

# VISN 6 Mid-Atlantic MIRECC Post Deployment Mental Health

Editors: Katherine H. Taber, PhD Robin A. Hurley, MD

Vol 1 (6) December 2005



## MIRECC Leadership MIRECC Director

Gregory McCarthy, PhD gregory.mccarthy@duke.edu

Co-Director - Education

Robin A. Hurley, MD robin.hurley@med.va.gov

**Assistant Co-Director - Education** 

Katherine H. Taber, PhD katherine.taber@med.va.gov

Co-Director - Clinical

Harold Kudler, MD Harold.Kudler@med.va.gov

**Assistant Co-Director - Clinical** 

Kristy Straits-Troster, PhD Kristy.Straits-Troster2@med.va.gov

Co-Director - Evaluation

Marian Butterfield, MD, MPH mimi@duke.edu

Associate Director - Evaluation Director, Special Fellowship in Advanced Psychiatry

Richard Weiner, MD, PhD Richard.Weiner@med.va.gov

Director, Special Fellowship in Advanced Psychology

Patrick Calhoun, PhD Patrick.Calhoun2@med.va.gov

**Associate Director - Genetics** 

Jean C. Beckham, PhD Jean.Beckham@med.va.gov

Associate Director - Interventions

Christine Marx, MD marx0001@mc.duke.edu

Associate Director - Neuroscience Scott D. Moore, MD, PhD

Scott D. Moore, MD, PhD Scott.Moore2@med.va.gov

**Associate Director - Neuroimaging** 

Rajendra A. Morey, MD morey@biac.duke.edu

**Associate Director - Neurocognitive** 

Larry A. Tupler, PhD Itupler@duke.edu

VISN 6 Leadership

**VISN 6 Director** 

Daniel F. Hoffmann, FACHE

**Director - Mental Health Service Line** 

Stephen L. Lemons, EdD

### **Educational Opportunities**

Continuing Education Archives hosted by the VISN 22 MIRECC VA Desert Pacific Health Care Network

http://www.mirecc.org/education-frames.html

View the CE presentations on-line and complete the associated evaluation to obtain credit.

### **MIRECC Advisory Board Meeting**

by Robin A. Hurley MD

November 30, 2005 marked the first Advisory Board Meeting of the VISN 6 MIRECC. Both program advisors and staff were in attendance at the Durham VAMC for this collaboration and discussion. Dr. McCarthy gave the introductory remarks, providing a general overview of the national MIRECC program and its central theme of research, education, and clinical care. He went on to describe the VISN 6 MIRECC and its overarching theme of translational medicine. Emphasis was placed on how the research

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### Exploring the Role of the Amygdala in Post-Deployment Mental Illness

by Scott D. Moore MD PhD

The role of the Neuroscience Core within the Research Component of the MIRECC is development of pre-clinical models of an array of post-deployment mental health issues using state-of-the-art bench research. These models are intended to integrate seamlessly with the remaining research cores, facilitating transfer of insights derived from basic research to the bedside, supporting our MIRECC's focus on translational medicine targeting clinical assessment and treatment

(continued on page 2)

#### **Noon Lecture Series**

Post Deployment Mental Health Issues
1st Friday of each month at 12:00 noon ET by V-tel

The Education Component of the VISN 6 MIRECC is pleased to announce the beginning of our Clinical Education series on Post-deployment Mental Health issues. These will be brown-bag lunch format at noon on the 1st Friday of each month. The goal of this series is to present cutting-edge clinical discussions that are relevant to everyday practices. The speakers will be our colleagues both from within our own VISN and from across the nation. To begin, the (continued on page 3)

### **Upcoming Events**

Combat Psychiatry: From the Battle Front to the Home Front
December 15, 2005

1:00 PM - 2:00 PM ET

VANTS #: 1-800-767-1750, access code 45566#

a Bringing Science to Practice web-based presentation Hosted by the South Central MIRECC

The PowerPoint slides will be available December 14, 2005 at http://vaww.visn16.med.va.gov/mirecc.htm

This presentation will focus on treating mental health problems in active duty service members, including combat stress management and pharmacotherapy. The presenters will discuss the meaning of "combat readiness" and the mental health needs of service members transitioning to civilian life.

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### **MIRECC Advisory Board Meeting** (continued from page 1)

cores (genetics, basic science, imaging, neurocognitive, and clinical interventions) will work collaboratively to answer questions about postdeployment mental health conditions. The education component will then translate these research advances for the clinical audience by creating enduring educational materials and programs. The clinical component will then integrate this new knowledge into clinical care. The current model for this incorporation is a public health approach that views the postdeployed solider as benefiting from mental health support services during readjustment to civilian life. Mentoring of the next generation of clinician-scientists is central to all aspects of the MIRECC. To assure continual quality improvement, the evaluations component provides oversight and guidance to structure clear goals, objectives, and follow-through from each component. The importance of collaborations across VISN 6 medical centers was emphasized, as well as the role of the MIRECC as a source of "seeds" for growing new research programs and generating new research funding. A tour of the new MIRECC home-base was next. Research core leaders and staff were in attendance at scientific posters presenting ongoing and completed research projects. This stimulated exciting individual interactions between advisors and the research core leaders. New ideas for projects and collaborations were generated. (continued on next page)

### **Recent Presentations**

Calhoun PS, Wiley M, Dennis MF, Means M, Edinger J, Beckham JC. Objective home assessment of sleep disturbance in women with PTSD. International Society for Traumatic Stress Studies 21st Annual Meeting, November, 2005, Toronto, Canada.

Dennis MF, Yeatts BP, Thompson W, Hagler GC, Campbell MC, Araujo G, Calhoun PS, Beckham JC. Hostility in women with PTSD, major depressive disorder, or neither. International Society for Traumatic Stress Studies 21st Annual Meeting, November, 2005, Toronto, Canada,

Kang-Park MH, Moore SD, Wilson WA, Swartzwelder HS. Differential sensitivity to an acute cannabinoid agonist on GABA-A receptor-mediated inhibitory neurotransmission in hippocampal CA1 area in slices from young and old rats. Society for Neuroscience 35th Annual Meeting, November 12-16, 2005, Washington, DC.

Marx CE, Steffens DC, Blazer DG, Ervin JF, Hulette CM, Massing MW, Butterfield MI, Lieberman JA, Shampine LJ. Deficits in the GABAergic neuroactive steroid allopregnanolone in Alzheimer's disease and relevance to neuropathological stage: Investigations in temporal cortex. American College of Psychopharmacology 44th Annual Meeting, December 11-15, 2005, Waikoloa, Hawaii.

McFall M, Michael S, Beckham, JC, Schnurr, PP. PTSD and health behavior management in veterans. Symposium International Society for Traumatic Stress Studies 21st Annual Meeting, November, 2005, Toronto, Canada.

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### **Upcoming Events**

(continued from page 1)

Combat Psychiatry: From the Battle Front to the Home Front

Speakers:

COL Elspeth Cameron Ritchie, MD, MPH LTC Robert D. Forsten, DO

MAJ Brett J. Schneider. MD

Learning objectives:

- 1. Describe current combat stress control efforts in the combat theatre
- 2. Describe appropriate psychotropic medication use in a combat theatre
- 3. Discuss needed mental health care for military service members after returning from combat, including an update on post deployment screening This program is not accredited for continuing educational credit

For more information: Randy Burke

randy.burke@med.va.gov

### Motivational Enhancement Workshop March 14 & 15, 2006

W.G. 'Bill' Hefner VAMC, Salisbury NC

The Salisbury VA Medical Center will be hosting a two day workshop for all clinicians who work with veterans with Post Traumatic Stress Disorder (PTSD). The workshop is funded by a MIRECC Clinical Education grant, so it is free of charge. This workshop will feature Dr. Ron Murphy, who has conducted extensive research and clinical work related to using motivational enhancement techniques with veterans with PTSD and other disorders. Dr. Murphy's main focus will be how clinicians can better engage returning OEF/OIF veterans with PTSD and other disorders into treatment. and how motivational enhancement techniques can be used to help these veterans in outpatient, inpatient, group and individual settings.

For more information: Mary Ellena

MIRECC Program Support Assistant

mary.ellena2@va.gov

### **Recently Approved Grants**

Marx CE Neuroactive Steroids Targeting Cognitive Symptoms in Veterans with Schizophrenia. Veterans Administration Advanced Career Development Award

#### **Exploring the Role of the Amygdala** (continued from page 1)

of post-deployment mental illness. Our previous work utilized brain slices to study the physiology of amygdala formation. The amygdala has been shown to be a critical brain region for emotional processing. It is also a



site of action for hormones, psychotropic medications, and drugs of abuse. Many researchers now believe that such studies of amygdala physiology will allow insight into the predisposing factors (including genetic factors) underlying neurobehavioral dysfunction and offer a "streamlined" screen for potential pharmacological interventions. Results of our studies may therefore be rapidly translated to clinical use.

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### MIRECC Advisory Board Meeting

( continued from page 2)

The group reconvened with an interactive discussion of ongoing website development. Highlights included the importance of patient/veteran resources, clinician pages, and sections for on-line research data bases (i.e. giving distant scientists access to data). The website will have many features including blogs, online discussion forums, and archived educational programs (e.g. webcast lectures). MIRECC budgetary issues and financial affairs were discussed, again noting the necessity of the MIRECC as infrastructure for expanding grant income. More detailed discussions of clinical and education programs followed. Clinical highlights from the past year included the development of a needs assessment to understand challenges facing the returning soldier, cross-training with Department of Defense mental health personnel, and community outreach activities. Educational highlights included the establishment of the Clinical Education Grant Program, creation of multiple enduring educational materials, and production of the bi-monthly MIRECC newsletter. An overview of the internal accountability structure was next. This includes goal-setting, project tracking, and capture of deliverables. Relationships to the VHA strategic plan and clinical performance measures were also mentioned.

The program concluded with an in-depth discussion among participants. The advisors congratulated the MIRECC staff on their accomplishments over the first year of operations and then provided suggestions and guidance for year two. Particular areas of focus included new education curricula, the challenges of multi-site research projects, and the importance of collaborative projects with the Department of Defense. Other issues were website promotion, the structure and functions of the advisory committee itself, and methods to more widely and thoroughly disseminate MIRECC advances. It was agreed that the advisory meetings should be held at least twice per year with intermittent video-conferencing as appropriate.

### **Community Outreach**

**Robin A. Hurley MD** (Salisbury VAMC) presented "Update on Post Deployment Mental Health" to the Salisbury Rotary Club on December 15, 2005

### **Recent Presentations**

( continued from page 2)

Naylor JC, Moore SD. Dopamine attenuates both excitatory and inhibitory events in CEA neurons. Society for Neuroscience 35th Annual Meeting, November 12-16, 2005, Washington, DC.

Rucker LS, Collie C, Hertzberg MA, Moore SD, Dennis MF, Becker ME, Hagler G, Beckham JC. Factors associated with smoking maintenance in PTSD. International Society for Traumatic Stress Studies 21st Annual Meeting, November, 2005, Toronto, Canada.

# Noon V-tel Lecture Series (continued from page 1)

series will be presented by V-tel and telephone conferences. Web-casting will become available in the near future. If any of you have suggestions or ideas for lectures or for the series process, please feel free to contact Dr. Robin Hurley or Dr. Katherine Taber with your feedback.

#### **Noon V-tel Lecture Schedule:**

#### **December 2**

**Dr. Everett Jones. Jr. (Durham VA)** presented

Translational Medicine in Action: VA/DoD PTSD

Practice Guideline

#### January 6

Debra Volkmer, LCSW (Salisbury VA)

Adjustment to a Different World: Assisting the Veteran and Family with Transition from Deployment to Community Re-Integration

### February 3

Lynn F. Satterwhite, NP & Deborah H. Hillman, RN (Richmond VA)

PTSD: Constructive Management of Disabling Symptoms

#### March 3

Dr. Benjamin T Griffeth (Salem VA)

Armed Forces Prevention of Traumatic Stress

#### April 7

Martha Chick, LCSW (Hampton VA)

Designing Patient Education Materials for Post-Deployment Mental Health

# Exploring the Role of the Amygdala (continued from page 2)

Our first pilot project uses transgenic "knock-out" mice lacking acetylcholinesterase, the enzyme responsible for terminating the action of the neurotransmitter acetylcholine. Studies thus far indicate that mice with both copies of the gene 'knocked-out' (homozygous) completely lack acetylcholinesterase and have global developmental and neurobiological abnormalities impairments. In contrast, mice with only one copy of the gene 'knocked-out' (heterozygous) are essentially indistinguishable from wild-type control mice with regard to development and neurobiological function. despite at least 50% reduction in central cholinesterase activity. However, heterozygous mice exhibit more subtle alterations in behavior, including increased levels of anxiety and exaggerated fear conditioning compared to normal mice. In addition, heterozygous mice are significantly less responsive to anti-anxiety medications such as diazepam and buspirone. These heterozygous mice may therefore represent a useful heuristic model for the persistent clinical features associated with lowlevel anticholinesterase exposure in deployment zones.

Future projects will combine behavioral, biochemical, and electrophysiological studies of additional mouse genetic models. For example, we are performing studies of mice lacking the serotonin transporter gene. These studies will parallel ongoing clinical studies demonstrating that particular polymorphisms of the serotonin transporter in humans are associated with a greater risk for developing depression and anxiety as well as diminished response to treatment.