

Fostering the health and well-being of Veterans through research impacting visual and neurocognitive function

New Project Focus:

Protection of the Brain by Chemical Hypothermia

As a key investigator within the Retinal and Neural Repair section of the CVNR, Dr. Shan Ping Yu and his research lab team are working on a unique treatment of stroke. Stroke, the third leading cause of death in the United States, is a major threat to Veterans' lives. In spite of extensive research, effective clinical therapies for treating acute stroke are very limited and remain unsatisfactory.

It is known that cooling the body and brain can protect our organs and cells against injury caused by decreased blood flow to an area of the body. Unfortunately, physical cooling of the body using ice is neither efficient nor effective, and specialized cooling machines are usually not available for acute stroke patients. To develop a clinically effective and feasible cooling therapy, Dr. Yu and his research team are studying specialized chemicals to cool the body to improve recovery after stroke. These new drugs can enter the brain via the bloodstream, selectively activate a central thermostat receptor called neurotensin (NT) receptor-1, and reduce body and brain temperature.

Dr. Yu and his team have tested these drugs in rodents. The drug reduced the body temperature by 10°F (2-3°C) in about 30 minutes. This treatment not only reduces the death of brain cells, but also shows long-term functional benefits in research animals. Animals with induced stroke or traumatic brain injury receiving drug-induced hypothermia

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Shan Ping Yu, MD, PhD

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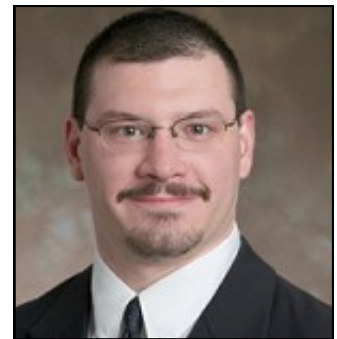
Protecting the Brain *(continued from page 1)*

recover faster and show improved ability to move around, increased blood flow in the brain, and reduced anxiety. In preparation for clinical translation of this promising therapy, Dr. Yu is conducting in-depth experiments to better understand how this therapy works.

Dr. Shan Ping Yu's project, Protection of the Brain by Chemical Hypothermia (B0666R), is funded by a Merit Review grant from the VA Rehabilitation Research and Development (RR&D) Service and also by a grant from the National Institutes of Health (NIH). For more information, please go to <http://www.anesthesiology.emory.edu/research/yu-lab/index.html>

Congratulations Dr. Ben Hampstead!

We wish our colleague Dr. Ben Hampstead farewell and all the best. He joined the CVNR in 2006 as a VA Career Development Awardee (CDA-1) to study methods of improving learning and memory through cognitive rehabilitation in people with mild cognitive impairment and Alzheimer's Disease. His mentors were Krish Sathian, CVNR Director and Professor of Neurology at Emory, and Anthony Stringer, Neuropsychology Director and Professor in Rehabilitation Medicine at Emory.



Ben Hampstead, PhD

Dr. Hampstead's time at the CVNR was highly productive, with a VA CDA-2, Merit and SPiRE awards. He was also PI on a project in the Alzheimer's Disease Research Center at Emory University, and recently was awarded his own NIH grant. He published numerous manuscripts from work at the CVNR and Emory. Dr. Hampstead is still with the VA, at Ann Arbor, and is also Associate Professor of Psychiatry at the University of Michigan.

It has been a pleasure and an honor to work with Dr. Hampstead. We wish him the very best in all his future endeavors!

UPCOMING EVENTS:

FIFTH ANNUAL BETTYE ROSE CONNELL DISTINGUISHED LECTURE

SAVE THE DATE: APRIL 21 & 22, 2015

KEYNOTE SPEAKER: LAURA GITLIN, PHD PROFESSOR, JOHNS HOPKINS SCHOOL OF NURSING; DIRECTOR, CENTER FOR INNOVATIVE CARE IN AGING

For more information on events and other items of interest, please visit our website www.varrd.emory.edu



Participant Perspective: Effects of Exercise Intervention on Aging Related Motor Decline *by Charles Singleton, D.Ed.*



Charles Singleton, D Ed

As my octogenarian, dearly departed father, Clement A. Singleton, Sr. said, "If you can take the pains of life, you will live." So living, as I do, with chronic pain from arthritis and a shoulder injury, I took his sentiment to heart when I made my decision to participate in the Exercise and Motor Training study. With hopes of reducing the often intense pain and increasing the function of my joints, I faithfully accepted the challenge of being in the study. I completed questionnaires and behavioral tests, exercising on a stationary bike, stretching, balancing, strengthening, and hand-dexterity exercises, Transcranial Magnetic Stimulation and Magnetic Resonance Imaging.

With knowledgeable support from Holly Hudson, the Study Coordinator, and Dr. Keith McGregor, the Principal Investigator, I felt positively motivated to exercise and push through the pain and related discomfort. Equally, I was impressed by the lead-by-example attitude and hands-on approach of Dr. McGregor's colleague, Dr. Joe Nocera, and the supportive research team of Kevin Mammino, Kelly McMurray, and Clay Adams. Collectively, their consistent level of enthusiasm, professionalism, and knowledge of exercise were timely and helpful to me.

I strongly feel that the incidental social interaction with other participants during each group exercise session kept me engaged both in mind and body. Afterwards, I was able to move better. I feel that my muscular strength, flexibility, and range of motion were noticeably enhanced. Truly, this is a blessing for a sexagenarian who is striving to become a 100-plus supercentenarian! My personal gains from engaging in this research effort include increased self-awareness, improved physical ability, meaningful interactions, and establishing a daily healthy aging routine. I shall continue to apply Dr. McGregor's words of wisdom, "Use it and renew it."

"...a blessing for a sexagenarian who is trying to become a 100-plus Supercentenarian!"

~Dr. Charles Singleton~

Keith McGregor, Ph.D., is a CVNR Health Science Specialist and an Assistant Professor at Emory University, Department of Neurology. He is the Principal Investigator of Effects of Exercise Intervention on Aging Related Motor Decline (E0596W), a CDA-2 award sponsored by the Rehabilitation Research and Development Service of the Department of Veterans Affairs. For more information about this study, please contact Holly Hudson, at (404) 321-6111, x 7099.



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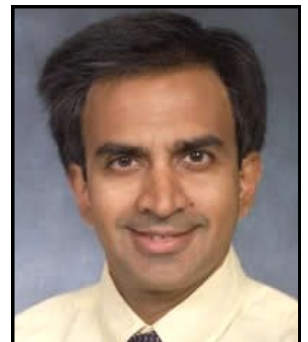
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A Word from Our Director

The CVNR has strong ties with its affiliates at Atlanta-area universities, and is working to build on these ties to collaboratively leverage ongoing research efforts at the universities and at the VA to mutual benefit. We see this as crucial in our quest to scale new heights as we strive to conduct the best research aimed at fostering Veterans' health. With such partnering, we can benefit from the breadth and depth of expertise at our University affiliates, who in turn can benefit from the unique resources of the clinical and research enterprises at the VA.

One example of this kind of collaboration is our partnership with the Alzheimer's Disease Research Center (ADRC) at Emory University, directed by Allan Levey, MD, PhD. A number of CVNR investigators are also affiliated with the Emory ADRC (see feature on Dr. Hampstead in this issue). In 2014, the ADRC and CVNR jointly funded two pilot projects involving investigators from each Center, and we are planning to continue this pilot funding mechanism in 2015 and beyond. The goal of these pilot projects is to capitalize on synergies between our Centers and seed new studies of value to the VA as well as researchers interested in Alzheimer's disease.

Wishing you all the best for 2015!



Krish Sathian, MD, PhD
Executive Director