CVNR
NEWSLETTER
WINTER/SPRING 2024
CENTER for VISUAL and NEUROCOGNITIVE REHABILITATION

New Funding

The CVNR is excited to announce a newly funded grant aimed at limiting progressive visual loss in Veterans with age-related macular degeneration (AMD). AMD is the leading cause of vision loss among Veterans aged 50 years and older. AMD also adversely affects mortality, physical and cognitive functioning, and activities of daily living. To address the lack of cures or accessible treatments, we will test the impact of a proven exercise intervention on visual, cognitive, and physical outcomes in Veterans with AMD. Our goal is to demonstrate that this is an accessible, low-cost intervention that can be adapted by VA centers across the nation to improve visual and functional capacity for Veterans with AMD who are at high risk for comorbidities.

Emory Healthcare Veterans Program (EHVP) was awarded 3 years of continued funding from Wounded Warrior Project as one of four sites in Warrior Care Network. EHVP will receive a portion of $100 million that funds intensive outpatient programs for post- 9/11 Service members and Veterans provided through the Warrior Care Network. EHVP pro-

VA | U.S. Department of Veterans Affairs
VISN 7 VA Southeast Network

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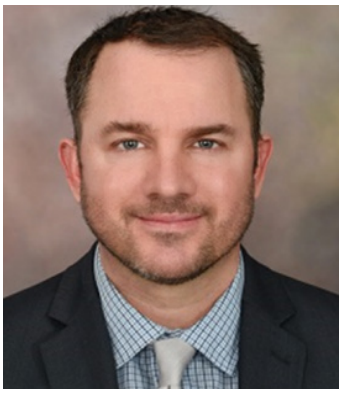
vides innovative and interdisciplinary treatment of the invisible wounds of war through an accelerated holistic program for PTSD and mental health with transformative outcomes empowering Veterans to take back their lives.

A Word From Joe Nocera, PhD

Executive Director



Greetings from the Atlanta VA Center for Visual and Neurocognitive Rehabilitation (CVNR). We are excited to continue to grow in 2024 while we remain committed to our mission to improve the health and quality of life of Veterans with visual or neurocognitive deficits.

The CVNR is honored to announce two new Center investigators, Dr. Michael Dattilo, MD, PhD and Dr. Kevin Wang, PhD. Dr. Dattilo serves as a clinical ophthalmologist at the Atlanta VA's Neuro-Ophthalmology Section and is an Assistant Professor at Emory University. His expertise in glaucoma and other ocular deficits adds necessary clinical perspective to the CVNR's already robust bench research portfolio focusing on eye health. We are also excited to welcome Dr. Kevin Wang, neurotrauma researcher and neuroscientist, to the Atlanta VA. His research interests focus on translational research on biomarkers and new therapies for traumatic brain injury (TBI), spinal cord injury, post-traumatic epilepsy, and chronic traumatic encephalopathy.

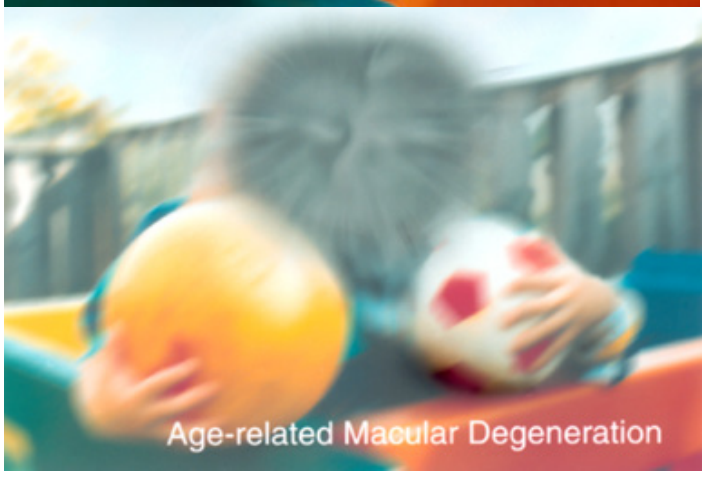
I would like to take a moment to announce additions to our Center's leadership team. Dr. Sheila Rauch and Dr. Andrew Feola have accepted new roles in the CVNR. Dr. Rauch will assume the role of the CVNR's Director of Scientific Programs and Dr. Andrew Feola as the Deputy Director of Scientific Programs. Both roles assist with coordinating the CVNR's internal grant review process, overseeing the CVNR's Scientific seminars, and planning annual strategic meetings for Center PIs to enhance our mission and foster collaborations.

The CVNR is also thrilled to highlight that Dr. Madeleine Hackney was recently selected for RR&D Merit funding for her project entitled "Moderate versus High Volume Light-Moderate Intensity Exercise for People with Moderate Parkinson's Disease." This important research will continue Dr. Hackney's work in using movement and exercise to improve cognition and stability for Veterans with neurodegenerative disease.

On behalf of the CVNR, I would like to personally thank ALL Veterans as well as our research participants who help make our scientific discoveries possible. The CVNR team is excited for the future and looks forward to continuing to serve Veterans.

What is Age-Related Macular Degeneration?

Age-related macular degeneration (AMD) is a major cause of blindness in the world, which primarily causes decreased central vision. There are two types of AMD, called wet and dry. Wet AMD, sometimes called neovascular AMD, is caused by leaky blood vessels that grow under the retina. Wet AMD is less common but typically results in faster loss of vision. Dry AMD, sometimes referred to as atrophic AMD, is caused by deterioration of the central retina. Dry AMD is more common and progresses slowly. It is best to have regular eye exams to help preserve vision as there are no treatments for late-stage dry AMD.



During your eye examination, your eyes will be dilated to allow your eye doctor to look at your retina (the back part of your eye that acts like the film of a camera to detect light). For AMD, they are examining the fovea, which is responsible for your central vision. Your eye doctor may take special pictures of the back of your eye, using optical coherence tomography (OCT), to detect macular degeneration. Based on the stage of your AMD, your doctor may recommend close monitoring or may prescribe treatment to help slow down the progression of your AMD, preserve your vision, and prevent further vision loss.

Are both eyes at risk for AMD?

If you have AMD in one eye, you have a higher risk for AMD in the other eye. Your doctor may closely monitor both eyes to better treat AMD and preserve your vision.

What are risks for AMD?

- Smoking
- High blood pressure
- Family history of AMD
- Ethnicity (e.g., Caucasian descent)

How is AMD treated?

- Dietary supplements
- Exercise
- Oral medications (e.g. AREDS)
- Eye injections (e.g. anti-VEGF)
- Laser treatment

In My Own Words

Exercise study participant, Jennifer Magee, gives positive remarks on joining CVNR research!

"I learned of the research study from an ad in my neighborhood newspaper. When I read about it, I was intrigued by the idea of brain health being linked to exercise because my mother's family was plagued with Alzheimer's. Unfortunately, twelve of thirteen of my aunts and uncles developed the disease, and because of this, I have always been hyper-vigilant about my brain health. I was doing weight training and some walking but knew I was not getting enough cardio, so the idea of cycling was also appealing.

My fiancé is a Vietnam Veteran, my brother is a Coast Guard Veteran, and my dad was a World War II Veteran, so that was another motivation. I love the idea that I can help Veterans, and I look forward to the results of the study helping them get the exercise they need to keep their brains healthy. Whenever I volunteer, I always get more than I give, and this experience was no different. I became more grateful through seeing Veterans at the VA Hospital each time I came. With learning to cycle, I improved my cardio health and my overall endurance. Lastly, I enjoyed meeting all the people involved in the research program who were all so professional and nice!"

Steve Wolf, Ph.D.

Retirement

Congratulations and best wishes to Dr. Steve Wolf in his retirement from the VA. Dr. Wolf, a pioneer in the field of Physical Therapy, joined the CVNR in 1991. During his tenure with the CVNR, he conducted research that improves the lives of Veterans living with motor impairment after stroke and other neurological dis-

ease. As Director of Training at CVNR, Dr. Wolf contributed substantially to the development of CDA's and other early career researchers. He has also served as a formal mentor to CDA's, many who have successfully transitioned to the next stage in their research careers. In his retirement, Dr. Wolf will continue contributing to the CVNR as a member of our Atlanta Advisory Board. An inspired scientist, leader, and mentor, we are grateful to Dr. Wolf for his faithful service to the CVNR and the Veteran community.

Heather Brightharp

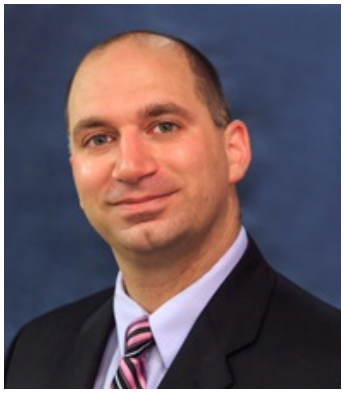
Staff Feature

Heather Brightharp is a program/research specialist working with Dr. Maa. Currently, she is working on the "Eye 911" study, which tests the pilot of tele-ophthalmology protocol for emergency rooms and urgent-care settings. Heather helps with the administrative side of the project, coordinating data transfer between student researchers and the providers and assisting with data analysis, Technology-based Eye Care Services (TECS) implementation, and managing the TECS national program office.

Heather was born and raised in Atlanta, GA. She is not a "Grady Baby" but a "Crawford Long baby". She graduated from Xavier University of Louisiana with a B.S. in Chemistry, Tulane University School of Public Health and Tropical Medicine with a Master of Public Health with a concentration in epidemiology, and is a 2012 graduate of Hampton University with a M.S. in medical science. In her free time Heather enjoys running, crocheting, and other crafts.

Meet Michael Dattilo, M.D.

Newest Investigator



The CVNR's newest investigator, Dr. Michael Dattilo was captivated by research when he began working in an ophthalmology lab during his sophomore year in college, where he studied proteins in the lens and how they are related to cataract formation.

Dr. Dattilo had a strong desire to pursue clin-

ical medicine and became a clinical scientist (MD/PhD) to be involved in translational research projects to bring the "bench to the bedside." Before starting residency, he was a post-doctoral fellow in Dr. William Brunken's laboratory, where he studied the cornea and completed an ophthalmology residency in New York.

He then completed a neuro-ophthalmology fellowship at Emory University before obtaining a research training grant at the Wallace H. Coulter Department of Biomedical Engineering at the Georgia Institute of Technology. His research project investigated the relationship between the behavior of retinal veins and intracranial pressure as a non-invasive way to measure intracranial pressure. This is relevant as elevated intracranial pressure leads to swelling in the back of the eye (papilledema) and visual impairments. Elevated intracranial pressure affects women more than men, and Dr. Dattilo is currently collaborating with CVNR researcher Dr. Andrew Feola to investigate if the properties of the optic nerve sheath differ between women and men and contribute to the risk of developing visual impairments and elevated intracranial pressure.

Dr. Dattilo is also a site PI at the Atlanta VAMC on a multicenter trial studying the role of prism adaptation therapy on Veterans with left-sided hemineglect from right brain strokes. This study will determine if prism adaptation therapy increases the recovery of certain stroke patients and determine the anatomic substrates that facilitate recovery with prism adaptation in strokes.

Aside from his research efforts, Dr. Dattilo sees patients at Emory University Midtown Hospital, Emory University Hospital, and the Atlanta VAMC. He has also participated in multiple clinical trials, including several Leber hereditary optic neuropathy gene therapy trials.

Read more about Dr. Dattilo at https://www.varrd.emory.edu/people/michael-dattilo/

Meet Kevin Wang, Ph.D.

New Investigator

New to the CVNR at the Atlanta VA, Dr. Kevin Wang researches biomarkers and clinical assays of traumatic brain injury (TBI), spinal cord injury, post-traumatic epilepsy, chronic traumatic encephalopathy, and Alzheimer's disease.

Dr. Wang's early interests were in biology and entomology, a closet biochemist who eventually pursued graduate research in neuroscience. In addition to his positions in pharmaceutical and biotechnology companies, he then became a researcher at the Malcom

Randall VA Medical Center's Brain Rehabilitation Research Center (BRRC) in Gainesville, Florida. When collaborator and friend Dr. Adrian Tyndall became Vice President for research and a Dean at Morehouse School of Medicine, he applied to bring his lab from the University of Florida here to Atlanta. He is a professor and vice chair of the Department of Neurobiology and Director of the Center for Neurotrauma, Multiomics & Biomarkers (CNMB) at the Morehouse School of Medicine. He was recently featured as one of the four Atlanta Medical Innovators – Trailblazers in Therapy Development in Atlanta Magazine's January 2023 issue.

He seeks to make an impact on brain health including the recognition and diagnosis of TBI, PTSD, and early-stage neurodegeneration via animal and clinical blood-based biomarkers and assays. His interest in the development of novel technologies, assays, and interfaces – especially minimally invasive approaches, allows him to "do bold research that makes a difference." Recently, he developed an assay that uses dried plasma for sample analysis that are stable at room temperature up to 1 week, allowing for easy finger-prick tests for diagnoses.

Dr. Wang's most impactful research to date began in 2003 through his biotech company which sought to identify biomarkers using a rat model of TBI. He co-discovered two initial proteins detectable in blood, UCHL1 specific to neurons and GFAP indicating activated astrocytes. Both were markers sensitive for detecting mild TBI in patients to indicate the likelihood of brain lesions. Over 20 years, this assay made it through clinical trials and is commercially available to test acute markers of TBI. Now, this research will evolve to identify chronic biomarkers of when someone is converting to neurodegenerative phenotype. This can lead to large molecule drugs for the treatment of TBI.

He says there is still much to explore in Atlanta and in the research community, as "Neuroscience is a promising wide-open field for research and collaborations."

Read more about Dr. Wang at https://www.varrd.emory.edu/people/kevin-wang/

2023 DEI Students

Diversity, Equity, & Inclusion

Cecelia Lofton worked as a research coordinator for Dr. Madeleine Hackney's neurokinesiology lab. While pursuing her Master of Public Health at Emory University's Rollins School of Public Health, Cecelia worked in the Hackney lab conducting qualitative research on caregivers of people with Parkinson's and other neu-

rodegenerative conditions. Cecilia's research interests include health equity, chronic disease management, Medicaid expansion, and legislative advocacy.

Terrell Brown worked as a research associate at the Atlanta VA CVNR under Dr. Anna Woodbury, focusing on alleviating chronic pain in Veterans. Terrell is originally from Surprise, AZ. He attended Arizona State University where he received his Bachelor of Science in medical studies and worked as a research associate for Arizona State University's food policy research lab. Terrell is currently a medical student at Morehouse School of Medicine, and he hopes to continue pursuing research throughout his career. In his free time, he enjoys skateboarding and snowboarding.

Isabella Pizarro is a Master's of Public Health student in the Behavioral, Social, and Health Education Sciences (BSHES) Department at Emory University's Rollins School of Public Health. Her work as research assistant in Dr. Madeleine Hackney's lab includes contributions to projects addressing how physical rehabilitative strategies impact quality of life in older adults. Isabella's other research interests include health equity and curriculum development in health education.

Million Veteran Program Reaches Goal

Veterans Helping Veterans: 1,000,000 Veterans have joined VA's largest health research effort!

The Million Veterans Program contributes discoveries of real-world applications to improve Veteran health care in clinical care settings include mental health, diabetes, heart disease, cancer, tinnitus and more. You can sign up at www.mvp.va.gov or call 866-441-6075 to make an appointment at a participating VA facility. You do not need to receive your care at the VA to participate.

Parkinson's Disease Education Event

The CVNR and Parkinson's Foundation partner to implement a panel discussion on Parkinson's disease

The CVNR Connectivity Core collaborated with the Parkinson's Foundation on an educational event to offer strategies for coping with and talking about Parkinson's disease (PD). This collaboration was initiated by Jerry Feldman, a Veteran member of the CVNR Community Advisory Panel, who identified a need in the community that aligns with the CVNR Connectivity Core Outreach goals.

PD is not always easy to discuss, so this program aimed to provide a group of professionals to answer questions regarding PD health concerns. The event involved a pre-recorded Parkinson's Foundation webinar on managing depression, anxiety, and apathy, followed by two live panel discussions.

Panel members included Jerry Feldman and Mike Bowman (Veterans Living with Parkinson's Disease), and Dr. Marian Evatt (Neurologist of the Atlanta VA Medical Center). The second panel, was made up of CVNR researchers David Morton, Dr. Joe Nocera, and Dr. Camille Vaughan. They discussed the importance of research involvement and their work on exercise-based approaches for improving brain and motor function, as well as techniques for addressing bladder concerns.

The program contained a fitness break led by the Atlanta VA Healthcare System "Gerofit" program manager, Troy Moore, as well as exhibitor booths which offered further resources to Veterans and their care partners. This project achieved the CVNR Connectivity Core mission by fostering the implementation of rehabilitation research findings in patient-centered care, as well as translating and disseminating information to support Veterans' health and quality of life.

Panelists (left to right): Dr. Marian Evatt, Mike Bowman, and Jerry Feldman

View the Panel Discussions on the CVNR Website!
www.varrd.emory.edu/presentations

CVNR Sleep Challenge

Supporting Veterans with PTSD who are struggling with insomnia

Insomnia, trouble falling and/or staying asleep, is one of the most troubling aspects of post-traumatic stress disorder (PTSD), because deprivation of sleep at night can make dealing with traumatic memories during the day more problematic. PTSD is more common among Veterans than civilians due to higher exposure to traumatic experiences.

In support of Veterans with PTSD, the CVNR hosted a 60-Day Sleep Challenge from Friday, January 5th 2024 through Tuesday, March 5th, 2024 in recognition the of hurdles our Veterans with PTSD must navigate to find healthier sleep.

The CVNR staff participants aimed to achieve a sleep goal of either the recommended 7 to 9 hours per night, or a self-determined goal that represented an increase in number of hours of sleep per night. Participants received weekly check-in emails that included facts on healthy sleep practices and insomnia. The challenge also served to spotlight the NAP Study, an ongoing CVNR affiliate research study to find out if common medicines can improve insomnia in Veterans with PTSD.

Trouble falling asleep? Try some of these relaxation methods

Source: ***veteranshealthlibrary.va.gov***

Guided Imagery

1. Begin by breathing slowly and deeply.
2. Focus on an image that helps you feel relaxed, such as a favorite vacation spot.
3. Use all your senses to imagine how that image looks, sounds, and feels.

Breathing Exercises

1. Focus on slowing your breathing.
2. Count how many seconds it takes to inhale.
3. Exhale for the same number of seconds.
4. Place one hand on your stomach and feel your stomach expand and relax as you breathe in and out.

Progressive Muscle Relaxation

1. Lie down in a comfortable position and close your eyes.
2. Tense your facial muscles for 2 seconds and breathe.
3. Relax your muscles.
4. Repeat steps with each muscle group, working your way down to your feet.

CVNR Has Strong Representation at ACRM Conference

The American Congress of Rehabilitation Medicine (ACRM) is a worldwide, interdisciplinary rehabilitation research organization with a mission to improve the lives of those with disabilities. Each year, ACRM holds the largest interdisciplinary rehabilitation research conference in the world with content for chronic disabling conditions such as: brain injury, spinal cord Injury, stroke, neurodegenerative diseases, pain, cancer, neuroplasticity and more.

October of 2023 saw the CVNR buzzing with activity in preparation for the conference. The goal was to present research aimed at improving the health and quality of life of Veterans with visual or neurocognitive deficits, and this goal was achieved through a wide range of topics including the rehabilitative applications of dance and rhythm therapies as well as the widespread clinical impact of exercise on health and wellbeing.

Chanse Denmon (left) and Mark Vernon (right) managing the CVNR booth

The center was phenomenally well-represented across speakers and scheduled events through our hosting of an education training session, four oral presentations, two symposium presentations, and six poster presentations. In addition to the center's research presentations, a huge portion of staff across all the different labs devoted their efforts to managing a CVNR booth at the event, providing additional information to attendees, other labs, and facilities interested in our work.

CVNR
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Neurocognitive Rehabilitation

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Thank you for making every discovery possible.

To learn about participating in research please contact us!
(404) 728-5064
CVNR.Registry@va.gov

CVNR Participant Registry Enrollment Since August 2023

CVNR Active Studies

Study Name	Inclusion/Eligibility	Contact Info
Brain Studies		
rTMS in Alleviating Pain and Co-morbid Symptoms in Gulf War Veterans	• Age 65 and younger • Served in the Gulf War in 1990-1991 • Have headaches, muscle and joint pain • Moderate to severe depression	Carly Ragin 678-408-1433
Intention Treatment for Anomia: Investigating Dose Frequency Effects and Predictors of Treatment Response to Improve Efficacy and Clinical Translation	• Have aphasia caused by stroke • Be 21-89 years old	Anna Ree 404-321-6111 ext. 202561
*(Affiliate) Multimodal Neuroimaging: Advanced Tracking of Longitudinal Aphasia Recovery	• Male or female age (18-89) who are 2-6 weeks post ischemic stroke • English primary language • Subjects must be willing to participate and understand the consent	Coordinator 404-321-6111 ext. 207507
*(Affiliate) National Adaptive Trial for PTSD related Insomnia (NAP)	• Age 18-75 • PTSD related to military service • Insomnia	Anil Varughese 404-321-6111 ext. 205068
Exercise Studies		
Enhanced Home-Based Exercise Therapy for Peripheral Arterial Disease through Mobile Health and Remote Monitoring: The Smart MOVE Study	• Confirmed peripheral artery disease (PAD) with symptoms (leg pain) • Willingness to participate in a structured exercise/walking program • Owns a smart phone with a data plan or access to Wi-Fi	Coordinator 404-321-6111 ext. 202770
The Active AMD Study to Improve Function in Veterans with Age Related Macular Degeneration	• No regular exercise participation in last 6 months • Physician approval to participate in exercise	Medina Bello 404-825-8820
Partnered Dance Aerobic Exercise as a Neuroprotective, Motor & Cognitive Intervention in Parkinson's Disease	• Parkinson's Disease • Age 40-89	Cathleen Carroll-Sauer 404-436-1536
Vision Studies		
Treating Early Stage Diabetic Retinopathy	• Age 30-80 • Diabetes with no detectable vision loss • Diabetes with first stages of diabetic retinopathy (i.e., microaneurysms)	Caleigh A. Cullinan 404.321.6111 ext. 201863
Registry		
Atlanta VA Rehab R&D Center for Visual and Neurocognitive Rehabilitation Participant Registry	• 18 and older	404-728-5064