



# THE GRECC FORUM ON AGING

GERIATRIC RESEARCH, EDUCATION & CLINICAL CENTER



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## West Los Angeles VA GRECC Tackles the Challenge of Polypharmacy

Polypharmacy and management of multiple medications are common challenges in geriatric care. The West Los Angeles is conducting a clinical demonstration project designed to meet this challenge. The GRECC Medication Review Clinic (MRC) consists of a one-time clinic visit with a geriatric provider during which older veterans can bring their medications (including herbal and over-the-counter medications) from home for review and advice. Patients are self-referred in response to flyers posted at Primary Ambulatory Care Clinics and GRECC outpatient clinics. A comprehensive medication list is constructed for each patient from their report, information obtained from electronic record (CPRS) and from progress notes entered in the six months prior to the MRC visit. MRC staff apply to this list a standardized template

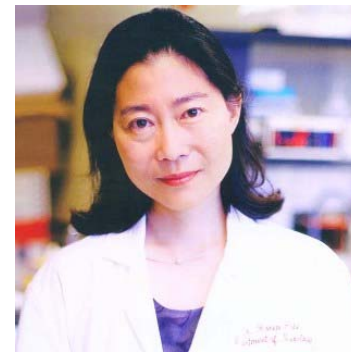
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## GRECC Investigators' Award-Winning Approaches Hold New Hope for Understanding and Treating Alzheimer's Disease

The diagnosis of Alzheimer's disease (AD) devastates patient and family, and frustrates clinicians who know that current therapies offer little hope of meaningful relief. That dilemma may change in the foreseeable future thanks to research being carried out by several innovative GRECC investigators.

### *A Star on the Horizon*

Karen Hsaio Ashe, MD, PhD of the Minneapolis GRECC and University of Minnesota recently received the distinguished MetLife Foundation Award for Medical Research in Alzheimer's Disease. She is also a co-recipient of the 2006 Potamkin Award from the American Academy of Neurology. These awards acknowledged her voluminous contributions to understanding the molecular basis of memory loss and cognitive dysfunction, hallmarks of AD. Dr. Ashe developed one of the most widely used mouse models of AD, which has enabled legions of scientists to test theories and treatments targeting the role of the neurotoxic  $\beta$ -amyloid peptide. In recent work, Dr. Ashe has identified an aberrant form of  $\beta$ -amyloid ( $A\beta$  star or  $A\beta^*$ ), that occurs very early in the disease process, in the prodromal stage of AD known as mild cognitive impairment. In research published in the



March 16 issue of the Journal *Nature*, the appearance of  $A\beta^*$  paralleled precisely the trajectory of memory impairment in her AD mouse model. Further, injecting  $A\beta^*$  into the brains of healthy young rodents caused memory impairment that was reversed as the peptide dissipated. One important message of this work is that the pathologic agent causing the symptoms of AD may be detectable at a very early stage of the disease, at a time before significant loss of brain cells has occurred. Dr. Ashe's work also suggests that  $A\beta^*$  is a new target for therapies, which may then prevent disease progression or even reverse memory loss in affected patients.

### *Currying Favor*

Intriguing studies suggest that older adults from India may have a reduced risk of AD. Sepulveda GRECC investigators Greg M. Cole, PhD and Sally Frautschy, PhD believe they know why. The work of these creative scientists has focused on dietary factors that fight inflammation in the brain

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## Polypharmacy *Continued*

based on the Beers Criteria (Arch Int Med 2003) of inappropriate medications in older adults and Quality of Pharmacologic Care for Vulnerable Elders (Ann Intern Med 2004). The geriatric provider and pharmacist then make recommendations to the patient's primary care provider regarding the medication regimen and educate the patients regarding their medications, including potential adverse reactions and / or side effects.

Within two weeks after the MRC visit, an updated medication list is

mailed to each participant, with a reminder section on how to refill their medications. One month after the MRC clinic visit, patients complete a phone survey to assess changes in knowledge and self-efficacy after MRC program participation. The results of this innovative program will be evaluated and made available to all GRECCs. Interested GRECCs can receive a copy of the MRC template by contacting:

**Dr. Josea Kramer** at the West Los Angeles VA GRECC  
[Josea.Kramer@med.va.gov](mailto:Josea.Kramer@med.va.gov).



## Views from VACO

Last month, I noted that I was undertaking a three-fold charge with respect to the GRECCs: 1) to identify GRECC accomplishments; 2) to communicate them effectively within and beyond the organization; and 3) to turn knowledge of their success into a meaningful resurgence of support for the program. I'd like to give a concrete example of what each of these means, and then describe a very important, overarching program that also addresses them.

**The ongoing efforts to identify GRECC accomplishments** have continued with the upgrading and (we hope) increased simplicity of the electronic GRECC Annual Report. Although far from perfect, the database into which all the GRECCs are now feeding their information provides vastly improved access and usability of the large amount of data reflecting GRECC activity, products, and accomplishments. And with that improvement comes greater possibility for timely responses to inquiries and real-time identification of expertise.

**Communication of those accomplishments** took a major step

forward with the release and dissemination of the GRECC National Report last month. This was furnished to all VISNs (Directors and Chief Medical Officers), VAMCs and Program Offices within VHA. If you've not seen the report, take a look at (<http://aww1.va.gov/grecc/docs/RECCNationalRpt2005.doc>).

**Turning this information into a resurgence of support** is an ongoing process—so the preliminary milestones that have been achieved are best not specified at present. But this goal remains an unshakeable focus of this office and will continue to be such for the foreseeable future.

Key to this last charge is the development of a means for communication that grabs the ear of those who control resources—and that's where a single, ambitious, but forward-moving project becomes important. The program in question is the review and revision of the GRECC Performance Measures. Performance Measurement, and holding top managers responsible for attaining agreed-upon goals in advance, has transformed VHA from a hospital system backwater into the crown jewel of American healthcare that

## Associate Director of Research: Gainesville, FL

The GRECC at North Florida/South Georgia Veterans Health System and the University of Florida College of Medicine seeks an Associate Director of Research. Candidates with an MD or PhD degree and an established research program related to geriatrics and aging should send their CV, research interest, & names of three references to: Philip Scarpace, PhD, Search Committee Chair, Dept. of Pharmacology & Therapeutics, Box 100267, U of FL College of Medicine, Gainesville, FL 32610-0267. The NF/SG VHS and the U of FL are Equal Opportunity Institutions.



is today. In the current paradigm, the organization's strategies for fulfilling its mission and accomplishing



its goals are explicitly stated. Activities that advance those strategies are favored over those that do not. Key to demonstrating the worth of a program—such as GRECC—is to demonstrate how it is fulfilling the organization's need to move in the desired direction. Tracking and working to meet or exceed Performance Measures that address strategic initiatives are key to: identifying relevant accomplishments, communicating those successes meaningfully, and thereby ensuring stable support to continue those efforts.

The first draft of the new measures is still a matter of months away, but it is the GEC office's hope to have it available for retrospectively gauging 2006 perform-

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## Baltimore GRECC Update

The Baltimore GRECC strives to meet one of the most demanding challenges in health care today: to identify mechanisms through which diet and physical activity improve health for older veterans, and then translate this knowledge into clinical practice. The VISN 5 GRECC was established at the VA Maryland Health-care system in 1992 under the leadership of Andrew Goldberg, MD. Collaborators between GRECC and University of Maryland-Baltimore scientists have fostered a wealth of interactive gerontology research programs, including a Claude D. Pepper Older Americans Independence Center and a Center for Research on Aging. In 2005 alone, GRECC investigators established a VA Center of Excellence in Exercise and Robotics in Neurological Disease (Richard Macko, MD), a Genomics Center (Alan Shuldiner, MD) and an NIH Clinical Nutrition Research Unit (Susan Fried, PhD).

In a research portfolio that can truly be described as translational, Baltimore GRECC investigators study the effects of exercise training and weight loss at clinical, cellular and genetic levels in older adults at risk for metabolic and vascular disease. Drs. Shuldiner and Steven Kittner identify candidate genes associated with these age-related disorders, while Drs. Alice Ryan and Goldberg investigate how specific gene polymorphisms affect responses to weight loss and exercise. In work conducted by Drs. Macko (Associate Director of Research), Andreas Luft and Daniel Hanley, exercise promoted motor relearning and improved ambulation by increasing brain



activation in selected circuits. Dr. Jill Whitall and colleagues showed that bilateral arm training conjoined with rhythmic auditory cueing induced contralesional brain activation and improved function in patients with upper extremity hemiparesis.

The Baltimore GRECC Clinical Program builds upon the solid foundation of this impressive research effort. Led by Drs. Leslie Katzel (Associate Clinical Director) and Jacob Blumenthal (VA CDA), ongoing clinical demonstration projects translate functional, metabolic and cardiovascular outcomes into clinical trials in VHA's Managing Obesity in Veterans Everywhere (MOVE!) and community-based programs. Marianne Shaughnessy, CRNP, PhD (Associate Director of Education and Evaluation) spearheads the integration of clinical and educational programs. She helped design an educational interactive web-based module for the nursing staff entitled "Early Recognition of Acute Illness in Older Adults", that includes a built-in CPRS-based evaluation mechanism and database to report behavioral, functional and cognitive outcomes. Additional activities of this energetic GRECC can be viewed on their website: (<http://www.grecc.umaryland.edu>).

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2. Kulaputana O, Macko RF, Ghiu I, Phares DA, Goldberg AP, Hagberg JM. Human gender differences in fibrinolytic responses to exercise training

and their determinates. *Exp Physiol* 90: 881-7, 2005.

3. Halverstadt A, Phares DA, Roth S, Ferrell RE, Goldberg AP, Hagberg JM. Interleukin-6 genotype is associated with height-density lipoprotein cholesterol responses to exercise training. *Biochim Biophys Acta* 1734:143-51, 2005.

4. Shaughnessy M, Resnick BM, Macko RF. Testing a model of post-stroke exercise behavior. *Rehabil Nurse* 31:15-21, 2006.



## Awards for GRECC Members

**Jenice Guzman**, GNP, of the Greater Los Angeles Health System (GLAHS) GRECC recently received the VA's 2005 Mark Wolcott Award for Excellence in Clinical Care Delivery. Established in 1966, this annual award recognizes an outstanding VA healthcare practitioner who promotes excellence in clinical care delivery at multiple levels. Ms. Guzman chaired a GLAHS Root Cause analysis team on repeat falls and created a new CPRS template to improve falls documentation and care delivery. She also spearheaded a GRECC telemedicine project to expand access to geriatric care.

Ms. Guzman initiated an interdisciplinary GRECC Medication Review Consultation Clinic to reduce polypharmacy and compliance problems in elderly veterans (see accompanying story on page 1). A highly regarded preceptor and teacher, she is lauded as a consummate role model. Based on these many accomplishments, she has received a number of awards, including the VHA Secretary's Award for Excellence in Nursing in May 2005. Ms. Guzman is the first nurse to be accorded the Mark Wolcott Award. She received a commemorative plaque and

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## Views from VACO *Continued*

ance. In our system of seemingly endless documentation and layers of accountability it is understandable to initially regard this management tool as another kind of noise. But as long as those in charge are listening for this song, keeping on key is going to be important for everyone who wants to see GRECCs prosper.

Stay tuned!

**Ken Shay, DDS, MS**



## Upcoming Conferences

Alzheimer's Association 18<sup>th</sup> Annual Public Policy Forum will be held on June 3-6, 2006 in Washington, DC. Contact: (<http://www.alz.org>)

The 4<sup>th</sup> Annual Rocky Mt. Geriatric Convention will be held on September 21-24, 2006 at the Chateaux at Silver Lake in Park City, UT. The Conference Theme: Controversial issues in Cognitive Disorders.



## Award-Winning Approaches Hold New Hope *Continued*

and reduce  $\beta$ -amyloid accumulation.

Curry, a spice widely used in Indian cuisine, is one such natural anti-inflammatory, due to the effects of curcumin, the active ingredient which gives curry its yellow hue. In a recent study, Cole, Frautschy, and colleagues showed that curcumin reduced brain amyloid in an AD mouse model, and improved other disease-related factors. Based in part on this evidence, a pilot trial is underway to determine whether curcumin can benefit patients with AD. Cole's team has also investigated the protective effects of omega 3 fatty acids. These "good fats" are essential for the health of neurons and synapses which provide essential points of communication between neurons. Fatty fish like salmon and halibut are important dietary sources of omega 3 fatty acids, and consumption of these foods is associated with a reduced risk of AD in epidemiologic studies. In work carried out by Cole and Frautschy's team, omega 3 fatty acid depletion impaired memory in an AD mouse model, whereas supplementation preserved memory and reduced brain amyloid burden. Interestingly co-administration of fish oil and curcumin may optimize their beneficial effects.

### *The Insulin Connection*

The insulin resistance syndrome has strong ties to obesity, Type 2 diabetes, hypertension, and cardiovascular disease. Now VA Puget Sound GRECC investigator Suzanne Craft, PhD has shown that insulin resistance may be tied to AD. In insulin resistance, insulin cannot efficiently mobilize the use of glucose, a critical fuel for both muscle and brain. As a result, the brain may be deprived of adequate energy. The pancreas then produces excess insulin to compensate for its ineffectiveness, and this hyperinsulinemia may have negative consequences. Craft's team has shown that excess insulin increases  $\beta$ -amyloid and inflammation in the spinal fluid of older adults. Both may increase the risk of AD. This new way of thinking about AD risk offers novel treatment options. Recently Craft and colleagues showed that normalizing insulin levels and function with medications originally designed for the treatment of diabetes prevented cognitive decline for patients with AD. Ongoing studies examine whether these medications prevent progression to AD in at-risk adults, and whether improving insulin function in the brain through intranasal administration of small doses of insulin provides therapeutic benefit to patients. Craft recently received an NIH MERIT award for her studies of insulin resistance in AD.

## Awards for GRECC Members *Continued*

\$ 5,000 during the February meeting of the VA National Leadership Board in Washington, DC.

The Marsha Goodwin-Beck Award for Excellence in Geriatric Leadership in 2005 was awarded to **Dr. John Morley** of the VISN 15 GRECC. The lifetime achievement award was bestowed to Dr. Morley at the National Leadership Board Meeting for the VA in June, 2005.

**Drs. Steven Graham and Emily Jaffee** of the Pittsburgh GRECC were honored at the Federal Executive Board. Dr. Graham received a Gold Award for research demonstrating that genes that function during brain development become reactivated after a stroke. Dr. Jaffee received the Silver Award for her work in establishing the Geriatric Palliative Care Unit at the H.J. Heinz VA.



1. Lesne S, Koh MT, Kotilinek L, Kaye R, Glabe CG, Yang A, Gallagher M, Ashe KH. A specific amyloid-beta protein assembly in the brain impairs memory. *Nature* 440:352-7, 2006.

2. Cole GM, Lim GP, Yang F, Teter B, Begum A, Ma Q, Harris-White ME, Frautschy SA. Prevention of Alzheimer's disease Omega-3 fatty acid and phenolic anti-oxidant interventions. *Neurobiol Aging* 26 Suppl 1: 133-6, 2005.

3. Fishel MA, Montine T, Wang Q, Greene PS, Kulstad JJ, Watson GS, Peskind E, Baker LD, Asthana S, Plymate S, Cook DG, Schwartz M, Craft S. Hyperinsulinemia provokes synchronous increases in central and peripheral inflammation and beta amyloid in normal older adults. *Archives of Neurology* 62:1539-44, 2005.



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