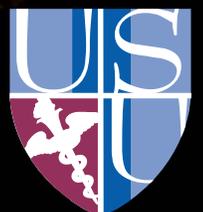


The Official USU Newsletter

# the pulse

Volume 8, Issue 6 • April 29, 2013  
[www.usuhs.edu](http://www.usuhs.edu)



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*The Pulse is printed by USU's Duplicating Center.*

**Production**

The Pulse is funded by the Department of Defense and published by the Uniformed Services University. It is authorized for members of the U.S. military services, USU alumni, faculty and staff. Contents of the Pulse are not necessarily the official views of, or endorsed by, the DoD or USU. Appearance of anything resembling advertising in this publication does not constitute endorsement by the DoD, USU or Pulse staff members.

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Editorial content is edited, prepared and provided by the USU Office of External Affairs. The editor reserves the right to edit articles to conform to DoD policy and Associated Press style. All photos are DoD photos unless otherwise indicated.

The Pulse will be published bi-weekly on Mondays. The deadline for submissions is at 4 p.m. Tuesday prior to the publication date. Submissions can be sent to christine.creenan-jones@usuhs.edu or 301-295-3338.



Photo by Thomas Balfour

**On the cover**

The Ettenhofer Neurocognitive Research Lab is using cutting-edge technology, including virtual reality simulation and eye trackers, to study traumatic brain injury at the Uniformed Services University. Read more about the groundbreaking work happening in this lab on page 4.



# USU hosts Annual Conference on Amygdala, Stress and PTSD

By Christine Creenan-Jones, editor



Photo by Christine Creenan-Jones

Health care professionals from across the National Capital Region participated in small group discussions about PTSD at the 8th Annual Conference on Amygdala, Stress and PTSD sponsored by the Uniformed Services University and Walter Reed National Military Medical Center.

The Center for the Study of Traumatic Stress at the Uniformed Services University cohosted the 8th Annual Conference on Amygdala, Stress and PTSD with the Walter Reed National Military Medical Center on April 23.

The event – which included platform presentations and panel discussions – focused on fear extinction, this year’s conference theme, to better understand and solve the biological basis of stress, fear and post-traumatic stress disorder.

Several renowned experts shared their research findings about these topics, including ways to strengthen extinction, methods for erasing or modifying fear memories, and other techniques that can improve resilience against stress disorders like PTSD.

Besides showcasing novel discoveries, the Amygdala Conference was also organized to foster new collaborations and jumpstart important conversations about traumatic stress.

“How do you bring the cell to meet the organ to meet the person to meet the community?” asked Dr. Robert Ursano, founder and director of the CSTS, and chair of USU’s Department of Psychiatry. “These interfaces are most important to us.”

Conference attendees had several opportunities to collaborate with health care professionals beyond their network. More than 300 practitioners and researchers attended the event, and many of them participated in small group discussions before the formal presentations began.

These open forum talks brought multidisciplinary experts from many different workplaces together for candid, multi-dimensional discussions about PTSD.

“The Amygdala Conference encourages attendees to move beyond their typical knowledge content and reach toward science from related disciplines where they are less familiar,” said Air Force Col. (Dr.) Daniel Balog, chair of the Amygdala Conference.

8th Annual Conference on Amygdala, Stress and PTSD  
**Extinction of Fear**  
 April 23, 2013  
 Bldg B, Sanford Auditorium  
 Uniformed Services University of the Health Sciences  
 Approved for AMA PRA Category 1 Credit (TM)  
<http://www.amygdalaconference.org>

Graphic by Henry M. Jackson Foundation

# USU announces 2013 Wu and Leonard Award winners

By Christine Creenan-Jones, editor



Photo by Thomas Balfour

Galina Petukhova, PhD



Photo by Thomas Balfour

Air Force Col. (Dr.) Michael Xydakis

The Uniformed Services University announced the 2013 winners of the prestigious Henry Wu Award for Excellence in Basic Research and the James Leonard Award for Excellence in Clinical Research.

Galina Petukhova, PhD, an associate professor in the Department of Biochemistry and Molecular Biology, earned the Wu award for her study, “PRDM9 directs genetic recombination away from functional genomic elements,” published in *Nature*.

Petukhova’s research examines the role PRDM9 protein plays in recombination, the process by which new gene combinations are formed. In a landmark paper, Petukhova’s team, in collaboration with computational scientists at the National Institutes of Health, identified all of the recombination hotspots in mice – places where DNA exchanges happen most – and provided further scientific evidence that PRDM9 creates hotspots, directing recombination away from functional genomic elements.

Petukhova’s groundbreaking work is contributing important knowledge to a vital scientific area, since faulty

recombination during gametogenesis can lead to birth defects and miscarriage.

“I’m excited to talk about our studies,” said Petukhova, who will deliver a keynote lecture during USU’s annual Research Days. “It’s a great opportunity to share information about our work, generate more interest in this scientific field, and hopefully form new research collaborations on campus.”

The Leonard Award winner, Air Force Col. (Dr.) Michael Xydakis, a professor in the Department of Surgery at USU, will share his findings during Research Days as well.

His study, “Epidemiologic Aspects of Traumatic Brain Injury in Acute Combat Casualties at a Major Military Medical Center: A Cohort Study,” was the lead article in a 2012 issue of the *Annals of Neurology*. In addition, a companion editorial in support of his study was written by the editor-in-chief and president of the American Neurological Association.

The proper, most effective method for diagnosing traumatic brain injury is a source of great debate within the Military Health System. In an effort to bring more clarity and consistency

to the process, Xydakis’s research evaluated the efficacy of the current diagnostic rubric, developed by the American Congress of Rehabilitation Medicine, to identify mild TBI in troops with complex, combat-related injuries.

The 10-year-old rubric – which relies mostly on an autobiographical self-report history of loss of consciousness or alteration in consciousness at the trauma scene – is used by most providers to identify mild TBI in wounded troops. When applied to troops with complex, combat-related injuries, Xydakis’s study concluded that ACRM’s diagnostic rubric is flawed, because it has an indeterminate ability to differentiate physical injury to the brain from responses sustained in conjunction with other body-wide injuries.

As a result, his team is recommending that health care providers use a more longitudinal approach when diagnosing mild TBI, so head wounds can be evaluated over time and treatment can be tailored to meet each patient’s specific needs. This will help optimize the clinical screening and diagnoses procedures for war fighters with TBI or concussion.

“It’s the old rule of physics: an object will stay in motion until acted on by an opposing force,” Xydakis said. “Our paper is the opposing force that should modify the way we diagnose polytrauma patients with mild traumatic brain injury.”

Petukhova and Xydakis will expound on their pivotal research May 15. Other university faculty and students will also share their findings during Research Days, which begins May 14 and includes showcases of many significant research projects happening across USU and collaborating agencies.

# Army engineer begins new path at USU

By Christine Creenan-Jones, editor



Photo by Thomas Balfour

Mark Ettenhofer, PhD, director of the Ettenhofer Neurocognitive Research Laboratory at the Uniformed Services University, and Army Capt. David Barry, a graduate student in USU's clinical psychology program, developed an eye-tracking device to study traumatic brain injuries.

Army Capt. David Barry, a graduate student in USU's clinical psychology program, took a giant leap in a new direction when he arrived on campus three years ago. Until then, he'd spent his entire professional life working as an engineer officer in a mechanized infantry brigade.

Although Barry's excited about his new career, he also loved being an engineer, even in Iraq, where he spent most of 2008 removing live bombs from the heavily travelled roads that weaved their way through eastern Baghdad.

It was dangerous, unforgiving work. A single misstep could take a limb or his life, and the stress of his job could be overwhelming at times. Luckily, Barry and his platoon had great leaders, strong unit cohesion, and access to many helpful resources, which helped them cope with their stressful jobs.

These support systems worked. The soldiers in Barry's unit left Iraq feeling like they'd accomplished something important. Other veterans, however, were not returning home with the same optimism. Bothered by their suffering, Barry began exploring careers in military health care and chose USU to begin his new path.

"I'm so grateful to be a part of this learning community," he said. "USU is the epicenter of military and government. The best of the best work here, which means that, even as students, we can build relationships with key personnel and organizations, setting conditions toward solving national challenges."

Barry's professional skills are growing swiftly with guidance from USU's faculty, especially Mark Ettenhofer, PhD, assistant professor in the Department of Medical and Clinical

Psychology and director of the Ettenhofer Neurocognitive Research Laboratory.

Ettenhofer took Barry under his wing several years ago, and the team has been making huge scientific gains ever since. They even developed a computer program that uses eye-trackers—devices that measure ocular movements with acute precision—to study brain injuries.

"The goal of our research is to create a novel performance assessment tool that can identify people with mild TBIs and other conditions that impact cognitive functioning. We are doing this by tracking eye movements and response times during computer assessment tests," Barry said. "Using this technology, we can measure a lot of information in a short period of time, including a person's decision-making abilities, higher-order planning and attention."

The technology, born from two creative minds with engineering experience and clinical psychology expertise, is already showing significant promise as a useful diagnostic supplement. Barry and Ettenhofer have presented their work at multiple conferences, including the Military Health System Research Symposium, the DoD/VA Trauma Spectrum Conference and the Center for Neuroscience and Regenerative Medicine's Annual Meeting. They will also be speaking at an eye-tracking symposium at the upcoming Association of Psychological Science convention in Washington, D.C., this year.

If the research maintains its current trajectory, Ettenhofer and Barry's system could help mental health professionals diagnose brain injuries sooner, which will improve treatment and recovery for the same vexing wounds that led Barry to USU in the first place.

# Assistant secretary of defense delivers USU's Diversity Celebration keynote

By Christine Creenan-Jones, editor

Dr. Jonathan Woodson, assistant secretary of defense for Health Affairs, delivered the keynote address at the Uniformed Services University's Diversity Celebration held on April 16.

Woodson's emotional speech paid homage to prolific American leaders while also providing a retrospective look at the personal struggles he endured as a young African American growing up during the civil rights movement.

Although racial disparity prevailed in those days, Woodson was a gifted scholar who attended the New York University School of Medicine. He was one of only four African American students accepted into the program.

After graduating, Woodson continued breaking racial barriers at Harvard Medical School, when he became the first African American physician to complete residency training in medicine, surgery and vascular surgery.

Unfortunately, his pioneering accomplishments did not shield him from bigotry or racism, even on the hospital wards, where a patient with a gunshot wound refused to be treated by Woodson at Massachusetts General Hospital.

"He said, 'no offense doc, but I don't want a black man taking care of me,'" Woodson recalled.

The painful experience did not stave Woodson's ambition. He joined the U.S. Army Reserves and was eventually promoted to brigadier general before President Barack Obama nominated him for the top job in the Military Health System.

Woodson's success, however, came on the heels of many sacrifices, he said.



*Dr. Charles Rice, president of the Uniformed Services University, thanks Dr. Jonathan Woodson, assistant secretary of defense for Health Affairs, for delivering the keynote speech at USU's Diversity Celebration.*

His family – a tight-knit group who believed in the value of a good education and hard work – endured a lot of strife in their lifetimes.

"I remember telling my dad that I was going to be commissioned as an

Army captain," Woodson said. "He had a tear in his eye."

At first, Woodson mistook his father's emotion for sadness. His dad – like many African Americans of his generation – was a conscript, who was treated badly and threatened by the military officers who supervised him. "So it was reasonable to expect some rebuke," Woodson told USU personnel who attended the university's Diversity Celebration.

He was wrong, though. To his father, Woodson's commission represented progress, and he shed tears of joy for it.

Woodson believes today's military has continued down a path toward inclusivity and diversity, citing new policies that brought women to the frontlines and gave gay men and women the right to serve openly.

"The military has been an agent for good and for social change," he said. "It needs to be recognized for that."

USU's Diversity Celebration, sponsored by the Equal Employment Opportunity Office, was created to encourage tolerance and understanding. Guest speakers, like Woodson, are invited so personnel can learn from their unique experiences and accomplishments.

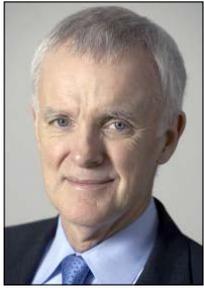


## Save the Date

### Education Day, June 11, 2013

# Congressional Medal of Honor recipient to address USU graduates

By Sharon Willis, managing editor and deputy vice president for External Affairs



Courtesy Photo

Joseph Robert Kerrey

Joseph Robert “Bob” Kerrey, former United States senator and Congressional Medal of Honor recipient, has been selected to give the commencement address for the Uniformed Services University on Armed Forces Day, May 18.

“We are absolutely delighted that Senator Kerrey will deliver this year’s commencement address,” said USU President Charles L. Rice, M.D. “As a highly decorated military veteran injured in combat, Senator Kerrey has a deep appreciation for our mission and we are honored to have him as our graduation keynote speaker.”

Kerrey, a Vietnam veteran and former Navy SEAL, will deliver the commencement address at the Daughters of the American Revolution Constitution Hall in Washington, D.C. He will speak to more than 250 graduating uniformed medical and nursing students, and 50 military and civilian graduate students in biomedical sciences, clinical psychology and public health programs.

Deployed to Vietnam from January to March 1969, Kerrey was awarded the Congressional Medal of Honor for his courageous actions leading a SEAL unit on a daring operation while under fire and seriously wounded by enemy grenade. After medical retirement from the Navy, he parlayed a successful business career into politics. He served as governor of Nebraska from 1983 until 1987 and as U.S. senator from Nebraska from 1989 until 2001. More recently, he served as President of the New School in New York City, from 2001 until 2010.

## Word on Campus

By Christine Creenan-Jones, editor

The Uniformed Services University is full of people who work hard to reduce their carbon footprint everyday, and since April 22 was Earth Day, Pulse staff members asked how USU is supporting environmental protection.



“In my community, I have worked with my daughters to create a program called Sustain2Maintain in order to teach kids about the importance of recycling and leading a sustainable lifestyle.”

Zamora Olin, chief of Research Contracts and Grants Division



“I separate my trash and use a Brita filter.”

Navy Hospital Corpsman Kayla Bristow, animal care taker in Laboratory Animal Medicine



“The university has been organizing a campus clean up for the past several years with cooperation from the Brigade and the Faculty Senate and help from many faculty and staff volunteers, including President Charles Rice, to pick up trash, plant trees and find other ways to beautify USU. This year, Facilities has done a beautiful job in the upkeep of our campus surroundings.”

Arta Mahboubi, assistant vice president for Administration



“I carpool and recycle.”

Edmund Burke, program support assistant for Administrative Support Division



“I bicycle commute to school most days.”

Air Force Maj. (Dr.) John Miles, a Master of Public Health student

# Sexual Assault Awareness: “We own it ... we’ll solve it ... together.”

By Tech. Sgt. Oshawn Jefferson, deputy chief of Media Affairs



April is Sexual Assault Awareness and Prevention Month.

According to the Department of Defense, sexual assault is the most under-reported crime in the DoD. It destroys trust, it compromises the mission, it ruins lives and it won't be tolerated.

To help combat sexual violence within the services, April was designated Sexual Assault Awareness and Prevention Month.

“In April, we join the nation in observing Sexual Assault Awareness Month,” said Navy Capt. (Dr.) Tanis M. Batsel Stewart, brigade commander at the Uniformed Services University, in a recent address to service members at USU. “This timely focus provides an opportunity for each and every one of us to renew our personal commitment to preventing sexual assault and eliminating this crime from our military environment and beyond. The Department of Defense is observing Sexual Assault Awareness and Prevention Month with the theme ‘We own it ... we’ll solve it ... together.’”

This month, the DoD sexual assault prevention and response program is focusing on preventing sexual assault, improving a victim's access to service, increasing the frequency and quality of information provided to the victim regarding all aspects of his or her case and expediting the proper handling and resolution of a sexual assault case.

“The key to prevention is ensuring everyone understands their role and responsibilities in preventing sexual assault,” said Navy Information Systems Technician Robert Tartaro, a telecom technician and brigade Sexual Assault Prevention and Response representative at USU. “A consistent, vigorous training and education element is crucial.”

People wanting to learn more or educate others about this year's Sexual Assault Awareness and Prevention Month campaign can visit the DoD's official sexual assault prevention and response website at <http://www.sapr.mil/> or the DoD's secure safe helpline at <https://www.safehelpline.org/>.

“Sexual assault within our military is entirely unacceptable and we must all do our part to stop it,” said Batsel Stewart. “If you or someone you know has experienced a sexual assault, please seek assistance immediately. In addition to our SAPRs, you might also choose to speak to the command JAG, our chaplain, a health care provider, or someone trusted within your chain of command, to include myself.”

Victims of sexual assault at USU can also call the DoD SAPR hotline at (877) 995-5247, or the university's SAPR at (240) 271-5739.

“Together, we must work every day to instill a climate that does not tolerate or ignore sexist behavior,

sexual harassment, or sexual assault,” said Secretary of Defense Chuck Hagel, in his “Written Letter to the Force,” April 3. “These have no place in the United States military and violate everything we stand for and the values we defend. Creating a culture free of the scourge of sexual assault requires establishing an environment where dignity and respect is afforded to all, and where diversity is celebrated as one of our greatest assets as a force. ... Remember, we own it...we’ll solve it...together.”

## Countdown to Commencement Trivia Question

### Answer one

Congratulations to HMC Alexis Alvarado for answering last issue's Countdown to Commencement Trivia Question: Do you know who carries the mace at USU's graduation each year?

Alvarado's response, the Enlisted Services Person of the Year, is correct. Pulse staff members would also like to send a special congratulations to HM1 Daryl Mercado, who will carry the mace at this year's commencement.

# Final Frame



Photo by MC2 Britney Candy

*The Honor Guard for the Uniformed Services University practices ceremonial drills in the courtyard.*