

The Official USU Newsletter

the pulse

Volume 10, Issue 4 • March 2, 2015

www.usuhs.edu



Learning to Care for Those in Harm's Way

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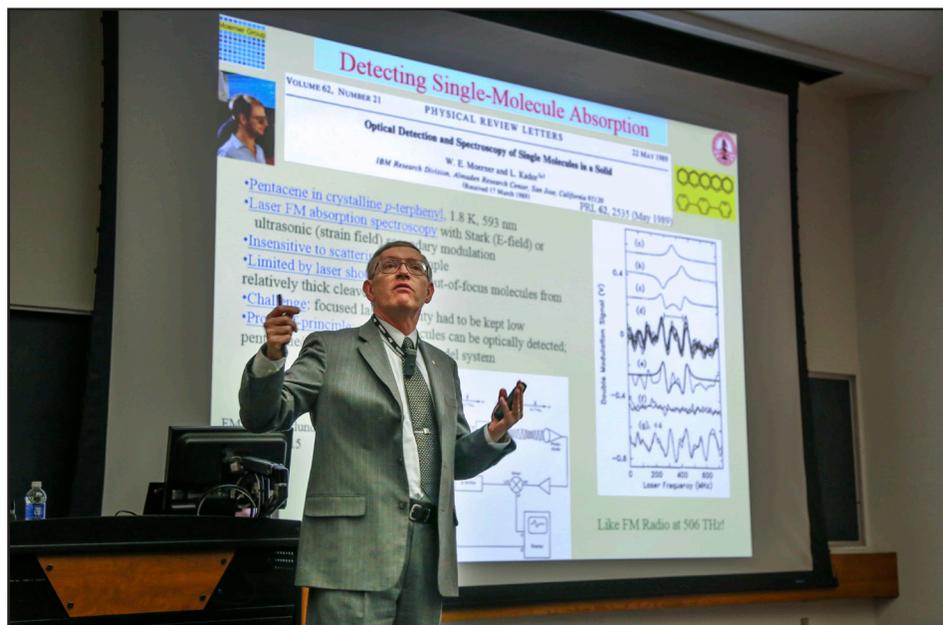
The Pulse is published biweekly on Mondays. The deadline for submissions is at 4 p.m. Tuesday prior to the publication date. Submissions can be sent to christopher.austin@usuhs.edu or by calling 301-295-3338.

**On the cover**

Volunteers from USU's Family Medicine Interest Group and the community conduct surveys on the area homeless, Jan. 29, similar to FMIG efforts shown in this 2012 photo. Learn more on pg. 7.

2014 Nobel Prize Co-Recipient in Chemistry Gives Lecture at USU

by Christopher Austin, editor/ layout design



Dr. W.E. Moerner, a co-recipient of the 2014 Nobel Prize for Chemistry, presents his work to faculty and students at a seminar in Sanford Auditorium on Feb. 6. (photo by Army Sgt. Jeffrey Dillon)

Dr. William E. Moerner, one of the winners of the 2014 Nobel Peace Prize in Chemistry, visited Uniformed Services University to give a talk on his work in super-resolution microscopy on Feb. 6 in the Jay P. Sanford Auditorium.

The seminar focused on Moerner's research into observing individual molecules by using fluorescence proteins to build 3D images from observations over a period of time.

"This is why we're all excited about this area of science Light microscopy can't do anything better than this," Moerner said during the seminar. "There's a great future for using these methods to look inside these very small organisms to try to understand what sort of structures that they are and what kinds of organization there might be."

"I thought it was very interesting applications of basic science," said Navy Ensign Tony Romero, a fourth-year medical student. "I like how he took us all the way through the subject. It's a rare thing to be able to listen to."

"I have a fascination with microscopy. I'm going into pathology, but I'm limited by simple light microscopes," said Navy Ensign Todd Lilje, a fourth-year student. "He's a well-spoken man and able to break it down into generalities that I'm able to appreciate."

Moerner is the Harry S. Mosher Professor of Chemistry at Sanford University.

USU Postdoctoral Association “Doing Great Things”

by Mass Communications Specialist 3rd Class Laura Bailey, writer and photographer



Members of the Uniformed Services University Postdoctoral Association pose for a photograph at USU, Feb. 10, 2015. (photo by MC3 Laura Bailey)

The Uniformed Services University Postdoctoral Association (PDA) members work alongside staff and faculty and play an increasingly active role in the community, but many may not realize it, according to Dr. Miranda Gray, a postdoctoral fellow in the Department of Microbiology and Immunology at USU and president of the USU PDA.

Board members of the USU PDA serve postdoctoral fellows within the USU community and help guide the organization forward. Their mission is to promote career development, networking and scientific and social interactions among fellows.

A grant writing workshop run by Dr. Frank Shewmaker, an assistant professor in the Department of Pharmacology at USU and the faculty advisor of the USU PDA, as well as a new grant database available on the USU website offers tips on grant writing and examples of successfully routed grants for postdoctoral fellows and other university researchers.

“Dr. Erica Raterman, a postdoctoral fellow in the Department of Microbiology and Immunology at USU, and Dr. Linda Miallau, a research assistant professor in the Department of Biochemistry and Molecular Biology, worked closely with Dr. Susan Rasmussen, director of the Office of Program Development at USU, and Army Col. (Dr.) Mark Kortepeter, associate dean of Research in USU’s School of Medicine, to develop the grant database, and we help to manage any additions to the database,” Gray said. “A lot of work went into that project, but a lot of people don’t know that the PDA helped with it.”

“They’re going to be submitting this summer during the next deadline, so that’s a big deal, especially if they get funded,” said Gray.

Research funding means more funds flowing into the university – an added benefit of having the database, she added.

According to Gray, a career seminar series lecture held Feb. 19 and another scheduled for Mar. 17 are the culminations of hard work by

members of the USU PDA.

Originally, the USU PDA helped Dr. Edward Mitre, the series founder, run the program. With the support of Dr. Mitre, the series slowly transitioned to being completely run by the USU PDA members. Starting in April, a graduate student will also begin helping.

Raterman, who is responsible for arranging the speakers for the series and advertising these events said students, postdoctoral fellows and senior scientists in the biomedical sciences who are considering a career outside of academia are the most direct beneficiaries of the career seminar series.

Some topics may be of interest to the wider community as well, particularly if they are interested in work being done at neighboring institutions.

“For instance, a speaker late last year who works in support of the NASA Space Biology program shared information on the process for selecting which biological experiments get sent into space on NASA missions to the International Space Station and on how USUHS researchers can apply for NASA funding,” said Raterman.

She continued, “Our February speaker, Dr. Joseph Larsen, was the acting deputy director of the Division of CBRN Medical Countermeasures at BARDA, an agency responsible for developing plans for response to public health emergencies. I think his talk was of interest to the entire USUHS medical community. “In general, our goal is to expose the USUHS community to diverse career paths in the biomedical sciences by inviting speakers with careers in government, industry, nonprofit organizations, consulting and journalism.”

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CHAMP/HPRC Partners with USADA to Launch New Supplement Safety Resource

USU/US Anti-Doping Agency press release

The Consortium for Health and Military Performance's Human Performance Resource Center (HPRC) at the Uniformed Services University and the U.S. Anti-Doping Agency (USADA) announced an important new partnership created to provide robust educational resources designed to help service members understand and navigate the potential dangers associated with dietary supplements.

The newly-launched Operation Supplement Safety (OPSS) High-Risk Supplement List provides warriors with information about dietary supplements that may pose a greater risk of containing substances such as stimulants, unapproved drugs, steroids, or other hormone-like substances that may potentially cause a positive drug test and/or pose a significant health risk.

The new resource is accessible through the OPSS online family at HPRC-ONLINE.ORG/OPSS. Warriors, family members, and healthcare providers will have access to the OPSS High-Risk Supplement List, which includes products that have been evaluated by expert scientists at HPRC and USADA as posing a possible anti-doping or health risk. Reviewing the information on the OPSS High-Risk Supplement List is the first step a service member should take when deciding whether or not to use a dietary supplement.

The OPSS website provides many other educational materials for warriors to review before making an informed decision.

"Many dietary supplements contain ingredients that are banned in the military, like controlled anabolic steroids, and this list

reveals many of these products," said Dr. Arthur Kellermann, Dean of the F. Edward Hébert School of Medicine at USU. "USADA has a similar website to help athletes, and USU's partnership with them allows us to help do the same for service members. We believe this will send a positive message that we want to help our service members make safe choices."

"USADA is proud to assist our American service members by providing them information they need to stay healthy and drug free. We respect and appreciate the work they do and are thrilled to partner with the Human Performance Resource Center to assist support and protect our service men and women," said Dr. Amy Eichner, Special Science Advisor to USADA.

Continued From "Doing Great Things" on pg. 3

The USU PDA leaves no stone unturned as they seek out more ways to be proactive.

A symposium during Research Days is one example of many initiatives brought to life, but we want to do more, said Gray. Community outreach is a key initiative the USU PDA wants to see bolstered.

"We're here to be scientists, but at this point in our careers – because we're still considered trainees – it's good for us to have other types of experiences," Gray said. "We do community outreach which is probably one of the more important things that we do."

The Montgomery County Science Fair, scheduled for March, has several USU fellows already signed up as judges.

"We've gone through all this

training, and we have all this experience, and we want to give back," said Gray. "I think doing the science fairs is an opportunity for an actual scientist to go in there and talk to these kids and say, yes, you can actually grow up to be a scientist."

The USU PDA fellows also participate in food drives and soup kitchens for the homeless, she said.

The efforts and dedication of the USU PDA members, whether on or off campus, reflect the high standards of the university.

"Nothing's a selfless act," said Gray. "This has obviously been a good experience for us. We are picking up skills by being involved, but it's more about making people aware that we are really doing a lot of great things, not just for the PDA itself, but the university as a whole."

If you would like more information about the USU PDA or have interest in joining the association, please visit the website at: <https://sites.google.com/site/usuhspost-doctoralassociation/home>.

USU Program Success Briefed to White House

by Christopher Austin, editor/ layout design



An ad hoc Cabinet meeting led by Liberian Minister of Internal Affairs, the Honorable Morris M. Dukuly in Monrovia, Liberia, April 2014.

The Uniformed Services University's Center for Disaster and Humanitarian Assistance Medicine's Disaster Preparedness Program (DPP) was among the agenda items briefed to the National Security Council and President Obama in January.

CDHAM's DPP success in working with the Liberian government to develop an Ebola response plan was briefed to senior leaders at the White House.

"[DPP] is not specifically health focused, it's all disaster preparedness and planning efforts," said Air Force Maj. (Dr.) Geoffrey Oravec, the principal investigator with the DPP.

"The nature of the program is really focused on working with the partner nations through a sustained engagement model over a period of several years to help build their capacity to plan for and respond to

disasters," he continued.

The program is implemented on behalf of U.S. Africa Command (AFRICOM) to help improve disaster response in African countries by working with the civilian and government sectors to build up the capacity in partner nations to handle disasters.

"In terms of disaster preparedness, it's more than just training people and building things. It's also getting policies in place. Sometimes it can be very beneficial for those governments to have AFRICOM presence there to help them do that," said Oravec.

While the main focus of the DPP has been pandemics in recent years, the program works with nations to devise different plans for whatever the countries need help preparing for whether it is earthquakes, floods or other disasters.

The relationships that the DPP

was able to forge with ministry members in African nations led to Liberia reaching out to AFRICOM and CDHAM before the Ebola disaster was declared and Operation United Assistance was stood up by the President Obama, according to Oravec.

"Because CDHAM had worked with seven West African nations for two to five years before the Ebola epidemic, they turned to us and asked for help," said retired Air Force Col. (Dr.) Charles Beadling, the director of CDHAM. "They knew us – and trusted us – something most of the other organizations responding did not have."

The DPP works with partner nations by assessing a country's disaster management capabilities and providing plans and exercises to help better improve the country's ability to respond to a disaster.

In addition to preparing other countries to better handle disasters, the DPP also helps protect the U.S. by ensuring emergencies like pandemics are controlled within their countries of origin, according to Oravec.

"The importance of health as an engagement tool for security cooperation is widely accepted now, as evidenced by the Assistant Secretary of Defense for Health Affairs, Dr. Jonathan Woodson, making Global Health Engagement the sixth pillar in his strategy for the Military Health System," Beadling said. "We are just beginning to appreciate the strategic value of sustained engagements with partner nations – and the relationships made possible from sustained engagements."

USU Students Aid Area Homeless

by Christopher Austin, editor/ layout design



The Jan. 2015 team of USU students and area volunteers who went out in the early morning to conduct a survey with area homeless to help Bethesda Cares.

Before going to school on Jan. 29, students from Uniformed Services University's ventured out into the freezing streets of Bethesda at 4 a.m. to seek out area homeless to conduct a survey that will hopefully lead to housing.

More than 20 members of the USU Family Medicine Interest Group worked with Bethesda Cares, a non-profit that works to provide food and housing to area homeless, to perform a health assessment survey for the homeless in the area.

The FMIG is an association at USU that promotes career development and community service for students. They work with Bethesda Cares, a non-profit that works to

provide housing for area homeless.

"We walked through alleys and around dumpsters. We looked in cars to see if people were in there," said Army 2nd Lt. Tiffany Chang, a first-year student at the F. Edward Hebert School of Medicine at USU. "When we did find them, we would ask questions like, 'how long have you been homeless? When was the last time you were in the hospital? When was the last time you were in a home? How are you getting money to live?'"

"When the homeless people are placed in homes, they send out medical students in groups of two or three to assess their health," Chang said. "We take their vitals,

check up on their wellbeing and just make sure they're living in a clean environment.

"You hear Montgomery County is such a rich area. You don't realize how many people are homeless," Chang said. "It's

really humbling to know not only are there many volunteers who want to help get these people into homes, there are all these homeless people who have been through a lot to be where they are."

"The Family Medicine Interest Group is an essential element of our departmental mission," said Navy Capt. (Dr.) Mark Stephens, professor and chair of the Family Medicine Department at USU. "The FMIG focuses on community service, education and officer development. The Bethesda Cares initiative is an outstanding example of an opportunity for our students to engage in meaningful community service."

University to Host 10th Annual Amygdala, Stress and PTSD Conference: 'Of Mice and Man'

by Sharon Holland, deputy vice president for external affairs/ managing editor

Clinical and basic science experts from around the world will convene for the 10th Annual Amygdala, Stress and PTSD Conference, sponsored by the Uniformed Services University of the Health Sciences Center for the Study of Traumatic Stress, in collaboration with the USU Departments of Psychiatry and Family Medicine, the USU Neuroscience Program, and the Walter Reed National Military Medical Center Department of Psychiatry, Apr. 21.

This year's conference theme is "Of Mice and Man" and will focus on the biological basis of stress, fear and post-traumatic stress disorder.

Featured speakers include: Dwight Berles, Ph.D., The Johns Hopkins School of Medicine, "Dynamic Behavior of Oligodendrocytes and their Progenitors in the Adult Brain;" Harvey Pollard, M.D., Ph.D., Uniformed Services University of the Health Sciences, "Big Data Meets the Brain;" Abigail Marsh, Ph.D., Georgetown University, "Empathy on a Sliding Scale:

Is Altruism the Inverse of Psychopathy?"; Jacek Debiec, M.D., Ph.D., University of Michigan, "The Neurobiology of the Intergenerational Social Transmission of Emotional Trauma;" and Daniel Stein, M.D., Ph.D., University of Cape Town, South Africa, "Trauma and PTSD in South Africa."

The event is free and open to the public; however, registration is required. To learn more and to register before the Apr. 14 deadline, please visit: www.amygdalaptsd-conference.org.

USU Faculty Serves on State of the Union Contingency Team

by Christopher Austin, editor/ layout design

Air Force Maj. (Dr.) Christopher Bunt, assistant professor in the Uniformed Services University Department of Family Medicine, served on one of the Advanced Cardiac Life Support Contingency teams during President Obama's State of the Union address on Jan. 20, 2014.

"I'm happy I did it. It's an opportunity I don't think you get on the civilian side," Bunt said. "Taking advantage of these opportunities is part of the reason I joined the military."

The purpose of the support team was to provide stabilizing care to any of the public officials who attended the event should something occur; ranging from a simple accident to a major biological attack.

Bunt was notified he had been chosen for the ACLS team three weeks before the event and accepted. In addition to his background check, he was also given a briefing

and fitted for a hazmat suit to protect against biological and chemical agents. The operation was organized by the U.S. Capitol Police and ran from the mid-afternoon to late night.

"The day itself was like many other military activities – sitting around waiting to see if something's going to happen," Bunt said. "Fortunately, nothing happened."

Caregivers on the ACLS teams were required to be active-duty military medical professionals with ACLS certification.

There were two teams stationed near the Capitol building. Both were made up of a doctor, a nurse and two technicians. Both teams were composed of individuals across the different services.

"We were prepared to handle folks with advanced traumatic life support, ATLS kits, some automatic external defibrillators, mid-range first aid, and some stabilization ac-



(Courtesy Photo)

Air Force Maj. (Dr.) Christopher Bunt, assistant professor in the USU Department of Family Medicine is fitted for his hazmat suit in preparation for his role on one of the Advanced Cardiac Life Support Contingency Teams.

tions and had a small clinical space to work in," he said.

"I enjoyed the opportunity. I enjoyed being there to represent USU and get an opportunity to interact with folks that I wouldn't normally interact with on a day-to-day basis," Bunt said.

Service Members Encouraged to 'Go For Green' to Improve Health

by Health.mil Staff

To encourage better food choices and eating habits for warfighters, the Defense Department is debuting its healthy eating program "Go For Green" on all military installations this year. Managed by the Uniformed Services University of the Health Sciences Human Performance Resource Center,

"Go For Green" uses a color-coded labeling system to make healthier food selections easier. Katie Kirkpatrick, a nutritionist with HPRC, said the program will go a long way towards improving the quality of life for warfighters.

The "Go for Green" program provides education for diners, promotes the selection of healthy choices at military dining facilities,

and gives guidance when warfight-



(Courtesy Image)

ers shop for groceries, prepare and cook food, and dine at restaurants. It also encourages dining facilities to serve more nutrient-dense green foods, such as kale, spinach and collard greens. "Go for Green" will also heighten warfighters' awareness of foods promoting readiness, good health, recovery and enhanced performance in the workplace.

"Location, placement and accessibility of food can have an impact on consumer choices," Kirkpatrick said. "Through this program, we want to make green foods more visible and appealing so that warfighters and their families will not only eat healthier, but also make healthier life choices."

"Go for Green" is based on the dietary guidelines for American military dietary reference intakes, nutrition standards and education, and the Department of Defense Food Service Program. The program is also derived from the United States Department of Agriculture's "My Plate" program.

Final Frame



Sgt. Eva Ilias, a supply non-commissioned officer in the department of operations for Military and Emergency Medicine at the Uniformed Services University, participates as a role player during the Active Shooter Exercise at the Navy Exchange on the Naval Support Activity Bethesda, Feb. 10, 2015. Ilias portrayed the active shooter. "Active Shooter" is part of the annual Navy-wide Solid Curtain Citadel Shield Exercise. (photo by MC3 Laura Bailey)