



VA ResearchCurrents

VA names new director of clinical research

Brian G. Schuster, MD, this month began duty as VA's director of Clinical Science Research and Development. Schuster recently retired from service as a colonel on active duty in the U.S. Army. He had also served for the past three years as science director at Walter Reed Army Institute of Research. The institute is the largest and most diverse among the Department of Defense's medical research facilities, with a staff of over 1,400 and an annual budget of \$120 million.

Schuster's own research has focused on infectious disease and clinical pharmacology. He has been principal investigator on over \$6 million in funding from the National Institutes of Health (NIH).

On his current NIH grant, Schuster is studying how drug development from natural sources can be integrated with biodiversity conservation and sustainable economic growth. In this study he coordinates work at 15 institutions in the United States and Africa.

Schuster earned his undergraduate degree at Canisius College, completed a pre-doctoral fellowship in pharmacology at the University of Florida, and earned his medical degree at the University of Miami. He further trained at Walter Reed Army Medical Center, where he completed his residency and a Military Medical Research Fellowship.

Over his nearly 30-year career at Walter Reed, Schuster served in various roles, including assistant chief for the Clinical Investigation Service; director, Division of Experimental Therapeutics; and associate director, Drug Development. ■

Lutein shown to reverse symptoms of eye disease

Veterans with age-related macular degeneration (ARMD) who took lutein by itself or in combination with other nutrients showed major improvements in several ARMD symptoms after a year, reported researchers in the April *Journal of the American Optometric Association*.

Lutein is a yellow pigment with antioxidant properties that is found in certain fruits and vegetables—especially dark green leafy vegetables, such as spinach and kale—and in egg yolks

and corn. It has been shown in prior research to slow the progression of ARMD. But the new study, led by Stuart Richer, OD, PhD, of the North Chicago VAMC, is the first to find actual improvements in eye health.

The randomized, double-blinded, placebo-controlled study involved 90 patients. A third received 10 mg of lutein per day—about the amount in four ounces of spinach. The second

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ORD to fund new amputation research

The Office of Research and Development is looking to fund new studies aimed at improving outcomes for amputees and prosthetics users. The solicitation, sponsored jointly by the Rehabilitation and Health Services research services, comes partly in response to the increasing incidence of limb loss among troops serving in Iraq and Afghanistan. Due to advances in body armor and battlefield first aid, many soldiers who would otherwise have been killed in action are surviving, albeit with severe injury to their extremities.

Among the priority areas the solicitation is seeking to address:

- comparing the cost-effectiveness of different prostheses;
- analyzing how veterans use their prostheses for daily activities;
- studying disorders and risk factors that lead to amputation;
- examining psychosocial factors relating to amputation;
- identifying barriers for amputees reintegrating into military or civilian life;
- developing and evaluating rehabilitation methods.

The full solicitation is posted on the VA research website at www.va.gov. For additional questions contact Denise Burton, PhD, at (202) 254-0268 or denise.burton@hq.med.va.gov. ■

Study urges more discreet use of cancer tests for older women in poor health

Elderly women in very poor health for whom the risks of Pap smears and mammograms outweigh the potential benefits are being screened at rates equal to those of healthier women, according to a study by researchers at the San Francisco VA Medical Center and the University of California, San Francisco.

The study, published in the May 4 *Annals of Internal Medicine*, analyzed data from 4,792 women age 70 and older who took part in the 2001 California Health Interview Survey. The women had rated their overall health and functioning, and indicated whether they had had a recent Pap smear, to screen for cervical cancer, or mammogram, to screen for breast cancer. The rates overall were high: Among all respondents, 78 percent reported a recent screening mammography and 77 percent a recent Pap smear. But women who reported the poorest health were just as likely to have been screened as those in the best health. More than half of women age 80 and older in the worst health quartile reported recent screening, representing 81,000 mammograms and 35,000 Pap smears.

“The good news is that the rates of screening mammography and Pap smears have really increased in healthy older women,” said lead author Louise C. Walter, MD. “The problem is that there is still a population of very healthy older women who are not being screened who should be. And there’s a population of very sick elderly women who are getting screened when they shouldn’t be.”

Walter said that screening women who have life expectancies of only five years or less may result in identifying and treating disease that is clinically insignificant, and may cause unnecessary psychological distress.

“You have to balance the potential risk of developing a symptomatic cancer versus the risk of having side effects from the procedure,” she added.

The study also found that of the 1,994 women who had undergone a hysterectomy, 39 percent reported a recent Pap smear.

“The majority of these women don’t have a cervix anymore,” noted Walter. “These women should have been informed that without a cervix they were not at risk for cervical cancer, and so did not need the test.” ■

LUTEIN (cont. from pg. 1)

group took lutein plus a supplement containing vitamins, antioxidants and minerals, such as beta carotene and vitamins A and C. The third group took a placebo.

After a year, patients in the two supplement groups showed marked improvements in visual acuity. The lutein group was able to read an average of 5.4 additional letters on a Snellen eye chart, and the lutein/antioxidants group added 3.5 letters.

In other outcome measures—macula pigment optical density, glare recovery and contrast sensitivity—both groups showed 30 to 40 percent improvements, with the lutein-plus-antioxidants group slightly ahead. The placebo group showed no improvements.

ARMD is the leading cause of vision loss among older Americans, especially Caucasians. The macula is a tiny area at the back of the eye containing millions of light-sensing cells. In dry ARMD, these cells break down, leading to blurred vision.

One in 10 cases progresses to wet ARMD, in which blood and fluid leak under the macula. Wet ARMD is more serious, accounting for 90 percent of the blindness from the disease. It can often be treated with laser surgery.

The National Eye Institute’s Age-Related Eye Disease Study, which followed 3,640 older adults an average of six years, found a regimen of high-dose zinc, beta-carotene and vitamins C and E effective for reducing the risk of ARMD or slowing its progression. But researchers on that study did not observe any actual improvements in symptoms.

Richer received research support from the manufacturer of the lutein supplement used in the study. ■

VA Research Currents
is published monthly for the
Office of Research and Development
of the Dept. of Veterans Affairs
by VA R&D Communications
103 S. Gay St., Rm. 517
Baltimore, MD 21202
(410) 962-1800, ext. 223
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Positions posted on VA research website

Among the features on the newly expanded VA research website (www.va.gov/resdev) are postings of research positions available nationwide at VA medical centers. As of May 13, there were 18 openings listed, including investigator and administrative positions.

VA cooperative study finds open surgery better for most hernias

Laparoscopic fixes more likely to fail, especially in hands of newer surgeons

A cooperative study of nearly 1,700 hernia-repair operations found fewer recurrences and complications overall with open surgery than with laparoscopic surgery. The study was presented April 25 at the spring meeting of the American College of Surgeons and published April 29 in the *New England Journal of Medicine*.

The researchers analyzed 834 open and 862 laparoscopic surgeries performed at 14 VA medical centers between 1999 and 2001 to repair inguinal, or groin, hernias, the most common type.

In two years of follow-up, the laparoscopic group had a 10-percent recurrence rate and 39-percent complication rate, compared to about 5 percent and 33 percent for the open-surgery group. The laparoscopic patients were more active and had less pain in the two weeks after the operation, but these factors leveled off for the two groups within three months.

“Based on these findings, we’d recommend that men with a hernia that has never been repaired before should

undergo an open repair,” said study leader Leigh Neumayer, MD, of the Salt Lake City VA Medical Center and University of Utah. She noted that for recurrent hernias—which account for about 10 percent of groin hernias—the numbers in the study were too small to make recommendations.

Laparoscopic surgery uses pencil-thin tubes fitted with cutting tools and miniature cameras that enable the surgeon to see inside the abdomen or pelvis. The procedure uses a few tiny cuts; open surgery requires a single incision a few inches long. Laparoscopy is a more intricate procedure but is associated with less pain and faster recovery for patients. Today it is widely used for gallbladder repair and some other operations. But it has not become the overwhelming procedure of choice for hernias.

“This may be because open hernia repair is a common procedure with excellent results that is already done on an outpatient basis without many complications,” said Neumayer.

In the study, surgeons’ experience

mattered most when it came to laparoscopy. For the 20 surgeons in the study who reported having done more than 250 laparoscopic repairs, the recurrence rate was below 5 percent—similar to the rate for open repairs. However, the figure was consistently above 10 percent for the 58 laparoscopic surgeons who reported less experience with the procedure. Open surgery was far less experience-dependent.

Based on this finding, Neumayer said patients seeking laparoscopic repair might be well advised to visit a specialized hernia center staffed by surgeons highly experienced in the technique.

About 700,000 Americans each year undergo repair of an inguinal hernia, making it one of the most common surgeries. In the VA health system, about 10,000 hernia repairs are performed each year.

With either open or laparoscopic surgery, doctors nowadays use a plastic “tension-free” mesh instead of sutures to patch the abdominal wall. One plus of laparoscopy is that it allows the surgeon to place the mesh on the inside of the abdominal wall, where it can be held in place by the natural outward pressure of the abdomen.

Laparoscopy also enables the surgeon to check for hernias elsewhere in the abdomen. But the procedure, unlike open surgery, requires general anesthesia—and therefore carries a greater risk of serious complications during surgery. With either method, most patients go home after a few hours. ■

Nominations sought for AMSUS awards

The Association of Military Surgeons of the United States (AMSUS) is seeking nominations for its annual awards competition, intended to recognize outstanding service and accomplishments by federal health care practitioners.

VA employees are eligible to win 21 of the 22 AMSUS awards. A special effort is under way this year to ensure that VA staff win their fair share of the awards, alongside health-care providers from the Navy, Army, Air Force and Public Health Service.

An Intranet site is available to VA employees that offers samples of past award-winning submissions and tips on preparing nominations: <http://vawww.vhaco.va.gov/performanceawards/Amsus.htm>. For more information contact Nancy Thompson, associate director of VA’s Office of Special Projects, at (202) 745-2200 or nancy.thompson@med.va.gov.

Career milestones

George Sachs, MD, a staff physician and researcher at the Greater Los Angeles VA Health Care System, is one of five winners of the 2004 Gairdner Foundation International Awards, honoring major contributions to improving clinical care. Sachs is recognized as a bench-to-bedside clinician whose work has led to more effective treatments for peptic ulcer disease, gastroesophageal reflux disease, and esophageal and gastric cancer.

Merrill Benson, MD, of the Roudebush VA Medical Center in Indianapolis, received the first Pasteur-Weizmann/Servier International Prize in Biomedical Research at an awards ceremony in Paris. The award, which comes with 150,000 euros (roughly \$180,000), will be presented every three years to a researcher whose discoveries have led to a therapeutic application. Benson has discovered protein mutations that lead to the amyloid deposits associated with Alzheimer's and other diseases.

Gerald F. Di Bona, MD, will deliver the Walter B. Cannon Lecture at the 2005 Experimental Biology meeting. Di Bona, chief of medical services at the Iowa City VAMC, is a past recipient of the Novartis Award and VA's Middleton Award. His work on neural control of renal function has challenged the long-held view that high blood pressure causes kidney disorders. His findings suggest, rather, that increased nerve activity to the kidneys limits their ability to excrete salt and water, resulting in hypertension.

Malak Kotb, PhD, Memphis, was named Researcher of the Year by the Tennessee chapter of the American Diabetes Association. Her work in transplant immunology has led to improved recovery and survival of transplanted human islet cells, an important treatment for type 1 diabetes.

Michael L. Boninger, MD, Pittsburgh, medical director of the Human Engineering Research Laboratories, was recognized for Outstanding Achievement in Clinical Research by VA's Stars and Stripes Healthcare Network. Boninger's research focuses

on biomechanics and spinal cord injury, and secondary injuries from wheelchair propulsion.

Douglas P. Zipes, MD, chief of cardiology at the Roudebush VA Medical Center, received the 2004 Cor Vitae "Heart of Life" Award from the American Heart Association in recognition of his work to increase understanding of heartbeat abnormalities that cause sudden death.

Charles J. Robinson, DSc, of the Overton Brooks VAMC in Shreveport, La., was inducted as an academician in the World Academy of Biomedical Technology of United Nations Educational, Scientific and Cultural Organization (UNESCO). Robinson studies the effects of age and diabetes on posture control and balance.

David E. Krummen, MD, San Diego, received a 2004 Adult Cardiology Research Fellowship from the American College of Cardiology and Merck. Krummen and a colleague have developed a computer program to help distinguish between arrhythmias that look alike by electrocardiogram but require different treatments. ■

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