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59th Medical Wing collaborates with Mayo Clinic to develop a temporary vascular shunt for vascular injury and disease

By 59th Medical Wing Science & Technology | NEWS | March 25, 2024

JOINT BASE SAN ANTONIO-LACKLAND, TX – The 59th Medical Wing, the U.S. Air Force's largest medical wing and functional medical command for Joint Base San Antonio, announced it has entered into a patent license agreement with Mayo Clinic to develop an advanced temporary vascular shunt for the operative management of vascular injury and vascular disease.

Temporary vascular shunts have been used in the management of different blood vessel diseases and injuries for several decades. One of the most recognized shunt devices was developed by a Mayo Clinic surgeon, Dr. Thoralf M. Sundt, in the late 1960s. Although Dr. Sundt was a graduate of the U.S. Military Academy at West Point and served in the Army, he originally developed a vascular shunt for use during elective carotid artery operations at Mayo Clinic and in other civilian centers.

The large number of vascular injuries during the Iraq and Afghanistan Wars between 2001 and 2015 led military surgeons to expand the use of vascular shunts. In these cases, surgeons did the best they could to use existing devices, such as the Sundt shunt, that had been designed for civilian use. Although the devices worked, military surgeons recognized that a new design could increase the effectiveness of the vascular shunt.

In 2005, Air Force surgeons at Lackland Air Force Base, Texas went to work designing a new type of vascular shunt that was easier to insert and one that had a larger lumen to accommodate more blood flow and a side port for pressure measurement and downstream infusion. Working with Department of Defense medical research programs, the team of Todd Rasmussen, Shaun Gifford and Jerry "JR" Spencer patented this new type of shunt aiming to develop a device that would be easier and more effective for surgeons treating difficult cases of vascular trauma. They also recognized this new shunt might be useful in the operative treatment of civilian disease conditions such as carotid artery blockages.

The Air Force formed a team led by Mr. JR. Spencer that collaborated with private and public device development partners to create prototypes of the new shunt from the original patent. Collaboration with civilian and military labs allowed the Air Force to conduct pre-clinical studies, improve the design, and show the technology's viability compared to shunts already on the market. Despite progress, the Air Force and Department of Defense were not optimally positioned to take this new device through its final design iteration, human studies, and commercialization. As Chief Scientist of the 59th Medical Wing, Dr. Debra Niemeyer noted "Even though this new design for a multifaceted shunt was proven successful for trauma response, the limited number of commercial applications dissuaded investors from licensing the patent from the Air Force. We recognized that for the final phases of device development and commercialization the effort would benefit from collaboration with a leading civilian organization that was experienced with surgical device innovation."

As such, in December 2023 the 59th Medical Wing Office of Research and Technology Applications (ORTA) established a Patent License Agreement with the Department of Surgery at Mayo Clinic in Rochester, Minnesota to co-develop a commercially available temporary vascular shunt kit for military and civilian use. This collaboration was facilitated by one of the original shunt designers, Dr. Todd Rasmussen, who retired from the Air Force in 2021 to join the staff at Mayo Clinic. Dr. Rasmussen had a distinguished military career as a surgeon during which he deployed multiple times to Iraq and to Afghanistan. Having completed his medical degree and vascular surgery fellowship at Mayo Clinic, Dr. Rasmussen had the opportunity to meet and talk with Dr. Thor Sundt in the early 1990s.

Dr. Rasmussen's experience treating wartime vascular injury, his background and surgical practice at Mayo Clinic and his knowledge of the Department of Defense medical research and development programs is imperative to this current initiative.

For more information about this collaboration and technology, please contact the 59th Medical Wing Office of Research and Technology Applications (ORTA) at usaf.jbsa.59-mdw.mbx.59-mdw-storta@health.mil or visit their website at https://wilfordhall.tricare.mil/About-Us/Research-and-Education/59-MDW-Chief-Scientists-Office-Science-and-Technology/ORTA.

U.S. Army Institute of Surgical Research Burn Center leads critical care training for San Antonio By Danae Johnson U.S. Army Medical Research and Development Command Public Affairs | NEWS | March 18, 2024

JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas – From teaching life-saving skills to caring for civilian patients alongside Service Members, Military medicine continues to benefit local communities. The U.S. Army Medical Research and Development Command's Institute of Surgical Research Burn Center at Joint Base San Antonio-Fort Sam Houston is bringing together the unity of Army medical care within the San Antonio Community.

What started as the Burn Center's dedication to providing local first responders with burn care education grew into a desire for active training with hospital personnel and civilian organizations across Texas.

In the fall of 2023, the Burn Center began offering a two-day hands-on burn care training to 40 Acute Rehab personnel at San Antonio's Methodist Hospital, one of the Burn Center's outpatient facilities for patient referrals. This is an effort that Scott Dewey, Chief of the Rehabilitation Department at the Burn Center, says is among many efforts to help civilians and service members survive burns.



as complete and as efficient as possible, and that includes the outpatient rehab side of it," said Maj. Maria Gonzalez, Registered Nurse and Chief of Clinical Education at the Burn Center. "Providing that education and information to our outpatient sites is critical for their outcomes."

"If we truly care about the patient, we need to ensure that the entirety of their recovery process is

Since 2019, the Burn Center's Burn Strong program has grown from a partnership with the San Antonio Fire Department to providing training across Texas, advancing knowledge in burn and trauma care and life support for first responders.

The program started with an idea by USAISR's Brent Sabatino, a registered nurse and the Burn Strong Outreach Injury Prevention Coordinator for the Intensive Care Unit at the Burn Center,

who has trained prehospital first responders, fire department personnel, paramedics and other organizations throughout South Texas. For Sabatino, working with the Methodist Hospital is another way for the Burn Center to strengthen community relationships.

"We did not have much interaction with our community in 2019, and I thought that was something that we need to change because we do serve them even though we are a federal facility and a Level

One trauma center," Sabatino said. "During peacetime, 60-70% of our patients are civilians traumas. I came up with how we should get closer to our community."



Members of the Burn Center team who assisted with the Methodist Hospital training at Methodist Hospital. (Photo Courtesy: Brent Sabatino, USAISR).

As the Burn Center looks into future challenges, Gonzalez emphasized that proper wound recovery may be a challenge for patients who experience continuing wound failure and repeat issues to overall care, which acute rehab facilities can prevent with adequate education. "As we look into the future and prepare for potential mass casualty, it is important we are

partnering and providing education to our civilian agencies as well as strengthening those relationships because there may come a time when we will rely on those relationships and need to work with them to provide care to our patients," Gonzalez said.

Members of the Burn Center team who assisted with the Methodist Hospital training include:

- Tanya Luckado, Registered Nurse, Burn Program Manager
- Sarah Flores, Physical Therapist, Doctor of Physical Therapy
- Capt. Elisa Barboza, Physical Therapist, Doctor of Physical Therapy, Deputy Chief, Burn Rehab
- Christy Yingling, Occupational Therapist Registered/Licensed, MOT
- Sgt. Matthew Hansen, Licensed Vocational Nurse, Burn Clinic Assistant, Non-commissioned Officer in Charge.

USAISR's Burn Flight Team sets new record with Australia mission

By Paul Lagasse U.S. Army Medical Research and Development Command Public Affairs | NEWS | March 18, 2024

JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas – For the U.S. Army Medical Research and Development Command's Institute of Surgical Research Burn Center's Burn Flight Team, flying long distances to aid service members with thermal injuries is part of the job.

But a nearly 14,000-mile round-trip flight to and from Australia this past October did more than set a new team record – it also proved to be a valuable stress test of the team's skills and stamina under unusually challenging conditions.

The objective of the five-day mission was to bring home a service member who had been injured in an aircraft accident and had developed an invasive fungal infection on his face and leg, so that he could receive surgical treatment at the USAISR Burn Center collocated with Brooke Army Medical Center at Joint Base San Antonio-Fort Sam Houston, Texas.

Undertaking the complex mission involved a U.S Air Force C-17 cargo plane transporting a larger-than-usual team of critical care, respiratory and renal specialists and their equipment roughly one-quarter of the way around the world and back with stopovers in Hawaii each way for fuel and supplies – putting to the test the team's motto, Anytime, Anywhere.

Members of the Acute Rehab Unit at San Antonio's Methodist Hospital learn hands-on dressing and splint application during day two of training with the U.S. Army Institute of Surgical Research Burn Center. (Photo Courtesy: Brent Sabatino, USAISR).

Established in 1951, the Burn Flight Team comprises nurses, respiratory therapists and physicians who specialize in burn treatment. Everyone on the elite team has completed the U.S. Air Force School of Aerospace Medicine's Critical Care Air Transport Team course and works full-time in the Burn Center's intensive care unit.



Lt. Col. Alicia Williams, M.D., director of the U.S. Army Institute of Surgical Research Burn Flight Team, readies medical equipment in the close quarters of a C-17 Globemaster III cargo aircraft during the team's record-breaking flight from Joint Base San Antonio to Melbourne, Australia, and back in October 2023 to retrieve a Service Member who had been injured in an aircraft accident. (photo credit: USAISR Burn Flight Team)

Because the team is required to be able to deploy with just a few hours notice, it's not unheard of for a team member to climb aboard an airplane straight from a 12-hour shift.

The Burn Flight Team had been alerted to the condition of the injured service member in Australia within hours of the accident. However, after his arrival at The Alfred Hospital in Melbourne, he had remained in stable condition with the assistance of an artificial lung, called extracorporeal membrane oxygenation, and continuous renal replacement therapy.

For several weeks, there was little for the team to do beyond keeping regular tabs on him. But when the hospital reported that the patient had developed a rare fungal infection called Mucormycosis that was beginning to spread rapidly, the team swung into action to bring the service member home for surgical treatment.

Capt. Matthew Wood, a critical care registered nurse and the team's ECMO transport coordinator, said that because the patient was receiving ECMO and CRRT care, the Burn Center team consisted of 12 specialists – double the typical team size – plus all their primary and backup equipment. While team members typically travel outbound via a commercial flight and return with their patient via a U.S. Air Force cargo plane, in this case, the large number of personnel and extra equipment involved required a lift from the Air Force in both directions.

"We knew this would be a pretty significant transport for us," says Wood, who coordinated the logistics for the mission. The team departed from Kelly Field at 10 p.m. on Oct. 2 and landed at Hickam Air Force Base in Hawaii 20 hours

later. As the flight crew took their mandated rest, several members of the team drove to nearby Tripler Army Medical Center to pick up dialysis fluids, while Wood spent the time juggling the logistics for their arrival in Melbourne.

"Usually, we fly ECMO missions into or near another military base, which covers ground transport to and from the medical facility, but for this trip, we were flying into a civilian city, which required coordinating

transport for our teams to and from our hotel, to and from the hospital and then back to the flight line," Wood said. "I was on the phone for most of my crew rest."

Once they were in the air again, strong headwinds over the Pacific required them to make an intermediate stop in Brisbane to refuel before continuing to Melbourne, where they arrived nearly 15 hours after leaving Hawaii. While the flight crew rested and tended to the aircraft, the medical team traveled to The Alfred Hospital to meet with the staff who had been caring for the injured Service Member.

Lt. Col. Alicia Williams, the Burn Flight Team's director and chief medical officer of the USAISR Burn Center, recalls how all the hospital staff who had treated the Service Member gathered to brief the team on his condition – including the doctor who had fast-roped from a nearby helicopter to the crash site immediately following the accident, likely saving his life.

"They were fantastic," Williams said. "They were very professional and very accommodating. There were many junctures at which it could have gone poorly for him, but the different teams all came together and worked together to save his life. The Alfred even handled the patient movement for us. They were a great asset to have."

Fully briefed on the patient's condition and with a night's rest after their grueling flight, the care team returned to the plane with the injured service member as well as his family, who had flown out

to Australia to provide support during his treatment. The long flight back to Hawaii was uneventful – until just a few minutes before landing at Hickam.

"We were buckled up in our seats when, three minutes before landing, the ECMO machine clotted off," said Michael Mueller, RN, a staff nurse on the Burn Flight Team. Normally, a clot in an ECMO machine can easily be corrected before it can injure a patient by conducting what medical professionals call a circuit change, which involves switching the patient to a second ECMO machine. The team had with them a backup machine for that very purpose. However, if no one can perform the circuit change – say, because they're required to be strapped in for landing – the situation can quickly get dicey.

Rather than abort the landing and conduct the circuit change in the air, the team assessed the situation and elected to proceed with the landing as it would allow them to get the patient to the hospital that much sooner.



Michael Mueller, RN, a staff nurse in the U.S. Army Institute of Surgical Research Burn ICU and a member of the USAISR Burn Flight Team, prepares an extracorporeal membrane oxygenation machine prior to the team's record-breaking flight from Joint Base San Antonio to Melbourne, Australia, and back in Oct. 2023 to retrieve a Service Member who had been injured in an aircraft accident. (photo credit: USAISR Burn Flight Team)

As the plane descended, Williams and Mueller kept the patient's family informed about the ECMO machine changeout while Wood and another member of the team, U.S. Air Force Capt. Sarah Juhasz, an ECMO nurse and a 2023 recipient of the Henry M. Jackson Foundation for the Advancement of Military Medicine's Hero of Military Medicine San Antonio award, closely monitored the wayward ECMO machine. After the landing, as the airplane taxied to the ramp, Wood and Juhasz unbuckled themselves, stood up and successfully changed the circuit.

"Sarah was holding this ECMO machine in her hands, which was bananas," Williams said. "I mean, she could have accidentally smacked herself in the face with it!"

"Every flight, you try to come up with the worst possible scenario and have it pre-planned in your head, but I don't think we've ever thought about having to switch out an ECMO machine while landing," Mueller added. "The patient was very stable, which was awesome because when that kind of thing happens, you get an adrenaline rush, and you get a little nervous. It's somewhat of an emergency, because if the machine stays down, then the patient can decline very quickly. But I just kept looking at the vital signs and telling Capt. Wood, 'You've got time. You're good. Everything's fine, he's stable.' Just trying to alleviate any of the extra stressors on them. Capt. Wood and Capt. Juhasz did an awesome job."

"After the commotion was over, I went over to his dad – he had been able to see what was happening from where he was seated – and I just told him, 'Hey, I just want you to know that he's doing fine. I know it looks kind of hectic over there, but he's stable and everything's look-ing good.""

"Replacing a pulmonary bypass machine in the back of a plane isn't an everyday thing," Wood said. "It's maybe the worst possible timing for that machine to need attention. It was a very tense moment, but everyone handled it and executed it very well."

Fortunately, the rest of the trip was drama-free and upon landing at JBSA the patient was admitted to the Burn Center, where Williams performed a series of intensive surgical treatments to remove the fungal infection.

The Australia mission wasn't the longest in the team's history; in 2013, a C-17 flew the Burn Flight Team 9,850 miles nonstop from JBSA to Singapore to transport a burn patient. However, it was the team's longest mission involving a combined team of burn and ECMO specialists. It was also the team's first in-flight ECMO circuit change. And for several of the team members, it was the longest mission of their careers – at least, so far.

"This is the epitome of military medicine," Wood said of the Burn Flight Team. "We will go to literally any lengths to get active duty service members home. This is why we serve in military medicine; this is what we train for and what we're ready for. And then, on top of that, to be a part of a team that went and did this dual record-breaking medical evacuation is just remarkable."

NMTSC Sailor provides lifesaving first aid

By Petty Officer 2nd Class Cheyenne Geletka Navy Medicine Training Support Center Public Affairs JBSA NEWS | March 7, 2024, JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas



240229-N-DQ752-1015 JOINT BASE SAN ANTONIO FT. SAM HOUSTON, Texas (Feb. 29, 2024) Capt. Paul Allen, commander, Navy Medicine Training Support Center (NMTSC), presents Religious Program Specialist 1st Class Amber Sanders, leading petty officer of the religious ministry team at NMTSC, with a Navy and Marine Corps Achievement Medal during a ceremony in Anderson Hall Feb. 29. NMTSC is the Navy component command that provides administrative and operational control over Navy staff and students assigned to the Medical Education and Training Campus and other medical proPetty Officer 1st Class Amber Sanders, leading petty officer of the religious ministry team at the Navy Medicine Training Support Center, was awarded a Navy and Marine Corps Achievement Medal for providing emergency care to a civilian at Joint Base San Antonio-Fort Sam Houston on Feb. 29.

During her morning commute to work, Sanders approached the Harry Wurzbach gate on the north side of JBSA-Fort Sam Houston. Just before reaching the entrance, she noticed a woman on the ground at a bus stop. The woman was in a strange, unnatural position and Sanders quickly realized something was terribly wrong.

Sanders immediately pulled her vehicle to the side of the road and sprung into action. She realized the woman was having a seizure and called for emergency services before rendering first aid. Sanders continued to perform first aid and made sure the patient was safe until emergency services arrived.

"It was a natural reaction," Sanders said. "It was never a matter of if I was going to stop, but rather how I was going to go help this woman as quickly as possible because something was clearly wrong."

Sanders is certified in the American Heart Association's Basic Life Support, or BLS, course. The BLS course is a training requirement for all hospital corpsmen, but it is available at NMTSC for any staff member who is interested in the qualification. Additionally, Sanders received tactical combat causality care training during religious program specialist "A" school.

"RP1 Sanders is setting the example for all our staff members," said Capt. Paul Allen, commander, NMTSC. "As hospital corpsmen, our Sailors are always ready to 'corpsman up' at a moment's notice. It is truly inspiring that our non-corpsman support staff have embraced the spirit of the Hospital Corps and can apply their training when it's needed most."

The news of Sanders' actions spread quickly up her chain of command. A few short hours later, Allen awarded Sanders with a Navy and Marine Corps Achievement Medal on the afternoon of Feb. 29 for her actions on that same morning. She was commended for her actions and bravery.

"It was the right thing to do," said Sanders. "I feel like anyone would have done the same, I just happened to be in the right place at the right time. I'm just glad we were able to help that woman and get her the care she needed."

NMTSC is the Navy component command providing administrative and operational control over Navy staff and students assigned to the Medical Education and Training Campus, or METC, and other medical programs in the San Antonio area.

59th MDW: Office of the Chief Scientist, Science and Technology scores high with multiple presenters accepted at AsMA Annual Scientific Meeting

By 59th Medical Wing Chief Scientist's Office / Published Jan. 22, 2024

JOINT BASE SAN ANTONIO-LACKLAND, Texas – The 59th Medical Wing, Office of the Chief Scientist, Science and Technology will have a strong showing at the 2024 Aerospace Medical Association Conference held in Chicago in May 2024.

The Aerospace Medical Association, or AsMA, is international in both membership and scope of interest, providing opportunities to connect and exchange ideas with some of the world's foremost medical specialists and internationally renowned scientists in the field of Aerospace Medicine and Human Performance.

The primary objective of the AsMA Annual Scientific Meeting is to provide the latest results in sessions designed for aerospace medicine professionals under one roof. The scientific program will benefit residents, medical and graduate students, and advanced undergraduates who have an interest in aerospace medicine.

The Annual Scientific Meeting presentations come from leading experts of diverse backgrounds who will enhance the world's knowledge and understanding of the current challenges in Aerospace Medicine and demonstrate an impact on improving the health, safety, and human performance of those involved in aviation, space, and extreme environments.

The annual scientific meeting also presents an opportunity to learn about the work of our colleagues from around the world, to share the knowledge and wisdom which we gain in our day-to-day work and practice and is a great way to expand the overall community of aero-space medicine.

The following are the 10-minute oral presentations / presenters that were selected:

- Rathod, Jay, Capt, USAF, MC. "United States Aeromedical Evacuations From Antarctica From 2015-2023: a Retrospective Review of Military and Civilian Data." Oral Presentation.
- Vannispen, Christiaan, CPT, MC, USA. "Quantifying the Risk of Venous Air Embolism From IV Fluids in Microgravity and Assessing the Stability of Airless IV Bags for Exploration Missions." Oral Presentation.
- Rezentes, Corinne R. Capt, USAF, MC. "Determining Pharmaceutical Stability After Long-duration Exposure to Spaceflight Aboard the International Space Station: Phase 1 of the Dribble Study." Oral Presentation.
- Nowadly, Craig D., Maj, USAF, MC, FS. "Quantifying the Impact of Sustained Acceleration on Critical Care Transport Medical Equipment." Oral Presentation.
- Beer, Jeremy, PhD., Sherman, Paul, MD., et al. "Severity of Hypoxia Effects in Rapid vs. Gradual Decompression." Oral Presentation.

In addition, Dr. Paul Sherman, MD, Director of Radiological and Aerospace Medical Research, 59th Medical Wing Chief Scientist's Office will be hosting a Panel Session titled: "Where are we with White Matter and Hypobaria? Latest Research and Outcome of NATO Collaboration."

In this panel session, Dr. Sherman will present "Warfighter Brain Health in Hypobaric Environments Post NATO HFM RTG-274" and "Review of the Effects of Extreme Hypobaric Environments Upon the Brain in Aviators and High-Altitude Special Operations in the Past Decade." There will be other presentations in the panel session from UK and Canadian NATO-RTG274 colleagues.

The outstanding performance of the Office of the Chief Scientist, Science and Technology aerospace medical researchers demonstrates they are recognized leaders and pioneers in the emerging frontier of clinical and operational space medicine and innovation.

Navy Medicine tests treatment protocols in the Artic

By Burrell Parmer Naval Medical Research Unit San Antonio Public Affairs JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas – NEWS | April 25, 2024

Operating in extreme arctic temperatures can be extremely challenging and performing Tactical Combat Casualty Care treatment is even more difficult as casualties, donned with large amounts of clothing layers,

can make wound assessments and apply medical care, such as tourniquets, much more problematic.

To evaluate seven common TCCC treatment protocols, a team of four research scientists and biomedical engineers assigned to Naval Medical Research Unit (NAMRU) San Antonio's Combat Casualty Care and Operational Medicine Directorate participated in Arctic Edge 2024 at Joint Base Elmendorf-Richardson, Anchorage, Alaska, March 3-8, and Operation Ice Camp 2024 on the Beaufort Sea, approximately 200 nautical miles north of Deadhorse, Alaska, March 16-21.

According to Dr. William D'Angelo, lead biomedical engineer assigned to NAMRU San Antonio's Biomedical Systems Engineering and Evaluation Department, treatment protocols have evolved from operations in Iraq and Afghanistan, but it is not known how well they will function if faced with operations in an extremely cold environment.

"During Artic Edge and Operation Ice Camp, we had a TCCC-trained caregiver perform treatment protocols on a trauma manikin with simulated injuries," D'Angelo said. "Each procedure was broken down to its core steps with the caregiver and trauma manikin outfitted in appropriate extreme cold weather clothing. The aid bag was always kept outside so the medical supplies were cold-soaked."

D'Angelo said a go/no-go task analysis process was utilized to determine the feasibility of each step from the perspective of the caregiver, the casualty, and the supplies.



BEAUFORT SEA, Arctic Circle – (March 21, 2024) – Left to right: Marcus Caldera, Justin Bequette, Andres Martinez Murillo, and Dr. William D'Angelo assigned to Naval Medical Research Unit (NAMRU) San Antonio's Biomedical Systems Engineering and Evaluation Department, participated in Operation Ice Camp (ICE CAMP) 2024. ICE CAMP is a three-week operation that allows the Navy to assess its operational readiness in the Arctic, increase experience in the region, advance understanding of the Arctic environment, and continue to develop relationships with other services, allies, and partner organizations. NAMRU San Antonio's mission is to conduct gap driven combat casualty care, craniofacial, and directed energy research to improve survival, operational readiness, and safety of Department of Defense (DoD) personnel engaged in routine and expeditionary

"The number of no-go steps, the time it takes to perform the procedure, and the provider's hand temperatures were measured and compared to baseline data," said D'Angelo. "The resulting data was collected to inform extreme cold weather treatment guidance and for use in future research and development efforts."

Arctic Edge 2024 is a U.S. Northern Command-led homeland defense exercise demonstrating the U.S. military's capabilities in extreme cold weather, joint force readiness, and U.S. military commitment to mutual strategic security interests in the Arctic region. Previously known as Ice Exercise (ICEX), Operation Ice Camp is a three-week operation hosted by U.S. Submarine Forces in collaboration with the Arctic Submarine Laboratory (ASL), and is designed to research, test, and evaluate operational capabilities in the Arctic region.

NAMRU San Antonio's mission is to conduct gap-driven combat casualty care, craniofacial, and directed energy research to improve survival, operational readiness, and safety of Department of Defense (DoD) personnel engaged in routine and expeditionary operations. It is one of the leading research and development laboratories for the U.S. Navy under the DOD and is one of eight subordinate research commands in the global network of laboratories operating under the Naval Medical Research Command in Silver Spring, Maryland.

Navy transfers maxillofacial technician course to METC

By Lisa Braun / Published June 11, 2024

JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas

A new course has been added to the catalog of courses taught at the Medical Education and Training Campus, headquartered at Joint Base San Antonio-Fort Sam Houston, Texas.

The transfer of functions and assets for the Dental Laboratory Technician, Maxillofacial (MAXILLO) course – to include the administrative move of personnel, equipment, support functions, and curriculum oversight – have moved from the Navy Bureau of Medicine and Surgery to METC, which falls under the Defense Health Agency.

The transfer followed more than a year-long transition process that began in January 2023 and continued after entering initial operating capability on October 1, 2023. Personnel from several BUMED and DHA organizations representing different departments worked together to ensure a smooth transition.

With the addition of the MAXILLO course, METC facilitates 49 courses to provide world class enlisted medical training to support mission readiness in peacetime and war.

Located at the Walter Reed National Military Medical Center on Naval Support Activity Bethesda, Maryland, the MAXILLO course is classified as a branch campus due to its distance from METC headquarters.



The six-month course trains Navy and sometimes Air Force students in the handling of prosthodontic materials and equipment, as well as special materials and equipment for making replacements, or prosthetics, for missing portions of the head, neck, and other parts of the body, surgical splints, and stents.

All enlisted Navy medical students are trained as hospital corpsmen at METC in San Antonio before they can attend "C" school, or advanced training, in medical or dental career fields.

A student works in the maxillofacial laboratory. The Maxillofacial Dental Laboratory Technician course recently transitioned from the Navy Bureau of Medicine and Surgery to the Medical Education and Training Campus. A student works in the maxillofacial laboratory. The Maxillofacial Dental Laboratory Technician course recently transitioned from the Navy Bureau of Medicine and Surgery to the Medical Education and Training Campus.



Defense Health Agency Welcomes New Research and Development Workforce By MHS Communications | June 6, 2024

Employees of the new Defense Health Agency Research and Development organization were welcomed to the agency this month by DHA Director U.S. Army Lt. Gen. Telita Crosland during an event at Fort Detrick, Maryland. DHA Research and Development is comprised of elements of the U.S. Army Medical Research and Development Command, which were transferred to DHA as directed by National Defense Authorization Act legislation.



DHA Director, U.S. Army Lt. Gen. Telita Crosland welcomes personnel from the newly established Defense Health Agency Research and Development organization during a town hall at Fort Detrick, Maryland

"Thank you for what you do and what you are going to continue to do," said Crosland. "Front and center to me as the director and to our team and leadership is to make sure we are mindful we are transitioning human beings ... so if there is something you feel we're doing where we don't understand that affects your ability to perform—bring that up—because that is contrary to our intent to take care of you through this process."

"When we worked on our mission and vision, there was representation of your organization and your mission set," Crosland continued. "You know how your mission set gets after improving health and building readiness or the capability of the force. Whether it's what you do connecting with the FDA, or in product development, or fielding and equipping—all feeds into the National Defense Strategy. Which includes improving clinical readiness—work that supports combat care. If you think about what the technology you are developing is going to do for increasing frontline clinical capabilities, that's critical to growing and increasing clinical readiness in a demonstrable way."

U.S. Army Brig. Gen. Edward H. Bailey speaks to personnel from the newly established Defense Health Agency Research and Development organization during a town hall at Fort

U.S. Army Brig. Gen. Edward H. Bailey leads the newly established DHA Research and Development, while he will also oversee DHA's Research and Engineering Directorate. These directorates are part of the DHA office of

the Assistant Director of Support /Component Acquisition Executive, led by acting assistant director, Kathleen Berst.

"We are the DHA," said Bailey. "Our purpose is to support the warfighter, in support, this is what we do."

"We are thrilled to welcome our new teammates from around the world into the DHA community," said Berst. "We are committed to supporting them as they continue their mission focused on research and development addressing the military's unique medical requirements."

The new organization is staffed by more than 1,500 highly qualified scientists, program managers, acquisition experts, and support personnel at laboratories and offices at locations around the world.

This historic transformation is the result of congressional direction in two different NDAAs, in 2017 and 2019, which directed the establishment of DHA R&D and the transfer of the Army's Medical Research and Development Command to the DHA.

The changes are part of the transformation at the DHA, to make it a modernized health care delivery system. The integration of military medical research, development, acquisition, and sustainment activities under the DHA are expected to result in a more robust and effective medical enterprise, supporting integrated readiness and care.

DHA Research and Development will carry on a significant legacy of accomplishments in service of the warfighter. The new DHA direct reporting organization comprises numerous elements of the former U.S. Army activities, including a robust array of medical research laboratories investigating medical solutions for the battlefield with a focus on various areas of biomedical research, including military infectious diseases, combat casualty care, military operational medicine, and medical chemical and biological defense.





(U.S. Army Research and Development Command Courtesy Photo)



(U.S. Army Research and Development Command Courtesy Photo)

(U.S. Army Research and Development Command Courtesy Photo)

The DHA provides health services to more than 9.5 million beneficiaries, including uniformed service members, military retirees, and their families. DHA operates the TRICARE health program, manages a global network of more than 700 military hospitals, clinics, and dental facilities, and oversees a worldwide research, development, acquisitions, logistics, and public health enterprise.

SAUSHEC residents, fellows participate in graduation ceremony

By Lori Newman / Published June 17, 2024 JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas,

The San Antonio Uniformed Services Health Education Consortium celebrated military medical professionals during a graduation ceremony on June 7 at the Lila Cockrell Theatre in downtown San Antonio.

The ceremony honored 250 residents and fellows from 58 diverse physicians and allied health specialty programs.

SAUSHEC is the organization responsible for military graduate medical education and graduate allied health education in San Antonio with two major training sites at Brooke Army Medical Center and the 59th Medical Wing, Lackland Air Force Base, Texas.

"It's been a long road," said Dr. Mark True, SAUSHEC dean. "If you count all the way back to kindergarten, your training years total up to 24 to 28 years of education bringing you to this point in your lives."

True reminded the graduates that they are ready for independent practice.

"You are now the authority for the care you provide to your patients," he said. "With this authority comes great responsibility, and we know you will rise excellently to this occasion. Our patients deserve the best ... that's you!"

The dean praised the instructors for their efforts. "I would also like to acknowledge that our graduates would not be able to walk across this stage this morning without the tireless efforts of our program directors and our faculty, and also our program coordinators."

True told the graduates that their instructors would continue to guide and support them as they move forward in their careers. His advice was to "stay connected and never stop learning."

The keynote speaker at the graduation was Lt. Gen. John Evans Jr., U.S. Army North (Fifth Army) commanding general.

As an Army Special Operations Aviator with a 35-year military career, Evans shared experiences of his personal encounters with military medicine.

Evans shared one example from an Operation Iraqi Freedom mission in which a helicopter pilot with a life-threatening neck injury was stabilized in a logistically constrained pre-hospital environment.

"When he arrived at the combat support hospital, the surgical team had already been operating for more than 24 hours on other recently injured service members," Evans said. "This tired group of medical professionals did not stop but continued to operate, ultimately saving the pilot's life."

Evans stated that this level of commitment is typical of the military medical force and is not seen anywhere else in the world. He went on to say that our military fighting force is able and willing to take increased risks because they know they have a medical team that will always go the extra mile for them.

"This is how graduate medical education training directly increases lethality on the battlefield," he said.

Evans congratulated the graduates for this milestone in their careers, noting that their contributions to the nation will be exceptional.

Graduate Army Capt. Natasha Antony grew up on the East Coast, mostly in New York City. "I joined the Army to push myself out of my comfort zone and see parts of the country and world I had never been to before," she said.

Antony chose to specialize in obstetrics and gynecology, admitting that the hours and stress can be exhausting. "I did my best to maintain a positive attitude knowing that the more hours I put in the better physician I would be," she said.

"I met some incredibly smart, kind, and inspiring providers and staff including my wife, Emily!" she added. "I'm so proud of the training I have received at BAMC and cannot wait to continue learning at my next post. I'm going to Fort Drum (New York) for a year to practice as a general OBGYN and then will be going to Walter Reed to complete a fellowship in Urogynecology.

Along with the graduation certificates, several awards were presented.



Army Capt. Natasha Antony, obstetrics and gynecology resident, receives her graduation certificate during the San Antonio Uniformed Services Health Education Consortium graduation ceremony at the Lila Cockrell Theatre in San Antonio, Texas, June 7, 2024. The ceremony honored 250 residents and fellows from 58 diverse physician and allied health specialty programs. (L-R) Army Lt. Gen. John Evans, commander, U.S. Army North (Fifth Army) and senior commander, Fort Sam Houston, and Camp Bullis, Army Col. Mark E. Stackle, commander, Brooke Army Medical Center, Army Capt. Natasha Antony, obstetrics and gynecology resident, Air Force Col. Wade Adair, deputy commander, 59th Medical Wing, Dr. Mark True, dean of San Antonio Uniformed Services Health Education Con-

Commander's Research Award for Clinical (Fellow):

Army Maj. S. Michael Goertzen, Pulmonary-Critical Care – 3rd Place Army Maj. Joshua M. Boster, Pulmonary-Critical Care – 2nd Place Army Maj. Jordan E. Powell, Pain Medicine – 1st Place

Housestaff Hall of Fame Resident: Army Maj. Alexandra M. Adams, Surgery Housestaff Hall of Fame Fellow: Army Maj. Joshua M. Boster, Pulmonary Critical Care Housestaff Hall of Fame Quality Improvement/Patient Safety: Army Capt. Kaitlyn T. Mullin, Pediatrics

Merit Awards:

- Maj. John H. Gillespie Outstanding GME Intern: Army Force Capt. Alexander H. Jin, Pediatrics
- Maj. David S. Berry Outstanding GME Resident: Army Maj. Alexandra M. Adams, Surgery
- Col, Donald M. Null Outstanding GME Fellow: Army Maj. Joshua M. Boster, Pulmonary-Critical Care
- Col. Woodson Scott Jones Outstanding Junior GAHE Trainee: Air Force Capt. Zachary J. Harwerth, Clinical Psychology Internship
- Col. John L. Chitwood Outstanding Senior GAHE Trainee: Air Force Capt. Jordan M. Ellis, Military Readiness Psychology Fellowship
- Ms. Ylda A. Benavides Outstanding Program Coordinator: Carmen M. Vargas, Internal Medicine
- Col. Gail D. Deyle Outstanding GAHE Program Director: Army Maj. Carly R. Cooper, Occupational Therapy
- Col. John D. Roscelli Outstanding GME Program Director: Army Col. Eric J. Chin, Emergency Medicine

Research Awards:

Commander's Research Award Graduate Allied Health Education (GAHE): Navy Lt. Cmdr. Brittany A. Hout, General Surgery Physician Assistant – 1st Place

Commander's Research Award Quality Improvement Patient Safety (QIPS):

Air Force Capt. Adam J. Jackson, Anesthesiology – 3rd Place Air Force Capt. Collin T. Clay, Sleep Medicine – 2nd Place Army Capt. Victoria R. Coccoza, Sleep Medicine – 1st Place

Commander's Research Award for Medical (Resident): Air Force Maj. Anne E. O'Shea, Surgery – 3rd Place Air Force Maj. Carter S. Tisdale, Ophthalmology – 2nd Place Air Force Capt. Alexandra J. Schulte, Ophthalmology – 1st Place

Commander's Research Award for Surgical (Resident): Air Force Capt. Cherilyn M. Palochak, Ophthalmology – 3rd place (tie)

Army Maj. Patrick M. McCarthy, Surgery – 3rd Place (tie) Army Capt. Trevor D. Annis, Ophthalmology – 2nd Place Air Force Maj. Alexandra M. Adams, Surgery – 1st Place

Commander's Research Award for Animal/Basic Science: Air Force Capt. Steven B. Siemieniak, Emergency Medicine – 1st Place

Center for the Intrepid at BAMC hosts inaugural research symposium

By Daniel J. Calderón / Published June 17, 2024 JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas

The Center for the Intrepid at Brooke Army Medical Center hosted the first Promoting Professional Engagement amongst Military Laboratories, or ProPEL, research symposium on May 30.

"The Center for the Intrepid is hosting ProPEL to promote professional engagement amongst military laboratories at BAMC," said Dr. Michelle Lockwood, research assistant in the Extremity Trauma and Amputation Center of Excellence in the Military Performance Lab at the CFI. "This event provides presenters and attendees the opportunity to network and promote interdisciplinary collaboration to advance client and patient-centered evidence-based healthcare which aligns with the mission of the Defense Health Agency."

Lockwood and other CFI researchers invited participants from across Joint Base San Antonio to attend.

Amy Bowles, BAMC's chief of the Brain Injury Rehabilitation Clinic, brought a display to discuss the cognitive rehabilitation study she and her team conducted for individuals who had traumatic brain injury.

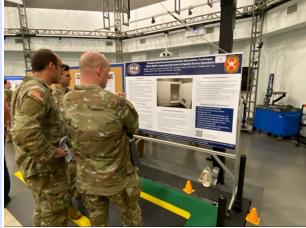
"It's a new intervention we developed with our partners," Bowles said. "A lot of the research we've done in the past, no one has really known about. So, events like this help us to collaborate and show us what is going on."

Dr. W. Lee Childers, senior scientist at the CFI's EACE, said he is proud of the work his team did to put the event together and feels it is important for researchers across the spectrum to continue to find innovative ways to work together.

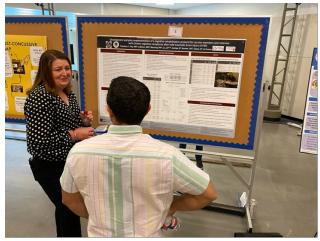
"It's the first time we've done an event like this, so all the turnout is great," Childers said. "We have to keep in mind that we can't collaborate if we don't know what everyone is doing. So, events like this are a great first step."

Lockwood said events like this bring together representatives from multiple disciplines to explore current and future challenges and opportunities in patient centered evidenced-based practices for advancing care.

"This is an inaugural event," she said. "Events like this help provide a welcoming environment for the exchange of scientific ideas to expand our knowledge on identifying and tackling problems and developing solutions. We anticipate that this will serve as a ground-breaking opportunity to promote continuing and future collaborations and networking."



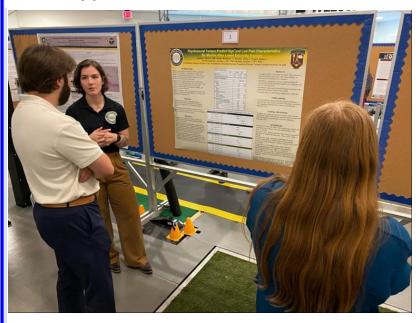
Army officers discuss the Flotation Restricted Environmental Stimulation Technique display at the Promoting Professional Engagement amongst military Laboratories, or ProPEL, research symposium at Brooke Army Medical Center's Center for the Intrepid at Joint Base San Antonio-Fort Sam Houston, Texas, on May 30, 2024. The CFI hosted the inaugural event to foster collaboration among various



Amy Bowles, chief of the Brain Injury Rehabilitation Clinic at Brooke Army Medical Center, discusses the cognitive rehabilitation study for individuals who had traumatic brain injury during the inaugural Promoting Professional Engagement amongst military Laboratories, or ProPEL, research symposium at BAMC's Center for the Intrepid at Joint Base San Antonio-Fort Sam Houston, Texas, on May 30, 2024. The event featured nearly two dozen different researchers from across Joint Base San Antonio



Shannon Barnicott, Center for the Intrepid occupational therapy supervisor, presents research on how occupational therapy helps patients with a return to firearms use in their military setting during the inaugural Promoting Professional Engagement amongst military Laboratories, or ProPEL, research symposium at the CFI at Joint Base San Antonio-Fort Sam Houston, Texas, May 30, 2024. The event featured nearly two dozen different researchers from across Joint Base San Antonio presenting information on an array of research projects designed to help current, past, and future service members. (DOD photo by Daniel J. Calderón)



Army 1st Lt. Sarah Appleton, an Army-Baylor Doctorate of Physical Therapy Program student, gives a presentation at the inaugural Promoting Professional Engagement amongst military Laboratories, or ProPEL, research symposium at Brooke Army Medical Center's Center for the Intrepid at Joint Base San Antonio-Fort Sam Houston, Texas, on May 30, 2024. The event featured nearly two dozen different researchers from across Joint Base San Antonio presenting information on an array of research projects designed to help current, past, and future service members. (DOD photo by Daniel J. Calderón)

Preventive Medicine Technician graduates support military partners

By Lisa Braun / Published June 11, 2024 JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas

Three recent Navy graduates of the Medical Education and Training Campus Preventive Medicine Technician course acted as role players in the Entomology block of the U.S. Army Medical Center of Excellence Principles of Military Preventive Medicine Course May 10.

Petty Officers 3rd Class Alexander Mincey, Rickey York, and Noah Ziepke, all currently assigned to the Navy's Transient Monitoring Division as they await follow-on orders, assisted MEDCoE course leaders by engaging students while role-playing scenarios during the end of course field training exercise.



Navy graduates of the METC Preventive Medicine Technician course participates in the Entomology block of the U.S. Army Medical Center of Excellence Preventive Medicine Operations course by conducting mosquito larvae surveillance with Army students at Salado Creek at Joint Base San Antonio-Fort Sam Houston.

The nine-week MEDCoE course is designed to provide Army Medical Department officers with the skills and knowledge to function in entry-level preventive medicine specialty areas.

York said that he enjoyed supporting the Army course. "Being out in the field utilizing our training alongside our Army brethren was an amazing experience for learning and teaching."

According to Navy Lt. Cmdr. Alicia Sammons, METC Preventive Medicine course director, the services are making small strides at full joint interoperability. "A Navy PMT should be able to be plugged into an Army exercise and operate fully with little guidance," Sammons said. "We all essentially do the same mission for preventive medicine and public health."

METC PMT course leadership is developing a program to provide TMD personnel an opportunity to utilize their new skills while awaiting follow-on orders after graduating from the course. Although assisting MEDCoE was a step

toward that effort, Sammons said the larger effort will have them working full-time with the Brooke Army Medical Center assisting its preventive medicine team.

"The goal is to get newly graduated PMTs out and working in their field while they wait on the execution of their orders," Sammons said. She added that PMT graduates have already started working at BAMC full-time assisting its preventive medicine team.

"This program will be a huge benefit for not only these new graduates as they gain real-world experience, but for BAMC's preventive medicine department getting extra operational support as well."

Gary Sinise and the Lt. Dan Band entertain staff, patients at BAMC

By Lori Newman / Published March 19, 2024

JOINT BASE SAN ANTONIO-FORT SAM HOUSTON, Texas

Gary Sinise and the Lt. Dan Band provided food and entertainment for more than 4,000 staff members, patients and visitors at Brooke Army Medical Center March 14.



Gary Sinise performs with the Lt. Dan Band at Brooke Army

Medical Center, Joint Base San Antonio-Fort Sam Houston,

the Invincible Spirit Festival. (DOD photo by Jason W. Ed-

Texas, March 14, 2024. Sinise provided food and entertainment for more than 4,000 staff members, patients and visitors during

Sinise's Invincible Spirit Festival served as an organization day for staff members, patients, and their families to take a much-needed break to enjoy games, food and music. "I am very honored to welcome you on behalf of BAMC commander, Col. Mark Stackle, who regrets not being able to be here today," said Army Col. Joseph Hudak, BAMC chief medical officer. "The Invincible Spirit Festival is an event that symbolizes resilience, courage, and an unwavering spirit of camaraderie. We're here today in celebration of our brave service members, thanks to the Gary Sinise Foundation, a beacon of hope and support for America's military community."

In 2003, Sinise formed the Lt. Dan Band. Over the last 20 years, they have performed more than 500 concerts. The band is named after the character Lt. Dan Taylor, a wounded Vietnam War veteran, who Sinise portrayed in the movie, "Forrest Gump," 30 years ago.

"I learned a lot working on that film," he said. "Lt. Dan was a great character to play, and it led me to meet a lot of inspirational people who went through that in real life. People who persevered through those challenges and overcame them. That's been

inspirational to me and a real motivation to try to give back."

Sinise's first trip to BAMC was in November 2009. "I came to visit patients and saw some very, very badly wounded folks that day," he said. "I wanted to come back immediately, so I came back a month later and I set up my band in the Medical Mall. We brought the patients out; they were up on the balcony on the different levels looking down. It was very moving because I got to play for everybody."

The Gary Sinise Foundation was established by the award-winning actor in 2011. Sinise said the mission of the foundation is to "serve and honor the needs of the men and women who serve our country – our first responders, our veterans, our Gold Star families.

"Our Invincible Spirit Festival is just to lift people up and give them a little break from the day-to-day grind of rehabilitation, and surgeries and all the things that these families go through over multiple months, if not years sometimes," he added. "The entire event was fantastic," said Carolyn Putnam, executive secretary to the commander. "The best part was when Gary signed the guest book and autographed my Gary Sinise and the Lt. Dan Band T-shirt."



A group of volunteer Soldiers and Airmen from Brooke Army Medical Center had the chance to meet Gary Sinise before the award-winning actor went on stage to perform with his Lt. Dan Band at the Invincible Spirit Festival held at BAMC on Mar 14, 2024. The volunteers helped set up the tables, tents, stage, electronic board, and monitored the yard games for the audience, which was estimated to be nearly 4,500

Evette Morgan, executive secretary, said the event was "great." "The team did a great job with the event," Morgan said. I'm looking for-



Gary Sinise poses for a photo with Carolyn Putnam, executive secretary to the commander, and Evette Morgan, executive assistant, at Brooke Army Medical Center, Joint Base San Antonio-Fort Sam Houston, Texas, March 14, 2024. Sinise took time to tour BAMC and meet with patients and staff members prior to performing

ward to the next one! I enjoyed the concert."

Before taking the stage to entertain the crowd, Sinise visited with wounded and ill service members privately. "He was really fantastic," said Army 1st Lt. Hannah Wright, who is attached to the BAMC Soldier Recovery Unit. "He really cares about Soldiers clearly with his foundation. It's great that he took the time to meet with some of us and make sure that we knew about the programs that his foundation offers."

"To me it's more about showing up than just writing a check," Sinise said. "We want to go out there and wrap our arms around people. That's what I started all those years ago and that's what I continue to do. As long as it



Gary Sinise and the Lt. Dan Band perform during the Invincible Spirit Festival at Brooke Army Medical Center, Joint Base San Antonio–Fort Sam Houston, Texas, March 14, 2024. The Invincible Spirit Festival, spon-

and that's what I continue to do. As long as it makes an impact and makes a difference, I'll keep doing it."

"To Gary Sinise, the members of the Lt. Dan Band, and all involved in the organization and setup of today's event, I extend our deepest thanks and appreciation," Hudak said. "Your efforts provide not just entertainment, but a profound sense of community, recognition, and support that uplifts the spirits of all who attend."

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Point of Contact for Newsletter Chief Scientist's Office Science and Technology 59th Medical Wing 1632 Nellis Street, Bldg. 5406, JBSA-Lackland TX 78236 Admin Support (292-2097) ST email: usaf.jbsa.59-mdw.mbx.59-mdw-st@health.mil

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