# **DEFENSE AND VETERANS BRAIN INJURY CENTER**



# 2019 ANNUAL REPORT





# Contents

# Letter from the Division Chief, DVBIC

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**Publications** 

Dear Colleagues and Collaborators:

As I reflect back on 2019, I am impressed with the breadth of our accomplishments. Our research network has participated in 80 studies and numerous performance improvement projects. We completed one major clinical recommendation and provided one modification, led the development of an enterprise-wide TBI outcomes initiative, and delivered 3,605 educational events. Additionally, we have published 57 manuscripts and delivered 163 presentations.

Specifically, 2019 saw the release of the Cognitive Rehabilitation Suite, the Headache Virtual Suite, and the Concussion Management Tool. We experienced a greater sense of collegiality at the Senior Clinical Research Directors Meeting and the Regional Education Coordinators (RECs) Meeting. DVBIC continues to lead four of the six lines of research effort identified by the Defense Department to promote warfighter brain health. Our communications and dissemination efforts involve the regular production of the CUBIST podcast and numerous outreach efforts from A Head for the Future initiative.

In all of these endeavors, I remain impressed with how our Research, Clinical Affairs, and Education branches productively interact. Research regularly produces empirical studies that fill knowledge gaps. Using this, Clinical Affairs formulates recommendations for providers. Education translates these recommendations into products that our RECs provide to our stakeholders. Subsequently, the effectiveness of this educational outreach has become a subject of inquiry for our researchers. These collaborations demonstrate the esprit de corps across our branches.

The coming year will continue to be a time of change within the Defense Health Agency (DHA) with the transfer of control of military treatment facilities, determined focus on warfighter readiness, and resolute pursuit of increased efficiencies. As members of DHA, DVBIC and our directorate are not exempt from these challenges of change, but I am confident that we will be able to consistently demonstrate the benefits of our work.

Looking back on these developments, we should feel proud that we have continued to fulfill our mission of supporting service members, veterans, and their families. Continue to cultivate excellence in the year ahead.

Sincerely,

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Navy Capt. (Dr.) Scott W. Pyne



# DVBIC as an Organization DVBIC as an Organization

# **Division Chief**

U.S. Navy Capt. Scott W. Pyne

Captain Pyne manages all key activities of DVBIC.

Also, he directs the Department of Defense (DoD)

TBI Pathway of Care. He holds a Bachelor of Science from Muhlenberg College in Allentown, Pennsylvania, and a Doctorate of Medicine from Temple University

School of Medicine in Philadelphia. He completed his family medicine internship and residency at the Naval Hospital Jacksonville, Florida, and a fellowship in primary care sports medicine in San Diego.



In July 1999, Captain Pyne was assigned to the Naval Health Clinic Quantico, Virginia, and from June 2003 until July 2009, he was assigned to Naval Health Clinic Annapolis, Maryland. In July of 2009, he deployed to the Expeditionary Medical Facility Kuwait. Following a three-year stint in the office of the Medical Inspector General for the Bureau of Medicine and Surgery, he returned to the Naval Health Clinic Annapolis in August 2012. There, he served as the Naval Academy admissions medical officer, concussion clinic coordinator, physician for varsity football and rugby teams, and as a clinical staff physician.

Captain Pyne is board-certified in family medicine (with a Certificate of Added Qualification in Primary Care Sports Medicine), an assistant professor of family medicine at the Uniformed Services University of the Health Sciences (USU), Bethesda, Maryland, and a member of the American Academy of Family Physicians, the American College of Sports Medicine and the American Medical Society of Sports Medicine. He has authored several scientific publications and given numerous regional, national, and international presentations. Military decorations include Meritorious Service Medal (3), Navy Commendation Medal, Navy Achievement Medal (2), and numerous additional campaign and service medals.

DVBIC originated from the Vietnam Head Injury Study, which began in 1974 and consisted of a registry for head and spinal cord injuries. A similar registry was set up in the first Persian Gulf War in the early 1990s, and Congress created the Defense and Veterans Head Injury Program in 1992. Today, DVBIC operates under the Defense Health Agency's Research and Development Directorate (J9). DVBIC's three branches of Research, Clinical Affairs, and Education work interactively to achieve the mission of promoting state-of-the-science care from point-of-injury to reintegration for service members, veterans, and their families. The primary activity of each branch can be characterized as follows:

- **Research** generates hypothesis-driven, clinically-focused studies by identifying knowledge gaps in the scientific literature, as well as responding to congressional mandates and evaluating our clinical tools.
- Clinical Affairs develops clinical recommendations to health care providers based on scientific findings and epidemiological studies.
- **Education** translates scientific findings into formats that can be understood by various stakeholders, and then disseminated through the outreach activities of the DVBIC network.

As represented schematically below, the branches actively collaborate by engaging key clinical stakeholders in the development of DVBIC products. These stakeholders identify needs and gaps, review and analyze evidence, and actively participate in product development, dissemination and outreach, and implementation and adoption.

# DVBIC'S Knowledge Translation Lifecycle







# **Research Highlights**

DVBIC provides evidence-based knowledge to support militarily- and clinically-relevant, gaps-driven TBI research. To increase military readiness, the Research Branch focuses on warfighter TBI care, adapts to the changing research and congressional landscape, harnasses the expertise from individual sites, and fosters collaboration between government, academia, and industry to create products and policy recommendations that will improve treatment and outcomes for service members and veterans who have sustained TBIs.



# **Network Site Locations & Areas of Research Expertise**

DVBIC has 16 military treatment facilities and five Veterans Administration (VA) hospitals. Of these, 18 conduct research into various aspects of TBI. Each site performs research based on its particular area of expertise, and they collaborate when there are areas of overlap.

### The Warfighter Brain Health Memorandum

Issued by the Deputy Secretary of Defense in October of 2018, the memo called for a comprehensive strategy to address TBI based on six focus areas — research, treatment/diagnosis, education, surveillance, long-term effects, and blast. DVBIC's leadership team is leading efforts to draft an actionable TBI strategic research plan for DHA and J9 in collaboration with USU. This memo also shapes DVBIC's current work in Education and Clinical Affairs.

### Senior Clinical Research Directors Conference in Silver Spring



DVBIC researchers collaborate to make sure its portfolio advances evidence-based clinical practice. (DVBIC Photo)

On June 13-14, DVBIC staff from headquarters and 16 network sites attended a two-day Senior Clinical Research Directors meeting. The meeting's purpose was to understand and review DVBIC's mission drivers and to evaluate the current research portfolio.

Research Branch Chief Dr. Safaan Malik noted that DVBIC produced "military-relevant, gaps-driven TBI research" and pointed out that it currently conducts or supports 80 research studies, advances evidence-based clinical practice, and fosters collaboration between interagency stakeholders (e.g., National Institutes of Health) and other industry/academic collaborators.

Some general takeaways from the meeting included the following:

- The importance of collaboration
- Leveraging the network for best practices on topics of shared concern
- Challenging each site to identify concrete ways to optimize its portfolio





### **Congressionally Mandated Studies**

In 2007, Congress directed the Secretary of Defense to conduct a longitudinal study on the effects of traumatic brain injury incurred by members of the Armed Forces serving in Operation Iraqi Freedom or Operation Enduring Freedom, as well as their families. In 2009, DVBIC was directed to fulfill this mandate.

DVBIC supports multiple component studies collectively referred to as the 15-Year Studies. These are the Natural History of TBI Study, the Caregiver and Family Member Study, and the Archival Studies. In 2015, a VA-based "sister-study" was launched known as the Improved Understanding of Medical and Psychological (IMAP) Needs in Service Members and Veterans with Chronic Traumatic Brain Injury. IMAP focuses on rehabilitation and supplements the existing infrastructure



of the VA Traumatic Brain Injury Model Systems Program. The Natural History, Caregiver, and IMAP studies are actively collecting data and preparing for the Year 11 report due to Congress in 2021.

# **Highlights from 2019**

Across The Natural History, Caregiver and IMAP studies, there were 27 publications and 58 presentations in 2019. Since the inception of the studies, there have been more than 150 peer-reviewed manuscripts and over 300 conference presentations.

These studies generated important findings on the impact of mood, sleep, chronic pain and PTSD on TBI, as well as long-term quality of life issues in both rehabilitation for persons with TBIs and their caregiver's needs.

For example, the Archives of Physical Medicine and Rehabilitation featured a special issue on Caregivers of TBI, which highlighted the TBI Caregiver Quality of Life Measurement tool, the first of a kind to assess military and civilian caregivers. The tool has been validated and is in use at the Walter Reed National Military Medical Center, the lead site for the study focusing on caregivers.

In December, TBI stakeholders gathered in Tampa, Florida, to discuss data and recommendations to be included in the 2021 Year 11 report to Congress. The meeting provided a unique opportunity for 15-Year and IMAP study investigators to present the cumulative findings and discuss their impact for clinicians, administrators, patients, caregivers, and researchers.

### **Research Reviews**

On its website, DVBIC publishes scientific literature reviews on topics relating to TBI. This year, it updated its review on Chronic Traumatic Encephalopathy.

### **Newsletters**

### **Hot Topics**

DVBIC experts summarize and provide commentary on the latest TBI scientific studies receiving attention in the press. Studies are selected by their media impact as determined through quantitative analysis of Google News and PubMed searches and qualitative assessment by DVBIC personnel. This newsletter also includes some news stories not derived from scientific studies but relevant to TBI stakeholders. In 2019, DVBIC published four Hot Topics newsletters.

### **Tech Watch**

In 2019, DVBIC published two Tech Watch newsletters. DVBIC technology specialists summarize and provide commentary on news articles, trade publications, and scientific studies about technological developments related to TBI research, diagnostics, treatment and rehabilitation. The articles included are selected based on a subjective evaluation of relevance and importance.

# **Working Groups and Committees**

DVBIC staff participate in a number of working groups and committees that further its mission of advancing knowledge about TBI for the benefit of service members, veterans, and their families.

- TBI Model Systems
- Government Steering Committee: Chronic Effects of Neurotrauma Consortium-Long term Impacts of Military-Related Brain Injury Consortium (GSC: CENC-LIMBIC)
- TBI Endpoints Development Government Steering Committee (TED GSC)
- Combat Casualty Care Research Program Integrating Integrated Product Team
- Planning committees for the annual meeting of the Brain Injury Association and the Military Health System Research Symposium
- NonInvasive NeuroAssessment Devices Integrated Product Team
- Committee on Surgical Combat Casualty Care
- TBI-Drug Treatment Integrated Product Team (IPT)
- FY 18 NDAA Section 734 (Line of Inquiry and Line of Effort)
- J9 Future State

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# **Collaborations**

In addition to the network sites and Intrepid Spirit Centers, DVBIC works with many other collaborators. These ongoing collaborations make possible DVBIC's research, including congressionally mandated directives.

Academic	
■ Baylor College of Medicine	<ul><li>McMaster University</li></ul>
■ Northwestern University	<ul><li>Ohio State University</li></ul>
■ Oregon Health & Science University	<ul><li>Princeton University</li></ul>
<ul><li>Stanford University School of Medicine</li></ul>	University of Maryland School of Medicine
<ul><li>University of Michigan</li></ul>	<ul><li>University of Minnesota</li></ul>
<ul><li>University of North Carolina at Greensboro</li></ul>	University of North Carolina at Chapel Hill
<ul><li>University of Pittsburgh</li></ul>	<ul><li>University of Utah</li></ul>
■ Wayne State University	
Industry	
■ Berry Consultants	RTI International
Other DoD / VA / Federal Organizations	
■ Boston VA Medical Center	Center for Neuroscience and Regenerative Medicine
■ Iowa City VA Health Care System	Michael E. DeBakey VA Medical Center
<ul> <li>National Institute of Nursing Research (part of National Institutes of Health)</li> </ul>	<ul> <li>National Institute of Neurological Disorders and Stroke (part of National Institutes of Health)</li> </ul>
<ul> <li>National Institute on Disability, Independent Living, and Rehabilitation Research</li> </ul>	■ National Intrepid Center of Excellence
■ Naval Health Research Center	<ul><li>South Texas Veterans Health Care System</li></ul>
■ Uniformed Services University of the Health Sciences	<ul><li>U.S. Army Medical Research and Materiel Command</li></ul>
<ul> <li>Walter Reed Army Institute of Research War Related Illness and Injury Study Center</li> </ul>	
Civilian Medical Research Foundations, Organizations, and Hospitals	
■ Craig Hospital	Courage Kenny Research Center
<ul><li>Kessler Foundation</li></ul>	Memorial Hermann Memorial City Medical Center

# **Ongoing and Recently-Completed Collaborative Research Studies**

The following studies illustrate how DVBIC's network sites collaborate to ensure all the necessary stakeholders are involved in developing products. These studies are either ongoing or produced major findings in 2019.

- Last year, some of the final analyses were published for the Warrior Strong Study that followed a sample of 1,567 soldiers (557 with concussions and 1,010 as controls). The data were collected at Fort Bragg and Fort Carson network sites between 2009 and 2014.
- The Health Outcomes for Acute Concussion study is currently recruiting participants at DVBIC's Landstuhl and Fort Bragg sites. The Landstuhl site is following concussed patients while the Fort Bragg site is following a group of healthy controls; the study is trying to validate the Brain Gauge device, a tool designed to objectively assess concussion.

# **Education Highlights**



RECs are critical in disseminating DVBIC products to its stakeholders. (DVBIC Photo)

### **REC Conference at DVBIC Headquarters in Silver Spring**

On August 6-8, the Regional Education Coordinators convened for a three-day conference focused on aligning their day-to-day work with DVBIC's overall mission with each branch making a presentation. From Mission Support, the RECs received information on administrative issues, such as ordering DVBIC products and learning about ways to showcase their outreach activities. From Education, the RECs discussed the relevance of their work to the Defense Department's Warfighter Brain Health Memo of 2018. From Clinical Affairs, RECs were briefed on the creation of clinical recommendations, the products of which they would disseminate to stakeholders. From the Research Branch, the RECs learned where to find information on the latest scientific developments (e.g., the CUBIST podcast and newsletters), and received instruction on the Vestibular/Ocular Motor Screening tool, the concussion management tool, and symptom clusters.

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#### **International Conference**



Ashley Jack, TBI Physician Assistant at Landstuhl, conducting an acupuncture course as part of the conference. (DVBIC Photo)

On September 4-6, Regional Health Command Europe sponsored a TBI Champion Training Conference facilitated by Casey

Becker, the local REC. Health care providers from military treatment facilities throughout Europe attended the three-day conference
on Ramstein Air Base in Germany. Subject matter experts from the Traumatic Brain Injury Clinic and other consulting clinics
provided educational briefings and hands-on training to 35 participants from seven different countries—including England, Belgium,
Spain, Italy, Turkey, Germany, and Kuwait. Among the conference topics discussed were best practices in managing TBI (from
acute concussion through post-concussive symptoms), as well as resources and tools available from DVBIC. Attendees networked
with TBI and Landstuhl Regional Medical Center staff to standardize practices and improve acute concussion care management.

Participants committed to sharing the knowledge received with their colleagues. Moving forward, these providers will become
liaisons for the Landstuhl TBI clinic to promote brain injury awareness and education at their local sites.

#### **Training in South Korea**

In October, REC Haley Cedarleaf from Naval Medical Center, San Diego was invited to Camp Humphreys in South Korea to provide face-to-face instruction in the MACE 2 as per the Army order requiring its personnel to use DVBIC products to prevent, diagnose, and treat service members who have experienced a TBI. Eighty-one staff were trained.



(DVBIC Phot

### A Head for the Future

Established in 2014, DVBIC's A Head for the Future (AHFTF) initiative provides resources on TBI prevention, recognition, and recovery targeted to the military community, particularly service members, veterans and their families. These resources include videos, blogs, social media content, and educational materials. AHFTF also conducts outreach at dozens of events each year. In 2019, AHFTF continued its profiling of "TBI Champions" (individuals who showed resilience after experiencing TBIs), and expanded its reach to find new stories.

In March, AHFTF coordinated with DHA to highlight new innovative videos for Brain Injury Awareness Month (BIAM) and share resources with community partners. In June, AHFTF sent a team to the 2019 Warrior Games in Tampa Bay, Florida, to interview two athletes who competed, to host an informational booth, and to share videos from the event on social media. In July, the campaign introduced a new animated public service announcement series entitled "Talking TBI – Connect with Others." AHFTF also created 12 blog posts profiling many of the RECs throughout DVBIC's network.

#### **AHFTF Accomplishments:**

- Collaborated with ServingTogether, a new mental health outreach program focused on veterans by EveryMind, a non-profit in the Washington, D.C., region. AHFTF participated in six new networking events in Virginia, Maryland, and the District of Columbia where it increased awareness of its products through ServingTogether's network of more than 100 public, private, and non-profit organizations that serve veterans in the Washington, D.C., area.
- Attended 33 events, with a potential reach of 110,063 attendees, including new connections with military women's and veterans groups. Distributed 2,279 DVBIC/AHFTF products at events.
- Secured seven media placements in outlets such as Brain & Life magazine.

#### **AHFTF Social Media:**

- Generated 39,000 social media engagements on its Facebook page (including 26,000 video views) — nearly double compared to fiscal year 2018.
- AHFTF's BIAM 2019 efforts reached more than 22.000 users on Facebook.
- In July, a TBI Champion profile of Randy Dexter on Facebook reached more than 12,000 people.
- In April 2019, the AHFTF team updated the "Talking Heads" public service announcements featuring recent TBI Champions. This product continues to run on the Armed Forces Network.



TBI Champions Navy veteran Amanda Burrill (left) and Army veteran Elana Duffy (right) bond over their TBI experiences/iourney (AHFTF photo).

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# **Clinical Affairs**

# **Brain Injury Awareness Month**

This yearly event in March constitutes a combined effort from AHFTF, DVBIC Communications, and RECs. Its purpose is to heighten awareness and understanding of the signs and symptoms of TBI among key stakeholders, and to emphasize DVBIC's

role as the TBI Center of Excellence and manager of the TBI Pathway of Care. The theme for the year was "TBI: Did you know?" and consisted of a series of questions and answers disseminated throughout the month. In 2019, a Facebook town hall occurred featuring DVBIC TBI experts discussing the latest developments in diagnosis and treatment for TBI. In 2019,



Minneapolis REC Jean Ingalls shared resources at Uniformed Services Academy of Family Physicians Annual Meeting and Exposition during BIAM. (DVBIC Photo)

the RECs hosted over 450 events. On average, each REC facilitated and/or attended 28 education, outreach, or training events.

## **Headache Virtual Suite**

To guide MHS providers in evaluating and treating post-traumatic headaches, DVBIC designed an online course called the Headache Interactive Provider Training, and released it in early July 2019. Approximately 82 percent of service members diagnosed with a traumatic brain injury experience concussions, which has headaches as its most commonly recorded symptom. The course is about an hour, uses interactive instructional methods, and is eligible for one continuing education unit in selected disciplines.



Display table at a BIAM event. (DVBIC Photo)

# **Clinical Affairs Highlights**

#### Surveillance

As the Defense Department's office of responsibility for TBI data in the U.S. military, DVBIC analyzes the number of activeduty service members with a first-time TBI diagnosis since 2000. This information is disseminated in quarterly and annual reports.

#### **DoD Numbers for Traumatic Brain Injury** Worldwide — Totals 5.2% 1.3% 1.0% 2000-2019 Q3 Penetrating 5,279 9.8% 4.110 Severe Moderate 40,378 342,747 Not Classifiable 21,344 82.8% 413,858 **Total - All Severities** Source: 2000 to 2018 Q1 data provided by the Armed Forces Health Surveillance Branch (AFHSB) using the Defense Medical Surveillance System (DMSS) and Thea Medical Data Store (TMDS); data starting 2018 Q2 provided by the Defense and Veterar Brain Injury Center (DVBIC) using the MHS Data Repository (MDR). Prepared by the Defense and Veterans Brain Injury Center (DVBIC) 2000-2019 Q3, as of November 08, 2019

### TBI Pathway of Care Manager

Since 2014, DVBIC has served as the manager

of the DoD TBI Pathway of Care (PWoC) and chair of the DoD TBI Advisory Committee (TAC). The PWoC is a health policy aimed at advancing the level of care across the MHS by synchronizing processes and transitions and improving outcomes and outcome metrics. The TAC is the Defense Department's coordinating body chartered to promote organized and efficient TBI care from prevention and education through reintegration. Although Clinical Affairs plays a prominent role in the PWoC, this initiative has implications for all of DVBIC's endeavors.

### **Concussion Management Tool**

In April 2019, DVBIC released this tool, a revision of an earlier one known as the Concussion Management Algorithm. The new version adds information on symptom clusters and related clinical referral recommendations.

### **Clinical Outcomes Sub Working Group**

The Clinical Outcomes Sub Working Group is a chartered subcomponent to the TAC. DVBIC Clinical Affairs chaired this sub working group that identified three measures to be submitted to DHA leadership as formal requirements for the collection of TBI outcome metrics across DHA clinics.

# Clinical Affairs

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# Communications

## **Quadruple Aim Performance Process (QPP)**

The TAC and DVBIC worked together to identify metrics that would be submitted to DHA's Deputy Assistant Director, Medical Affairs to measure improving treatment outcomes for patients with acute concussions. DVBIC's Clinical Affairs and Education branches support this effort to develop a standardized, military-specific approach to diagnosing and managing concussions to reduce the development of chronic symptoms and increase service members' readiness after such injuries.

Cognitive Rehabilitation for Service Members and Veterans Clinical Product Suite



Members of the Cognitive Rehabilitation Working Group during a 2017 meeting. (DVBIC Photo)

In April, DVBIC released the Cognitive
Rehabilitation for Service Members and
Veterans Following Mild to Moderate Traumatic
Brain Injury Clinical Product Suite. The outcome
of collaboration between DVBIC-affiliated
clinicians and researchers and the wider
scientific and clinical military communities, the
new suite of products is based on a literature
review and the consensus of expert opinion.

The significance of this product goes beyond being a state-of-the-science knowledge synopsis. How it was created was also noteworthy. This suite constituted several methodological "firsts" for DVBIC:

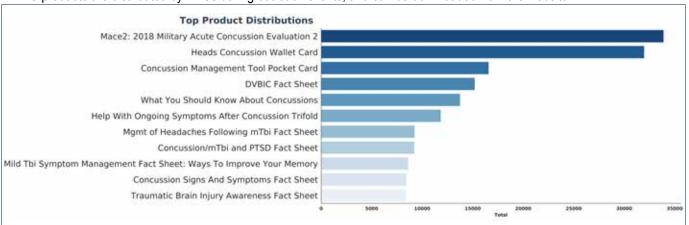
- An all-inclusive web-based tool contains the complete product suite as well as links to complementary VA/Defense Department-affiliated clinical resources.
- A systematic knowledge translation process was applied.
- It was designed as a "one-stop shop" tailored specifically to clinicians working with service members and veterans.
- An end-user group of providers ensured that the final products were consistent with their needs.

This approach pioneered integrative, interdisciplinary problem solving that could serve as a model for all our professional endeavors going forward.

# **Communications Highlights**

Print Products Distributed and Downloaded in 2019

DVBIC products are distributed by RECs during outreach events, and can be downloaded from the website.



#### **DVBIConnect Newsletter**



This monthly newsletter keeps the DVBIC community connected by reporting on developments around the network, as well as featuring stories on the work of researchers and RECs. In 2019, there were 10 publications of this newsletter.

June 2019 issue of DVBIConnect

# Communications

# **Presentations**

# **Podcasts**

Clinical Updates in Brain Injury Science Today (CUBIST)



Launched in May 2017, CUBIST is a podcast for health care providers treating service members and veterans with TBI. Each episode offers a brief analysis of current research relevant to clinicians. In 2019, 10 episodes were released.

CUBIST hosts Dr. Donald Marion and Betsy Myhre recording an episode. (DVBIC Photo)

#### **DVBIC** in the News

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On May 16, Dr. Louis French, DVBIC site director at the Walter Reed National Military Medical Center, was interviewed as part of a CBS news story on how a "Computerized Program Could Offer Hope to Veterans with Traumatic Brain Injury." The story described research funded by various Defense Department agencies including DVBIC.

The work of DVBIC researchers on TBI, PTSD, and resilience was publicized in a July Health.mil article entitled "Positive Attitude, Social Support may Promote TBI/PTSD Resilience."

The October/November issue of Brain & Life magazine contained a feature story on Amanda Burrill, a veteran also profiled by AHFTF.

# **Presentations**

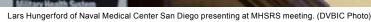
Military Health System Research Symposium

In August, DVBIC had a significant presence at the Military Health System Research Symposium (MHSRS), the premier Defense Department scientific meeting, in Kissimmee, Florida. MHSRS provided a venue for DVBIC to present new scientific research at the only military or civilian meeting focused specifically on the unique medical needs of the warfighter.

This year's theme was Research for Readiness with presentations under four broad categories — Warfighter Medical

Readiness, Expeditionary Medicine, Warfighter Performance, and Return-to-Duty.

DVBIC contributed 68 presentations overall



with 11 oral presentations and 57 poster presentations. Staff contributed to sessions on Warfighter Readiness, Expeditionary Medicine, and Return-to-Duty

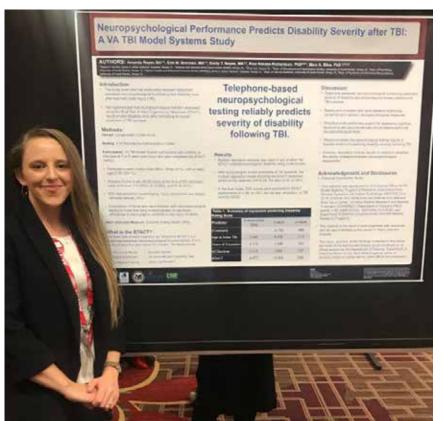


# Presentations

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# Presentations

# **American Congress of Rehabilitation Medicine Conference**



Amanda Royer, from the Tampa VA site, in front of her poster at the ACRM Conference. (DVBIC Photo).

On November 4-5 2019, five DVBIC researchers attended the American Congress of Rehabilitation Medicine (ACRM) in Chicago, Illinois, with a focus on "Progress in Rehabilitation Research: Translation to Clinical Practice." ACRM promotes the intersection of research, technology, and best clinical practice to improve disability outcomes. There were two presentations and three posters.

DVBIC Research Neuropsychologist Mark Ettenhofer received an award for his talk entitled "Fusion Brain Assessment System." The tool Ettenhofer described

uses neurocognitive and eye tracking technology to detect and characterize residual effects of TBI by assessing multiple different cognitive and motor systems.

### National Academy of Neuropsychology Conference (NAN)

The 39th annual NAN conference was held in San Diego, California, on November 13-16. NAN's mission is to advance neuropsychology by generating and disseminating knowledge of brain-behavior relationships. Its membership consists of scientist-practitioners, clinicians, and researchers in the field of neuropsychology. TBI was the subject of one of the five one-hour paper sessions at the conference. In this session, three DVBIC-affiliated researchers presented—Rosemary Remigio-Baker, Jason Bailie, and Ida Babakhanyan. DVBIC researchers moderated two of the other sessions on testing and pediatrics, respectively. Researcher Brian Ivins was the lead author of two posters at the conference.

#### **AMSUS**

AMSUS is the annual meeting of the Society of Federal Health Professionals, a non-profit member-based educational and professional development association serving the Departments of Defense, Veterans Affairs, Health and Human Services, and Homeland Security, as well as federal health professionals and their families. The meeting was held at National Harbor, Maryland, on December 2-4.



Kori Zick, Erin O'Dell, and Katheryn Michaels-Doyle (I-r). (DVBIC Photo)

At this year's meeting, DVBIC showcased two posters and delivered two oral presentations. The lead authors of the posters were Kat Michaels-Doyle and Megan Herodes, and they addressed the development of a web tool and a quality improvement project, respectively. DVBIC researcher Jason Bailie made a presentation on "Determining Cognitive Readiness Following Traumatic Brain Injury," and Captain Pyne described DVBIC's various activities — including clinical support, research, health outcomes, education, policy inputs, the TAC, surveillance, and the standardization of TBI programs.

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Defense and Veterans Brain Injury Center 1335 East-West Highway, Ste. 6-100 Silver Spring, Maryland 20910 | 800-870-9244

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