



# VA Research Currents

## New chief R&D officer named

**J**oel Kupersmith, MD, a research cardiologist and health-policy expert who has held numerous leadership positions at academic medical centers, has been named VA's chief research and development officer.



Kupersmith, a recent scholar-in-residence at the Institute of Medicine and the Association of American Medical Colleges, took over the helm of VA's research program on May 31 from Stephan D. Fihn, MD, MPH, who was acting chief since July 2004. Fihn has received the VHA Exemplary Service Award for serving as acting CRADO while continuing his duties as a staff physician at the Seattle VAMC and director of the Northwest Center for Outcomes Research in Older Adults.

Prior to Kupersmith's tenure at IOM and AAMC, he was dean of the Medical School and Graduate School of Biomedical Sciences at Texas Tech University, and chief executive officer of the university's faculty practice. In previous positions he served as a professor and director of clinical pharmacology at Mount Sinai School of Medicine;

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## Message from the new CRADO

My first two weeks as chief research and development officer have been incredibly busy and exciting. As I review the important work VA is doing, I am impressed with the talent, hard work and willingness to serve that I have observed.

VA research has a remarkable record of accomplishment, with discoveries that cover the spectrum from basic science to applied research. This is a decisive time for VA research, a time when we can do much to improve the lives of veterans—our primary mission—and set important precedents.

We will also have many challenges. My mission is to assure a fair-minded system that produces the best possible research for veterans and supports VA researchers in making first-rate contributions. As we all work together, we will build on VA's strengths and strike new ground.

Importantly, we all owe a major debt of gratitude to Dr. Steve Fihn for his outstanding leadership, which has been most important to our enterprise.

I look forward to our collaboration.—JK

### Update from Health Services Research and Development...

## Innovative research forging ahead despite budget constraints

By Shirley Meehan, MBA, PhD, acting director

Despite a somewhat constrained budget this year and next, the Health Services Research and Development Service (HSR&D) remains strong, and we will continue to support important research through our merit-review program, as well as development of investigators through our Career Development program. Current case in point: We expect to fund 16.4 percent of the 152 Investigator-

Initiated Research (IIR) proposals and 33 percent of the 19 Quality Enhancement Research Initiative (QUERI)/Implementation projects from proposals submitted during the March review process. And continuing our firm commitment to career development, we also expect to fund six new Research Career Development awards and six Advanced Research Career Development awards. In

addition, we will review about 180 IIR proposals during the mid-June review process.

Also of note is our recent announcement of six priority areas of research for FY 2006. Certainly the merit-review score will be the main criterion for identifying projects for funding, but those with fundable scores

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## Kidney test predicts heart risk in elderly

**A** new blood test used to determine kidney health also foretells cardiovascular disease and overall risk of death in older people, according to a study by VA researchers and colleagues. The research, reported in the May 19 *New England Journal of Medicine*, offers robust evidence of the link between kidney and heart health, said the authors, and may change the way physicians think about mild kidney disease.

In the study, elevated levels of cystatin-C, a protein found in the blood, were shown to strongly predict cardiovascular disease and cardiovascular-related death, as well as death from any cause. The protein has been studied for two decades as a potential test of kidney function, but is not yet used in routine clinical practice.

“This study shows us that kidney function—as measured by cystatin-C—is a far more important risk factor for cardiovascular disease and death than we realized,” said lead investigator Michael G. Shlipak, MD, MPH, an internist at the San Francisco VA Medical Center and associate professor at the University of California, San Francisco. He said cystatin-C was a better predictor of death than any of the other risk factors studied, such as diabetes, high blood pressure, or

patients’ self-reported health status.

Shlipak’s team analyzed blood samples taken in the early 1990s from 4,637 older men and women. The researchers found that the higher the level of cystatin-C in the blood, the more likely a person was to suffer a stroke or heart attack over the next eight years. Higher cystatin-C levels were also correlated with a higher risk of death from any form of cardiovascular disease, or any other cause. A far weaker link was found between cardiovascular disease and creatinine, another protein that is currently the most widely used marker of kidney function.

Shlipak’s group showed in a recent related study that patients with the highest levels of cystatin-C were more than twice as those with the lowest levels to develop chronic heart failure. ■

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that also address these targeted areas will be given priority consideration. These targeted areas are equity and health care disparities; implementation research; long-term care; mental health; research methodology; and women’s health. More information is available on our website: [www.hsr.d.research.va.gov/for\\_researchers/funding](http://www.hsr.d.research.va.gov/for_researchers/funding).

To enable us to continue to support the greatest number of merit-review projects and maintain a comprehensive research portfolio, HSR&D recently established a budget limit for proposal submissions. Projects that exceed \$300,000 in any one year, or a total project budget of \$900,000 (including all salary costs), will not be accepted without a written waiver approved by the appropriate portfolio manager and

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## Special vision training may curb car crashes

Special computer-based training to improve older adults’ ability to process visual information could help them avoid automobile accidents, according to a VA study presented at the American Geriatrics Society annual meeting last month.

The study, led by Richard Sims, MD, chief of the geriatrics section at the Birmingham, Ala., VA Medical Center, involved 45 veterans, ages 60 to 80, with impaired vision. A control group received 10 one-hour training sessions on using the Internet, while the other group received 10 sessions of speed-of-processing training. Designed to improve visual-information processing, the computerized instruction program gives users increasingly challenging visual-attention tasks to complete.

Those who received the special training then scored significantly better on tests requiring them to identify a particular object amid various visual distractions on a computer screen.

“Because older drivers with impairments in visual attention experience more motor vehicle crashes, efforts to improve speed of processing may result in lower crash rates among these individuals,” said Sims.

The study was sponsored by VA’s Rehabilitation Research and Development Service.

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## Vaccine cuts incidence, severity of shingles in VA-NIH trial

**I**n one of the largest adult vaccine trials ever, VA researchers and colleagues found that an experimental vaccine for shingles—a painful nerve and skin infection that affects mainly older adults—reduced the incidence of the disease by more than half and dramatically limited its severity and complications. The findings appeared in the June 2 *New England Journal of Medicine*.

Shingles, also known as herpes zoster, is caused by a re-awakening of dormant chickenpox virus in the body. It is marked by a painful, blistering rash. It can affect anyone who had chickenpox as a youth—virtually all middle-aged and older Americans. Doctors in the United States treat about a million cases each year. Most cases clear up within a week, but some patients suffer anguishing pain for years.

The trial involved nearly 39,000 men and women, all age 60 or older, at 15 VA medical centers and seven university sites. Half the patients received a placebo and the others received a single shot of the vaccine—a live, weakened form of varicella zoster, the virus that causes chickenpox. The vaccine, made by Merck, is a stronger version of the chickenpox vaccine given to children.

In three years of follow-up, 642 cases of shingles occurred in the placebo group, compared to only 315 in the vaccine group. In vaccine patients who did develop the disease, its severity was 61 percent lower. And the vaccine patients were only a third as likely to develop a complication known as post-herpetic neuralgia, a form of serious chronic nerve pain.

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“Post-herpetic neuralgia is notoriously difficult to treat,” said study leader Michael Oxman, MD, an infectious disease specialist at the San Diego VA Healthcare System and the University of California, San Diego. Patients with post-herpetic neuralgia often describe the pain as burning, throbbing, stabbing or shooting.

“If the side of your body is affected, just the touch of a shirt is painful,” said Oxman. “If you have it on your head,

even a breeze can be intolerably painful.”

According to the researchers, the vaccine was well-tolerated in the trial, with the most common adverse effect being short-term swelling or irritation at the injection site.

The \$30-million study was funded with \$7.6 million from VA’s Cooperative Studies Program and \$22.3 million from Merck & Co., Inc., which supplied the vaccine. Additional funds were provided by the James R. And Jesse V. Scott Fund for Shingles Research. The research was carried out by VA in collaboration with Merck and NIH’s National Institute on Allergy and Infectious Diseases.

### *Bioshield grant awarded*

Karl Hostetler, MD, of the VA San Diego Healthcare System, is one of 10 researchers nationwide to receive a grant from the National Institute of Allergy and Infectious Diseases to develop new therapeutics and vaccines against potential bioterrorism agents. Hostetler and colleagues are developing an oral drug against smallpox and related viruses. More details are available at the NIAID website: [www.niaid.nih.gov/Biodefense/Public/projectbioshield.htm](http://www.niaid.nih.gov/Biodefense/Public/projectbioshield.htm).

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the director of HSR&D. A waiver request must be submitted no later than 30 days prior to the proposal submission date. For instance, proposals due Dec. 15 would require that a waiver request be received by HSR&D no later than Nov. 15. A waiver does not guarantee that a project will be fully funded, and this policy does not pertain to projects where the first submission was reviewed before Aug. 2005.

HSR&D will continue funding innovative merit-review research, as well as supporting talented investigators

through our Career Development program. Thanks to the strength of our centers and funding programs, we have a solid structure that will help us thrive and continue to support innovative research despite budget constraints. We anticipate that our new CRADO, Dr. Joel Kupersmith, will build effectively on the enhanced overall foundation that Dr. Stephan Fihn’s leadership facilitated. As acting CRADO, Dr. Fihn embodied the excellence, dedication and service that are the essence of our mission and continued success. We look forward to a very productive year. ■

## PECASE awards for two VA scientists

VA researchers William M. Grady, MD, and Kevin Volpp, MD, PhD, along with 58 scientists from seven other federal agencies, received Presidential Early Career Awards for Scientists and Engineers from President Bush at the White House on June 13.

The annual awards, established by President Clinton in 1996, recognize top young scientists and engineers for their “innovative research, which is at the frontiers of science and technology,” and their “exceptional potential to shape the future through intellectual and inspired leadership.”

Grady, a gastroenterology researcher at the VA Puget Sound Healthcare System, studies the mechanisms of colon cancer, which is a major cause of cancer-related deaths among VA’s patient population. His lab focuses on how cancer cells in the colon become resistant to a specific growth factor, or protein, in the body that normally suppresses tumors. His team has developed a mouse model that lacks the gene for the protein, known as TGFBR2, and shown how this leads to an increase in colon tumors. In addition to his VA role, Grady is an assistant professor at the University of Washington School of Medicine and an investigator at the Fred Hutchinson Cancer Research Center.

Volpp is a staff physician and health services researcher at the Philadelphia VA Medical Center, and an assistant professor of medicine and healthcare systems at the Wharton School and School of Medicine of the University of Pennsylvania. His research concerns how economics affect the quality of healthcare. Among the issues he has studied are the influence of HMOs on cardiac outcomes; financial incentives to promote smoking cessation; and VA’s role in reducing healthcare disparities.

Grady and Volpp will each receive \$125,000 over five years from VA’s Office of Research and Development in support of their research.

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chief of cardiology and professor at the University of Louisville; and professor and chair of the department of medicine at Michigan State University.

After graduating from New York Medical College and completing an internship at Kaiser Foundation Hospital, Kupersmith served in the U.S. Navy as a lieutenant in the medical corps from Aug. 1965 through Aug. 1967. He then completed cardiology training at Beth Israel Medical Center and Harvard Medical School, followed by research training at Columbia College of Physicians and Surgeons. He has 150 scientific articles and two books, and has served on national and international committees on heart disease and on the editorial board of three medical journals.

In addition to research on various topics in cardiology, Kupersmith has conducted outcomes research focused on heart care, and, most recently, studies on improving the quality of research and care at academic medical centers. ■

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