

The Official USU Newsletter

# the pulse

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*Learning to Care for Those in Harm's Way*



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**On the cover**

*The Center for Disaster Assistance and Humanitarian Assistance Medicine hosted a live rescue demonstration with Bethesda-Chevy Chase firefighters to illustrate to Senegalese officials how U.S. experts respond to emergencies. Read more on page 6.*

# 9th Annual Amygdala Conference: “From Bench to Bedside”

by MC3 Laura Bailey, writer and photographer

The Uniformed Services University’s Center for the Study of Traumatic Stress held the 9th Annual Amygdala, Stress and Post Traumatic Stress Disorder Conference at the Uniformed Services University, April 22.

This year’s theme, “From Bench to Bedside,” focused on uniting scientists (bench) with clinicians (bedside), according to assistant chair of Research and assistant professor Army Lt. Col. (Dr.) Gary Wynn, Department of Psychiatry, USU, and scientist, Center for the Study of Traumatic Stress.

This year’s guest speakers included Dr. Israel Liberzon, University of Michigan; Dr. Alexander Crawford, Luxembourg Centre for Systems Biomedicine; Dr. Joshua Corbin, Children’s National Medical Center; Dr. Joel Gelernter, Yale University; and Dr. Joel Kleinman, Lieber Institute for Brain Development.

Participants freely discussed PTSD across invisible boundaries that sometimes stand between scientists and clinicians, said Dr. Robert Ursano, a professor of psychiatry and neuroscience and chairman of the Department of Psychiatry at USU. No question was off the table which allowed attendees to ask anything.

“We’re trying to take that somewhat technical information and deliver it in an interpretable and usable way for clinicians both to see what’s

happening, where we’re at and maybe where we’re going in the future so they’ll know what’s coming down the pike in general,” said Wynn.

Besides the sharing of information, the conference was a chance for scientists and clinicians to get a fresh perspective. A renewed vision can have a direct impact on care delivery, according to Wynn, who also said it benefits the people they serve -- the service members and their families.

“You come to a conference like this having been grinding on a regular basis and you’re doing great care, but you’re sort of seeing the same thing over and over again,” said Wynn. “People who attend conferences, at least for myself when I’ve attended conferences, I walk away with sort of a reinvigoration.”

The hope was that scientists and clinicians would walk away with at least three pearls of wisdom from the conference to share with someone else such as their spouse, partner, colleague or friend.

This year’s conference also included scientists and clinicians from Naval Medical Center San Diego thanks to a virtual teleconference call, which allowed NMCS D to listen to what was happening in real time. Using VTC could mark a new trend that may be utilized at next year’s Amygdala conference.

# USU research seeks better diagnostics, therapy for patients with lupus

by Christine Creenan-Jones, editor

Like most autoimmune diseases, lupus can wreak havoc on the human body. It attacks healthy cells and damages joints, blood vessels and vital organs, including the kidneys, liver, heart and brain. In extreme cases, lupus can even be fatal.

Although the cause of lupus is still a mystery, research suggests genes and sex hormones play a factor because women – particularly minorities – are especially prone to contracting lupus during their childbearing years.

For this reason, lupus is an important focus area for military-trained rheumatologists like Dr. Charles Via, a professor in the Department of Pathology at the F. Edward Hébert School of Medicine. He spent eight years on active duty in the U.S. Army and 16 years taking care of patients at Veterans Affairs hospitals before coming to USU.

“A lot of service members are affected by lupus,” he said. “And with more women joining the military each year, it will become an even bigger problem for the Department of Defense until science gets a better handle on lupus.”

Via is working toward this goal by conducting research at USU that seeks both an earlier diagnosis and better therapies for lupus.

“Lupus has several manifestations, and it can seem like many different diseases. Therefore, it’s often misdiagnosed or overlooked. Treating lupus is also problematic because immunosuppressive drugs are commonly used, and they lower a person’s resistance to infection,” he said.

In response to these shortcomings, Via’s lab is exploring ways to shift the body’s immune response toward cell mediated immunity, a process involving T-cell activation to target and kill harmful pathogens. Unlike current treatment for lupus, Via’s method does not shut down all or part of the immune system, thereby compromising the body’s ability to heal itself. Rather, it changes the balance of the immune response by inhibiting the lupus-promoting response.

While conducting this research, Via’s team also



Photo by Christine Creenan-Jones

Dr. Charles Via

discovered T-cell responses vary among individuals. Some are lupus prone, but most are not.

“There are genetic differences in the T-cell response to a pathogen. A subset will give a lupus response instead of a normal response to eliminate it. So now we’re trying to identify the genetic makeup of lupus-prone T-cells with the goal of developing a blood test that can identify lupus-prone individuals,” Via said.

Such a test could indicate which patients are at risk for more severe disease.

“I’ve taken care of lupus patients for more than 35 years now. I’ve seen their suffering and disability firsthand,” he said. “Lupus strikes people, particularly women in the prime of their life when they are trying to juggle career and family responsibilities. To be able to give them better treatment options, and hopefully prevent lupus flares in the first place is a goal all lupus researchers share.”

**Uniformed Services University Commencement Exercises**

**May 17, 2014**

**10:30 a.m.**

**Daughters of the American Revolution Constitution Hall**

# USU takes part in campus cleanup

by MC2 Brittney Cannady, writer and photogra-

After an especially tough winter, personnel from the Uniformed Services University came together for a campus cleanup to celebrate Earth Day, April 29. The brigade-sponsored event was organized to demonstrate the university's commitment to a clean and environmentally friendly campus.

"Participation in the cleanup was important because it brought awareness to the health of our environment and appearance of our local communities," said Air Force Tech. Sgt. April Copeland, who helped coordinate the event.

The cleanup marked a chance to tidy university grounds ahead of important events during spring and summer months that draw more visitors to campus like Research Days and Commencement. The cleanup began with teams surveying common areas where debris and trash can be found, including the breezeways between Buildings B and C and the exterior of USU. Personnel also cleaned portions of the campus that can be easily overlooked such as the parking garage and bike storage areas.

Although the campus cleanup was successful, keeping USU clean requires year-round effort



*Personnel at the Uniformed Services University took part in a campus cleanup, April 29.*

from all members of the community.

"The important thing is to just take action," said Copeland. "If you see trash lying around, pick it up. If you see something you think may cause harm or be harmful to your environment, correct it. If it's something you can't resolve on your own, find out who can because your effort can make a difference."

## Section 508 compliance: It's the law

by Christine Creenan-Jones, editor

Not all digital files and websites are created equal. In fact, many include significant barriers that prohibit access to people with disabilities.

In order to right this wrong, Congress passed Section 508 – an amendment to the United States Workforce Rehabilitation Act of 1973 – to ensure all federally created or maintained information technology is universally accessible.

Like most new laws, Section 508 has led to sweeping changes, including many at the Uniformed Services University.

"In order to post a file to

USU's server, it will need to pass an accessibility test after every edit. Although the process may seem cumbersome at first, a lot of resources exist that walk users through 508 compliance conversion techniques," said Marla Wright, USU's webmaster. "In fact, USU has its own Accessible Documents Training that can be downloaded from our One-Stop End-User Support Library and a document that provides step-by-step instructions for using accessibility check tools in Acrobat and Microsoft products."

These tools illustrate ways to remediate common accessibility errors, including formatting issues and information voids.

"Compliance isn't a choice for USU, it's the law with a lot of great benefits. By adhering to Section 508 guidelines, our website is becoming more usable to a broader audience. We should be making every effort to increase accessibility. We want our site visitors to be focused on the relevance and appeal of the information that we provide, not the issues involved in gaining access to it," said Wright.

# American Laser Society names Anders new president

by Sharon Holland, managing editor and deputy vice president for External Affairs

The American Society for Laser Medicine & Surgery, Inc. has named Dr. Juanita Anders, professor of Anatomy, Physiology and Genetics and professor of Neuroscience at the F. Edward Hébert School of Medicine, as its new president. Anders took office at Laser 2014, the ASLMS annual scientific conference held recently in Phoenix, Ariz., and will serve for one year.

Anders, who specializes in peripheral and central nervous system injury and repair mechanisms and light tissue interactions, is an expert on photobiomodulation and has held

positions within ASLMS since 1991 including president-elect, vice president, committee chair, and board member.

Anders serves on the executive councils and scientific advisory boards of many laser societies, and is the past president of the North American Association of Light Therapy and a founding member of the International Academy of Laser Medicine and Surgery. She serves on the editorial boards of Photomedicine and Laser Surgery, Lasers in Surgery and Medicine, Lasers in Medical Science and Physiotherapy Practice and Research.

# SoM alumnus wins research awards, competes for top prize

by Christine Creenan-Jones, editor

Army Capt. (Dr.) Jonathan Sexton, an F. Edward Hébert School of Medicine alumnus, won first place for his panel presentation at the Military Surgical Symposium sponsored by the Society of American Gastroenterological and Endoscopic Surgeons. The event, held in Salt Lake City, April 3-4, was a showcase of original military medical research across key surgical areas. Sexton, a general surgery resident at Walter Reed National Military Medical Center, prevailed in the trauma and critical care section of the competition.

As a result of his win, Sexton's research was also entered in the American College of Surgeons Committee on Trauma Resident Research Competition. He placed first in the Basic Science Category for the U.S. Army, which means Sexton will have an opportunity to present at the Military Health System Research Symposium in Fort Lauderdale, Fla., this August, where he will compete against



Photo by Thomas Balfour

*F. Edward Hébert School of Medicine alumni, Army Captains (Drs.) Jonathan Sexton (left) and Vincente Nelson (right), presented at the Military Surgical Symposium sponsored by the Society of American Gastroenterological and Endoscopic Surgeons. Navy Capt. (Dr.) Eric Elster (center), chair of USU's Norman M. Rich Department of Surgery, oversaw their research, for which Sexton won first place in the trauma and*

Navy and Air Force symposium winners to present at the ACS annual meeting.

“Both of these efforts continue a long-standing tradition of surgical innovation in translational research which is

relevant to our overall mission,” said Navy Capt. (Dr.) Eric Elster, chairman of USU's Norman M. Rich Department of Surgery and the principal investigator for Sexton's research project.

# CDHAM hosts live rescue demonstration, Senegal delegation

by MC3 Laura Bailey, writer and photographer

The Center for Disaster and Humanitarian Assistance Medicine at the Uniformed Services University hosted a live rescue demonstration for senior-ranking members of Senegal's disaster management focal points, including first responders from the National Brigade of Firemen, at the Bethesda-Chevy Chase Rescue Squad, April 3.

The demonstration was part of a week-long working session on disaster preparedness and response sponsored by the U.S. Africa Command Disaster Preparedness Program, one of several federally funded programs implemented by CDHAM.

"The Disaster Preparedness Program is unique in several ways," said Dr. Charles Beadling, director of CDHAM. "First, we work with very senior members of the host nation government, ministers, deputy ministers and general officers. Second, our engagement with them is sustained for years, building strong relationships and partnerships. This is how we achieve the strategic objective of security cooperation."

Using special cutters on one of BCCRS's Heavy Duty Rescue Squad trucks, which is commonly known as a "giant toolbox on wheels," Senegal's first responders were able to experience firsthand what it's like to cut a car open by practicing on a staged vehicle. The BCCRS's volunteer firefighters were there to demonstrate and assist with the tools.

This was an opportunity for the Senegalese

delegation to see how the U.S. responds to calls, according to Capt. Dave Peary of BCCRS. Sharing this experience with Rescue One is an example of how relationships can be built with another country. They can then use this information to enhance rescue methods that will work in their country's unique environment.

"The plan is that they'll be able to be self-sustaining," said Raymond Handel, an operations manager at CDHAM.

While they may not have the same equipment or resources to work with in Senegal, CDHAM's demonstration provides a good informational foundation for them to build upon. It also fosters cooperation between U.S. and Senegal's first responders that could be helpful in the event of a future disaster.

"The way our program works is what we call a sustained engagement, meaning we work with them over years, consisting of a series of activities," said Beadling.

Since 2011, the interaction between CDHAM and Senegal has been consistent with several activities taking place to discuss Senegal's progress and develop, write, revise and review contingency plans within their national government and armed forces.

"So, the Senegalese visit to CDHAM was just one piece of a complex partnership," said Beadling. "It is a very important part though, as it enables them to see some of our approach to disaster management and to focus without the daily distractions of their normal jobs."



Photo by Thomas Balfour

# Ritter named new NCC Surgery Program Director

by Sharon Holland, managing editor and deputy vice president for External Affairs

Air Force Lt. Col. (Dr.) Matthew Ritter, associate professor of Surgery at the F. Edward Hébert School of Medicine, has been selected as the new National Capital Consortium General Surgery program director.

Ritter, a 1997 Uniformed Services University School of Medicine graduate, was chosen “from amongst a tremendously talented and stellar group of applicants,” according to Army Col. (Dr.) Craig Shriver, chief of General Surgery and director of the Murtha Cancer Center at Walter Reed National Military Medical Center, in his announcement of Ritter’s selection. Ritter will replace Shriver, who also currently serves as the NCC General Surgery program director.

The NCC General Surgery residency program based at WRNMMC is the military’s largest general surgery training program and also one of the largest in the nation. In addition to WRNMMC, the program offers clinical rotations to more than 50 residents at a number of military and civilian hospitals throughout the area, including Fort Belvoir Community Hospital, University of Maryland Shock Trauma Center, Washington Hospital Center, Children’s National Medical Center, Suburban Hospital, and INOVA-Fairfax Hospital. Residents spend six years in the program and are granted a dedi-

cated 12 months of research upon completion of their third year of training. Residents also have the opportunity to train in a variety of WRNMMC’s specialty sections including advanced laparoscopy, bariatric surgery, breast surgery, colon and rectal surgery, endocrine surgery, general surgery, surgical oncology, pediatric surgery, and trauma surgery and critical care.

“Dr. Ritter will serve as program director while remaining in his role here at USU as vice chair for education in the surgery department. This will further align the undergraduate medical education and graduate medical education missions as well as USU and WRNMMC,” said Navy Capt. (Dr.) Eric Elster, chair of USU’s Norman M. Rich Department of Surgery.

Ritter will begin his new duties July 1, 2014.



Photo by Thomas Balfour

Air Force Lt. Col. (Dr.)  
Matthew Ritter



Photo by Christine Creenan-Jones

## PDC students showcase research at table clinic

Navy Lt. Jaime Lee and her classmates at the Naval Postgraduate Dental College at the Uniformed Services University took part in a table clinic presentation, April 11. At the clinic, Lee discussed the causes, symptoms and treatments for Oromandibular Dystonia, a disfiguring disease characterized by uncontrollable muscle contractions in the mouth and body.

# Final Frame



Photo by MC3 Laura Barley

*Brigade Commander Air Force Col. Kevin Glasz participated in physical training at the Uniformed Services University, April 18.*

