

BREAKOUT SESSIONS Thursday, 6 August 2026					
Breakout Session Time	Breakout Session Name	Speaker Presentation Time	Presentation Title	MHSRS Number	Presenter
Two Hour Session 0845 - 1045	Mitigating Bloodborne Infections in Future Combat Operations COL Julie Ake, USA MAJ Brennan Cebula, USA Moderators	0845 - 0900	Utilizing Electronic Medical Record Data for the Surveillance of STIs Among Active-Component Service Members, 2016–2025	MHSRS-26-2382	Kati Touchstone, MPH
		0900 - 0915	Small Molecule Screen Identifies FDA-Approved Drugs Capable of Enhancing Neutrophil Responses to the Pathogen, Candida Albicans	MHSRS-26-2382	Michael Mansour, M.D., Ph.D.
		0915 - 0930	Evaluation of a Laboratory Developed Test for the Qualitative Detection of HIV-1 Total Nucleic Acid on the QuantStudio Dx	MHSRS-26-4065	Jacob Rutherford, Ph.D.
		0930 - 0945	Robust Humoral Responses From Novel HIV-1 Multiple Founder Variant-based Env Vaccines Delivered by Distinct Platforms in Macaques	MHSRS-26-5145	Wenyao Zhang, Ph.D.
		0945 - 1000	Computational Modeling of the Ex Vivo Treatment of Whole Blood with a Broadly Neutralizing Antibody for HIV Prophylaxis	MHSRS-26-4214	MAJ Gina Griffith, USA
		1000 - 1015	Protecting the Blood Supply: Anti-HIV-1 Novel Bispecific Antibody Preventing Infection after High-Dose Intravenous SHIV Exposure	MHSRS-26-4749	Caroline Subra, Ph.D.
		1015 - 1030	Safety & Antiviral Effect of the Bispecific Monoclonal Antibody 10E8.4/ibalizumab to Inform Development for HIV Prophylaxis	MHSRS-26-5209	Trevor Crowell, M.D., Ph.D.
		1030 - 1045	Additional Questions for Presenters Discussion Closing Remarks	MHSRS-26-NA-06	
Two Hour Session 0845 - 1045		0845 - 0900	Optimizing the Tranexamic Acid (TXA) Dose for Prophylactic Use to Improve Hemostasis Post-injury	MHSRS-26-4211	Ashley Trejo, M.S.

	Future Anti Shock Solutions in the Pre Hospital Environment Shannon Gupta, M.S. Lusha Xiang, M.D. Moderators	0900 - 0915	A Field-Deployable Oxygen-Carrying Volume Expander Maintains Oxygenation & Survival in a Rat Model of Severe Hemorrhagic Shock	MHSRS-26-3861	Han Li, Ph.D.
		0915 - 0930	Intravenous GJA1-20k Limits Ischemia-Reperfusion Injury in a Large Animal Model of Acute Coronary Ischemia	MHSRS-26-5191	Christian Moreau, Ph.D.
		0930 - 0945	Outcomes of Prehospital Blood Products in Military Casualties in Profound Shock	MHSRS-26-4779	MAJ Daniel Barsky, USA
		0945 - 1000	CX-01: A Novel Anti-Shock Agent Preserving Vital Organ Function, Immunometabolism, & Hemodynamic Stability after Hemorrhage	MHSRS-26-4719	Yansong Li ,M.D., M.S.
		1000 - 1015	In Vitro Vascular Endothelial Response to a Novel Whole Blood Analogue for Resuscitation	MHSRS-26-4661	Dao H. Hao, Ph.D.
		1015 - 1030	Evaluation of a Non-Hemoglobin Oxygen Carrier (OMX) in a High-Volume Exchange Transfusion	MHSRS-26-5308	William Nugent, Ph.D.
		1030 - 1045	POI Nomacopan as a Novel Anti-Shock Therapy Targeting Immunometabolism, Neurocardiovascular Function, & Thromboinflammation	MHSRS-26-4746	Yangsong Li ,M.D., M.S.
Two Hour Session 0845 - 1045		0845 - 0900	The Resilience of Muscle Regenerative Capacity Following Volumetric Muscle Loss	MHSRS-26-4705	Andrew Clark
		0900 - 0915	A First-in-Class REV-ERB Antagonist to Accelerate Skeletal Muscle Regeneration & Restore/Enhance Warfighter Performance	MHSRS-26-4800	Thomas Burris, Ph.D.
		0915 - 0930	“Too much of a good thing” – How TrkA+ Nerves Enhance or Subvert Tissue Regeneration	MHSRS-26-2297	Manyu Zhu, Ph.D.

	Traumatic Wound Healing: Regeneration of Musculoskeletal & Neural Tissues Kenneth Furdella, Ph.D. Jesse Trump, M.A. Moderators	0930 - 0945	Handheld PS-OCT for Intraoperative Nerve Assessment & Repair Guidance	MHSRS-26-3669	Hyun-Sang Park, Ph.D.
		0945 - 1000	From Inflammation to Remodeling: Molecular Patterns Linked to Combat Wound Outcomes	MHSRS-26-3805	2LT Moriamo Adedeji
		1000 - 1015	Targeting Cholesterol to Accelerate Chronic Wound Healing: Statin-Loaded Hydrogel Improves Healing Outcomes in Preclinical Models	MHSRS-26-2519	Ivan Jozic, Ph.D.
		1015 - 1030	Management of Lower Extremity Wounds with Exposed Bone Using a Transforming Powder Dressing: A Case Series	MHSRS-26-5714	LT Natalie Wittmack, USN
		1030 - 1045	Non-Toxic Local Immunoregulation Using 1,25(OH)2 Vitamin D3 Prolongs Vascularized Composite Allograft Survival	MHSRS-26-5961	Guldane Zehra Kocyigit, M.D.
Two Hour Session 0845 - 1045		0845 - 0900	Optimizing the Human Weapon System: Air & Space Continuous Fitness Assessment Study Findings	MHSRS-26-NA-07	Chris Myers, Ph.D.

	Optimizing the Human Weapon System: Utilizing Wearable Sensor Data to Inform Readiness William Tharion, M.S., MBA Malena Rone, Ph.D. Moderators	0900 - 0915	Wearable Data Utility and Perceived Value: Lessons Learned from Monitoring Sleep on Nine Warships During Navy Deployments	MHSRS-26-5420	Rachel Markwald, Ph.D.
		0915 - 0930	Optimizing the Human Weapons System (OHWS) Ground	MHSRS-26-4150	Dennis McGurk, Ph.D.
		0930 - 0945	From Accurate Enough to Used Enough: Linking Decision-Relevant Accuracy to Real-World Adoption in Military Wearables	MHSRS-26-3671	Stephen Suydam, Ph.D. Josh Hagen, Ph.D.
		0945 - 1000	Assessment of Physiologic Monitors for Measurement of Heart Rate During Experimental Diving Operations	MHSRS-26-1038	LT Megan Leonard, USN
		1000 - 1015	PilotSense - Decoding the Human Factor: Physiological Insights for Safer Aviation	MHSRS-26-3576	Ziv Peremen, Ph.D.
		1015 - 1030	The Advantages of the Ear for Monitoring Physiological Readiness in Dynamic Conditions: Blood Pressure & Blood Flow	MHSRS-26-4109	Daniel Lee
		1030 - 1045	A Distributed Wearable Ultrasound Platform for Neuromuscular Monitoring: Applications for Military Operational Readiness	MHSRS-26-4647	Erica L. King, Ph.D. MAJ Mende Wentzel, USA
Two Hour Session 0845 - 1045		0845 - 0900	Exertional Rhabdomyolysis in Warfighters: A 2025 Joint Evidence-Based Clinical Practice Guideline	MHSRS-26-2293	Francis O'Connor, M.D., MPH
		0900 - 0915	Exertional Heat Illness Severity During Military Training in Wartime Conditions	MHSRS-26-4164	LTC Itay Ketko, USA
		0915 - 0930	Heat-Stress Evaluation Using an Anatomically Detailed 3-D Virtual Human Thermoregulatory Model	MHSRS-26-2343	Jaques Reifman, Ph.D.
		0930 - 0945	Investigating the Mechanism of Sudden Cardiac Death in Tactical Athletes	MHSRS-26-3662	Lydia Hellwig, PhD, ScM

	Warfighter Exertional Illness & Operations in Extreme Environments COL Laura McGhee, USA Francis G. O'Connor, M.D., MPH MAJ Caroline E. Murphy, USA Moderators	0945 - 1000	Optimizing Tactical Athlete Health: Feasibility of Integrating Automated ECG Diagnostics into Entry-Level Training	MHSRS-26-4603	Marc Franzos, M.D., Ph.D.
		1000 - 1015	Pulmonary Screening in Asymptomatic Military Pilot Candidates: From Universal Screening to Risk-Integrated Aeromedical Assessment	MHSRS-26-4540	LTC Ivan Gur, IDF
		1015 - 1030	Pre-Clinical Modeling of Military-Relevant Stressors: Effects of PM2.5 & Psychosocial Stress	MHSRS-26-5617	Brandon M. Gibson
		1030 - 1045	Development of a Submersible Multi-modal Physiological Monitoring System for Enhanced Diver Safety & Mission Readiness	MHSRS-26-5296	Shelby Critcher, Ph.D.
Two Hour Session 0845 - 1045	Whole-Body Vibration, Head-Supported Mass, & Posture Khalid Barazanji, Ph.D. Abigail Tyson, M.S. Moderators	0845 - 0900	The Effect Fatigue on Cervical Extensor Load Sharing Under Fighter Helmet Loads	MHSRS-26-5829	Zachary Domire
		0900 - 0915	Update Performance-Based Limits of Mass Properties for Army Aviation Helmets Based on Female & Male Legacy Vibration Studies	MHSRS-26-3863	Khalid Barazanji, Ph.D.
		0915 - 0930	Shock Mitigation Boot for Standing Operators Aboard High-Speed Maritime Craft	MHSRS-26-3579	Mark Roser, B.S.
		0930 - 0945	Whole-Body Vibration in En Route Care Providers: Validation of Performance Challenges & Mitigation Strategies	MHSRS-26-3780	Adrienne Madison, Ph.D.

		0945 - 1000	Review of Potential Relationships Between Posture, Vibration, Head-Supported Mass, & Musculoskeletal Injury in U.S. Army Medics	MHSRS-26-3775	Braeden Long, B.S.
		1000 - 1015	Novel Orthosis Reduces Neck Pain Associated with Forward Head Posture in Active Duty Service Members – A Randomized Trial	MHSRS-26-4313	Marin Smith, DPT
		1015 - 1030	Vibroacoustic Integrated Sensing & Tactical Actuation (VISTA)	MHSRS-26-5846	Noori Kim, Ph.D.
		1030 - 1045	Q&A	MHSRS-26-NA-08	Khalid Barazanji, Ph.D. Abigail Tyson, M.S.
Two Hour Session 0845 - 1045	Machine Learning & Artificial Intelligence in Military Health, Readiness, & Performance Part 1/Expeditionary Interest Dominic E. Nathan, Ph.D.	0845 - 0900	AI Trust Stack: Zero-Trust Infrastructure for Securing Clinical AI Decision Support Across Military Roles of Care	MHSRS-26-4391	James Thornton, P.E.
		0900 - 0915	Validation of the Field AI Triage Algorithm for Mass Casualty Triage in Special Operations Surgical Teams	MHSRS-26-4994	Emanuele Lagazzi
		0915 - 0930	AI-Assisted Intracranial Aneurysm Detection on Resource-Constrained Military Hardware	MHSRS-26-5506	Bryson Hewins, M.D., M.S.
		0930 - 0945	Temporal Transformer Networks for Continuous Life-Saving Intervention Prediction in Trauma Care	MHSRS-26-5080	Peter Hu, Ph.D.
		0945 - 1000	Operationalizing Multi-Modal AI in Military Medicine Through a Secure, Interoperable Data & Communications Fabric	MHSRS-26-5698	John Killcommons
		1000 - 1015	Development of a Predictive Model for Critical Colonization in Combat-Related Extremity Wounds using RGB Image Data	MHSRS-26-3791	Cameron D. Leonard, B.S.

		1015 - 1030	A Hypothesis-Driven Framework for Automatic Gastrointestinal Diagnosis from Ultrasound in Austere Settings	MHSRS-26-5469	Juan P. Wachs, Ph.D.
		1030 - 1045	AI-Enabled Wearable Sensors for Real Time Heat Strain Prediction & Warfighter Readiness	MHSRS-26-3734	Sinan Sousan, Ph.D.
Two Hour Session 1115 - 1315	Advances for Managing Complex Organ Injury in Prolonged Field Care Andrew D. Meyer, M.D., M.S. Therese West, Ph.D. Moderators	1115 - 1130	Aortic Cardiopulmonary Resuscitation Lowers Renal & Hepatic Inflammasome Activation & Lipid Peroxidation after Cardiac Arrest	MHSRS-26-4195	Namrata Tiwari, M.D.
		1130 - 1145	POI Nomacopan Improves Renal Outcomes after Polytrauma by Restoring Immunometabolism & Suppressing Thromboinflammation	MHSRS-26-4806	Gabriel Jeppson, B.S.
		1145 - 1200	Sivelestat Improves Survival & Reduces Organ Dysfunction Following Polytrauma in a Rat Model	MHSRS-26-3621	Zhangsheng Yang, DVM, Ph.D.
		1200 - 1215	Transfusion Intensity, Not Balance, Drives Acute Kidney Injury in Hemorrhagic Shock	MHSRS-26-3950	LTC Omri Shental, IDF
		1215 - 1230	Host-Directed, Injury Agnostic Microvascular Repair to Prevent & Treat Secondary Acute Lung Injury	MHSRS-26-2288	Elizabeth R. Sharlow, Ph.D.
		1230 - 1245	Pre-clinical Validation of a Novel Alginate-Based Sealant for the Treatment of Traumatic Lung Injuries	MHSRS-26-2490	Daniel Weiss, M.D., Ph.D.
		1245 - 1300	RISE: Aerosolized Perfluorocarbons for Oxygenation in Acute Respiratory Distress Syndrome in Austere Environments	MHSRS-26-4317	Andrew Jones, MBA

		1300 - 1315	Drone-based Warfare: Veno-Venous ECMO for Management of ARDS due to Polytrauma with Smoke Inhalation Injury after a Drone Attack	MHSRS-26-2547	Andriy Batchinsky, M.D.
Two Hour Session 1115 - 1315	Drugs/Devices for Battlefield Brain Trauma Starlyn Okada-Rising, Ph.D. Rania Abutarboush, Ph.D. Moderators	1115 - 1130	Early Vasopressin 1a Receptor (V1aR) Antagonism Reduces Neuronal Damage & Prevents Functional Deficits after Mild TBI	MHSRS-26-3585	Neal G. Simon, Ph.D.
		1130 - 1145	Evaluation of Safety & Efficacy of Acetate-Based Energy Supplements Following Penetrating TBI	MHSRS-26-3757	Jignesh Pandya, Ph.D.
		1145 - 1200	Determining the Efficacy of Intranasal Delivery of the Superoxide Scavenger TEMPOL Following TBI	MHSRS-26-3762	Jack Hutcheson, Ph.D.
		1200 - 1215	Osmotic Transport Device Reduces Lesion Volume in a Rat Model of Penetrating Traumatic Brain Injury	MHSRS-26-3977	Joseph Dwyer, Ph.D.
		1215 - 1230	C1 Inhibitor Improves Neuroprotection after Blast-Induced TBI by Modulating Ferroptosis & Cellular Survival Pathways	MHSRS-26-4760	Kathryn West-Jeppson, M.S.
		1230 - 1245	P13 Peptide Against Blast-Induced Traumatic Brain Injury	MHSRS-26-4801	CPT Robert Bruce, USA
		1245 - 1300	Dexamethasone Nanotherapeutics for Traumatic Brain Injury: Properties, Cellular Uptake, Toxicity, & Anti-Inflammatory Activity	MHSRS-26-5769	Ken Webb, Ph.D.
		1300 - 1315	Clinical Trial of Inhaled Nitric Oxide for Treatment of Microvascular Dysfunction in Acute Traumatic Brain Injury	MHSRS-26-5941	Samuel Shin, M.D., Ph.D.
Two Hour Session 1115 - 1315		1115 - 1130	Exosomes Derived from Human Stem Cells Differentially Impact Brain & Heart Tissues - Primary Targets of Acute Stress Response	MHSRS-26-2379	Nabarun Chakraborty, M.S., MBA
		1130 - 1145	Randomized Phase 2 of agentT-797 as a Pathogen-Agnostic Treatment of Hypoxemic Pneumonia/ARDS in Austere & Conflict Environments	MHSRS-26-26-5284	Khrystyna Orlynska, M.D.
		1145 - 1200	Human Adipose Stem Cells Derived Lyophilized Exosomes at Room Temperature Retain Therapeutic Efficacy for Traumatic Brain Injury	MHSRS-26-26-2500	Niketa Patel, Ph.D.

	Cellular Therapeutics for Trauma Barbara Christy, Ph.D. Moderator	1200 - 1215	Off-the-Shelf Reparative Regulatory T Cell Therapy Has Clinical Potential for Resolution of Damage Following Acute Lung Injury	MHSRS-26-26-5903	Kassandra Baron, B.A.
		1215 - 1230	Biomanufacturing Architecture Programs Early Regenerative Signaling in Porcine Combat-Relevant Wounds	MHSRS-26-26-2071	A.J. Mellott, Ph.D.
		1230 - 1245	Retinoic Acid Based Lymphangiogenic Therapy for Posttraumatic Lymphedema	MHSRS-26-26-5981	Alex K. Wong, M.D.
		1245 - 1300	Purified Exosome Product as a Therapy for Sulphur Dioxide Lung Injury: Insights into Mechanism & Sex-Specific Gene Expression	MHSRS-26-26-4339	Bryan McCranor, Ph.D.
		1300 - 1315	Engineered Mesenchymal Stem Cell-Derived Extracellular Vesicles Deliver Bioactive IL-1Ra and GH-1 to Enable Disc Regeneration	MHSRS-26-4242	Wenchun Qu, MD, Ph.D.
Two Hour Session 1115 - 1315	Warfighter Neck & Back Pain: Mechanisms to Modeling to Information Guidance Charles Weisenbach, M.S. Bethany Shivers, Ph.D. Moderators	1115 - 1130	Pain & Symptom Severity in Fighter Pilots vs Age-matched Civilians: The MCW Military Aircrew Neck & Back Pain Study	MHSRS-26-2100	Brian Stemper, Ph.D.
		1130 - 1145	Differences in Fighter Pilot Disc Height Loss Compared to Controls May Indicate Altered Degenerative Etiology in Early Career	MHSRS-26-2249	Rachel Cutlan
		1145 - 1200	Multimodal Sonography & Radiomics Reveal Structural & Functional Changes to the Thoracolumbar Fascia in Low Back Pain Patients	MHSRS-26-5874	MAJ Georgina Flynn-Smith, USA
		1200 - 1215	Wearing Body Armor Changes Shoulder Girdle & Trunk Kinematics During Lifting to Shoulder Height	MHSRS-26-3750	Joseph Kardouni, PT, Ph.D.
		1215 - 1230	A Comparison of Helmet Loads on the Cervical Spine in Non-neutral Postures across the Anthropometric Spectrum	MHSRS-26-5835	Zachary Domire, Ph.D.

		1230 - 1245	Effectiveness of Bilevel Cervical Total Disc Replacement vs Fusion for Neck Pain in an F-35 Setting under Ejection Loading	MHSRS-26-4189	Narayan Yoganandan, Ph.D.
		1245 - 1300	Enhancing Force Readiness: Safe 0.55T MRI for Active-Duty Members with Spinal Cord Stimulators	MHSRS-26-4088	Laleh Golestani Rad, Ph.D.
		1300 - 1315	Wearable Sensor-based assessment of Low Back Function in Military Settings	MHSRS-26-4650	William Marras, Ph.D.
Two Hour Session 1115 - 1315	Directed Energy Medical Research for the Future Fight Daniel Bryden, Ph.D. Moderator	1115 - 1130	Wound Progression & Healing in Non-surgically Debrided Directed Energy Wounds	MHSRS-26-5010	Marc Thompson, Ph.D.
		1130 - 1145	Evaluation of Wound Progression in Infected & Uninfected Directed Energy Injuries for Battlefield Wound Care	MHSRS-26-5004	Randy Stone, Ph.D.
		1145 - 1200	95 GHz Radiofrequency Energy Elicits Unique Functional & Molecular Changes in Immune & Vascular Endothelial Cells	MHSRS-26-4782	Liliane Moorehead, B.S.
		1200 - 1215	Modeling Directed-Energy Laser Injury Using Human iPSC-Derived Retinal Pigment Epithelium	MHSRS-26-4914	Hope Newcomer-Neeson, M.S.
		1215 - 1230	Retinal Damage Thresholds from Exposure to Nonlinear Optical Effects Generated within the Eye by a Single NIR Femtosecond Pulse	MHSRS-26-2195	Emily Boice, Ph.D.
		1230 - 1245	Retinal Injury Thresholds for High Repetition Rate Multiple-Pulse Laser Exposures	MHSRS-26-4019	Morgan Schmidt, Ph.D.
		1245 - 1300	The Molecular Pathology of RF-Induced Bioeffects in a Human Forebrain Model	MHSRS-26-4918	Claire Bell, Ph.D.
		1300 - 1315	Distinctive Muscular Injury Following Near-Infrared High-Energy Laser (NIR-HEL) Exposure	MHSRS-26-2465	Kirui Dickson
Two Hour Session 1115 - 1315		1115 - 1130	Pregnancy & Postpartum Periods & Risk of Musculoskeletal Injury in Active Duty Service Women	MHSRS-26-5425	Elizabeth Hisle-Gorman, MSW, Ph.D.
		1130 - 1145	Menstrual Health & the Military: Perspectives & Actions to Support Optimal Performance & Readiness	MHSRS-26-5174	Marni Sommer, DrPH, MSN, RN

	Military Women`s Health Research Lynette Hamlin, Ph.D. Angela M. Simmons, Ph.D., RN, Moderators	1145 - 1200	Associations Between Musculoskeletal Injuries & Pelvic Floor Disorders in Active Duty Service Women 2017-2022	MHSRS-26-4004	Bhavna Singichetti
		1200 - 1215	Geospatial Analysis of Access to Emergency Obstetric Care for Civilian & Military Populations in the US: 2024 Update	MHSRS-26-4342	Michelle Mellers, Ph.D.
		1215 - 1230	Occupational Influence on Physical Performance & Sleep Quality in Female US Naval & Marine Corps Aviation Personnel	MHSRS-26-5008	Joshua Winters
		1230 - 1245	Heel Fit Deficiency in Standard Military Boots: Survey Findings & a Morphologically Adaptive Last Design	MHSRS-26-3581	Jessica Hunter, Ph.D.
		1245 - 1300	Female & Male Differences in the Associations Between Body Mass Index & Stress Fractures: A 193,047 Combat Soldiers Cohort	MHSRS-26-4033	CPT Adi Horesh, IDF
		1300 - 1315	Multimodal MRI Characterization of Pregnancy-Related Structural & Functional Brain Reorganization	MHSRS-26-4340	Kavita Singh
Two Hour Session 1115 - 1315		1115 - 1130	The Future is Here... Almost: Evaluating the Capabilities of Artificial Intelligence in Mental Health Surveillance	MHSRS-26-3853	Darrah Edwards, MPH