Greetings ISR,

It’s November and the hot San Antonio weather has finally cooled some. I hope you all can get out and enjoy this nice weather for a few weeks before it gets cold! While the weather outside has changed, the pace here at the Institute hasn’t. We seem to busier than ever with lots great research, abstracts, manuscripts, and presentations getting completed. Keep up the great work.

The outstanding work that you are doing is not going unnoticed. On October 8 the staff at the Joint Trauma System was awarded the 8th Annual Major Jonathan Letterman Award for Medical Excellence presented by The National Museum of Civil War Medicine. This is an exceptional achievement considering that the ISR won the award last year. Congratulations to the entire JTS staff—well done!

October 8th also marked the day that the White House Administration rolled out the “Stop the Bleed” initiative. This is also a direct reflection of the research done here. The research that was conducted on tourniquets and hemostatic dressing for our troops engaged in combat during the last 14 years is also proving to work for trauma patients throughout our country. Again, great job to all who have been involved in that research and making a difference for our battle wounded and now for our family and friends statewide.

There is much more work to be done here and it gives me great pride to be part of this dynamic team that is leading the way in combat casualty care. As I mentioned before, November is here and the holiday season is officially upon us. The first federal holiday that we will observe in November is Veteran’s Day on the 11th. This isn’t just another three day weekend. It’s a time for us to honor all of the members of our military who have served our country to safe and free. We have plenty of veterans here at the ISR and I personally want to thank each and every one of you for your service.

Thanksgiving will also be celebrated this year on the 26th. Enjoy the special day with family and friends, but remember, everything in moderation. An important day, especially for those smokers who are working hard to quit is held on the third Thursday of November each year—The Great American Smoke out. The American Cancer Society encourages smokers to quit for the day and lead a healthier, happier, longer life.

During the month of November we will also be observing Universal Children’s Day on the 20th and for all shoppers Black Friday is the 27th, but nowadays you can start your Friday shopping on Thanksgiving Day. Most importantly, the month of November is Native American Heritage Month. There are numerous events this month, too many to mention all, but I’d like to mention on last day and that is the birthday of the U.S. Marine Corps on the 10th. Happy Birthday Marine Corps and thank you to all of our brothers and sisters who are serving our country—Hoorah Devil Dogs!

As you can see, it’s a busy month. I ask that you stay safe and enjoy your days off with family and friends. Thank you for all that you do every day in combat casualty care.

Serving to Heal... Honored to Serve!
On Jan. 1, the Army will have a new tool to promote, retain and assign its noncommissioned officers (NCOs): an upgraded NCO Evaluation Report (NCOER).

The current NCOER, which has been around since 1987, is said to be outdated, highly inflated and too generic, meaning one NCOER fits all NCOs.

The new NCOER will address four key areas:

First, the new NCOER will capture “attributes and competencies” from Army Doctrine Publication 6-22 Army Leadership. That means the evaluation will align with the Army’s effort to meet the challenges of an increasingly complex and uncertain environment by requiring NCOs to take on greater levels of responsibility, with increasing levels of skills and competencies.

Second, the new NCOER will enforce rating official accountability through the use of two new assessment tools, which is the rater tendency and the senior rater profile, meaning that senior raters will be limited to the number of Soldiers they deem “most qualified,” which will be 24 percent in their senior rater profile.

Third, the new NCOER will take into account increasing levels of responsibility as Soldiers progress through the NCO ranks. Specifically, the NCOER will come in three versions tailored to three levels of rank, or grade plates:

- DA Form 2166-9-1 for E-5s with focus on “direct-level” proficiency rating.
- DA Form 2166-9-2 for E-6 to E-8 with focus on “organizational-level” expertise.
- DA Form 2166-9-3 for E-9s with focus on “strategic-level” competency.

The fourth benefit of the new NCOER will be getting leaders to talk to their people and tell them how they’re doing and providing effective feedback. That will result in leaders being able to coach, teach and mentor what right looks like. As the Army executes the counseling in a better manner, we think we should see improvement in performance across the board. If our NCOs are counseled and know what is expected of them at the start of the rating period and quarterly throughout the reporting period, there should be no surprises when the final report is made.
Company Notes

Company Commander
Capt. Jose A. Juarez

First Sergeant and I would like to welcome the following Soldiers to the ISR family: Spc. Alisa Williams and Spc. Jennifer Grant. We would like to say farewell to the following Soldier: Staff Sgt. Scott Eriksen; thank you for your contributions to the organization and best wishes in your future endeavors.

Congratulations to Spc. Mark Anthony Cua and his family on the birth of their daughter born October 26. The family is all doing well! Please congratulate him when you get the opportunity.

Congratulations to Spc. Tae Kim and Spc. Melody Sandoval for graduating from the Warrior Leaders Course! They both made it on the Commandant’s List. Spc. Kim also received the Army Physical Fitness Test award. These two young leaders represented the ISR extremely well! We would like to thank everyone that attended the graduation, great way to support and build our Team! Be sure to congratulate these Soldiers when you see them around.

One last congratulations to Pfc. Matthew Durant who was selected as the Soldier of the Month for October. Great job!

Autumn brings one of the most beautiful times of the year with colorful leaves and pumpkins littering the ground. The season also brings up safety issues for the entire family.

Prepare for the changing weather of fall to ensure that your family is both happy and healthy the whole season long. As autumn comes into full swing, the temperatures will drop in San Antonio, which can lead to several safety issues. Have your chimney and furnace cleaned and inspected on a regular basis. This helps prevent chimney fires and carbon monoxide buildup.

There are also multiple autumn safety issues that relate to the road. Since days are getting shorter during this time, more driving will occur when it is dark out. This can lead to drowsiness, which leads to more accidents. Leaves may cover the road and become slippery with weather. This requires careful road travel, especially for bicycles and motorcycles. Let’s be vigilant and look out for one another.

Just a reminder, the USAISR Combined Federal Campaign is still going on. The campaign will be held until Nov. 13 and the USAISR goal is $20,000, but Col. Wirt is really stressing participation, so please take the opportunity to support one of the 24,000 charitable agencies. CFC POC is Capt. Gina Griffith.

The USAISR Events Committee needs your help. Please take time to offer your assistance in planning, manning and coming up with event ideas. The committee is shorthanded, so if you would like to participate or would just like more information about the events committee, please contact Staff Sgt. Tiffany Baldwin or Stephanie Truss.

Thank you for everything that you do every day and it is truly an honor to be your Command Team!

Serving to Heal… Honored to Serve!

Spc. Tae Kim and Spc. Melody Sandoval, center, pose with their noncommissioned officers in charge, Staff Sgt. Gina Chang, left, and Sgt. Chiquita Thomas-Benson after their graduation ceremony Oct. 1 from WLC.
During the end-of-day formation Oct. 2, Soldiers from the ISR Company were recognized by the Company Commander, Capt. Jose Juarez with certificates, an award and a promotion.

Top right: Capt. Juarez presents Spc. Shenouda Zarif with a Commander’s Scroll of Appreciation.


JTS Wins 8th Annual Major Jonathan Letterman Award

By Steven Galvan
USAISR Public Affairs Officer

The Joint Trauma System at U.S. Army Institute of Surgical Research was selected as the winner of the eighth annual Major Jonathan Letterman Award for Medical Excellence presented by the National Museum of Civil War Medicine Oct. 8 in Bethesda, Maryland. This is the second year in a row that the USAISR has won the Letterman award.

The award is named after Maj. Jonathan Letterman who is known as “the father of battlefield medicine.” According to the museum website, the annual award recognizes an individual and an organization for leading innovative efforts in civilian emergency care, combat casualty care, prosthetic technology, improving outcomes for patients with catastrophic injuries or leveraging today’s cutting medical technology to develop new ways to assist military service members or civilians who have suffered severe disfiguring wounds.

Accepting the award for the JTS was Col. (Dr.) Kirby Gross, JTS director. “Although the award was presented in October 2015, the award was earned since the inception of the JTS and Joint Theater Trauma System,” said Gross. “The JTTSS was first fielded in 2005 with stateside support of the JTS at the USAISR. The last theater presence of the JTTSS personnel concluded in December 2014, but the theater presence continues by application of Clinical Practice Guidelines and participation in the weekly combat casualty care curriculum conferences.”

The JTS was established at the USAISR in 2004 when the Assistant Secretary of Defense for Health Affairs directed all military branches to work together to develop a single trauma registry to improve trauma care delivery and patient outcomes through the continuum of care.

“The JTS staff received this award due to the positive impact on combat casualty care outcomes,” Gross said. “The award demonstrates that professional peers and military medical leaders have identified the impact of the JTS. As one of the many contributors to the JTS, this award inspires me to ensure the JTS continues to remain innovative and relevant in combat casualty care.”

Col. (Dr.) Kirby Gross
JTS Director

Left to right: Craig Lebo, National Museum of Civil War Medicine Board Member; Col. (Dr.) Kirby Gross, U.S. Army Institute of Surgical Research Joint Trauma System Director; Dr. Kenneth Bertram, U.S. Army Medical Research and Materiel Command principal assistant for acquisition; and Betsy Estilow, National Museum of Civil War Medicine Board President during the eighth annual Major Jonathan Letterman Award for Medical Excellence by the National Museum of Civil War Medicine Oct. 8 in Bethesda, Maryland. Gross accepted the award for the USAISR JTS.

Gross added that the JTS by way of the data collected from the wars in Afghanistan has contributed to unprecedented survival rates, as high as 98 percent for casualties arriving alive to a combat hospital.

“This award is a direct result of the remarkable staff at the JTS who make substantial contributions every day to optimizing combat casualty care,” said Col. (Dr.) Michael D. Wirt, USAISR Commander. “Congratulations to all for improving the quality of care for our Wounded Warriors from the battlefield definitive care stateside. There is still much to be done, and I am proud to be with you leading the charge at providing the best care and equipment for our battlefield wounded and those who care for them.”
White House Taps Military Medicine Expertise for Emergency Preparedness Campaign

Left to right: Retired Army Col. (Dr.) John Holcomb, former U.S. Army Institute of Surgical Research Commander; Col. (Dr.) Jeffrey Bailey, former USAISR Joint Trauma System Director; Col. (Dr.) Kevin O’Connor, physician to the vice-president; Col. (Dr.) Robert Mabry, Robert Woods Johnson Congressional Fellow; retired Navy Capt. (Dr.) Frank Butler, Chairman of the Committee on Tactical Combat Casualty Care; and Dr. Dave Marcozzi, former White House staffer for medical policy at the “Stop the Bleed” forum in Washington D.C. Oct. 8.

By Steven Galvan
USAISR Public Affairs Officer and
Ramin A. Khalili
Knowledge Manager, Combat Casualty Care Research Program

The White House Administration alongside other government leadership announced a new national public service campaign Oct. 6, designed to boost public awareness of what each person can do to help save lives during a major disaster.

The campaign, called “Stop the Bleed,” is based on the success of the U.S. military in reducing combat deaths during recent conflicts in Afghanistan and Iraq. In those cases, since most combat fatalities occurred on the battlefield prior to reaching a hospital and the majority of potentially preventable deaths occurred due to hemorrhage, bleeding control is now a cornerstone of the improved survival techniques used by the Armed Forces.

A person who is bleeding can die from blood loss within five minutes. The “Stop the Bleed” campaign aims to teach everyday citizens basic techniques in hemorrhage control so that an injured person has a greater chance of living long enough to reach a doctor’s care at the hospital.

“The DOD’s clinical experience and research in these areas underpins this entire effort,” said Col. Todd Rasmussen, director of the U.S. Army Medical Research and Materiel Command’s Combat Casualty Care Research Program, during his remarks at the campaign launch.

The CCCRP played an integral role in the development of the campaign, creating the “Stop the Bleed” logo and official campaign slogan, as well as advising DOD and the National Security Council on program content.

The American College of Surgeons has also joined the campaign, establishing the Hartford Consensus Group that has championed the translation of military advances in external hemorrhage control to bystanders, law enforcement, firefighters, and emergency medical service medics.

“The efforts of this group have been compiled into the Hartford Consensus Group compendium that was recently released as a special communication of the college in an effort to improve survival from these events—which are, unfortunately, becoming increasingly common in the United States,” said Chairman of the Committee on Tactical Combat Casualty Care Dr. Frank Butler, who is also the director of prehospital trauma care at the U.S. Army Institute of Surgical Research Joint Trauma System.

As a special operations surgeon while on active duty, Butler learned firsthand that someone with severe bleeding can bleed to death in a matter of minutes—often before the arrival of a trained medic. He has also seen the dramatic increases in survival achieved by the 75th Ranger Regiment and other special operations units that adopted the use of tourniquets and hemostatic dressings.

“Thanks largely to the efforts of the Tactical Combat Casualty Care group that have been ongoing since 1993, all of the U.S. military is now trained to provide life-saving external hemorrhage control interventions,” Butler said.

Butler added that these advances in combat trauma care have saved many lives on the battlefield, and now this knowledge will do the same thing in the civilian sector.

Learn more about how to “Stop the Bleed” and help save a life by accessing training and resources:
http://www.dhs.gov/stopthebleed
Safety Notes

By Stephanie L. Truss
Health, Safety and Environmental Specialist

Hazards exist in every workplace in many different forms: sharp edges, falling objects, flying sparks, chemicals, noise and a myriad of other potentially dangerous situations. The Occupational Safety and Health Administration requires that employers protect their employees from workplace hazards that can cause injury.

Controlling a hazard at its source is the best way to protect employees. Depending on the hazard or workplace conditions, OSHA recommends the use of engineering or work practice controls to manage or eliminate hazards to the greatest extent possible. For example, building a barrier between the hazard and the employees is an engineering control; changing the way in which employees perform their work is a work practice control.

When engineering, work practice and administrative controls are not feasible or do not provide sufficient protection, employers must provide personal protective equipment or PPE to their employees and ensure its use. PPE is equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, foot and eye protection, protective hearing devices (earplugs, muffs) hard hats, respirators and full body suits.

The Requirement for PPE

To ensure the greatest possible protection for employees in the workplace, the cooperative efforts of both employers and employees will help in establishing and maintaining a safe and healthful work environment.

In general, employers are responsible for:
- Performing a “hazard assessment” of the workplace to identify and control physical and health hazards.
- Identifying and providing appropriate PPE for employees.
- Training employees in the use and care of the PPE.
- Maintaining PPE, including replacing worn or damaged PPE.
- Periodically reviewing, updating and evaluating the effectiveness of the PPE program.

In general, employees should:
- Properly wear PPE,
- Attend training sessions on PPE,
- Care for, clean and maintain PPE, and
- Inform a supervisor of the need to repair or replace PPE.

Specific requirements for PPE are presented in many different OSHA standards, published in 29 CFR. Some standards require that employers provide PPE at no cost to the employee while others simply state that the

SAFETY continues on page 11
The holiday season is fast approaching. Are you thinking about end of year due outs, end of year changes, holiday travel, shopping and parties? Oh my! How do you want to start the New Year? How are you going to make it through the holidays? How are you going to maintain resilience and readiness? How about, nutrition, activity and sleep? Stop! Take a minute to soak in the colors of the leaves. Enjoy the change in temperature. Autumn is the season between summer and winter. It is a connection of two seasons. End and new beginning. Take it as it is. Here is what some of your ISR coworkers recommend:

“MY advice would be to pace yourself and not get out of your exercise routine if at all possible.”

“I walk 20-30 minutes during my lunch time, which is about a mile, mainly because I do not have time to go to the gym after work. I walk to stay fit and to be able to eat what I want, without worrying of gaining weight. Walking helps me release the stress from work. Healthy body means healthy mind.”

So by continuing your daily routine you can get across that bridge.

In August 2015, the Army Public Health Center efforts transitioned to the Army Medicine 2020 campaign. The APHC collaborates with the Office of the Surgeon General’s Rehabilitation and Reintegration Division (R2D) and the U.S. Army Research Institute for Environmental Medicine to address the two major factors that impact Soldier medical readiness: injuries and physical fitness/performance.

The effort to continued implementation of effective evidence-based public health interventions can reduce the health and costs impacts of smoking-related disease and death and accelerate progress toward meeting the Healthy People 2020 target. This brings MEDCOM TFL OPORD 15-48-published 12 MAY 2015. The OPORD mission states all MEDCOM facilities will promote Tobacco-Free Living workforces and implement Tobacco-Free Medical Campuses in support of The Surgeon General’s Army Medicine Healthcare Covenant. Since tobacco use is both a readiness and a health issue, it is important to provide Soldiers with effective interventions to become tobacco free.

Tobacco-Free Living benefits the command as a whole because tobacco-free Soldiers are stronger, healthier and better able to perform the mission. Being tobacco-free also benefits each Soldier by giving them an opportunity to maintain a healthier lifestyle and decrease the health risks associated with tobacco use. November is the perfect time for this transition as well. November 19 brings the Great American Smokeout. This Year’s campaign is “Quit like a Champion.”

Be a champion! Join troops around the globe by quitting tobacco for the day, making a pledge to quit. Be a champion by helping someone quit. Get involved in this event; just put your cigarettes away for 24 hours. Keep in mind The Army 2020 Campaign plan, supported by the operating company framework, is the deliberate method by which Army Medicine will impact the System For Health.

You are not alone! The CDC Morbidity and Mortality Weekly Report (MMWR) October 16, 2015/64(40); 1129-35, documents that in 2013, approximately two thirds of all adult smokers surveyed reported that they had attempted to quit or did quit in the past year, with the proportion making a quit attempt ranging from 56.2 percent to 76.4 percent. We have made some progress! Current cigarette smoking among adults declined significantly in 26 states from 2011-2013. The proportion of high school students using cigarettes and/or cigars exclusively decreased from 20.5 percent in 1997 to 7.4 percent in 2013. What is already known on this topic? We know that quitting smoking is beneficial to health at any age, and cigarette smokers who quit before age 35 years have mortality rates similar to those of persons who never smoked. Unfortunately we still have work to do. Let’s turn a new leaf.

There’s no better time to reflect on our lives and give thanks for all that we have received as we transition into November and Thanksgiving. It’s a wonderful way to begin the Holiday season.

“Thankfulness is the beginning of gratitude. Gratitude is the healthiest of all human emotions.”

Happy Thanksgiving to all.
USAISR, BAMC Celebrate Hispanic Heritage Month

The U.S. Army Institute of Surgical Research and the Brooke Army Medical Center Equal Opportunity teams at Fort Sam Houston, Texas combined efforts to host the 2015 National Hispanic Heritage Month observance at the San Antonio Military Medical Center medical mall Oct. 14. The annual national observance is held from Sept. 15 through Oct. 15 with this year’s theme being “Hispanic Americans: Energizing Our Nation’s Diversity.”

To kick-off the ceremony, Capt. Jose Juarez, USAISR Company Commander read the city proclamation presented by San Antonio Mayor Ivy Taylor in recognition of Hispanic Heritage Month. After the reading of the proclamation, Col. (Dr.) Michael D. Wirt, USAISR Commander made some opening remarks and welcomed the guests to the observance.

“This year’s theme truly reflects the long and important role that Hispanic Americans have contributed to our country’s rich culture and proud heritage,” Wirt said. “One of our country’s greatest strengths has always been our diversity. As we take time today to observe National Hispanic Heritage Month, I ask that you take time to reflect on the contributions that Hispanic Americans have made into making the United States a great nation.”

During the ceremony, attendees were treated to mariachi music performed by Mariachi International Monarca; a traditional Panamanian dance by Alcira Etienne; and a performance by Noche Kandela who sang Salsa and Merengue songs. The audience also heard remarks from guest speaker Alexander “Alex” Briseño, a former Army captain and chief executive officer of San Antonio from 1990 to 2001. Briseño spoke of the many contributions that Hispanic Americans have made in shaping the military, economy and the United States.

“Hispanic Americans have come a long way,” said Briseño. “We’re a growing part of the population and we still have some challenges to address for all of us to succeed in the future.”

The ceremony concluded with a sampling of some popular Hispanic food from around the world.

“This was a great observance,” said Sgt. Maj. James Devine, USAISR senior enlisted leader. “The EO teams did a remarkable job in coordinating it and highlighting the contributions that Hispanic Americans have made to our diverse nation.”
SAFETY continued from page 8

employer must provide PPE. Appendix A at page 40 lists those standards that require the employer to provide PPE and those that require the employer to provide PPE at no cost to the employee.

Now Four Ways to Get Workers to Wear PPE

Continue to stress the importance of wearing PPE along with importance of when, where and what type. Although there can be many reasons as to why they don’t. As an employer, manager, supervisor and or leader we must enforce it. The failure of workers to wear PPE persists as a leading concern among employers and safety professionals. You’ll notice that most of these suggestions involve “showing.” It’s my belief that, no matter what message you’re trying to get across about PPE, showing is much more effective than talking. Safety is everyone’s business so let’s follow these steps in reference to PPE:

1. Set the Example—You must show your peers and co-workers that you are not above the rules and regulations by using PPE in your workplace wherever it is required.

2. Allow no Exceptions—There must be zero exceptions. Period. If it is a requirement that PPE be used in a designated work area, then adhere to the policy or the procedure.

3. Don’t Look the Other Way—The absolute worst thing you can do regarding the proper use of PPE is let someone get away without it when it is required. If you ever witness a violation of use, never ignore it. There is a very well-known poem that still circulates around the safety profession that shows this situation far more effectively than I ever will.

4. It Does Not End With Training—Training isn’t the last word on a safety topic. It’s usually the beginning and in most cases continuing. The training session remains one of the most effective venues to show workers how important PPE is in the workplace. Again this is continuous and a reminder for all.

October Awards

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<th>Government Time in Service Award</th>
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<td>Lynn Valo (15 yrs)</td>
<td>Brandon Dobbs</td>
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<td>Sarah Zayas (10 yrs)</td>
<td>Gale Mankoff</td>
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<td>Catherine Rauschendorfer (5 yrs)</td>
<td>Mark Weber</td>
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Achievement Medal for Civilian Service

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<th>Christopher Bell</th>
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<td>Lindsey Hanslar</td>
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<td>Alisa Leon</td>
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<td>Gale Mankoff</td>
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<td>Kathleen McKay</td>
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<td>Lynn Valo</td>
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<td>Sarah Zayas</td>
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Army Commendation Medal

Sgt. Christopher Kay

Army Achievement Medal

Capt. Mollie Christiansen
Staff Sgt. Melissa Arizmendi
Staff Sgt. John Newton
Sgt. Ryan Morris
Sgt. Luis Sanchez
Sgt. Tamara Saxton
Spc. Courtney Charlson
Spc. Austin Frye
Spc. Kirk Matthews
Spc. Daniel Oladejo
Spc. David Watson
Spc. Amber Voelker

First Sgt. Natasha Tsantles, left photo and Spc. Fabian Quattlebaum are presented with a Certificate of Achievement and a coin Oct. 6 from Maj. Gen. Jimmie Keenan, Deputy Commanding General (Operations), U.S. Army Medical Command and Chief, U.S. Army Nurse Corps. The certificates and coins were presented for their support and contributions to the 240th Army Birthday Ball.
Around the ISR

Top left: Pfc. Eric Force, Sgt. 1st Class Burt Hensley and Spc. Logan Leatherman provide support and leadership Oct. 4 during an Expert Field Medical Badge qualification at Fort Dix, New Jersey.
Center right: Maj. Erik Johnson, second from left, gives a tour of the Burn Center to members of a Congressional Staff Delegation Oct. 14.
Bottom right: Kay Neer cuts a birthday cake Oct. 8.
Bottom left: Capt. Mollie Christiansen, second from left, gives a tour of the Burn Center to combat medic students Oct. 23.
Left center: Capt. Rebecca Fern, right, presents Joni Paciocco with a set of Burn Center Flight Team Wings Oct. 27 for her time as a nurse on the Burn Flight Team when she was on active duty.
Top left: Bonnifeace "Prem" Premdas and Jorge Sotelo are presented a gift card for placing 3rd and 2nd place, respectively, in a chili cook-off held Oct. 16. Staff Sgt. Tiffany Baldwin was the 1st place winner.
Bottom center: Lt. Col. (Dr.) Wylan Peterson, second from right, gives a tour of the Burn Center Oct. 22 to foreign military officers attending the AMEDDC&S Military Leadership Strategic Program.
Bottom right: Krystal Valdez-Delgado and Nicole Caldwell flex their arms to celebrate being donors in the “Knocking Out Cancer - Donating Blood!” blood drive Oct. 21.
Bottom left: Sgt. John Snook, right, volunteers during fundraiser by the Events Committee Oct. 2.
Left center: Staff Sgt. Jaffster Daus inspects Sgt. Silvia Matchinske before a Noncommissioned Officer of the Month board Oct. 27.
The term golden hour was coined to encourage urgency of trauma care. In 2009, Secretary of Defense Robert M. Gates mandated prehospital helicopter transport of critically injured combat casualties in 60 minutes or less. Objectives: To compare morbidity and mortality outcomes for casualties before vs after the mandate and for those who underwent prehospital helicopter transport in 60 minutes or less vs more than 60 minutes. Results: For the total casualty population, the percentage killed in action was lower for those critically injured who received a blood transfusion and were transported in 60 minutes or less, while the percentage died of wounds was lower among those critically injured initially treated by combat support hospitals. Acute morbidity was higher among those critically injured who were transported in 60 minutes or less, those severely and critically injured initially treated at combat support hospitals, and casualties who received a blood transfusion, emphasizing the need for timely advanced treatment.

Osteomyelitis
Development of a hematogenous implant-related infection in a rat model.
Shiels SM, Bedigrew KM, Wenke JC
BMC Musculoskelet Disord

BACKGROUND: Implant-related osteomyelitis is a major complication that requires immediate treatment, often involving removal of the implant, prolonging patient recovery and inflating expenses. A proper and accurate animal model is needed to thoroughly investigate such treatments. The scope of this project was to develop an animal model in which a consistent and measurable infection can be formed on an orthopedic implant when bacteria is introduced via a hematogenous source. METHODS: Titanium Kirschner-wires were implanted into the intramedullary canals of both femurs. Staphylococcus aureus, ranging from 10^4 to 10^9 colony forming units, was injected into a tail vessel. After a designated time (3, 7, 14, or 42 days) the femurs were harvested and bacterial numbers determined for both the femur and the implanted K-wire. In addition, histology and micro-computed tomography were used as subjective tools to further characterize the infection.
Pain
Tetrodotoxin suppresses thermal hyperalgesia and mechanical allodynia in a rat full thickness thermal injury pain model.

Salas MM, McIntyre MK, Petz LN, Korz W, Wong D, Clifford JL
Neurosci Lett

Severe burn-associated pain is typically treated with opioids such as fentanyl, morphine, and methadone. Side effects of opioids include respiratory depression, cardiac depression, decrease in motor and cognitive function, as well as the development of hyperalgesia, tolerance and dependence.

These effects have led us to search for novel analgesics for the treatment of burn-associated pain in wounded combat service members. Tetrodotoxin (TTX) is a selective voltage-gated sodium channel blocker currently in clinical trials as an analgesic. To date, the analgesic effect of TTX has not been tested in burn-associated pain. Male Sprague-Dawley rats were subjected to a full thickness thermal injury on the right hind paw. TTX (8μg/kg) was administered once a day systemically by subcutaneous injection beginning 3 days post thermal injury and continued through 7 days post thermal injury. Thermal hyperalgesia and mechanical allodynia were assessed 60 and 120min post injection on each day of TTX treatment. TTX significantly reduced thermal hyperalgesia at all days tested and had a less robust, but statistically significant suppressive effect on mechanical allodynia. These results suggest that systemic TTX may be an effective, rapidly acting analgesic for battlefield burn injuries and has the potential for replacing or reducing the need for opioid analgesics.

Biofilms
Rifamycin Derivatives Are Effective Against Staphylococcal Biofilms In Vitro and Elutable From PMMA.

Sanchez CJ Jr, Shiels SM, Tennent DJ, Hardy SK, Murray CK, Wenke JC.
Clin Orthop Relat Res

TRANSLATIONAL RESEARCH

Hemoadsorption
Evaluation of the Cytosorb® Hemoadsorptive column in a pig model of severe smoke and burn injury.

Linden K, Scaravilli V, Kreyer SF, Belenkiy SM, Stewart IJ, Chung KK, Cancio LC, Batchinsky AI.
Shock

CLINICAL RESEARCH

Bone health
Preliminary evidence of an association between ADHD medications and diminished bone health in children and adolescents.

Howard JT, Walick KS, Rivera JC.
J Pediatr Orthop.

Mechanical ventilation
Elevations in inflammatory cytokines are associated with poor outcomes in mechanically ventilated burn patients.

Shelhamer MC, Rowan MP, Cancio LC, Aden JK, Rhie RY, Merrill GA, Wolf SE, Renz EM, Chung KK
J Trauma Acute Care Surg.
EXTRAMURAL COLLABORATION

Coagulation
Coagulation Changes during Lower Body Negative Pressure and Blood Loss in Humans.

van Helmond N, Johnson BD, Curry TB, Cap AP, Convertino VA, Joyner MJ
Am J Physiol Heart Circ Physiol

Ocular trauma
Low-Level Primary Blast Causes Acute Ocular Trauma in Rabbits.

J Neurotrauma

Pulmonary complications
The association between the Th-17 immune response and pulmonary complications in a trauma ICU population.

Holloway TL, Rani M, Cap AP, Stewart RM, Schwacha MG
Cytokine.

Fibroblast function
LXA4 actions direct fibroblast function and wound closure.

Herrera BS, Kantarci A, Zarrough A, Hasturk H, Leung KP, Van Dyke TE.
Biochem Biophys Res Commun

Blood loss
Cerebral blood velocity regulation during progressive blood loss compared with lower body negative pressure in humans.

Rickards CA, Johnson BD, Harvey RE, Convertino VA, Joyner MJ, Barnes JN.

Pulmonary complications
The association between the Th-17 immune response and pulmonary complications in a trauma ICU population.

Holloway TL, Rani M, Cap AP, Stewart RM, Schwacha MG
Cytokine.

Pride and History of the U.S. Army Institute of Surgical Research

by Sgt. Francisco Rosario

Originally named the Surgical Research Unit, the United States Army Institute of Surgical Research (USAISR) was established in 1943, with 12 assigned personnel at the Halloran General Hospital in Staten Island, New York. At the time, its primary mission was to thoroughly evaluate the role of newly discovered antibiotics and determine their effectiveness, while treating wounds that casualties had suffered during war operations. In 1947, the Unit was relocated to Brooke General Hospital (later renamed Brooke Army Medical Center [BAMC]) at Fort Sam Houston, Texas. By 1958, the USAISR had integrated additional responsibilities mandated by the Army Surgeon General, which included evaluating innovative surgical techniques to reduce mortality, and serving as the “Army’s Burn Unit” and exemplary model for civilian burn centers across the world (USAISR, 2015).

In 1994, the newly formed Army Medical Command (MEDCOM) designated the USAISR to operate as a subordinate command of the Medical Research and Materiel Command (MRMC) from Fort Detrick, Maryland, while being collocated with BAMC at Fort Sam Houston, Texas. Once all medical services were transferred to the newly constructed BAMC in 1996, the USAISR expanded its research focus to encompass the full spectrum of combat casualty care rather than centering primarily on thermal burn injuries. Galvan

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(2012) explains how as a result of the 2005 Base Realignment and Closure (BRAC), construction of a new building adjacent to BAMC – with BAMC being later renamed San Antonio Military Medical Center (SAMMC) – created the Battlefield Health and Trauma (BHT) Research Institute by August 2010. This allowed for the amalgamation of all Department of Defense (DOD) combat casualty care research to relocate and take place alongside the USAISR; thus, creating a Tri-Service research organization by additionally integrating U.S. Air Force and U.S. Navy combat casualty care research operations.

The BHT Research Institute now includes the U.S. Air Force Dental Evaluation and Consultation Service (DECS); the Naval Medical Research Unit – San Antonio (NAMRU-SA); the Army Medical Research Detachment (from Brooks City-Base, Texas); and the newly inaugurated Dental and Craniofacial Trauma Research and Tissue Regeneration Directorate (formerly known as the Dental and Trauma Research Detachment which previously operated as a subordinate unit of the USAISR) (Wirt, 2015). Renz et al. (2012) explain that an additional integral aspect of the USAISR lies within the Joint Trauma System (JTS). The JTS is aimed at improving trauma care delivery and clinical patient outcomes by evaluating performance improvement and evidence-based clinical activities driven by the concurrent data collection and analysis maintained in the Department of Defense Trauma Registry.

Additionally, with SAMMC being recognized as the largest and sole certified Level I Trauma Center within the DOD, the USAISR houses the only DOD Army Burn Center with accreditation from the American Burn Association (American Burn Association, 2015). The USAISR (2015) explains how since 2003, the Army Burn Center has cared for more than 1,200 U.S. military burn casualties injured in support of overseas contingency operations, and over 3,800 civilian burn emergencies. This has been accomplished by implementing a multidisciplinary care team of over 300 medical, nursing, and allied health professionals delivering state-of-the-art surgical and rehabilitation services via the USAISR Burn Rehabilitation Center and Burn Center Clinic.

While continuing its research endeavors and expertise in the burn care management field, the USAISR has upheld its high distinction by incorporating Specialized Medical Response Capability (SMRC) and implementing a Specialized Medical Augmentation Response Team – commonly referred to as the U.S. Army Burn Flight Team – since 1951. The U.S. Army Burn Flight Team provides worldwide burn care management assessments and medical evacuations, with inflight patient care to burn casualties sustaining thermal and non-thermal injuries related to both combat and non-combat-related events (Galvan, 2015). Each Burn Flight Team (BFT) is made up of five active duty Army personnel, each of whom work daily in the Burn Intensive Care Unit (BICU) at the Army Burn Center. A board-certified General Surgeon with advanced burn and critical care surgical experience serves as the BFT Leader. The lead flight nurse is a Critical Care Registered Nurse (CCRN) with significant clinical experience in the BICU, and a Licensed Vocational Nurse (LVN) – specifically trained and experienced in burn critical care at the BICU – serves as the second flight nurse. A Certified Respiratory Therapist (CRT) with extensive experience operating different types of mechanical ventilators provides inflight respiratory care, while a healthcare non-commissioned officer (NCO) serves as the Forward Operations NCO for each prescribed mission. All BFT personnel complete the United States Air Force School of Aerospace Medicine Critical Care Air Transport Team (CCATT) Course at Wright-Patterson Air Force Base in Dayton, Ohio, as well as additional duty-specific training in the BICU. The U.S. Army Burn Flight Team remains ready to deploy within hours upon activation by order of the Commander of the USAISR, as needed for worldwide missions support (USAISR, 2015).

With the integration of numerous highly specialized units, to include U.S. Air Force and Naval clinical and research functions, the USAISR has impressively grown in size from its initial 12-person staff back in 1943, to over 700 military and civilian personnel currently engaged in clinical and research operations. It serves as the primary Combat Casualty Care research facility for the entire U.S. Army and has distinguished itself as the Nation’s leading Tri-Service research organization that safely delivers innovative burn, trauma, and combat casualty care. The Institute’s superior performance and impact to military medicine, along with the incessant determination to optimize pre-hospital combat casualty care, reflects exceptional credit upon the overall organization, the Medical Research and Materiel Command, the U.S. Army Medical Command, and the United States Army.

References
SAMMC Decon Team among the best in SW Texas

Story and photos by Steven Galvan
USAISR Public Affairs Officer

San Antonio is well-known throughout Texas for hosting one of the nation’s largest and best rodeos with the world’s best cowboys and cowgirls competing for top prizes in bareback, bull riding, barrel racing, steer wrestling and other traditional rodeo events. On Oct. 29, San Antonio was once again the host of a rodeo, but there wasn’t a single bull, horse or a cowboy to be seen. Instead, the area’s best hospital decontamination teams from the southwest Texas region competed in a “Decon Rodeo.” The rodeo designed to improve response times and promote team building was hosted by the Emergency Medical Service/Hospital Disaster Group Decon-Radiation Safety Officer Committee and the Southwest Texas Regional Advisory Council for Trauma.

The San Antonio Military Medical Center Decon Team placed second this year, just a couple of points behind the winning team from the Children’s Hospital of San Antonio. A total of eight six-person teams competed in the annual event where they were judged in five timed events: assembly and disassembly of a portable decontamination tent; personal protective equipment donning and the decontamination process of a manikin; a written exam; and the use of a radiation detector to detect radiation on a patient.

“We were well-prepared this year,” said 1st Lt. Eric Bracamonte, SAMMC Decon Team Officer in Charge.

SAMMC’s team competed last year coming in fourth place out of four teams. This year the team was perfect in three events and had the best time in two. SAMMC Decon Team Leader, Sgt. TJ Chavez, assigned to the U.S. Army Institute of Surgical Research Burn Center credits that to the teams’ determination to goal to win.

“We’ve been training since June,” he said. “But we really ramped up our training during the last month.”

Chavez added that every team in the competition was a winner because it’s all about being trained and prepared when called for a real event requiring the response of the decon team.

“It’s also an excellent opportunity for all of the teams to get together and learn from each other,” he said.

The SAMMC Decon Team trains monthly and has 70 Soldiers and Airmen assigned to the hospital and the USAIS Burn Center trained and ready to respond when the call comes.

“I am very proud of the team’s performance,” said Bracamonte. “They did a great job and I’m confident that we will be able to respond quickly and accurately when needed.”


More DECON RODEO photos on page 19
DECON Rodeo continued from page 18

Top right: The SAMMC Decon Team runs into action to assemble a portable decontamination tent.
Center right: Sgt. TJ Chavez is ready to get inspected during the personnal protective equipment donning event.
Bottom right: Sgt. Richard Tindal uses a radiation detector while Sgt. Theodore Betdorf maps out the affected area.
Left: Sgt. Theodore Betdorf and Sgt. Richard Tindal inspect a radiation detector prior to competing in that event.
Library News

By Gerri Trumbo
Library Manager

This month will feature a message on interlibrary loan procedure. There are many features to the ILL system that can be helpful to you and to me in obtaining articles and books quickly and efficiently.

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Last, I will mention borrowing books. We try to borrow locally if at all possible, or from one of our sister Army libraries. The process can take up to a month or longer, depending on lender strings. We input book requests in a system that allows us to submit to unlimited potential lenders. So if one says No, it goes on to the next library, and so on, until the request is honored. Please return all ILL books on time to assure our borrowing privileges are not denied. Please assure you check the ISR Library card catalog to see if we own the book. You can also check for electronic books on the AMEDD Virtual Library site.

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