

# RESEARCH UPDATE

FALL 2016

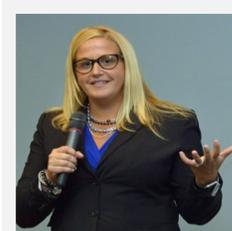


## A Note from the Associate Chief of Staff, Research

We celebrated 91 years of research excellence at the VA at our annual Research Week in May. The week culminated with VA investigators sharing their work with over 50 posters. Drs. Hank Wu and Tracey Taveira presented the Keynote talk “Epidemiological and Health Services Research to Improve Heart Failure Outcomes.” The event was attended by our congressional delegation and PVAMC leadership.

Our team at PVAMC is currently working on over 250 research projects. These studies all work towards our mission of advancing the healthcare of Veterans. In this newsletter issue, we highlight Dr. Tracie Shea’s studies related to the treatment of trauma related anger in OEF/OIF/OND Veterans.

We thank our Veteran volunteers for their continued participation in our research to help us understand and discover new treatments for diseases and disabilities that affect all of our nation’s Veterans.



## A Multidisciplinary Approach to Making and Tracking Changes in Trauma Related Anger (TOTRA STUDY)

Poorly controlled anger is a common problem with often devastating effects in Veterans who have served in a war zone. Adverse consequences include: increased risk for divorce, domestic violence, job loss and instability, and other serious impairments in family, social and occupational functioning. Despite encouraging evidence for efficacy of cognitive behavioral interventions in treating anger in civilian samples, much less is known about the efficacy of such treatments for anger problems in military personnel following exposure to war zone trauma.

Tracie Shea, PhD, is conducting a study to compare and examine the effectiveness of two different types of therapy on trauma-related anger. OEF/OIF/OND Veterans who enroll in the study are randomized to receive 12 individual sessions of one of two study conditions (or therapies). Study outcomes include measures of anger and aggression; interpersonal, social and occupational functioning, and quality of life.

There are also two optional components of this study:

- 1) Co-investigator, Noah S. Philip, MD, is examining the changes in the brain before and after the treatment. Participants have the option of having a pre and post treatment MRI.
- 2) Co-investigator, Samuel Ridout, MD, PhD is examining heart and blood vessel function and changes before and after treatment. Pre- and post-treatment cardiac measures (including Doppler ultrasound) will be performed.

**If you are interested in learning more about the TOTRA study, please contact: Elizabeth (Mimi) Sevin, Project Coordinator X6280**

# Highlight of Some Active Research Projects at the PVAMC

Subject of Research	Title of Study	Treatment	Contact Person
ALS	Feasibility of the BrainGate System for Veterans with ALS - Leigh Hochberg, MD, PhD		X6221 Marguerite Bowker
Cardiology/Memory	The Effects of Inspiratory Muscle Training on Cognition and Functional Capacity in Older Adults with Heart Failure - Steve Correia, MD		X2173 Steve Correia, PhD
Healthy Controls	PTSD and the Default Network: Developing Imaging Phenotypes - Noah S. Philip, MD		X6200 Causey Dunlap
Mental Health—Guilt	Trauma Informed Guilt Reduction (TrIGR) Intervention - Christy Capone, PhD	Y	X6176 Emily Derby
Mild TBI	White Matter Integrity & Sleep Complaints in Mild Traumatic Brain Injury - Steve Correia, PhD		X2173 Steve Correia, PhD
Mild TBI	Treating the Chronic Effects of Mild Traumatic Brain Injuries in Veterans - William Curt LaFrance, MD	Y	X6221 Marguerite Bowker
MRI	MRI Reliability, Calibration, and Validity - Steve Correia, MD		X2173 Steve Correia, PhD
Public Health	Million Veteran Program (MVP) - Genes and Health (National Study) -Satish Sharma		X4528 Leanne Snead
PTSD	Transcranial Direct Current Stimulation-Augmentation of Virtual Reality Exposure for PTSD: A Feasibility Pilot Study - Mascha Frank (van't Wout), PhD		X4328 Victoria Larson
PTSD	Comparative Effectiveness of Two Treatments for Veterans with PTSD - Tracie Shea, PhD	Y	X 6251 Shauna Finley
PTSD/Depression	Synchronized TMS for Posttraumatic Stress Disorder and Comorbid Depressive Symptoms - Noah S. Philip, MD	Y	X6254 Emily Aiken
PTSD/Neurological	Theta Burst Neuromodulation for Chronic PTSD - Noah S. Philip, MD	Y	X6200 Causey Dunlap X6254 Emily Aiken
Seizures	Veterans with Seizures - William Curt LaFrance, MD	Y	X6221 Marguerite Bowker
Suicide Prevention	Veterans Coping Long-term with Active Suicide Program (CLASP) - Jennifer Primack, PhD	Y	X6243 Matt Thompson

## A Selection of Recent PVAMC Research Publications

[Barredo J, Acluche F, Disla R, Fantini C, Fishelis L, Sasson N, Resnik L. Appropriateness of advanced upper limb prosthesis prescription for a patient with cognitive impairment: a case report. Disabil Rehabil Assist Technol. 2016 Jul 19;1-10. \[Epub ahead of print\] PubMed PMID: 27434169.](#)

[Barredo J, Verstynen TD, Badre D. Organization of cortico-cortical pathways supporting memory retrieval across subregions of the left ventrolateral prefrontalcortex. J Neurophysiol. 2016 Jun 8;jn.00157.2016. doi: 10.1152/jn.00157.2016. \[Epub ahead of print\] PubMed PMID: 27281745.](#)

[Bautista CA, Park HJ, Mazur CM, Aaron RK, Bilgen B. Effects of Chondroitinase ABC-Mediated Proteoglycan Digestion on Decellularization and Recellularization of Articular Cartilage. PLoS One. 2016 Jul 8;11\(7\):e0158976. doi: 10.1371/journal.pone.0158976. eCollection , 2016. PMID: 27391810](#)

[Contractor AA, Pousseau C, Capone C, Reddy MK, Shea MT. The moderating role of dysphoria in the relationship between intrusions and alcohol use. Addictive Behaviors. 2016: 5-14](#)

[Hancock L, Correia S, Ahern D, Barredo J, Resnik L. Cognitive predictors of skilled performance with an advanced upper limb multifunction prosthesis: a preliminary analysis. Disabil Rehabil Assist Technol. 2016 Apr 6:1-8. \[Epub ahead of print\] PubMed PMID: 27049235.](#)

[Mitchell MA, Contractor AA, Dranger P, Shea MT. Unique relations between counterfactual thinking and DSM-5 PTSD symptom clusters. Psychological Trauma: Theory, Research, and Practice. 2016; 8:293-300.](#)

[Philip NS, Dunner DL, Dowd SM, Aaronson ST, Brock DG, Carpenter LL, Demitrack MA, Hovav S, Janicak PG, and George MS. Can Medication Free Treatment-Resistant, Depressed Patients Who Initially Respond to TMS Be Maintained Off Medications? A Prospective, 12-Month Multisite Randomized Pilot Study. Brain Stimul. 2016 Mar-Apr;9\(2\):251-7. Epub 2015 Nov 25.](#)

[Philip NS, Carpenter SL, Sweet LH, Tyrka AR, Almeida G, Price LH and Carpenter LL. Early Life Stress Predicts Thalamic Hyperconnectivity: a Transdiagnostic Study of Global Connectivity. Journal of Psychiatric Research 2016 Aug;79:93-100. doi: 10.1016/j.jpsychires.2016.05.003. Epub 2016 May 13.](#)

[Philip NS, Ridout SJ, Albright SE, Sanchez G, Carpenter LL. 5 Hz transcranial magnetic stimulation for the treatment of comorbid posttraumatic stress disorder and major depression. Journal of Traumatic Stress. 2016 Feb;29\(1\):93-6. doi: 10.1002/jts.22065. Epub 2016 Jan 7.](#)

[van't Wout, M., Mariano, T. Y., Garnaat, S. L., Reddy, M. K., Rasmussen, S. A., & Greenberg, B. D. \(2016\). Can Transcranial Direct Current Stimulation Augment Extinction of Conditioned Fear?. Brain stimulation. 2016 Jul-Aug;9\(4\):529-36.](#)

**For more information regarding the Research Service at Providence VAMC, please visit:**

[http://www.providence.va.gov/research/research\\_service.asp](http://www.providence.va.gov/research/research_service.asp)