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Poster Sessions



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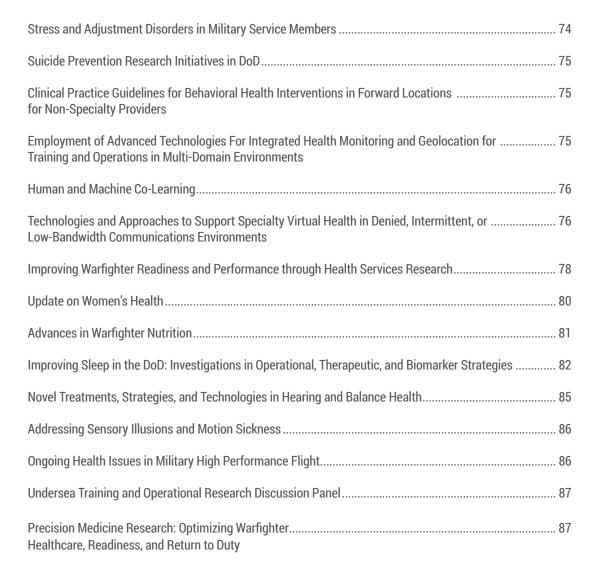
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MILITARY HEALTH SYSTEM MILITARY HEALTH SYSTEM RESEARCH SYMPOSIUM 2022



Poster Session I





















Advances in Prolonged Care

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Surgical Team Performance: The Impact of Familiarity and Team Size in Military Surgical Teams

Presentation Author: LTC Christopher Stucky

MHSRS-22-05075 - POSTER SESSION 1 - #2

Battlefield-Deployable Subdermal Oxygen-Sensing Device for Use in Emergency Tourniquets

Presentation Author: Dr. Matthias Muller

MHSRS-22-05175 - POSTER SESSION 1 - #3

Ruggedized Normothermic Machine Perfusion for Organ and Tissue Preservation and Replantation

Presentation Author: Dr. Girish Srinivas

MHSRS-22-05176 - POSTER SESSION 1 - #4

Technology for Sterile Water Generator

Presentation Author: Dr. Girish Srinivas

MHSRS-22-05229 - POSTER SESSION 1 - #5

Engineering Cells to Produce Recombinant Heparin, A Modern Alternative to Animal Sources

Presentation Author: Dr. Bryan Thacker

MHSRS-22-05264 - POSTER SESSION 1 - #6

Ruck - Wagon - House - Train; How We Got to Prolonged Field Care

Presentation Author: Mr. Alan Hawk

MHSRS-22-05273 - POSTER SESSION 1 - #7

Predictors of Initial Management Failure in Traumatic Hemothorax: A Prospective Multicenter Analysis

Presentation Author: Maj Carl Beyer

MHSRS-22-05337 - POSTER SESSION 1 - #8

Portable Single-Exposure Dual-Energy X-ray Detector for Improved Point-of-Care Diagnostic Imaging

Presentation Author: Dr. Steven Tilley

MHSRS-22-05352 - POSTER SESSION 1 - #9

Stand-Alone Augmented Reality Patient Anatomy Overlay on the IVAS / Hololens 2 for Medics

Presentation Author: Dr. Christoph Leuze

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Far-forward Surgical Sterilization

Presentation Author: Mr. John Hodges

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Big Data Insights into Acute Compartment Syndrome

Presentation Author: Dr. Ed Harvey

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Presentation Author: Dr. Zachary Rengert

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Presentation Author: Dr. John Fortune

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Presentation Author: Dr. Giulia Mansutti

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Presentation Author: Dr. Noor Obaidi

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Development of Transnasal Echo-Oximeter for Shock Management in Forward Casualty Care

Presentation Author: Dr. Li Li

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Reliable Vascular Access Guidance by Portable Light-Enhanced Ultrasound in Prolonged Field Care

Presentation Author: Dr. Li Li











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A Dual-Action Nitric Oxide-Releasing Slippery Surface Coating for Out of Hospital Organ Support: First Evaluation at Clinically Relevant Blood Flow Rate for Partial Lung Support

Presentation Author: Dr. Teryn Roberts

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Presentation Author: Mr. Zachary Allen

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Presentation Author: Dr. Yanyi Zang

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Therapeutic Interfering Particles (TIPs): A Single-dose HIV-1 Antiviral to Protect Blood-product Recipients in Resources-limited Settings

Presentation Author: Dr. Leor Weinberger

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Irradiation of Whole Blood at 25 or 75Gy has No Effect on Metabolome of Red Blood Cells and

Platelets in Storage

Presentation Author: Dr. Daniel Darlington

MHSRS-22-05355 - POSTER SESSION 1 - #122

High-dose Radiation Exposure of Cold-Stored Whole Blood Does Not Affect Hemostatic Function

Presentation Author: Ms. Sandra Becerra











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A Pilot Assessment of the Novel Handheld LifeFlow Device for Rapid Infusion of Blood Products

Presentation Author: Ms. Fabiola Mancha

MHSRS-22-05424 - POSTER SESSION 1 - #124

Increased Walking Blood Bank Safety through Silicon Chipbased Rapid Blood Typing and Disease Screening

Presentation Author: Mr. Eric Larsen

MHSRS-22-05426 - POSTER SESSION 1 - #125

Bradykinin B2 Receptor Antagonist (Icatibant) Improves Survivability in Rats with Lethal Hemorrhagic Shock

Presentation Author: Dr. Xiaowu Wu

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A Preclinical Rat Model of Acute Radiation Exposure for Testing Cellular Therapies

Presentation Author: Dr. Xiaowu Wu

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Administration of Prolyl Hydroxylase Domain Inhibitor Improves Survivability in Rats with Lethal Hemorrhagic Shock

Presentation Author: Dr. Xiaowu Wu

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Modular Stabilization of Whole Blood Components for Reconstitution and Transfusion at the Point of Injury

Presentation Author: Mrs. Lauren Costella

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Evaluation of Hyperosmotic Canine Plasma Suitable for Infusion

Presentation Author: Dr. Michael Meledeo

MHSRS-22-05586 - POSTER SESSION 1 - #130

Balanced Resuscitation and Earlier Mortality Endpoints: Bayesian Post-hoc Analysis of the PROPPR Trial

Presentation Author: CPT Danny Lammers

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Relative Efficacy of Different Reperfusion Solutions in an Experimental Model of Trauma/Hemorrhagic Shock

Presentation Author: Dr. Fernando dos Santos

MHSRS-22-05811 - POSTER SESSION 1 - #132

ARAI-TXA - Tranexamic Acid Auto-Injector - Setting a New Standard of Care in Pre-Hospital Hemorrhage Treatment

Presentation Author: Dr. Cindy Munoz

MHSRS-22-05923 - POSTER SESSION 1 - #133

Evaluation of Platelet Function Following Hypoxic Storage of Whole Blood

Presentation Author: Dr. Alan Weaver Jr

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Real-time Viscoelastic and Coagulation Properties of Blood in Contact with Various Classes of Topical Hemostatic Agents Measured Using a Contactless Nondestructive Method, In-vitro

Presentation Author: Dr. Dimitria Camasao

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Anticoagulant Choice for Storage of Blood Products Affects Platelet Activation Measured by Flow Cytometry

Presentation Author: Dr. Jacob Schriner

MHSRS-22-05979 - POSTER SESSION 1 - #136

Optimization of Protein Cocktail for Scavenging Hemolytic By-products

Presentation Author: Mr. Quintin O'Boyle

MHSRS-22-06004 - POSTER SESSION 1 - #137

ClearPlasma - Revolutionizing Trauma Treatment for Superior and Safer Plasma Transfusion

Presentation Author: MG George Alexander

MHSRS-22-06081 - POSTER SESSION 1 - #138

Tangential Flow Filtration Facilitated Washing of Human Red Blood Cells

Presentation Author: Ms. Megan Allyn

MHSRS-22-06089 - POSTER SESSION 1 - #139

Tangential Flow Filtration Facilitated Fractionation and PEGylation of Low and High Molecular Weight Polymerized Bovine Hemoglobin and Their Biophysical Properties

Presentation Author: Mr. Xiangming Gu

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Hyper-concentrated Plasma Provides a Good Alternative to Hypertonic Saline in RDCR

Presentation Author: COL Nicolas Prat

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Characterization of Non-Human Primate Whole Blood Cold Storage Coagulation Function

Presentation Author: Ms. Alejandra Lorenzen









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Surface Camouflaged Lumbricus terrestris Mega-hemoglobin for Diverse Oxygen Therapeutic Applications

Presentation Author: Mr. Chintan Sayla

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An Enzymatic Converter for Universal Blood Production Presentation Author: Dr. Hsin-Yeh Hsieh

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Using Stepdown Simulated Multiple Comparison Tests to Evaluate Statistical Differences in a Nested Blood Donor Study of Clot Retraction

Presentation Author: Dr. Laura Scott

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A Novel Approach to Customizing the Flow Profile for the Administration of Subcutaneous Immunoglobins for Individual Infusions with Benefits to Minimize or Eliminate Site Reactions - A Case Study

Presentation Author: Mr. Paul Seghers

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GATT-Patch Hemostatic Sealant Patch versus Flowable Hemostatic Matrix for Severe Parenchymatous Organ Bleeding

Presentation Author: Dr. Stuart Head

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Impact of Controlled and Uncontrolled Hemorrhage (Two-Hit Model) and Resuscitation on Coagulopathy and Hemostasis in Rats

Presentation Author: Dr. Bjorn Song

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Advances in Acoustofluidic Loading and Lyophilization of Human Red Blood Cells

Presentation Author: Mr. James Welch

Cellular Therapeutics for Treatment of Shock and Trauma

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ST266 Attenuates Inflammatory Cytokines and Improves Survival in a Mouse Model of LPS-induced Systemic Inflammation and Death

Presentation Author: Mr. Howard Wessel

MHSRS-22-05093 - POSTER SESSION 1 - #150

Hypotensive Resuscitation with Valproic Acid in Pigs with Traumatic Severe Hemorrhage

Presentation Author: Dr. Wenjun Martini

MHSRS-22-05336 - POSTER SESSION 1 - #151

Comparisons of Mesenchymal Stromal Cells Grown in a Novel Perfusion-based Bioreactor to Classic Two Dimensional Culture

Presentation Author: Dr. Maryanne Herzig

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A 24 Hour Cytokine Assay for MSC Immunomodulation Presentation Author: Dr. Maryanne Herzig

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Apoptotic Signaling by Cryopreserved Mesenchymal Stem Cells Differ After Thawing, Culture, and Cold Storage Presentation Author: Dr. Maryanne Herzig

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Pirfenidone Inhibits Migration, Proliferation and Fibrosis in an In Vitro Model of Proliferative Vitreoretinopathy

Presentation Author: Mrs. Jenny Mendez

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Amnion Cell Secretome-Mediated Therapy Initiated at 24h Post Experimental Brain Trauma Protects Against Traumatic Optic Neuropathy

Presentation Author: Mr. Benoit Mouzon

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Novel Platform for Delivery of Lung Cell Therapies

Presentation Author: Dr. Luiz Maracaja

MHSRS-22-05891 - POSTER SESSION 1 - #157

A Pilot Study of the Flow Rate and Pressure Differences Between Four Pressurized Intraosseous Infusion Strategies in an In-vivo Swine Model of Hemorrhagic Shock

Presentation Author: LT Phillip Fry

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Effects of Cold Storage on Mitochondrial Bioenergetics and Protein in Human Bone Marrow Derived Mesenchymal Stem Cells

Presentation Author: Ms. Tiffany Heard











4D Bio3 On-Demand Blood Program: Functional Characterization of Manufactured Red Blood Cells Derived from Human Hematopoietic Stem Cells

Presentation Author: Dr. Orion Furmanski

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Validating the Cellaca MX for Use in Cell Counting and Determination of Phosphatidyl Serine Externalization

Presentation Author: Mr. Isaac Abaasah

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Control of Severe Intra-abdominal Hemorrhage with Lyophilized Human Platelets Derivatives (Thrombosomes®) in a Non-Human Primate Model

Presentation Author: Dr. Ben Antebi

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Presentation Author: Dr. Katherine Badior

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Polymer-coated Microcarriers for Scalable Cellular Therapeutics Manufacturing in Serum-free, Enzyme-free Culture Conditions

Presentation Author: Dr. John Krutty

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Does the Adrenergic Agonist Norepinephrine Add Another Piece to the Malignant Hyperthermia Puzzle?

Presentation Author: Dr. Luke Michaelson

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Novel 3D Hydrogel System for Tailoring Stem Cell Biologics to Enhance Wound Healing

Presentation Author: Mr. Jacob Hodge

Emerging Technologies for Treatment of Non-compressible Torso Hemorrhage

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Intra-Colon Cooling Significantly Prolongs Lethal Hemorrhage Survival Duration in Rats

Presentation Author: Dr. Bingren Hu

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Blood-Based Biomarkers for the REBOA Management of Lethal Hemorrhage in Rats

Presentation Author: Dr. Bingren Hu

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Nature-Inspired Bioadhesives for Rapid and Coagulation-Independent Hemorrhage Control

Presentation Author: Mr. Patrick Rivelli

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A Virtual Coach Can Be Equivalent to a Human Instructor in REBOA Mastery Training: A Prospective Randomized Study

Presentation Author: Lt Col Yahya Acar

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Evaluation of Novel Hemostatic Agents in a Coagulopathic Swine Model of Non-compressible Hemorrhage

Presentation Author: Dr. Kim Gerling

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Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) Increases Cerebral Oxygen Saturation Following Hemorrhage in a Porcine Model of Injury

Presentation Author: Ms. Cecilia Castro

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Tranexamic Acid (TXA) Adjunctive to Resuscitative Endovascular Balloon of the Aorta (REBOA) for Hemorrhage Control Does Not Worsen Physiologic Response in a Porcine Hemorrhage Model

Presentation Author: Mr. Dominic Lonowski

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Comparative Effectiveness of Hemorrhage Detection Devices in a Simulation-Based Assessment

Presentation Author: Mr. James Gaudaen

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Augmented Reality Placement of Endovascular Resuscitative Devices Using the IOPS Image Guidance Technology Platform: Preclinical and Clinical Experience with a Novel Platform Relevant to Prolonged Field Care and Combat Casualty Care

Presentation Author: Mr. Vikash Goel









Pathophysiology of Combined Traumatic Injury

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Radiographic Review of Military Beneficiaries with Hip Disarticulation or Hemipelvectomy

Presentation Author: 2Lt Kaitlin Porter

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Mesenchymal Stem Cell Therapy Is Efficacious to Reduce the Combined Injury-Induced Mortality and Wound Healing Delay

Presentation Author: Dr. Juliann Kiang

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Norepinephrine Exacerbates Microvascular Permeability of the Neurovascular Unit: Implications for Neurocritical Care Presentation Author: Dr. Chris Bolden

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Metabolic Targeting of RPE Mesenchymal-transition for the Treatment of Proliferative Vitreoretinopathy

Presentation Author: Dr. Daisy Shu

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TRPV4-dependent Inflammasome Activation in Traumatic Ocular Neuropathy is Facilitated RGC Dysfunction and DeathPresentation Author: Dr. Valery Shestopalov

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Modeling Changes in Lung Inflammatory Responses to Bacteria after Traumatic Liver Injury in Pigs

Presentation Author: Dr. Leo Otterbein

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Disrupted Sleep after TBI May Be Associated with Abnormal Astrocytes and Tau Proteins

Presentation Author: Dr. Susan Schwerin

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Pathophysiological Indices after Blast Injury and Hemorrhage in a Swine Model of Prolonged Damage Control Resuscitation

Presentation Author: Ms. Tamara Fraker

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Repeated Low-level Blast Induces Chronic Neuropathological and Neurobehavioral Changes

Presentation Author: Dr. Ying Li

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Organized Pericatheter Thrombus Complicating Angel® Catheter Removal in a Combat Polytrauma Patient

Presentation Author: Lt Sarah Wright

Point of Injury Care: From Bench to Battlefield

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Amnion Membrane Product for Enhanced Wound HealingPresentation Author: Dr. Sean Murphy

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Development of a Reliable Pre-Clinical Impact Model of Post Traumatic Arthritis in Rabbit

Presentation Author: Dr. Julian Dilley

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Pre-Clinical Acute Compartment Syndrome with a Porcine Continuous Measurement Model

Presentation Author: Dr. Ed Harvey

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Abdominal Compartment Syndrome: Exploration of Continuous Monitoring in a Rat Model

Presentation Author: Dr. Ed Harvey

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Fabrication and Development of Therapeutic Microneedle Hydrogels for Burn Wound Field-Care

Presentation Author: Dr. Kirstin Jones

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Development of Therapeutic Polymeric Scaffolds to Mitigate Wound and Burn Battlefield Trauma

Presentation Author: Dr. Kirstin Jones

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A Bioactive, Bio-instructive Wound Matrix for Treatment of Wounds in Austere Battlefield Environments

Presentation Author: Dr. Ayesha Aijaz











A Novel Pre-Intubation Ventilation Device for Bearded Patients

Presentation Author: Dr. Roger Adres Gomez Barrantes

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Heparin Incorporation Extends the Release of Platelet-Derived Growth Factor from Electropsun Polycaprolactone Wound Dressings

Presentation Author: Mr. Joseph Spano

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Train as You Fight: Evaluation of Standardized Training Metrics in Tactical Combat Casualty Care Documentation Training

Presentation Author: CPT John Maitha

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Shock Volume Predicts Organ Dysfunction in Multiple Injured Patients with Pelvis and Lower Extremity Fractures

Presentation Author: Dr. Greg Gaski

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Thermal Dressings: Early Intervention Trauma Capability and Knowledge Gaps

Presentation Author: Mr. Stan Sansone

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Acclimation Protocol for Spinal Cord Injured Rats to Minimize Stress During Non-Invasive Multimodal Sensing of the Autonomic Nervous System

Presentation Author: Mrs. Ana Kirby

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Battlefield Wound Healing

Presentation Author: Dr. Harshini Sarojini

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Towards the Development of an Ultrasound Device for Automated Pneumothorax Detection

Presentation Author: Dr. Bhaskara Rao Chintada

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The Effect of Tranexamic Acid on Crotalid Venom Induced Consumption Coagulopathy in Rabbits

Presentation Author: LT Andrew McGowan

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Use of Novel Alginate-based Sealants for the Treatment of Pleural Injuries: Safety and Efficacy in Small (Rat) and Large (Pig) Pre-clinical Models

Presentation Author: Dr. Daniel Weiss

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Tourniquet Application for Mild Extremity Injury - Did We Go Too Far?

Presentation Author: Lt Col Roy Nadler

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Characteristics of Six Intraosseous Devices in a Cadaveric (Sus scrofa) Swine High Bone Density Humerus and Sternum Model

Presentation Author: Mr. Joseph Gertz

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Pelvic Fractures Among Casualties Treated by Israeli Defense Force Medical Teams- Association with Hemorrhagic Shock and Implications for Prehospital Treatment

Presentation Author: MAJ Sami Gendler

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Peripheral Venous Access in Trauma Induced Hemorrhagic Shock: A Retrospective Study

Presentation Author: MAJ Sami Gendler

Multi-Organ Dysfunction in **Prolonged Field Care Scenarios**

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Rhabdomyolysis-Induced Acute Kidney Injury and Treatment Are Impacted by Legal Performance-Enhancing Drugs

Presentation Author: Dr. Jessica Hebert

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The Development of Acute Respiratory Distress Syndrome and Acute Lung Injury in a Trauma Population With and Without Long Bone Fractures

Presentation Author: ENS Julia Larson









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A Modified Method of Contact Burn in a Small Animal Model of Combat Casualty Relevant Injuries

Presentation Author: Dr. Arezoo Mohammadipoor

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Inhibition of Contact Activation of Factor XI Significantly Reduces Clot Formation in Extracorporeal Membrane Oxygenation

Presentation Author: Dr. Andrew Meyer

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Leukodepletion Significantly Reduces Thrombosis in Extracorporeal Membrane Oxygenation

Presentation Author: Dr. Andrew Meyer

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Impact of Tourniquet-induced Ischemia Reperfusion on Survival and Pathophysiological End Organ Dysfunction Following Delayed Limb Amputation in a Rat Model of Blastrelated Severe Lower Extremity Trauma

Presentation Author: Dr. Cassie Rowe

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Case Report of a Young Soldier with Gunshot Wound to Abdomen and Right Thorax - Lessons Learned for Damage Control Surgery

Presentation Author: Lt Col Kerstin Schwabe

MHSRS-22-06010 - POSTER SESSION 1 - #214

The Induction of CD73 to Prevent Tourniquet-related Injuries and Improve Long-term Outcomes and Improve Decision-making in Field Hospitals

Presentation Author: Mr. Alexander Spicer

MHSRS-22-06599 - POSTER SESSION 1 - #215

A Point of Care In Vitro Diagnostic Assay Platform for In-Theater and En Route Warfighter Care

Presentation Author: Dr. Johann deSa

MHSRS-22-07768 - POSTER SESSION 1 - #216

In-vitro and In-vivo Testing of a Lightweight, Destination Therapy, Ambulatory ECMO System Incorporating an Extracorporeal Ventricular Assist Device for Support of Chronic Lung Diseases

Presentation Author: Dr. Kalliope Roberts

Burn Injury Management in Theater

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Successful Prevention of Secondary Burn Progression Using Topical Tacrolimus and Infliximab Hydrogel

Presentation Author: Dr. Christopher Kalmar

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A Multi-functional, Fibronectin (FN)-derived, Anti-microbial Peptide, cNP8, for Burns and Acute Traumatic Wound Therapy Presentation Author: Dr. Richard Clark

MHSRS-22-04958 - POSTER SESSION 1 - #219

Fibronectin (FN)-derived Peptide P12 Promotes In Vitro And In Vivo Angiogenesis

Presentation Author: Dr. Richard Clark

MHSRS-22-05161 - POSTER SESSION 1 - #221

A Retrospective Cohort Study of Burn Casualties Transported by the U.S. Army Burn Flight Team (BFT) and US Air Force Critical Care Air Transport Teams (CCATT)

Presentation Author: Dr. Shelia Savell

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Polarization-Sensitive Optical Coherence Tomography for Determination of Burn Wound Severity and Healing Potential

Presentation Author: Ms. Taylor Cannon

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Comparative Evaluation of KeriCure Medicalis Field Shield Wound Dressing and Standard Field Care Dressings for 15% TBSA Partial Thickness Burn Wounds Under Prolonged Field Care in a Swine Model

Presentation Author: Dr. Marc Thompson

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Evaluation of Subcutaneous Treatments in a Porcine Burn Progression Model

Presentation Author: Dr. Christine Kowalczewski

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Development of Stem Cell Secretome-Based Protein Therapies for Wound Healing Applications

Presentation Author: Dr. Ji Hyun Kim









MHSRS-22-05489 - POSTER SESSION 1 - #226

Effective Treatment of Burn Infections by Supporting the Immune System and the Microbiome

Presentation Author: Dr. Frank Sams-Dodd

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Managing Burns and Trauma Using Fish Skin During the 2020 Nagorno-Karabakh War in Armenia

Presentation Author: Lt Col Steven Jeffery

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Therapeutic Effects of Stem Cell-derived Recombinant Proteins for Wound Healing

Presentation Author: Dr. Young Min Ju

MHSRS-22-05714 - POSTER SESSION 1 - #229

Pluronic Polymers Enhance Early Skin Wound Healing and Reduce Edema in Burn

Presentation Author: CPT Siang-Chean Kua

MHSRS-22-05731 - POSTER SESSION 1 - #230

Evaluation of Topical Off-the-Shelf (OTS) Therapies to Improve Prolonged Field Care of Burn Injured Service Members

Presentation Author: Dr. Kristo Nuutila

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Minced Dermal Grafts Can Be Expanded Up to 500 Times to Re-epithelialize a Full-thickness Burn Wound

Presentation Author: Dr. Kristo Nuutila

MHSRS-22-05798 - POSTER SESSION 1 - #232

Secretome-loaded Plasma-alginate Composite (PAC) Gels to Treat Deep Partial-thickness Burn Injuries in a Porcine Burn Injury Model

Presentation Author: Dr. Kameel Zuniga

MHSRS-22-05818 - POSTER SESSION 1 - #233

Comparison of 95GHz Millimeter Wave Directed Energy Induced Skin Burns with Contact Thermal Burns Using Spatial Frequency Domain Imaging

Presentation Author: Dr. Gordon Kennedy

MHSRS-22-06188 - POSTER SESSION 1 - #234

A New Spatial Frequency Domain Imaging Device Reveals Wide-Field Heterogeneity of In-vivo Hemodynamics; Clinical Validation Studies Using an Arterial Pressure Cuff Occlusion Model

Presentation Author: Dr. Gordon Kennedy

MHSRS-22-06064 - POSTER SESSION 1 - #235

Novel Tactical Burn Dressing Capable of Self Sterilizing to Lower Risk of Infection and Revascularize Tissue

Presentation Author: Dr. Alfred Zinn

MHSRS-22-06103 - POSTER SESSION 1 - #236

Augmentation of the Behavioral Health Service with the Occupational Therapy Service at the U.S. Army Burn Center

Presentation Author: Dr. Jill Cancio

MHSRS-22-06113 - POSTER SESSION 1 - #237

Burn Rehabilitation for the Unburned: Implications for Combat Casualty Care

Presentation Author: Dr. Jill Cancio

MHSRS-22-06154 - POSTER SESSION 1 - #238

QLED Activated Kit for Point of Care Treatment of Burn Infections

Presentation Author: Ms. Yanfang Feng

MHSRS-22-06866 - POSTER SESSION 1 - #240

Autonomous Multi-modality Burn Wound Characterization Using Artificial Intelligence

Presentation Author: Mr. Maxwell Jacobson

MHSRS-22-06907 - POSTER SESSION 1 - #241

Random Effect of Burn Center in a Multi-center, Observational Study of Burn Patients Receiving CRRT

Presentation Author: Dr. Laura Scott

MHSRS-22-06910 - POSTER SESSION 1 - #242

Touched by an Angel: A Catastrophic Burn Patient's Response to a Heparinized, Pathogen Filter in the Setting of Severe Gram-Negative Bacteremia

Presentation Author: MAJ Cyrus Askin

MHSRS-22-07011 - POSTER SESSION 1 - #243

Cognitive Task Analysis of Escharotomy

Presentation Author: Dr. FNU Rahul

MHSRS-22-07163 - POSTER SESSION 1 - #244

Comparative Transcriptome Analysis of Superficial and Deep Partial-Thickness Burn Wounds in Yorkshire vs. Red Duroc Pigs

Presentation Author: Dr. Jesse Nguyen









MHSRS-22-07188 - POSTER SESSION 1 - #245

Blast Injury Prevention Standards Recommendation (BIPSR) Process: Dermal Burns Blast Injury Type

Presentation Author: Dr. Matthew Downs

MHSRS-22-07241 - POSTER SESSION 1 - #246

Lipid Mediator Profiles of Burn Wound Healing: Acellular Cod Fish Skin Grafts Promote the Formation of EPA and DHA Derived Lipid Mediators Following Seven Days of Treatment

Presentation Author: Dr. Aristotelis Kotronoulas

MHSRS-22-07298 - POSTER SESSION 1 - #247

Development of Immobilized Enzymes for Burn Wound Debridement

Presentation Author: Dr. Matthew Smiechowski

MHSRS-22-07374 - POSTER SESSION 1 - #248

Far-Forward Hypodermal Reconstructions Mitigates Adhesion and Prevents Soft-Tissue Deficits after Complex Burns

Presentation Author: Dr. Shawn Loder

MHSRS-22-07419 - POSTER SESSION 1 - #249

A Review of U.S. Burn Centers for Disasters Domestic & Abroad

Presentation Author: Ms. Elle Lovick

MHSRS-22-07509 - POSTER SESSION 1 - #250

Simultaneous Delivery of Diffusible Signaling Factor and Anesthetic Improve Cytocompatibility for Burn Wound Treatment

Presentation Author: Mr. Joshua Bush

MHSRS-22-07632 - POSTER SESSION 1 - #251

Comparison of Thromboelastometry Assays in Burn and Non-Burn Trauma

Presentation Author: Dr. Edward Kelly

MHSRS-22-07771 - POSTER SESSION 1 - #252

Application of U-Net Convolutional Neural Network in Evaluating Pig Airway Volume for the Assessment of Acute Respiratory Distress Syndrome (ARDS) Using Optical Coherence Tomography (OCT)

Presentation Author: Ms. Raksha Sreeramachandra Murthy

Treatment Innovations for Acute Respiratory Distress Syndrome (ARDS)

MHSRS-22-05215 - POSTER SESSION 1 - #253

Diaphragm Neurostimulation with Mechanical Ventilation Results in Lower Hippocampal Astrocyte Percentage and Lower Driving Pressure in a Moderate-ARDS Porcine Model Presentation Author: Dr. Thiago Bassi

MHSRS-22-05813 - POSTER SESSION 1 - #254

Synchronous Transvenous Diaphragm Neurostimulation Combined with Mechanical Ventilation Reduces Transpulmonary Plateau Pressure and Lung Injury in a Preclinical ARDS Model

Presentation Author: Dr. Thiago Bassi

MHSRS-22-06740 - POSTER SESSION 1 - #255

A Multicenter Prospective Cohort Study Evaluating the Association Between Unmet Medication Needs after Hospital Discharge and Re-admission or Death Among Survivors of Acute Respiratory Failure

Presentation Author: Dr. Naga Preethi Kadiri

MHSRS-22-06877 - POSTER SESSION 1 - #256

Microfluidic Respiratory Assist Device Toward Treatment of Organ Failure and System Portability in Austere Conditions Presentation Author: Dr. Jeffrey Borenstein

MHSRS-22-06985 - POSTER SESSION 1 - #257

Combined Use of Polycarboxybetaine Coating and Selective Factor XII Inhibitor Markedly Reduces Artificial Surface Clot Formation While Preserving Normal Tissue Coagulation During Extracorporeal Life Support

Presentation Author: Dr. Keith Cook

MHSRS-22-07049 - POSTER SESSION 1 - #258

Identification and Implementation of Clinical Indices to Assess Fluid Responsiveness in Acute Lung Injury Presentation Author: Dr. Catherine Sampson

MHSRS-22-07054 - POSTER SESSION 1 - #259

Phase IIb Cooling to Help Injured Lungs (CHILL)
Randomized Control Trial of Therapeutic Hypothermia +
Neuromuscular Blockade in ARDS

Presentation Author: Dr. Jeffrey Hasday











MHSRS-22-07335 - POSTER SESSION 1 - #260

Sustained vs. Intratidal Recruitment in the Injured Lung During Airway Pressure Release Ventilation: A Computational Modeling Perspective

Presentation Author: Dr. Andrea F. Cruz

MHSRS-22-07451 - POSTER SESSION 1 - #261

AMPK Inactivation and Impaired Mitochondrial Dynamics in Alveolar Macrophages Promote Sepsis-Induced Immunosuppression and Susceptibility to Secondary Bacterial Pneumonia

Presentation Author: Dr. Jaroslaw Zmijewski

MHSRS-22-07490 - POSTER SESSION 1 - #262

Benchtop Prototype Testing of a Novel Microfluidic Oxygenator Using an Ex Vivo Circulation System and Swine Donor Blood Presentation Author: Mr. George Harea

What's New in Airway Science and Technology

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Presentation Author: Mr. Matthew Burgess

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Presentation Author: Ms. Catherine Rauschendorfer

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Presentation Author: ENS Leeann Hu

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Presentation Author: Mr. Carlos Bedolla

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Presentation Author: Mr. Mikita Fuchita

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Presentation Author: Dr. Ellen Townes-Anderson

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Presentation Author: Mr. Samer Habeel











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Presentation Author: LT Philip Castrovinci

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Presentation Author: Dr. Rika Carlsen

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Presentation Author: MAJ Sami Gendler

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Presentation Author: Dr. Daniel Bryden

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Presentation Author: Dr. Charles Yu

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Presentation Author: Dr. Amanda Staudt

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Presentation Author: Dr. Brian Reid

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Presentation Author: Dr. Carey Balaban

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Presentation Author: Dr. Eleftherios Paschalis Ilios

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Presentation Author: Dr. Maria Valeria Canto-Soler

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Presentation Author: Ms. Veronica Wyckoff

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Presentation Author: Dr. Matthew Baucom

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Presentation Author: Dr. Matthew Baucom

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Presentation Author: Maj William T Davis

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Presentation Author: Dr. John Myers











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Presentation Author: Ms. Rebecca Weller

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Presentation Author: 1LT Matthew Paulson

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Presentation Author: Ms. Jennifer Winner

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Presentation Author: Mr. Mitchell Bauer

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Presentation Author: LCDR Andrew Medenbach

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Presentation Author: LCDR Alexandre Nguyen

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Presentation Author: Dr. Gary Fiskum

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Presentation Author: Dr. Allyson Arana

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Presentation Author: Dr. Janell Payano Sosa

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Presentation Author: MAJ Jeffrey Ransom

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Presentation Author: Dr. Meghan Wally

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Enhancing Physical Health of Soldiers During Basic Combat Training with Mindfulness and Yoga

Presentation Author: Capt Thomas Nassif

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Presentation Author: Dr. Juliana Ee

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Presentation Author: Dr. Steven Cohen

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Presentation Author: Dr. Ann Nayback-Beebe











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Presentation Author: Dr. Benjamin Averkamp

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Presentation Author: Dr. Bridget Cotner

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Presentation Author: Mrs. Catherine Ashley

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Presentation Author: Dr. Ted Melcer

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Presentation Author: Dr. Frederick Carrick

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Presentation Author: Dr. Daniel Stromberg

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Presentation Author: Dr. Sun Rvu

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Presentation Author: Lt Col Steven Jeffery

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Presentation Author: Dr. Bopaiah Cheppudira

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Presentation Author: Dr. Natasha Sosanya

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Presentation Author: Dr. Jelena M. Janjic

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Fast-Acting Treatment of Pain with Novel Injectable Cryoneurolysis

Presentation Author: Dr. Sara Moradi Tuchayi

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Presentation Author: Dr. Kriti Soni

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Presentation Author: LTC Jason Judkins

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LAT Peptide Motifs: A Novel Class of Naturally Derived Human Peptide Motifs and a Target Family of Receptors that Represents a Unique, Non-opioid, Non-addictive Mechanism for the Treatment of Neuropathic Pain

Presentation Author: Dr. Andrew Gearing









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Low-dose Interleukin-2 Reverses Post-traumatic Headacherelated Behaviors and mild Traumatic Brain Injury-induced Cognitive Impairment in a Mouse Model

Presentation Author: Dr. Yu-Qing Cao

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Association of Peripheral Serum MiRNAs with Persistent Phantom Limb Pain in Individuals with Amputation

Presentation Author: Dr. Manish Bhomia

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Pain Management for the Future Fight: Subjective and Objective Pain Assessment and Management Using Multimodal Machine Learning Models and a Mobile App Presentation Author: Mrs. Debbie Kantor

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Optically Guided Nerve Block Administration Using a Smart Needle

Presentation Author: Dr. Danielle Harper

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Presentation Author: Dr. Renan Castillo

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Presentation Author: Mr. Daniel Cooper

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Presentation Author: Dr. Jessica Morgan

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Presentation Author: CPT Stephen Breisach

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Presentation Author: Dr. Natalya Merezhinskaya

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A Comparison of the Novel, Single-use i-view Video Laryngoscope versus the Standard Durable Video Laryngoscope in the Emergency Department

Presentation Author: Ms. Jessica Mendez

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A Concept for Development of a Novel Radio Frequencybased Ultrasound Machine Learning System

Presentation Author: MAJ Steven Schauer

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Presentation Author: Dr. Karthik Sarma

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Presentation Author: CAPT Sherri Rudinsky

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Presentation Author: Dr. Camilla Knott











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Improving Resiliency in U.S. Air Force Healthcare Personnel Presentation Author: Dr. Jacqueline Killian

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Presentation Author: Dr. William Patrick Luan

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Presentation Author: MAJ Julia Lohmann

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Presentation Author: CPT Ilan Mitchnik

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Presentation Author: COL Matthew Eckert

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Presentation Author: Dr. Jeffrey Oury

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Presentation Author: Ms. Oanh Tran

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Presentation Author: Dr. Bruce McClenathan

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Presentation Author: Dr. Linda Chao

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Presentation Author: LT Peter Mercredi

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Presentation Author: Dr. Camilla Mauzy

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Presentation Author: Mr. Nabarun Chakraborty

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Presentation Author: Mr. Shawn Harrison

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Presentation Author: Mr. Mark Widder











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Presentation Author: Ms. Corina Zamora

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Presentation Author: Dr. Allen Apblett

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Presentation Author: LCDR Simone Scheule

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Presentation Author: Dr. Vanessa Melanson

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Presentation Author: LCDR Matthew Montgomery

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Presentation Author: Dr. Zane Lybrand

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Presentation Author: Maj Daniel Williams

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Presentation Author: Mr. Joseph Spano

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Presentation Author: Mr. Carl Blaesing

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Presentation Author: Dr. Maureen Hood

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Presentation Author: Dr. Michael Morrison

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Presentation Author: Dr. Christian Franck

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Presentation Author: LTC David DeGroot

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Presentation Author: MAJ Robert Staruch

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Presentation Author: Emilia Solomon

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Presentation Author: Dr. Rachael Jones









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Presentation Author: Dr. Zygmunt Galdzicki

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Presentation Author: 1LT Nathan Ruprecht

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Presentation Author: Mr. Deva Reign

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Presentation Author: Dr. Rebecca Carter

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Presentation Author: Dr. John Barrett

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Presentation Author: Dr. John Barrett

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The Impact of Lifetime Traumatic Brain Injury and Blast **Exposure on Mental Health Symptoms Among** Service Members

Presentation Author: Dr. Rosemay Remigio-Baker

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Ocular Markers Associated with Gulf War Illness Symptoms Presentation Author: Dr. Anat Galor

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Presentation Author: Dr. Diane Williams

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Presentation Author: Dr. Mitch Rubenstein

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Presentation Author: Dr. Girish Srinivas

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Presentation Author: Dr. Xin Wu

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Presentation Author: Dr. Jennifer Belding

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Presentation Author: Col Cade Nylund

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Presentation Author: Mr. Nabarun Chakraborty









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Presentation Author: Mrs. Sarah Ahmed

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Multiple Southwest Asia Deployments are Not Associated with Changes in Pulmonary Function Testing or Exercise Tolerance Presentation Author: Dr. Michael Morris

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Comorbid Development of Fibromyalgia and Posttraumatic Stress Disorder after Exposure to a Combat Environment Presentation Author: Ms. Chelsea McMahon

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Presentation Author: Mrs. Ana Kirby

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Presentation Author: Dr. Mary Jo Pugh

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Presentation Author: Dr. Terri Pogoda

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Presentation Author: Dr. Vahe Heboyan

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Presentation Author: Ms. Emma Dums

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Presentation Author: Dr. David Tate

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Presentation Author: Dr. Erin Dursa

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Evaluation of Motor Performance in Noise-Exposed Rats Presentation Author: Mr. Dylan Bartikofsky

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Presentation Author: Mr. Trevor Kingsbury

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Presentation Author: Mr. Ronald Yeaw

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Circadian Dysregulation Promotes Pancreatic Cancer Progression and Resistance to Therapy

Presentation Author: Dr. Sean Ronnekleiv-Kelly

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Presentation Author: Dr. Lea Steele

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Presentation Author: Dr. Drew Helmer

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A TRACK-TBI Study

Presentation Author: Dr. Benjamin Brett











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Presentation Author: Dr. Lindsay Nelson

MHSRS-22-07130 - POSTER SESSION 1 - #407

Food Insecurity and Food Worries During the COVID-19 Pandemic: A Point-in-Time Study of Injured Veterans

Presentation Author: Dr. Diana Brostow

MHSRS-22-07132 - POSTER SESSION 1 - #408

Changes in Outpatient Healthcare Utilization and Cost Following a mild Traumatic Brain Injury Among Active-Duty Service Members

Presentation Author: Mr. Peter Hoover

MHSRS-22-07191 - POSTER SESSION 1 - #409

A Retrospective Investigation of the Potential Long-term Health Implications of Occupational Jet Fuel Exposure in the Military

Presentation Author: Dr. Terra Vincent

MHSRS-22-07246 - POSTER SESSION 1 - #410

Chronic Traumatic Encephalopathy in the Special Forces: Uncommon and Circumstantial

Presentation Author: Dr. David Priemer

MHSRS-22-07282 - POSTER SESSION 1 - #411

Rates of Depressive Disorders Among Deployed U.S. Soldiers as Related to Rank, Marital Status, and Education

Presentation Author: 2LT Guadalupe Rivera

MHSRS-22-07359 - POSTER SESSION 1 - #412

ACSS2 Inhibition Reduces Stress-induced Reinstatement of Alcohol-seeking Behavior

Presentation Author: Dr. Philipp Mews

MHSRS-22-07377 - POSTER SESSION 1 - #413

Association Between mild Traumatic Brain Injury and Self-Reported Neuropsychiatric Symptoms in Combat-Exposed Military Service Members

Presentation Author: Ms. Sharon Kim

MHSRS-22-07411 - POSTER SESSION 1 - #414

Demographic, Occupational, and Medical Characteristics Associated with Major Depressive Disorder Disability Discharge Among Active Duty Enlisted Service Members in the United States Military

Presentation Author: Dr. Wilson Koech

MHSRS-22-07467 - POSTER SESSION 1 - #415

Somatic Mutation and DNA Repair in Veterans with Gulf War Illness

Presentation Author: Dr. Stephen Grant

MHSRS-22-07556 - POSTER SESSION 1 - #416

Self-reported Symptomology Following Deployment-related Blast-and Impact-induced Concussions Among Those With and Without PTSD

Presentation Author: Ms. Robyn Englert

MHSRS-22-07637 - POSTER SESSION 1 - #417

Neuropathological Examination of Secondhand Smoke- Induced Neurocognitive Decline

Presentation Author: 2LT Leilani Lopes

MHSRS-22-07830 - POSTER SESSION 1 - #418

Military Neurotoxicant Exposures and Longitudinal Trajectory of Health Symptoms in the Ft. Devens Cohort

Presentation Author: Dr. Maxine Krengel

MHSRS-22-07851 - POSTER SESSION 1 - #419

Development of a Mobile Assessment and Differential Diagnosis of Auditory Dysfunction

Presentation Author: Dr. Michelle Molis

MHSRS-22-06875 - POSTER SESSION 1 - #420

Rhabdomyolysis-Induced Acute Kidney Injury in Reproductive-Age Mice Causes Delayed Pregnancy and Offspring Abnormalities

Presentation Author: Dr. Jessica Hebert









Wearables: Future Capability, Past Successes and Current Challenges in a Deployed Environment

MHSRS-22-05120 - POSTER SESSION 1 - #421

Porphyrin-based Ratiometric Phosphorescent Probes for Intracellular Oxygen Sensing

Presentation Author: Dr. Fei Peng

MHSRS-22-05246 - POSTER SESSION 1 - #422

Feasibility of the Polar Grit X for Physiological Monitoring During Field Operations

Presentation Author: Dr. Andrew Jensen

MHSRS-22-05538 - POSTER SESSION 1 - #423

Wearable Device and Methods for Tissue Oxygenation to Monitor Performance

Presentation Author: Dr. Juan Pedro Cascales

MHSRS-22-05547 - POSTER SESSION 1 - #424

An In-Ear Wearable Device for Enhanced Warfighter Performance and Assessment of Readiness

Presentation Author: Mrs. Stephanie Calderwood

MHSRS-22-07121 - POSTER SESSION 1 - #425

Detecting Indicators of Chemical Exposure (DICE)

Presentation Author: Mrs. Stephanie Calderwood

MHSRS-22-05549 - POSTER SESSION 1 - #426

Healthy Volunteer Study of a Novel Chest-Based Wearable Vital Signs Patch: Towards Monitoring Casualties at the Point of Injury

Presentation Author: Dr. Alexi Charalambides

MHSRS-22-05663 - POSTER SESSION 1 - #427

Non-invasive Physiological Monitoring of Hydration Status Using Spatially-Offset Raman Spectroscopy

Presentation Author: Ms. Anna Rourke

MHSRS-22-05941 - POSTER SESSION 1 - #428

Evaluating Pupillometric Indicators of Cognitive Workload and Autonomic Tone

Presentation Author: Mr. Christopher Aura

MHSRS-22-05990 - POSTER SESSION 1 - #429

The Microsoft HoloLens2 Accurately Characterizes Fundamental Military Physical Training Movements in Healthy Adults

Presentation Author: Dr. Mandy Miller Koop

MHSRS-22-06259 - POSTER SESSION 1 - #430

A Process to Evaluate Consumer Off-the-Shelf Technology for Human Performance Optimization

Presentation Author: Dr. Brandon Marcello

MHSRS-22-06568 - POSTER SESSION 1 - #431

Using Driving Simulators to Increase Workload - A Method to Measure Soldiers' Physiological and Cognitive States

Presentation Author: Dr. Kathryn Feltman

MHSRS-22-06715 - POSTER SESSION 1 - #432

Environmental Sensors in Training: Lessons LearnedPresentation Author: Mr. Tyler Rooks

,

MHSRS-22-07142 - POSTER SESSION 1 - #433

The Compensatory Reserve Index: Utilization of Wearable Technology to Detect Stress in Extreme Conditions

Presentation Author: Ms. Gabrielle Brewer

MHSRS-22-07243 - POSTER SESSION 1 - #434

Modular Biosensor Sweat Patch

Presentation Author: Ms. Rebecca Browning

MHSRS-22-07338 - POSTER SESSION 1 - #435

A Novel Methodology for Evaluating Military Teamwork and Team Marksmanship Performance

Presentation Author: Mr. Peioneti Lam

MHSRS-22-07688 - POSTER SESSION 1 - #436

Smart Helmet: Sensor Integrated Personalized Defense System for the Warfighter

Presentation Author: ADM Paul Cherukuri

MHSRS-22-07738 - POSTER SESSION 1 - #437

Ruggedizing an Adaptive Field Pathogen and Bio Marker Detection with Digital, High Accuracy, Rapid, Point-of-Care Technology with Wearable Frontend and Data Backend Connectivity

Presentation Author: Mr. Traver Kennedy



























Acutely Administered Interventions for Battlefield Traumatic Brain Injury

MHSRS-22-04966 - POSTER SESSION 2 - #1

Enhanced by Drag Reducing Polymer Resuscitation Fluid Improves Cerebral Microcirculation, Tissue Oxygenation, Neuronal Survival and Neurologic Outcome after Traumatic Brain Injury with Hemorrhagic Shock

Presentation Author: Dr. Denis Bragin

MHSRS-22-05233 - POSTER SESSION 2 - #2

Ultrasound Localization of Sub-Wavelength Surgical Guidewires in Support of Prolonged Field Care Presentation Author: Dr. Linda Olafsen

MHSRS-22-05805 - POSTER SESSION 2 - #3

In Vivo Infrared Sensing for Enhanced Treatment of Traumatic Injury

Presentation Author: Dr. Linda Olafsen

MHSRS-22-05890 - POSTER SESSION 2 - #4

Hyperoxia as Defined by Either Arterial Saturation or Partial Pressure of Arterial Oxygen Is Not Associated with Early Mortality nor Mid-Term Functional Outcomes After Severe Traumatic Brain Injury

Presentation Author: Dr. Elan Sherazee

MHSRS-22-06006 - POSTER SESSION 2 - #5

Preliminary Safety and Efficacy Evaluation of Peripherally Administrated Anti-CD47 Antibodies in a Rat Model of pTBI

Presentation Author: Dr. Ping Wang

MHSRS-22-06074 - POSTER SESSION 2 - #6

Acute and Long-term Beneficial Effects of Pharmacological Kv7 Current Augmentation After a Blunt or Blast Traumatic Brain Injury

Presentation Author: Dr. Fabio Antonio Borges Vigil

MHSRS-22-06461 - POSTER SESSION 2 - #7

Effects of Tranexamic Acid on Electroencephalography, Lesion Progression, and Cerebral Fibrin Deposition in a Rat Model of Polytrauma with Concomitant Penetrating Traumatic Brain Injury

Presentation Author: Dr. Zachary Bailey

MHSRS-22-06570 - POSTER SESSION 2 - #8

Lovenox-induced Hypocoagulation Does Not Exacerbate Cerebral Pathology in a Rat Model of Penetrating Traumatic Brain Injury

Presentation Author: Dr. Zachary Bailey

MHSRS-22-07135 - POSTER SESSION 2 - #9

Towards Rush Delivery of Circular Bispecific Anti-Tau/ Transferrin Receptor Oligo Therapeutics to the Brain Presentation Author: Dr. William Haskins

MHSRS-22-07208 - POSTER SESSION 2 - #10

Optimizing Burn, Traumatic Brain Injury, and Burn/ Traumatic Brain Injury (TBI) Treatment: Identification of Key Determinants of Outcomes

Presentation Author: Dr. Tina Palmieri

MHSRS-22-07228 - POSTER SESSION 2 - #11

Groundbreaking Neuro-Repair Therapeutic in Development for CNS Damage: Implications for Traumatic Brain Injury

Presentation Author: Dr. Marc DePaul

MHSRS-22-07422 - POSTER SESSION 2 - #12

Levocetirizine and Montelukast in the Treatment of Traumatic Brain Injury: Synergistic Anti-inflammatory Activity

Presentation Author: Dr. B Chandler May

MHSRS-22-07549 - POSTER SESSION 2 - #13

Pathways to Effective Treatments for Traumatic Brain Injury: A Roadmap to Advance Targeted Therapeutics for Survivors of Brain Trauma

Presentation Author: Dr. Magali Haas

MHSRS-22-07787 - POSTER SESSION 2 - #14

Simplified Neuro-assessment Scoring to Allow for Accurate but Expedited Field Triage of Traumatic Brain Injury by First Responders

Presentation Author: Capt Matthew Gangidine











Battlefield Biomarkers for TBI: Diagnostic and Prognostic Indicators

MHSRS-22-05257 - POSTER SESSION 2 - #15

Development of a Novel Bioengineered 3D Brain-like Tissue for Identifying Biomarkers of Primary Blast-induced Traumatic Brain Injury

Presentation Author: Dr. Dustin Snapper

MHSRS-22-05338 - POSTER SESSION 2 - #16

Cadet Concussion Clinic Workload During One Calendar Year at the U.S. Air Force Academy

Presentation Author: Dr. Joel Robb

MHSRS-22-05566 - POSTER SESSION 2 - #17

Oxidative Stress Contributes to Cerebral Metabolomic Profile Changes in Animal Model of Blast-Induced Traumatic Brain Injury

Presentation Author: Dr. Venkata Kakulavarapu

MHSRS-22-05633 - POSTER SESSION 2 - #18

Wearable TBI Detection Device Using gEEG

Presentation Author: Dr. Barclay Morrison

MHSRS-22-05677 - POSTER SESSION 2 - #19

Biomarker and Mechanistic Investigations in TBI-on-a-Chip: Linking Physical Impact to Neurodegeneration

Presentation Author: Mr. Edmond Rogers

MHSRS-22-05720 - POSTER SESSION 2 - #20

The Impact of Blast Injury Plus Concomitant Extremity Injuries on Temporal and Spatially Resolved Gene Expression in Key Regional Compartments of the Injured Brain

Presentation Author: Dr. Cassie Rowe

MHSRS-22-05812 - POSTER SESSION 2 - #21

Plasma Proteomic Profiling for Sport-Related Concussion? Findings from the NCAA and Department of Defense CARE Consortium

Presentation Author: Dr. Rany Vorn

MHSRS-22-05948 - POSTER SESSION 2 - #22

Simultaneous Acquisition of Dynamic Diffusion and Diffusion Tensor Imaging for in vivo Monitoring of Cortical Spreading Depolarizations

Presentation Author: Dr. Mihika Gangolli

MHSRS-22-06129 - POSTER SESSION 2 - #23

Diagnostic Biomarkers for mild Traumatic Brain Injury Detected by Extracellular Vesicles: A Pilot Study

Presentation Author: Mr. Jacques Arrieux

MHSRS-22-06152 - POSTER SESSION 2 - #24

Using the CHIMERA Model to Dissect Molecular and Biochemical Signatures Underlying Traumatic Brain Injury Pathophysiology

Presentation Author: Dr. Mehwish Anwer

MHSRS-22-06179 - POSTER SESSION 2 - #25

Assessment and Diagnosis of Vestibular Indicators of Soldiers' Operational Readiness (ADVISOR)

Presentation Author: Dr. Phillip Desrochers

MHSRS-22-06346 - POSTER SESSION 2 - #26

Development of a Microneedle Array-based mild Traumatic Brain Injury Monitor

Presentation Author: Dr. Zuan-Tao Lin

MHSRS-22-06358 - POSTER SESSION 2 - #27

Pilot Study of a Non-invasive RF Method to Detect Intracranial Hemorrhage

Presentation Author: Dr. George Shaw

MHSRS-22-06372 - POSTER SESSION 2 - #28

An Optical Microlens-microneedle Device for Inducing Extravasation of Blood Biomarkers Beneath Skin

Presentation Author: Dr. Biswabandhu Jana

MHSRS-22-06376 - POSTER SESSION 2 - #29

MRI Characterization of Material Properties and Deformation in the ANGUS Phantom During Mild

Accelerative Loading

Presentation Author: Dr. Suhas Vidhate

MHSRS-22-06439 - POSTER SESSION 2 - #30

Ultrasound Detection of Intracranial Cavitation in a Human Head Phantom During Impact

Presentation Author: Dr. Michaelann Tartis

MHSRS-22-06456 - POSTER SESSION 2 - #31

Rapid Response EEG Headset Reduces Time to Determination of Non-Convulsive Status Epilepticus at a

Level 1 Trauma Center in the DoD

Presentation Author: Dr. Joshua Luster











Mitochondria Targeted Post-Injury Mechanisms During Acute **Phase of Penetrating Traumatic Brain Injury**

Presentation Author: Dr. Jignesh Pandya

MHSRS-22-07059 - POSTER SESSION 2 - #33

Novel Analysis of Point of Care Diagnostic Ultrasound Can Detect the Presence of Neurosurgically Treatable Lesions as well as Quantify the Extent of Midline Shift as Determined on **Civilian TBI Patients**

Presentation Author: Dr. Pierre Mourad

MHSRS-22-07092 - POSTER SESSION 2 - #34

Pre-Intervention Blood Hyperphosphorylated Tau and Ubiquitin C-Terminal Hydrolase-L1 Concentrations Are Associated with Magnitude of Symptom Improvement Following Targeted Intervention in Patients with Chronic Traumatic Brain Injury

Presentation Author: Ms. Savannah Tollefson

MHSRS-22-07199 - POSTER SESSION 2 - #35

Cerebrospinal Fluid (but not plasma) Levels of Lysophosphatidic Acids Can Be a Suitable Biomarker of **Blast-induced Traumatic Brain Injury**

Presentation Author: Dr. Peethambaran Arun

MHSRS-22-07399 - POSTER SESSION 2 - #36

Estimated Age of First Athletic Exposure Predicts Baseline Neurofilament Light, Ubiquitin Carboxyl-Terminal Hydrolase L1, Glial Fibrillary Acidic Protein, and Tau Serum Levels in **Female Military Cadets**

Presentation Author: Dr. Melissa Anderson

MHSRS-22-07463 - POSTER SESSION 2 - #37

Effects of Fatigue and mTBI on Brain Activity Functional and **Effective Connectivity During a VR Postural Challenge**

Presentation Author: Dr. Nicholas Murray

MHSRS-22-07503 - POSTER SESSION 2 - #38

Headache Trajectory and Cumulative Morbidity after Traumatic Brain Injury

Presentation Author: 2Lt Melissa Postoll

MHSRS-22-07517 - POSTER SESSION 2 - #39

Head Kinematics and Biomarkers in Large Animal Acceleration Models of Traumatic Brain Injury

Presentation Author: Dr. Andrew Mayer

MHSRS-22-07533 - POSTER SESSION 2 - #40

Longitudinal Acute and Sub-acute Diagnostic Biomarker Analysis for Traumatic Brain Injury: A TRACK-TBI Study

Presentation Author: Dr. Ava Puccio

MHSRS-22-07548 - POSTER SESSION 2 - #41

Brain and Serum Lipidome Alterations after mild Traumatic Brain Injury

Presentation Author: Ms. Alexis Pulliam

MHSRS-22-07571 - POSTER SESSION 2 - #42

3D Transcranial Ultrasound Brain Imaging for Diagnosis of **Intracranial Hematomas During Early Stages of Evacuation** and Management of Traumatic Brain Injuries

Presentation Author: Dr. Kiyanoosh Shapoori

MHSRS-22-07662 - POSTER SESSION 2 - #43

Transcranial Brain Perfusion Imaging and Quantification for the Point-of-Care Diagnosis of Stroke Associated with **Traumatic Brain Injury**

Presentation Author: Dr. Juri Gelovani

MHSRS-22-07664 - POSTER SESSION 2 - #44

Cerebellar Structural Alterations in Military-Relevant Traumatic Brain Injury and their Correlations with Psychiatric and Cognitive Measures

Presentation Author: Dr. Emily Dennis

Novel Clinical Assessments and Interventions for mild Traumatic Brain Injury

MHSRS-22-05326 - POSTER SESSION 2 - #45

MEG-derived Neuroimaging Biomarkers for Chronic TBI: Monitoring of Disease and Symptom Resolution for Returnto-Duty (RTD) Determination

Presentation Author: Mr. Don Krieger

MHSRS-22-05363 - POSTER SESSION 2 - #46

Contextual Effects of Traumatic Brain Injury on the Functional Connectome: Differential Effects of Deployment and Non-Deployment Acquired Injuries

Presentation Author: Dr. Jared Rowland









MHSRS-22-05389 - POSTER SESSION 2 - #47

Using Subject-specific Analysis to Investigate White Matter Abnormalities in Sport-related Concussion

Presentation Author: Dr. Ho-Ching Yang

MHSRS-22-05989 - POSTER SESSION 2 - #48

White Matter Tract Abnormalities and Post-traumatic Headache Following mild Traumatic Brain Injury Presentation Author: Dr. Ho-Ching (Shawn) Yang

MHSRS-22-05485 - POSTER SESSION 2 - #49

Efficient Clinical Trials to Reduce Symptoms after TBI: A TRACK-TBI Study

Presentation Author: Dr. Nancy Temkin

MHSRS-22-05555 - POSTER SESSION 2 - #50

Brief Exertional Testing Identifies Heart Rate Variability Impairments in Service Members with mTBI Compared to Age-matched Healthy Controls

Presentation Author: Dr. Julianna Prim

MHSRS-22-05571 - POSTER SESSION 2 - #51

Performance Validity Testing in a Telehealth Modality and Failure Rate after Mild versus Moderate-to-Severe Traumatic Brain Injury: A Veterans Affairs TBI Model Systems Study

Presentation Author: Dr. Marc Silva

MHSRS-22-05593 - POSTER SESSION 2 - #52

Recovery on Clinical Assessments Following Sport-related Concussion: Findings from the CARE Consortium

Presentation Author: Dr. Steven Broglio

MHSRS-22-05673 - POSTER SESSION 2 - #53

Transcranial Direct Current Stimulation to Improve
Complex Attention Following mild Traumatic Brain Injury
Presentation Author: Dr. Lars Hungerford

MHSRS-22-05748 - POSTER SESSION 2 - #54

Characterization of Tri-Service Work Flow Form Usage for Acute Concussion Management in Military Healthcare Presentation Author: Ms. Lauren Earyes

MHSRS-22-05807 - POSTER SESSION 2 - #55

Provider Perceptions of Oxygenation Strategies for Critically III Trauma Patients With and Without Moderate to Severe Traumatic Brain Injury

Presentation Author: Ms. Jessica Cwik

MHSRS-22-05987 - POSTER SESSION 2 - #56

Subject-specific Analysis for Diffusion and Kurtosis Changes in mild Traumatic Brain Injury (mTBI) Patients with High-performance MAGNUS MRI Gradient

Presentation Author: Dr. Nastaren Abad

MHSRS-22-06019 - POSTER SESSION 2 - #57

The Complex Assessment of Military Performance for mTBI Assessment: Patrol Exertion Task Test-Retest Reliability

Presentation Author: Ms. Mikalia Guard

MHSRS-22-06171 - POSTER SESSION 2 - #58

Detection of White Matter Bundles Anomalies in Service Members with Chronic Mild Traumatic Brain Injury Using a Geodesic Learning Framework

Presentation Author: Dr. Ping-Hong Yeh

MHSRS-22-06189 - POSTER SESSION 2 - #59

Music Therapy Recommended Independent Skills Practice for Symptom Improvement in Service Members with TBI and PTSD

Presentation Author: Mr. John Hogue

MHSRS-22-06234 - POSTER SESSION 2 - #60

Early Targeted Heart Rate Exercise Is Safe and Hastens Return-to-Duty in Service Members after Concussion: A Pilot Investigation

Presentation Author: Dr. Wesley Cole

MHSRS-22-05871 - POSTER SESSION 2 - #61

Compensatory and Restorative Cognitive Training Apps Following TBI: Initial Feasibility and Acceptability in Veterans and Service Members

Presentation Author: Dr. Mark Ettenhoffer

MHSRS-22-06393 - POSTER SESSION 2 - #62

Feasibility of a Head-Mounted Virtual Reality System (Fusion mVR) for Neurocognitive Eye Tracking within Military Medical Settings

Presentation Author: Dr. Mark Ettenhofer

MHSRS-22-06421 - POSTER SESSION 2 - #63

Do Clinical Eye Tracking Tests for mTBI Predict Eye Movements During VR Military Tasks? A Preliminary Study

Presentation Author: Dr. Mark Ettenhofer









MHSRS-22-06408 - POSTER SESSION 2 - #64

The Complex Assessment of Military Performance for mTBI Assessment: Run/Roll Task Test-Retest Reliability

Presentation Author: Dr. Karen McCulloch

MHSRS-22-06554 - POSTER SESSION 2 - #65

Traumatic Brain Injury Classification Variability in the Military Health System During the Afghanistan/Iraq Conflicts: Surveillance, Clinical, Research, and Policy **Implications**

Presentation Author: Dr. Rachel Adams

MHSRS-22-06610 - POSTER SESSION 2 - #66

Women Report Worse Neurobehavioral Symptoms than Men Following Uncomplicated mild Traumatic Brain Injury in U.S. **Military Service Members**

Presentation Author: Dr. Ida Babakhanyan

MHSRS-22-06783 - POSTER SESSION 2 - #67

Targeted Dietary Manipulation as an Adjunct Strategy to Reduce Pain in Chronic Post-Traumatic Headache Among **Service Members**

Presentation Author: Mr. Jacques Arrieux

MHSRS-22-06854 - POSTER SESSION 2 - #68

Effects of Exercise Intolerance After mild Traumatic Brain

Presentation Author: Dr. Prokopios Antonellis

MHSRS-22-06919 - POSTER SESSION 2 - #69

Modulating Cytokine Levels Resulting from Secondary Injury Mechanisms Following Traumatic Brain Injury

Presentation Author: Dr. Boyle Cheng

MHSRS-22-06986 - POSTER SESSION 2 - #70

Measurement of Head Kinematics Using Instrumented Mouthguards During Introductory Boxing Courses in U.S. **Military Academy Cadets**

Presentation Author: Mr. Travis Fetchko

MHSRS-22-07037 - POSTER SESSION 2 - #71

MRI Brain Health Monitoring Enabling Normative Diagnostics through Phantom Calibrated MRI

Presentation Author: Dr. Walter Schneider

MHSRS-22-07820 - POSTER SESSION 2 - #72

Fasciculus Axonal Connective Tissue Multiscale Imaging Connectome (FACTMIC) Mapping of Porcine and Human Optic Nerve for Accurate Connectome Mapping and Optic **Nerve Tissue Health at Viable Cost**

Presentation Author: Dr. Walter Schneider

MHSRS-22-07148 - POSTER SESSION 2 - #73

Importance of Objective and Subjective Measures in Predicting Satisfaction with Life and Functional Recovery Following Traumatic Brain Injury

Presentation Author: Ms. Cara Battistella

MHSRS-22-07180 - POSTER SESSION 2 - #74

Central and Peripheral Attention in Virtual Reality: Test of **Visual Efficiency for Concussion Detection**

Presentation Author: Dr. Jennifer Reneker

MHSRS-22-07197 - POSTER SESSION 2 - #75

Optimizing Concussion Care Seeking: Previous Concussion Diagnosis Status Influences Baseline Assessment Outcomes

Presentation Author: Dr. Robert Lynall

MHSRS-22-07257 - POSTER SESSION 2 - #76

Optimizing Concussion Care Seeking: A Longitudinal Comparison of Delayed Versus Immediate Care Seeking Presentation Author: Dr. Julianne Schmidt

MHSRS-22-07366 - POSTER SESSION 2 - #77

Alpha-1062 is Neuroprotective in a Pre-clinical Model of Traumatic Brain Injury and Enhances Restoration of Sensory, Motor, and Cognitive Performance

Presentation Author: Dr. Denis Kay

MHSRS-22-07393 - POSTER SESSION 2 - #78

Distinct Trajectories of Healthcare Utilization Following the **Completion of an Intensive Outpatient Program**

Presentation Author: Dr. Jose Lara-Ruiz

MHSRS-22-07432 - POSTER SESSION 2 - #79

Return-to-Duty Readiness Assessment for Active-Duty Service Members Post-Concussion Requires More Than Self-Report Measures

Presentation Author: Ms. Courtney Harrison









MHSRS-22-07442 - POSTER SESSION 2 - #80

Preliminary Findings from the Adjudication Process for Identifying mTBI Clinical Profiles in the Targeted Multidomain (T-MD) Randomized Controlled Trial for mTBI

Presentation Author: Dr. RJ Elbin

MHSRS-22-07496 - POSTER SESSION 2 - #81

Characterizing Intensive Outpatient Program Response Among Service Members Using Change Between Distinct Post-concussive Symptom Subgroups

Presentation Author: Dr. Adam Kinney

MHSRS-22-07499 - POSTER SESSION 2 - #82

Evaluating a Game-based Executive Function Intervention in Individuals with Chronic Traumatic Brain Injury

Presentation Author: Dr. Daniel Krawczyk

MHSRS-22-07540 - POSTER SESSION 2 - #83

Facilitating Recovery from mild Traumatic Brain Injury via Light Induced Modulation of Circadian Rhythms

Presentation Author: COL William Killgore

MHSRS-22-07639 - POSTER SESSION 2 - #84

White Matter Integrity Predicts Behavioral Outcomes Up to 12 Months After a mild Traumatic Brain Injury

Presentation Author: COL William Killgore

MHSRS-22-07566 - POSTER SESSION 2 - #85

Diffusion Imaging Comparison of High-performance Gradient system (MAGNUS) with GE/NFL HHI Study Protocol on Clinical MR System

Presentation Author: Dr. Herman Morris

MHSRS-22-07568 - POSTER SESSION 2 - #86

Non-Invasive, Head-Mounted Measures of Vestibular and Neural Function

Presentation Author: Dr. Bruce Mortimer

MHSRS-22-07600 - POSTER SESSION 2 - #87

Provider Differences in Cost and Quality of Primary Care Services in the Management of Deployment-related mild Traumatic Brain Injury in the Military Health System

Presentation Author: Dr. Patrick Richard

MHSRS-22-07665 - POSTER SESSION 2 - #88

Medical Care Costs of Traumatic Brain Injury of Active-Duty Service Members in the Military Health Systems: Differences in Military Treatment Facilities and Purchased Care

Presentation Author: Dr. Patrick Richard

MHSRS-22-07644 - POSTER SESSION 2 - #89

Using Contextual Data to Enhance Machine Learning in Traumatic Brain Injury: Progress from the MIND Workgroup

Presentation Author: Mr. Zack Goldblum

MHSRS-22-07651 - POSTER SESSION 2 - #90

Effect of Combat and Mission-related Repetitive Blast and Blunt Force TBI on Cerebral Autonomic Injury and Response to Integrative Medicine Therapies

Presentation Author: Dr. Thomas DeGraba

MHSRS-22-07726 - POSTER SESSION 2 - #91

Diffusion Tensor Magnetic Resonance Imaging of the Hypothalamus in Traumatic Brain Injury Warfighters and Correlation with Blood Endocrine Levels

Presentation Author: LT Brian Gerstenslager

MHSRS-22-07800 - POSTER SESSION 2 - #92

Examining the Neural Basis of Visual Processing Using Magnetoencephalography in Veterans With and Without Mild Traumatic Brain Injury

Presentation Author: Dr. Davin Quinn

MHSRS-22-07803 - POSTER SESSION 2 - #93

Simultaneous Measurements of GABA, Glx and GSH in the Thalamus on Patients with mild Traumatic Brain Injury

Presentation Author: Dr. Rao Gullapalli

MHSRS-22-07804 - POSTER SESSION 2 - #94

A Fixel-based Analysis of White Matter Alterations in Patients with Acute mild Traumatic Brain Injury

Presentation Author: Dr. Rao Gullapalli

MHSRS-22-07817 - POSTER SESSION 2 - #95

Age Dependence of Neurovascular Alterations After mild Traumatic Brain Injury

Presentation Author: Dr. Corey Thibeault

MHSRS-22-07835 - POSTER SESSION 2 - #96

EEG-guided Transcranial Magnetic Stimulation (Magnetic EEG-guided Resonance Therapy) for the

Treatment of mTBI

Presentation Author: Ms. Meagan Kovacs









Military-Centric Therapeutic Strategies for Traumatic Brain Injury

MHSRS-22-05109 - POSTER SESSION 2 - #97

Effects of Estradiol on Mitochondrial Complex I Activity and Acid-Base Status in Rats with Combined Blast and **Hemorrhagic Shock Injury**

Presentation Author: Dr. Biswajit Saha

MHSRS-22-05958 - POSTER SESSION 2 - #98

Trans Ocular Brain Impedance Indices for Assessment of Cerebral Autoregulation Post Brain Injury

Presentation Author: Dr. Mohamad Tiba

MHSRS-22-06500 - POSTER SESSION 2 - #99

Relation of Aerobic Activity to Cognition and Well-being in Chronic mild Traumatic Brain Injury; A LIMBIC-CENC Study

Presentation Author: Dr. Kimbra Kenney

MHSRS-22-06549 - POSTER SESSION 2 - #100

Proof-of-Concept Evaluation of Hydrogel Mediated Drug Delivery for Mitigation of Acute Traumatic Brain Injury Pathology in Rats Presentation Author: Dr. Zachary Bailey

MHSRS-22-06868 - POSTER SESSION 2 - #101

Novel Therapeutic Peptide Homes to the Site of Brain Injury Reducing Neuronal Damage and Improving Neurologic Recovery Presentation Author: Dr. Nicole Moore

MHSRS-22-07138 - POSTER SESSION 2 - #102

Ubiquitin C-Terminal Hydrolase-L1 and von Willebrand Factor as Potential Predictive Blood Biomarkers for Patients with **Psychological Issues from Chronic Traumatic Brain Injury** Presentation Author: Dr. Shawn Eagle

MHSRS-22-07294 - POSTER SESSION 2 - #103

Protective and Risk Factors for Persistent Post Concussion Symptoms and Return to Play of NCAA Collegiate Athletes: Findings from the NCAA-DoD Care Consortium

Presentation Author: Dr. Nicholas Port

MHSRS-22-07319 - POSTER SESSION 2 - #104

Predicting the Time to Return to Play after a Concussion in a **Very Large Dataset from Varsity and Military Cadet Athletes**

Presentation Author: Dr. Nicholas Port

MHSRS-22-07445 - POSTER SESSION 2 - #105

Assessment of Neural Stem Cell Transplantation for Treating Penetrating Traumatic Brain Injury in a Rat Model

Presentation Author: Dr. Starlyn Okada-Rising

MHSRS-22-07547 - POSTER SESSION 2 - #106

Adenosine Kinase: A Novel Target for Prevention of Posttraumatic Epileptogenesis

Presentation Author: Dr. Madhuvika Murugan

Advances in Blast-Induced **Neurotrauma and Battlefield Treatments**

MHSRS-22-05674 - POSTER SESSION 2 - #107

ERG Functional Changes Associated with an Alpha7 nAChR Agonist after Blast Exposure in Adult Mice

Presentation Author: Dr. Cindy Linn

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Understanding TMBIM6 in Traumatic Brain Injury with Concurrent Development of First-in-Class Therapeutics

Presentation Author: Dr. Scott Robinson

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A Computational Framework Linking Repeated Blast Exposures, Mechanobiology of Synaptic Injury, and

Biomarker Kinetic Responses

Presentation Author: Dr. Hamidreza Gharahi

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Blast Exposure Induces Dysregulation of the Circadian **Melatonin Pathway: Implications in Blast-induced Sleep Disruptions**

Presentation Author: Dr. Manoj Govindarajulu

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Presentation Author: Dr. Brian Stemper

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Presentation Author: Dr. Michael Urban



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Wearable 3-D Blast Sensors for Underwater and In-Air Explosions

Presentation Author: Dr. Barkan Kavlicoglu

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Primary Blast Effect on Intrathoracic and Intracranial Pressure With and Without Soft Armor

Presentation Author: Dr. Sujith Sajja

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Ferret Biomechanical Responses to Blast Exposure

Presentation Author: Dr. Elizabeth McNeil

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Presentation Author: Mr. Scott Featherman

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Advanced Blast Monitoring with the New Blast Gauge®System: The Generation 7 Flex™

Presentation Author: Mr. Scott Featherman

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A Nonlinear-transmission Acoustic Filter for Preventing Blast Injury of the Ear

Presentation Author: Dr. Soroush Shabahang

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Presentation Author: Ms. Vanessa Barton

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Presentation Author: Mr. Cody Thomas

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Presentation Author: Dr. Pam VandeVord

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Presentation Author: Dr. Maciej Skotak

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Presentation Author: Dr. Liying Zhang

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Presentation Author: Dr. Liying Zhang

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Presentation Author: Dr. Nicholas Vavalle

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Presentation Author: Dr. Suthee Wiri

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Presentation Author: Dr. Suthee Wiri









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Presentation Author: Dr. Suthee Wiri

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Presentation Author: Dr. Suthee Wiri

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Presentation Author: Dr. Suthee Wiri

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Presentation Author: Dr. Suthee Wiri

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Presentation Author: Dr. Tim Walilko

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Presentation Author: Dr. Laurel Ng

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Presentation Author: Ms. Kimberly Smith

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Presentation Author: Dr. Annegret Dettwiler

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Presentation Author: Dr. Hrishikesh Rao

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Presentation Author: Dr. Zezong Gu

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Presentation Author: Dr. Sharon Juliano

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Presentation Author: Dr. Nathaniel Greene

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Presentation Author: Dr. Walter Carr

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Presentation Author: Dr. Fatemeh Haghighi

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Presentation Author: Dr. Maciej Skotak

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Presentation Author: Dr. Lanier Heyburn

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Presentation Author: Dr. Ricardo Mejia-Alvarez









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Presentation Author: Dr. Ricardo Mejia-Alvarez

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Presentation Author: Mr. Nevin Varghese

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Presentation Author: Dr. Michaelann Tartis

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Presentation Author: Dr. Christopher Rhea

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Presentation Author: Mr. Tyler Rooks

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Presentation Author: Mr. Tyler Rooks

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Presentation Author: Mr. Michael Hanna

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Presentation Author: Dr. Maciej Skotak

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Presentation Author: Dr. Maciej Skotak

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Presentation Author: Dr. Maciej Skotak

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Presentation Author: Mr. Jack Seifert

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Presentation Author: Dr. Eric Schneider

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Presentation Author: Dr. Hans Linsenbardt

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Presentation Author: Dr. Jennifer Belding

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Presentation Author: Dr. Jennifer Belding

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Presentation Author: Dr. Jennifer Belding









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Presentation Author: Dr. Chandler Rhodes

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Presentation Author: Ms. Tabitha Waldrop

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Presentation Author: Dr. Venkata Ravi Shankara Harsha Teja Garimella

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Presentation Author: Dr. Elizabeth Brokaw

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Presentation Author: Dr. Stefanie Kuchinsky

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Presentation Author: Dr. Fabio Leonessa

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Presentation Author: Dr. Douglas Brungart

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Presentation Author: Ms. Olivia Webster

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Presentation Author: Ms. Hannah Frame

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Presentation Author: Dr. Joshua Tam

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Presentation Author: Mr. Brian Kaluf

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A Preliminary Analysis

Presentation Author: Dr. Alexis Sidiropoulos

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Presentation Author: Dr. Isha Mutreja

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Presentation Author: Mr. Joshua Nieman

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Presentation Author: Dr. Conrado Aparicio

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Presentation Author: Mr. Benjamin McDonald









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Presentation Author: Dr. Brad Hendershot

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Presentation Author: Dr. Molly Baumann

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Presentation Author: Dr. Laurent Frossard

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Presentation Author: Mr. Tyler Cagle

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Presentation Author: Dr. Dustin Crouch

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Presentation Author: Dr. Tommaso Lenzi

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Development of an Intelligent Soft Orthotic Device (ISOD) for Adaptive Hand Rehabilitation

Presentation Author: Dr. Juan Wachs

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Measured Stiffness of Off-the-Shelf Carbon Fiber Ankle Foot Orthoses Depends on Test Alignment

Presentation Author: Mr. Benjamin Shuman

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Presentation Author: Dr. Nicholas Fey

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Presentation Author: Dr. Saam Morshed

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Presentation Author: Mr. Shriniwas Patwardhan

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Presentation Author: Mr. David Herlihy

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Presentation Author: Ms. Katherine Fehr

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Presentation Author: Mr. Jonathan Kuniholm

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Presentation Author: Dr. Shashikumar Salgar









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Presentation Author: Dr. Ji Hyun Kim

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Presentation Author: Mr. Connor Barth

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Presentation Author: CPT Theodore Crisostomo-Wynne

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Presentation Author: Dr. Daniel Garry

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Presentation Author: Dr. Jia-Qiang He

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Presentation Author: Dr. Jae Sung Lee

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Presentation Author: Dr. Jae Sung Lee

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Presentation Author: Dr. Alejandro Bernal

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Presentation Author: Dr. Joshua Weiner

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Presentation Author: Dr. Melissa Krebs

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Presentation Author: Dr. Robert Redmond

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Presentation Author: Mr. Dylan Scarton

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Presentation Author: Dr. Luis Alvarez

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Presentation Author: Dr. Jessica Motherwell

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Presentation Author: Dr. Connor Dolan









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Presentation Author: Dr. Rita Brookheart

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Presentation Author: Dr. Jonathan Kulwatno

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Novel NAD-Based Hydrogels for Wound Healing Presentation Author: Mr. Amin Izadpanah

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Presentation Author: Dr. Nicholas Chartrain

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Presentation Author: Dr. Evelina Vagesjo

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Presentation Author: Dr. Sam Wadsworth

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Presentation Author: Dr. Stefan Roberts

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Presentation Author: Dr. Eric Walker

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Presentation Author: Dr. Jeoung Soo Lee

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Presentation Author: Dr. Luis Garza

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Presentation Author: Dr. Michael McClure

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Presentation Author: Dr. Jeroen Eyckmans

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Presentation Author: Dr. Richard Trevino

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Presentation Author: Dr. Ching-Yi Lin









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Presentation Author: Ms. Anne Behre

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Presentation Author: Dr. Peter Nicksic

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Presentation Author: Maj Stephanie Raps

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Presentation Author: Dr. Sourabh Boruah

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Presentation Author: Ms. Michelle Nordstrom

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Presentation Author: Dr. Mary Barbe

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Presentation Author: Dr. Matthew George

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Presentation Author: Dr. Zhaohui Wang

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Presentation Author: Dr. Jamie Baisden

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Presentation Author: Dr. Soroush Assari

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Presentation Author: Ms. Cori Espelien

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Presentation Author: Karthik Somasundaram

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Presentation Author: Mr. Andrew Spencer

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Association of TP53 Single-nucleotide Polymorphisms with **Prostate Cancer in a Racially Diverse Cohort of Active Duty** and Military Health Care Beneficiaries

Presentation Author: ENS Allison Duncan

MHSRS-22-05194 - POSTER SESSION 2 - #392

Sample Quality in Precision Medicine Research: Effect of Prolonged Ischemia Time on RNA Quality from Kidney, Lung, **Breast, and Heart Tissue**

Presentation Author: Dr. Stella Somiari

MHSRS-22-05756 - POSTER SESSION 2 - #393

Cytokine Levels in Breast Cancer Are Highly Dependent on Cytomegalovirus (CMV) Status

Presentation Author: Dr. Stella Somiari

MHSRS-22-05213 - POSTER SESSION 2 - #394

Evaluation of a Radical Prostatectomy Treated Patient Cohort in the Military Health System Identifies p53 Expression and Lymphovascular Invasion as Early Predictors of Metastatic **Progression**

Presentation Author: Dr. Shyh-Han Tan

MHSRS-22-05295 - POSTER SESSION 2 - #395

Non-disparate Survival of Non-Hispanic Black Women with **Breast Cancer Despite Less Favorable Pathology: Effect of** Access to and Provision of Care within a Military Healthcare System

Presentation Author: Dr. Rachel Ellsworth

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Immunologic Gene Expression Profiling of Prostate Tumors from a Military Cohort of African American and Caucasian **American Patients**

Presentation Author: Dr. Cara Schafer

MHSRS-22-05356 - POSTER SESSION 2 - #397

PMEPA1 Gene Isoforms (a and b): Potential Indicators of Disease Progression in Solid Tumors of the Warfighters via Manipulating TGF-B and Androgen Signaling

Presentation Author: Mr. Hua Li

MHSRS-22-05398 - POSTER SESSION 2 - #398

Association of Cancer Treatment Response, Recurrence and Underlying Molecular Reasons for Over 22 TCGA Tumor Types Presentation Author: Mr. Jianfang Liu

MHSRS-22-05448 - POSTER SESSION 2 - #399

Multi-omic Approaches Identify Potential Biomarkers at the **Interplay Between Local Wound and Systemic Infections** Presentation Author: Dr. Eric Gann

MHSRS-22-05454 - POSTER SESSION 2 - #400

Biospecimen Quality Assessments and Identity Matching from the First Two Years of the APOLLO Molecular Quality **Control Program**

Presentation Author: Dr. Lori Sturtz

MHSRS-22-05464 - POSTER SESSION 2 - #401

Using Healthcare Utilization Data and Machine Learning Algorithms to Improve Surveillance of Hepatocellular **Carcinoma in the Military Health System**

Presentation Author: Dr. Scott Grey

MHSRS-22-05469 - POSTER SESSION 2 - #402

Clinical Data May Be Used to Predict the Development of **Heterotopic Ossification in Combat-related Extremity Trauma** at Hospital Admission

Presentation Author: Dr. Felipe Lisoba

MHSRS-22-05470 - POSTER SESSION 2 - #403

Predicting ARDS in Surgical Critical Care Patients Based on Serum Inflammatory Markers and Clinical Data

Presentation Author: Dr. Felipe Lisboa









MHSRS-22-05494 - POSTER SESSION 2 - #404

Characteristics and Occupational Trends of Active Duty Military Members with Repeat Atrial Fibrillation Catheter Ablations

Presentation Author: Capt Matthew Tunzi

MHSRS-22-05715 - POSTER SESSION 2 - #406

Data Quality Assurance and Quality Control Tools to Support Research Case Selection for the Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Network Presentation Author: Mrs. Kimberly Murtha

MHSRS-22-05725 - POSTER SESSION 2 - #407

An Informatics Tool to Support Research Case Credentialing for the Applied Proteogenomics Organizational Learning and Outcomes (APOLLO) Network Presentation Author: Mrs. Kimberly Murtha

MHSRS-22-05716 - POSTER SESSION 2 - #408

A Data Tracking System for the Center for Prostate Disease Research (DTS-CPDR)

Presentation Author: Mr. Jesse Stratton

MHSRS-22-05717 - POSTER SESSION 2 - #409

An Application to Support Sample Processing through **Proteogenomic Analysis for the Applied Proteogenomics** Organizational Learning and Outcomes (APOLLO) Network Presentation Author: Mr. Adam Maddy

MHSRS-22-05724 - Poster Session 2 - #410 **Digital Pathology at CSSIMMW to Support Cancer Research for the Murtha Cancer Center Research Program** within the Department of Defense

Presentation Author: Mrs. Brenda Deyarmin

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Multiplex Sampling at the Source Using Portable MinION Nanopore Sequencing of Foodborne Microbial Pathogens Presentation Author: Dr. Oksana Pavlyuk

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Genomics of Exertion-Related Events Associated With Sickle Cell Trait (GERESCT) Study: Preliminary Results from **Genomic Analysis**

Presentation Author: Dr. Minggiang Ren

MHSRS-22-05981 - POSTER SESSION 2 - #413

Genomics of Exertion-Related Events Associated With Sickle Cell Trait Study: Preliminary Results of Plasma **Proteome Profiling**

Presentation Author: Dr. Minggiang Ren

MHSRS-22-05988 - POSTER SESSION 2 - #414

Integrated Multi-omic Analysis of Myogenesis from Human Pluripotent Stem Cells to Myoblast Cells

Presentation Author: Dr. Minggiang Ren

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Beyond Clinical: Integrating Research Assay Data into the Observational Health Data Sciences and Informatics Common Data Model (OHDSI CDM) through the Surgical **Critical Care Initiative (SC2i)**

Presentation Author: Mrs. Chandra Almond

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Transcriptomic Profiles Associated with the Development of **Heterotopic Ossification in Combat Extremity Wounds** Presentation Author: Dr. Simon Tallowin

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The Effect of Physical and Psychological Stress on the Oral Microbiome

Presentation Author: Dr. Savanna Stoy

MHSRS-22-06304 - POSTER SESSION 2 - #418

Temporal Gene Expression Analysis Associated with Different Fibrinolytic Phenotypes in Burn Patients Presentation Author: Ms. Aarti Gautam

MHSRS-22-06574 - POSTER SESSION 2 - #419

A Custom Targeted Sequencing Panel Reveals Microbial **Virulence Profiles Underpinning Critically Colonized Combat Wounds**

Presentation Author: Dr. Car Reen Kok

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Secretome Determination from Stem Cell Conditioned Medium with Application to Therapy for Erectile Dysfunction Presentation Author: Dr. John Jackson

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Preventing Opioid Abuse: Development of an Epigenetic Diagnostic Test to Monitor and Detect OUD Risk

Presentation Author: Dr. Rachel Spurbeck









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Effects of a Two-step Silver Diamine Fluoride Treatment on Shear Bond Strength of Dental Restorations, Dentin and Enamel Hardness, and Biofilm Formation

Presentation Author: CDR Al Tiba

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In Search of Next-Generation Antivenoms that will Optimize Warfighter Healthcare

Presentation Author: Dr. Elda Sanchez

MHSRS-22-07181 - POSTER SESSION 2 - #424

APOLLO1: Proteogenomic Analysis of Lung Adenocarcinoma Reveals Prognostic Signatures, a Novel Molecular Subtype, and Therapeutically-relevant Pathways

Presentation Author: Dr. Matthew Wilkerson

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Ectopic Expression of Genetic Protectants for Precision Medicine Applications

Presentation Author: LT Sean Jackewicz

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Mitochondria Organelle Transplantation: From Warfighter to Neurodegenerative Disorders

Presentation Author: Dr. Mark Kindy

MHSRS-22-07331 - POSTER SESSION 2 - #427

Pseudogene Modulation of Genetic Expression and Alteration of Wound Healing in Military Trauma Surgical Site Dehiscence

Presentation Author: 2Lt Zachary Mattice

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Genetic Polymorphisms Associated with Reduced Tetrahydrobiopterin (BH4) Synthesis Are Associated with a Distinct Metabolic Signature in Plasma: A Precision Medicine Approach for Screening Individuals at Risk for BH4 Deficiency

Presentation Author: Dr. Laurel Crosby

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Personalized Genomic Cancer Risk Assessment and Mitigation for U.S. Air Force Pilots

Presentation Author: Dr. Minh Liem Phan

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New Strategies in the War Against Skin Cancer: The Role of Artificial Intelligence and Reflectance Confocal Microscopy in Service People and Veteran's Skin Care

Presentation Author: Ms. Claudia Lee

MHSRS-22-07870 - POSTER SESSION 2 - #431

Impacts of Total Body Irradiation in Allogeneic Umbilical Cord Blood Hematopoietic Stem Cell Transplant with Reduced Intensity Conditioning

Presentation Author: Dr. Jeffrey Pu

Artificial Intelligence, Machine Learning, and Predictive Analytics in Military Medicine

MHSRS-22-05462 - POSTER SESSION 2 - #432

Artificial Intelligence Decompensation Expert (AIDEx): A Roadmap for the Integration of a Sepsis Prediction Clinical Decision Support Tool within the Military Health System

Presentation Author: Dr. Seth Schobel

MHSRS-22-06077 - POSTER SESSION 2 - #433

Artificial Intelligence Driven Outbreak Detection and Characterization Supports Effective Response to Biothreat at Eacilities

Presentation Author: Mr. Alexander Sundermann

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Risks of Musculoskeletal Conditions in Postpartum Active Duty Service Members

Presentation Author: Dr. Tim Mauntel

MHSRS-22-06531 - POSTER SESSION 2 - #435

Building a Multimodal PTSD Biomarker through a Graphical Approach

Presentation Author: Dr. Burook Misganaw

MHSRS-22-06803 - POSTER SESSION 2 - #436

Rates of and Risk Factors for Symptomatic Hallux Valgus Among U.S. Military Service Members

Presentation Author: Dr. D Alan Nelson









MHSRS-22-07032 - POSTER SESSION 2 - #437

Artificial Intelligence and Machine Learning for Hemorrhagic Trauma Care: A Systematic Review

Presentation Author: Dr. Shawn Rhind

MHSRS-22-07237 - POSTER SESSION 2 - #438

Using Graph Models to Analyze Contact Tracing Proximity Data Presentation Author: Mr. Jacob Bovnewicz

MHSRS-22-07251 - POSTER SESSION 2 - #439

Health of the Recent U.S. Military Applicant Pool and **Evaluation of Pre-accession Medical Disqualifications as Predictors of Early Discharge**

Presentation Author: Ms. Amanda Kelley

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A Music-Based Assessment Tool to Accurately Diagnose and **Predict Psychological Traits and Mental Health Disorders in** the Military Health System: State-of-the-Art Machine Learning Across 107,726 Adults Aged 18 to 65

Presentation Author: Dr. David Greenberg

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VICI - A Veterans-Focused Federated Clinical Decision Support System

Presentation Author: Dr. Sean Manion

MHSRS-22-07485 - POSTER SESSION 2 - #442

Socializing AI & ML Implementation Guidance for Organizations through Private and Public Sector Collaboration Presentation Author: Mr. Michael Swayze

MHSRS-22-07508 - POSTER SESSION 2 - #443

Forecasting Costs in the Military Health System During **COVID-19** at the Defense Health Agency

Presentation Author: Mr. Michael Swayze

MHSRS-22-07516 - POSTER SESSION 2 - #444

Centralized Analytics in a Changing Military Health System at the Defense Health Agency

Presentation Author: Mr. Michael Swayze

MHSRS-22-07610 - POSTER SESSION 2 - #445

Advancing National Disaster Medical System (NDMS) **Definitive Care Network Capacity for Military Casualties: A** Force Multiplier in the Future Fight

Presentation Author: Dr. Shantaram Rangappa

Battlefield Biomarkers for TBI: Diagnostic and Prognostic Indicators

MHSRS-22-7704 - POSTER SESSION 2 - #446 **Interagency Resource Center to Advance Discovery of New** Therapies and Biomarkers for TBI

Presentation Author: Dr. Pamela VandeVord



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Poster Session III





















Development of New Front Line Therapies to Prevent & Treat Endemic Viral Diseases (non SARS CoV-2)

MHSRS-22-04927 - POSTER SESSION 3 - #1

Influenza Vaccine Effectiveness: Analysis of the Impact of Repeated Vaccinations in Military Health System **Beneficiaries**

Presentation Author: Dr. Stephanie Richard

MHSRS-22-06151 - POSTER SESSION 3 - #2

Pathogen Co-infections and Trends in Influenza-like Illness in PAIVED

Presentation Author: Dr. Stephanie Richard

MHSRS-22-04975 - POSTER SESSION 3 - #3

Rapid Vaccine Platform Technology Creating Immunity to Prevent Illnesses in Warfighters with a Proprietary Self Assembling Vaccine

Presentation Author: Mr. Pat Gallagher

MHSRS-22-05149 - POSTER SESSION 3 - #4

Rapid RNA Detection in Vector Arthropods

Presentation Author: Mr. James Mann

MHSRS-22-05374 - POSTER SESSION 3 - #5

Broad Spectrum Macrocyclic NS2B-NS3 Protease Inhibitors to Treat and Prevent Flaviviral Infection

Presentation Author: Dr. Mark Peterson

MHSRS-22-05445 - POSTER SESSION 3 - #6

FAST-DENV - A Point-of-Care Dengue Serodiagnostic

Presentation Author: Mrs. Lauren Costella

MHSRS-22-05925 - POSTER SESSION 3 - #7

Brilacidin, A Host Defense Peptide Mimetic, Is a Broadspectrum Countermeasure Strategy Against Acutely **Infectious Viruses**

Presentation Author: Dr. Aarthi Narayanan

MHSRS-22-05938 - POSTER SESSION 3 - #8

Novel, Machine Learning-based Synthetic Peptides as Dualfunction Solutions to Treat Blood-brain-barrier Damage Due to Encephalitic Viral Infections

Presentation Author: Dr. Aarthi Narayanan

MHSRS-22-06130 - POSTER SESSION 3 - #9

Short Carbon Nanotube-Vectored Delivery mRNA for HIV-1 **Vaccine**

Presentation Author: Dr. Yang Xu

MHSRS-22-06144 - POSTER SESSION 3 - #10

Medical Countermeasures for Crimean-Congo Hemorrhagic Fever

Presentation Author: Dr. Aura Garrison

MHSRS-22-06558 - POSTER SESSION 3 - #11

Structural and Mechanistic Characterization of Protective **Non-Neutralizing Antibodies Targeting Crimean-Congo Hemorrhagic Fever**

Presentation Author: Dr. Aura Garrison

MHSRS-22-06407 - POSTER SESSION 3 - #12

Scalable, Genetically Stable and Safe, Live Attenuated **Vaccine Against Yellow Fever Virus**

Presentation Author: Dr. Anna Kushnir

MHSRS-22-06518 - POSTER SESSION 3 - #13

Pragmatic Assessment of Influenza Vaccine Effectiveness in the DoD (PAIVED): Updates from Year 4 of a Multi-site Trial

Presentation Author: Dr. Rhonda Colombo

MHSRS-22-06148 - POSTER SESSION 3 - #15

A Multivalent Vaccine to Elicit Potent Humoral Immune Responses to Epstein-Barr Virus Infection and Its **Associated Diseases**

Presentation Author: Ms. Gabriela Escalante

MHSRS-22-06646 - POSTER SESSION 3 - #16

Project Impulse: Vendor-agnostic Point of Care Diagnostics

Data Integration Capability for the DoD

Presentation Author: Mr. Ronald Yeaw

MHSRS-22-06674 - POSTER SESSION 3 - #17

Gene Expression and MiRNA Profiling of Vaccinia and **Venezuelan Equine Encephalitis Virus-Infected Human Dendritic Cells**

Presentation Author: Ms. Stacy-Ann Miller









MHSRS-22-06732 - POSTER SESSION 3 - #18

Considering the Deployment of the Germicidal Air Chamber (GAC) Technology to Mitigate the Spread of Respiratory **Diseases such as COVID19**

Presentation Author: Mr. Charles Kassay

MHSRS-22-06788 - POSTER SESSION 3 - #19

Considering the Deployment of Existing Nonthermal Plasma Technology Utilizing Modulated Dielectric Barrier Discharge (MDBD) for Current and Future COVID-19 Mitigation Presentation Author: Mr. Charles Kassay

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The Ferritin Nanoparticle Provides a Flexible and **Immunogenic Platform for Advanced Vaccine Design and Development**

Presentation Author: Dr. M Gordon Joyce

MHSRS-22-07159 - POSTER SESSION 3 - #21

Robust and Flexible High Content Phenotypic Screening Platform for Discovery and Development of Therapeutics against Viral Pathogens

Presentation Author: Dr. Rekha Panchal

MHSRS-22-07367 - POSTER SESSION 3 - #22

Evaluation of Commercial-off-the-Shelf Air Filtration Systems Used to Remove COVID-19 from Aerosols Generated in Dental Treatment Rooms

Presentation Author: Ms. Zakiya Skeete

MHSRS-22-07441 - POSTER SESSION 3 - #23

Recombinant Adenovirus-Like Particles (AdVLPs): Assessment of Immunogenicity of Monovalent and **Polyvalent Vaccine Compositions**

Presentation Author: Dr. Hannah Mulhall Maasz

MHSRS-22-07769 - POSTER SESSION 3 - #24

Iterative Design, Build, and Test Approach for Modular, Mobile, and Adaptable Patient Isolation Systems for **Management of Infectious Diseases**

Presentation Author: Mr. Mark Vasquez

MHSRS-22-07770 - POSTER SESSION 3 - #25

Next Generation Live-attenuated Vero Yellow Fever (vYF) Vaccine Candidate: First Safety and Immunogenicity Results of a Phase 1 Dose-ranging Study

Presentation Author: Dr. Kayvon Modjarrad

Antimicrobial Development to Counter Wound Infections in Military Personnel

MHSRS-22-04886 - POSTER SESSION 3 - #26

Comparing a Biofilm-Disrupting Wound Gel to Conventional Antimicrobial Dressings

Presentation Author: Dr. Matt Regulski

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Soluble Collagen Gel and Porcine Peritoneal Membrane Wound Matrix Embedded with Silver/Zinc Ion-exchanged **Nanozeolite Exhibits Sustained Antimicrobial Activity**

Presentation Author: Dr. Justin Baker

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In Pursuit of a Vaccine: Investigation of the Antibody Repertoire Induced by C. trachomatis Infection in the **Military Population**

Presentation Author: Dr. Zachary Colburn

MHSRS-22-05072 - POSTER SESSION 3 - #29

Preemptive Development of Bacteriophage Cocktails to Mediate Bacterial Resistance During Phage Therapy Presentation Author: Mrs. Brittany Bivens

MHSRS-22-05073 - POSTER SESSION 3 - #30

PLG0206, an Engineered Antibacterial Peptide, Overcomes **Antimicrobial Peptide Limitations for the Treatment of Biofilm Infections Caused by Multidrug-Resistant Bacteria** Presentation Author: Ms. Kimberly Brothers

MHSRS-22-05091 - POSTER SESSION 3 - #31

Novel Antimicrobial Peptide in Chitosan Sponge for Treatment of Wound Infections

Presentation Author: Dr. Jennifer Neff

MHSRS-22-05164 - POSTER SESSION 3 - #32

Development of Peptide-Based Wound Dressings for Prevention and Management of Infected Wounds

Presentation Author: Dr. Nina Bionda









MHSRS-22-05416 - POSTER SESSION 3 - #33

Oral Biologics as Novel Pre-exposure Prophylaxis Against All Major Pathogenic Enterotoxigenic Escherichia coli (ETEC) Strains that Affect Warfighter's Readiness

Presentation Author: Dr. Yang Wang

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BCX: A Novel Strategy to Counter Antibiotic Resistance in MDROs

Presentation Author: Dr. Eric Brown

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Impact of Therapeutic Regimens of Lytic Bacteriophage on the Healing Trajectories of A. baumannii Infected Wounds in Mice

Presentation Author: Dr. Scott Grey

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Sufficient Elimination and Visualization of Multidrugresistant Polyspecies Biofilms

Presentation Author: Dr. Yongli Li

MHSRS-22-05548 - POSTER SESSION 3 - #37

Intrawound Vancomycin Achieves Sustained High Interstitial Concentrations in Injured Human Extremities

Presentation Author: Mr. Matthew Burgess

MHSRS-22-05628 - POSTER SESSION 3 - #38

Artificial Intelligence (AI) and Machine-Learning (ML)
Designed Antimicrobial Peptides Against Gram-Negative
Bacteria

Presentation Author: Dr. Monique van Hoek

MHSRS-22-05629 - POSTER SESSION 3 - #39

Antibacterial Peptide Development, Activity and Efficacy Against MDR Biofilm-Forming Wound Pathogens (ESKAPE) JW200188

Presentation Author: Dr. Monique van Hoek

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Cerium Nitrate Treatment Diminishes Pseudomonas aeruginosa Pathogentic Potential

Presentation Author: Dr. Sai Lakshmi Rajasekhar Karna

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Loading a First-in-Class Antibiofilm Compound into Polyurethane Foam for Negative Pressure Wound Therapy

Presentation Author: Mr. Tyler Smith

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Wound Dressing and Bone Cement for Phage and Antibiotic Delivery to Complex Wounds

Presentation Author: Dr. Nino Mzhavia

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Modulation of Growth of Wound Microbiota by Adrenergic Receptor Agonists and Antagonists

Presentation Author: Dr. Roslyn Isseroff

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The Immunogenicity of Pseudomonas aeruginosa Bacteriophages Is Moderate and Does Not Impair Their Therapeutic Efficacy

Presentation Author: Dr. Andrey Filippov

MHSRS-22-06082 - POSTER SESSION 3 - #45

Rational Design and Therapeutic Efficacy of Fixed Bacteriophage Cocktails Against Multidrug-Resistant Pseudomonas aeruginosa

Presentation Author: Dr. Andrey Filippov

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In vitro and In vivo Study of a Copper-based Hydrogel Burn Gauze

Presentation Author: Dr. Aaron Strickland

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Effectiveness of FDA-Cleared Wound Cleansers to Sanitize Surgical Tools and Surfaces in Austere Environments Presentation Author: Ms. Kimberly Baker

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Effects of a Novel Non-Biologic Desiccant to Remove Bacteria Using a Deep Dermal Wound Porcine Model Presentation Author: Mr. Joel Gil

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Preclinical Evaluation of a Biofilm Disrupting Wound Lavage for Use in Severe Musculoskeletal Injuries

Presentation Author: Dr. Michael Whitely

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Determination of the Debridement Effects of an Enzymatic Hydrogel on Deep Dermal Wounds Using a Porcine Model

Presentation Author: Mr. Stephen C. Davis









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Comparative Analysis of A. baumannii metagenomes Assembled without Culture Identifies Distinctions Between Combat and Civilian Infection

Presentation Author: Dr. Nick Be

MHSRS-22-06102 - POSTER SESSION 3 - #52

An Optimized Peptide Extraction Method for LC-MS Analysis of Antimicrobial Peptide Stability in Human Serum

Presentation Author: Dr. Wen Chen

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CC-4066 / Apramycin Combination: Integrating
Antibacterial, Tissue Protective and Immunomodulatory
Activities

Presentation Author: Dr. Hans Fliri

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Lead Optimization of Novel Inhibitors of Multidrug Resistant Acinetobacter baumannii Using Structure-Activity Relationships

Presentation Author: Dr. Schroeder Noble

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Development of a Photonic Antimicrobial Wound Surface Dressing (PAWS-Dressing)

Presentation Author: Dr. Laisa Negri

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Vitamin K 3 (Menadione) Substantially Increases Antimicrobial Bluelight Killing of Multiple Bacterial Pathogens in Biofilms by Increasing ROS Production in the Bacteria

Presentation Author: Mrs. Laisa Bonafim Negri

MHSRS-22-06438 - POSTER SESSION 3 - #57

ORACLE: A High-throughput Platform to Engineer Novel, Targeted, Synthetic Bacteriophages as Therapeutics to Treat Multi-drug Resistant Bacterial Infections

Presentation Author: Dr. Srivatsan Raman

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Electroceutical Suture Fiber for Inflammation Prevention in Complex Wounds: Design, Development, and In-vitro Efficacy

Presentation Author: Dr. Alexander Gumennik

MHSRS-22-06511 - POSTER SESSION 3 - #59

Prediction and Overcoming of Bacteriophage-Resistance in Phage Therapy

Presentation Author: Mr. Michael Deschenes

MHSRS-22-06688 - POSTER SESSION 3 - #60

A Microfluidic Impedance-Based Bacteriophage Capture and Antibiofilm Analyzer

Presentation Author: Dr. Ketan Bhatt

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Placement of Antibiotic Powder in Open Fracture Wounds in the Emergency Room: Preliminary Results of the P.O.W.D.E.R. Clinical Trial

Presentation Author: Mr. Juan Laporta

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Wearable Ozone Therapy System for Wound Infection Treatment and Prevention

Presentation Author: Mr. Akshay Krishnakumar

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Synthetic Platelet-Mimetics with Gentamicin: Outcomes in Deep Partial-Thickness Burns

Presentation Author: CPT Franklin Valdera

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Antimicrobial Blue Light for the Prevention of Highly Invasive Vibrio vulnificus Infection

Presentation Author: Dr. Carolina dos Anjos

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Wearable Ultralight Device for Accelerated Healing of Acute Soft Tissue Injury and Wounds Using PhotobioModulation Light Therapy in Multi-Domain Environments

Presentation Author: Dr. John Castel

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The Functionality and Efficacy of BIAKÕS Antimicrobial Wound Cleanser (AWC) and Antimicrobial Wound Gel (AWG) in Austere Conditions Present in Global Military Deployments

Presentation Author: Mr. Larry Estlack









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Development of a Biofilm Reactor for High Throughput Screening of Antibiotic Biofilm Eradication Efficacy

Presentation Author: Ms. Annika Hylen

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In vitro Activity of Sulbactam-durlobactam Against a Panel of Geographically and Genetically Diverse Acinetobacter baumannii Clinical Isolates Collected from Military Health **System Patients Worldwide**

Presentation Author: LTC Charlotte Lanteri

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Experience with a Novel Transforming Powder Dressing for Hidradenitis Suppurativa Related Wounds

Presentation Author: Ms. Divya Chopra

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Microfluidic Biodefense Platform (MBP): A Novel Multifunctional Technology and Approach for Biomarker and **Antimicrobial Lead Discovery**

Presentation Author: Dr. Yousif Shamoo

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Preclinical Evaluation of Omadacycline for Potential as a Drug to Treat Acinetobacter baumannii and Klebsiella pneumoniae Infections in Combat Wounds

Presentation Author: CPT Darren Smith

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An Update on the Human Monoclonal Antibody Platform (HMAP): A Programmatic Effort Targeting the Bacteria **Responsible for Wound Infections**

Presentation Author: Dr. Yoann Le Breton

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Conjugated Oligoelectrolytes - A Novel Antibiotic Platform with Activity Against ESKAPEE Pathogens

Presentation Author: Dr. Yoann Le Breton

MHSRS-22-07821 - POSTER SESSION 3 - #74

A Novel, Clinically Relevant Polymyxin SPR206 Eradicates All **Gram-negatives Associated with Wound Infection**

Presentation Author: Dr. Yoann Le Breton

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Electroceutical Dressing Technology for the Management of Wound Microbial Biofilm Infection

Presentation Author: Dr. Sashwati Roy

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Alkaline-responsive PDA-Peptide Conjugates Toward Real **Time Monitoring of Chronic Wound Healing with On-Demand Release of Antibiotics**

Presentation Author: Mrs. He Dong

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Low-cost Flexible Smart Wearable Patch for Localized Wound Treatment and Infection-triggered Release of Therapeutics Presentation Author: Sarath Gopalakrishnan

MHSRS-22-07518 - POSTER SESSION 3 - #78

Optimization of Methods for RT-qPCR Identification of Biofilm-specific Markers for Multi-drug Resistant Staphylococcus aureus

Presentation Author: Mr. German Garcia

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Monoclonal Antibodies Against BauA and OmpW2 on the Surface of A. baumannii Disrupt Growth and Promote **Survival in Animal Models of Infection**

Presentation Author: Dr. Daniel Zurawski

MHSRS-22-07837 - POSTER SESSION 3 - #80

Killed Vaccine Approaches Prevent Acinetobacter baumannii Infections in Murine Wound and Pulmonary Models of Infection

Presentation Author: Dr. Daniel Zurawski

MHSRS-22-07684 - POSTER SESSION 3 - #81

The role of Interspecies Interaction between Wound Pathogens and Coagulase-negative Staphylococcus for Antibiotic Resistance and Biofilm Formation in vitro and the Development of Polymicrobial Infection in Polytrauma **Animal Model**

Presentation Author: Dr. Alexander Bobrov

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Blast Effects on Pharmacokinetics of Antibiotics in Rat Model

Presentation Author: Dr. Alexander Bobrov

MHSRS-22-07716 - POSTER SESSION 3 - #83

Broad-Spectrum, Phage Mimicking, Antibacterial Nanoparticles for Antibiotic Free, Bactericidal Action Against the ESKAPE Pathogens

Presentation Author: Dr. Prakash Nallathamby









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A Novel Therapeutic for Drug-Resistant C. auris Presentation Author: Dr. Mina Izadjoo

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Development of RNA-based Bacterial Vaccines Using Nanoparticle Delivery System

Presentation Author: Dr. Wei He

Mitigating Bloodborne Infection Risk in Large Scale Combat Operations

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The Role of Innate Immunity During Acute HIV Infection on the Development of Neutralization Breadth

Presentation Author: MAJ Gina Griffith

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Layer-by-Layer Delivery Platform for Vaccine Development Presentation Author: Dr. Yang Xu

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Development of a Single Dose Nanoparticle Vaccine Against Chikungunya Virus

Presentation Author: Dr. Joseph Mattapallil

Sepsis 360 - Early Detection and Treatment in the Operational Environment

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Measurement of Cervical Neuronal Signals in a Human Sepsis Model [Intravenous Lipopolysaccharide (LPS) Injection]

Presentation Author: Dr. Imanuel Lerman

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Using Proteomics and Machine Learning to Characterize Mouse Endothelial Cell Dysfunction Heterogeneity

Presentation Author: Mr. Jordan Langston

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Development of Vaccines and Therapeutics to Prevent and Treat Severe Sepsis Due to Leptospirosis in the Warfighter: An Unmet Need

Presentation Author: Dr. Joseph Vinetz

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Initial Development of Prolonged Field Care Relevant Large Animal Models of Sepsis

Presentation Author: Dr. Randy Stone

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SampleCAP: A Power-free System for Biomolecule Concentration and Preservation

Presentation Author: Dr. Scott Angus

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Innovative Diagnostics Platform for Detection of Sepsis

Presentation Author: Dr. Roya Khosravifar

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Distinguishment of Bacterial and Viral Infections with a Microneedle Array-immunosensor

Presentation Author: Dr. Zuan-Tao Lin

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Integrated Digital Microfluidic Blood Culture Diagnostic Reduces Time-to-Result by Half

Presentation Author: Dr. Rainer Ng

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Host-Protein Score (Integrating TRAIL, IP-10, CRP) Distinguishes Between Viral and Bacterial Infection in **Sepsis Patients**

Presentation Author: Dr. Tanya Gottlieb

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Highly Portable Device for Simple Rapid Early Sepsis Detection and More, in the Field

Presentation Author: Dr. Alan Fine

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Novel Transdermal Curcumin Therapeutic Preserves Endothelial Barrier Function in a Rat Model of Sepsis

Presentation Author: Dr. William Nugent









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Use of the Seraph® Filter as an Adjunct Treatment Modality in an ECMO Patient with Pseudomonas bacteremia: A Case Report

Presentation Author: Ms. Rachel Sterling

SARS CoV-2 Therapeutics and Diagnostics

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Comparison of SARS-CoV-2 Detection on the Biomeme SARS-CoV-2 Go-Strips to the Cepheid Xpert Xpress SARS-CoV-2/Flu/RSV and BioFire Respiratory Panel 2.1 in Clinical Samples

Presentation Author: Mr. Chet Voelker

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Antimicrobial Surface Coatings to Reduce COVID-19 SpreadPresentation Author: Dr. Dorin Preda

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The Accuracy of Pre-hospital (Field) Acquisition and Interpretation of Lung POCUS Images in Patients Presenting with COVID-19 Disease

Presentation Author: 2LT Lynzee Allen

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Scaffolded DNA Origami-based Antigen Delivery Platform for Rational Design of Vaccines Against Life-threatening Viral Pathogens

Presentation Author: Dr. Remi Veneziano

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Probenecid Potently Inhibits SARS-CoV2, Influenza Virus, and Respiratory Syncytial Virus Replication

Presentation Author: Dr. David Martin

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LAT8881, A Novel Human Growth Hormone Fragment, Is Highly Effective in Reducing SARS-CoV-2 Inflammation and Lethality in a K18-hACE2 Mouse Model

Presentation Author: Dr. Andrew Gearing

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VaxiMap: Rapid Optimal Delivery of Vaccinations for Housebound Patients

Presentation Author: MAJ Robert Staruch

MHSRS-22-05967 - POSTER SESSION 3 - #109

Real-Time Assessment of Lung Function in ICU COVID Patients Using EIT

Presentation Author: Dr. Tzu-Jen Kao

MHSRS-22-05985 - POSTER SESSION 3 - #110

Ultrasensitive, Plasmon-Enhanced Lateral Flow Assays for Detection of SARS-CoV-2 Antigens and Antibodies

Presentation Author: Dr. Jeremiah Morrissey

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Patterns of Cognitive Deficits in Mild COVID-19 Infection Inform Focused Cognitive Rehabilitation in Active Duty Service Members to Increase Operational Readiness Presentation Author: CDR Shawnna Chee

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The Role of SARS-CoV-2 Vaccination Route in Protection, Viral Control and Transmission in AdCOVID Vaccinated K18hACE2 Mice

Presentation Author: Ms. Alexandria Dickson

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Validation of High Throughput Pooled SARS-CoV-2 Testing Using Hologic's Panther Fusion® and Aptima® Assays Presentation Author: Dr. Rudolph Park

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Fever and Leukocytosis Are Poor Predictors of Infection in Patients with Influenza or COVID-19 Receiving Extracorporeal Membrane Oxygenation

Presentation Author: CPT Luke Jackson

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Utilization of the BioFire FilmArray for Surveillance of Human Respiratory and Gastrointestinal Pathogens in Environmental Wastewater

Presentation Author: CPT Bill Kowallis

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COVID-19 ECMO and Intracranial Hemorrhage: Lessons Learned and Modification to Our Anticoagulation Strategy

Presentation Author: Capt Robert Laverty

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Oral Varespladib for Inhibition of Endogenous sPLA2 Toxicity in Patients with Severe COVID-19: Phase II Clinical Trial Experience

Presentation Author: Dr. Matthew Lewin









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Phase 1a Safety Findings, Pharmacokinetics, and Nebulization Stability of Regdanvimab/IN-006 Support Its Development as a Potent, Dose-Sparing Inhaled Therapy for COVID-19

Presentation Author: Dr. Thomas Moench

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A Field Test that Is Applied to the Skin and Turns Positive Upon Contact with Targeted Analyte, Whether Contact Occurs at the Time of Testing or Weeks or Months Later Presentation Author: Dr. Randy Allen

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Pulmonary Function Testing in Non-Hospitalized Active Duty Service Members Post COVID-19

Presentation Author: Capt Kevin Loudermilk

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Saving Lives at Home and Abroad: Force Health Protection's Response to COVID-19

Presentation Author: Dr. Chia-Wei Tsai

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Identification of Small Molecule Inhibitors of SARS-CoV-2 and Other Human Coronaviruses through High-Throughput In Silico Compound Library Screening

Presentation Author: Dr. Robert Campbell

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The DoD Small Molecule Therapeutics Consortium for Accelerating Discovery and Development of Broad-acting Drugs for SARS-CoV-2 and Other Human Coronaviruses Using Artificial Intelligence/Machine Learning

Presentation Author: LTC Charlotte Lanteri

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Right Solution, Right Place, Right Time! Force Health Protection's COVID-19 Response - Expanded Access Protocol (EAP) for Remdesivir and Convalescent Plasma (CCP)

Presentation Author: Mr. Christopher Weselek

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Low-dose In-vivo Protection and Neutralization Across SARS-CoV-2 Variants by Monoclonal Antibody Combinations

Presentation Author: Dr. Shelly Krebs

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Developing a New Class of Host-targeting Anti-influenza and Anti-coronavirus Therapeutics

Presentation Author: Dr. Kambez Benam

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Improving Warfighter Readiness in a Pandemic: A Novel Non-Infectious Virus-Like Particle to Prevent and Treat SARS-CoV-2 and Accelerate Future Pandemic Preparedness Presentation Author: Dr. Patrick Gonyo

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Immortalized B cells Transfected with mRNA of Antigen Fused to MITD (IBMAM): An Effective Immunological Tool for In-vitro Immune-monitoring of Antigen-specific T Cells Presentation Author: Dr. Tiantian Zhang

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Remote COVID-19 Detection from Coughing Sound Analysis and Breathing Rate Extraction Using a Smartphone Presentation Author: Mrs. Bipasha Kundu

SARS CoV-2 Clinical Studies/ Epidemiology

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Evaluation of SARS-CoV-2 Detection and Efficacy of Elimination after Sanitization in Basic Military Trainee (BMT) Gas Masks

Presentation Author: Dr. Alexander Burdette

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Utility in the Utilities: Wastewater Surveillance for SARS-CoV-2 Virus as a Cost Effectively Rapid Response Tool for the DOD during the COVID-19 Pandemic

Presentation Author: Dr. Ezekiel Maier

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A Syndromic Surveillance Tool for Early Detection and Monitoring of Emerging Infectious Diseases

Presentation Author: Dr. Harold "Skip" Garner

MHSRS-22-05024 - POSTER SESSION 3 - #135

A Machine Learning Approach Identifies Distinct Earlysymptom Cluster Phenotypes which Correlate with Hospitalization, Return-to-health, and Long COVID Risk

Presentation Author: Dr. Nusrat Epsi









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A Case Series of Acute Uveitis Following COVID-19 Vaccines in the DoD population: A Closer Look at a Rare Adverse Event Following Immunizations

Presentation Author: Dr. Bruce McClenathan

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Multisystem Inflammatory Syndrome in Adults after COVID Vaccine: A Case Series

Presentation Author: Ms. Laurie Housel

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Impact of COVID-19 Infections on Healthcare-Associated Infections in the Military Health System

Presentation Author: Dr. Heather Mahaney

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Cross-reactivity of Antibody and Memory T and B Cells Acquired through Natural Infection or Vaccination to Emerging Variants of Concern of SARS-CoV-2

Presentation Author: Dr. Peifang Sun

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Mucosal and Serum Antibody Isotypes in SARS-CoV-2 Infected Marine Corp Recruits and the Correlation Between Antibody Levels with Infection and Symptoms

Presentation Author: Dr. Peifang Sun

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SARS-CoV-2 Infections in Vaccinated and Unvaccinated Populations in Camp Lemonnier, Djibouti from April 2020 to January 2022

Presentation Author: Dr. Catherine Arnold

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Myocarditis and Pericarditis after Vaccine Receipt: More than COVID-19 Vaccines

Presentation Author: Mrs. Donna Hoffman

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Second Dose Outcomes in Patients with Allergic Type Reactions Following mRNA COVID-19 Vaccines at Three Military Medical Centers

Presentation Author: Mrs. Donna Hoffman

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Estimated Native and Vaccine-Induced SARS-CoV-2 Seroprevalence in a U.S. Navy Ship

Presentation Author: CDR Cynthia Sikorski

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Seroprevalence of Antibodies to SARS-COV-2 in the Keesler Medical Center Catchment Area

Presentation Author: Dr. Thomas Shaak

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The Relationship of Serum 25-hydroxyvitamin D at Admission and Severity of Illness in COVID-19 Patients

Presentation Author: LT Rachel Robeck

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Fort Bragg/Cape Fear Region COVID Consortium: Planning and Predicting Pandemic Healthcare Utilization

Presentation Author: Dr. Young Choi

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Mass PCR Testing in the 18th Airborne Corps: Pooled Surveillance

Presentation Author: MAJ Scott Kavan

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Influence of Prior Selected Vaccinations on the Prevalence and Severity of COVID-19 Infection in the Active-Duty Military Population

Presentation Author: Dr. Karl Alcover

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Impact of COVID-19 on Military Beneficiaries:

A Community Study

Presentation Author: Dr. Carla Padilla

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Assessing Relationship between an Air Quality Purification System and Incidence of COVID-19 Infections in a Military Congregate Setting

Presentation Author: Dr. Rose Ramos

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COVID-19 Health Action Response in Marines (CHARM) 2.0 Study: Long Term Follow-up and Expeditionary Roadshow

Presentation Author: CAPT Charmagne Beckett









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Wastewater-based Epidemiology as National Security and Readiness Monitoring Sentinel for COVID-19 and Beyond

Presentation Author: Mr. Ethan Gauvin

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Overview of the Department of Defense Global Respiratory Pathogen Surveillance Program: 2021-2022 Influenza Season

Presentation Author: Mr. Jeffrey Thervil

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Cross-Sectional Survey of Past SARS-CoV-2 Infections and Evaluation of the Neutralizing Antibody Response Amongst COVID-19 Vaccinated Active Duty U.S. Military Members in the Asia-Pacific Region

Presentation Author: LCDR Robert Hontz

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Presentation Author: LCDR Robert Hontz

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Depression in People Living with Human Immunodeficiency Virus During the SARS-CoV-2 Pandemic in the Military HIV Research Program-President's Emergency Plan for AIDS Relief Program Sites in 4 African Countries Presentation Author: MAJ Paul Adjei

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Presentation Author: Dr. Suizhao Wang

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Automated SARS-CoV-2 Variant Prioritization Rapidly Identifies Key Mutations in Wastewater Samples and Research Findings

Presentation Author: Ms. Roshna Agarwal

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Descriptive Analysis of COVID-19 Aeromedical Evacuations by Critical Care Air Transport Teams: An Update from 2021 Presentation Author: Maj Patrick Ng

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Joint Trauma System COVID-19 Vaccine Breakthrough Metrics

Presentation Author: Mrs. Lyndsey Faas

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Opioid and Substance Misuse Trends for Active Duty Service Members During COVID-19 Pandemic

Presentation Author: Mr. Ian Sorensen

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Low Sensitivity of Symptom-Based Screening for COVID-19 in Active Duty Service Members

Presentation Author: 2Lt Zachary Matthews

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Method Development and Implementation of Genomic Wastewater Based Biosurveillance

Presentation Author: Dr. Rachel Spurbeck

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Characterizing the Outpatient Antibody Response in Mild COVID-19 Patients Randomly Treated with Control or Convalescent Plasma

Presentation Author: 2Lt Caelan Barranta

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COVID-19 Chronic Impairment with Pulmonary Symptoms (ChIPS)

Presentation Author: Capt Stephen Goertzen

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SARS-CoV-2 Infection Is Associated with Post-Acute Self-Reported Neurocognitive Symptoms

Presentation Author: Dr. Liana Andronescu

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The Clinical Characteristics of Omicron SARS-CoV-2 infections in the U.S. Military Health System: Early Experience from the EPICC Cohort

Presentation Author: Dr. Simon Pollett

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Quarantining and Military Deployment During the COVID-19 Pandemic

Presentation Author: Dr. Antje Buehler









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Quarantining and Military Deployment During the SARS-Cov-2 Pandemic

Presentation Author: Dr. Antje Buehler

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Presentation Author: Dr. Elizabeth Hisle-Gorman

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Presentation Author: Mr. Paul Kim

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Results of a Survey on Infection Prevention and Control Practices at HIV Care and Treatment Facilities Supported by the Military HIV Research Program in Four African Countries Presentation Author: CAPT Joseph Cavanaugh

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Among Active Duty Service Members

Presentation Author: Dr. Elizabeth Hisle-Gorman

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Type I Interferon Autoantibodies Are Associated with Critical COVID-19 Disease in Patients within the Military Health System

Presentation Author: Dr. Andrew Snow

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The Effects of Pre-COVID Sleep Leadership Training on COVID Leadership: Results from the Military Employee Sleep and Health Study

Presentation Author: Dr. Leslie Hammer

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Presentation Author: Dr. Clara Dismuke-Green

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Presentation Author: 2LT Victor Fox

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Aeromedical Evacuation Registry (AER): Aeromedical Evacuation of SARS CoV-2 Patients (2020-2021)

Presentation Author: Dr. Darcy Mortimer

Integrative Prevention Approaches to Decrease Harmful Behaviors and Increase Service Member Psychological Health, Readiness, & Performance

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Influence of Spouse and Service Member Factors on Reasons to Voluntarily Leave the Military

Presentation Author: Ms. Kelly Woodall

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Patterns of Military Spouse Alcohol Consumption Over Two Time Periods: Findings from the Millennium Cohort Family Study

Presentation Author: Dr. Dana Maglic

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Prenatal Risk Factors for Child Maltreatment During Infancy and Early Childhood in a Military Population

Presentation Author: Dr. Katherine Sullivan

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Childhood Adversity and Chronic Pain Experience Among U.S. Military Personnel

Presentation Author: Dr. Phillip Culp

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"Band of Brothers" - A Cost-effective Intervention for Expanding Social Networks in Introductory Military Training

Presentation Author: Dr. Avi Benov

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5,5,5: A Pilot Study of a Novel Online Training to Improve Soldier Emotion Regulation

Presentation Author: Dr. Jeffrey Osgood

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Understanding Disinformation, Its Impact, and Evidencebased Approaches to Mitigate Spread: An Overview

Presentation Author: Dr. Farifteh Duffy

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Warrior Toughness Improves Training Outcomes for Enlisted Sailors at Naval Nuclear Power Training Command Presentation Author: Dr. Justin Handy

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The Impact of Supervisor-Supportive Mental Health Training on Supervisors' Learning and Reaction Outcomes

Presentation Author: Dr. Leslie Hammer

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Proactive Monitoring of Harmful Behaviors and Warfighter Readiness via Wastewater-based Epidemiology

Presentation Author: Mr. Ethan Gauvin

MHSRS-22-07624 - POSTER SESSION 3 - #191

Enhancing the Army's Deployment Cycle Resilience Training: An Iterative Process with On-going Evaluation to Maintain Relevance and Impact Upon Soldier and Circle of Support Member Resilience, Readiness, Performance, and Overall Wellbeing

Presentation Author: Dr. Michelle Kirk

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Building Military Resilience Through Training: Phase I— **Development and Preliminary Validation of a Military Emotional Intelligence Training (EIT) Program**

Presentation Author: COL William Kilgore

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Examining User Experience: Implications for the Feasibility, Efficacy, and Broader Dissemination of an Online Emotional **Intelligence Training Program**

Presentation Author: COL William Kilgore

Solutions to Promote Resilience and Mitigate Acute Stress in the Face of Trauma and Mass **Casualty Events**

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Macrocyclic Delta Opioid Receptor Biased Agonists as a **New Treatment Paradigm for PTSD**

Presentation Author: Dr. Mark Peterson

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Assessment of a β -Subunit Subtype-selective GABA A Receptor Allosteric Modulator on Baseline Anxiolytic and **Traumatic-stress Related Behaviors**

Presentation Author: CPT Kevin Swift

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Presentation Author: Dr. Quinn Biggs

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HLA Locus Alleles Associated with Posttraumatic Stress Disorder in Active Duty Personnel Deployed to Afghanistan Presentation Author: Dr. Ruoting Yang

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Longitudinal Genome-wide Methylation Study of PTSD Treatment Using Prolonged Exposure and Hydrocortisone Presentation Author: Dr. Ruoting Yang

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Distinct Time-dependent Functional Profiles of Ketamine and Psilocybin in a Mouse Model of Fear Response Reveal Potential Differing Utilities for the Prevention of Stressassociated Psychiatric Disorders

Presentation Author: Dr. Cody Wenthur

MHSRS-22-06894 - POSTER SESSION 3 - #202

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Presentation Author: Dr. Brad Fawver

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Presentation Author: CDR Kennett Radford









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Translating a Novel Neuromodulation Therapy to Treat PTSD Presentation Author: Dr. Seth Hays

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Aggression in Military Members with mild Traumatic Brain Injury and Post-Traumatic Stress Disorder Is Associated with Intimate Partner Health-Related Quality of Life

Presentation Author: Dr. Tracey Brickell

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Predictors of Probable Binge Eating Disorder Among Active Duty Military Spouses

Presentation Author: Mr. Travis Ray

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Research in Art Therapy in Service Members with Posttraumatic Stress Symptoms at the National Intrepid Center of Excellence

Presentation Author: Dr. Chandler Rhodes

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Immersive Virtual Reality-based Treatment of PTSD after mild TBI, With and Without an Eye Movement Task

Presentation Author: Dr. Michael Roy

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Two-month Transcutaneous Auricular Vagal Nerve Stimulation (taVNS) Take-home Device Pilot Study in a PTSD Population as Measured by CAPS-5 and Quality of Life Scores

Presentation Author: Mr. Marcus Elliott

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Rapid, High Throughput Epigenetic Assay for Detection of **PTSD-Related Gene Biomarkers**

Presentation Author: Dr. Judy Obliosca

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RECONsolidation of Traumatic Memories to ResOLve Posttraumatic Stress Disorder (RECONTROL): Preliminary

Presentation Author: Ms. Kerri Dunbar

MHSRS-22-06245 - POSTER SESSION 3 - #212

PTSD Symptomatology Mediates Cognitive Failures in Daily Life After Combat Experience in Elite Military Service **Members**

Presentation Author: Ms. Malena Price

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Translocator Protein in Occupational Post-traumatic Stress Disorder: Preliminary Findings Using the [18F]FEPPA PET Radioligand

Presentation Author: Ms. Sarah Watling

MHSRS-22-06335 - POSTER SESSION 3 - #214

Immersive Relaxation Experience (iRE) for Management of Occupational Burnout Among Joint Intelligence, Cyber, and **Signal Active-Duty Personnel**

Presentation Author: Dr. Vahe Heboyan

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Does the Number of Casualties in a Traumatic Event Associate with Increased Risk of Post-traumatic Stress Disorder?

Presentation Author: COL Avi Benov

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Back to the Future - Reducing PTSD Symptoms Among Combat Veterans in Israel Defense Forces

Presentation Author: COL Avi Benov

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Biomarkers Diagnosing Warzone-Related Post-Traumatic Stress Disorder Using Targeted DNA Methylation Analysis

Presentation Author: Ms. Allison Hoke

MHSRS-22-06810 - POSTER SESSION 3 - #218

Behavioral Health-related Reasons for Permanent Duty Limitation Profiles in the U.S. Army: Population-based Data from 2017-2019

Presentation Author: MAJ Jamie Carreno Davidson

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Personality Changes Across Deployment are Associated with Soldiers' Exposure to Combat Trauma and Stress

Presentation Author: Mr. Tobin Thomas









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Post-Traumatic Stress Syndrome (PTSD) in Military Veterans **Treated and Characterized via Personalized Repetitive Transcranial Magnetic Stimulation (PrTMS)**

Presentation Author: Dr. Milan Makale

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Auditory Event-Related Potentials as Biomarkers of Symptomatology and Course in Post-traumatic Stress

Presentation Author: Dr. Nicholas Davenport

Suicide Prevention Research Initiatives in DoD

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The Relationship Between Insomnia and Suicidal Thoughts and Behaviors in the Military Suicide Research Consortium **Common Data Elements**

Presentation Author: COL William Killgore

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Descriptive Comparison: Suicide-related Behaviors in Airborne Brigades CONUS and OCONUS

Presentation Author: Dr. Anne Germain

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Weapon Storage Practices, Reasons for Gun Ownership and Suicide Risk in U.S. Army Soldiers and Veterans

Presentation Author: Dr. Catherine Dempsey

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Presentation Author: Dr. Edwin Szeto

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Presentation Author: Ms. Jessica Buck-Atkinson

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Presentation Author: Lt Col Andrew Hall

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Sleep and Suicidal Ideation in Marines

Presentation Author: Dr. Lily Brown

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Presentation Author: Dr. Nancy Skopp

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Presentation Author: Dr. Justin Baker

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Presentation Author: Ms. Oshin Miranda

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Presentation Author: Dr. Toby Elliman

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Presentation Author: Dr. Christina Dean

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Presentation Author: CPT George Mesias











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Presentation Author: CPT George Mesias

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Presentation Author: Dr. Katie Nugent

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Presentation Author: Dr. Zhiqing Cheng

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Presentation Author: Ms. Monay Shoushan

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Presentation Author: Ms. Emma Atkinson

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Presentation Author: Dr. Nanshu Lu

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Presentation Author: Ms. Aarti Gautam

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Presentation Author: Mr. Bengie Ortiz

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Presentation Author: Dr. Scott Pappada

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Presentation Author: Ms. Mabel Cooper











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Presentation Author: Dr. Lora Cavuoto

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Presentation Author: Mr. Alexander Lawrence

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Presentation Author: Mr. Nigel Gebodh

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Presentation Author: Mrs. Holly Ortman

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Presentation Author: Mr. Santosh Srinivasaiah

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Presentation Author: Dr. Stephanie Fonda

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Presentation Author: Mr. Matthew Quinn

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Presentation Author: Dr. Anson Rosenfeldt

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Artificial Intelligence-based Skin-Condition Diagnosis for Warfighters in a No-Communications Environment Presentation Author: Dr. Sridhar Ramakrishnan

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Presentation Author: Mr. Paul Nicotera









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Presentation Author: Dr. Alice Isenberg

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Support Telemedicine on the Battlefield Presentation Author: Mr. Kenneth McVearry

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Presentation Author: Dr. Elizabeth Ledwosinska

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Presentation Author: Col Avi Benov

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Presentation Author: Dr. Julian Goldman

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Presentation Author: Mr. Thomas Jacob

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Presentation Author: Dr. Joost Brandsma

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Coordinated Remote Control and Monitoring of Multiple Medical Devices for Tele-Critical Care: An Open-Source Interoperable Web-based Prototype

Presentation Author: Dr. David Arney

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Presentation Author: Dr. Anthony Zanesco

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Presentation Author: Mr. Drew Thomas

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Presentation Author: LTC Pedro Oblea

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Presentation Author: Dr. Rael Lange

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Presentation Author: Dr. Jie Lin

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Presentation Author: LTC Bradley Ritland









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Presentation Author: Mr. Jordy Bryce

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Presentation Author: Dr. William Patrick Luan

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Presentation Author: Dr. Kangmin Zhu

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Presentation Author: Dr. Benjamin Ryan

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Presentation Author: MAJ Sherrill Schaaf

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Innovative Research in En Route Combat Casulty Care: A Novel Use of the ProQOL in Evaluating the Impact of Care

Presentation Author: Mr. James Eazor

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Presentation Author: Mr. Richard Caldwell

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Recommendations to Address AMEDD Staff Burnout

Presentation Author: Dr. Joshua Wilk

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Presentation Author: Dr. Tracey Koehlmoos

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and Vision Injury Registry (DVEIVR)

Presentation Author: Dr. Natalya Merezhinskaya

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Presentation Author: Dr. Tanisha Fazal

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Presentation Author: Ms. Rebecca Schulz

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Nursing Productivity in Military Treatment Facilities (MTFs): Measurement Challenges

Presentation Author: Dr. Aaron Sayegh











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Presentation Author: Dr. Amanda Staudt

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Presentation Author: Ms. Miranda Janvrin

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Presentation Author: MAJ Douglas Foote

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Presentation Author: Ms. Kristina Clarke-Walper

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Presentation Author: CPT William Hirschfeld

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Presentation Author: Dr. Risa Nakase-Richardson

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Presentation Author: Dr. Jennifer Heissel

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Presentation Author: LT Chandler Bennett

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Presentation Author: Dr. Muhieddine Labban

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Presentation Author: Dr. Nicholas Bateman

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Postpartum Risk Factors for Musculoskeletal Conditions in Active Duty Servicewomen

Presentation Author: Dr. Megan Roach

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Presentation Author: Dr. Emily Ricker

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Reproductive and Development Outcomes Following Deployment: Gulf-War and Gulf War-era Women Veterans Presentation Author: Dr. Kimberly Sullivan

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Proteomic Characterization of High-Grade Endometrioid **Endometrial and Uterine Serous Cancers**

Presentation Author: Dr. Thomas Conrads

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Reproductive Health of Female Marine Recruits During Boot

Presentation Author: Mrs. Andrea Givens











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Host Biofilm Interaction in Implant Associated Immune Response

Presentation Author: Dr. Mithun Sinha

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Trends in Post-Partum Hemorrhage (PPH) Practice **Performance Concurrent with PPH Bundle Campaign** Implementation

Presentation Author: Dr. Wayne Dickey

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Presentation Author: Dr. Brian Maguire

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Presentation Author: Dr. Brittany Bozzini

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Sex Differences in the Development of Coronary Microvascular Disease in Diabetes

Presentation Author: Dr. MD Rahatullah Razan

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Improving PrEP Prescription Services at a Military Women's Healthcare Clinic to Achieve CDC and DHA Recommendations

Presentation Author: Capt David Boedeker

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Presentation Author: CPT Amy Liu

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Presentation Author: Dr. Trevor Crowell

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Normative Data of Neck Muscle Morphology with Head **Supported Mass in Male and Female Volunteers** Presentation Author: Dr. Jamie Baisden

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Presentation Author: Dr. Praveen Kumar Raj Kumar

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Exploring the Underlying Factors Associated with Positive Margins in Invasive Breast Cancer

Presentation Author: Mrs. Anupama Praveen Kumar

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Presentation Author: LT Jedson Liggett II

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Presentation Author: 1LT John Poglodzinski

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Presentation Author: Mr. Patrick Radcliffe

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Presentation Author: Ms. Sarah Hinman

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Engaging Nutrition Program Operators via Social Media to Maximize Quality Implementation

Presentation Author: Ms. Sarah Hinman









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Dietary and Physical Activity Behaviors of Future Sailors in Delayed Entry Program

Presentation Author: Mrs. Lynn Kam

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Reductions in Body Weight and Body Fat Percentage of U.S. Navy Sailors Mid-Deployment: Benefits of Utilizing a Fleet-Based Dietitian

Presentation Author: Mr. Trevor Viboch

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Presentation Author: MAJ Tanisha Currie

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A Precision Health Trial Leveraging Evidence-Based Recommendations for Nutrition, Activity, and Sleep to Promote Immune Health and Resilience in Hospital Staff Presentation Author: Dr. Mary McCarthy

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Weight Management Behaviors Mediate the Relationship Between Weight Cycling, Body Mass Index, and Diet Quality Among U.S. Army Soldiers

Presentation Author: Ms. Jillian Allen

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Effects of Energy Balance on Cognitive Performance and Mood During Simulated Sustained Operations (SUSOPS) Presentation Author: Dr. Meaghan Beckner

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Higher Absolute Protein Intake and Fat-free Mass Are Associated with Increased Marksmanship Reaction Time During a Simulated Marksmanship Task

Presentation Author: Mr. Chaddrick Beshirs

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Presentation Author: LCDR Erik Anderson

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Presentation Author: CDR Joanna Halford

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Go for Green® Program Evaluation Finds Nutrition Knowledge Gaps Among Foodservice Staff

Presentation Author: Mrs. Susan McGraw

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Presentation Author: Ms. Joanna Reagan

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Presentation Author: LTC Racheal Wood

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Presentation Author: Dr. Mai Nguyen

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Hypoglossal Nerve Stimulator Implantation in Active Duty Military Members: A Retrospective Review Presentation Author: LT Chandler Bennett

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Presentation Author: Dr. Nita Shattuck

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OFRP Basic Phase Work Patterns: Effects on Well-being, Sleep, and Workhours of Engineering Sailors

Presentation Author: Dr. Nita Shattuck









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Presentation Author: Dr. Pete Roma

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Presentation Author: Ms. Lara Weed

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Presentation Author: Capt Brent Jacobus

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Presentation Author: Capt Brent Jacobus

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Cognitive Behavioral Therapy for Nightmares: A Web-Based Provider Training

Presentation Author: Mr. William Price

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Sleep and Military Leaders: Examining the Values, Beliefs, and Quality of Sleep and the Impact on Occupational Performance

Presentation Author: CPT Lyddia Petrofsky

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Presentation Author: Dr. Jaime Devine

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Presentation Author: Dr. Cassie Hilditch

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Presentation Author: Ms. Thitaporn Chaisilprungraung

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Prototyping Apps for the Management of Behavioral Health, Sleep, and Fatigue in Multi-Domain Operational Environments

Presentation Author: Dr. Anne Germain

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Technology-Enhanced CBTI in Clinical and Embedded Military Settings: Preliminary Findings and Comparison to Benchmark CBTI Effectiveness

Presentation Author: Dr. Anne Germain

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Presentation Author: Ms. Megan Wolfson

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Presentation Author: Dr. Sara Alger

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Presentation Author: SSG Codey Rouse

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Association Between White Matter Integrity of Locus Coeruleus Pathways to Hypothalamus and Sleep Apnea in Military-related mild Traumatic Brain Injury

Presentation Author: Dr. Ping-Hong Yeh

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A Novel, Simple Method for Removal of Residual Oropharyngeal Fluticasone Propionate Deposits Aimed at Mitigating Risk for Obstructive Sleep Apnea and Optimizing Sleep

Presentation Author: Dr. Mihaela Teodorescu









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Overcoming Fatigue on Submarines Using Personal Light Treatment Devices

Presentation Author: Dr. Sarah Chabal

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Variation in Individual Responses to Insomnia Treatments: Building a Longitudinal Dataset to Identify Predictors Presentation Author: LTC Vincent Capaldi II

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Cot-Integrated Sleep Sensor for Combat Readiness Evaluation in Forward Bases

Presentation Author: Dr. Edwin Kan

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Sleep-Wake Intracerebral Fluid Tracking (SWIFT) Using Continuous Wave Functional Near-Infrared Spectroscopy (CW fNIRS): A Novel Approach to Visualizing TBI Associated Neurodegeneration

Presentation Author: Ms. Phorum Sheth

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Improving Predictions for Recovery from Sleep Deprivation in a Biomathematical Model of Fatigue and Performance Presentation Author: Mr. Mark McCauley

MHSRS-22-06614 - POSTER SESSION 3 - #376

A Novel Trauma Associated Sleep Disorder May Be Successfully Treated with Prazosin

Presentation Author: Capt Zahari Tchopev

MHSRS-22-06786 - POSTER SESSION 3 - #377

Improving Sleep and Mitigating Fatigue Using Noninvasive Neuromodulation Technology

Presentation Author: Dr. Jeffrey Bower

MHSRS-22-06796 - POSTER SESSION 3 - #378

Nightmare Deconstruction and Reprocessing: Final Pilot Results of a Treatment for Trauma-Related Nightmares and Insomnia

Presentation Author: Dr. Patricia Spangler

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The Use of Human Centric Lighting to Improve Inpatient Sleep: A Feasibility Study

Presentation Author: CPT Shelby Muller

MHSRS-22-06913 - POSTER SESSION 3 - #380

Daytime Sleepiness and Delta Activity During Sleep Impact Baseline Physical Performance During a Simulated Military Operational Stress Protocol

Presentation Author: Ms. Alice LaGoy

MHSRS-22-07017 - POSTER SESSION 3 - #381

Translational Technologies for Detection and Restoration of Glymphatic Flow

Presentation Author: ADM Paul Cherukuri

MHSRS-22-07291 - POSTER SESSION 3 - #382

Compliance with Follow-up Polysomnogram in Patients Prescribed Oral Appliance Therapy for Treatment of Obstructive Sleep Apnea

Presentation Author: Dr. Courtland Kouassiaman

MHSRS-22-07371 - POSTER SESSION 3 - #383

Conservation of Slow Wave Sleep During Sleep Restriction Does Not Provide Resilience Against Neurobehavioral Performance Deficits During Subsequent Total Sleep Deprivation

Presentation Author: Ms. Lillian Skeiky

MHSRS-22-07450 - POSTER SESSION 3 - #384

Defining the Role of TBI and PTSD in Risk of Parkinsonism: Baseline Characteristics from an Ongoing Longitudinal Study of Veterans with REM Sleep Behavior Disorder

Presentation Author: Dr. Jonathan Elliott

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Augmented Neurophysiology of Sleep and Performance Readiness

Presentation Author: Dr. Dawn Kernagis

MHSRS-22-07479 - POSTER SESSION 3 - #386

Differential Impact of Daytime Illuminance on Cognitive Function and Alertness

Presentation Author: Dr. Jamie Zetizer

MHSRS-22-07592 - POSTER SESSION 3 - #387

Social Desirability Mediates Self-Reported Sleepiness During a Laboratory Total Sleep Deprivation Study

Presentation Author: Ms. Rachael Muck









MHSRS-22-07627 - POSTER SESSION 3 - #388

Sleep, Traumatic Brain Injury and Hospitalization Utilization and Costs for Active Duty Service Members

Presentation Author: Dr. Patrick Richard

MHSRS-22-07636 - POSTER SESSION 3 - #389

Morning Blue Light Facilitates Retention of Extinction Memory in PTSD

Presentation Author: COL William Killgore

MHSRS-22-07642 - POSTER SESSION 3 - #390

Performance on a Computerized Threat Elimination Task in an Animated Environment During Total Sleep Deprivation

Presentation Author: Ms. Emily Moslener

MHSRS-22-07663 - POSTER SESSION 3 - #391

Obstructive Sleep Apnea Risk is Associated with Number of White Matter Hyperintensities, But History of mild TBI Exposure Is Not: A LIMBIC-CENC Study

Presentation Author: Dr. Amanda Garcia

MHSRS-22-07680 - POSTER SESSION 3 - #392

Treating Trauma-Related Nightmares with a Wearable Device: A Sham-controlled Randomized Trial

Presentation Author: Dr. Nicholas Davenport

MHSRS-22-07734 - POSTER SESSION 3 - #393

Diffusion Tensor Imaging Correlates of Sleep Dysfunction in Warfighters with Chronic Traumatic Brain Injury

Presentation Author: LT Brian Gerstenslager

MHSRS-22-07753 - POSTER SESSION 3 - #394

Salivary α -Amylase Response to Repeated Exposure to Acute Stressors Is Blunted by Sleep Deprivation

Presentation Author: Ms. Kirsie Lundholm

MHSRS-22-07759 - POSTER SESSION 3 - #395

Cytokines Measured in Extracellular Vesicles are Better Predictors of Sleep Quality in Warfighters with Chronic mild TBI Compared to Plasma

Presentation Author: ENS Bryson Hewins

MHSRS-22-07764 - POSTER SESSION 3 - #396

Effectiveness of an Intelligent Sleep Management System in the U.S. Military: Preliminary Results

Presentation Author: Dr. Emerson Wickwire

MHSRS-22-07808 - POSTER SESSION 3 - #397

Fluid Intelligence Does Not Mediate Cognitive Throughput Deficits During Total Sleep Deprivation

Presentation Author: Dr. Kimberly Honn

MHSRS-22-07843 - POSTER SESSION 3 - #398

Effects of Total Sleep Deprivation on Performance on a Continuous Performance Matching Task

Presentation Author: Ms. Amanda Hudson

Novel Treatments, Strategies, and Technologies in Hearing and Balance Health

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Novel Targeted Therapeutic Regimen to Modulate Inflammatory Molecular Pathways for High-level and Blastassociated Noise

Presentation Author: Dr. Dwayne Simmons

MHSRS-22-05564 - POSTER SESSION 3 - #400

ADRESTIA: An IMU-based Technology for Objective Balance Assessment and Exercise Monitoring

Presentation Author: Dr. Pedram Hovareshti

MHSRS-22-05712 - POSTER SESSION 3 - #401

Effects of Repeated Exposure to Military Occupational Blast: Implications for Warfighter Health and Performance

Presentation Author: Dr. Tim Walilko

MHSRS-22-05826 - POSTER SESSION 3 - #402

An Interactive Self-analysis Tool for Managing Hearing Health Presentation Author: Mr. Shayan Gupta

MHSRS-22-06046 - POSTER SESSION 3 - #403

iCARE: Intelligent Camera-based Physical Health Assessment and Rehabilitation

Presentation Author: Dr. Sridhar Ramakrishnan

MHSRS-22-06242 - POSTER SESSION 3 - #404

Exposome Signatures of Tinnitus and Hearing Loss: Impact on Medical Readiness Stratification

Presentation Author: Dr. Carlos Maldonado









MHSRS-22-06384 - POSTER SESSION 3 - #405

The Use of Machine Learning to Implement Feedback in a Mobile Vestibular Rehabilitation Application for Service Members with mild Traumatic Brain Injury

Presentation Author: Dr. Paulien Roos

MHSRS-22-06465 - POSTER SESSION 3 - #406

Prevention of Late Appearing Noise-Induced Hearing LossPresentation Author: Dr. Courtney Stewart

MHSRS-22-07009 - POSTER SESSION 3 - #407

Development of an Objective Test Battery to Assess Benefits of Hearing Restoration Therapies

Presentation Author: Dr. Ken W. Grant

MHSRS-22-07068 - POSTER SESSION 3 - #408

Behavioral, Sleep, and Medical History Predictors of Vestibular Symptoms and Impairment in Military Personnel and Civilians Following mTBI: A T-REV Clinical Trial Study Presentation Author: Dr. Anthony Kontos

MHSRS-22-07258 - POSTER SESSION 3 - #409

Feasibility Demonstration of a Wearable Transdermal Nerve Stimulator to Treat Post-TBI Balance Symptoms

Presentation Author: Dr. Ryan Myers

MHSRS-22-07268 - POSTER SESSION 3 - #410

Pilot Study of a Novel Skin Conducted Directional Sound Device via Transdermal Nerve Stimulation

Presentation Author: Dr. Ryan Myers

MHSRS-22-07760 - POSTER SESSION 3 - #411

Neurofeedback Training for Better Hearing in Noise Presentation Author: Dr. Inyong Choi

MHSRS-22-07859 - POSTER SESSION 3 - #412

Effect of 3-aminobenzamide, a PARP Inhibitor on Blastinduced Auditory Injury in Chinchillas

Presentation Author: Dr. Vijaya Prakash Krishnan Muthaiah

MHSRS-22-5681 - POSTER SESSION 3 - #413

Prevalence and Risk Factors of Self-Reported Dizziness in Post-9/11 Service Members and Veterans

Presentation Author: Dr. Kelly Reavis

Addressing Sensory Illusions and Motion Sickness

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Evaluation of a Spatial Disorientation Training SystemPresentation Author: Dr. Joseph Keebler

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Structural Insights of G-series Nerve Agent-inhibited Human Acetylcholinesterase and Subsequent Reactivation by HI-6 Presentation Author: Mr. Jude Height

MHSRS-22-07542 - POSTER SESSION 3 - #416

Rapid Jet Lag Adjustment through Millisecond Light FlashesPresentation Author: Dr. Jamie Zeitzer

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Cognitive Flexibility in Post-traumatic Stress Disorder: Slowed Performance Associated with Altered Modulation of Cortical Oscillatory Activity During Task-switching

Presentation Author: Dr. Thomas DeGraba

Ongoing Health Issues in Military High Performance Flight

MHSRS-22-05203 - POSTER SESSION 3 - #418

Multimodal Assessment of Cognitive Fatigue and Performance of Pilots in Operational Conditions

Presentation Author: Dr. Hrishikesh Rao

MHSRS-22-05660 - POSTER SESSION 3 - #419

Wearable Aircrew Hydration Tracking and Extended RecordingPresentation Author: Mr. David Remer

MHSRS-22-06044 - POSTER SESSION 3 - #420

Effects of Hyperoxic Breathing Gas and Rapid Oscillations on Cerebral Blood Flow and Oxygenation

Presentation Author: Ms. Caitlin O'Guin

MHSRS-22-06630 - POSTER SESSION 3 - #421

Interim Recommendations for Cognitive Enhancers for Future Vertical Lift Operators and Aircrew

Presentation Author: Ms. Jordayne Wilkins









MHSRS-22-07162 - POSTER SESSION 3 - #422

Unmanned Evaluation of Bladder Relief Devices for Military Aviation

Presentation Author: Ms. Stephanie Warner

MHSRS-22-07337 - POSTER SESSION 3 - #423

Using Smartwatch Measurements of Fatigue, Stress, and Pain to Enhance Health Outcomes in Fighter Pilot Populations

Presentation Author: Dr. Emily Mills

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Developing a Case Definition for Physiologic Events Presentation Author: Mrs. Sarah Kelsey

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Spine Training for Air Force Student Fighter PilotsPresentation Author: Maj Stephanie Chayrez

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Recent Trends in Aviator Health and Implications for Flying FVL Aircraft

Presentation Author: Dr. Amanda Kelley

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Neurological Biomarkers in Military Pilots and Operators with Nonhypoxic Hypobaric Exposure - Preliminary Results from the Canadian White Matter Hyperintensity Study Presentation Author: Dr. Shawn Rhind

Undersea Training and Operational Research Discussion Panel

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Gaps in the Understanding of Systemic, Genomic, and Proteomic Markers of Hypercapnic and Hyperoxic Stress

Presentation Author: LT Mahamat Babagana

MHSRS-22-06261 - POSTER SESSION 3 - #429

Hyperbaric Effects on Cold Stored Whole Blood Following a Military Dive Mission Profile

Presentation Author: LT Christopher Scheiber

MHSRS-22-06339 - POSTER SESSION 3 - #430

Assessing Psychological Trends of Prospective Submariners During the COVID-19 Pandemic

Presentation Author: Dr. Dominica Hernandez

MHSRS-22-07010 - POSTER SESSION 3 - #431

Gauging Operational Performance Based on Individual Cognitive Ability

Presentation Author: Ms. Krystina Diaz

MHSRS-22-07795 - POSTER SESSION 3 - #432

Assessing the Impact of Low Target Prevalence and Dynamic Stimuli on Visual Search Performance

Presentation Author: Ms. Margaret Wise

Precision Medicine Research: Optimizing Warfighter Healthcare, Readiness, and Return to Duty

MHSRS-22-05607 - POSTER SESSION 3 - #433

Economic and Clinical Outcomes from Scalable Precision Prescribing Programs Empowered by a Clinical Decision Support System with Genetics

Presentation Author: Dr. Jeffrey Shaman



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