

Health Services R&D director named

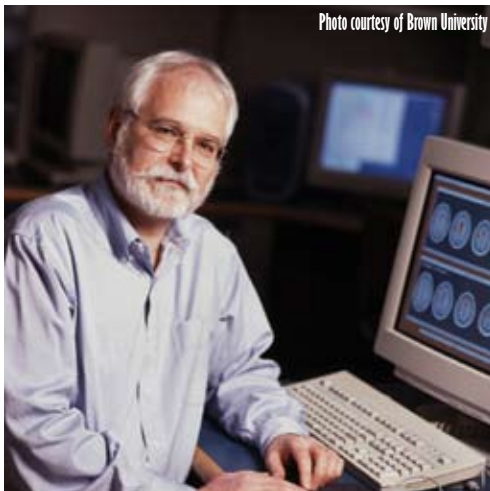
Seth A. Eisen, MD, MSc, whose research over more than three decades with VA has centered on war-related illness and pain, and on substance abuse among veterans, has been named director of VA's Health Services Research and Development Service. With Eisen's appointment, acting director Shirley Meehan, MBA, PhD, will resume her post as deputy director of HSR&D.

An investigator and director of ambulatory care at the St. Louis VA Medical Center, Eisen holds a medical degree from Washington University, where he is a professor of medicine and psychiatry. He also holds a master's of science in epidemiology from the Harvard School of Public Health. Eisen is recognized for his role as a mentor and teacher to young health-services

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Brown/VA scientist profiled in *Discover*

John Donoghue, PhD, a Brown University neuroscientist who became affiliated with VA when the agency established its Providence-based Center for Restorative and Regenerative Medicine in 2004, was profiled in the Dec. 2006 issue of *Discover* as one of two runners-up for the magazine's Scientist of the Year Award. The article, which describes the researcher's work on BrainGate, is available at <http://www.discover.com>.



John Donoghue, PhD, has been developing technology called BrainGate that allows movement signals from the brain to be picked up by a tiny implanted sensor and decoded into commands for electronic or robotic devices, such as prosthetic limbs.



Study to probe risk factors, outcomes of violence against servicewomen

According to a Dec. 2006 Associated Press story, "Women warriors are writing a new chapter in military history, serving by the tens of thousands, fending off enemy fire and taking on—and succeeding in—high-profile roles in the battlefield and the skies as never before."

But even as American servicewomen in many cases are proving to be heroes, they are sometimes victims: In 2005, the Department of Defense reported 2,374 cases of sexual assault in the military—an increase of 40 percent over 2004. DoD has launched programs to combat the trend. But how is the situation affecting the physical and emotional health of the women in today's military? And what factors put them at risk?

These questions are at the core of a new VA-funded study led by Anne G. Sadler, RN, PhD, acting chief of psychology at the Iowa City VA and an investigator with VA's Center for Research in the Implementation of Innovative Strategies in Practice. The research will include interviews with about 500 active-duty women and female veterans from five Midwestern states, all currently or formerly with the reserves or National Guard, which account for the majority of U.S. troops in Iraq and Afghanistan.

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Recent publications and presentations by VA investigators

Below is a brief sampling of recent publications and presentations by VA investigators, based on notifications received by R&D Communications (see reporting requirements at www.research.va.gov/resources/policies/pub_notice.cfm). Every attempt is made to present a cross section of investigators, topics and medical centers. Only VA-affiliated authors are listed here, due to space constraints.

“Aortic Pseudoaneurysm Associated With Posterior Spinal Instrumentation: A Case Report.” Vidya Jayawardena, MD. **Richmond**. International Congress of Behavioral Medicine, Nov. 2006.

“A Distressed Heart: A Prospective Study of Posttraumatic Stress Disorder Symptoms and Coronary Heart Disease in the Normative Aging Study.” Karestan C. Koenen, PhD; Avron Spiro III, PhD; Pantel S. Vokonas, MD; David Sparrow, DSc. **Boston**. *Archives of General Psychiatry*, Jan. 2007.

“Effect of Iron and Ascorbate on Uroporphyrin in Ascorbate-Requiring Mice as a Model for Porphyria Cutanea Tarda.” Judith M. Jacobs, PhD; Jacqueline F. Sinclair, PhD; Peter R. Sinclair, PhD. **White River Junction**, *Hepatology*, Jan. 2007.

“How Do Patients with HIV/AIDS Understand and Respond to Health Value Questions?” Susan N. Sherman, DPA; Joseph M. Mrus, MD, MSc; Joel Tsevat, MD, MPH. **Cincinnati**. *Journal of General Internal Medicine*, Dec. 2006.

“Impact of Guideline-Concordant Empiric Antibiotic Therapy in Community-Acquired Pneumonia.” Marcos I. Restrepo, MD, MSc; Eric M. Mortensen, MD, MSc. **San Antonio**. *American Journal of Medicine*, Oct. 2006.

“Intranasal Administration With NAD+ Profoundly Decreases Brain Injury in a Rat Model of Transient Focal Ischemia.” Weihai Ying, PhD. **San Francisco**. *Frontiers in Bioscience*, Jan. 2007.

“Mantram Repetition for Stress, Coping, and Spiritual Well-Being in HIV-Infected Adults: A Mixed Method Analysis.” Jill Bormann, PhD; Jeanne Kempainen, PhD. **San Diego**. International Congress of Behavioral Medicine, Nov. 28-Dec. 2, 2006.

Prevalence and Trends of Selected Urologic Conditions for VA Healthcare Users.” Min-Woong Sohn, PhD; Huiyuan Zhang, BS, MS; Brent C. Taylor, MD; Michael J. Fischer, MD; Timothy J. Wilt, MD, MPH. **Hines, Minneapolis**. *BMC Urology*, Nov. 2006.

“Prospective Evaluation of the Use and Outcome of Admission Stool Guaiac Testing: The Digital Rectal Examination on Admission to the Medical Service (DREAMS) Study.” Edmund J. Bini, MD, MPH; Jean-Pierre Reinhold, MD; Elizabeth H. Weinschel, MD. **New York**. *Journal of Clinical Gastroenterology*, Oct. 2006.

“RelA is Required for IL-1B Stimulation of Matrix Metalloproteinase-1 Expression In Chondrocytes.” Matthew Vincenti, PhD. **White River Junction**. *Osteoarthritis and Cartilage*, Nov. 7, 2006.

“Risk of New-Onset Atrial Fibrillation in Relation to Body Mass Index.” Sascha Dublin, MD, PhD. **Seattle**. *Archives of Internal Medicine*, Nov. 27, 2006.

“Should Patients with Anemia and Low Normal or Normal Serum Ferritin Undergo Colonoscopy?” Mandeep P. Sawhney, MBBS, MS; Douglas B. Nelson, MD; Frank A. Lederle, MD; Thomas Rector, PhD; John H. Bond, MD. **Minneapolis**. *American Journal of Gastroenterology*, Oct. 13, 2006.

“Specific High Affinity Interactions of Monomeric Endotoxin: Protein Complexes With Toll-Like Receptor 4 Ectodomain.” Jerrold P. Weiss, PhD; Theresa L. Gioanini, PhD. **Iowa City**. *Journal of Biological Chemistry*, Nov. 22, 2006.

“The Association between Number of Pap Smears Performed and Self-Reported Confidence in an Internal Medicine Residency.” Ryan B. Chew, MD; Lisa D. Chew, MD, MPH; Katharine Bradley, MD, MPH. **Seattle**. *Journal of Women's Health*, Oct. 2006.

“The Impact of Unstable Angina Guidelines in the Triage of Emergency Department Patients with Possible Acute Coronary Syndrome.” David A. Katz, MD, MSc. **Iowa City**. *Medical Decision Making*, Nov./Dec. 2006.

“Uric Acid Decreases Nitric Oxide Production in Pulmonary Artery Endothelial Cells Through Activation of the L-Arginine/Arginase Pathway.” Jawaharlal M. Patel, PhD; Edward R. Block, MD. **Gainesville**. Evolution of Pulmonary Hypertension Meeting, Dec. 7-8, 2006.

“Voluntary Modulation of Motor Cortical Activity by a Person with Amyotrophic Lateral Sclerosis: Initial BrainGate Experience.” Leigh R. Hochberg, MD, PhD. **Providence**. Society for Neuroscience Annual Meeting, Oct. 14-18, 2006.

“Younger Stroke Survivors Have Reduced Access to Physician Care and Medications: National Health Interview Survey From Years 1998 to 2002. Deborah A. Levine, MD, MPH; Catarina I. Kiefe, MD, PhD; Thomas K. Houston, MD. **Birmingham**. *Archives of Neurology*, Nov. 13, 2006. ■

Who's at risk for falls?

Interventions such as CBST or tai chi may be effective in preventing falls among older adults (*see story at right*), but which patients should be targeted?

A review study led by researchers with the GRECC at the VA Greater Los Angeles Health System analyzed data from 18 studies looking at risk factors for falls among community-dwelling seniors. Their results, published Jan. 3 in the *Journal of the American Medical Association*, show that seniors who have fallen in the past year or who have clinically detected problems with gait or balance are at highest risk.

Other factors, such as visual impairment, medication variables, decreased activities of daily living, or impaired cognition, did not consistently predict falls. Orthostatic hypertension—a sudden drop in blood pressure upon standing—also did not independently predict falls.

“We evaluated risk factors identifiable during the routine clinical examination. The risk factors we identified can be considered screening tests for future falls,” wrote the authors, led by David A. Ganz, MD, MPH, of the Greater LA VA and the UCLA Multi-campus Program in Geriatric Medicine and Gerontology. They continued: “Screening for falls is as easy as asking, ‘Have you had any falls in the past year?’ and then inquiring about gait or balance problems if the patient has not had a fall.”

Ganz's coauthors included Yeran Bao, MD, now at the Palo Alto VA; Paul Shekelle, MD, PhD, of VA and RAND Health; and Laurence Z. Rubinstein, MD, MPH, of VA and UCLA.



Tai chi classes such as this one, sponsored by the University of Texas Southwestern Medical Center, have been shown to help prevent falls in seniors, but a VA study in Ann Arbor suggests a special balance-training program may be even more effective.

Balance training may top tai chi for fall prevention

In a study involving 213 older adults, researchers at the Ann Arbor VA and University of Michigan found that training focused on increasing step length and speed was more effective than tai chi for improving mobility and balance. The results appear in the Dec. 2006 *Journal of the American Geriatrics Society*.

Tai chi, a Chinese martial art based on slow, rotating movements and weight-shifting, has been shown to help reduce falls among seniors, but its value relative to other fall-prevention programs has remained open to debate.

According to senior author Neil B. Alexander, MD, and lead author Joseph O. Nnodim, MD, PhD, of the Geriatric Research, Education and Clinical Center (GRECC) at the VA Ann Arbor Healthcare System and the University of Michigan Health System, the new findings carry an important message for seniors at risk for falls: “What this tells us is that if you want to improve your ability to balance and walk, try a program that focuses on improving balance while moving and on the ability to step quickly and further,” said Alexander, acting director of the GRECC. He added

that the balance-training program—known as Combined Balance and Step Training (CBST)—requires no specialized equipment or advanced training for the instructor, and is “very easy to implement.”

The 10-week study included three one-hour sessions per week with an instructor, with half the participants doing CBST and the other half doing tai chi. CBST activities included turning the upper body while bouncing and catching a ball; walking on a plank; and stepping on and off curbs or over obstacles, and other tasks. The tai chi classes focused on body alignment, weight shifts, hip and ankle rotations, various stepping motions, and relaxation.

After 10 weeks, overall performance had improved more with CBST than with tai chi. Compared with the tai chi group, CBST participants did from 5 to 10 percent better in two stepping tests, and 9 percent better in the “Timed Up and Go” measure, in which they had to quickly rise from a seated position, walk three meters, turn, and go back to their chair. The CBST seniors also showed greater improvements in tests in which they had to stand with one foot forward, or on one leg. ■

REMISSION (from pg. 2)

cates that if an individual recognizes an alcohol problem and gets into treatment or AA relatively soon after that, then they are much more likely to be remitted after three years and to stay remitted after 16 years.”

Moos said his findings help prove that “natural remission,” a term used to denote the recovery of those who get sober without help, “may be less stable than remission that is associated with obtaining help. Our findings on the benefits of relatively rapid entry into treatment and/or AA support the value of strengthening the referral process for individuals who recognize their alcohol problems and initiate help-seeking,” he said.

Moos added, “Those gatekeepers or first-responders who do the initial assessments of people with alcohol problems need to be aware of the important role they can play up front. Assessing help-seekers’ readiness for change may help target high-risk individuals for interventions. Motivational Interviewing techniques could help guide those individuals to treatment or AA.”

Substance abuse, including alcoholism, is among the top three diagnoses in VA’s healthcare system, affecting some 215,000 veteran patients each year. VA counselors typically recommend that patients become involved in community-based self-help groups, though such participation is not mandated.

Moos will accept the award and a \$2,000 honorarium in May at the National Association of Addiction Treatment Providers conference in San Diego. The award is named for the late Dan Anderson, PhD, the former president of Hazelden. ■

Next ORD field conference call:

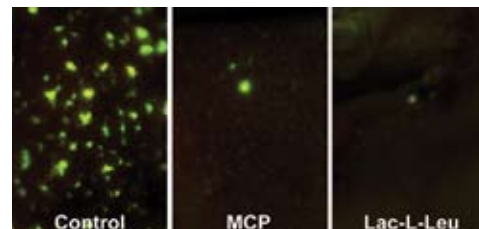
Monday, Feb. 26, 2007 • 1:30 pm EST

Dial 1-800-767-1750
(access code: 17323)

CANCER (from pg. 3)

“It binds to galectin-3 even better than TF antigen, and blocks it so it can’t mediate adhesion anymore,” says Glinsky.

Another promising compound he has tested, Modified Citrus Pectin, was developed by his collaborators at Wayne State University and the University of Michigan. According to Glinsky, “Both compounds are completely non-toxic and show great promise as potential anti-metastatic drugs.” ■



This image from the VA lab of Vladislav Glinsky, MD, shows the effects of two carbohydrate-based metastasis inhibitors, Modified Citrus Pectin (MCP) and Lactulosyl-L-leucine (Lac-L-Leu), on the proliferation of malignant cancer cells within the microvasculature of mouse lungs. The green shapes are fluorescently labeled cancer cells.

Hill happenings

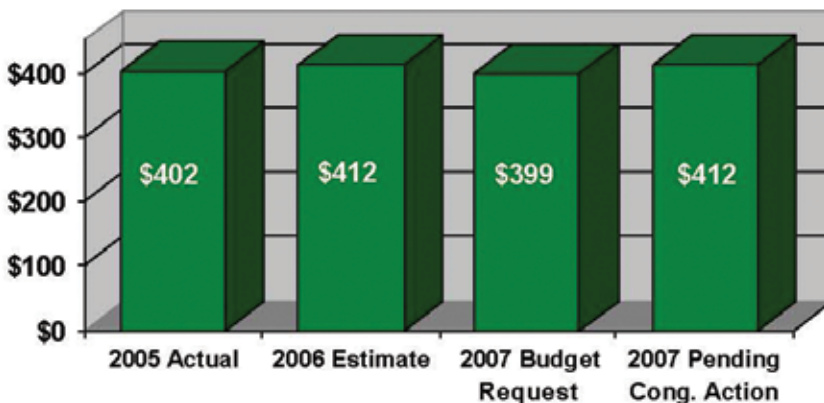
FY '07 funding bill for VA pending approval

Editor’s note: Three times per year, VA Research Currents provides an update on congressional action affecting funding for VA research.

Congress has passed two of the 11 fiscal year 2007 appropriations bills to date—Defense and Homeland Security. Until Congress passes the remaining nine spending bills, agencies funded by them, including VA, will operate under a Continuing Resolution, a stop-gap funding measure. The latest Continuing Resolution provides funding through Feb. 15, and allows VA to transfer up to \$683,970,000 from other accounts to Medical Services during this period. Discussions are under way on Capitol Hill to enact a Continuing Resolution covering the remainder of the fiscal year.

To view and track the appropriations bills, visit: <http://thomas.loc.gov/home/approp/app07.html>.

VA Medical and Prosthetic Research Direct Appropriations
(dollars in millions)



WOMEN (from pg. 1)

“We know very little about risk factors for gender-based violence in the Reserve and National Guard, and we know very little about these risk factors in deployed populations,” says Sadler. “So this is a unique opportunity.”

Besides identifying risk factors for sexual assault and physical violence against women, the new study will look at health outcomes for the study participants and any barriers to VA care. Another study by Sadler, already under way, is examining gynecological health outcomes for women who have experienced sexual violence. One of the questions her team is asking is how the women view VA healthcare.

Sadler: “The VA has changed a lot over the past two decades, which is verified in the common expression ‘It’s not your father’s VA anymore.’ Of the 500 interviews we’ve done so far in the current study, on reproductive health, the vast majority of



Some 500 Reserve and National Guard women, active duty and veterans, will be interviewed in a VA study focused on risk factors and health outcomes related to gender-based violence in the military.

women view the VA as a good place for women’s healthcare. We will continue to ask about women’s perceptions of VA in the new study, so that we can understand their needs and work to provide them with the best care possible.”

The new effort will include interviews with three groups—women deployed to

combat regions, those deployed elsewhere, such as Germany, and those who have not been deployed.

One major concern, particularly with respect to women serving in Iraq and Afghanistan, is posttraumatic stress disorder. Among the general population, says Sadler, rape survivors are thought to be the largest single group suffering from PTSD, with up to 58 percent of female victims developing PTSD afterward. And studies of Persian Gulf War veterans in the late 1990s found that both female gender and Guard or Reserve status were associated with higher PTSD rates. In one study, women who had been exposed to combat and sexual trauma had twice the rate of PTSD as men who had experienced combat alone—16 vs. 8 percent.

While VA has been expanding mental health care, as well as women’s care, over the past few years, Sadler says there’s a critical need for more research to guide care for victims of sexual assault.

“We want to provide evidence-based care,” says Sadler. “If we characterize the deployment experiences of these women and their health outcomes, we can improve

Past research found high rate of rape, other assaults

Four in 10 women veterans who took part in an earlier study led by Sadler said they had been raped or assaulted during their service. The study, published in the Sept. 2004 *Journal of Women’s Health*, also found that women who reported repeated violence had more outpatient visits and poorer health than women who had been victimized only once, or who had never been attacked. These same women were also more likely to report a history of childhood violence and post-military violence.

Sadler and her colleagues said the study suggested that repeated violence—as opposed to a single episode—may have a particularly strong adverse effect on women’s health. “Our findings indicate that it is necessary to include the concept of repeated violence in any future research studies of the health effects of violence,” they wrote.

The study included 520 women veterans from six cities who had served during the Vietnam or subsequent eras. The women were selected from a registry made up mainly of women who had used VA health care or sought a disability rating. Rape was reported by 29 percent of the participants, and physical assault by 36 percent.

More than half the women reported some form of physical or sexual violence before their military service. Almost half of this subgroup of women said they joined the military to escape an abusive or distressing home life.

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WOMEN (from pg. 7)

the care we give them. We might identify women who need a different type of trauma screening, for example, or different types of interventions.”

Meanwhile, Sadler remains deeply impressed by the servicewomen and female veterans she has met, and hopes her new

‘They participate with our research because they want to help other women.’

study will contribute significantly to their healthcare and well-being.

“The women I see clinically, and those who are participating in our current study, are very bright and patriotic,” she says. “They participate with our research because they want to help other women. They want to make a difference. They are forthright and they tell it like it is. They’re patriots who are dedicated to the mission, and we feel very pleased to be doing good research on their behalf.” ■



Peggy Druar staffs a booth during last year's Research Week activities at the VA Western New York Healthcare System.

VA Research Week 2007: May 13 – 19

Holding tours of your research facility, inviting congressional representatives to visit, organizing a lecture or poster session, sponsoring a luncheon for research volunteers—these will be just some of the many projects being undertaken by VA medical centers across the country in honor of VA Research Week 2007, to be held May 13 – 19.

The VA research website contains a toolkit to help research offices plan, coordinate and report on their Research Week activities. Among the items on the website, for example, are samples of letters to members of Congress, press releases and Research Day agendas. For more details, visit www.research.va.gov/resources/ORD_Admin/research_week/default.cfm.