A number of our research projects are combining psychosocial, epidemiologic and neuroscientific methodologies that will lead to a better understanding of the vulnerability, protective factors and treatments for trauma disorders. This approach — from laboratory to bedside to bench — will drive both short and long-term objectives for our involvement in U.S. Army STARRS (Studies to Assess Risk and Resilience in Service Members).

Acknowledgements

The Center for the Study of Traumatic Stress (CSTS) would like to acknowledge and thank each of these organizations for their continued support, guidance, and leadership throughout the past year.

- Uniformed Services University of the Health Sciences
- Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury
- The Henry M. Jackson Foundation for the Advancement of Military Medicine
- The National Center for PTSD
- Deployment Health Clinical Center
In recognition of the rise in suicide and behavioral health problems among service members who have served in Iraq and Afghanistan, the National Institute of Mental Health (NIMH) awarded CSTS an unprecedented grant of $50 million to assess and develop scientific approaches to reverse this trend. In coordination with the Secretary of the Army, the Vice Chief of Staff of the Army, the Surgeon General of the Army, and NIMH, CSTS is positioned to lead an interdisciplinary team including prominent researchers from Harvard, Columbia and the University of Michigan to support the U.S. Army’s advancement of trauma knowledge and trauma informed care for our nation.

Since the Center’s establishment in 1987 to address Department of Defense (DoD) concerns around traumatic exposure to war, operations other than war, weapons of mass destruction, natural disasters and traumatic events such as accidents on land, sea and air, CSTS has shaped the landscape of disaster and military psychiatry and bridged these disciplines to inform planning, response and recovery of public health threats or recovery from pandemic and H1N1 outbreaks.

As part of the Department of Psychiatry of Uniformed Services University (USU), CSTS also has examined traumatic stress through laboratory research on animals and humans. This pioneering work in neuroscience and the neurobiology of traumatic stress resulted in the Center’s recent identification of a potential biomarker for post traumatic stress disorder (PTSD), a protein and its associated gene known as p11. These findings have important implications for prevention and treatment of PTSD and other trauma-related disorders that face our service members and nation.

As 2009 comes to a close, our Center’s strength to integrate trauma research across genes, brain, individual, family, community and policy, and our strong collaborative networks will assist us in helping the U.S. Army, our expanded military community, and our nation find and apply evidence-based approaches and treatments to prevent and minimize the impact of
traumatic disorder from depression, PTSD, substance abuse, family violence and traumatic brain injury (TBI) to support the psychological health and resilience of our military and civilian communities.

This CSTS Annual Report communicates our story and 2009 highlights through conversations with our leadership team. We wish to acknowledge the many sources of support through national and federal organizations, academic and scientific collaborations and the many friends of our Center whose interest in and support of our work is greatly valued and appreciated.

History
The Center was established in 1987 to address concerns of the DoD around the psychological impact and health consequences resulting from the traumatic impact of: 1) the possibility, or actual use, of weapons of mass destruction (WMD) during combat, acts of terrorism or hostage events; 2) combat, peacemaking, peacekeeping, and operations other than war; 3) natural disasters such as hurricanes, tornadoes, or floods; and, 4) more common stress producing events such as physical assaults and motor vehicle, shipboard, or airplane accidents in both the uniformed and civilian communities.

The Center, prior to Desert Storm, conducted pioneering research on exposure to WMD through its work in Air Force simulation exercises dealing with chemical and biological terrorism. This early work generated an unprecedented body of research, including a database that currently consists of more than 20,000 articles on the psychological, social and behavioral manifestations of exposure to traumatic events. These references include mental health responses ranging from resilience to psychiatric illness such as PTSD, acute stress disorder, and depression.

In the 1990s the Center made major contributions to the newly emerging field of disaster mental health and disaster psychiatry publishing one of the most scholarly and comprehensive books on disaster, Individual and Community Responses to Trauma and Disaster: The Structure of Human Chaos. This book and the Center’s work on the effects of trauma on first responders helped shape the landscape of disaster and trauma research, education and consultation.

In response to the events of 9/11, CSTS was instrumental in educating leadership at the federal, state and local levels about individual and community responses to terrorism, and expanded its research to encompass workplace preparedness for terrorism and disaster. CSTS provided consultation to the U.S. Senate, the U.S. House of Representatives, the U.S. Department of State, the U.S. Department of Transportation, a number of Fortune 100 corporations, and numerous government leaders.
Since the start of the war on terrorism, the Center has generated and disseminated knowledge on the effects of deployment and combat on soldiers, sailors, airmen and marines and their families. The Center has galvanized nationally renowned academics and medical leadership as well as its own subject matter experts to contribute to new areas of trauma need, such as the impact of combat injury on military healthcare providers, service members, their families and children. The Center has also mobilized its existing resources to examine the prevalence of deployment-related family violence, child maltreatment and neglect that have escalated in the military community since the start of the war on terror.

Concomitant with the Center’s advances and involvement in military and disaster psychiatry, the Center has engaged in translational research in neuroscience that addresses the brain-related prevention, onset and recovery elements of the neurobiology of trauma-related exposures. This research has been and continues to be invaluable to the Defense Centers of Excellence (DCoE) for Psychological Health and Traumatic Brain Injury of which CSTS is the academic arm and a partnering Center.

In July 2009, NIMH awarded the Center an unprecedented $50 million grant to coordinate and conduct the largest study of suicide and mental health among military personnel. The study is a direct response to the Army’s request to NIMH to enlist the most promising scientific approaches for addressing the rising suicide rate among soldiers. The Center will collaborate with researchers from Harvard, Columbia and University of Michigan to conduct an epidemiologic study of mental health, psychological resilience, suicide risk, suicide-related behaviors, and suicide deaths in the Army. The Center’s leadership and involvement in this study supports the Army as taking the lead in trauma informed care to benefit the military and the nation.

**The Center:**

- **Develops and carries out research** programs to extend our knowledge of the medical and psychiatric consequences of war, deployment, trauma, disaster and terrorism, including weapons of mass destruction.
- **Educates and trains** health care providers, leaders, individuals and public and private agencies on how to prevent, mitigate and respond to the negative consequences of war, deployment, traumatic events, disasters, and terrorism.
- **Consults with private and government agencies** on medical care of trauma victims, their families and communities, and their recovery following traumatic events, disasters, and terrorism.
- **Maintains an archive of medical literature** on the health consequences of traumatic events, disasters and terrorism for individuals, families, organizations, and communities.
- **Provides opportunities for post-doctoral training** of medical scientists to respond to and research the health consequences of trauma.
Conversation with Robert K. Gifford, Ph.D.

Robert K. Gifford, Ph.D.
Executive Officer,
Center for the Study of Traumatic Stress
Associate Director,
Homeland Security Studies

“We are successfully managing a period of large growth in our Center and setting the groundwork for a period in which we will make a major contribution in the health and mental health of the nation.”

In March 2009, Robert K. Gifford, Ph.D., CSTS senior scientist and Associate Director of Homeland Security Studies, was appointed the Center’s Executive Officer. In this role, Dr. Gifford assists Dr. Ursano by ensuring that the Center’s diverse efforts are properly coordinated and supported, and that the Center fulfills its obligations both to Uniformed Services University and to external agencies, such as DCoE. This includes but is not limited to the timely delivery of high quality services and products that represent the Center’s expertise in trauma research, education, consultation and training.

Dr. Gifford conducted psychological research during Operation Desert Shield/Storm, in Somalia, and in Bosnia, as well as in Germany and the United States. He served as Research Psychology Consultant to The U.S. Army Surgeon General and later as the Army Medical Service Corps’ Assistant Chief for Medical Allied Sciences. Dr. Gifford brings extensive expertise in military research and research management for the military to the Center.

In describing your role as CSTS Executive Officer could you comment on highlights of 2009 in terms of the Center’s growth and impact?

The Center’s having created a new office and role, Executive Officer, speaks directly to the highlights and impact of 2009 — the Center’s enhanced mission as the academic arm and one of the partnering centers of DCoE, and our expanded grant activity. More specifically, the Center’s enhanced mission is the result and confluence of 1) our having received a number of grants to study PTSD and TBI involving extensive research and resources; 2) our dynamic and complex affiliation with DCoE resulting in new responsibilities in research, education and consultation, i.e. more requests for our services, and; 3) having received the largest amount of money ever received by USU in a single grant, $50 million to study suicide in the Army.

What about your other role as Associate Director, Homeland Security Studies?

My role role involves work on two important research projects. The first is a longitudinal study of health and mental health of National Guard and Reserve service members, being done in collaboration with Dr. Sandro Galea of the University of Michigan. This project is being funded both by the U.S. Army Medical Research and Material Command and NIMH. I oversee access to military populations that constitute our research base. This research will provide a unique look at trajectories of health and illness among members of the Reserve Component of our armed forces. The Center
is also involved in community resilience/shielding studies in collaboration with University of Virginia (UVA). I consult on a UVA sponsored survey of disaster, terrorist attack and public health threat. Our current project is to develop educational materials for preparing for the National Capital Region (NCR) for National Planning Scenario No. 2, an aerosolized anthrax attack, and also H1N1.

It was also a privilege to have participated on the External Scientific Advisory Board of Ohio’s Kaptur Combat Mental Health Initiative: Risk and Resilience Factors for Combat-Related Posttraumatic Psychopathology and Post Combat Adjustment research project. Congresswoman Marcy Kaptur from Ohio has been a champion of veterans care and was instrumental in obtaining funding for this key research initiative.

**Regarding the Center’s enhanced mission, how would you sum up 2009?**

In looking at this past year, I would say that the Center has made great strides in synchronizing our operations with DCoE and being a contributing center. Our impact has been significant in science across the board. Major studies of Guard and Reserve personnel, which are ongoing, will make an invaluable contribution to understanding the effects of military service on health and well-being. With involvement in community shielding, the Center has become part of a novel way of conceptualizing disaster preparedness. Past ways of looking at disaster planning have failed to consider the human dimension in motivating people to prepare and respond. We are proud to be working with leaders in changing how to think about preparedness.

Defense Centers of Excellence (DCoE) works with national organizations and experts to establish best practices and quality standards for the treatment of war related psychological disorders including traumatic brain injury. CSTS serves as DCoE’s academic arm and is one of its partner centers.
Conversation with Carol S. Fullerton, Ph.D.

Our 2009 research represents some exciting directions and advances. We are combining our methodologies in unique ways to extend scientific boundaries and possibilities.

Carol S. Fullerton, Ph.D.
Scientific Director
Center for the Study of Traumatic Stress

“We’ve moved into the arena of intervention. We are taking evidence-informed approaches and applying them to change the behavior of populations. We’re in the field actually implementing what we’ve learned from our research.”

Carol S. Fullerton, Ph.D., Research Professor in the USU Department of Psychiatry, serves as CSTS Scientific Director. She has the distinction of being part of the Center for over 20 years, and has been instrumental in its growth and excellence. A 2005 recipient of the James Leonard Award for Excellence in Clinical Research, Dr. Fullerton is widely published in the areas of PTSD and the behavioral and psychological effects of exposure to terrorism, bioterrorism, natural disasters and combat.

Her roots in science run deep. In September, 2008, Uniformed Services University hosted a screening of a PBS special in which Dr. Fullerton appeared on the life and work of her father, “Herbert Hauptman: Portrait of a Laureate.” Dr. Hauptman received the Nobel Prize in chemistry in 1985. He has served on the Center’s Scientific Advisory Board since its inception.

In describing your role as CSTS Scientific Director, how would you characterize 2009 in terms of the Center’s contributions and advances in trauma research?

As Scientific Director, I oversee the Center’s research portfolio, core resources, and postdoctoral training. The Center’s research on traumatic stress encompasses epidemiology (the study of the causes, distribution and control of disease in populations), laboratory work with animals and humans, and clinical and translational research in neuroscience that informs the prevention and treatment for serious stress disorders including depression, PTSD and the risks and actuality of suicide.

Our 2009 research represents some exciting directions and advances. We are combining our methodologies in unique ways to extend scientific boundaries and possibilities. An example of this trend is our study, P11, a Biomarker for Memory Retrieval: A Possible Role in Traumatic Stress that uniquely combines psychosocial measures and neuroscience. We plan
to survey service members for PTSD, depression and prior trauma history, while simultaneously collecting blood and saliva samples to look for genetic biomarkers for PTSD and depression.

We are also applying our research to impact the behavior and psychological well being of populations who have been exposed or will be exposed to trauma. This is exemplified by our Mortuary Affairs Soldiers: Early Intervention and Altering Barriers to Care for Traumatic Stress and PTSD (TEAM: Troop Education for Army Morale).

Could you describe TEAM and its significance?

TEAM (Troop Education for Army Morale) is an educational program designed to help U.S. Army Mortuary Affairs Soldiers and their spouses (one of the few programs to target this population) deal post-deployment with the complex challenges that often result from traumatic exposure. The TEAM intervention focuses on “natural support systems” such as spouses and buddies while providing a “stepped care” individualized approach. TEAM utilizes Psychological First Aid, an evidence-informed resiliency building approach to help people in the aftermath of disasters and traumatic events. TEAM includes soldier and spouse workshops, educational materials, a toll-free help line, email services and a dedicated interactive website. The significance of TEAM is its protective and preventive implications. Rather than diagnosing and treating, we are using resources from the environment (spouses, buddies), which conserves healthcare resources. The study will follow-up both soldiers and spouses over a period of 9 months post-deployment.

What about the Center's growth in core resources?

This year we plan to use “public access databases” that will enable us to compare data from populations we study to other comparable populations. An example is accessing Longscan data, which addresses child neglect in the civilian population, and dovetails with our Family Violence Program research of child neglect in the military. In addition we will be working with the Department of Defense Survey of Health Related Behaviors Among Military Personnel (HRB) database to extend our study of suicide in the military.

Another aspect of the Center’s research is our dedication to training and educating promising scientists. We invest time and expertise in building our training program for postdoctoral professionals by providing opportunities for growth in the area of trauma and disaster research including grant writing, conducting empirical research, participating in seminars and professional meetings and publishing in professional journals.
“Increasingly the Center is turning its attention towards answering critical military health issues such as understanding the unique risk factors for suicide and developing evidence-based interventions. Our scientific initiatives continue to address not only PTSD and TBI within military populations, but also neglect, abuse, and reintegration into garrison or civilian life after deployment.”

As Deputy Chairman of the USU Department of Psychiatry and CSTS Associate Director for Consultation and Education, Dr. Benedek plays an active role in the Center’s training, education and outreach, as well as the Center’s research in neuroscience. Dr. Benedek was instrumental in developing the American Psychiatric Association’s Practice Guideline for the treatment of Acute Stress Disorder and Posttraumatic Stress Disorder (American Psychiatric Association, 2004), and the APA’s PTSD Guideline Watch (American Psychiatric Association, 2009). He has authored or co-authored over 75 scientific publications, and has presented on numerous aspects of military, disaster, and forensic psychiatry at regional, national, and international professional conferences.

Dr. Benedek’s 2009 contributions on behalf of the CSTS include national recognition for a Centers for Disease Control and Prevention (CDC) first-responder resiliency officer training program incorporating principles of PFA and peer support, and leadership as both a team member and PI for some major research initiatives that build upon the Center’s pioneering work in the neurobiology, as well as, prevention and recovery elements of trauma-related disorders.

In describing your role and activities at CSTS, how would you characterize 2009 in terms of the Center’s contributions and advances in trauma research, education and consultation?

The Center is currently engaged in three noteworthy research projects addressing the neurobiology of trauma with implications for PTSD and related brain injury prevention and treatment. The first involves the Congressionally Directed Medical Research Program’s (CDMRP) INTRuST Clinical Consortium; I serve as principal investigator for one of its sites, the National Capital Area Integrated Clinical Study Site (NCAICSS). The second is the VA-DoD PTSD CNS Tissue Repository, formerly referred to as Brain Bank. The third builds on the work of our prior p11 studies and is referred to as our Stress & Biomarkers in a Military Population study.

The NCAICSS is a collaboration of DoD, U.S. Department of Veterans Affairs (VA), and civilian clinicians and researchers within the National Capital region that comprise one of the ten sites with the CDMRP’s clinical consortium for Psychological Health and TBI. Dr. Murray Stein at the University of California San Diego directs this 10 site clinical consortium. Our site has established a network of clinician-researchers at Walter Reed Army Medical Center (WRAMC), National Naval Medical Center (NNMC), the DC VA Hospital, and the Armed Forces Retirement Home that will initiate clinical
What are the activities of the DoD-VA Collaborative Tissue Repository?

The DoD-VA Collaborative Tissue Repository represents a renewed direction for Brain Bank, a group led by the CSTS and the National Center for PTSD (NCPTSD). This group previously studied a small sample of PTSD and matched control brains (from the Stanley Medical Research Institute and NIH collections) that resulted in the identification of candidate biomarkers for PTSD and the p11 study (described below). DCoE has provided CSTS with additional funding to establish ethical and regulatory advisory groups to insure that donor identification, consent, assessment, and processes related to specimen collection and distribution are conducted in accordance with relevant ethical considerations and legal standards and with the highest degree of respect for donors and their families.

Could you describe the p11 study that builds on the Center’s work in the neurobiology of stress?

Our Stress and Biomarker study will enroll, survey and collect blood samples from approximately 1,200 soldiers from highly operational, frequently deployed units at a large Army base. Of this group, 80% are likely to have experienced significant combat exposure. Anonymous surveys will be administered to encourage accurate self-reporting, and will screen for probable PTSD, depression, mTBI, substance use disorders and previous trauma history. Blood and saliva samples will also be taken. We will analyze data to determine if p11 or other protein biomarkers can discriminate between vulnerability for PTSD or other mental disorders, or serve as a marker for disease status. Among our Center’s research advances

Psychological First Aid Principles

Psychological first aid (PFA) includes five core principles: safety, calming, connectedness, self-efficacy, hope, and optimism. The actions taken when administering PFA include the following:

- Contact and engagement with members of the team
- Physical and psychological safety assessments
- Calming and stabilizing distressed persons
- Gathering information about issues or concerns
- Offering practical assistance
- Making connections
- Helping others cope
- Linking distressed people with collaborative services
in 2009 are the unique combining of two distinctly different scientific methodologies — psychosocial measures (the survey was created by CSTS Scientific Director, Dr. Fullerton) and genetic biomarkers.

Your work in the training and application of PFA is very exciting. How was the Center involved in helping CDC’s first responders?

Our work with CDC represents another new direction for our Center – applying evidence-informed approaches to real world trauma response training. For decades, CDC professionals have deployed around the world to control disease outbreaks, collect health knowledge, and improve response strategies. In addition to protecting physical safety, there has been recognition of the mental stressors that responders experience from traumatic exposure to events such as the Sumatran Tsunami and Hurricane Katrina. To address this, CDC provided funding to CSTS to develop and implement training for their Deployment Safety and Resiliency Team (DSRT) officers. The key component of this training is Psychological First Aid (PFA). We taught DSRT its basic concepts (see PFA Principles on page 9) to build resiliency among colleagues through peer support. PFA has become an integral part of USU’s medical student education and a comprehensive curriculum including a ‘train the trainer’ approach with wide ranging applications as a trauma and resiliency building intervention for military and civilian responder populations.

Neuroscience Activity at Center for the Study of Traumatic Stress

Center neuroscientists have discovered two new critical components in the neurobiology of post traumatic stress disorder (PTSD). In addition to characterizing the function of serotonin (5-HT2A) receptors in stress response, the CSTS and its collaborators have identified changes in the levels of the p11 gene and protein (p11) and have measured gene expression within cellular mitochondria. These observations may lead to new treatments and diagnostic tools for PTSD.

The posters on this page illustrate some of the translational research conducted by Center neuroscientists.

The fourth annual Amygdala, Stress and PTSD Conference, sponsored by CSTS and the USU Graduate Program in Neuroscience, was held on April 28th, 2009 at USU. The conference, which brings together scientists and clinicians working towards solving the biological basis of post traumatic stress disorder, featured Nobel Laureate, Dr. Paul Greengard’s work on neuronal function and memory processes/intracellular components of synaptic transmission. He presented on his work: p11 as a predictor of vulnerability to depression.
The Center’s grant funding has gone from $4 million in February 08, to $21 million in June 09, to over $70 million in July 09. Our organizational structure must reflect and respond to these changes and the challenges posed.

“The Center’s grant funding has gone from $4 million in February 08, to $21 million in June 09, to over $70 million in July 09. Our organizational structure must reflect and respond to these changes and the challenges posed.”

In his role as Director, Resource Management, Dr. Stuart oversees the Center’s human resources, information technology, operations and grants. Prior to year 2004, he served 21 years in the U.S. Army as a Research Psychologist with assignments at the U.S. Army Medical Research and Material Command, Ft. Detrick, Maryland, the Walter Reed Army Institute of Research, Washington DC, and U.S. Army Academy of Health Sciences, San Antonio, Texas. Dr. Stuart has published on a variety of stress related research topics covering recent military deployments, stress indices and measures, and reports in belief to toxic exposures.
Center for the Study of Traumatic Stress: Active Grants

- CSTS Health Education Conference Series
- Trauma Health Education: Psychological and Behavioral Response, Recovery, and Mitigation
- Development of the Child and Family Trauma Program
- Family Violence and Trauma Project III
- Neuroscience Education and Training
- *Protecting the Health, Safety & Resilience of Deployed Staff
- *Safety and Health at Work for all People
- Amphetamine Challenge: A Marker of Brain Function that Mediates Risk for Drug Abuse and Alcohol Abuse
- Inhibitory Control: Toward a Vulnerability Phenotype
- *Clinical Study Site for PTSD and TBI (sub-award)
- Addressing the Needs of Children and Families of Combat Injured
- *Mortuary Affairs Soldiers: Early Intervention and Altering Barriers to Care for Traumatic Stress and PTSD
- Deployment Family Stress: Child Neglect and Maltreatment in U. S. Army Families
- Mental Health and Service Utilization Among Reserve and National Guard Forces (sub award)
- *PTSD Trajectory, Co-morbidity, and Utilization of Mental Health Services among Reserve Forces (sub award)
- *PTSD Trajectory, Co-morbidity, and Utilization of Mental Health Services among National Guard Soldiers
- Stress and Resiliency in U. S. Army Mortuary Affairs Soldiers
- *P11, a Biomarker for Memory Retrieval: A Possible Role in Traumatic Stress
- Corticosterone Administration to Promote Fear Memory Forgetting Process in an Animal Model of PTSD
- Neurobiological Evaluation of Novel Targets for Therapeutic Intervention in PTSD
- Identification of Gene Expression Patterns in Brain Tissues and Peripheral White Blood Cells of Rat Model of PTSD
- Community Shielding Applications to the National Capital Region (Sub award)
- *Guidelines for Assessing and Measuring Community Resilience
- *CSTS - Program Grant
- *FOCUS-CI Preventive Intervention with Children and Families of Combat Injured
- *U.S. Army STARRS (Studies to Assess Risk and Resilience in Servicemen)

* Indicates grants received in 2009.
Stephen J. Cozza, M.D.
Associate Director, Child and Family Program
Center for the Study of Traumatic Stress

“We have laid the groundwork for collecting scientifically-based data from military families. Our findings will help us develop evidence-based approaches and interventions that are responsive to families under stress and change. Supporting the psychological health and resilience of our military families also fosters our nation’s national security.”

Dr. Cozza, CSTS Associate Director, oversees the Child and Family Program (CFP), which provides national leadership in advancing scientific knowledge and clinical interventions that address the needs of children and families affected by trauma. The work of the Center’s Child and Family Program is focused in large part on the impact of war including deployment stress, parenting and family function, and the impact of war injuries on military children and families. This outreach is accomplished through research programs, education of military and civilian leadership, and consultation to diverse stakeholders in children’s health and welfare including national media outlets, professional organizations, and projects dedicated to helping children and families affected by traumatic events.

Could you describe some of the highlights and contributions of CFP in 2009?

The CFP has contributed its expertise in understanding and responding to child and family trauma in the arenas of national disaster preparedness, as well as in military health — advancing the care and resilience of military children and families.

In the area of national preparedness, the Center served on the Advisory Board of Sesame Workshop’s “Let’s Get Ready: Planning Together for Emergencies.” The U.S. Department of Homeland Security is using this educational resource to assist young children and families in preparing for disasters as part of their Ready.gov campaign.

I also had the opportunity to chair the Disaster Committee and Disaster Task Force of the American Academy of Child and Adolescent Psychiatry, as well as to present, “The Role of Child Psychiatrists in Disaster Response,” at their annual meeting.

What about your work with military children and families?

The Center has been a leader in understanding, studying and educating the nation around the unique challenges
and needs of military children that result from the ongoing deployment to Iraq and Afghanistan. This year, in addition to our current military child and family research projects, we received $6 million in funding from Congressionally Directed Medical Research Programs (CDMRP) to adapt an intervention that has been used successfully with high-risk traumatized children and families. The grant, referred to as FOCUS-CI Preventive Intervention with Children and Families of Combat Injured, is supported by the Center’s collaboration with prominent child and adolescent psychiatrists and researchers at Harvard, UCLA and University of Washington. We are adapting this family-centered intervention, FOCUS (originally named Families Overcoming and Coping under Stress), for use with military children affected by parental injury. Importantly, our research initiatives have laid the groundwork for collecting scientifically based data from military families. Our findings will further inform and help develop approaches and clinical interventions that are evidence-based. Supporting the psychological health and resilience of our military families also fosters our nation’s national security.

What has been the role of the Center’s Child and Family in public education and consultation?

We strive to communicate our knowledge to important professional audiences as well as to the general public. We published an important document, the first of its kind, outlining the issues and challenges of caring for military families and children affected by parental, war-related injury. Proceedings: Workgroup on Intervention with Combat Injured Families also contains Principles of Caring for Combat Injured Families and their Children and two Resources for Recovery fact sheets for military health care providers and military families.

A consultation highlight, the result of several years involvement as an advisor to Sesame Workshop, was our work on the Sesame Street PBS Special, “Coming Home: Military Families Cope with Change” where I explain PTSD to Elmo, the muppet. This television special was a phenomenal tribute to the needs and valuing of military children. I also had the honor of helping write a book, For Children of Valor, which Arlington National Cemetery will provide to young children who have lost a parent in war.

CSTS CFP continues its collaborations with National Child Traumatic Stress Network (NCTSN), Zero to Three, Military Child Education Coalition (MCEC) and National Military Family Association (NMFA). We worked collaboratively with NMFA to study families of injured service members attending their Operation Purple (Healing Adventures) Camps, another opportunity to learn about the effect of these profound events on military children and families.
How would you sum up 2009 as a springboard to the growth and impact of CFP?

We have laid the groundwork for collecting scientifically based data from military families. Our findings will help us develop evidence-based approaches and interventions that are responsive to families under stress and change. Supporting the psychological health and resilience of our military families also fosters our nation’s national security.

We are contributing our knowledge to enhance national preparedness for all children and families. Through strong collaborations that strengthen our research and educational outreach, CFP is positioned to continue to shape and advance the field of child and family trauma.
Conversation with Nancy T. Vineburgh, M.A.

Nancy T. Vineburgh, M.A.
Associate Director, Office of Public Education and Preparedness
Center for the Study of Traumatic Stress

“The Center, as part of the USU Department of Psychiatry, is regarded as the trusted voice regarding the psychological effects and health consequences of trauma and traumatic stress in the arena of military and public health. OPEP develops educational resources that communicate the Center’s voice and vision.”

Nancy Vineburgh oversees CSTS Office of Public Education and Preparedness (OPEP). She provides communication and public education expertise on health and mental health topics, and works with CSTS scientists to develop and disseminate educational resources for military and civilian audiences. Under her leadership, the Center spearheaded Courage to Care, an electronic fact sheet initiative that is distributed to military healthcare providers and service members and families nationally and internationally. She has conducted research and published numerous articles on workplace preparedness for terrorism and disaster.

In your role as CSTS Associate Director of Public Education and Preparedness, could you describe the Center's 2009 highlights and contributions in public education and outreach around the impact of trauma?

The OPEP was established in 2004 to translate the academic and clinical expertise of the Center in both disaster planning, response and recovery, and military unique health issues around trauma for the benefit of our civilian and military populations. This includes stakeholders in government, industry and academia, healthcare providers as well as individuals, families and communities. Among our first, highly successful projects was Courage to Care, an electronic campaign on timely topics of military health that is a valued resource for providers and families who experience the impact of deployments, war injuries and the challenges of parenting under stress. Courage to Care has sustained its visibility and relevance for five years, and continues to support the psychological health and resilience of our service members and their families.

For the second consecutive year, the CSTS received the American Graphic Design Award for excellence in graphic presentation...
of its public education resources. This year the CSTS 2008 Annual Report received the award. Last year’s award winning presentation was the Center’s Courage to Care for Me campaign, introduced during April’s Month of the Military Child.

Have you reached out to any new audiences this year?

Yes, Courage to Care has been expanded to include a new, yet to be launched campaign, Courage to Care Courage to Talk. This campaign is designed to facilitate communication around war injuries in hospital settings between affected families and healthcare professionals as well as within the family itself, especially around the impact on children whose parent has sustained serious injury. OPEP developed a poster for November’s DoD Warrior Care Month highlighting the Center’s resources around warrior care, and assisted in the production of an important document, Proceedings Workgroup on Intervention with Combat Injured Families.

How does OPEP assist other programs and projects within the Center?

We provide editorial, design and production assistance for many projects including, Joining Forces Joining Families, a quarterly newsletter on family violence research for the U.S. Army Family Advocacy Program and leadership.

How would you sum up the Center’s public education contributions for 2009 and going forward?

The Center, as part of the USU Department of Psychiatry, is regarded as the trusted voice regarding the psychological effects and health consequences of trauma and traumatic stress in the arena of military and public health. OPEP develops resources that communicate the Center’s voice and vision. The Center, as the academic arm and a partnering center of DCoE, continues to be responsive to the needs for public education that supports the health and mental health of military families, especially those affected by disorders such as depression, PTSD, substance abuse, family violence and TBI. Importantly, we are capable of developing public education resources in real time on important topics that affect our nation such as H1N1. Going forward, we hope to align our public education outreach with the Center’s suicide related research activities and initiatives.
Dr. Flynn represents the Center at national and international conferences on the integration of behavioral health principles in planning, response and recovery around traumatic events, public health issues and healthcare systems.

Brian Flynn, Ed.D.
Associate Director, Health Systems
Center for the Study of Traumatic Stress

“The Center has helped ensure that behavioral health is at the table around discussion for disaster planning, response and recovery, as well as for public health threats. Educating health systems helps us sustain and enhance this important dialogue.”

In his role as Associate Director for Health Systems, Dr. Flynn represents the Center at national and international conferences on the integration of behavioral health principles in planning, response and recovery around traumatic events, public health issues and healthcare systems. Prior to retiring from federal service in 2002 as a Rear Admiral/Assistant Surgeon General in the United States Public Health Service (USPHS), Dr. Flynn supervised the operation of the Federal Government’s domestic disaster mental health program (including terrorism), as well as programs involving suicide and youth violence prevention, child trauma, refugee mental health, women’s and minority mental health concerns, and rural mental health. He accompanied Vice President and Mrs. Gore to Columbine following the school shootings to meet with the families of those who were killed. He served as a special consultant to the United States Agency for International Development and the State Department following the bombings of the U.S. Embassies in Kenya and Tanzania.

What have been the 2009 highlights of your involvement in education and training for behavioral health issues in disasters and emergency?

This has been a year of international outreach and an expanded direction in public health issues. As part of our disaster preparedness and education efforts, I co-presented a preconference workshop prior to the National Forum on Emergency Preparedness and Response, “The Right Stuff at the Right Place: Building Surge Capacity in Canada.”

I also conducted a one-day workshop with James Shultz, Ph.D. of University of Miami, Disaster and Extreme Event Preparedness (DEEP) Center in Winnipeg, Manitoba, Canada. The content was awareness level behavioral health issues in disasters and emergency. The Public Health Agency of Canada, with our consultation, is in the process of adapting that workshop into an online course to be available throughout Canada.

I was very privileged to present the keynote address in Jerusalem at the International Conference on Organizational
and Professional Responses to Disasters sponsored by the Schools of Social Work at Rutgers and Ben-Gurian University.

How has your work encompassed new directions in public health?

An important emerging topic is the behavioral health factors in understanding childhood vaccine hesitation. I provided a keynote, *Understanding Psychosocial Factors* at the Childhood Vaccine Safety Development Workshop in Washington sponsored by Oak Ridge Institute for Science and Education, part of the U.S. Department of Energy. This led to another presentation, “Addressing Vaccine Hesitancy: Psychosocial Considerations,” delivered at CDC’s 43rd National Immunization Conference, in Dallas, Texas.

How do you envision building upon and expanding the Center’s work going forward?

Along with Dr. Ursano, I was privileged to be appointed to serve on the Mental Health Subcommittee of the National Biodefense Science Board (NBSB). This subcommittee was established under the requirements of Homeland Security Presidential Directive #21 (HSPD-21) whose goal is to enhance all elements of the nation’s health care system to respond to extraordinary events that impact the public’s health. I have provided special consultation on issues involving communication opportunities and challenges. The subcommittee anticipates continuing to advise the NBSB on behavioral health elements of a variety of topics including H1N1.

The Center has helped ensure that behavioral health is at the table around discussion for disaster planning, response and recovery as well as for public health threats. Educating health systems helps us sustain this important dialogue and contribution. Helping the Center achieve this continued visibility and the ongoing provision of content expertise is my primary objective going forward.
Publications

Department of Psychiatry
Recent Publications


# CSTS Scientific Advisory Board

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>James E. Barrett, Ph.D.</td>
<td>Department of Pharmacology and Physiology</td>
<td>Drexel University, College of Medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>245 N. 15th Street Mail Stop 488, Room 8213 Philadelphia, PA 19102-1192</td>
</tr>
<tr>
<td>BG (ret) William T. Bester, RN, MSN, CNAA, BC</td>
<td>Vice President for Distributed Learning; Acting Vice President of External Affairs</td>
<td>F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Robert G. Darling, M.D., FACEP, CAPT, MC, USN (RET)</td>
<td>Director, Center for Disaster and Humanitarian Assistance Medicine</td>
<td>F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>M. Richard Fragala, M.D.</td>
<td></td>
<td>P.O. Box 182 Malverne, NY 11565</td>
</tr>
<tr>
<td>Matthew J. Friedman, M.D.</td>
<td>Executive Director</td>
<td>National Center for Posttraumatic Stress Disorder (116D) VAM &amp; ROC 215 North Main Street White River Junction, VT 05001-3833</td>
</tr>
<tr>
<td>Carol S. Fullerton, Ph.D.</td>
<td>Scientific Director; Center for the Study of Traumatic Stress</td>
<td>Department of Psychiatry F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>David S. Krantz, Ph.D.</td>
<td>Chair, Department of Medical and Clinical Psychology</td>
<td>F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Larry W. Laughlin, M.D., Ph.D.</td>
<td>Dean</td>
<td>F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Craig H. Llewellyn, M.D.</td>
<td>Professor</td>
<td>Department of Military and Emergency Medicine F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>David H. Marlowe, Ph.D.</td>
<td>Senior Lecturer</td>
<td>Department of Psychiatry F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Robert M. Post, M.D.</td>
<td>Head, Bipolar Collaborative Network</td>
<td>3502 Turner Lane Chevy Chase, MD 20815</td>
</tr>
<tr>
<td>CAPT Gerald V. Quinnan, Jr., MC, USN</td>
<td>Professor and Chair, Preventive Medicine &amp; Biometrics</td>
<td>RADM, USPHS (Ret) F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Arik Y. Shalev, M.D.</td>
<td>Professor and Chairman</td>
<td>Hadassah University School of Medicine Jerusalem, Israel</td>
</tr>
<tr>
<td>CAPT Trueman Sharp, MC, USN</td>
<td>Department Chair, Military and Emergency Medicine</td>
<td>F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>BG Loree K. Sutton, MC, USA</td>
<td>Director, Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury</td>
<td>F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Robert J. Ursano, M.D.</td>
<td>Chairman</td>
<td>Professor of Psychiatry and Neuroscience F. Edward Hebert School of Medicine Uniformed Services University 4301 Jones Bridge Road Bethesda, MD 20814-4799</td>
</tr>
<tr>
<td>Lars Weisaeth, M.D.</td>
<td>Professor and Chairman</td>
<td>Division of Disaster Psychiatry University of Oslo Oslo, Norway</td>
</tr>
</tbody>
</table>

**CSTS Scientific Advisory Board**
CSTS Directors and Scientists

CSTS DIRECTORS

Robert J. Ursano, M.D.
Director, CSTS
Chairman, Department of Psychiatry
Professor of Psychiatry and Neuroscience
F. Edward Hebert School of Medicine
Uniformed Services University

COL David M. Benedek, M.D. MC, USA
Associate Director, Consultation and Education, CSTS
Professor/Deputy Chair, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Stephen J. Cozza, M.D.
Associate Director, Child and Family Program, CSTS
Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Brian W. Flynn, Ed.D.
Associate Director, Health Systems, CSTS
Adjunct Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Carol S. Fullerton, Ph.D.
Director, Scientific Research, CSTS
Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Robert K. Gifford, Ph.D.
Executive Officer, and Associate Director, Homeland Security Studies, CSTS
Assistant Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

John A. Stuart, Ph.D.
Director, Resource Management, CSTS
Assistant Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Nancy T. Vineburgh, M.A.
Associate Director, Public Education and Preparedness, CSTS
Assistant Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

CSTS SCIENTISTS

COL David M. Benedek, M.D. MC, USA
Professor
Consultant to the U.S. Army Surgeon General for Forensic Psychiatry
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Quinn M. Biggs, Ph. D., M.P.H.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Maria Braga, D.D.S., Ph.D.
Associate Professor
Department of Anatomy, Physiology and Genetics
F. Edward Hebert School of Medicine
Uniformed Services University

CDR Janis Carlton, M.D., MC, USN
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Stephen J. Cozza, M.D.
Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Brian Crowley, M.D.
Clinical Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Connie Duncan, Ph.D.
Research Associate Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

COL Charles Engel, M.D., M.P.H. MC, USA
Associate Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Martha Faraday, Ph.D.
Assistant Professor
Department of Medical and Clinical Psychology
F. Edward Hebert School of Medicine
Uniformed Services University

Brian W. Flynn, Ed.D.
Adjunct Professor, Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Michael C. Freed, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Carol S. Fullerton, Ph.D.
Research Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

COL Gary Gackstetter, USAF
Associate Professor
Department of Preventive Medicine/Biometrics
F. Edward Hebert School of Medicine
Uniformed Services University

Robert K. Gifford, Ph.D.
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Krisitie Gore, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Christine Gray, M.P.H.
Public Education Program Manager
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Thomas A. Grieger, M.D.
Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University
Jennifer Guimond, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Maj. Derrick Hamaoka, M.D., USAF, MC, FS
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Harry C. Holloway, M.D.
Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Tomoko I. Hooper, M.D.
Assistant Professor
Department of Preventive Medicine/Biometrics
F. Edward Hebert School of Medicine
Uniformed Services University

Luke Johnson, Ph. D.
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Elie Karam, M.D.
Professor and Chairman
Department of Psychiatry
American University — Beirut
Beirut, Lebanon

Joceyn Kilgore, M.D.
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

He Li, M.D., Ph.D.
Associate Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Xian Liu, Ph.D.
Research Assistant Professor
Deployment Health Clinical Center
Walter Reed Army Medical Center

David Marlowe, Ph.D.
Senior Lecturer
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

James E. McCarroll, Ph.D., M.P.H.
Research Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Jodi McKibben, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Jamie Naifeh, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

John Newby, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

LCDR Patcho Santiago, M.D., M.P.H., MC, USN
Assistant Professor
CSTS
F. Edward Hebert School of Medicine
Uniformed Services University

Janet A. Schmidt, Ph.D.
Senior Scientist
CSTS
F. Edward Hebert School of Medicine
Uniformed Services University

John A. Stuart, Ph.D.
Research Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

E. Fuller Torrey, M.D.
Executive Director
Stanley Medical Research Institute
Bethesda, MD

Robert J. Ursano, M.D.
Chairman, Department of Psychiatry
Professor of Psychiatry and Neuroscience
F. Edward Hebert School of Medicine
Uniformed Services University

Nancy T. Vineburgh, M.A.
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Maree J. Webster, Ph.D.
Assistant Research Professor
Stanley Medical Research Institute
Bethesda, MD 20889

Lars Weisaeth, M.D.
Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Kathleen Wright, Ph.D.
Deputy Chief
Department of Military Psychiatry
Division of Neuropsychiatry
Walter Reed Army Institute of Research

Lei Zhang, M.D.
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University

Kathleen Wright, Ph.D.
Deputy Chief
Department of Military Psychiatry
Division of Neuropsychiatry
Walter Reed Army Institute of Research

Lei Zhang, M.D.
Assistant Professor
Department of Psychiatry
F. Edward Hebert School of Medicine
Uniformed Services University
Around CSTS

Managing the interface of USU’s Dept. of Psychiatry and CSTS are Dr. Ursano, USU Dept. of Psychiatry Chair and CSTS Director, and Alice Fladung, Administrative Officer.

Research assistants, LaKesha Henry and Mara Huber with CSTS Child and Family Associate Director, Stephen Cozza, M.D.

Research psychologists, Jodi McKibben, Ph.D. and Quinn Bigge, Ph.D. reviewing analyses for Florida Dept. of Health Workers Hurricane Data, a project directed by Dr. Fullerton.

Neuroscientists, Connie C. Duncan, Ph.D. and Luke Johnson, Ph.D.

Center scientist, Patcho Santiago, M.D., M.P.H., Lieutenant Commander, Medical Corps, U.S. Navy and Joey Piemontese, CSTS Information Technology Specialist, add new content to Center site, cstsonline.org.

Jennifer Stecklein, USU Program Administration Specialist, displays a Courage to Care fact sheet with Nancy Vineburgh, CSTS Associate Director, Office of Public Education and Preparedness.