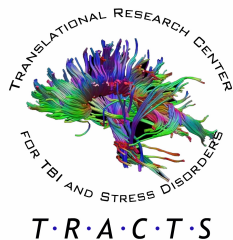


# Making TRACTS Newsletter

Translational Research Center for Traumatic Brain Injury and Stress Disorders  
VA Boston Healthcare System



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## Director's Corner

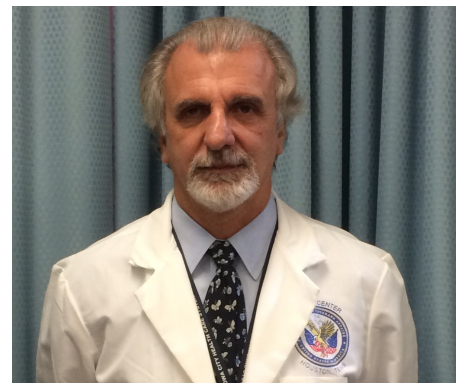
**Regina McGlinchey, PhD and William Milberg, PhD**

TRACTS IS NOW A NATIONAL RESEARCH CENTER!

As the result of your effort and commitment to helping your fellow Veterans and us achieve our mission to help you, the VA has decided to open a satellite TRACTS site in Houston Texas. This is fantastic news for a couple of reasons. It has always been our vision that TRACTS would develop into a network of strategically located sites that can serve a diverse Veteran population across the entire United States. This is our first step toward that goal. It also means that our research can progress at a much faster pace, so that we can continue to understand the challenges you face and develop new therapies sooner to help you meet these challenges. So...[drum roll please]...

TRACTS would like to welcome Dr. Ricardo Jorge and his Houston group to our team!

Dr. Ricardo E. Jorge is the new Director of the Houston Site of the TRACTS, located at the Michael E DeBakey VA Medical Center. He also serves as Assistant Director of the Brain Injury Program of the Beth K and Stuart C Division of Neuropsychiatry, and is Professor of Psychiatry and Behavioral Sciences at Baylor College of Medicine in Houston, Texas, USA.



Dr. Jorge has committed his professional career to understanding some of the emotional challenges that can occur following traumatic brain injury (TBI) or stroke. This includes complications such as changes in mood and anxiety, and in expressing and controlling ones emotions. These are complications that we often see in Veterans of Iraq and Afghanistan, so we know that Dr. Jorge can help us gain a better understanding of the problems you face. Dr. Jorge has long been interested in developing new treatments for depression so, teamed with our investigators in Boston, we will develop a program of treatment for our Veterans with mild TBI and posttraumatic stress using non-invasive brain stimulation therapy.

A bit of background: Dr. Jorge received his medical education and training in Neurology and Nuclear Medicine at Buenos Aires University, Argentina. He moved to the USA in 1998 and completed his Psychiatry residency at the University of Iowa. He joined the faculty at the Department of Psychiatry of the Roy C and Lucille A Carver College of Medicine where he achieved the rank of full Professor. Dr. Jorge moved to Baylor College of Medicine in 2013.

We thank you all for your participation in TRACTS. We value your commitment to our mission!

Gina (857-364-2658) and Bill (857-364-2946)



# Wally's World

## An update from Wally Musto, TRACTS Project Manager

2015 begins my 5<sup>th</sup> year “working the dream for me”!!!! I've dedicated my professional life to the United States Military: my career began in 1967 and ended in 2006. I have been blessed to continue working with our military by supporting medical science in finding better ways to help those who served in OEF, OIF and OND (2003 – Present)! To quote a famous person, Sir Lawrence Taylor, “No one ever accused me of being smart”, but I am surrounded by a team of people who are not only smart, they also have a way of making you, our military participants, feel comfortable while showing you all the respect and admiration you deserve. Our Director, Dr. McGlinchey, has created this environment, and our service members feel welcomed within minutes of their arrival here on the 11<sup>th</sup> floor of our Center of Excellence!

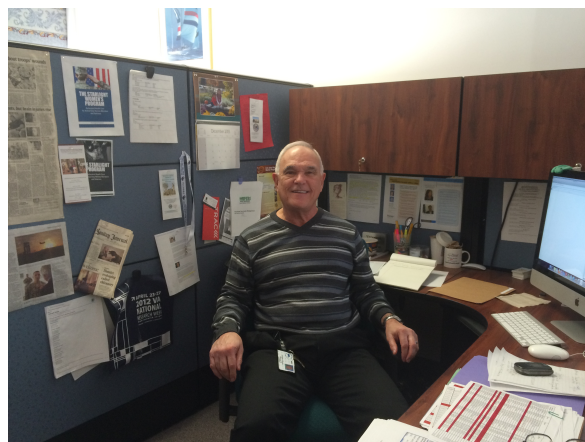
There have been many changes since we began on March 1, 2010. We now have nearly 450 participants! Many of you have optioned to help other research studies within our Center. I feel that this is a selfless act that will go a long way to help all of us who have worn and will wear our nations' military uniform in the future. Also, we are very proud that our study has been renewed for 5 more years! Our original goal was 500 participants and that has been changed to 750. So if you enjoyed participating in our research, please pass my telephone number (617-779-8617) along to anyone you know who was part of OIF/OEF/OND and may have been exposed to a blast or had a

concussion. That would really assist in reaching our new goal.

As you know, when you joined the study we asked that you return in a year or so for a follow-up evaluation. These re-evaluations are really important because it allows us to track your health over time. So if it has been 1 year or more since your baseline testing, please give me a call and we will find a date convenient for you to come in. You will have a great day; it will be less intensive than your first visit because the interview will only be an update from your last visit. Remember, no matter how long it has been since the last time you were here, you are so very welcome to return and complete the 2<sup>nd</sup> part of the study.

I am honored to have met and spent time with you during your visit here and I wish you all the very best the New Year will bring. As always, if you need anything feel free to call.

Wally  
617-799-8617



## Ongoing Research

Get involved! Ongoing research is open for participation

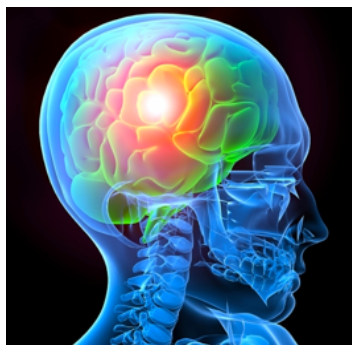
### Stress and Risk for Suicide

Suicide is a significant concern for the U.S. Military and Veterans Administration, and understanding and trying to prevent suicide is a high priority. This is a new study at TRACTS that is examining the relationship between suicidal thoughts and brain function, memory, attention, and problem solving strategies in OEF/OIF/OND Veterans. We are enrolling a wide range of Veterans, both with and without psychological concerns. Participants complete interviews about their emotional health, perform computerized memory tasks, and undergo an MRI. The study can be completed in one afternoon and you will be compensated \$100. If you have questions about this research, or would like to know if you can participate, feel free to contact **Dr. Melissa Amick at (857) 364-2135** or the Research Assistant for the study, **Molly Gibian, at (857) 364- 4919**.



### A.L.E.R.T. - Assessing Long-Term Effects of Repetitive Trauma

This state of the art research study is designed to better understand the long-term consequences of brain injuries from blast explosions or other causes, such as a fall or motor vehicle accident. An important question that we want to answer is whether individuals who



have been exposed to blast or other brain injuries have a build up of protein in the brain that could lead to difficulty in thinking and controlling emotions later in life. If you qualify, you will complete a medical screen and then may be eligible for a lumbar puncture and/or two PET/MRI scans. Participants can choose to take part in either the LP or the PET/MRI or both of these procedures. You will be compensated for completion of each part of the study (\$100 for the medical screening visit, \$250 for the lumbar puncture, \$150 for each the PET/MRI scan). OEF/OIF Veterans with a traumatic brain injury (TBI) or PTSD, or no history of TBI or PTSD, may be eligible to participate. For more information call the research assistant for this study, **Lauren at (857) 364-5631**.

## Ongoing Research

Get involved! Ongoing research is open for participation

### **BRAVE Study**

Our hospital is currently conducting research on a new computer-based training intervention for veterans who have been diagnosed with a traumatic brain injury (TBI), even if mild in severity (concussion), and we are inviting you to be part of the study. We are recruiting veterans between the ages of 18-50 who have been diagnosed with TBI. Participation is completely voluntary and participants will be compensated up to \$550 upon completion of the study. Participation in this research includes 6 sessions and several weeks of training. Participants will be asked to perform a pre-assessment at the Boston VA Medical Center to establish their baseline cognitive function. If qualified, participants will go through 3 months of a computer-based training program at the convenience of their home. After training, they will undergo a post-assessment to evaluate changes in cognitive function and will return for a follow-up assessment 3 months after start of training. If interested in the study, please call **(857) 364-2542**.



### **STEP Home: Continuing to help veterans readjust to life at home**

STEP Home is a group workshop program started by the TRACTS team and created to help returning veterans reintegrate back into their civilian lives after deployment. Veterans are offered assistance with vocational issues, problem solving, family relationships, substance issues, and related difficulties getting adjusted after coming home. So far we have received great feedback from veterans and their families/loved ones. Our newest session starts in February and runs for 12 weeks.

If you are interested in learning more about our program, please feel free to contact **Dr. Alexandra Kenna at 857-364-2526** or **Wally Musto at 617-799-8617**.



## New Research

### ***Disability in Returning Service Members and Veterans: The Impact of the Deployment Trauma Phenotype***

*Sara M. Lipka, Jennifer R. Fonda, Catherine B. Fortier, Melissa A. Amick, Alexandra C. Kenna, William P. Milberg, Regina E. McGlinchey*

Typically when a patient goes to the doctor, they go for one problem: one health complaint or one symptom that is impacting their life. In a manuscript that is currently in press in the *Journal of Traumatic Stress*, TRACTS has shown that this is not really the case when it comes to our returning Veterans. Data from 255 OEF/OIF returning service members and Veterans has shown that Veterans are not returning with one problem or one symptom, they are returning with multiple interacting problems, a situation that may force us to think of new ways to deliver care to them. “Understanding how these various problems interact and impact Veterans’ return to civilian life after deployment is critical to providing the best care possible,” stated TRACTS Director Gina McGlinchey. Over 90% of Veterans in this study were diagnosed with at least one psychiatric and/or behavioral condition, with approximately half presenting with three or more conditions. “Certain conditions seemed to occur together, such as sleep and pain disorders, different types of substance use disorders, anxiety disorders, and possibly a previously undefined cluster of diagnoses that we have termed the deployment trauma triad,” explained co-author and Co-Director

William Milberg. When current depression, PTSD, and history of military mTBI co-occur, Veterans were much more likely to report substantial problems in day-to-day life (functional disability). “This suggests that these three diagnoses, when occurring together, may be predictive of poor return to civilian life; having these specific diagnoses puts Veterans at greater risk for disability and poor functioning,” stated co-author and TRACTS Clinical Director, Catherine Fortier. Our data showed that individuals with all three conditions in the deployment trauma triad were more likely to be substantially disabled than individuals with depression and PTSD, but no military mTBI, depression, PTSD, and history of military mTBI may be an especially harmful combination associated with high risk for poor outcome after deployment and therefore should be carefully assessed in all returning Veterans. “This pattern is now being looked at in a much larger group of patients, and if verified may signal that the Department of Veterans Affairs should change the way it identifies and treats these patients who may be the most vulnerable to developing long term disabilities,” said McGlinchey.

## New Research

### **Close-Range Blast Exposure is Associated With Altered Functional Connectivity in Veterans Independent of Concussion Symptoms at Time of Exposure**

Meghan E. Robinson, Emily R. Lindemer, Jennifer R. Fonda, William P. Milberg, Regina E. McGlinchey, David H. Salat

When people think of mild traumatic brain injury (TBI), or concussion, they think of someone getting “knocked out” or feeling “fuzzy” after getting hit in the head. Indeed, doctors use these very symptoms to diagnose a concussion. TRACTS researchers published new findings that challenge the idea that brain injury only occurs when it produces changes in thinking ability at the time of the injury. Using MRI, they looked at Veterans who had been very close to at least one blast, and found changes in the way different parts of the brain talk to each other in these Veterans compared to those who had never been so close. These changes were found in Veterans *whether or not* the blast produced symptoms of concussion, like being knocked unconscious or feelings of fuzziness. The important factor was only that the Veteran was within 10 meters (about 30 feet) of the explosion. Blasts that occurred further away did not appear to result in brain changes. This finding is important because it shows that changes in brain activity may occur without obvious symptoms at the time of the injury, however, we do not know yet if these brain changes cause (or will cause) problems with health or daily functioning. This is something we plan to look into next. Ultimately, this work may change the way healthcare providers think about blasts and head trauma during military service, and how it relates to the care that Veterans need today and in the years to come.

Check out  
our  
website!

The screenshot shows the VA Boston Healthcare System website. The main heading is "VA Boston Healthcare System". Below it, there is a navigation menu with options like Home, Veteran Services, Business, About VA, Media Room, Locations, and Contact Us. The main content area features the "Translational Research Center for TBI and Stress Disorders (TRACTS)" section. It includes a "What is TRACTS?" sub-heading, a description of the center's mission, and a list of symptoms associated with TBI and PTSD. The page also features a "Like" button and a "Facebook" icon.



TRACTS on Facebook!

**Translational Research Center for Traumatic Brain Injury & Stress Disorders**

On our Facebook page, we share resources for veterans, helpful tips and tools for PTSD and TBI, and other educational information. We hope you'll join us!

[http://www.boston.va.gov/research/Translational\\_Research\\_Center\\_for\\_TBI\\_and\\_Stress\\_Disorders\\_TRACTS.asp](http://www.boston.va.gov/research/Translational_Research_Center_for_TBI_and_Stress_Disorders_TRACTS.asp)

## TRACTS Investigator Retreat



At the beginning of December, all of our TRACTS investigators got together to talk about future research plans and to identify high priority areas to address Veterans' needs. As a result of these discussions, we identified two areas where our research is lacking: alleviating the very common problem of pain and increasing sleep quality and quantity. We are now in the early stages of planning clinical studies to address these issues. We also were able to talk more about launching our planned early-stage trails to (1) examine the effectiveness of exercise to increase brain and physical health, and (2) combine an internet-based attention training program with a non-invasive brain stimulation program to remediate problems in attention and concentrations for Veterans with concussion and/or PTSD. Even though we felt that our retreat was helpful, we would love to hear from you. Are you experiencing any specific problems or challenges that you would like us to address? If so, please contact me ([regina.mcglinchey@va.gov](mailto:regina.mcglinchey@va.gov)) and we'll see if there is something we can do!

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### **Spouses and family members of returning Veterans-**

Are you interested in getting a better understanding of what your loved one is going through now that they are home? Are you wondering if there is something you can do to help make their transition home smoother for them and your family? The TRACTS team is dedicated to serving both our service members and those who care for them most. We can help explain the symptoms of PTSD, TBI, substance abuse, work issues, etc., and can help find referrals and other useful services. Your strength and support is critical for you Veterans. For more information or questions, please call Alexandra Kenna, PhD., a TRACTS psychologist at 857-364-2526.

## New Personnel

Several new staff members have joined the team this year

### **Colleen Jackson is a post-doctoral fellow in TRACTS.**

Colleen is very excited to have joined the TRACTS team this past summer, and she looks forward to meeting with TRACTS participants during the clinical interview portion of their day. Colleen earned a doctorate in Clinical Psychology, with a concentration in Neuropsychology, from the University of Connecticut, and she completed a pre-doctoral internship at Brown University. Colleen also recently completed a year-long fellowship in the National Center for PTSD at VA Boston, where she focused on the assessment of TBI and PTSD in OEF/OIF veterans. In her free time, Colleen enjoys reading and spending time with family and friends.

### **Leslie Nordstrom is a research assistant for CIRCA.**

Leslie recently earned her Bachelor's degree in biomedical engineering from Boston University. She is interested in the science behind neuroimaging tools, and works under Dr. Elizabeth Leritz on a study called CIRCA to investigate how vascular risk factors affect brain structure and functioning as individuals age. Leslie mainly collects and processes MRI images, but she has also become interested in the neuropsychological side of this study and does neuropsychological testing and scoring.

She is excited to be involved in so many parts of the CIRCA study, and to ultimately see how information from MRI scans and cognitive testing results complement each other. In her spare time, Leslie enjoys reading and solving puzzles, learning new things, and running.



## THE TRACTS TEAM

### TRACTS LEADERSHIP

Regina McGlinchey, Ph.D.  
Director

William Milberg, Ph.D.  
Co-Director

Mary Fitzgerald  
Administrative Officer

Walter Musto, CMSgt (Ret), RING  
Project Manager

### CORE INVESTIGATORS

Melissa Amick, Ph.D.  
Colleen Hursh, M.S.  
Joseph DeGutis, Ph.D.  
Catherine Fortier, Ph.D.  
Elizabeth Leritz, Ph.D.  
Ann Rasmusson, M.D.  
David Salat, Ph.D.  
Jennifer Vasterling, Ph.D.  
Mieke Verfaellie, Ph.D.

### RESEARCH TEAM

Marge Ahlquist, B.A.  
Vincent Corbo, Ph.D.  
Gheorghe Doros, Ph.D.  
Jennifer Fonda, M.S.  
Alex Kenna, Ph.D.  
Colleen Jackson, Ph.D.  
Arkadiy Maksimovskiy, B.A.  
Megan Powell, B.A.  
Molly Gibian, B.A.  
Lauren Radigan, B.A.  
Benjamin Trotter, B.S.  
Leslie Nordstrom, B.S.

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