

PUBLICATIONS & PRESENTATIONS

Office of the Chief Scientist

1 January 2021 – 30 October 2021

Assigned to
59th Medical Wing

Stationed at
Joint Base San Antonio (JBSA)-Lackland, TX

January 2021

Publications:

- Woods JT; Walter RJ; Houle MC; Barber BS; Morris MJ. The Effect of Deployment on Pulmonary Function in Military Personnel with Asthma. *Military Medicine*. 2020 Dec 21. <https://pubmed.ncbi.nlm.nih.gov/33346840/>
- Carius BM; Naylor JF; April MD; Fisher AD; Hudson IL; Stednick PJ; Maddry JK; Weitzel EK; Convertino VA; Schauer SG. Battlefield Vital Sign Monitoring in Role 1 Military Treatment Facilities: A Thematic Analysis of After-Action Reviews from the Prehospital Trauma Registry. *Military Medicine*. 2020 Nov 26. <https://pubmed.ncbi.nlm.nih.gov/33242098/>
- Hune SR; Foushee AD; Ervin MC; Anderson SJ; Ervin MD; Mallory AM. An Analysis of the Effectiveness of High-Level Disinfection for Surgical Instruments Used By Department of Defense Austere Surgical Teams. *Military Medicine*. 186, S1:122-128, January/February 2021. <https://pubmed.ncbi.nlm.nih.gov/33499475/>
- Keyser EA; Weir LF; Valdez MM; Aden JK; Matos RI. Extending Peer Support across the Military Health System to Decrease Physician Burnout. *Military Medicine*. 186, S1:153-159, January/February 2021. https://academic.oup.com/milmed/article/186/Supplement_1/153/5895450
- Barringer BJ; Castaneda MG; Rall J; Maddry JK; Anderson KL. The Effect of Chest Compression Location and Aortic Perfusion in a Traumatic Arrest Model. *Journal of Surgical Research*. 258:88-99, Feb 2021. <https://pubmed.ncbi.nlm.nih.gov/33002666/>

Presentations: N/A

February 2021

Publications:

- Walter, SF. Rapidly Modernizing Medical Capabilities via the Middle Tier of Acquisition. *Defense Acquisition Magazine*, Jan-Feb 2021 edition. ISSN: 2637-5052. https://www.dau.edu/library/defense-atl/DATLFiles/Jan-Feb2021/DEFACQ-DATL_JanFeb2021_Walter.pdf.
- Hatzfeld JJ, Hildebrandt G, Maddry JK, Rodriguez D, Bridges E, Ritter AC, Gardner CL, Bebart VS, Cap AP. Top 10 Research Priorities for U.S. Military En Route Combat Casualty Care. *Military Medicine*. 2021 Jan 05. <https://pubmed.ncbi.nlm.nih.gov/33399866/>
- Rios JD, Hughes CK, Lally J, Wienandt N, Esquivel C, Serhan CN, Weitzel EK. Neuroprotectin D1 Attenuates Blast Overpressure Induced Reactive Microglial Cells in the Cochlea. *Laryngoscope*. 2021 Jan 11. <https://pubmed.ncbi.nlm.nih.gov/33427310/>
- Ashley E Nazario-Toole, PhD, Hui Xia, Thomas F Gibbons, PhD, Whole-genome Sequencing of SARS-CoV-2: Using Phylogeny and Structural Modeling to Contextualize Local Viral Evolution, *Military Medicine*, 2021;, usab031, <https://doi.org/10.1093/milmed/usab031>
- Savell SC, Baldwin DS, Blessing A, Medellin KL, Maddry JK. (In press). Military Use of Point of Care Ultrasound (POCUS). *Journal of Special Operations Medicine*.

Presentations: N/A

March 2021

Publications:

- Maddry JK, Mora AG, Perez CA, Reeves LK, Paciocco JA, Clemons MA, Sheean A, Kester NM, Bebart VS. Characterization of Long-range Aeromedical Transport and Its Relationship

to the Development of Traumatic Extremity Compartment Syndrome: A 7-year, Retrospective Study. *Military Medicine*. 2021 Jan 12. <https://pubmed.ncbi.nlm.nih.gov/33433584/>.

- April MD, Arana A, Reynolds JC, Carlson JN, Davis WT, Schauer SG, Oliver JJ, Summers SM, Long B, Walls RM, Brown CA 3rd, NEAR Investigators. Peri-intubation cardiac arrest in the Emergency Department: A National Emergency Airway Registry (NEAR) study. *Resuscitation*. 2021 Mar 05. <https://pubmed.ncbi.nlm.nih.gov/33684505/>.
- Stigall K, Blough PE, Rall JM, Kauvar DS. Conversion of the Abdominal Aortic and Junctional Tourniquet (AAJT) to Infrarenal Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) Is Practical in a Swine Hemorrhage Model. *J Spec Oper Med*. Spring 2021; 21(1):30-36. <https://pubmed.ncbi.nlm.nih.gov/33721303/>

Presentations:

- K.J. Baker, P.E. Blough, S.J. Anderson, J. M. Rall, M. Ervin, M.C. Ervin, A.M. Mallory. Effectiveness of FDA-Cleared Wound Disinfectants for Sanitizing Reusable Surgical Instruments Used By Ground Surgical Teams Abstract. 2021 Military Health System Research Symposium (MHSRS), Aug 23-26, 2021 at the Gaylord Palms Resort and Convention Center, Kissimmee Florida.

April 2021

Publications:

- Maddry JK, Mora AG, Perez CA, Reeves LK, Paciocco JA, Clemons MA, Sheean A, Kester NM, Bebart VS. Characterization of Long-range Aeromedical Transport and Its Relationship to the Development of Traumatic Extremity Compartment Syndrome: A 7-year, Retrospective Study. *Military Medicine*. 2021 Jan 12. <https://pubmed.ncbi.nlm.nih.gov/33433584/>.
- April MD, Arana A, Reynolds JC, Carlson JN, Davis WT, Schauer SG, Oliver JJ, Summers SM, Long B, Walls RM, Brown CA 3rd, NEAR Investigators. Peri-intubation cardiac arrest in the Emergency Department: A National Emergency Airway Registry (NEAR) study. *Resuscitation*. 2021 Mar 05. <https://pubmed.ncbi.nlm.nih.gov/33684505/>.
- Stewart, Ian J. Novel Methods for Damage Control of Hyperkalemia in Combat Casualties. Final Report. July 5, 2020.

Presentations: N/A

May 2021

Publications:

- Moore, B. A., Straud, C. L., Hale, W. J., Baker, M. B., Gardner, C. L., Judkins, J., L., Shinn, A. M., Savell, S., Cigrang, J. A., Litz, B. T., Mintz, J., Rouska, A., McMahon, C., Lara-Ruiz, J., Young-McCaughan, S., Peterson, A. L. for the STRONG STAR Consortium. (in press). Post-9/11 service members: Associations between gender, marital status, and psychiatric aeromedical evacuations from combat zones. *Military Psychology*.
- Hatzfeld JJ, Hildebrandt G, Maddry JK, Rodriguez D, Bridges E, Ritter AC, Gardner CL, Bebart VS, Cap AP. Top 10 Research Priorities for U.S. Military En Route Combat Casualty Care. *Military Medicine*. 186(3-4):e359-e365, 2021. <https://doi.org/10.1093/milmed/usaa480>
- Osborn PM, Dowd TC, Schmitz MR, Lybeck DO. Establishing an Orthopedic Program-Specific, Comprehensive Competency-Based Education Program. *Journal of Surgical Research*. 259:399-406, 2021. <https://doi.org/10.1016/j.jss.2020.09.016>
- Morris MJ, Aden JK, Bell DG, Faux BM, Matos RI, Mu TS, Valdez MM, Bonjour TJ, True MW. The Impact of Graduate Medical Education on Scholarly Activity at a Military Medical

Treatment Facility. *Military Medicine*. 186(3-4):415-420, 2021.
<https://doi.org/10.1093/milmed/usaa406>

Presentations:

- Lt Col White "The Influence of Diet Quality on Vaginal Microbiota Composition in Pregnant Women". Accepted for podium/poster presentations at the TSNRP Dissemination Course, 13-16 September 2021.
- Maj Raps "Characterizing eHealth Behaviors of Active Duty Service Members". Accepted for podium/poster presentations at the TSNRP Dissemination Course, 13-16 September 2021.
- Dr. Heyne " Tai Chi: Implementation of an Evidence-Based Intervention for Lower Back Pain". Accepted for podium/poster presentations at the TSNRP Dissemination Course, 13-16 September 2021.
- Col(s) Migliore, Dr. Heyne "COVID-19 Biobehavioral-Focused Palliative Care Toolkit". Accepted for podium/poster presentations at the TSNRP Dissemination Course, 13-16 September 2021.
- Blackburn A, Sylvia V, Nazario-Toole A, Gibbons T, Brinkley C, Niemeyer D. Precision Medicine Research: Aligning with requirements and avoiding potential pitfalls. Military Health System Research Symposium (MHSRS) 2021. Selected as one of eight oral presentations to be given in breakout session entitled "Use of Precision Medicine in Warfighter Return to Duty and Readiness Applications" at 2021 MHSRS conference scheduled for August 23-26 in Kissimmee, Florida.

June 2021

Publications:

- Shelia C Savell, PhD, RN, Alexis Blessing, PhD, Nicole M Shults, BS, Alejandra G Mora, MS, Kimberly L Medellin, BSN, RN, Mark T Muir, MD, Nurani Kester, MD (Ret.), Joseph K Maddry, MD. Response to Letter to the Editor: The Next Step in Maintaining Peacetime Readiness Level 1 Trauma Centers and OEF/OIF Emergency Departments: Comparison of Trauma Patient Populations *Military Medicine*, usab147, <https://doi.org/10.1093/milmed/usab147>. Published: 23 May 2021
- Maddry, JK. The Application of Strategic Leadership to the COVID 19 Pandemic and its Impact on US Military Operations. 2021, <https://apps.dtic.mil/sti/pdfs/AD1119255.pdf>.
- Miller ST, Cooper CF, Elsbernd P, Kerwin J, Mejia-Alvarez R, Willis AM. Localizing Clinical Patterns of Blast Traumatic Brain Injury through Computational Modeling and Simulation. *Frontiers in Neurology* 12:547655, 2021. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8173077/>
- Savell SC, Baldwin DS, Blessing A, Medellin KL, Savell CB, Maddry JK. Military Use of Point of Care Ultrasound (POCUS). *Journal of Special Operations Medicine*. 21(2):35-42, 2021. <https://pubmed.ncbi.nlm.nih.gov/34105119/>
- McMahon MJ, Holley AB, Warren WA, Collen JF, Sherner JH, Zeman JE, Morris MJ. Posttraumatic Stress Disorder Is Associated With a Decrease in Anaerobic Threshold, Oxygen Pulse, and Maximal Oxygen Uptake. *Chest* [In Press], 2021. <https://pubmed.ncbi.nlm.nih.gov/33844979/>
- Carius BM, Umar M, Aden JK, Schauer SG. An Analysis of Exertional Safety after Blood Donation in Active Duty Military Personnel - A Feasibility Study. *Military Medicine* 186(5-6): e464–e468, 2021. <https://academic.oup.com/milmed/article/186/5-6/e464/5909703>

- Ledford CJW, Seehusen DA, Crawford PF. Toward a model of shared meaningful diagnosis. *Patient Education & Counseling*. 104(1):143-148, 2021. <https://pubmed.ncbi.nlm.nih.gov/32771242/>
- Tang JA, Amadio G, Nagappan L, Schmalbach CE, Dion GR. Laryngeal inhalational injuries: A systematic review. *Burns* [In Press], 2021. <https://pubmed.ncbi.nlm.nih.gov/33814215/>
- William G. Gensheimer, MD; Kyle E. Miller, MD; Jennifer Stowe, OD; Jeanette Little, MS; Gary L. Legault, MD. Military Teleophthalmology in Afghanistan Using Mobile Phone Application. *JAMA Ophthalmol*. 2020; 138 (10):1053-1060. doi:10.1001/jamaophthalmol.2020.3090
- Kemp Bohan, Phillip M. MD; McCarthy, Patrick M. MD; Wall, Morgan E. BS; Adams, Alexandra M. MD; Chick, Robert C. MD; Forcum, Jason E. RN; Radowsky, Jason S. MD; How, Remealle A. MD; Sams, Valerie G. MD. Safety and Efficacy of Low-Titer O Whole Blood Resuscitation in a Civilian Level I Trauma Center. *Journal of Trauma and Acute Care Surgery*: May 25, 2021 - Volume Publish Ahead of Print - Issue -doi: 10.1097/TA.0000000000003289. 2021 MILITARY SUPPLEMENT: PDF ONLY.
- Jones, K., Williams, C., Yuan, T., Digeorge-Foushee, A. M., Wilson, R. C., Burton, T., & Martinez, L. (2021). Comparative in vitro study of commercially available products for alveolar ridge preservation. *Journal of Periodontology*.
- Kyle Stigall, MD, David W. Schechtman, MD, Justin J. Sleeter, MD, Perry E. Blough, BS, Chris L. Harwell, BS, Jason M. Rall, PhD, David S. Kauvar, MD, MPH, FSVS, FACS. Performance of a Novel Temporary Arterial Shunt in a Military-Relevant Controlled Hemorrhage Swine Model. *Journal of the American College of Surgeons*. MILITARY| VOLUME 231, ISSUE 4, SUPPLEMENT 1, S176-S177, OCTOBER 01, 2020. DOI: <https://doi.org/10.1016/j.jamcollsurg.2020.07.282>.
- Maddry JK, Paredes RM, Rebeles J, Olson G, Castaneda M, Canellis K, Ng PC, Bebartha VS. Efficacy of Intravenous Hydroxocobalamin for Treatment of Sodium Methanethiolate Exposure in a Swine Model (*Sus scrofa*) of Severe Methanethiol Toxicity. *J Med Toxicol*. 2020 Oct; 16(4):388-397. doi: 10.1007/s13181-020-00767-7. Epub 2020 Apr 1. PMID: 32239422
- Maddry JK, Arana AA, Clemons MA, Medellin KL, Shults NM, Perez CA, Savell SC, Gutierrez XE, Reeves LK, Mora AG, Bebartha VS. Impact of a Standardized EMS Handoff Tool on Inpatient Medical Record Documentation at a Level I Trauma Center. *Prehosp Emerg Care*. 2020 Oct 9:1-8. doi: 10.1080/10903127.2020.1824050. Online ahead of print. PMID: 32940577
- Hendry-Hofer TB, Ng PC, McGrath AM, Mukai D, Brenner M, Mahon S, Maddry JK, Boss GR, Bebartha VS. Intramuscular aminotetrazole cobinamide as a treatment for inhaled hydrogen sulfide poisoning in a large swine model. *Ann N Y Acad Sci*. 2020 Nov; 1479(1):159-167. doi: 10.1111/nyas.14339. Epub 2020 Mar 31. PMID: 32233102
- Sam AE, Hamele MT, Matos RI, Fagiana AM, Borgman MA, Maddry JK, Schauer SG. A Descriptive Analysis of Pediatric Transports throughout the U.S. Indo-Pacific Command. *Mil Med*. 2020 Nov 20:usaa506. doi: 10.1093/milmed/usaa506. Online ahead of print. PMID: 33216936
- Pawlukiewicz AJ, Bridwell RE, Carius BM, Schauer SG, Maddry JK, Davis WT. Analysis of U.S. Pacific Command Area of Operations Military Medical Transportations of Adult Patients, 2008 to 2018. *Mil Med*. 2020 Nov 21:usaa289. doi: 10.1093/milmed/usaa289. Online ahead of print. PMID: 33219660

- Straud, C. L., Moore, B. A., Hale, W. J., Baker, M., Gardner, C. L., Shinn, A. M., Cigrang, J. A., Litz, B., T., Mintz, J., Lara-Ruiz, J. M., Young-McCaughan, S. B., & Peterson, A. L.; for the STRONG STAR Consortium (in press). Demographic and occupational risk factors associated with suicide-related aeromedical evacuation among deployed US Military Service Members. *Military Medicine*, Volume 185, Issue 11-12, November-December 2020, Pages e1968–e1976, published 30 December 2020. <https://doi.org/10.1093/milmed/usaa201>.
- Joseph E Marcus, MD, Jason Okulicz, MD, Valerie Sams, MD, Andriy Batchinsky, MD, and Alice Barsoumian, MD. Effect of Inter-Hospital Transfer on Nosocomial Infection Rates in Patients Receiving Extracorporeal Membrane Oxygenation. *Open Forum Infect Dis*. 2020 Oct; 7(Suppl 1): S446–S447. Published online 2020 Dec 31. doi: 10.1093/ofid/ofaa439.997. https://academic.oup.com/ofid/article/7/Supplement_1/S446/6056971.
- Joseph K Maddry, MD, Allyson A Arana, PhD, Alejandra G Mora, MS, Crystal A Perez, BSN, RN, Julie E Cutright, BSN, RN, Braden M Kester, Patrick C Ng, MD, Steven G Schauer, DO, MS, Vikhyat S Bebarta, MD. Advancing Prehospital Combat Casualty Evacuation: Patients Amenable to Aeromedical Evacuation via Unmanned Aerial Vehicles. *Military Medicine*, Volume 186, Issue 3-4, March-April 2021, Pages e366–e372, <https://doi.org/10.1093/milmed/usaa438>. Published: 26 February 2021. <https://pubmed.ncbi.nlm.nih.gov/33200779/>.
- Adam H H Altman, MD, MS, Brandon M Carius, DSc, MPAS, PA-C, Grant A Justin, MD, Steven G Schauer, DO, MS, Mireya A Escandon, CRA, Joseph K Maddry, MD, Robert A Mazzoli, MD, FACS, Gary L Legault, MD. A Sub-Analysis of U.S. Africa Command Area of Operations Transportations for Ophthalmic Concerns, 2008–2018. *Military Medicine*, usab134, <https://doi.org/10.1093/milmed/usab134>. Published: 07 April 2021
- Ahmed SK, Haese NN, Cowan JT, Pathak V, Moukha-Chafiq O, Smith VJ, Rodzinak KJ, Ahmad F, Zhang S, Bonin KM, Streblov AD, Streblov CE, Kreklywich CN, Morrison C, Sarkar S, Moorman N, Sander W, Allen R, DeFilippis V, Tekwani BL, Wu M, Hirsch AJ, Smith JL, Tower NA, Rasmussen L, Bostwick R, Maddry JA, Ananthan S, Gerdes JM, Augelli-Szafran CE, Suto MJ, Morrison TE, Heise MT, Streblov DN, Pathak AK. Targeting Chikungunya Virus Replication by Benzoannulene Inhibitors. *J Med Chem*. 2021 Apr 22; 64(8):4762-4786. doi: 10.1021/acs.jmedchem.0c02183. Epub 2021 Apr 9. PMID: 33835811
- Patrick C. Ng, Tara B. Hendry-Hofer, Matthew Brenner, Sari B. Mahon, Gerry R. Boss, Joseph K. Maddry & Vikhyat S. Bebarta. Efficacy of oral administration of sodium thiosulfate in a large, swine model of oral cyanide toxicity. *Journal of Medical Toxicology* (2021), Published: 05 April 2021. <https://doi.org/10.1007/s13181-021-00836-5>.

Presentations:

- V. Sams, R. How, P. Collins, J. Polson, P. Kemp Bohan. Killing it: Can a Biofilm-Disrupting, Antimicrobial Wound Cleanser Improve Wound Healing? Abstract/Platform Presentation. SAGES Military Surgical Symposium, Nevada June 2021.
- Dr. Heyne's abstract was accepted for a podium presentation at the Ohio State University 2021 Fuld Institute for EBP National Summit
- Amy Lynn, MSN, APRN, WHNP-BC, Col. Candy Wilson, PhD, Jisuk Park, PhD, Maj. Michael P. Allen, DNP, Lt. Col. Cubby Gardner, DNP, Evan Myers, MD, MPH. Training and Health Outcomes of Women Diagnosed With Iron Deficiency Anemia During Basic Military Training. Podium presentation, 2021 SURF, 10 June 2021, San Antonio TX.
- Jessica Mendez, BS, Mireya Escandon, BS, Ashley D. Tapia, BS, Capt. William T. Davis, MD, Maj. Michael D. April, MD, DPhil, MSc, Lt. Col. Joseph K. Maddry, MD, Capt. Kyle

Couperus, MD, Maj. Jerry S. Hu, D.O., PharmD, Lt. Col. Eric Chin, MD, MBA, Maj. Steven G. Schauer, DO, MSCR. Development of the Defense Registry for Emergency Airway Management (DREAM). Podium presentation, 2021 SURF, 10 June 2021, San Antonio, TX.

- Karen L. Weis, PhD, RNC-OB, FAAN, Col. (Ret.) • Katherine C. Walker, MSN, RN, Tony T. Yuan, PhD, Thomas F. Gibbons, PhD, Wenyaw Chan, PhD, MS. Associations of Physiological Biomarkers to Psychosocial Measures of Pregnancy-Specific Anxiety and Depression with the M-O-M-S Intervention. Podium presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Daniel J. Portillo, Stephen Rivas, Gabriela Pineda, Sukhwinder Kaur, Leonid Bunegin, R. Lyle Hood, PhD, Sarah Johnson, Ryann Lauby, Andrew D. Fisher, MD, PA-C, LP, Lt. Col. Jason F. Naylor, DSc PA-C, Maj. Michael D. April, MD, DPhil, MSc USA, Maj. Brit Long, MD, FACEP USA, Maj. Steven G Schauer, DO, MS USA. Characterizing Perfusion Parameters within an Innovative Tissue Preservation Device. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Inez I. Cruz, PhD, LMSW, Craig Martinez, Danielle Lester, Maj. (P) Darrick Beckman, MD, MC. Diabetes Center of Excellence (DCOE) DSMES Repository 2018-2020: Diabetes Self-Management Education and Diabetes Distress. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Lance McGinnis, BSN, Rebecca Heyne, PhD, DNP, MBA, RN, CPNP-PC, EBP-C. COVID-19 Bio behavioral-Focused Front Line Healthcare Workers Self-Care Initiative. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Ashley Nazario-Toole, PhD, Thomas F. Gibbons, PhD, Hui Xia. Whole-Genome Sequencing of SARS-CoV-2 Identifies Mutations of Interest at JBSA/Lackland. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Capt. Alexandra Adams, MD, MPH, CPT, Capt. Robert Laverty, MD, Capt. Patrick McCarthy, MD, Capt. Joseph Marcus, MD, Capt. Joshua Boster, MD, Capt. Lauren Sattler, MD, Maj. Michal Sobieszczyk, MD, Col. Phillip Mason, MD, Lt. Col. Valerie Sams, MD. Tracheostomy Placement in Patients With Acute Respiratory Distress Syndrome Requiring Extracorporeal Membrane Oxygenation: Did COVID-19 Change Our Practice? Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- G. Jilani Chaudry, Q. Xia, J.L. Myers, M.Y. Caballero. Analysis of 27 SNPs in a Military Community Cohort of Type 2 Diabetes Mellitus. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Eric J. Galindo, Kiri L. Welsh, Ricardo Mejia-Alvarez, PhD, Adam Willis MD, PhD, Michaelann S. Tartis, PhD. Ultrasound Detection of Intracranial Cavitation in a Human Head Model During Blunt Impact. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Mireya A Escandon, BS, Ashley Tapia, BS, Andrew D. Fisher, MD, PA-C, Stacy Shackelford, MD, Vikhyat Bebarta, MD, Franklin Wright, MD, Susannah Nicholson, MD, Ronnie Hill, MS, James Bynum, PhD, Steven G Schauer, DO, MSCR. An Analysis of the Incidence of Hypocalcemia in Wartime Trauma Casualties. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Capt. Matthew W. Paulson, BA, USA, John D. Hesling, BS, Maj. (Ret) Jerome T. McKay, PhD, USA, Col. Vikhyat S. Bebarta, MD, USAF, Brig. Gen. Kathleen Flarity, DNP, PhD, USAF, Col. (Ret.) Sean Keenan, MD, USA, Lt. Col. Jason F. Naylor, USA, Maj. Andrew D. Fisher, MD, LP, USA, Maj. Michael D. April, MD, USA, James Bynum, PhD, Maj. Steven G. Schauer, DO, MS, USA. A Descriptive Analysis of Battlefield First Responder and Combat

Lifesaver Interventions during the Role 1 Phase of Care. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.

- Ryann S. Lauby, Camaren M. Cuenca, BS, Matthew A. Borgman, MD, Andrew D. Fisher, MD, LP, Vikhyat S. Bebarta, MD, Earnest E. Moore, MD, Philip C. Spinella, MD, FCCM, James Bynum, PhD, Steven G. Schauer, DO, MS. An Analysis of Outcomes for Pediatric Trauma Warm Fresh Whole Blood Recipients in Iraq and Afghanistan. Poster presentation, 2021 SURF, 10 June 2021, San Antonio, TX.
- Dr. Chaudry presented "Analysis of 27 SNPs in a military community cohort of type 2 diabetes mellitus". Poster Competition. 2021 SURF, 10 June 2021, San Antonio, TX.
- Col Antoinette Shinn, Lt Col Laurie Migliore, Dr. Jennifer Thorton, Ms. Antoinette M. McNearly-Garvin, Mr. Randy Denis, Ms. Ruby Langeslay, Ms. Delicia Echevarria. Fluid Immersion System versus Traditional Mattress for Pressure Dispersion. Abstract for presentation: Virtual Tri-Service Nursing Research Program Dissemination Course, 16 Oct 2020.
- Dr. Sheila Savell, Mr. Darren Baldwin. Prehospital Ultrasound: A Literature Review. Virtual Poster: Virtual Tri-Service Nursing Research Program Dissemination Course, 16 Oct 2020.
- Vikhyat Bebarta, Adit Ginde, Erik Weitzel, Daniel Tolmar. HIBISCUS: Human Interferon Beta-1a In Severe Coronnavirus. Virtual presentation. University of Colorado-Denver, Anschutz Medical Campus, Center for COMBAT Center Research Symposium, 30 October 2020.
- Ana Fernandez-Bustamante, John L. Kendall, Patrick Ng. Predictive modeling including point-of care lung ultrasound (P-LUS) for emergency triage of patients with acute respiratory symptoms related to COVID-19. Virtual presentation. University of Colorado-Denver, Anschutz Medical Campus, Center for COMBAT Center Research Symposium, 30 October 2020.
- Adit Ginde, Vikhyat Bebarta, Patrick Ng. Trial of Early Antiviral Therapies during Non-hospital outpatient Window (TREAT NOW) for COVID-19. Virtual presentation. University of Colorado-Denver, Anschutz Medical Campus, Center for COMBAT Center Research Symposium, 30 October 2020.
- V. Sams, R. How, P. Collins, J. Polson, P. Kemp Bohan. Killing it: Can a Biofilm-Disrupting, Antimicrobial Wound Cleanser Improve Wound Healing? Abstract/Platform Presentation. Boswick Symposium Hawaii March 2021.

July 2021

Publications:

- Anderson KL, Evans JC, Castaneda MG, Boudreau SM, Maddry JK, Morgan JD. Effects of Left Ventricular Versus Traditional Chest Compressions in a Traumatic Pulseless Electrical Activity Model. *Military Medicine*. 2021 Jun 18. <https://pubmed.ncbi.nlm.nih.gov/34143215/>
- Moulton MN, Kay CL, Romain JT, Morrow BD, Bobele GM. Clostridioides difficile-Associated Atypical Hemolytic-Uremic Syndrome Successfully Treated With Eculizumab: A Case Report and Literature Review. *Critical Care Explorations*. 3(7): e0475, 2021, July. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8280067/>
- Stigall KS, Sleeter JJ, Thomas SB, Schechtman DW, Blough PE, Rall JM, Kauvar DS. Performance of a Novel Temporary Arterial Shunt in a Military-Relevant Controlled Hemorrhage Swine Model. *The Journal of Trauma and Acute Care Surgery*. 2021 May 18. <https://pubmed.ncbi.nlm.nih.gov/34117170/>

- Rhon DI, Molloy JM, Monnier A, Hando BR, Newman PM. Much work remains to reach consensus on musculoskeletal injury risk in military service members: A systematic review with meta-analysis. *European Journal of Sport Science EJSS : Official Journal of the European College of Sport Science*. 1-19, 2021 Jun 18. <https://pubmed.ncbi.nlm.nih.gov/33993835/>
- Hewitt CW, Pombo MA, Blough PE, Castaneda MG, Percival TJ, Rall JM. Effect of the Abdominal Aortic and Junctional Tourniquet on chest compressions in a swine model of ventricular fibrillation. *Am J Emerg Med*. 2021 Jul; 45:297-302. doi: 10.1016/j.ajem.2020.08.075. Epub 2020 Aug 27. PMID: 33046311
- Maddry J, Newberry R, Paredes R, Rall J, Castaneda M, Effect of Fluid Resuscitation During Zone 1 Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) in a Swine model of Hemorrhage (Sus scrofa), DoD stakeholders/collaborators, DTIC.

Presentations:

- Wilson C. & Gardner, C. (2021). Training and health outcomes of women diagnosed with iron deficiency anemia during basic military training. Presentation. Uniformed Services University of the Health Sciences Research Days, Bethesda, MD (virtual).
- Lynn, A. (2021). Training and health outcomes of women diagnosed with iron deficiency anemia during basic military training. Presentation. SAMHS and Universities Research Forum (SURF). San Antonio, TX.

August 2021

Publications:

- Voss, JE, Skarzynski, M, McAuley, EM, Maier, EJ, Gibbons, T, Fries, A, Chapleau. Variants in SARS-CoV-2 associated with mild or severe outcome. *Evolution, Medicine, & Public Health*. 27 June 2021. <https://doi.org/10.1093/emph/eoab019>
- Nazario-Toole, A, Nguyen, HM, Xia, H, Frankel DN, Kieffer, JW, Gibbons, TF, Sequencing SARS-CoV-2 from Antigen Test. 18 July 2021. <https://doi.org/10.1101/2021.07.14.21260291>
- Walker, Lauren E., Cameron T. McCabe, Jessica R. Watrous, Eduard Poltavskiy, Jeffrey T. Howard, Jud C. Janak, Laurie Migliore, Ian J. Stewart, and Michael R. Galarneau. Prospective evaluation of health outcomes in a nationwide sample of aeromedical evacuation casualties: methods from a pilot study. *Military Medicine* (2021). <https://pubmed.ncbi.nlm.nih.gov/34345898/>
- Yang D, Beauvais A, Forbes WL, Beckman D, Estes J, Martinez C, Wardian J. Relationship between Body Mass Index and Diagnosis of Obesity in the Military Health System Active Duty Population. *Military Medicine* (2021) Jul 23. <https://pubmed.ncbi.nlm.nih.gov/34296273/>
- Marcus JE, Frankel DN, Pawlak MT, Casey TM, Enriquez E, Yun HC. Effect of Arrival Quarantine on Subsequent COVID-19 Testing in a Cohort of Military Basic Trainees. *Military Medicine* (2021) Jun 18. <https://pubmed.ncbi.nlm.nih.gov/34142709/>
- Savell SC, Baldwin DS, Blessing A, Medellin KL, Savell CB, Maddry JK. Military Use of Point of Care Ultrasound (POCUS). [Review]. *Journal of Special Operations Medicine* 21(2):35-42, 2021 summer. <https://pubmed.ncbi.nlm.nih.gov/34105119/>

Podium Presentations:

- Ricardo Mejia- Alvarez, PhD, Adam Willis, MD, PhD, Michaelann Tartis, PhD, Scott Miller, PhD, Zane Lybrand, PhD. Building Standardized Exposures and Phantoms for Blast Testing. Oral presentation. Center for Neuroscience and Regenerative Medicine (CNRM), Mini MHSRS 2021, Virtual, 23-24 August 2021.
- Tony Yuan, PhD, Adam Willis, MD, PhD, Elijah Miranda, Ann Marie DiGeorge Foushee, Ricardo Mejia- Alvarez, PhD, , Michaelann Tartis, PhD, Zane Lybrand, PhD, Suhas Vidhate,

PhD. Exposure to Biomarkers: Translating Macroscale Physics to Cellular mechanics. Oral presentation. Center for Neuroscience and Regenerative Medicine (CNRM), Mini MHSRS 2021, Virtual, 23-24 August 2021.

Poster Presentations: N/A

MHSRS August 2021 (Virtual-products posted on website)

Podium Presentations:

- August Blackburn PhD, Victor Sylvia PhD, Ahsley Nazario-Toole PhD, Thomas Gibbons PhD, Carl Brinkley PhD, Debra Niemeyer PhD. Precision Medicine Research: Aligning with requirements and avoiding potential pitfalls. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Capt William Davis, MD, Maj Patrick Ng, MD, Julie Cutright, RN, Crystal Perez, RN, Shelia Savell, PhD, Lt Col Joseph Maddry, MD. Descriptive analysis of COVID-19 aeromedical evacuations by Critical Care Air Transport Teams. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Maj William G. Gensheimer MD, MAJ Gary Legault MD, CDR Kyle Miller MD, LTC Jennifer Stowe, O.D., Jeanette Little, Mabel Cooper. Forward Operating Base Expert Telemedicine Resource Utilizing Mobile Application for Trauma (FOXTROT). Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Stacy Shackelford, MD, Caryn Stern, PhD, Andrew Hall, MD, Linda Benavides, MD, Jeffrey Conner, MD, Erik Desoucy, DO, Remealle How, MD, Peter Kreishman, MD, Blair Lee, MD, Marc Northern, MD, Bradley Rittenhouse, MD, Sandra Wanek, MD, Jennifer Gurney, MD, Jay Baker, MD. Analysis of Damage Control Surgery Procedures Performed by Small Surgical Teams. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Steven G Schauer, DO, MS, Michael D April, MD, DPhil, MSc, Allyson A Arana, PhD, Joseph K Maddry, MD, Mireya A Escandon, BS, Carlissa D Linscomb, BS, Dylan C Rodriguez, BS, Victor A Convertino, PhD. Efficacy of the Compensatory Reserve Measurement in an emergency department trauma populations. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Patrick C. Ng, MD; Julie Cutright, BSN, RN; Alejandra Mora, MS; Joni A. Paciocco, ADN, RN; Crystal A. Perez, BSN, RN; Lauren K. Reeves, MsPH; Lt Col Joseph K. Maddry, MD. Management of combat casualties during aeromedical evacuation from a role 2 to a role 3 medical facility. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Ana Fernandez-Bustamante, MD, PhD, Tim Tran, MD, Juliana Wilson, MD, Matthew Riscinti, MD, Vikhyat Bebart, MD, Jerome T McKay, PhD, John Kendall, MD, Maj (S) Patrick Ng, MD. Predictive modeling including point-of care lung ultrasound (P-LUS) for emergency triage of patients with acute respiratory symptoms related to COVID-19. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Michael P. Francis, PhD, Nardos Sori, PhD, Amrita Dasgupta, PhD, Gregory DiFelice, MD, Andrew Shean, MD. Bioactive Suture as the Implant: Microfluidic Extruded Collagen Fibers in Biological Braided Implants to Optimize Surgical Repair for Common Warfighter Ligament and Tendon Injuries. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Holly Chapapas, MS, Paul M. Sherman, MD, Bianca Cerqueira, PhD, John Sladky MD, Noel D. Montgomery, PhD, Jennie M. Burns, PhD, Benjamin T. Kalinosky, PhD. Directed Energy Exposure Medical Evaluation using a Swine (*Sus scrofa domestica*) Magnetic Resonance Imaging and Biomarker Model. Oral Presentation. MHSRS-2021, August 2021 (virtual).

- Sarah B. Thomas, MD; Matthew D. Read, MD; Mauer Biscotti, MD; Lydia C. Piper, MD; Valerie G. Sams, MD; Bernadette S. Elliott, RN; Kathryn A. Negaard, RN; Phillip Mason, MD, MD; Jason Radowsky, MD. Effect of Nursing Ratios on Extracorporeal Membrane Oxygenation Patient Outcomes. Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Rafael J Veraza, PhD, MPH, Olivia Parry, MD, Justin Sleeter, MD, Jaclyn L Yracheta, MD, Jorge Peña, BS, Diandra Wood, BS, Zach Homas, BS, Cody Hinshaw, BS, Jennifer Hinshaw, BS, Desiree Ramano, BS, Kristina Andrijaustkaite, PhD, MS, MEd, Jaclyn Merlo, BS, Israel Jessop, MSE, Michelle Watt, RN, Nicholas L Robbins, DO Erik Weitzel, MD, Leonid Bunegin, BS. Twenty-four hour hypothermic machine perfusion of porcine limbs using the Universal Limb Stasis System for Extended Storage (ULiSSES™). Oral Presentation. MHSRS-2021, August 2021 (virtual).
- Karen L. Weis, PhD, RN, FAAN, Col(ret), Tony T. Yuan, PhD, Katherine C. Walker, MSN, RN, Wenyaw Chan, PhD, Jacqueline M. Killian, Col, USAF, NC, Monica Lutendorf, CAPT, USN, MC. Prenatal Mentoring Intervention Fosters Improved Maternal Well-Being and Outcomes at Three Major Military Installations. Oral Presentation. MHSRS-2021, August 2021 (virtual).

Poster Presentations:

- Mireya A Escandon, BS, Ashley Tapia, BS, Andrew D Fisher, MD, PA-C, Stacy Shackelford, MD, Vikhyat Bebartha, MD, Franklin Wright, MD, Susannah Nicholson, MD, Ronnie Hill, MS, James Bynum, PhD, Steven G Schauer, DO, MSCR. An analysis of the incidence of hypocalcemia in wartime trauma casualties. Poster presentation. MHSRS-2021, August 2021 (virtual).
- John Hesling, BS, Matthew Paulson, BA, Jerome McKay, PhD, Vikhyat Bebartha, MD, Kathleen Flarity, DNP, PhD, Sean Keenan, MD, Andrew Fisher, MD, MPAS, Matthew Borgman, MD, Mike April, MID, DPhil, MSc, James Bynum, PhD, Steven Schauer, DO, MS. Defining pediatric supermassive transfusion and the contributing injury patterns in the combat environment. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Brandon M Carius, Grace E Bebartha, Michael D April, MD, DPhil, MSc, Andrew D Fisher, MD, MPAS, Julie Rizzo, MD, Patrick Ketter, PhD, Joseph C Wenke, PhD, Vikhyat S Bebartha, MD, James Bynum, PhD, Steven G Schauer, DO, MS. An analysis of injury patterns and prehospital interventions associated with the development of sepsis. Poster presentation. MHSRS-2021, August 2021 (virtual).
- David J. Douin, MD, Layne Dylla, MD, PhD, Erin L. Anderson, RN; MAJ Steven G. Schauer, DO, MS; John D. Rice, PhD; Conner Jackson, MS; Col Vikhyat S. Bebartha, MD; Adit A. Ginde, MD, MPH. Association between Hyperoxia, Supplemental Oxygen, and Discharge Destination in Critically Ill Patients with Traumatic Brain Injury. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Alejandro Bernal, MD, Jennifer Hinshaw, MS, Jorge J Pena, BS, Cody Hinshaw, BS, Zachary Homas, BS, Diandra Wood, BS, Desiree Romano, BS, Kreg A Zimmern, BS, Nick McMahon, MS, Jian Ling, PhD, Thomas J Percival, MD, Wensheng Zhang, MD, PhD, Erik K Weitzel, MD. Local Mesenchymal Stem Cell Therapy for the Ex Vivo Preservation of a Porcine Vascularized Composite Allografts with 24-hour Normothermic Machine Perfusion. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Manuel Y. Caballero, MS, Chet R. Voelker, BS, La'Quita Armstrong-Spenrath, BS, Susana N. Asin, PhD. Comparison of Biomeme Go-Strips on Franklin three9 versus the Biomeme Go-

Plate on the QuantStudio 7 for SARS-CoV-2 Detection. Poster presentation. MHSRS-2021, August 2021 (virtual).

- Bridney Lundquist, BS, Jessica M. Stukel Shah, PhD, Joseph Macaitis, MS, Melissa A. Grunlan, PhD, Wen Lien, DMD MS, Alexander J. Burdette, PhD, Heuy-Ching Wang, PhD. Utilizing a Shape Memory Polymer Scaffold To Evaluate Three Tissue Sources of Mesenchymal Stromal Cells in a Rat Calvarial Defect Model. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Joseph L. Spano, MS; April Cadena, BS; Amber Mallory, PhD; Luis Martinez, PhD. Lateral Flow Immunoassay Development for Multiplex Detection of Waterborne Pathogens Utilizing Surface Enhanced Raman Scattering (SERS) Reporter-Encapsulated. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Capt William Davis, MD, Maj Patrick Ng, MD, Kimberly Medellin, RN, Julie Cutright, RN, Crystal Perez, RN, Allyson Arana, PhD, Lt Col Joseph Maddry, MD. Association of hypocalcemia with clinical outcomes of combat casualties with TBI transported by Critical Care Air Transport Teams. Poster presentation. MHSRS-2021, August 2021 (virtual).
- R. Madelaine Paredes Ph.D, Maria Castaneda M.S., Dylan Rodriguez B.S., Kimberly Medellin RN, Kaysie Canellis, Susan Boudreau RN, COL (R) Normalynn Garrett Ph.D, CRNA1, Lt Col Joseph Maddry M.D. Hydroxocobalamin as a Resuscitation Fluid in Volume-Controlled and Uncontrolled Hemorrhage Models in Swine (*Sus scrofa*). Poster presentation. MHSRS-2021, August 2021 (virtual).
- R. Madelaine Paredes Ph.D, Dylan Rodriguez B.S., Maria Castaneda M.Sc., Kimberly Medellin RN., Kaysie Canellis, Susan Boudreau RN, COL (R) Normalynn Garrett Ph.D, CRNA, Lt Col Joseph Maddry M.D. Comparison of Cold-Stored vs. Room Temperature Platelets Combined With Packed Red Blood Cells, in Two Swine Models of Hemorrhage (Volume-Controlled and Uncontrolled). Poster presentation. MHSRS-2021, August 2021 (virtual).
- Ryan K Newberry, DO, R Madelaine Paredes, PhD, Jason M Rall, PhD, Maria G Castaneda, MS, Perry E Blough, BS, Ed B G Barnard, Theodore T Redman, MD, Leopoldo C Cancio, MD, Joseph K Maddry, MD. Analysis of Whole Blood Infusion during Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) in a Swine Model of Hemorrhagic Shock. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Rafael J Veraza, PhD, MPH, Olivia Parry, MD, Justin Sleeter, MD, Jorge Peña, BS, Diandra Wood, BS, Zach Homas, BS, Cody Hinshaw, BS, Jennifer Hinshaw, BS, Jaclyn Merlo, BS, Riley Lopez, BS, Israel Jessop, MSE, Michelle Watt, RN, Erik Weitzel, MD, Leonid Bunegin, BS. Pressurized Perfusion Preservation System Reduces Limb Edema after 24-hour Preservation at Subnormothermia. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Kimberly Baker, MS, Perry Blough, BS, Stephen Anderson, PhD, Jason Rall, PhD, Meredith Ervin, Mark Ervin, MD, Amber Mallory, PhD. Effectiveness of FDA-Cleared Wound Disinfectants for Sanitizing Reusable Surgical Instruments Used By Ground Surgical Teams. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Margaux M. Salas, PhD, Gadi Pelled, PhD, DMD, Pei Han, Howard E. Gill III, MD, Karl A. Lautenschlager, MD, Tristan T. Lai, MD, Cameron M. Shawver, DO, Matthew B. Hoch, DO, Brandon J. Goff, DO, Aaron M. Betts, MD, Zhengwei Zhou, PhD, Cody Lynch, Grant Schroeder, Maxim Bez, PhD, MD, Marcel M. Maya, MD, Catherine Bresee, MS, Zulma Gazit, PhD, John P. McCallin III, MD, Dan Gazit, PhD, DMD, Debiao Li, PhD. Novel Non-Invasive

MRI Method for the Diagnosis of Discogenic Pain. Poster presentation. MHSRS-2021, August 2021 (virtual).

- Matthew Liu, MD candidate, Wensheng Zhang, MD, PhD, Margaux Salas, PhD, Erik Weitzel, MD. The Association between Radiofrequency Radiation Exposure and Audiovestibular Dysfunction: A Systematic Review. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Capt Robert B. Lavery MD, CPT Alexandra M. Adams MD MPH, CPT Patrick M. McCarthy MD, MAJ Michal J. Sobieszczyk MD, Col Phillip E. Mason MD, Lt Col Valerie G. Sams MD. Tube Thoracostomy Complications in Patients with ARDS Requiring ECMO: Worse in COVID-19 Patients? Poster presentation. MHSRS-2021, August 2021 (virtual).
- Kenneth Tanyi, MD, Lisa Paulson, PA, Jason Forcum, Gina Pickard, James Stovall, Cynthia Beal, Allison Hayden, Roger Montoya, Valerie Sams, MD, Remealle How, MD. Stop the Clot: Implementation of a Venous Thromboembolism Prophylaxis Initiative at the Department of Defense's Level 1 Trauma Center. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Antonio O Sanchez II, BS, Anna R. Ochoa, MS, Sallie L. Hall, MS, MLT(AMT), Chet R. Voelker, BS, Susana N. Asin, PhD. Comparison of Next Generation Diagnostic Systems for the Detection of SARS-CoV-2. Poster presentation. MHSRS-2021, August 2021 (virtual).
- MAJ Steven G Schauer, DO, MS, Jessica Mendez, BS, Nguvan Uhaa, LVN, MAJ Ian L Hudson, DO, MPH, CPT Wells L Weymouth, MD. A prospective, feasibility assessment of a novel, disposable video laryngoscope with special operations medical personnel in a mobile helicopter simulation setting. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Paul Sherman MD, Richard Chapleau, Holly Chapapas MS, Bianca Cerqueira PhD, CharLee Martin, Summer Hughes, James Baldwin, PhD, John Sladky MD, and Michael Grinkemeyer, MD. U-2 Pilot Longitudinal MRI Brain Screening Program - Is There a Role for Imaging and Precision Medicine in the Future? Poster presentation. MHSRS-2021, August 2021 (virtual).
- Amanda Strickland, MS, Tho Hua, MS, Manuel Caballero, MS, G. Jilani Chaudry, PhD. Large-scale screening of human B-lymphoblastoid cell lines reveals super sensitive and completely resistant lines to E. coli Shiga toxin 2. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Leopoldo C. Cancio, COL (ret.), MC, USA, Colleen M. Reid, LTC (ret.), AN, USA, Thomas H. Edwards, LTC, VC, USA, Anthony P. Basel, MAJ, MC, USA, Andrew P. Cap, COL, MC, USA, Erik K. Weitzel, Col, USAF, MC. Victory Hospital: Conversion of Research Facilities into an Alternate Care Site for Pandemic Response. Poster presentation. MHSRS-2021, August 2021 (virtual).
- Joseph Spano, MS, Cortes Williams III, PhD, Ann Marie DiGeorge Foushee, Tony Yuan, PhD, Luis A. Martinez, PhD. Surface-Functionalized Electrospun Polycaprolactone/Fibrinogen Wound Dressing for Enhancing the Stability of Platelet-derived Growth Factor. Poster presentation. MHSRS-2021, August 2021 (virtual).

Abstracts Submitted (Not accepted):

- Abstract MHSRS: Large-scale screening of human B-lymphoblastoid cell lines reveals super sensitive and completely resistant lines to E. coli Shiga toxin 2
- Abstract # MHSRS-21-03758: Effects of Repeated Exposure to Military Occupational Blast: Implications for Warfighter Health and Performance - Frequency dependent pressure response: Using organoids for brain trauma research: Oral presentation.
- Abstract # MHSRS-21-03760: Effects of Repeated Exposure to Military Occupational Blast: Implications for Warfighter Health and Performance - Poster presentation

- Abstract # MHSRS-21-03746: Standardization of Blast and Unconventional Exposure Novel Injuries - Characterization of Material Properties and Deformation in a Biofidelic Phantom during Mild Head Impacts using MRI: Poster presentation
- Abstract # MHSRS-21-03779: Effects of Repeated Exposure to Military Occupational Blast: Implications for Warfighter Health and Performance - In-vitro and Ex-vivo Studies of blast-TBI Using Highly Dynamic Loading: Poster presentation
- Abstract # MHSRS-21-03784: Effects of Repeated Exposure to Military Occupational Blast: Implications for Warfighter Health and Performance - Advanced Blast Chamber for Reproducible Blast Exposures at Full-scale: from sub-concussive planar wave to high overpressure blasts with multiple reflections: Poster presentations
- Abstract # MHSRS-21-03789: Standardization of Blast and Unconventional Exposure Novel Injuries - Building standardized exposures and phantoms for blast testing: presentation
- Abstract # MHSRS-21-03795: Effects of Repeated Exposure to Military Occupational Blast: Implications for Warfighter Health and Performance - Ultrasound Detection of Intracranial Cavitation in a Human Head Phantom during Impact: Poster presentation
- Abstract # MHSRS-21-03805: Evaluation of Subconcussive Blast Exposure in Military Training - Design, Fabrication, and Validation of a Human Head Phantom for Blunt and Blast Exposure Testing: Poster presentation
- Abstract # MHSRS-21-04507: Ongoing Health Issues in Military High Performance Flight - Aviator's willingness to utilize an anonymous telephone health line and history of health seeking from non-aeromedical providers: a survey. Presentation
- Abstract: Local Mesenchymal Stem Cell Therapy for the Ex vivo Preservation of a Porcine Vascularized Composite Allotransplant with 24-hour Normothermic Machine Perfusion.
- Abstract MHSRS: The Association Between Radiofrequency Radiation Exposure and Audiovestibular Dysfunction: A Systematic Review
- Abstract MHSRS: Reconstruction of a Large Nerve Gap Using a Continuous Distraction Neurogenesis Device in Porcine Peripheral Nerve Injury
- Abstract MHSRS: Cerebral Cortex Organoids for Standardized Brain Trauma research: High Frequency Pressure Frequency Dependent Biological Response
- Abstract MHSRS: Inter-facility aeromedical transports compared to pre-hospital transports
- Abstract MHSRS: Defense Readiness Education and Materiel Laboratory for Austere-Care Nascent Delivery DREAMLAND. Presentation

September 2021

Publications:

- Migliore, L., Hopkins, D., Jumpp, S., Brackett, C., & Cromheecke, J. Medical Intelligence Team Lessons Learned: Early Activation and Knowledge Product Development Mitigate COVID-19 Threats. *Military Medicine*, Volume 186, (Supplement_2), September-October 2021. <https://doi.org/10.1093/milmed/usab190>
- Migliore L, Braun L, Stucky CH, Gardner C, Huffman S, Jumpp S, Bell E. Considerations for Acute and Emergent Deployed Mental Health Patient Management and Theater Transports: A Scoping Review. *Military Medicine*, Volume 186, Issue 9-10, September-October 2021. <https://doi.org/10.1093/milmed/usaa568>
- Grace C. Lee, PharmD., Ph.D., Marcos I. Restrepo, M.D., MSc, Ph.D., Nathan Harper, M.S., Muthu Saravanan Manoharan, M.S., Alisha M. Smith, Ph.D., Justin A. Meunier, B.S., Sandra Sanchez-Reilly, M.D., Aamir Ehsan, M.D., Anne P. Branum, B.S., Caitlyn Winter, M.S., Lauryn Winter, M.S., Fabio Jimenez, B.S., Lavanya Pandranki, M.S., Andrew Carrillo, B.S.,

Graciela L. Perez, CCRC, Antonio Anzueto, M.D., Hanh Trinh, M.D., Monica Lee, M.D., Joan M. Hecht, R.N., Celida Martinez, R.N., Ph.D., Raj T. Sehgal, M.D., Jose Cadena, M.D., Elizabeth A. Walter, M.D., Kimberly Oakman, R.N., Raymond Benavides, B.S., Jacqueline A. Pugh, M.D., South Texas Veterans Health Care System COVID-19 team, Scott Letendre, M.D., Maristella Steri, Ph.D., Valeria Orrù, Ph.D., Edoardo Fiorillo, M.D., Ph.D., Francesco Cucca, M.D., Alvaro G. Moreira, M.D., Nu Zhang, Ph.D., Elizabeth Leadbetter, Ph.D., Brian K. Agan, M.D., Douglas D. Richman, M.D., Weijing He, M.D., Robert A. Clark, M.D., Jason F. Okulicz, M.D., Sunil K. Ahuja, M.D. Immunologic resilience and COVID-19 survival advantage. *Journal of Allergy and Clinical Immunology* (2021). <https://doi.org/10.1016/j.jaci.2021.08.021>.

- Yang Liu, PhD, Manuel Y. Caballero, Tho Hua. Development of a highly sensitive goggle for fluorescence-based detection of Middle East respiratory syndrome coronavirus (MERS-CoV) and other pathogens. Final report. DTIC Accession Number: AD1116293, Report Date: August 2020.
- Joseph K. Maddry, Erica M. Simon, Lauren K. Reeves, Alejandra G. Mora, Melissa A. Clemons, Nicole M. Shults, Shelia Savell, Alexis Blessing & Benjamin D. Walrath. Impact of a Standardized Patient Hand-off Tool on Communication between Emergency Medical Services Personnel and Emergency Department Staff, *Prehospital Emergency Care*, 25:4, 530-538, August 27, 2020. <https://doi.org/10.1080/10903127.2020.1808745>.
- Maddry, Joseph K. Savell, Shelia, Perez, Crystal A. Corporate Author: 59th Medical Wing. Influence of Time to Transport on Clinical Outcomes Following Evacuation from Theater (LRMC/CONUS). Technical Report, Final Report. DTIC Accession Number: AD1130706, Report Date: 2020-12-29
- Samantha R Hune, BS, Ann-Marie DiGeorge Foushee, BS, Meredith C Ervin, Stephen J Anderson, PhD, Mark D Ervin, USAF, MC, Amber M Mallory, PhD. An Analysis of the Effectiveness of High-level Disinfection for Surgical Instruments Used by Department of Defense Austere Surgical Teams. *Military Medicine*, Volume 186, Issue Supplement_1, January-February 2021, Pages 122–128, <https://doi.org/10.1093/milmed/usaa440>. Published: 25 January 2021
- Karen L. Weis, Tony T. Yuan, Katherine C. Walker, Thomas F. Gibbons, Wenyaw Chan. Associations between Physiological Biomarkers and Psychosocial Measures of Pregnancy-Specific Anxiety and Depression with Support Intervention. *Int. J. Environ. Res. Public Health* 2021, 18(15), 8043; <https://doi.org/10.3390/ijerph18158043>.
- Ryan Newberry, DO, MPH, Derek Brown, MD, MPH, Thomas Mitchell, MD, Joseph K. Maddry, MD, Allyson A. Arana, PhD, Jennifer Achay, NREMT, Stephen Rahm, NRP, Brit Long, MD, Tyson Becker, MD, Gareth Grier, MRCP, FRCER, Gareth Davies, MRCP, FRCER. Prospective Randomized Trial of Standard Left Anterolateral Thoracotomy versus Modified Bilateral Clamshell Thoracotomy Performed by Emergency Physicians. *Annals of Emergency Medicine*, VOLUME 77, ISSUE 3, P317-326, MARCH 01, 2021. Published: August 15, 2020. <https://doi.org/10.1016/j.annemergmed.2020.05.042>.
- Mendez J, Escandon M, Tapia AD, Davis WT, April MD, Maddry JK, Couperus K, Hu JS, Chin E, Schauer SG. Development of the Defense Registry for Emergency Airway Management (DREAM). *Europe PMC, Medical Journal (Fort Sam Houston, Tex.)*, 01 Apr 2021, (PB 8-21-04/05/06):93-97. PMID: 34251672
- Penny Pierce, Felichism Kabo MArch, Jacqueline Killian, Christopher Stucky, Sarah Huffman, Laurie Migliore, Lisa Braun. Social network analysis: Exploring connections to advance

military nursing science. *Nursing Outlook*, Volume 69, Issue 3, May–June 2021, Pages 311–321. <https://doi.org/10.1016/j.outlook.2020.12.013>

- Kenton L Anderson, MD, Jacqueline C Evans, MD, USAF, MC, Maria G Castaneda, MS, Susan M Boudreau, RN, BSN, Joseph K Maddry, MD, USAF, MC, Jeffrey D Morgan, MD, USAF, MC. Effects of Left Ventricular Versus Traditional Chest Compressions in a Traumatic Pulseless Electrical Activity Model. *Military Medicine*, usab229, <https://doi.org/10.1093/milmed/usab229>. Published: 18 June 2021
- Tapia AD, Cuenca CM, Johnson SJ, Lauby RS, Bynum J, Fernandez W, Long A, Long B, Maddry JK, April MD, Chin EJ, Schauer SG. Assessing Challenges with Access to Care for Patients Presenting to the Emergency Department for Non-Emergent Complaints. *Europe PMC, Medical Journal (Fort Sam Houston, Tex.)*, 01 Jul 2021, (PB 8-21-07/08/09):74-80. PMID: 34449865
- Ashley E Sam, DO, MC USAF, Mitchell T Hamele, MD, MC, USA, Renée I Matos, MD, MPH, MC, USAF, Angela M Fagiana, MD, MC, USAF, Matthew A Borgman, MD, MC, USA, Joseph K Maddry, MD, MC USAF, Steven G Schauer, DO, MS, MC, USA. A Descriptive Analysis of Pediatric Transports throughout the U.S. Indo-Pacific Command. *Military Medicine*, Volume 186, Issue 7-8, July-August 2021, Pages e743–e748, <https://doi.org/10.1093/milmed/usaa506>. Published: 01 July 2021
- Vincent Mysliwiec, MD, Kristi E. Pruiksma, PhD, Matthew S. Brock, MD, Casey Straud, PsyD, Daniel J. Taylor, PhD, Shana Hansen, MD, Shannon N. Foster, DO, Kelsi Gerwell, PhD, Brian A. Moore, PhD, F. Alex Carrizales, BA, Stacey Young-McCaughan, RN, PhD, Robert Vanecek, PhD, Jim Mintz, PhD, Alan L. Peterson, PhD, on behalf of the STRONG STAR Consortium. The Military Service Sleep Assessment: an instrument to assess factors precipitating sleep disturbances in U.S. military personnel. *Journal of Clinical Sleep Medicine* Vol. 17, No. 7. Published Online: July 1, 2021 <https://doi.org/10.5664/jcsm.9206>
- Steven G. Schauer, Michael D. April, Allyson A. Arana, Joseph K. Maddry, Mireya A. Escandon, Carlissa D. Linscomb, Dylan C. Rodriguez, Victor A. Convertino. Efficacy of the compensatory reserve measurement in an emergency department trauma population. *Transfusion; Journal of AABB*. First published: 16 July 2021 <https://doi.org/10.1111/trf.16498>. Funding information: U.S. Department of Defense, J9 Research and Development Directorate, Grant/Award Number: J917EC07
- Ricardo Mejía-Alvarez, Joseph Kerwin, Suhas Vidhate, Paul Sandherr, Evan Patton, Bianca Dávila-Montero, Atacan Yucesoy and Adam Willis. Large cross-section blast chamber: design and experimental characterization. *Measurement Science and Technology*, Volume 32, Number 11. Published 23 July 2021, © 2021 IOP Publishing Ltd
- Melissa A. Little, Margaret C. Fahey, Xin-Qun Wang, G. Wayne Talcott, Timothy McMurry & Robert C. Klesges (2021) Trends in Tobacco Use among Young Adults Presenting for Military Service in the United States Air Force between 2013 and 2018, *Substance Use & Misuse*, 56:3, 370-376, DOI: 10.1080/10826084.2020.1868517.
- Talcott, Gerald Wayne PhD; McMurry, Timothy PhD; Ebbert, Jon MD; Fahey, Margaret C. MA; Wang, Xin Qun MS; Murphy, James G. PhD; McDevitt-Murphy, Meghan PhD; Little, Melissa A. PhD; Klesges, Robert C. PhD. Dissemination of a Universally Delivered Brief Alcohol Intervention in United States Air Force Technical Training. *Journal of Addiction Medicine*: July/August 2021 - Volume 15 - Issue 4 - p 318-324. doi: 10.1097/ADM.0000000000000763.

- Alisha M. Smith, PhD., Nathan Harper, MS, Justin A. Meunier, BS, Anne Branum, BS, Fabio Jimenez, BS, Lavanya Pandranki, MS, Andrew Carrillo, BS, Charles S. Dela Cruz, MD, PhD., Marcos I. Restrepo, MD, PhD., Diego J. Maselli, MD, Cynthia G. Rather, CCRC, Anna H. Heisser, MD, Daniel A. Ramirez, MD, Weijing He, MD, Robert A. Clark, MD, Charles P. Andrews, MD, Scott E. Evans, MD, Jacqueline A. Pugh, MD, Nu Zhang, PhD., Grace C. Lee, PharmD., PhD., Alvaro G. Moreira, MD, Leopoldo N. Segal, MD, Robert M. Ramirez, MD, Robert L. Jacobs, MD, Muthu Saravanan Manoharan, MS, Jason F. Okulicz, MD, Sunil K. Ahuja, MD. Repetitive aeroallergen challenges elucidate maladaptive epithelial and inflammatory traits that underpin allergic airway diseases. *Journal of Allergy and Clinical Immunology*. Volume 148, Issue 2, August 2021, Pages 533-549. <https://doi.org/10.1016/j.jaci.2021.01.008>.
- Jones, K., Williams, C., Yuan, T., Digeorge-Foushee, A.M., Wilson, R.C., Burton, T., Hamlin, C.N. and Martinez, L., 2021. Comparative in vitro study of commercially available products for alveolar ridge preservation. *Journal of Periodontology*.

Podium Presentations:

- Migliore, L., Brackett, C., Huffman, S., Repko, E., Heyne, R., Lovett-Floom, L. (2021, September 15). COVID-19 biobehavioral-framed palliative care toolkit. [Conference Podium Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- Migliore, L., Fox, A. (2021, September 15). Psychological health, coping strategies and preferences of David Grant U.S.A.F. Medical Center COVID-19 deployers: A critical needs assessment. [Conference Podium Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- White, T., Ahmed, A., Ravel, J. Regan, M. (2021, September 15). The Influence of Diet Quality on Vaginal Microbiota Composition in Pregnant Women. [Conference Podium Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- Raps, S. J. (2021, September 15). Characterizing eHealth Behaviors of Active Duty Service Members. [Conference Podium Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- Wilson C. & Gardner, C. (2021). Training and health outcomes of women diagnosed with iron deficiency anemia during basic military training. Uniformed Services University of the Health Sciences Research Days, Bethesda, MD (virtual).
- Lynn, A. (2021). Training and health outcomes of women diagnosed with iron deficiency anemia during basic military training. SAMHS and Universities Research Forum (SURF). San Antonio, TX.
- GW Talcott. The steady march of advancing public health using multilevel approaches: lessons from the trenches of combatting military and veteran tobacco use. Presentation at the 42nd Annual Meeting of the Society of Behavioral Medicine, *Annals of Behavioral Medicine*. Virtual, 2021.

Poster Presentations:

- Migliore, L., Fox, A. (2021, September 15). Psychological health, coping strategies and preferences of David Grant U.S.A.F. Medical Center COVID-19 deployers: A critical needs assessment. [Conference Poster Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.

- Migliore, L., Brackett, C., Huffman, S., Repko, E., Heyne, R., Lovett-Floom, L. (2021, September 15). COVID-19 biobehavioral-focused palliative care toolkit. [Conference Poster Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- White, T., Ahmed, A., Ravel, J. Regan, M. (2021, September 15). The Influence of Diet Quality on Vaginal Microbiota Composition in Pregnant Women. [Conference Poster Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- Raps, S. J. (2021, September 15). Characterizing eHealth Behaviors of Active Duty Service Members. [Conference Poster Presentation] Tri-Service Nursing Research Program Evidence Based Practice Dissemination Course, 13-15 Sep 2021, San Antonio, TX, United States.
- GW Talcott. Racial and Ethnic Tobacco Disparities in the U.S. Military. Poster presentation at the 27th Annual Meeting, Society for Research on Nicotine and Tobacco. Virtual, 2021.
- GW Talcott. Hispanic Ethnicity May Be Associated with Short Sleep Duration and Elevated Sleep Distress in U.S. Air Force Trainee. Poster presentation at the 35th Annual Meeting of the Associate Professional Sleep Societies, SLEEP-Virtual. 2021.
- GW Talcott. Identifying Behaviors that Influence Sleep Health and Increase Risk for Insomnia among Airmen in Technical Training. Poster presentation at the 55th Annual Meeting of the Association for Behavioral and Cognitive Therapies. Virtual, 2021.
- Col Wen Lien. Fatigue of Dental High-Speed, Air-Driven Hand piece by Steam Sterilization. Poster presentation at the International Association for Dental Research (IADR), Virtual, 2021.
- Col Candy Wilson. The Evaluation of a Standard Clinical Practice Guideline for Sustaining Status in Female Warriors. Poster presentation at the Women in Combat Summit, Virtual, 2021.

Abstracts:

- Lt Col Matthew Brock. The Role of Reproductive Health in Nightmares and PTSD in Active Duty Military Personnel. Submitted for the COMBAT PTSD Virtual Conference.
- Lori R. Diseati, MD, MPH, Shawn M. Garcia, MD, MPH FACPM, Atheer T. Jaffar, MPH, Dianna M. Holub, CCRC. Musculoskeletal injuries among United States Air Force (USAF) basic military trainees: a utility study of the novel Trainee Health Online Repository (THOR) to identify gender differences and operational impact of training unit embedded athletic trainers. Abstract for MHSRS 2021.
- Dr. Alexander Burdette, Joseph Macaitis. Evaluation of a novel shape memory polymer scaffold with bone marrow mesenchymal stromal cells for healing large bone defects in a rat model. Abstract for SURF 2021.
- Col Candy Wilson. Iron deficiency in military women. Abstract for Women in Combat Summit 2021, Virtual.

October 2021

Publications:

- Ghergherehchi CL, Shores JT, Alderete J, Weitzel EK, Bittner GD Methylene blue enhances polyethylene glycol-fusion repair of completely severed rat sciatic nerves. *Neural Regeneration Research*. 16(10):2056-2063, 2021 Oct. <https://pubmed.ncbi.nlm.nih.gov/33642394/>
- Berglund AJ, Kim J, Walter RJ, McCann ET, Morris MJ. Longitudinal Changes in Spirometry in Deployed Air Force Firefighters. *Journal of Occupational & Environmental Medicine*. 2021 Aug 27. <https://pubmed.ncbi.nlm.nih.gov/34456323/>
- Powell TA, Mysliwiec V, Brock MS, Morris MJ. OSA and cardiorespiratory fitness: a review. *Journal of Clinical Sleep Medicine*. 2021 Aug 26. <https://pubmed.ncbi.nlm.nih.gov/34437054/>

- Victor A Convertino, Steven G Schauer, Erik K Weitzel, Sylvain Cardin, Mark E Stackle, Michael J Talley, Michael N Sawka, Omer T Inan. Wearable Sensors Incorporating Compensatory Reserve Measurement for Advancing Physiological Monitoring in Critically Injured Trauma Patients. *Sensors* 2020, 20(22), 6413: 10 November 2020. PMID: 33182638. PMCID: PMC7697670. doi: 10.3390/s20226413.
- Phillip M Kemp Bohan, Patrick M McCarthy, Morgan E Wall, Alexandra M Adams, Robert C Chick, Jason E Forcum, Jason S Radowsky, Remealle A How, Valerie G Sams. Safety and efficacy of low-titer O whole blood resuscitation in a civilian level I trauma center. *Journal of Trauma and Acute Care Surgery*: August 2021 - Volume 91 - Issue 2S - p S162-S168. doi: 10.1097/TA.0000000000003289.

Podium Presentations: N/A

Poster Presentations: N/A