Antioxidant-rich diets reduce brain damage from stroke in rats

NIH, VA, USF Collaborate
By Anne DeLotto Baier

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And if that’s not reason enough, a new study suggests antioxidant-rich fruits and vegetables may limit brain damage from stroke and other neurological disorders. The study, conducted by researchers at the USF College of Medicine, James A. Haley Veterans’ Hospital and the National Institute on Drug Abuse, is posted online in the May 2005 issue of the journal Experimental Neurology.

USF/VA neuroscientist Paula Bickford, PhD, and colleagues found that rats fed diets preventatively enriched with blueberries, spinach or spirulina experienced less brain cell loss and improved recovery of movement following a stroke. Yun Wang, PhD, of NIDA, was lead author of the study.

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“I was amazed at the extent of neuroprotection these antioxidant-rich diets provided,” said Dr. Bickford, a researcher at the USF Center for Aging and Brain Repair and James A. Haley Veterans’ Hospital. “The size of the stroke was 50 to 75 percent less in rats treated with diets supplemented with blueberries, spinach or spirulina before the stroke.”

Antioxidant and anti-inflammatory substances in these fruits and vegetables may somehow reduce the nerve cell injury and death triggered by a stroke, the researchers suggest. “The clinical implication is that increasing fruit and vegetable consumption may make a difference in the severity of a stroke,” Dr. Bickford said. “It could be a readily available, inexpensive and relatively safe way to benefit stroke patients.”

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Promising Alzheimer’s drug

Dr. Eric Pfeiffer co-authors NEJM study

Benefits from the nation’s most widely prescribed Alzheimer’s drug, Aricept, help delay onset of the disease – but not for long, a major study released in the April 13 New England Journal of Medicine reports.

The USF Suncoast Gerontology Center was one of 69 Alzheimer’s research centers that conducted the national cooperative study.

“The study shows we’re able to stop progression of Alzheimer’s disease for a limited period of time … not forever, but a measurable and important period of time,” Eric Pfeiffer, MD, director of the Suncoast Gerontology Center and one of the study authors, told the St. Petersburg Times.

Patients with mild cognitive impairment had a lower rate of progression to Alzheimer’s during the first year of treatment with Aricept, but the medication did not help after three years, the study concluded. The researchers also determined vitamin E does not slow a patient’s decline from initial symptoms of memory loss to Alzheimer’s.

USF neuroscientists Huntington Potter, PhD, and Paula Bickford, PhD, also weighed in on the study’s significance in a story posted on the American Association for the Advancement of Science’s website Science Now.
Following Terri Schiavo’s death March 31, Jay Wolfson, DrPH, JD, distinguished professor of public health and medicine, conducted a full day of interviews with local and national media outlets, including CNN’s Larry King Live, MSNBC’s Countdown with Keith Oberman, CNN’s Anderson Cooper Show, Fox Network News’ Hannity and Colmes, ABC Action News Ch. 28, News Channel 8, the Associated Press, the Chicago Tribune, the Palm Beach Post, and others. Dr. Wolfson, who served as Mrs. Schiavo’s independent guardian ad litem in 2003, discussed her legacy, the role of the legal system in the case and the importance of living wills.

Leon Prockop, MD, professor of neurology, commented on the Terri Schiavo case on Fox News Network’s “Greta Van Susteren.”

H. Worth Boyce, MD, director of the Swallowing Disorders Center, commented on the differences in feeding tubes March 30 for ABC Action News Ch. 28.

Robert Walker, MD, director of Medical Ethics and Humanities, wrote a commentary about what doctors must consider before ending a medical intervention for the March 29 Tampa Tribune.

Amyn Rojiani, MD, neuropathologist at USF and Moffitt Cancer Center, discussed what an autopsy can reveal about brain damage March 31 on Bay News 9, April 2 on WB-38 News Central, and April 3 on WQYK Radio’s Health Journal.

USF names William Haley academic director of Center for Hospice, Palliative Care and End-of-Life Studies

By Anne DeLotto Baier

William E. Haley, PhD, has been appointed academic director of the Center for Hospice, Palliative Care and End-of-Life Studies at USF.

Dr. Haley is professor and director of the USF School of Aging Studies in the College of Arts and Sciences. A clinical psychologist specializing in aging for more than 20 years, he holds joint appointments in medicine and nursing at the Health Sciences Center.

Formally established in 2000, the Center focuses on interdisciplinary research and education to influence and improve end-of-life care for patients and their families. It brings together administrators, researchers and clinicians from four hospices across West Central Florida, H. Lee Moffitt Cancer Center & Research Institute and USF faculty from the Colleges of Medicine, Nursing, Public Health and Arts and Sciences.

“The Center is a great example of the synergy and innovation that can occur when we bring faculty from diverse disciplines and academic departments together with community partners to address complex problems,” said Stephen Klasko, MD, dean of the College of Medicine and vice president of Health Sciences. “I am pleased to name Dr. Haley to lead the Center as it works to translate research into practice and public policy that benefits patients and families facing serious illness.”

“Improving the quality of life for dying patients and their caregivers is one of the major challenges of our time,” Dr. Haley said. “USF’s Center for Hospice, Palliative Care, and End-of-Life Studies continues to gain national attention for its outstanding research and educational efforts. I look forward to being part of the Center’s next phase of growth.”

Dr. Haley chairs the Advisory Council for the USF Collaborative on Aging. He has written or

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New name for clinic

With the clinic’s recent lobby renovations comes a new name. The facility is now called the USF Health Care Center and USF patients and HSC personnel will soon begin seeing signage bearing the new name. The renovated lobby will connect with the new College of Nursing next door, which is progressing and scheduled to be complete in May. Then renovations to the existing nursing school will begin in June and should be finished by December.

USF Diabetes Self-Management Program recently earned the Education Recognition Award from the American Diabetes Association. The designation must be re-applied for every three years.

The team at the USF Diabetes Center includes John Malone, MD, director; Tony Morrison, MD; Joanne Vaccaro-Kish, coordinator of the Diabetes Education and Training; Lois Babione, RD, and Pilar Goldstein, RD, both dieticians; Ann Tanaka, research nurse; Nancy Grove, ARNP, and Ana Warren, CPNP, both nurse practitioners; Ling Chong, research and services coordinator; and Marie Tapia, secretary.

Tampa General Hospital recently received disease-specific certifications for 11 areas of health care from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), the nation’s largest independent organization that monitors the quality and safety of patient care.

TGH is the first hospital in the country to earn the JCAHO Disease-Specific Care Certification, which was started in 2002. “This is huge,” said Stephen K. Klasko, MD, MBA, vice president for USF Health Sciences and dean of the USF College of Medicine. “This shows how our academic and clinical partnership achieves a tremendous level of national recognition.”

Of the 11 areas, each receiving the JCAHO disease-specific care certification called a Gold Seal of Approval, eight are directed by USF faculty members.

USF FACULTY DIRECTORS:
Bariatric Services:
Michel Murr, MD
Burn:
Wayne Cruse, MD
Epilepsy:
Selim Benbadis, MD
Heart Transplant:
Mark Weston, MD
Sleep Disorders:
McDowell Anderson, MD
Stroke:
Michael Hoffmann, MD
Surgical Digestive Diseases and Gastrointestinal Cancers:
Alexander Rosemurgy, MD
Trauma:
Lewis Flint, MD

Other areas at TGH earning the Gold Seal of Approval are Complex Orthopaedic Services, Liver Transplant, and Orthopaedic Joint Replacement.
Antioxidant-rich diets

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The researchers studied four groups of rats, all fed equal amounts of food for one month. One group was fed rat chow supplemented with blueberries, a second group chow with spinach, and the third chow with spirulina. The control (untreated) group ate chow only. After four weeks, an ischemic stroke with reperfusion was induced in the rats. An ischemic stroke occurs when a blood clot cuts off the oxygen supply to the brain like the kink in a hose cuts off water flow. Then, later, the clot is released and blood flow returns, which is known as reperfusion.

The size of the stroke in the rats fed blueberry or spinach supplements was half that seen in the brains of untreated rats. Rats fed spirulina-enriched diets had stroke lesions 75 percent smaller than their untreated counterparts. In addition, rats pretreated with the blueberry, spinach or spirulina diets showed greater increases in poststroke movement than the control group.

All the supplemented diets were rich in antioxidants, which scientists say may counteract the burst of free radicals involved in the cascade of brain cell death triggered by an ischemic stroke. An excess of free radicals can damage cellular lipids, proteins and DNA.

The supplemented diets also contained anti-inflammatory substances that may help reduce inflammation-induced injury following a stroke, Dr. Bickford said.

When a stroke occurs, immune cells in the brain mount an inflammatory response – rushing to the site of injury to clear away the dead and dying cells. As a result, nearby healthy nerve cells may suffer collateral damage much the same way firefighters breaking into an apartment to put out a fire in one room may inadvertently cause damage to other rooms.

Dr. Bickford’s team is investigating whether rats treated with antioxidant-rich diets following strokes will experience improved recovery. The researchers also plan to study whether combinations of the diets might provide even greater protection against stroke damage than one diet alone.

The study was supported by grants from the National Institute on Drug Abuse and the Veterans Administration.

Herman Friedman, PhD, USF Distinguished Professor in the Department of Medical Microbiology and Immunology, has received this year’s Professional Recognition Award from the American Board of Medical Microbiology (ABMM) and the American Board of Medical Laboratory Immunology (ABMLI). The award was presented by the American Academy of Microbiology (ASM).

The award recognizes Dr. Friedman’s outstanding 44-year career helping to advance the fields of microbiology and immunology, including substantial contributions to the development of laboratory immunology. His research has explored the effects of microorganisms, including bacteria, viruses and fungi, on the immune system. He has also examined the effects of environmental substances and psychoactive drugs, including drugs of abuse such as marijuana, on the immune system.

Dr. Friedman served on several National Institutes of Health study sections, Food and Drug Administration panels, and as a consultant to the Centers for Disease Control and Prevention. The ABMM/ABMLI Professional Recognition Award is the latest in a series of prestigious awards garnered by Dr. Friedman, including the Abbott Award for Clinical and Diagnostic Immunology, the Becton-Dickinson Outstanding Microbiology Award and the ASM Distinguished Service Award. His teaching career has included visiting professor appointments in Israel, China, Peru and Japan.

Physician and pianist looks at the world of Gershwin

Richard Kogan, MD, a psychiatrist and concert pianist, will share the role of personality in the creativity of George Gershwin at 6 p.m., May 11, at Tampa Theatre, 711 N. Franklin St. in downtown Tampa.

The free event, called Medicine and Music: the Mind and Life of George Gershwin, is sponsored by the USF Health Sciences Center and Tampa General Hospital. For reservations, call (813) 974-4296.

You can make campaign a success

The 2005 Faculty/Staff Charitable Campaign is running strong with more than 150 faculty and staff members contributing more than $85,000 so far. But more is needed. The HSC goal this year is $239,500. Priority in each college is scholarships, but you may direct your gift to any area of the University, from AHEC to zoology. Campaign representatives are Dr. Peter Gorski (COPH); Dr. Joan Gregory (CON), and Dr. John Sinnott and Dr. Steven Spector (COM).

For more information or to make an online contribution, go to www.usf.edu/fscc or call Laura Waddel at (813) 974-4812.

Dr. Lynn Wecker co-edits pharmacology text

Lynn Wecker, PhD, distinguished research professor and chairperson of the USF Department of Pharmacology, recently co-edited the fourth edition of Brody’s Human Pharmacology: Molecular to Clinical (Elsevier Saunders). The textbook is used by second-year medical students taking pharmacology courses.

William Haley

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edited more than 100 publications, focusing primarily on how aging adults and their families cope with chronic illnesses including cancer, Alzheimer’s disease, stroke and arthritis. He is associate editor of the journal Psychology and Aging, and an editorial board member for several leading gerontology journals.

Dr. Haley shares leadership of the Center with community director Kathy Egan, vice president of The Hospice Institute of the Florida Suncoast. Community partners of the Center include The Hospice of the Florida Suncoast, LifePath Hospice and Palliative Care, Inc., Hope Hospice and Palliative Care, Hospice of Southwest Florida and Moffitt Cancer Center.