BRAIN INTERDISCIPLINARY
INJURY SPECIAL INTEREST GROUP

# Moving Ahead

A semi-annual publication for members of the ACRM BI-ISIG

# BI-ISIG







Volume 32 Number 1 Spring 2017

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# ACRM 94<sup>th</sup> Annual Conference

PROGRESS IN REHABILITATION RESEARCH #PIRR2017 TRANSLATION TO CLINICAL PRACTICE





INTERDISCIPLINARY

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### ACRM AMERICAN CONGRESS OF REHABILITATION MEDICINE

### Message from the Chair

Dear BI-ISIG colleagues,

As I write my first letter to you as Chair of the BI-ISIG, I cannot help but reflect on the tremendous good fortune we have to work with a field of colleagues who are so passionate about improving the lives of the patients we serve. While we frequently face uncertainties in the healthcare and research environments in which we work, there are a few things that we can always count on:

- Our BI-ISIG and Task Force colleagues will continue to work together to generate new research that can improve practice
- Our collaborative relationships will open doors to new opportunities, such as multicenter grants and projects
- We will welcome early career professionals into our Task Forces, and their input will spur new ideas and growth
- Our colleagues will remain committed to disseminating and implementing findings, be it publication, scientific symposia or clinically-oriented instructional courses
  - (and hopefully the deadline will always be extended for those late-breaking findings...)



By the time you receive this issue of Moving Ahead, we will be meeting at the Mid-Year Meeting. Many of the Task Forces will be meeting to get some increased headway on their projects. As described in the Task Force section of this newsletter, some of those projects include preparing an article on the current practices of community-based rehabilitation programs (Community-Based Treatment Task Force), organizing this year's Galveston Brain Injury Conference (Disorders of Consciousness Task Force), and publishing a manuscript on healthcare service delivery to children (Pediatric and Adolescent Task Force).

We will also be welcoming to the Mid-Year Meeting four Early Career scholarship winners. Please be sure to say hello and issue a warm welcome to Reza Ehsanian, Shannon Juengst, Jonathan Dodd, and Edward Devitt!

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Looking forward to seeing all of you in Atlanta! The Mid-Year Meeting Business Meeting will be held on Friday, 8:45 to 10:00 am. Please visit the website for more information on the Mid-Year Meeting: ACRM.org/mym

Kind regards,

### Jenny Bogner, PhD, ABPP, FACRM

Chair, Brain Injury Interdisciplinary Special Interest Group, Ohio Valley Center for Brain Injury Rehabilitation and Prevention Ohio State University



<<< AT BI-ISIG **SUMMIT 2016 ANNUAL CONFERENCE, HILTON CHICAGO** 





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### Letter from the Editor



"And what, Socrates, is the food of the soul? Surely, I said, knowledge is the food of the soul."

-Plato

Dear BI-ISIG reader,

The 2017 spring edition of Moving Ahead is very close to my affections as it taps into the various aspects of brain injury our community is currently addressing at a national as well as global level. Allow me to share with you several heart-warming and inspirational stories of early career professionals, who have decided to join our "family." I would like to extend my sincerest appreciation to all the recipients of awards since last fall, who responded to my invite to talk about themselves and their work. A big shout out to my colleagues who are rock stars within their respective field of research and/or technology advancement for

individuals with an acquired brain injury. Thank you all for sharing such inspiration, resilience and determination with the rest of us. Let the World recognize, acknowledge and accept your efforts.

You would not be reading this newsletter had it not been for the tireless guidance of ACRM staff extending from the gracious, Cindy Robinson and the lovely Terri Compos, to the magically graphical Signy Roberts.

Thank you all for your encouraging words and support over the years; helping the BI-ISIG members have a forum to document and present their amazing accomplishments will remain my mission hopefully for years to come.

Respectfully Submitted,

Existine Clerodoca Luighley

Kristine Kingsley, PsyD, ABPP Editor, Moving Ahead

"A big shout out to my colleagues who are rock stars within their respective field of research and/or technology advancement for individuals with an acquired brain injury."



**GLIMPSE OF THE ACRM EXPO & SPONSORS AT 2016 CONFERENCE: HILTON CHICAGO** 



**BI-ISIG SPECIAL SYMPOSIA SPEAKERS AT 2016 ACRM CONFERENCE:** KEITH CICERONE, DEIRDRE DAWSON, MCKAY MOORE SOHLBERG

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### **BI-ISIG SUMMIT MEETING**



DATE: 3 NOVEMBER 2016 TIME: 12:45 PM (CENTRAL) CHICAGO, IL



**INTERDISCIPLINARY** SPECIAL INTEREST GROUP



### FINDINGS & RECOMMENDATIONS

### Welcome and Announcements

Donna Langenbahn welcomed all attendees to the BI-ISIG meeting; the history, mission and goals of the BI-ISIG were reviewed briefly, as well as the organization of the BI-ISIG. A timeline of BI-ISIG events was on display. Donna introduced the Executive Committee, welcomed first time attendees and early career members and described the BI-ISIG mission and mechanisms which are used to accomplish activities consistent with the mission.

### **Approval of MYM Minutes** 11.

Karen McCulloch presented minutes from the Mid-Year Meeting in Chicago, recently published in Moving Ahead to the membership. They were approved by those in attendance.

### III. Treasurer's Report

Treasurer's report Alan Weintraub reviewed the main components of the BI-ISIG budget. The current balance for the ISIG is estimated to be \$23K. ACRM shares \$10K from their budget to the BI-ISIG each year. Currently there are 23K in reserve. The EC is entertaining proposals from task force groups (or collaborations). Originally the amount allotted was \$1,000 per group, but task force proposals may suggest for a greater amount of funding for projects that are high impact. There is not a set deadline for these proposals.

There is a separate proposal associated with evidence-based reviews that are granted through the Evidence-based Practice group (funds outside of the BI-ISIG).

Additional discussion on best options for submitting proposals was encouraged to take place during the Task Force Chairs meeting on 4 November 2016.

### **Communications Report**

Communications Officer, Kristine Kingsley shared with attendees mechanisms of communications: newsletter, weekly e-blast news from ACRM, website updates, and social media (Facebook & Twitter).

• Members were encouraged to read the latest copy of Moving Ahead newsletter sent electronically to registered membership as well as uploaded on the ACRM website. A request for volunteers to help with the Communications/Media committee was made.

### ٧. Early Career Report

Early Career Officer Monique Pappadis reviewed early career scholarships procedures. The scholarships are designed for applicants who are within five years of training and are given for both the Mid-Year Meeting and Annual conference.

Early Career scholarship winners for this year were recognized:

- Yelena Guller-Bodien, PhD, DOC task force
- Katherine O'Brien, PhD, DOC task force
- Shital Pavawalla, PhD, ABPP, DOC task force

MYM scholarships will be offered again in 2017. Interested parties should look for announcements with a deadline for submission scheduled to be in early February. Applicants must be active in a BI-ISIG Task Force and have the endorsement/ confirmation of membership from the TF chair.

### VI. Task Force Updates **COGNITIVE REHABILITATION TASK FORCE**

Keith Cicerone reporting

- Currently working on 4<sup>th</sup> update of the cognitive rehabilitation systematic review for TBI and stroke.
- Other ongoing systematic reviews are:
  - o Langenbahn for other medical conditions
  - o Kristine Kingsley/Yelena Golden/Yelena Bogdanova - MCI and dementia
  - o Bergquist Psychiatric issues, and a separate review related to older adults.
- Cognitive Rehabilitation Training Manual is evolving into a textbook; the effort is spear-headed by Amy Shapiro Rosenbaum and Rebecca Eberle.
- Robyn Tate is working on a review of outcome

- measures related to cognitive rehabilitation.
- The Cognitive Rehabilitation Training workshops continue; to date, over 1,200 clinicians have been trained in the workshop. A study on the effects of this training is in the works.

### **COMMUNITY-BASED TREATMENT TASK FORCE**

### Nina Geier reporting

A key finding of a survey completed by this group, presented at ACRM last year was the importance of case management for TBI community based treatment. A group of members has been working on developing additional work around case management and the characteristics of effective case management.

### **DISORDERS OF CONSCIOUSNESS TASK FORCE**

### Risa Richardson reporting

Several products are being developed at this time:

- Four different systematic reviews led by Ron Seel, Joe Giacino, Mark Scherer and Doug Katz
- Susan Johnson is leading an initiative of developing fact sheets, as well as getting information to families and survivors. The DOC has partnered with IBIA and Model Systems to leverage the efforts of the task force for common goals.
- · Another project is to encourage involvement of clinicians to help with translation issues.
- The 2016 Chautauqua talk is led by DOC member Sunil Kothari and it explores spirituality issues as they relate to DOC.
- The Moody Foundation will make DOC the focus of their conference in 2017. The conference will address economic issues with DOC, end of life issues and DNR, as well as controversies related to case definition of post-traumatic confusion (Katz, Scherer).
- Lastly, Amy Rosenbaum is developing new materials/ fact sheet for the Model Systems that focuses on DOC and outcomes.

### **GIRLS & WOMEN WITH ABI TASK FORCE**

### Yelena Goldin reporting

- The TF spearheaded a collaboration of papers on sex, gender and TBI which were published in the Physical Rehabilitation Archives, as part of a special issue.
- TF members participated in the congressional BI Task force, which included testifying on topics of disparities in outcome/access for women with TBI.
- The TF is in the process of looking at specific consumer needs of girls/women, and hopes to follow up with a survey girls/women to help identify possible gaps and needs.
- Another product is a paper on public health issues.

- TF members are also participating in several SR reviews with Cognitive Task Force, which they hope will become a position statement.
- The TF has expanded Girls/Women issues in other conditions.
- Lastly, the TF is starting to fundraise for consumer involvement so that some of these members can attend future ACRM meetings.

### **LONG-TERM ISSUES TASK FORCE**

### Kristin Dams-O'Connor reporting

The TF has now adopted a new name; moving forward it will be known as Chronic Brain Injury Task Force.

- The TF was instrumental in organizing a Health and Aging with Brain Injury symposium which was presented at the Annual Conference with Dr. Brent Masel as a featured speaker.
- Future activities involve resource facilitation. The HRSA's last grant cycle encouraged the study of this concept as it applies to Brain Injury. The objective of the study would be to contact each State which received and queried about how resource facilitation was defined and measured in their projects; a final outcome of this endeavor will be to provide feedback to HRSA. Volunteers to assist with this project are needed and welcomed.
- · Another project currently running is a systematic review on cognitive rehabilitation with older adults. New members are encouraged to join.
- Finally, the TF is in the process of developing a fact sheet on healthy living after TBI.

### **PEDIATRIC & ADOLESCENT TASK FORCE**

Julie Haarbauer-Krupa reporting

- A new paper about service delivery systems for children with TBI has been accepted in JHTR.
- · A systematic review on pediatric cognitive rehab is underway.
- Dr. Nagele is leading a survey of needs of professionals in the field and identified the gaps looking at the difference in perceptions.
- A new systematic review is in process, and members of the task force are working to contribute to the 2nd edition of the Cognitive Rehabilitation Manual, on pediatric content.
- CDC report to ACRM is in process by Julie Haarbauer-Krupa
- Group works closely with the Pediatric Rehabilitation Networking Group who is currently doing a podcast. Interested members were directed to check by the

Continued next page

### Continued from previous page

- ACRM Registration desk for the location of the podcast.
- ACBIS is in process of being put together for the Annual Conference

### **PROGNOSIS AFTER TBI TASK FORCE**

Rosette Biester reporting

- The Task Force has now adopted a new name; it will be known as the Communication and Prognosis Task Force, as many of the projects have been focused on communication.
- The Task Force is currently working on a survey to gather information about prognosis. Their wish it to distribute this survey within VA polytrauma facilities, possibly Model Systems. The TF is welcoming new members.

### VII. Bylaws Revision

- An email went out to all BI-ISIG members with information about proposed bylaw changes: awards, scholarships, invited lectureships, membership monitoring shifted to ACRM staff, treasurer budgeting occurs with ACRM staff, Ex-Officio roles Other additions to the bylaws was for EC members who have rotated off to continue to mentor in the next year, allow for elections to occur by electronic ballot, modify officer responsibilities. These changes were made mainly to update the bylaws so that they reflect what we are actually doing.
- The bylaw updating process is proposed to change to occur with the EC, then checked by P&P committee, then BOG voting. Modification of the bylaws could be made by the EC after a two week notification of the membership (for input).
- · A discussion on the amended bylaws ensued.
- Bylaws changes were approved.
- \* ACTION PLAN: Ensure modification of collecting dues on the website.

### VIII. Awards Presentations: Program/ **Awards Officer**

Dawn Neumann reporting

- The Early Career Poster Award was given to: Lauren Nelson, BIRC-Icahn School of Medicine, Mt Sinai Medical Center, New York, NY, for her submission titled "Cognition and mood in a clinically fatigued sample of individuals with TBI."
- The Girls and Women with ABI Poster Award was given to Miriam Alfano, MS, CCC-SLP, St Xavier University, Chicago, IL for her work with the title "Concussion education for student athletes: What kind? Who is providing it? Does it matter?"
- The David Strauss Memorial Award was given to Keith

- Cicerone, PhD, JFK Johnson Rehabilitation, Edison, NJ, for his submission on "Neuropsychological rehabilitation: a modest proposal."
- The 2016 Joshua B Cantor Scholarship Award was given to Stacy Suskauer, MD, Kennedy Krieger Institute, Johns Hopkins University School of Medicine
- The recipient of the 2016 Sheldon Berrol Chautauqua was Bill Gaventa, MDiv: for his submission on "Confronting spirituality and religious issues surrounding brain injury rehabilitation."

### IX. Election Results: 2017 Executive Committee

- · Chair: Jennifer Bogner, PhD, FACRM
- Chair-Elect: Kristen Dams-O'Connor, PhD
- Past Chair: Donna Langenbahn, PhD, FACRM
- Secretary: Tessa Hart, PhD, FACRM
- Treasurer: Alan Weintraub, MD
- · Communications Officer: Kristine Kingsley, PsyD
- Early Career Office: Monique Pappadis, PhD
- Program/Awards Officer: Dawn Neumann, PhD
- ACRM CEO (ex officio): Jon Lindberg, MBA, CAE, Yale-GELP

### **Acknowledgement of Current EC**

Dr. Langenbahn acknowledged the current members of the Executive Committee.

### XI. Incoming Chair

• Dr. Jenny Bogner was recognized as the incoming chair of the BI-ISIG, and offered a tribute and gift to Dr. Langenbahn for her work as the BI-ISIG Chair during the past two years.

### XII. Other Business

- Marilyn Spivack asked that the Task Force chairs meeting include discussion about policy change as part of their focus for projects in the next year for work at the state or national level.
- Katherine Bell suggested that the BI-ISIG really consider how real-life health care institutions can offer appropriate care for TBI within the current funding constraints in our health care system. Could this be a standing committee or task force related to knowledge translation and development of strategies that could be used to manage TBI within the current healthcare system? A proposal related to this was encouraged by the EC.

Meeting was adjourned at 1:45pm Respectfully Submitted, Karen McCulloch, Secretary

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### Community-Based Treatment Task Force

• CO-CHAIRS: Nina Geier & Ann Marie McLaughlin

The Community-Based Treatment task force is developing an article for publication which summarizes the survey results previously presented as a poster entitled "Current Practices and Perceived Needs of Community-Based Brain Injury Rehabilitation Programs" (authored by Ann Marie McLaughlin, PhD; Allison Clark, PhD; Nina Geier, MS, MPT, CBIST; Mary Pat Murphy, MSN; and Devan Parrat). It is anticipated that distribution of the article will provide needed dissemination of information on the clinical value of community-based treatment for individuals with brain injury. The Community-Based Treatment task force has also been exploring ideas for future projects that may focus on outcomes measurement of community-based treatment or the impact of case management on community-based treatment outcomes.



NINA GEIER & ANN MARIE MCLAUGHLIN

### Disorders of Consciousness Task Force

- CO-CHAIRS: Risa Nakase-Richardson & John Whyte
  - 1. Risa Nakase-Richardson's research on sleep apnea has received new funding. #CER #sleep apnea #tbi #rehabilitation Learn More >>
  - 2. Mark Sherer, received the 2016 Harold E. Yuker Award for Research Excellence. The annual award, granted to the best article published in Rehabilitation Psychology, was given by the Journal of Rehabilitation Psychology and Division 22 Rehabilitation Psychology of the American Psychological Association. The ceremony took place at the annual APA meeting last August.
  - 3. Risa Nakase-Richardson got a new grant on sleep apnea that involves 6 TBI Model System sites — please see press release next page.
  - 4. The DOC-SIG is organizing this year's Galveston Brain Injury Conference in May 2017. Three tracks will be meeting simultaneously to address the following
    - TRACK I: When and How to Address DNR or Palliative Care Following Severe TBI. LEAD: Sunil Kothari, MD
    - TRACK 2: Developing an Agenda for Assessing the Cost-Effectiveness of Different Models of DOC Rehabilitation. LEADS: John Whyte, MD, PhD and Ross Zafonte, MD
    - TRACK 3: Extending the Definition of DOC to Include Post-Traumatic Confusional State. LEADS: Doug Katz, MD, Yelena Guller-Bodien, PhD, Mark Sherer, PhD (in absentia)



**RISA RICHARDSON** 



**JOHN WHYTE** 





### PRESS RELEASE

Risa Richardson, Ph.D. at James A. Haley Veterans' Hospital Approved for \$2.68 Million Research Funding **Award by the Patient-Centered Outcomes Research** Institute

Tampa, Fla. — A research team led by Dr. Risa Richardson at The James A. Haley Veterans' Hospital and Clinics' Tampa VA Research and Education Foundation in Tampa, Fla. has been approved for a \$2.68 million funding award by the Patient-Centered Outcomes Research Institute (PCORI) to study the comparative effectiveness of sleep apnea screening as well as the sensitivity of diagnostic tools in identifying sleep disorders earlier in the recovery of traumatic brain injury, in an effort to maximize outcome.

The study team recently published the largest study examining sleep apnea incidence in consecutive admissions to inpatient brain injury rehabilitation. This study reported 50 percent of all brain injury admissions and 37 percent of persons with TBI were diagnosed with sleep apnea. The newly funded PCORI study will evaluate comparative efficacy of existing screening and diagnostic tools to help recognize these problems to improve recovery from TBI. The study will be conducted at six TBI Model System Research Centers with infrastructure currently funded by the Departments of Health and Human Services, Veterans Affairs, and Defense to examine early and long-term outcomes from brain injury. PCORI funding will support the study at JAHVH (lead site); University of Washington, Seattle, WA; Ohio State University, Columbus, OH; Craig Hospital, Denver, CO; Moss Rehabilitation Research Institute, Philadelphia, PA; and Baylor Rehabilitation Institute, Dallas, TX. Sleep specialists from the University of South Florida, Stanford University, and North Florida/South Georgia Veterans Health System are also participating.

"There is no cure for brain injury. However, there is increasing focus on treating medical problems that may influence recovery. Research has shown that poor sleep impacts the brain's ability to heal early after TBI and may play a role in accelerated aging," said Dr. Risa Richardson, Ph.D., clinical neuropsychologist at James A. Haley Veterans Hospital, principal investigator with the Defense and Veterans Brain Injury Center, and associate professor of medicine at the University of South Florida. "The exciting news is that these sleep disorders can be treated and potentially reverse or slow these negative outcomes if properly recognized and treated."

Richardson is leading the team conducting the study and a series of investigations to improve recognition of specific sleep disorders after brain injury to facilitate appropriate evidence-based treatments, which are traditionally under-utilized in rehabilitation settings. Because scientific findings can take decades to impact clinical care, patients, caregivers, clinicians, and administrators

are involved with the study to enhance early adoption into clinical practice and promote acceptance by patients and their families.

"This project was selected for PCORI funding not only for its scientific merit and commitment to engaging patients and other stakeholders, but also for its potential to fill an important gap in our health knowledge and give people information to help them weigh the effectiveness of their care options," said PCORI Executive Director Joe Selby, MD, MPH. "We look forward to following the study's progress and working with the Tampa VA Research and Education Foundation at James A. Haley Veterans' Hospital and five civilian TBI Model Systems in Seattle, Denver, Columbus, Philadelphia, and Dallas to share the results."

Richardson's study was selected for PCORI funding through a highly competitive review process in which patients, clinicians, and other stakeholders joined clinical scientists to evaluate the proposals. Applications were assessed for scientific merit, how well they will engage patients and other stakeholders, and their methodological rigor among other criteria.

PCORI is an independent, nonprofit organization authorized by Congress in 2010. Its mission is to fund research that will provide patients, their caregivers, and clinicians with the evidence-based information needed to make better-informed healthcare decisions. For more information about PCORI's funding, visit www.pcori.org.

"There is no cure for brain injury. However, there is increasing focus on treating medical problems that may influence recovery. Research has shown that poor sleep impacts the brain's ability to heal early after TBI and may play a role in accelerated aging."

> Dr. Risa Richardson, Ph.D., clinical neuropsychologist at James A. Haley Veterans Hospital

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### SCIENTIFIC ABSTRACT

PI: Theresa Pape, Dr.Ph, MA, CCC-SLP/L

STUDY TITLE: rTMS: A Treatment to Restore Function after Severe TBI

**GRANT:** DoD, The Defense Medical Research and Development Program, Psychological Health/TBI Research Program (# PTI30274)

BACKGROUND: There were 2,709 military personnel reported to have incurred a severe Traumatic Brain Injury (TBI) during deployment to Iraq and Afghanistan between 2000 and 2012. Severe TBI is a particularly devastating catastrophic injury. Some survivors will recover full consciousness swiftly, while others will experience extended periods of seriously impaired consciousness. Both trajectories will involve complex, and potentially chronic cognitive and physical impairments. While there is a growing body of evidence indicating that this devastating injury is modifiable, there are few to no treatments that induce or accelerate functional adaptive recovery after severe TBI.

**OBJECTIVE:** The objective of this research proposal is to advance the development of rTMS for use in improving recovery of functional skills for persons living in states of seriously impaired consciousness 3 to 12 months after severe TBI. This will be achieved by determining the neurobehavioral and neural effects of repetitive Transcranial Magnetic Stimulation (rTMS), which is a noninvasive technique to stimulate the brain. Excitatory rTMS protocols have been examined for therapeutic effect for depression and stroke and this data indicates that rTMS induced local, remote and distributed neural activity driving improvement of symptoms and functional recovery. Our preliminary rTMS data with severe TBI indicate that neurobehavioral functioning, functional neural activation and functional and structural connectivity within the language and the default mode networks improved during provision of rTMS. Our findings also indicate that these gains were maintained for at least six weeks after stopping rTMS. The evidence of therapeutic efficacy from the literature in non-TBI related neurologic populations combined with our preliminary findings with severe TBI suggest that rTMS merits development for use as a neurotherapeutic intervention for severe TBI. The evidence also highlights the importance that the proposed rTMS protocol be examined to determine how rTMS induces structural and functional neural plasticity after severe TBI.

SPECIFIC AIMS: Aim I will determine presence, direction and sustainability of rTMS-induced neurobehavioral effects measured with the Disability Rating Scale. Aim II will determine the presence, direction and sustainability of rTMS-induced changes in functional neural activation and whether or not these changes correlate with improving neurobehavioral function.

Functional neural activation will be examined according to resting state functional connectivity (fcMRI), resting state electroencephalography (EEG-Rest) and neural activation in response to language processing tasks using fMRI and EEG-Task. Aim III will examine the effect of rTMS on white fiber tracts in the brain and whether or not the rTMS-related effects correlate with improving neurobehavioral function. Analyses for Aims II and III include focused examinations of changes in functional and structural connectivity within the language and default mode networks. Aim IV addresses the need to confirm rTMS safety for severe TBI.

STUDY DESIGN: A double blind randomized placebocontrolled clinical trial using repeated measures. Innovation: Use of rTMS as a neurotherapeutic for severe TBI is a novel application of the technology that has never been examined in a placebo controlled clinical trial with TBI and particularly severe TBI. Use of rTMS as a neurotherapeutic is a substantive departure from standard neurorehabilitation of severe TBI. Utilizing advanced imaging technologies in relationship to neurobehavioral recovery will enable determination of underlying neural mechanisms promoting the rTMS-induced neurobehavioral recovery. The proposed study will advance knowledge regarding neuroplasticity, adaptation and recovery from severe TBI. This knowledge will be applicable to moderate and moderate to severe TBI and other acquired neurologic conditions. These insights will promote new avenues of investigation to further advance the field of TBI neurorehabilitation research.

MILITARY BENEFIT: The proposed work addresses the Translation/Clinical Research area because we aim to develop rTMS, a non-invasive intervention, to restore neuronal function for persons remaining in states of seriously impaired consciousness 3 to 12 months after TBI. Being in the military and being engaged in combat places military personnel at elevated risks for incurring severe TBI. Life-saving protective equipment and technology have increased the number of military personnel surviving severe TBI; yet some survivors remain in states of seriously impaired consciousness several months to years after the traumatic event. We seek to advance the development of rTMS, as a treatment to induce and accelerate recovery.



**THERESA PAPE** 





### SCIENTIFIC ABSTRACT

PI: Theresa Pape, Dr.Ph, MA, CCC-SLP/L

STUDY TITLE: Advancing Clinical Outcomes, Biomarkers and Treatments for Severe TBI

**GRANT:** DoD, Joint Warfighter Medical Research Program (# W8IXWH-16-2-0023)

**BACKGROUND:** During the Iraq and Afghanistan conflicts the predominant injury among US military personnel is Traumatic Brain Injury (TBI), accounting for almost 10 times the number of personnel wounded. Severe TBI is a particularly devastating injury affecting over 2,700 military personnel from 2000 to 2012. Whether brief or prolonged, recovery from severe TBI involves complex and potentially chronic cognitive and physical impairments. Yet, there are few treatments that induce or accelerate functional adaptive recovery. The currently funded study is a double blind placebo-controlled randomized clinical trial (RCT) addressing the need to develop effective treatments for severe TBI. This multi-site RCT uses repetitive Transcranial Magnetic Stimulation (rTMS) to induce and restore neuronal function for persons remaining in states of seriously impaired consciousness (SIC) after severe TBI.

**IWMRP APPLICATION OBJECTIVE:** The purpose of this Congressionally Directed JWMRP application is to propose one project to further support participant enrollment and performance of currently funded RCT and to add two projects to enhance the clinical and scientific impact of this same RCT.

PROJECT #1 PURPOSE, AIMS, STUDY DESIGN, **INNOVATION, & IMPACT:** The purpose of Project #1 is to optimize subject enrollment in the currently funded RCT by addressing three Specific Aims:

- 1. Secure support for costs related to an enhancement to the original study design
- 2. Secure approval for an additional recruitment site a no cost to the currently funded RCT
- 3. Secure support for costs related to additional bed days, EEGs, and standard of care.

The examination of rTMS as a neurotherapeutic is a novel application of TMS and represents a substantive departure from standard neurorehabilitation of severe TBI. The currently funded RCT, with these supplements, will determine therapeutic effect of rTMS for patients incurring severe TBI. Study findings will advance knowledge regarding neuroplasticity, adaptation and recovery from severe TBI applicable to all TBI and other neurologic conditions advancing the field of neurorehabilitation.

PROJECT #2 BACKGROUND, PURPOSE, AIMS, **INNOVATION, & IMPACT:** A critical contributor to the growing list of inconclusive clinical trials in TBI has been the failure to address fundamental threats to TBI outcome assessments. By leveraging the unique data collection procedures implemented as part of currently funded RCT, the purpose of Project #2 is to advance the treatment of patients with severe TBI by making outcome assessments more comparable, accurate, and meaningful. We will achieve this by conducting both single and multi-faceted Rasch analyses of 5 widely-used TBI outcome assessments to address three Specific Aims:

- 1. Compare each assessment's content & construct validity to determine the extent to which they measure the same trait(s)
- 2. Improve the accuracy of TBI outcomes measures by quantifying and neutralizing the impact of rater severity/ leniency (RSL)
- 3. Develop meaningful indices of change for the 5 TBI outcome assessments.

This study uses innovative analytic methods to develop anchors that accurately describe patient change in neurobehavioral functioning (NBF) while demonstrating how the influence of RSL can be practically dealt with in clinical and research settings. Findings will enable meaningful cross-study comparisons of change in NBF in response to treatment by calculating effect sizes, minimally detectable changes and minimally clinically important differences. Findings will aid TBI endpoint development and help clinicians and researchers select TBI outcome assessments that best target patients being treated and support future TBI RCTs.

PROJECT #3 BACKGROUND, PURPOSE, AIMS, INNOVATION. & IMPACT: Serum miRNA levels have been established as biomarkers for many disease states including numerous neurological disorders, however there are no such biomarkers known for severe TBI. The purpose of Project #3 is to identify specific miRNA, derived from whole blood and microparticles, associated with recovery from severe TBI with and without rTMS treatment. Preparatory objectives will identify the miRNAs associated with severe TBI and rTMS in humans and define healthy variability of miRNA change over time, which will be used to address three study aims:

- I. Determine the extent to which the severe TBIassociated miRNA are altered by rTMS
- 2. Identify specific miRNAs associated with rTMSinduced recovery



3. Determine whether changes in miRNA levels are associated with non-rTMS-treatment related changes in NBF.

Project # 3 leverages the currently funded RCT to examine the innovative concept that miRNA play a crucial role in recovery from severe TBI and may be key to a deeper understanding of the mechanism by which rTMS improves neurobehavioral recovery after TBI. Project #3 will advance knowledge regarding neuroplasticity, adaptation and recovery from severe TBI.

MILITARY BENEFIT: Life-saving protective equipment and technology have increased the number of military personnel surviving severe TBI. Findings from the currently funded RCT and the three proposed projects will, collectively, advance treatment for military service members by elucidating the underlying neurobiology altered via rTMS, identifying miRNA biomarkers, and enhancing outcomes assessment.

### Pediatric & Adolescent Task Force

- CO-CHAIRS: Julie Haarbauer-Krupa & Drew Nagele
  - 1. Stacy Suskauer, MD received the Joshua Cantor Award at the 2016 ACRM Annual Conference in Chicago.
  - 2. Members of our task force collaborated on a manuscript that was accepted for publication by the Journal of Head Trauma Rehabilitation. Expect it to be online in the next few weeks.
  - 3. Citation: Haarbauer-Krupa, J, Ciccia, A, Dodd, J, Ettel, D, Kurowksi, B, Lumba-Brown, A, & Suskauer, S. (2016). Service Delivery in the Healthcare and Educational Systems for Children following Traumatic Brain Injury: Gaps in Care. Journal of Head Trauma Rehabilitation, DOI:10.1097/ HTR.0000000000000287.







**DREW NAGELE** 

4. Shari Wade, PhD, present a talk titled, Families and Rehabilitation Following Pediatric Brain Injury: Challenges, Opportunities and the Role of Everyday People, for the annual Mark Ylvisaker Memorial Pediatric Brain Injury Symposium Lecture at the ACRM Annual Conference.



Dr. Joshua Cantor Scholar Award Presented to: **Stacy Suskauer**, MD — at Hilton Chicago Hotel



# 2016 POSTER



### Early Career Poster Award

The 2016 Early Career Poster Award winner is: First Author, LAUREN NELSON, Brain Injury Research Center, Icahn School of Medicine at Mount Sinai

Cognition and Mood in a Clinically Fatigued Sample of Individuals with Traumatic Brain Injury

### INTERVIEW WITH LAUREN NELSON

I graduated in 2015 from Wesleyan University with a degree in Neuroscience and Behavior, so when a position was posted for a clinical research coordinator position at the Brain Injury Research Center (BIRC) of Mount Sinai, it seemed like a seamless transition. After meeting the wonderful faculty and staff at the BIRC, and with my previous academic interests in the field, it was a perfect fit.

### What is the best thing about being in this field?

The best thing about being in this field for me is the ongoing collaboration. This collaboration is evident not only in our center with the various coordinators, post-docs, and faculty members, but also on the inpatient unit where the attending physicians work hand in hand with the physical, speech, and occupational therapists, as well as the social workers and physiologists. This environment is one of the many reasons I want to remain in the medical field.

### Who has been your most important influence in your

I am greatly influenced by the many wonderful clinicians I have come in contact with in the rehabilitation field over the past year and a half. Their passion for and dedication to improving the quality of life of their patients is truly inspiring. Additionally, I am influenced by the study participants who I am continually able to learn from.

### Congratulations on your ACRM Early Career award! Would you mind telling us a little about your study?

This study was a secondary analysis of pre-randomization data collected as part of a treatment study currently being conducted at our center, the Management of Post-TBI Fatigue with Light Exposure study. The objective of this study was to examine relationships between TBI severity, fatigue, and sleep disturbance, while also examining the relationship between TBI severity and mood (anxiety and depression). Additionally, we explored whether fatigue was associated



**LAUREN NELSON** 

with anxiety, depression, or sleep disturbance. We found that those with a mild TBI experience greater levels of fatigue and sleep disturbance compared to those with a severe TBI and also discovered that fatigue has a significant linear relationship with anxiety, depression, and sleep

disturbance. The results of this study can inform development of interventions by keeping these links in mind while treating individuals with TBI. For example, interventions for post-TBI fatigue should include or target individuals with mild TBI, and those who experience such fatigue should also be assessed and/or treated for anxiety and depression.

### You have been currently working on a different study: exploring TBI and Health in Adults? What is the study's objectives and at which stage is the study in?

I aid in the outpatient recruitment and the one year inpatient follow ups for the TBI and Health in Adults study, which has been running since 2012 and is still actively enrolling participants. The purpose of this study is to learn more about TBI and aging. We are interested in learning about the health conditions that people with TBI already have at the time of their injury, and we are also interested in their health and cognitive functioning (such as memory or attention) after the injury. This study recruits from our inpatient unit as well as an outpatient population. Eligible participants are individuals who are 18 years or older, and have suffered a moderate, severe or complicated mild injury, requiring hospitalization.

### What do you like doing outside of work?

I played squash throughout college, and have since joined a league in the city out of New York Sports Club in Cobble Hill. In addition to playing squash, I enjoy cooking and try to make a meal with my friends at least once a week.

Lauren Nelson received her B.A. in 2015 from Wesleyan University in Neuroscience & Behavior; she has been working since then at the Mount Sinai School of Medicine, Department of Rehabilitation Medicine, as a clinical research coordinator.



# 2016 POSTER



### **David Strauss Memorial** Poster Award

The 2016 David Strauss Memorial Poster Award winner is: First Author: KEITH CICERONE. PhD. JFK Johnson Rehabilitation Institute Mediators of Change through Holistic Neuro-

psychological Rehabilitation: A Modest Proposal





BI-ISIG PROGRAM/AWARDS OFFICER: Dawn Neumann, PhD, Indiana University School of Medicine, Indianapolis, IN presenting David Strauss Memorial Poster Award to Keith Cicerone, PhD, JFK Johnson Rehabilitation, Edison, NJ — at Hilton Chicago Hotel.

### Girls & Women with ABI Early Career Poster Award

The 2016 Girls & Women with ABI Early Career Poster Award winner is: First Author: Miriam Carroll-Alfano, MS, CCC-SLP: MIRIAM CARROLL-ALFANO, MS, CCC-SLP, Saint Xavier University

Concussion Education for Student Athletes: What Kind? Who is Providing It? Does it Matter?

### **INTERVIEW WITH MIRIAM CARROLL-ALFANO**

How did you get involved in the field of rehabilitation?

My undergraduate degree is in Biology and I was working at a community hospital after graduation. I was considering going to graduate school, but was interested in working in a clinical profession. I heard about the Speech-Language Pathology Program at Saint Xavier University in the area,



**MIRIAM CARROLL-ALFANO** 

and started to take the required courses to apply to graduate school. After completing my Master's degree, I was hired as a speech-language pathologist at the Rehabilitation Institute of Chicago at Alexian Brothers Medical Center where I worked full and part-time for 14 years.

### What is the best thing about being a speech-language pathologist?

As rehabilitation professionals, we come into a person's life when he or she has been met with a medical challenge. I like being a member of the team working with the patient to overcome his or her challenges.

### Who has been your most important influence in your work?

I have had several people influence me throughout my career. Joanne Fleming Warner was my first advisor and mentor when I decided to study speech-language pathology. Michael Flahive taught me the importance of service to our professional organizations. Linda Shuster, Nicki Nelson, and Roberta

Continued on page 14



# 2016 POSTER



Continued from previous page

DePompei have been my mentors in research, teaching me to be a better consumer of evidence and to become a better researcher.

### Congratulations on your ACRM Girls and Women with ABI award! Would you mind telling us a little about your study?

All states have passed concussion legislation, often including mandatory education programs for student-athletes. This study surveyed collegiate athletes and found that, despite legislative mandates, nearly 25% of student-athletes reported not receiving education in high school. Female athletes were less likely to report receiving education than males. Students who had reportedly received education, were able to name the diversity of concussion signs and symptoms better than those who had not. Results suggest that continued efforts should be made to ensure delivery of appropriate educational programs to all student athletes.

### What are you looking forward to in the immediate future?

I am currently working on my Ph.D. in Interdisciplinary Health Sciences at Western Michigan University. My dissertation research is a three-part study that integrates prevention, assessment, and treatment of cognitive-linguistic deficits resulting from concussion.

### What is the best piece of advice you have ever been given?

My parents taught me the importance of hard work and to choose a career doing something that I love.

### What do you like doing outside of work?

My husband and I have 4 sons. I enjoy spending time with my family. I also enjoy gardening and running. I participate in several races throughout the year.

Miriam Carroll-Alfano is a medical speech-language pathologist with over 17 years of experience in hospital, acute rehabilitation, outpatient and skilled nursing facilities. She has been a clinical faculty member at Saint Xavier University for 9 years, supervising students in the clinic and teaching courses in adult neurogenic communication disorders, including traumatic brain injury, stroke, and dysphagia. She is the developer and coordinator of the university's Concussion Education Program and annually provides concussion training to all university athletes. Miriam is currently working on her doctorate in Interdisciplinary Health Science at Western Michigan University. Her research interests include: concussion education, policy, assessment, and treatment, as well as education and challenges facing patients who have had laryngectomies.



### The Worldwide Challenge Of Brain Rehabilitation To Be Represented In The Chivas Regal International Competition For Social Impact

Submitted by Son Preminger, PhD

The International "Chivas Venture" is a large-scale initiative which uses business to transform communities and solve global challenges. It is comprised of some of the top investors and business specialists from around the world. Each year the committee receives thousands of applications, and selects thirty (30) exceptional start-ups to compete for the title of the world's best innovative social impact initiative. Among this year's finalists is Intendu.

Intendu, is a startup that develops solutions for brain training for people with brain impairments. The Intendu cognitive training program was developed by Dr. Son Preminger, an Israeli neuroscientist and active member of ACRM BI-ISIG, along with a team of clinicians, computer scientists and gaming professionals. While Dr. Preminger was doing her PhD in neuroscience a few years back, her father sustained a traumatic brain injury. During his rehabilitation, Dr. Preminger came to the realization that people with brain injuries are very often released home after a short rehabilitation treatment without the means to continue with their therapy; this limits their recovery and can even lead to further deterioration. The Intendu Functional Brain Trainer was developed as a tool to extend therapy in the home environment, and meet the needs of a large set of the population of individuals with acquired brain impairments.

The Functional Brain trainer is a platform of adaptive, bodycontrolled video games for training functional cognitive skills within real-life interactive scenarios. The games are personalized in real-time to fit the player's capabilities and rehabilitation goals. The platform can be used by people with cognitive impairments due to various brain conditions including traumatic brain injury, stroke, age-related cognitive decline, mental illness, and neurological disease.

After years of development and utilization by many people with brain impairments and therapists at leading rehabilitation institutions worldwide, Dr. Preminger's dream to provide clients in recovery all over the world with an affordable and accessible tool to train their brain at home is being fulfilled.

Dr. Preminger additionally hopes that through this international competition, the widespread problem and prevalence of traumatic brain injuries as well as the demand for ongoing research and advanced treatments will be given global attention. Lastly, part of the Chivas Venture competition is made up of the public voting for their favorite company. By voting for the Intendu Brain Trainer people will be voting for better treatment for people with TBI and brain impairments.





### TRIAL USING NON-INVASIVE NEUROMODULATION IN MILD TO MODERATE TBI

Submitted by Kim Skinner, MPT, Director of Physical Therapy, Helius Medical Technologies

Over the last few decades, there have been exciting advances in the field of neuromodulation, or the use of external stimulation to intentionally change and regulate the electrochemical environment of the brain. At Helius Medical Technologies (HMT), we're studying the PoNS<sup>™</sup> device to determine whether use of the device, in combination with physical therapy, can improve chronic symptoms of balance and gait due to mild to moderate traumatic brain injury (mTBI).

So what exactly is the PoNS<sup>™</sup> device? PoNS<sup>™</sup> stands for Portable Neuromodulation Stimulator and is an investigational medical device currently being studied in the United States and Canada. This device provides stimulation to the brain via the tongue through the cranial nerves.

It represents the first in a series of non-invasive devices based on the patented PoNS<sup>™</sup> platform – designed to amplify the brain's powerful ability to heal itself. This is part of a new approach studied in "symptom treatment," in an effort to address the rising number of patients who have experienced loss of function, as a result of neurological disease or trauma.

As a result of their disease or injury, many patients are left with disrupted neural networks in the brain that are unable to carry neural impulses completely or efficiently. Researchers believe that significantly increasing the activation of these neurons through electrical stimulation, combined with targeted functional therapy, may help to reorganize and reactivate the networks responsible for those functions.

While physicians and patients turn to the available options to manage a host of neurological symptoms today, for millions living with these chronic disorders, there are limited treatment options, which can help patients rehabilitate lost function.

HMT intends to use the results from the pivotal, multi-center mTBI study to support an application to FDA for commercial distribution.\*

Currently, HMT is testing in the following locations: Surrey, BC, Orlando, FL, Portland, OR, Montreal, QC, Richmond, VA, and Washington, DC. To qualify, one must have sustained a concussion or head injury more than a year earlier, be between the ages of 18 and 65, have balance issues, be able to walk for at least 20 minutes (with support, if needed), and have not lost consciousness for more than 24 hours post injury.

To learn more about this clinical trial, visit www.braininjurytrial.com.

To learn more about Helius, visit www.heliusmedical.com.

\*It is important to note that the PoNS™ is an investigational device still in development, and is not cleared or approved for commercial distribution in the United States or Canada.







### 2017 MID-YEAR MEETING TRAVEL SCHOLARSHIP

The Executive Committee of the BI-ISIG is committed to supporting early career involvement in the BI-ISIG. The Early Career Annual Conference Travel Scholarship is intended to help recipients attend the ACRM Mid-Year-Meeting and help support participation in task force work.

Eligible candidates must be a BI-ISIG member and actively involved in one of the 7 task forces. Additionally, they must also have the chair(s) of the task force provide an endorsement email. Early career members of the ACRM Brain Injury Interdisciplinary Special Interest Group (BI-ISIG) were invited to apply for a travel scholarship to attend the ACRM Mid-Year Meeting in Atlanta, Georgia at the Hilton Atlanta, 27 - 29 April 2017. This year's scholarship recipients are:

### Shannon Juengst, PhD, CRC

University of Texas Southwestern Medical Center

### Reza Ehsanian, MD, PhD

Santa Clara Valley Medical Center, Stanford University

### Jonathan N. Dodd, PsyD

St. Louis Children's Hospital (SLCH), Washington University School of Medicine - St. Louis

### **Ed Devitt II**

Talking Brains Initiative, Inc.

### Shannon Juengst, PhD, CRC

Shannon Juengst is a Certified Rehabilitation Counselor and Assistant Professor in the Department of Physical Medicine & Rehabilitation at the University of Texas Southwestern Medical Center, with a secondary appointment in the Department of Rehabilitation Counseling. She has over a decade of experience in research, with extensive training in research design and methodology, advanced statistics, clinical trials design, and psychometric evaluation in health care research.



Dr. Juengst's research focuses on behavioral and emotional outcomes of traumatic brain injury, investigating biopsychosocial relationships, innovative telehealth methods, and evidence-based interventions. Her broader research agenda is to situate behavior and emotion at the center of the bench to bedside to community program of research and to investigate behavior and emotion as modifiable targets between neurological injury and community integration for rehabilitation intervention.

### Reza Ehsanian, MD, PhD

Reza Ehsanian, MD, PhD is a physicianscientist whose academic interests include the translation of basic science to clinical practice to ultimately improve outcomes for individuals with SCI, TBI and chronic pain. He is the Health Care Program Manager at the Rehabilitation Research Center in the Department of Physical Medicine and Rehabilitation at Santa Clara Valley



Medical Center and a Post-Doctoral Fellow in the Department of Neurosurgery at Stanford University.

Dr. Ehsanian's research focus includes implementing neural cells, known as oligodendrocyte progenitor cells, which are produced from human embryonic stem cells to promote repair of damaged spinal cord tissue (NCT02302157); rTMS to restore function after severe TBI (NCT02366754); and the development of regenerative medicine techniques for pain management.

Dr. Ehsanian has led multi-center, multi-discipline research projects as a scientist at NASA Ames Research Center prior to his medical training at Stanford University, doctoral training at Oxford University, Christ Church College and Howard Hughes Medical Fellowship at National Institutes of Health where he developed his research

Continued on page 18

### 2017 MID-YEAR MEETING TRAVEL SCHOLARSHIP

Continued from previous page

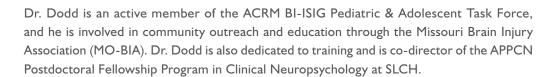
interest in translational medicine. He has authored a book chapter, published peer-reviewed journal articles, presented nationally and internationally; he co-founded South Bay Vestibular Support Group (501(c)(3)), whose mission is to provide a ground- and internet-based forum to educate, support and provide rehabilitation resources.

Dr. Ehsanian is currently serving as the Chair-Elect to the Early Career Development Course (ECDC) Task Force. As such, he will be closely collaborating with the current Chair. Monique Pappadis, MEd, PhD, as well as other planning committee members to help organize the 2017 course in Atlanta. Dr. Ehsanian will assume the role of Chair of ECDC at the close of 2017 and serve a 2-year term.

### Jonathan N. Dodd, PsyD

Jonathan N. Dodd, PsyD. is a pediatric neuropsychologist at St. Louis Children's Hospital (SLCH), and Clinical Instructor in the Department of Neurology at Washington University School of Medicine - St. Louis. Dr. Dodd is the primary neuropsychologist for the SLCH Neurorehabilitation Program and co-founder of the multidisciplinary concussion clinic in collaboration with the department of neurology at SLCH.

He is actively involved in education program development and clinical research for children and adolescents recovering from acquired brain injury. He also is part of the concussion management team for the St. Louis Blues professional hockey team, and he served as the neuropsychological consultant for concussion management for the St. Louis Rams, prior to the team's relocation to California.





Ed Devitt II, is the CEO of Talking Brains Initiative, Inc. He is a designated public speaker for both NSA-NYC as well as the National Speakers Association. Ed, is an engaging communicator who touches a diverse audience ranging from academic settings (schools, universities) to correctional facilities, recovery programs and other therapeutic milieus. He has been a strong advocate for the healthcare rights of survivors of traumatic brain injuries and has participated in numerous meetings with US lawmakers and civic leaders.

Ed possesses a deep understanding of traumatic brain injury through his participation in numerous conferences, rallies, forums in addition to personal experiences. By sharing his personal experience of the trials and tribulations of living with a TBI, he has managed to successfully formulate strong alliances with Veterans. Moreover, his strong counseling skills and mentorship have helped many individuals who are afflicted by this "silent epidemic."

Ed Devitt II is CEO of Talking Brains Initiative, Inc. and a professional speaker for NSA-NYC and the National Speakers Association. He is also a TBI group facilitator.





## IN THE NEWS



Risa Richardson, PhD at James A. Haley Veterans' Hospital Approved for \$2.68 Million Research Funding Award by the Patient-Centered Outcomes Research Institute. Please see press release page 8.

Gerald Voelbel, PhD, Professor of the New York University, Steinhardt School of Culture, Education, and Human Development, was recently interviewed on several topics:

- o Where will we be in 2017: From robotic technology to life changing apps, we track the rehab trends to watch in the coming year. Rehab Insider, Vol 1 (1), 2017. Learn More >>
- o Chemo Brain: Clear the Fog. Ivanhoe News Syndicate. January 4th, 2017. Learn More >>
- o Neuroplasticity and TBI Gerald Voelbel, PhD New York University. Public Health Minute with William Latimer: bridging the Gap between Researchers and Communities. January 6th, 2017. Learn More >>



Dr. Tessa Hart Receives Award for Scientific Contributions. Tessa Hart, PhD, institute scientist, recently received the Roger G. Barker Distinguished Research Contribution Award at the 2017 Rehabilitation Psychology Conference in Albuquerque, N.M. The annual Barker award is "conferred upon an individual who is judged to have made an outstanding lifelong contribution to Rehabilitation Psychology through empirical research, conceptual/ theoretical development, or both."

It is named for Roger G. Barker, who was a founder of environmental psychology, which focuses on how social and physical environments influence actions and behavior. Dr. Hart directs the Traumatic Brain Injury Clinical Research Laboratory as well as the Moss Traumatic Brain Injury Model System. Her research focuses on TBI outcomes and treatments, with special focus on long-term psychosocial outcomes and treatments involving cognitive and emotional self-regulation.



# memories 2016 CHICAGO

### **2016 BI-ISIG SUMMIT MEETING**



ACRM CONFERENCE: BRAIN INJURY INTERDISCIPLINARY SPECIAL INTEREST GROUP MEETING — AT HILTON CHICAGO HOTEL





**ACRM BI-ISIG EXECUTIVE COMMITTEE 2016 (NOT** PICTURED: KRISTEN DAMS-O'CONNOR AND TESSA HART)

### "She's my hero — she's your champion"

—Jennifer Bogner speaking about parting BI-ISIG Chair Donna Langenbahn



"She's logical, she's clearheaded, she's direct she will be a fabulous Chair"

—Outgoing Chair Donna Langenbahn remarks about incoming Chair Jennifer Bogner



**BRAIN INJURY ISIG TASK FORCE CHAIRS** 

### THE PROJECT CAREER STAR PORTAL

Submitted by: Eileen Elias, Senior Policy Advisor & Director, Disability Services Center

Project Career is an interdisciplinary initiative designed to improve the employment success of undergraduate veteran and civilian, two- and four- year college and university students, with a traumatic brain injury (TBI). Project Career is in its fourth of a five-year National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) demonstration grant award. It operates from three sites: Boston University, Kent State University and West Virginia University, in partnership with JBS International, Inc. The project provides cognitive support technologies (CSTs) in the form of iPads and applications (apps) to post-secondary students with TBI, in an effort to help them achieve positive academic outcomes, and attain gainful employment. Project Career is dedicated to helping students with TBI improve daily functioning, compensate for cognitive challenges (including memory and attention), increase academic success, and increase graduation rates and employment retention.

The Student Technology Accommodations Resources (STAR) Portal, an online information interface through Project Career's main website, has been available since 2016. This tool connects post-secondary students with TBI, family and caregivers, college advisors, educators, health and rehabilitation providers, service members, veterans, and advocates, with useful information about TBI and assistive technology. It includes articles regarding technology tools, apps, accommodations, and employment-supporting resources, which can be used to enhance academic and career achievements of individuals with TBI. Examples include the Matching Person and Technology Model, veteran-specific resources, and Job Accommodation Network articles. The portal also provides users with Project Career's most recent activities, including process, results, and testimonials.

The four sections of the portal (Student, Technology, Accommodations, and Resources) support the user in locating information that most closely meets their needs. The STAR Portal is available at no cost to any individual interested in the connection between assistive technology and TBI, regardless of TBI status or involvement in Project Career. All non-affiliated students are welcome to use the resources and strategies from the Portal, in their personal routines. Additionally, they can contact us with questions and comments.

For more information about Project Career and the STAR Portal, visit <a href="http://www.projectcareertbi.org">http://www.projectcareertbi.org</a> and/or contact the Project Career Director, Phillip Rumrill, PhD at Kent State University, prumrill@kent.edu, (330) 672-0600.

### **REFERENCES**

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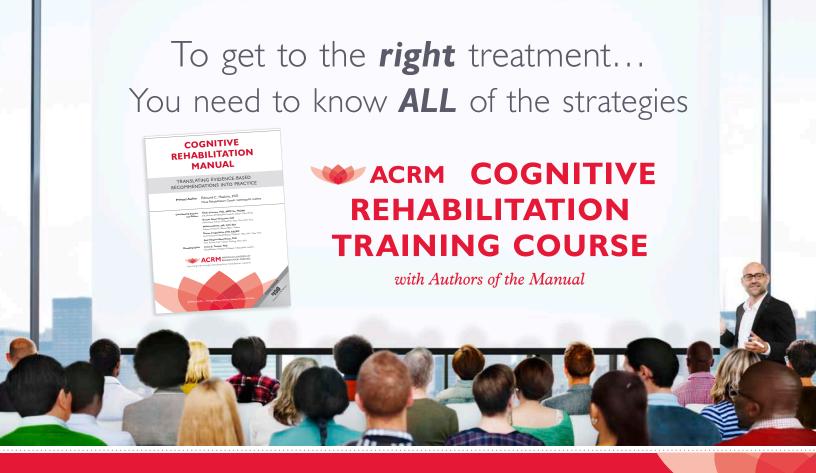
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