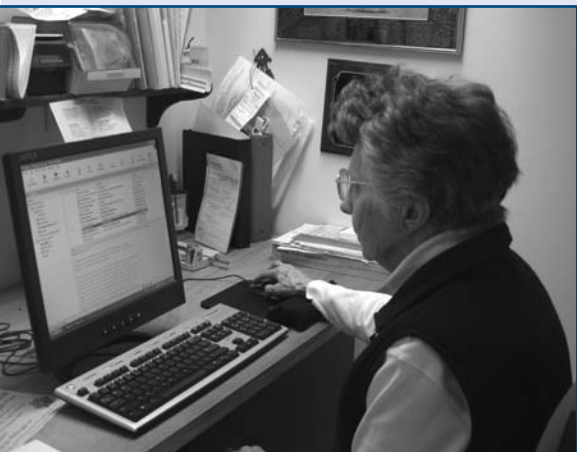


*Oregon Center for Aging & Technology is a partnership of university, industry, long term care providers and others.*



# Oregon Roybal Center for Aging & Technology 2006-2007 Pilot Projects

- **Diane Howieson, PhD**  
(OHSU Layton Aging & Alzheimer's Disease Center):  
Electronic Devices as Memory Aids for MCI Patients
- **Yvonne Michael, PhD**  
(OHSU Public Health & Preventive Medicine): A  
Location Based System for  
Activity Tracking of Senior  
Adults Outside the Home
- **Martha Neuringer, PhD**  
(OHSU Oregon National  
Primate Research Center):  
Motor and Cognitive  
Aging in a Nonhuman  
Primate Model
- **Jay Lundell, PhD**  
(Intel Corporation, Proactive  
Health - continued funding  
from Intel): Context-Aware  
Medication Prompting



*Jean McKinney practices logging in and using e-mail for the BRP pilot study.*

## Major Technology & Aging Initiative...

*Continued from front page.*

own homes, we may be better able to detect more subtle changes than can be found with information collected only once or twice a year. To collect activity information in the home, motion-detecting sensors are installed to collect overall activity and walking speed down a hallway. The sensors are just like the ones that open doors to the grocery store; they don't take any pictures, but can tell when someone is moving in the room. Study participants will also on a daily basis, log onto computers that will be provided to them for the study.

But what does activity have to do with memory? Previous research has shown that changes in motor activity (like how long it takes to walk down a hallway) may happen just before changes in memory start to become apparent. Certainly motor changes may be due to other illnesses, but there seems to be an important relationship between changes in activity and memory. This new research project will help us to better understand that relationship.

Once the pilot phase is complete, beginning early in 2007, the study will enroll up to 300 volunteers, primarily age 80 or older, who will participate in the study for three years. Subjects will be recruited through retirement communities. Jim Mertz, president and chief executive officer of Willamette View, a Portland continuing care retirement community and ORCATECH partner, said participation in the BRP study is a natural for the facility and its 525 residents, many of whom have volunteered for past Layton Center research projects.

“Willamette View was excited to be invited to take part in the testing of technology that will benefit the lives of current residents, future residents and seniors in the community by connecting them to doctors and other health care providers in a timely fashion,” Mertz said. “Our residents really embrace being part of OHSU's studies. It's fun for them.”

For more information about ORCATECH or the BRP project, please contact Tracy Zitzelberger ([orcatech@ohsu.edu](mailto:orcatech@ohsu.edu) or 503-494-9635).

To find out more about the research studies discussed in this newsletter or about other research and clinical trials at the **Layton Aging & Alzheimer's Disease Center**, check our Web site ([www.ohsu.edu/research/alzheimers](http://www.ohsu.edu/research/alzheimers)) or call Joyce Lear at 503-494-7615.

## Opportunity for persons with Mild Cognitive Impairment

The “Living Well with MCI” research project (eIRB# 2913) is designed to teach memory skills and compensation techniques for people with mild memory problems. Volunteers should either have a diagnosis of mild cognitive impairment (MCI) or have experienced a decline in memory over the past year or two. People with an established diagnosis of Alzheimer’s disease or other form of dementia are not eligible. Volunteers will be interviewed by telephone for eligibility. The interview will include information about age, education, health, and a short memory examination. Volunteers also need to have a study partner who participates by assisting the volunteer with skills and assigned home exercises. The project takes place in Multnomah Village, Portland.

Volunteers interested in participating in weekly meetings for the 10-week program beginning on January 23rd should call the Oregon Health & Science University’s researchers Diane Howiesion, Adrianna Seelye, or Luis Saucedo at 503-494-7701 by January 10, 2007.

*Save The Date!*

**9th Annual McGinty Conference: April 12, 2007**

*Enriching the Moments – Caregiving at Its Best*

For information: 800-733-0402  
www.alzheimers-oregon.org

## Opportunities for Oregon Residents

**Alert!** Oregon Prescription Drug Pooling Program (OPDP)  
You may be eligible even if you are on Medicare

The cost of caring for someone with Alzheimer’s care can be substantial. One new program may help: You are eligible for the Oregon Prescription Drug Pooling program (OPDP) if:

1. You are an Oregon resident, and
2. You do not have prescription drug coverage.

**Medicare Part D will not disqualify you from participating in this program.** The OPDP discount card may give you a better discount than your Health Plan gives you when you are paying 100% of the drug cost. For example, when you are meeting a Plan’s deductible or during the “gap in coverage”. This gap –sometimes referred to as the “donut hole” --happens when an individual’s prescription drug expenses are between \$2,250 and \$5,100 in a given year and they are responsible for 100% of their drug costs.

For more information go to the Oregon Health Division website: <http://egov.oregon.gov/DAS/OHPPR/OPDP/index.html> or call 1-888-411-OPDP (411-6737).



### ✓ CHECK-OFF for Alzheimer’s Research



Support Alzheimer’s research by making a donation through your Oregon tax form.

**Oregon Partnership for Alzheimer’s Research (OPAR)** promotes promising research on Alzheimer’s disease in Oregon. For information about this program, contact Linda Boise (boisel@ohsu.edu) or 503-494-6370.

# Layton Center Education Core Leader collaborates with Oregon Rural Practice-Based Network rural clinicians to improve diagnosis of dementia

In January, seven rural primary care practices affiliated with the Oregon Rural Practice-based Research Network will begin testing a new program to improve dementia care. The Rural Older Adult Memory Study (ROAM), a one-year study funded by the federal Agency for Healthcare and Research Quality, will develop and test a new model for screening and diagnosing dementia. In this model, patients 75 years or older will be screened for dementia by an office assistant. If the patient screens positive for possible dementia, the doctor will evaluate the patient to determine if he or she has dementia and if so, whether the patient has Alzheimer's disease or other cause for the dementia. Information about community resources will be provided for patients diagnosed with dementia and their families.

The ROAM model is an adaptation of the Assessing Care of the Vulnerable Elders (ACOVE-2) model developed at UCLA and RAND Health in Los Angeles. It uses a variety of methods to improve practice, including prompts in patients' medical charts, specially designed forms to screen and diagnose dementia, patient/family activation and education, and decision support for the clinician.

Dr. Linda Boise, principal investigator, will analyze the outcomes to find out if the intervention increases the number of diagnosed cases of dementia and referrals for community resources. She will also evaluate whether or not the model increases clinician confidence in diagnosing and managing dementia and will interview the participating clinicians

to identify ways to improve the program.

We are excited that the ROAM study will be helpful to us by showing if a screening tool can quickly and accurately find dementia at an early stage, said Robbi Law, M.D., from Dunes Family Health Clinic, Reedsport, one of the seven clinics participating in the study.

“Identifying dementia early will be valuable to prevent basic risks for a patient’s safety, for instance, medication errors, or problems in remembering to make and keep follow up appointments. This will also encourage planning to avoid a crisis if a patient eventually cannot live independently, and to find resources to help patients cope with changes in their functioning.

“ORPRN is a terrific way to investigate this question by having rural clinicians doing the research in their own practices, where the results of the study will have direct impact, which is somewhat different from traditional academic research methods,” Law said.



*The Oregon Rural Practice-based Research Network (ORPRN) is a program of the OHSU Dept. of Family Medicine. Member clinicians from 34 practices participate in a wide range of studies to improve primary care for rural Oregon residents.*

Oregon Tax Check-Off for Alzheimer's Research program for 2006.

- **“Cerebrovascular permeability in Alzheimer's disease: a 7T dynamic contrast enhanced MRI study.”** Valerie Anderson, PhD, assistant professor, Neurological Surgery, Oregon Health & Science University School of Medicine.
- **“Hypochlorhydria and homocysteine in MCI.”** Gene Bowman, ND, fellow, Layton Aging & Alzheimer's Disease Center, OHSU.
- **“The effects of stressful life events on cognitive function in persons over the age of 85 years.”** Jim Calvert, MD. Merle West Research Center, Klamath Falls
- **“The Oregon Physical Activity and Dementia Study.”** Carlos Crespo, DrPH, Department of Community Health, Portland State University
- **“Living well with MCI: A cognitive-behavioral treatment program for persons with MCI.”** Diane Howieson, PhD, Layton Aging & Alzheimer's Disease Center, OHSU.
- **“Effects of targeted amyloid beta deposition on vocal production and learning in songbirds.”** Claudio Mello, PhD, Neurological Sciences Institute, OHSU.
- **“Randomized pilot study of mindfulness cognitive therapy program for caregivers of AD patients.”** Barry Oken, MD, Neurology Department, OHSU.

## Projects Funded by the Oregon Partnership for Alzheimer's Research Tax Check-Off Program, 2006

Seven diverse research projects are underway with support from the Oregon Tax Check-off Alzheimer's Research Fund. Created by the Oregon legislature in 1988, this fund supports research grants of up to \$25,000 for clinical, biological, behavioral, or health systems research that will advance the understanding, treatment, and prevention of Alzheimer's disease.

Two of the projects funded this year involve persons with mild cognitive impairment (MCI) though in very different ways. One study is a preliminary test of a training program to help people with mild cognitive impairment compensate for memory loss. The other is a nutrition-related study. Persons with MCI have a risk of developing Alzheimer's disease or related dementia, but they do not have memory deficits serious enough to affect their day-to-day activities.

The training program, called “Living Well with MCI”, is a series of class sessions that provide education about mild cognitive impairment, exercises to improve memory, and training in techniques such as tracking telephone messages and appointments to compensate for problems with memory.

The other study will develop a method to assess nutrient biomarkers in patients with mild cognitive impairment. This study is being conducted by Gene Bowman, ND, a fellow at the Layton Aging & Alzheimer's Disease Center. The long-term goal is to test the hypothesis that dementia incidence may be reduced with dietary intervention. It is based on research that suggests that nutrients including antioxidants, omega 3 fatty acids, cholesterol, and B vitamins, play a role in the development of dementia.

The Oregon Partnership for Alzheimer's Research (OPAR) is a community program of the Layton Aging & Alzheimer's Disease Center. Representatives from Portland area hospitals, Oregon universities, and Alzheimer's service organizations serve on the OPAR advisory committee. OPAR's mission is to foster the development of promising research on Alzheimer's disease in Oregon. Priority for the Oregon Tax Check-off Alzheimer's Research Fund is given to investigators just entering the field of dementia research and to new or innovative projects. Special attention is given to projects that foster collaboration across disciplines or institutions. OPAR is receiving applications for its 2007 grant cycle between now and March 5, 2007. For information, contact Linda Boise, PhD, MPH, Education Core Director, Layton Aging & Alzheimer's Disease Center at [boisel@ohsu.edu](mailto:boisel@ohsu.edu) or 503-494-6370.

Oregon Health & Science University  
Mail code CR-131  
3181 S.W. Sam Jackson Park Road  
Portland, OR 97239-3098

NON-PROFIT ORG.  
U.S. POSTAGE  
**PAID**  
PORTLAND, OR  
PERMIT NO. 722

# THE AGING & ALZHEIMER'S UPDATE

PUBLISHED BY THE LAYTON AGING & ALZHEIMER'S DISEASE CENTER  
A NATIONAL INSTITUTE ON AGING ALZHEIMER'S DISEASE CENTER

JEFFERY KAYE, M.D., LAYTON CENTER DIRECTOR

FOR MORE INFORMATION, CONTACT LINDA BOISE, PH.D., M.P.H., EDUCATION DIRECTOR  
([BOISEL@OHSU.EDU](mailto:BOISEL@OHSU.EDU))

OHSU

OHSU includes the schools of dentistry, medicine, nursing, and science and engineering;  
OHSU Hospital and Doernbecher Children's Hospital; numerous primary care and specialty clinics;  
multiple research institutes; and several outreach and community service units.

OHSU protects the privacy of its patients' and research participants' personal health information.  
If you would like a copy of the OHSU Notice of Privacy Practices, please call 503 494-0444.

OHSU is an equal opportunity, affirmative action institution. 0306(5)