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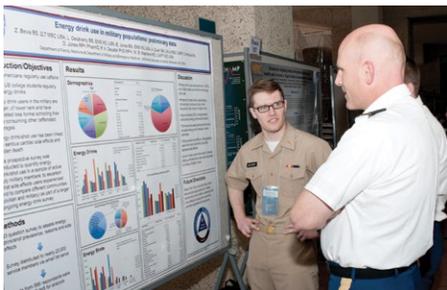


Photo by Thomas C. Balfour

On the cover

Faculty, staff and student research was highlighted during Research Days, including a display of more than 300 research posters. (See story, page 3.)



Research Days draws nationally renowned scientists

By Christine Creenan-Jones, editor



Photo by Thomas C. Balfour

Harvey Fineberg, MD, PhD, president of the Institute of Medicine, delivered the Presidential Lecture at USU's Research Days.

Research Days is a showcase of the innovative research happening at the Uniformed Services University. Faculty, staff and students participate in this annual event, which includes lectures, presentations and other scholarly activities.

Several highly respected scientists from various biomedical disciplines spoke at this year's Research Days, which also included the inaugural Faye G. Abdellah Lecture, named after USU's founding dean of the Graduate School of Nursing.

Charles Vacchiano, PhD, CRNA, a professor of nursing and associate professor of anesthesiology at Duke University, delivered the first Abdellah lecture on May 14. Vacchiano is a retired Navy Nurse Corps officer who spent most of his career studying the effects of oxygen exposure on cellular and physiologic processes, which he discussed during a talk called, "Which Way is Up? My Road to Research."

Exposure to high oxygen content can have toxic effects on the body, including pulmonary fibrosis,

Vacchiano said. Aviators may be especially susceptible to this type of injury, because they breathe high concentrations of oxygen while flying aircraft and during training exercises. To facilitate research in this area, Vacchiano developed a Reduced Oxygen Breathing Device, which simulates hypoxia in a safe, controlled environment instead of the traditional in-flight method.

Li-Huei Tsai, PhD, director of the Picower Institute for Learning and Memory at the Massachusetts Institute of Technology, also spoke during Research Days. Tsai, who delivered the Bullard Lecture, is a leading expert in the field of neuroscience with several ongoing investigations aimed at understanding the mechanisms underlying learning and memory. Alzheimer's disease is one of the disorders she studies.

Her talk, "Epigenetic Mechanisms Regulating Neuronal Plasticity Gene Expression and Memory Formation," was focused on the work she is doing to reverse the neurodegenerative effects of Alzheimer's disease. In contrast to genetic mutations, which are almost impossible to reverse, epigenetic changes are potentially reversible. This implies they are amenable to pharmacological interventions.

Tsai is using HDAC2 inhibitors, a special compound that jumpstarts the gene expression that controls memory and learning, to treat mice with Alzheimer's disease. HDAC2 inhibitors appear to be a promising therapy for Alzheimer's disease, since the affected mice in Tsai's lab regained normal cognitive function after treatment.

Tsai hopes this work will eventually lead to human trials and become an effective drug therapy for millions of people with Alzheimer's disease worldwide.

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Research Days draws nationally renowned scientists

Continued from page 3

Fellow pathfinder, Jonathan Yewdell, MD, PhD, chief of the Cellular Biology Section of the Laboratory of Viral Diseases at the National Institute of Allergy and Infectious Diseases, was another headliner at USU's Research Days. He was the keynote speaker at the Postdoctoral Fellows Symposium, where he implored faculty and students at USU to follow their ideas to new discoveries in a talk called, "Strategies for discovering the Unknown Unknowns: Translating DRiPs for Immunosurveillance."

"In your career, you will make findings you can't explain. Don't forget them," he said.

Yewdell heeded this advice while working on an immunology project more than a decade ago. While analyzing his results, Yewdell surreptitiously discovered a phenomenon called Defective Ribosomal Products.

DRiPs are proteins that become defective during the translation process. They are common mistakes that enable the immune system to quickly identify alterations in cellular genetic expression.

The final speaker, Harvey Fineberg, MD, PhD, president of the Institute of Medicine, delivered Research Day's capstone Presidential Lecture, "Doctors as Decision Makers: Coping with Uncertainty and Human Nature."

His interactive talk represented a shift from the traditional bench science lectures that dominated Research Days. Instead, Fineberg discussed external factors that impact decision making in both positive and negative ways.

Fineberg encouraged health professionals at USU to carefully analyze the way they communicate and make important medical decisions.

Brigade commander receives Command Ashore Insignia

By MC2 Brittney Cannady, writer



Photo by Thomas C. Balfour

Dr. Charles Rice, president of the Uniformed Services University, presented the Command Ashore Insignia to Navy Capt. (Dr.) Tanis Batsel Stewart, brigade commander at USU, during formation on May 10.

Navy Capt. (Dr.) Tanis Batsel Stewart, the brigade commander at the Uniformed Services University, has been authorized to wear the Command Ashore Insignia, a badge given to Navy officers who manage approved major programs or commands.

Before officers can wear this prestigious insignia, they must demonstrate leadership in many diverse administrative areas, including personnel, finance and legal matters. Their application must be approved by the Surgeon General of the Navy (for medical corps officers) and the Chief of Naval Operations.

"The designation is important, because it guarantees future Navy officers who serve as Brigade Commander are best-prepared for the challenges of this complex command," said Batsel Stewart.

"My number one goal when I arrived was to build the reputation of the University and to make assignments here as rewarding as possible for our military faculty and staff. Clear command recognition by the services is a key aspect in ensuring a leader is able to effectively advocate for their personnel."

Know your biases, use concise language when speaking to patients, read and interpret good scientific literature, and use holistic approaches when evaluating problems, he told audience members.

"Life does not arrive in packets that are stark, easy and immediate," Fineberg explained. "Life is messy with an array of possible outcomes. Take these complex problems with multiple outcomes, reduce the

complexity and boil them down to choices A and B."

Besides welcoming leading scientists from premier agencies beyond USU, Research Days also highlighted the powerful work happening on campus with a special showcase of more than 300 research posters and lectures from faculty, staff and graduate students in the graduate programs, the Schools of Medicine and Graduate Nursing and the Armed Forces Radiobiology Research Institute.

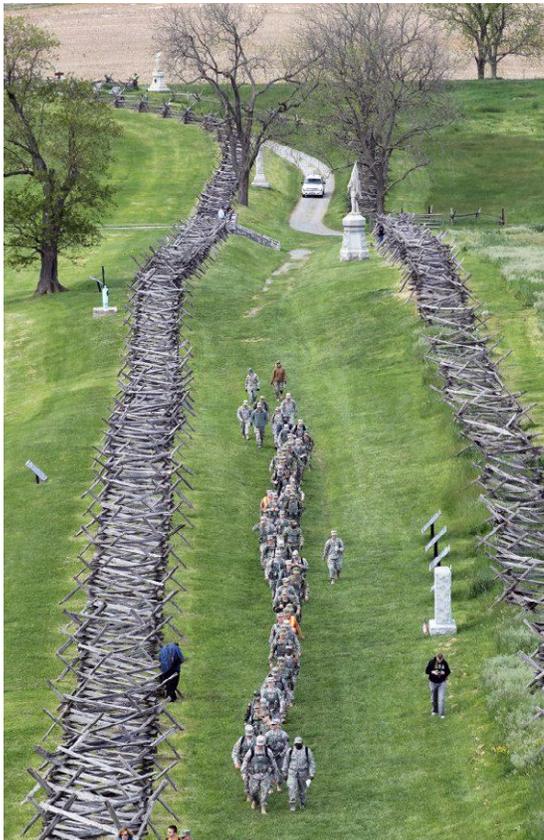
Famed battlefield becomes hands-on classroom for USU students

By MC2 Brittney Cannady, writer



Navy Capt. (Dr.) Trueman Sharp, chair of USU's Department of Military and Emergency Medicine, addresses student in front of Mumma Farm at Antietam.

Photo by Sharon Willis



Medical students in USU's Class of 2016 march through "Bloody Lane" at Antietam National Battlefield.

Photo by Sharon Willis

More than 170 medical students at the Uniformed Services University took part in the Antietam Road March in Sharpsburg, Md., on May 13. Students marched in formation across a battlefield that was home to the bloodiest fight in American history while learning how Civil War medicine influenced modern military medical practices.

"Antietam is perfect for us to teach students," said Navy Lt. Brian Andrews-Shigaki, an assistant professor in the Department of Military and Emergency Medicine (MEM). "Jonathan Letterman (medical director of the Army of the Potomac) made drastic changes to the medical system during the Civil War, and it's very much demonstrated at Antietam. We want students to see how basic tenets like ambulatory services, evacuations and field hospitals worked and experience it. Antietam is a perfect example of that."

Students stopped several times during the march to learn more

about major turning points at the Battle of Antietam. The Cornfield and Bloody Lane, for example, were pivotal battle grounds, because thousands died or were badly injured during fights that ensnared Union and Confederate Soldiers on these grounds 150 years ago. USU faculty and experts from the National Museum of Civil War Medicine brought life to these brutal battles through vivid lectures, period costumes and artifacts.

As bad as the fighting was, disease was far more deadly during the Civil War. In fact, more than two-thirds of the 622,000 deaths were the result of illnesses like diarrhea, dysentery and typhoid fever. These infections spread through camps like wildfire, a somber fact that Antietam instructors highlighted to illustrate the importance of proper sanitation and the need to gain a sophisticated understanding of harmful contagious diseases.

These lessons have been ingrained in USU students at Antietam for several decades now. The march is an important part of campus tradition and learning, and each year MEM's faculty works hard to create a dynamic learning platform. Students are even given surveys at the end of the march, so they can evaluate their experience in a meaningful way.

"The response has been more positive each year," said Andrews-Shigaki. "We work with students to get feedback and see what needs to be changed. We also give it to the museum staff, so they understand what works, and so they can help us get our students involved. Because at the end of the day, we want them to use this information to help people and save lives."

USU confers more than 250 academic degrees at Commencement 2013

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

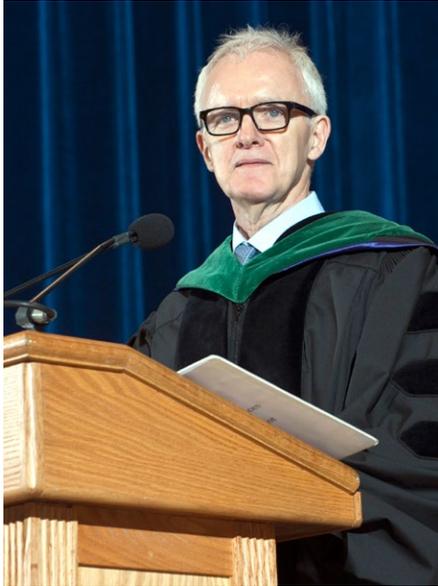


Photo by Thomas C. Balfour

Joseph "Bob" Kerrey, Congressional Medal of Honor recipient and former U.S. senator, was the keynote speaker at USU's 2013 Commencement.

The Uniformed Services University celebrated its 34th commencement ceremony at the National Society Daughters of the American Revolution Constitution Hall in Washington, D.C., on May 18.

More than 2,000 spectators watched as USU conferred masters and doctoral degrees to more than 250 students for the Class of 2013.

"I was admitted to the care of young men and women like you during the third week of March 1969," said Joseph "Bob" Kerrey, Congressional Medal of Honor recipient and former U.S. Senator, during his

commencement address to USU students and guests. "They were working at the Philadelphia Naval Hospital where I had been sent to be treated for injuries suffered in Vietnam. Most of the doctors, nurses and technicians were relatively new to their professions. All I can say about them is this: they saved my life and got me ready for a long and successful rehabilitation ... Other than that, I don't owe them much."

During the ceremony, USU's Graduate School of Nursing awarded 30 master's degrees and one doctoral degree, the graduate education programs awarded 56 degrees and the F. Edward Hébert School of Medicine awarded 166.

"Today is a wonderful day and it's an honor to walk across the stage with this group of gifted and talented people," said Air Force Capt. Matthew Scott Hamm, who received his doctorate from the School of Medicine at this year's commencement. "I know we are walking into a future with great expectations and great responsibility, but we will rise to the challenges ahead and make a difference in our respective careers."

After all of the degrees were conferred, Dr. Richard MacDonald, the associate dean of Student Affairs at USU, issued the Oath of Hippocrates and the Surgeons General, or their representatives, led the new graduates in their oaths as commissioned officers in the Army, Navy, Air Force or Public Health Service.

"Welcome to your role of improving the health of people," said Dr. Charles Rice, president of USU, during the ceremony. "Welcome to this ancient and honorable profession."

Hooper earns Outstanding Biomedical Educator Award

By MC2 Brittney Cannady, writer

Tomoko Hooper, MD, MPH, professor and director of the Master of Public Health Program in the Department of Preventive Medicine and Biometrics at the Uniformed Services University, received the 2013 Outstanding Biomedical Educator Award at the Graduation Awards Ceremony held on May 9 in Sanford Auditorium.

Hooper was recognized for exemplary teaching, mentorship and leadership over the past year by USU's Graduate Education Office, the sponsor of this prestigious award.

"I feel very honored to be receiving this award as there are so many deserving and talented educators here at USU," said Hooper. "Most of the graduates of our public health degree programs come to USU as experienced military and U.S. Public Health Service professionals, and I know that they will continue to contribute in many ways to the health of the communities they serve. I look forward to hearing about all of their achievements."



Photo by Thomas C. Balfour

Dr. Tomoko Hooper (third from left), professor and director of the Master of Public Health Program at the Uniformed Services University, earned the 2013 Outstanding Biomedical Educator Award. Dr. Charles Rice (left), president of USU, Dr. Eleanor Metcalf (second from left), associate dean of the Graduate Programs in the Biomedical Sciences, and Dr. John McManigle (right), acting dean of the School of Medicine, presented a plaque to Hooper during the Graduation Award Ceremony.

USU division teaches students a global perspective

By Christine Creenan-Jones, editor

Our world, often called a global village, is more connected today than ever before. People and ideas move freely through open borders, and they transform cultures and ways of life with rapid speed.

Not all change is good, though.

Diseases like HIV and SARS, for example, spread faster and farther in a borderless world. As a result, health crises and disparities become everyone's problem, including students at the Uniformed Services University, who are searching for new ways to improve world health.

A pill-to-fix-it approach doesn't work in most cases, either. That's why faculty members in USU's Division for Global Health use holistic teaching approaches, where factors like culture, economics, religion, politics, demographics and social influences are carefully weighed.

This broad view is important, because it leads to a healthier, safer world. Still, global health is a challenging discipline, with many geopolitical influences to consider.

"It's not rocket science. Global health is much more complicated," said Dr. Stephen Waller, an associate professor in the Global Health Division at USU. "There is no formula to follow, just basic principles that improve community health through multidisciplinary action."

Often, this means breaking cycles of behavior in areas where unsanitary or dangerous health conditions exist. It also means creating policy and action plans that favor lasting solutions over peripheral remedies.

"The first time I really started thinking about global health was during a humanitarian mission in Haiti. We set up our clinic in a local school, even though a major hospital was only five blocks away," said Air Force Col. (Dr.) Edwin Burkett, director of the Global Health Division. "The hospital was an open bay facility with minimal staff or supplies. Flies

buzzed around patients with open wounds, and it was generally unclean. I realized quickly our team was in the wrong spot."

If his clinic was based in the hospital, Burkett's team could have shared their knowledge and resources with local health care providers. This would have made their work in Haiti more impactful and sustainable, he said.

Drawing from this lesson and others like it, Burkett and Waller encourage their students to plan for the best possible outcomes when developing global health plans. They also share their expertise with other leaders in the Consortium of Universities for Global Health. USU was recently inducted into CUGH's prestigious network, which is an international organization dedicated to ending health inequalities around the world.

The Global Health faculty at USU has strong local roots, as well. Many of them will likely begin teaching at the National Defense University in Washington, D.C., soon.

USU is in the initial stages of partnering with NDU to provide global health education to graduate students at USU as well as line officers and other military leaders who play a vital role in global health and national security.

"We can learn from them, and they can learn from us," said Burkett. "Multi-disciplinary collaborations like these are important, because most health problems run deeper than medicine alone and can't be solved by doctors and nurses working independently."

The division is expanding in other ways, too. Faculty members are exploring ways to grow their curriculum into an additional master's level program that will include more robust research and service pieces.

"Global health is an important discipline that benefits humankind as a whole. Over the past 50 years, small pox was eradicated, river blindness has diminished and polio outbreaks have been reported in only

a handful of countries," said Waller. "USU wants to propel the field even further, and our division's expansion is one way to ensure global health continues progressing."

USU medical student earns prestigious badge

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



Photo by Sgt Lance Pounds, 3d Cavalry Regiment, Public Affairs

Army 2nd Lt. Andy Oh (photo, right), recently earned the Expert Field Medic Badge at Fort Hood in Texas. More than 260 EFMB candidates from within the medical field came from installations around the country to try and execute this physically, tactically and technically demanding training event to improve competencies and earn the badge. Oh, who recently graduated from USU and is now an Army captain, was among 44 Soldiers who were presented the badge in a ceremony on May 2 at 1st Cavalry Division Headquarters, which signifies an achievement of the highest level of prestige within the medical field.

"Second Lieutenant Oh was a true leader through the entire event and the 1st Cavalry Division/Fort Hood medical community were impressed with his performance," said Lt. Col. (Dr.) Dan Porter, 1st Cavalry Division Surgeon. "He definitely represented USU in a positive light. Well done!"

Medical student applies MEM curriculum in unexpected place

By Christine Creenan-Jones, editor



Thomas Klotz

Although Ensign Thomas Klotz, a first-year medical student at the Uniformed Services University, grew up in a house full of physicians, he didn't always want to be a doctor.

Klotz's parents – a psychiatrist and dermatologist – didn't push their career choices on him, either. They wanted Klotz to carve his own path, which for him, meant pursuing a degree in International Relations at the University of Southern California.

After college, however, Klotz had a change of heart. He began seriously considering a career in medicine and enrolled in a pre-medical, post-baccalaureate program at American University in Washington, D.C.

While there, Klotz met Dr. Timothy O'Neill, an associate professor in the Department of Pediatrics at USU, who was visiting American University to talk about USU's innovative medical program.

Klotz was intrigued and decided to apply. After he was accepted, Klotz joined the Navy and hasn't looked back.

"I've enjoyed coming here every day. I know I'm at the right place," he said.

Klotz chose the right career, too. This became very clear, when his skills were recently tested in an unexpected place.

"I was driving down Route 50 and saw a vehicle strike a motorcycle while merging into traffic. The motorcyclist was thrown from his bike and lay wounded in the road," he said.

Although the scene was gruesome, Klotz quickly responded, along with several other witnesses.

"We made sure he was stable. He was conscious but seemed to be dazed," Klotz said. "Based on his wounds, there was no intervention we could have done, so we talked to him and waited for the paramedics to arrive."

Throughout the turmoil, Klotz remained calm under fire – the mark of a good military physician – but it wasn't just intuition that guided him on Route 50. Klotz had just run through a similar scenario at USU, so he knew what to do, and more importantly, what not to do as a first responder at the scene of a car accident.

"My coursework suddenly became very real. I was even given a checklist in a Military and Emergency Medicine course for situations like this, which I mentally ran through at the scene and reviewed when I got home," he said. "I've since made that checklist the background on my iPad, because it's already proven to be really useful information, and maybe I'll need to use it again one day soon."

Save the Date

USU Education Day
Celebrating Excellence in Research

June 11, 2013

Blended Learning Initiatives
for the 21st Century Student

Keynote speakers:
Jane Clark, PhD, and
Marcio Oliveira, PhD

Countdown to Commencement Trivia Question

Answer two



Congratulations to Robert Parker, director of the Resources Management Information Office, for answering last issue's Countdown to Commencement Trivia Question: Besides the Daughters of the American Revolution Constitution Hall, name two other places where USU's commencement has been held.

Parker's response, the Uniformed Services University and the John F. Kennedy Center for the Performing Arts, was correct.

Final Frame



All of the photos on the Final Frame were taken by Thomas Baflour



Congratulations to the Uniformed Services University Class of 2013 Graduates!