

# ATLANTA VA REHABILITATION RESEARCH & DEVELOPMENT



WINTER 2020  
CENTER FOR VISUAL AND NEUROCOGNITIVE REHABILITATION

## Research Volunteer of the Year



Joe Nocera, PhD, Charles Singleton, EdD, Holly Hudson, CCRC and Kevin Mammino, CPT, CCRC

The first annual Atlanta VA Health Care System (AVHCS) Research Volunteer of the Year award was presented to Dr. Charles Singleton by Atlanta VAHCS Interim Director Dr. Ajay Dhawan. Dr. Singleton, a Vietnam Veteran and Purple Heart recipient, was nominated by the research team at the CVNR. He is a passionate volunteer who enrolled in the study titled “Age-Related Motor Decline”

with Drs. Keith McGregor and Joe Nocera. Dr. Singleton participated in this six-month research study with tremendous dedication and contagious enthusiasm, motivating his fellow research participants in the process.

In addition to participating in the study, Dr. Singleton volunteers to do research-related activities including writing an article about

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his experience as a research participant for the Center newsletter and making a detailed journal about his experience to share with other Veterans and research participants. The study coordinator, Holly Hudson, noted “Dr. Singleton’s commitment to research is inspiring and makes the work we do here at the CVNR rewarding.”



Dr. Singleton reaches out to other Vets at the Atlanta VA Research Day

Speaking at the Award event, Associate Chief of Staff for Research, Dr. C. Michael Hart, acknowledged that research participants “selflessly and altruistically

give their time, and energy to enable the process of biomedical research. Without volunteers for clinical research studies, the pace of progress and understanding

in treating human disease would be significantly impaired. We are all thankful for and indebted to these volunteers.”

# VA Research Day on the Hill

Atlanta VA and CVNR Researchers, Drs. Mabelle Pardue and April Maa, were selected to participate in the 2nd Annual “VA Research Day on the Hill” on June 20th in Washington DC. These distinguished investigators showcased their innovations in sensory research to Congressional members and their staff. This event, sponsored by the VA Office of Research & Development, recognizes and celebrates research innovations that have led to advances in Veterans’ care and furthered the nation’s understanding of medical research.

For a link to the press release on this event, visit our website at:  
<http://www.varrd.emory.edu/press-releases/>



April Maa, MD, Lina Kubli, PhD, RR&D Scientific Program Officer, & Mabelle Pardue, PhD

# Participant Perspective: Adapted Tango

“I absolutely love to dance. So, when I was offered an opportunity to take part in a study involving dancing, I immediately said “yes”. I didn’t notice it was an “adaptive” dance study - it was dancing! Dancing was a mainstay in our home growing up. The record player was on more than the TV. We ate to music, cleaned to music, studied to music and were always practicing the latest dance craze. I was very concerned how my cognitive and motor skills would be affected as I age. I had seen the effects in my mother who was diagnosed with Dementia; she passed away during my time in this study. It became very important and personal to me to be able to participate.

I quickly learned it was not going to be as easy

as I thought. I learned how my brain reacted to the steps learned in class even after class was over. My movements around the house were unconsciously done to the beat of T-A-N-G-O. It was such a positive thing that made me even more excited for the next class. Being able to add on to what I had learned and then quizzing my brain to remember what was taught at the previous class became front and center. Almost like a puzzle where in each class you got a new piece to add. One of the best things was the camaraderie between all the participants and the teachers/instructors. We really got to know each other as we changed partners and missed each other when not in attendance. The only thing missing, was a graduation T-A-N-G-O dance party!



Madeleine Hackney, PhD, the study’s principal investigator dances alongside Carolyn Hampton

# CVNR Profiles: Cara Motz

Cara Motz is a clinical research coordinator and lab technician for Dr. Mabelle Pardue. One of her current projects, “Dopamine and Diabetic Retinopathy”, aims to detect and treat early stage changes in eyes of Veterans with diabetes with the hope of reversing or preventing vision loss. Cara and the laboratory team use a novel medical device to non-invasively measure the electrical activity of the retina, and then treat their participants with

levodopa, an FDA-approved drug used for Parkinson’s disease, to reverse or delay vision loss.

Cara was born and raised in Atlanta, GA, although she doesn’t speak with a southern accent because she was raised by European parents. Cara received a B.S. in Neuroscience and Behavioral Biology from Emory University in 2016. In her free time she enjoys being active and outdoors, mainly through

taking hikes, playing tennis, and rock climbing. She also enjoys taking pictures.

“Working in VA research, especially with the CVNR, is great because of the strong collaborative effort between labs. This allows us to address and accomplish a greater number of research questions which will ultimately help Veterans and the general population.”





# Ask Monica: Be in the H2O Know

Dear Monica,

I have always stuck to the “8 glasses a day” rule for my hydrating needs, but am finding myself still feeling sluggish throughout the day. Do I need to drink more water now that I am older, and if so how much?

- *Thirsty for Knowledge*

Great question! It’s true, as we age our body’s hydration needs change. There are many reasons for this, including changes in: blood flow, hormones, kidney function, and medications. While 8 glasses of water a day is a good start, it may not be enough to prevent dehydration in older adults. Below you’ll find hydration guidelines and some tips and tricks for increasing your fluid intake.

- Monica

## Hydration Tips & Tricks

### Recommendation:

2.7 liters daily for women and 3.7 for men aged 51 and older.

That’s around 11, 8oz glasses a day for women and 16 for men!

Keep water in reach by carrying a refillable water bottle.

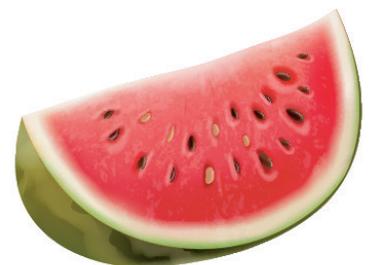
You are getting enough water if your urine is a light yellow, close-to-clear color



Set hydration goals to reach by certain times of the day



Try adding natural flavors to your water, like lemon or cucumber



Snack on foods with a higher water content, such as watermelon, grapefruit, cucumber, and celery

Monica Serra, PhD is a Research Scientist and Registered Dietitian with the Atlanta VA Health Care System. This will be her last column in this newsletter as she has started a new position at the San Antonio VA in June. Congratulations and good luck Monica!

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# New VA Funding

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Madeleine Hackney, PhD received funding for her first VA Rehabilitation Research & Development Merit Award. Dr. Hackney's project "Partnered Dance Aerobic Exercise as a neuroprotective, motor and cognitive intervention in Parkinson's Disease (PD)" will look at how different types of exercise might improve Veteran satisfaction with PD medication. She will also investigate whether partnered dance improves spatial cognition, endurance and mental quality of life.

**Congratulations Dr. Hackney!**



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Amy Rodriguez, PhD, CCC-SLP received funding for her first VA Rehabilitation Research & Development Merit Award entitled "Intention Treatment for Anomia: Investigating Dose Frequency Effects and Predictors of Treatment Response to Improve Efficacy and Clinical Translation". Dr. Rodriguez's research will investigate the optimal intensity and predictors of treatment response for a novel word retrieval treatment for Veterans who suffer from aphasia after stroke. This research will help Veterans with aphasia and their clinicians by providing information that will help guide selection of the treatment approach that will result in the best recovery.

**Congratulations Dr. Rodriguez!**



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Anna Woodbury, MD continues her VA research program with her newly funded VA Rehabilitation Research & Development Career Development 2 Award. The study titled "Randomized Double-Blind Placebo-Controlled Trial: fMRI Assessment of Percutaneous Electrical Neural Field Stimulation for Fibromyalgia in Veterans" will investigate whether percutaneous electrical neural field stimulation (PENFS) works and how it could lead to improvements in pain management, quality of life, reduced dependence on opioids, and the development of new techniques to address and assess pain.

**Congratulations Dr. Woodbury!**



# Investigator Spotlight: Keith McGregor, PhD

Dr. Keith McGregor is a Cognitive Neuroscientist interested in the effects of aging and disease on the motor system. His main interest is in how we can assist the rehabilitation of brain function with the use of non-invasive interventions such as physical exercise and brain stimulation. Dr. McGregor's current VA Merit Award project focuses on using functional magnetic resonance imaging (fMRI) and transcranial magnetic stimulation (TMS) to identify how physical exercise affects brain activity focusing on improvement of motor performance.

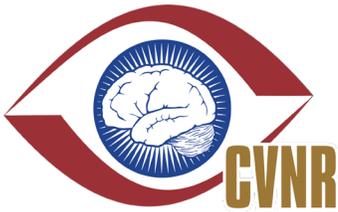
Dr. McGregor completed his doctoral degree at the University of Florida where his dissertation focused on the effects of physical activity in reversing aging-related declines in motor control. Following his degree, Dr. McGregor continued his work in aging-related changes in motor function through two Career Development Awards at the VA. This work has shown that after only 12-weeks of an aerobic exercise regimen, previously sedentary older adults can alter patterns of brain activity in functional magnetic resonance imaging and transcranial magnetic



stimulation to look more like the patterns of younger adults.

Beyond his work in the lab, Dr. McGregor enjoys spending time with his family, woodworking (the chopping part), and playing ultimate frisbee.





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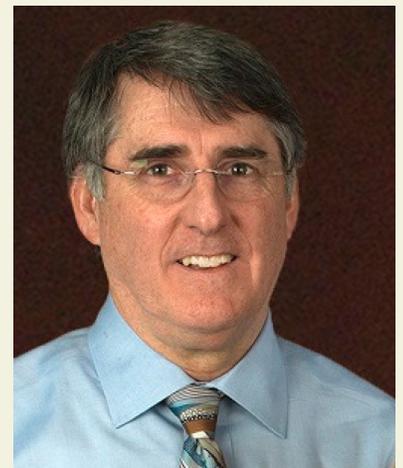
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## A Word from Bruce Crosson, PhD

The recruitment of Dr. A.M. Barrett as Executive Director begins an exciting era for our CVNR that will be marked by dynamic leadership in rehabilitation research. Dr. Barrett is a Cognitive Neurologist and Neurorehabilitationist whose research in Stroke Rehabilitation and experience translating her research into clinical practice will add vital dimensionality to our research programs.

In thinking over the past 2 years, one remarkable CVNR achievement has been its Career Development Program. Our Center currently has 6 Career Development Awards from the VA Rehabilitation Research & Development Service, an outstanding accomplishment by any measure. These awards allow investigators beginning their research careers to receive mentoring from our senior scientists and reflect the CVNR's commitment to training the next generation of VA Rehabilitation Investigators. Hence, we are making a substantial and enduring contribution to the quality of Rehabilitation Services that will be delivered to Veterans.



Bruce Crosson, PhD