Chair of Surgery to serve on national face, hand transplant committee

By Sharon Holland, managing editor

Capt. (Dr.) Eric Elster, a U.S. Navy transplant surgeon and chair of the Norman M. Rich Department of Surgery at the Uniformed Services University, is among 18 experts named as members of a new committee to develop standards and policies for face and hand transplantation.

The Vascularized Composite Allograft Transplantation Committee was established by the United Network for Organ Sharing, the nation’s organ transplant system. Vascularized composite allograft involves transplanting multiple structures such as bone, muscle, blood vessels, ligaments, nerves and skin. While face and hand transplants are currently the most widely known VCA procedures, other types of VCA transplantation may be developed in the future.

The VCA Transplantation Committee will determine which organ combinations will be covered in policy, develop national standards and processes for VCA donor consent and recovery, develop a system to prioritize VCA transplant candidates for available organs, develop a national set of clinical data to be collected on VCA transplants, and establish institutional standards for hospitals that perform VCA transplants.

In addition to his duties as professor and surgery department chair, Elster is also director of the Surgical Critical Care Institute, a joint military and civilian program developing clinical decision support tools for critically ill patients, and a staff transplant surgeon at the Walter Reed National Military Medical Center. He completed a solid organ transplantation fellowship at the National Institutes of Health and was then assigned to the Naval Medical Research Center in Silver Spring, Md., where he directed a translational research program focused on the development of improved diagnostics and therapies for serious traumatic injuries, transplantation and advanced operative imaging. Elster was last deployed as a surgeon and Director of Surgical Services at the NATO Role 3 Military Medical Unit in Kandahar, Afghanistan. He is a fellow of the American College of Surgeons and a member of the Society of University Surgeons, American Society of Transplant Surgeons, and the Southern Surgical Association.

Navy Capt. (Dr.) Eric Elster

Save the Date

Town Hall Meeting
February 6, 2014
Sanford Auditorium at 1 p.m.
New prosthetic control system revolutionizes amputee care

By Christine Creenan-Jones, editor

Marine Staff Sgt. James Sides can pick up a soda with his right hand, take a sip and place it on the counter with relative ease. Although seemingly prosaic, this routine activity is a huge breakthrough for Sides, and the rest of his brothers and sisters – 1,500 American war veterans who’ve lost a limb during their tours in Iraq and Afghanistan.

For them, the nuances of everyday life – cooking dinner, driving a car, texting a friend – can range from challenging to downright impossible, even with a prosthetic limb.

That’s because the control systems in most prostheses restore some function but do not move intuitively or with the same fluidity as a real hand or foot, even high-tech ones like the arm Sides received after a bomb explosion in Afghanistan left him partially blind and badly injured.

Shortly after his right arm was amputated, Sides was fitted with a prosthetic limb at Walter Reed National Military Medical Center. Even though his prosthesis was state-of-the-art, he could only perform one range of motion at a time. This included opening and closing his hand or rotating his wrist – but never both at once or in rapid succession. Furthermore, Sides had to manually move his thumb, and his entire prostheses was prone to frequent, unpredictable malfunctions.

“My sweat would interfere with the signal and my arm would go haywire,” Sides said. “It became such a nuisance, I would just quit wearing it in the summer altogether.”

In search of a better alternative, Sides agreed to test out a newly designed upper limb prosthetic system that utilizes Implantable Myoelectric Sensors (IMES) developed by the Alfred Mann Foundation and currently undergoing an FDA trial thanks to collaborative efforts between the Uniformed Services University and Walter Reed National Military Medical Center.

Dr. Paul Pasquina, chair of the Department of Physical Medicine and Rehabilitation at USU, is the principal investigator for the IMES system – implantable electrode technology that instantly translates muscle signals into hand movements.

“I was thrilled with the idea of collaborating with AMF and leading the IMES project. It holds great promise for the future of amputee care, and overcomes several of the flaws that exist with the control systems that are currently available for our wounded warriors,” Pasquina said.

Now, with his new sensors intact, Sides can move his prosthetic hand, rotate his wrist and control thumb movements in tandem. The system’s sensors were also surgically implanted deep inside his muscle tissue, so Sides doesn’t have to worry about losing connectivity during a rain storm or on a hot summer day.

Moreover, the implantable sensors allow Sides to move his prosthetic hand naturally, with life-like dexterity, even.

“It feels very intuitive. It basically works the same way as my other hand,” he said.

Sides is the first person in the world to receive this sophisticated technology, but the research team has IRB and FDA approval to recruit two additional subjects this year.

“We believe that this technology has the potential to revolutionize the care for individuals with amputations,” Pasquina said.
Dean Kellermann hosts first SoM Town Hall of 2014

By MC2 Brittney Cannady, writer

“The state of the school is very sound,” said Dr. Arthur Kellermann, dean of the F. Edward Hébert School of Medicine at the Uniformed Services University, during his Town Hall Meeting, Jan. 22.

After a year marked by government-wide furloughs, sequestration and salary freezes, USU is moving forward with its unique mission, Kellermann said.

He also emphasized the importance of building partnerships with agencies that fall under the Military Health System as well as outside organizations to further expand USU’s reach and cultivate support for the university.

These partnerships and USU’s research and education programs should also be highlighted in the public eye, according to Kellermann.

“Anonymity does us no good and may imperil our existence. People need to know what we do,” he said.

Kellermann recounted several of USU’s large accomplishments over the past 40 years, which include an impressive research portfolio, educating 25 percent of the medical officers in the Army, Navy, Air Force and Public Health Service, and sponsoring innovative academic programs with a unique focus on military medicine.

“We are the leadership academy of the MHS and that should be in our DNA with every student we teach,” he said. “We have a vital mission.”

Collaboration between USU centers produces curriculum recommendations

By Liz Brasington, NCDMPH

Two centers at the Uniformed Services University collaborated on a set of curriculum recommendations recently to empower educators working with disaster health professionals. Experts at the National Center for Disaster Medicine and Public Health and the Center for the Study of Traumatic Stress worked together to identify resources and training activities that could benefit disaster health professionals.

The project, “Curriculum Recommendations for Disaster Health Professionals; Disaster Behavioral Health,” was spearheaded by Kelly Gulley, a project associate at NCDMPH, and Dr. Brian Flynn, a disaster behavioral health expert at CSTS. They worked with other USU experts to build content and identify learning outcomes for the NCDMPH/CSTS project.

“Having been in this field for many years, I approached the project by thinking, ‘What would I have wanted to know at various parts of my career?’” Flynn said.

The NCDMPH/CSTS recommendations feature resources in the following areas of disaster behavioral health: Defining Disaster Behavioral Health, The Disaster Environment, Key Partners, Individual and Collective Response to Disaster, Population with Special Needs and At Risk Individuals, Providing Care, and Playing Additional Important Roles.

Furthermore, the peer-reviewed curriculum recommendations are adaptable, so it can meet the needs and circumstances of the learning community at hand. For example, an instructor can use the NCDMPH/CSTS recommendations to create one lecture or an entire course on a specific topic.

“One of the things that excites me about the curriculum recommendations is that they have such a wide utility and can be suited to many needs,” Flynn said.

The project – a second collaboration for the NCDMPH, who partnered with USU’s Graduate School of Nursing last year to make recommendations for disaster health professionals working with pediatric populations – is also the result of USU’s collegial environment, according to project leaders.

“I think USU attracts people who are interested in collaboration and see linkages between our different interests,” Flynn said. “These kinds of collaborations are harder to accomplish in other universities.”

Do you have a story for the Pulse? Submit your ideas to christine.creenan-jones@usuhs.edu. Pulse staff members are always looking for new leads about the people, programs, research and scholarship at the Uniformed Services University.
Awards ceremony lauds members of Class of 2016

By Christine Creenan-Jones, editor

The F. Edward Hébert School of Medicine at the Uniformed Services University lauded fifteen medical students and four professors at the Academic Collegium Honoring the Class of 2016 on Jan. 16.

Several awards were presented during the event, including the inaugural Physician in Society Award, which recognizes consistent exceptional performance in the clinical portion of the pre-clerkship curriculum. It was awarded to Army 2nd Lts. Evan Baines and Nicholas Szufliita.

The Distinguished Academic Performance Award – given to medical students who achieve honors in at least three modules – was awarded to Army 2nd Lts. Ian Kelly, Joshua Krieger, Alexandra Shams, Nicholas Szufliita, Air Force 2nd Lt. Haydn Roberts, and Navy Ensign Piotr Wisniewski.

The Dean’s Award for Academic Excellence – given to medical students who achieve honors in at least five modules – was awarded to Army 2nd Lts. Kaitlin Campbell, Michael Pavio, Raymond (Mike) Meyer, Air Force 2nd Lts. Alexander Nissen, Matthew Ward, Donovan Reed and Navy Ensign David Lin.

Finally, the winners of the student-sponsored faculty awards were announced at the collegium.

Several faculty and Class of 2016 students were recognized at an academic collegium recently. Awards were given for outstanding academic performance and inspired teaching.

They included Dr. David Mears and Air Force Maj. (Dr.) Brian Neubauer, who were named Best Module Directors, Air Force Maj. (Dr.) Terrill Tops, who was named Best Pathology Lab Instructor, and Dr. Edward Mitre, who was named Best Lecturer by the Class of 2016.

USU’s Southern Region Office gets a new home

By Christine Creenan-Jones, editor

The Uniformed Services University has a broad footprint with programs at sites throughout the country. The Southern Region office – which oversees USU’s Postgraduate Dental College – is one of them.

The Texas-based office was established in 2009, shortly before USU began offering master’s degrees to military dentists in the Navy and the Air Force.

Over the years, the PDC has expanded into a tri-service program with a multidisciplinary scope. Additionally, due to growth within USU, the Tri-Service Center for Oral Health Studies and the Military Training Network have also relocated to San Antonio from Bethesda and have joined the Southern Region office.

As a result of this expansion, the Southern Region office recently moved into a larger, more permanent space on Fort Sam Houston in San Antonio.

“Thus far, we have had the good fortune of being in space loaned by the San Antonio Military Health System located at the Lincoln Center in San Antonio. However, as our mission has grown, and as new programs have come under the purview of the Southern Region office, the need from a permanent home has become obvious,” said Rebecca Patterson, an administrative officer for the Southern Region office. “This move allows USU to have a presence in San Antonio, where we have numerous stakeholders in the mission of training military healthcare professionals.”
Countdown to commencement: A look at the Class of 2014
Air Force 2nd Lt. Stephen Kasteler, School of Medicine

By Christine Creenan-Jones, editor

Air Force 2nd Lt. Stephen Kasteler has always been ambitious. As a young boy, he wanted to be a doctor, businessman, teacher, pilot and lawyer. These goals — while far reaching — were not fleeting. At 29, he’s already explored many of the careers that captured his childhood fancy, including one that led him to the Uniformed Services University.

Long before he began medical school at USU, Kasteler had already started an international holding company for real estate investments. He was also a member of Teach for America, a program that trains corps members for teaching positions in low-income, mostly urban communities across the country.

Although Kasteler enjoyed teaching at Terry Parker High School in Jacksonville, Fla., his science lectures began to awaken old ambitions within himself.

“One of the classes I taught was high school zoology, and I had to build the curriculum from the ground up. I used human anatomy as a model to help my students understand how animal body systems work,” he said. “As I was doing this, I realized that even though I liked business and teaching, I wasn’t going to be happy if I wasn’t studying the human body, and that realization brought me right back to medicine.”

With a renewed focus, Kasteler began looking into medical schools, when his neighbor — a pilot in the Navy — introduced him to a USU student named Ian Uber, who was completing a family medicine rotation in Jacksonville.

“We spent a lot of time with Ian while he was in Florida, and he shared many stories about his time at USU, which he really seemed to enjoy,” said Kasteler. “It was good to get an insider’s perspective, since I had previously considered USU and was drawn to the idea of military service anyway.”

Kasteler applied and was accepted at USU in 2010. Four “tough” years later, he’s finishing up the final requirements of his program before graduating in May. If all goes according to plan, Kasteler will continue his journey into military medicine while completing a transitional-year internship at David Grant Medical Center in California.

“I hope to eventually become an emergency medicine physician, because I want to help people in their times of crises,” he said.

In doing so, Kasteler will also be fulfilling another goal, one he made decades ago when he was still a young boy with big aspirations.

Countdown to Commencement Trivia Question #1

These two Public Health Service officers represent an important piece of history at the Uniformed Services University. Who are they? And what is their milestone achievement?

The first person to correctly answer both questions and e-mail their responses to Christine.Creenan-Jones@usuhs.edu wins a large coffee and donut courtesy of the USU cafeteria.
USU receives citation during Energy Savings Week

By MC2 Brittney Cannady, writer

The Uniformed Services University received the Maryland Department of Energy citation as part of the Naval Support Activity Bethesda’s Energy Saves Week. The citation was presented by Devon Dodson, chief of staff for the Maryland Energy Administration, Dec. 16.

The citation marks a successful partnership between NSAB and USU and its dedication to educating personnel on proper energy use at home and work.

“Every single program being offered during Energy Week contained energy education. We’re hoping that through this, people can see firsthand just how easy it is to save energy at home and work and what a great benefit it is to everyone,” said Diane Elsberg, who helped organize Energy Saves Week for NSAB.

“The entire format has been enhanced,” said Elsberg. “This year we are taking a collaborative effort with involvement from NSAB, Walter Reed National Military Medical Center and the Uniformed Services University of the Health Sciences with the goal of promoting energy conservation throughout the entire installation.”

While Walter Reed took the lead on energy saving efforts across NSAB, USU also did its part by implementing a system of checks and balances for the massive amount of equipment that is used at the university.

“Facilities ensures that Leadership in Energy and Environmental Design, or LEED, is incorporated with each and every project for maximum energy efficiency,” said Cheryl King, director of Facilities at USU.

Several improvements aimed at university conservation included installing water-saving water closets, HVAC systems from pneumatic controls to direct digital controls, variable frequency drives on all pumps and LED lighting on the roadway on Palmer Road, which has become the standard for roadway lighting throughout the base. Rooms in the university were also equipped with sensors to prevent lights from burning all day and night.

“Due to the outstanding support of Dr. Rice and Mr. Rice for approving and appropriating funds, facilities has been fortunate to become a leader in energy efficiency on the base,” said King.

Attention all USU faculty

The Faculty Senate is currently seeking nominations for the 2014 Faculty Senate president-elect, secretary/treasurer, and senators.

Interested faculty are encouraged to contact Dr. Susanne Gibbons, chair of the Faculty Senate’s Nominations and Elections Committee, via e-mail at susanne.gibbons@usuhs.edu for a candidate form.
29th Annual
David Packard Lecture

Brent C. James, M.D., M.Stat.

“We Count Our Successes in Lives: The Best Clinical Result at the Lowest Necessary Cost”

Wednesday, 5 March 2014
3:00 - 4:15 p.m.
Sanford Auditorium
Building B, USU

Executive Director
Chief Quality Officer
Institute for Health Care Delivery Research
Intermountain Health Care

Reception immediately following in the Main Dining Room