MHSRS 2019 – Poster Session 1
Tuesday, 20 August

WARFIGHTER MEDICAL READINESS

TRAINING EFFECTIVENESS FOR POINT OF INJURY MEDICAL CARE

**MHSRS-19-00184 - SESSION 1 - #001**
Impact of a 4-hr Introductory EFAST Training Intervention among Ultrasound-naive Military Medics
Presentation Author: Dr. Jonathan Monti

**MHSRS-19-00287 - SESSION 1 - #002**
An Expert Review Panel of Army Lessons Learned for Prehospital, Airway Management during the Recent Conflicts
Presentation Author: MAJ Steven Schauer

**MHSRS-19-00411 - SESSION 1 - #003**
Low-fidelity ECMO Simulation versus Animal Model: Does Individual Experience Affect its Efficacy?
Presentation Author: LTC Thornton Mu

**MHSRS-19-00461 - SESSION 1 - #004**
Are Self-assessment and Cognitive Scores Associated with ECMO Training Performance Outcomes?
Presentation Author: Mrs. Tricia Garcia-Choudary

**MHSRS-19-00470 - SESSION 1 - #005**
Effects of an Advanced Airway “Boot Camp” For Military Family Medicine Physician Trainees
Presentation Author: LCDR Art Ambrosio

**MHSRS-19-00472 - SESSION 1 - #006**
Multi Tissue Additive Manufactured Training Models for Point of Injury Medical Care
Presentation Author: Dr. Jonathon Barton

**MHSRS-19-00600 - SESSION 1 - #007**
Operation Fido: Pre-deployment Training for Life Saving Surgical Management of Military Working Dogs
Presentation Author: CAPT William Sweeney

**MHSRS-19-00959 - SESSION 1 - #008**
From Novice to Expert in Cricothyroidotomy: How Long Does it Take?
Presentation Author: Ms. Rachael Dampman

**MHSRS-19-01385 - SESSION 1 - #009**
A Portable and Self-contained Approach for Surgical Telementoring: Towards Remote, Point of Injury Care
Presentation Author: Dr. Juan Wachs

**MHSRS-19-01388 - SESSION 1 - #010**
High Efficiency EMS Training: A Novel, Effective Strategy for on-the-job Trauma Retraining in a Low-resource International Setting
Presentation Author: Dr. Nee-Kofi Mould-Millman
**Poster Session 1**

**MHSRS-19-01429 - SESSION 1 - #011**
**A Survey of Combat Medic Airway Training and Experiences: A Preliminary Analysis**
Presentation Author: Ms. Nguvan Uhaa

**MHSRS-19-00097 - SESSION 1 - #012**
**High Tourniquet Failure Rates among Soldiers Do Not Improve with Tourniquet Training Including Combat Stress Inoculation: A Randomized Controlled Trial**
Presentation Author: CPT Avishai Tsur

**MHSRS-19-01535 - SESSION 1 - #013**
**Association of Experience and Self-efficacy in Performing Life-saving Interventions among Israel Defense Forces Advanced Life Support Providers**
Presentation Author: CPT Avishai Tsur

**MHSRS-19-01543 - SESSION 1 - #014**
**The Next Great Generation: Adapting Continuing Combat Casualty Care Education to Millennials and Gen Z’ers Advanced Life Support Providers**
Presentation Author: CPT Avishai Tsur

**MHSRS-19-01568 - SESSION 1 - #015**
**Professional Confidence Builds Leadership - New Concepts in Combat Medicine Training during the Apex (Tzameret) Military MD Program**
Presentation Author: CPT Avishai Tsur

**MHSRS-19-01648 - SESSION 1 - #016**
**Preparing for Deployment: Characteristics that Help Military Interprofessional Healthcare Teams Succeed Across Care Contexts**
Presentation Author: Dr. Lara Varpio

**MHSRS-19-01659 - SESSION 1 - #017**
**Military Interprofessional Education: How the U.S. Military Prepares its Care Teams for the Deployed Environment**
Presentation Author: Dr. Lara Varpio

**MHSRS-19-01660 - SESSION 1 - #018**
**Using 3D Printing (Additive Manufacturing) to Manufacture Low Cost Simulation Models for Dental and Oral and Maxillofacial Surgical Procedures**
Presentation Author: Dr. Peter Liacouras

**MHSRS-19-01762 - SESSION 1 - #019**
**Combining Computational Physiology with Virtual Reality for an Immersive and Effective Trauma Simulator**
Presentation Author: Dr. Rachel Clipp

**MHSRS-19-01823 - SESSION 1 - #020**
**Vital Sign Monitoring and Demographic Comparisons of Paramedics in Warm Zone Active Shooter Drills**
Presentation Author: Dr. Rebecca Ryznar

**MHSRS-19-01943 - SESSION 1 - #021**
**Knowledge, Skills, and Attitudes of Medical Students Participating in a Military Medical Field Training Exercise on Prolonged Field Care**
Presentation Author: 2LT David Ediger
MHSRS-19-02358 - SESSION 1 - #022
A Preliminary Evaluation of Ambulatory Physiological Monitoring and Performance Enhancement Techniques in a MARSOC Multi-purpose Canine Unit
Presentation Author: Dr. Deane Aikins

MHSRS-19-02428 - SESSION 1 - #023
Operation Gunpowder: Unique and Essential Training in Prolonged Field Care for Third Year Military Medical Students
Presentation Author: 2nd Lt Ryan Sumpter

MHSRS-19-02443 - SESSION 1 - #024
Addressing Reserve Joint-service Medical Training Gaps through Multi-faceted Expeditionary Simulation
Presentation Author: Lt Col Luis Berrios

MHSRS-19-02605 - SESSION 1 - #025
The Army Medical Department Military-Civilian Trauma Team Training Experience
Presentation Author: CPT Simon Sarkisian

MHSRS-19-02614 - SESSION 1 - #026
Development of a Clinical Experience Log at the Navy Trauma Training Center
Presentation Author: CDR Virginia Blackman

MHSRS-19-02625 - SESSION 1 - #027
Trauma Simulator: Autonomous Immersive Virtual Reality Medical Simulation
Presentation Author: CPT Kyle Couperus

MHSRS-19-02266 - POSTER SESSION 2 - #028
Assessment of Telemedicine Needs of the Special Operations Medic
Presentation Author: ENS Dustin Lowery

INNOVATIVE COUNTERMEASURES AND DIAGNOSTICS TO EMERGING INFECTIOUS DISEASES

MHSRS-19-00045 - SESSION 1 - #029
Disease Outbreak Risk Assessment Tool
Presentation Author: Ms. Louise Sumner

MHSRS-19-00145 - SESSION 1 - #030
Can We Expand the Diagnostic Capabilities of the FDA-Cleared Cl Detect™ Rapid Test from Old World to New World Cutaneous Leishmaniasis?
Presentation Author: LCDR Christie Joya

MHSRS-19-00211 - SESSION 1 - #031
Utilizing Crowdsourcing to Accelerate the Advancement of Bioinformatics Workflows for Identifying Infectious Disease Microorganisms
Presentation Author: Dr. Ezekiel Maier
MHSRS-19-00394 - SESSION 1 - #032
Utility of a Plasmodium 18S qRT-RNA PCR Assay for Diagnosis in Controlled Human Malaria Infection Studies
Presentation Author: CPT Jangwoo Lee

MHSRS-19-00429 - SESSION 1 - #033
Bioprospecting Host Defense for New Antiviral Agents
Presentation Author: Dr. Barney Bishop

MHSRS-19-00433 - SESSION 1 - #034
Molecular Biomarker Diagnostic Assays as a Potential Tool to Mitigate Force Health Protection Risk against Aedes Aegypti Insecticide Resistance
Presentation Author: LCDR Jeff Hertz

MHSRS-19-00439 - SESSION 1 - #035
8228th Mobile Army Surgical Hospital, Epidemic Hemorrhagic Fever Center
Presentation Author: Mr. Alan Hawk

MHSRS-19-00503 - SESSION 1 - #036
Identification of Respiratory Pathogens in Viral Culture Isolates using Whole Genome Sequencing and the Edge Bioinformatics Suite
Presentation Author: Mr. Roger Pan

MHSRS-19-00514 - SESSION 1 - #037
Molecular Alterations Induced by Yersinia Pestis, Dengue Virus and Staphylococcal Enterotoxin B under Severe Stress
Presentation Author: Mr. Ross Campbell

MHSRS-19-00569 - SESSION 1 - #038
Isothermal Amplification Assays for Rapid Pathogen Identification Directly from Clinical Sputum, Urine and Stool Samples
Presentation Author: Dr. Brett Etchebarne

MHSRS-19-00614 - SESSION 1 - #039
Infectious Disease Diagnostic via a Novel Plasmonic Halo
Presentation Author: Dr. Michael Naughton

MHSRS-19-00645 - SESSION 1 - #040
Adversomics of HPV Immunization and Factors Related to Adherence in Pre-adolescents
Presentation Author: Dr. Gregory Gorman

MHSRS-19-00714 - SESSION 1 - #041
The Case for Passive Surveillance: Tick Testing and Military Populations
Presentation Author: Dr. Robyn Nadolny

MHSRS-19-00716 - SESSION 1 - #042
Manipulation of Flavivirus 3' Untranslated Region Structural Interactions as a Novel Vaccine Attenuation Strategy
Presentation Author: Ms. Hadrian Sparks

MHSRS-19-00783 - SESSION 1 - #043
Dual Use Diagnostic Devices to Optimize Treatment & Reduce the Threat Posed by Antimicrobial Resistant Pathogens
Presentation Author: Lt Col Jerome Vinluan
MHSRS-19-00786 - SESSION 1 - #044
Effect of Probe DNA Density of Label-free Impedimetric Nucleic Acid Biosensing Chip on the Detection of Extracted RNA of Dengue Virus
Presentation Author: Dr. Hua-Wei Chen

MHSRS-19-00805 - SESSION 1 - #045
Single Domain Antibody-SpyTag Constructs for Enhancing Detection of Dengue Non-structural Protein 1 in Clinical Samples
Presentation Author: Dr. Victor Sugiharto

MHSRS-19-00841 - SESSION 1 - #046
Targeting Host-Cell Metabolism as a Broadly-Effective Medical-Counter-Measure against Emerging Infectious Diseases
Presentation Author: Dr. Lillian Chiang

MHSRS-19-00993 - SESSION 1 - #047
Mobile Manufacturing Platform for Rapid Response
Presentation Author: Ms. Evelyn Van der Hart

MHSRS-19-01095 - SESSION 1 - #048
Single-Cycle Adenoviruses as Platforms to Combat Emerging and Persistent Pathogens
Presentation Author: Dr. Michael Barry

MHSRS-19-01119 - SESSION 1 - #049
Role of Antimicrobial Lipid Coating on Endotracheal Tubes in Preventing Endotracheal Biofilm
Presentation Author: Dr. Mackenzie Morris

MHSRS-19-01151 - SESSION 1 - #050
Tick-borne Encephalitis Virus Immunization among DoD Personnel, 2001-Current
Presentation Author: Dr. Paul Scott

MHSRS-19-01204 - SESSION 1 - #051
Clinical Effectiveness of a Biofilm Disrupting Surgical Lavage in Reducing Bacterial Plate Counts in Total Knee Arthroplasty Revision Surgery in Known Cases of Prosthetic Joint Infection
Presentation Author: Dr. Matthew Myntti

MHSRS-19-01274 - SESSION 1 - #052
Zoonotic and Infectious Disease Pathogen Surveillance in Multiple Canine Populations from Varying Regions of South America Enhancing Warfighter Lethality, Force Health Protection, and Public Health by Applying the One Health Concept
Presentation Author: LTC Michael McCown

MHSRS-19-01291 - SESSION 1 - #053
Real-time Detection of Cellular Respiratory Bio-markers of Early-stage Infections using Terahertz Sensing
Presentation Author: Mr. Ivan Medvedev

MHSRS-19-01299 - SESSION 1 - #054
Rickettsia species identified in Ticks along the Mongolia-China border
Presentation Author: Dr. Michael von Fricken
MHSRS-19-01369 - SESSION 1 - #055
Carbon Nanotubes as Novel HIV-1 Vaccine Antigen Vectors for Mucosal Immunity Stimulation
Presentation Author: Dr. Yang Xu

MHSRS-19-01424 - SESSION 1 - #056
Toward Universal Flaviviridae Surveillance
Presentation Author: Mr. James Mann

MHSRS-19-01453 - SESSION 1 - #057
Global Lipidomics Identifies a Host Sphingolipid Pathway Essential for Zika Virus Replication
Presentation Author: Dr. Jennifer Kyle

MHSRS-19-01528 - SESSION 1 - #058
Anaphylaxis to Multiple Vaccines: A Case Series and Recommended Approach to Optimize Immunization Readiness in the Warfighter
Presentation Author: Dr. Bruce McClenathan

MHSRS-19-01620 - SESSION 1 - #059
Potential Impact of Deployed Modular Manufacturing in an Outbreak Situation
Presentation Author: Ms. Laura Saward

MHSRS-19-01650 - SESSION 1 - #060
Systematic Review of Marburg Virus Vaccine Clinical Trials
Presentation Author: 2LT Nicholas Dulin

MHSRS-19-01859 - SESSION 1 - #061
ATI-1701, a Live Attenuated Francisella Tularensis Vaccine for the Prevention of Pneumonic Tularemia in the Warfighter
Presentation Author: Dr. Carl Gelhaus

MHSRS-19-01919 - SESSION 1 - #062
Paper Based Microfluidic Devices: Low Cost Platforms for Rapid Biochemical Detection
Presentation Author: Dr. Baris Unal

MHSRS-19-01946 - SESSION 1 - #063
Machine Learning to Identify Military Treatment Facilities at Risk for Vancomycin Resistant Enterococcus Infections
Presentation Author: LTC Cade Nylund

MHSRS-19-01994 - SESSION 1 - #064
Understanding How Alphaviruses Cause Musculoskeletal Disease
Presentation Author: Dr. Suresh Mahalingam

MHSRS-19-01997 - SESSION 1 - #065
Structure-based Arenavirus Vaccine Design
Presentation Author: Dr. Michael Joyce

MHSRS-19-02015 - SESSION 1 - #066
Spatiotemporal Profiling of Bacterial Communities and Interpersonal Interactions to Capture Transmission Events
Presentation Author: Dr. Briana Vecchio-Pagan
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MHSRS-19-02061 - SESSION 1 - #067
Cataloging Host Response Infectious Disease Signatures to Accelerate the Development of Countermeasures and Diagnostics for Emerging Infectious Diseases
Presentation Author: Dr. Katrina Waters

MHSRS-19-02092 - SESSION 1 - #068
Potent Zika and Dengue Cross-Neutralizing Antibodies Induced by Zika Vaccination in a Dengue-Exposed Donor
Presentation Author: Dr. Shelly Krebs

MHSRS-19-02142 - SESSION 1 - #069
Zika Virus Infection and the Blood Brain Barrier: Insights from the 3D-bioprinted BBB Model
Presentation Author: Mr. William Valiant

MHSRS-19-02164 - SESSION 1 - #070
Validation of a Plasmodium 18S rRNA qRT-PCR Assay in a CAP-Accredited Laboratory for Diagnosis in Controlled Human Malaria Infection Trials
Presentation Author: Dr. Linda Jagodzinski

MHSRS-19-02233 - SESSION 1 - #071
Performance of One-Minute, Accurate, Portable Point-of-Need Diagnostic Test to Detect Malaria Parasites
Presentation Author: Dr. Priyaleela Thota

MHSRS-19-02257 - SESSION 1 - #072
Establishing a Preclinical Chronic Periprosthetic Infection Model in Rats
Presentation Author: Dr. Yingfang Fan

MHSRS-19-02264 - SESSION 1 - #073
Fix it with New Fixatives
Presentation Author: Dr. Anne Davis

MHSRS-19-02290 - SESSION 1 - #074
A Novel Inactivated-Chikungunya Virus Vaccine
Presentation Author: Dr. Anuj Sharma

MHSRS-19-02327 - SESSION 1 - #075
Development of Nanobody-lampole Diagnostic Tests for Dengue and Zika
Presentation Author: Dr. Dennis Grab

MHSRS-19-02445 - SESSION 1 - #076
Modeling the Potential Impact of Norovirus Vaccination among DoD Forces
Presentation Author: Ms. Colleen Burgess

MHSRS-19-02454 - SESSION 1 - #077
Scalable Response to High-consequence Emerging Infectious Disease Epidemics
Presentation Author: Dr. Erwin Berthier

MHSRS-19-02486 - SESSION 1 - #078
Modeling Zika Vaccination Combined with Vector Interventions for Outbreak Response in DoD Populations
Presentation Author: Ms. Colleen Burgess
MHSRS-19-02488 - SESSION 1 - #079
Applications of Antimicrobial 3D Printing Materials for On Orbit Missions
Presentation Author: Mr. Michael Thompson

MHSRS-19-02532 - SESSION 1 - #080
Real-time Pathogen Genomic Characterization of Human Clinical Isolates using the Oxford Minion Handheld Sequencer
Presentation Author: Mr. Thomas Mehoke

MHSRS-19-02618 - SESSION 1 - #081
Assessing Biofilm Biomass in a High Throughput Testing Format
Presentation Author: Dr. Mina Izadjoo

NON-VACCINE APPROACHES TO PREVENT OR TREAT MILITARILY RELATED INFECTIONS

MHSRS-19-00257 - SESSION 1 - #082
Adenovirus Typing to Determine Trends in Military Recruit and Community Populations
Presentation Author: Ms. Brieanne Koster

MHSRS-19-00323 - SESSION 1 - #083
Capability Gaps and Target Product Profile for Next Generation Malaria Drugs in the Context of Tafenoquine Approval and Fielding
Presentation Author: LTC Mara Kreishman-Deitrick

MHSRS-19-00370 - SESSION 1 - #084
Development of GC-072 Antimicrobial for Treatment of Acute Melioidosis
Presentation Author: Ms. Michelle Saylor

MHSRS-19-00448 - SESSION 1 - #085
Do S. Boulardii CNCM I-745 Probiotics affect the Pharmacokinetics of Amoxicillin in ICR Mice?
Presentation Author: CPT Daniel Selig

MHSRS-19-00466 - SESSION 1 - #086
Identification of Pathogenic Escherichia Coli and Antibiotic Susceptibility Testing from Stool Samples Obtained from Ongoing Acute Gastroenteritis Surveillance Studies
Presentation Author: Ms. Katherine Whitelock

MHSRS-19-00486 - SESSION 1 - #087
Acute Gastroenteritis Surveillance at U.S. Military Recruit Training Facilities Implicates Emergent Recombinant Norovirus Strains as Primary Etiology of Age Outbreaks
Presentation Author: Mr. Reza Zeighami

MHSRS-19-00508 - SESSION 1 - #088
A Randomized, Double-blind, Placebo-controlled Trial Evaluating the Efficacy of Non-antibiotic OTC Products in Travelers Diarrhea Prevention: Methods
Presentation Author: Dr. Tahaniyat Lalani
MHSRS-19-00546 - SESSION 1 - #089
The Engineered Cationic Amphipathic Peptide WLBU2 Eliminates Staphylococcus Aureus Biofilms
Presentation Author: Dr. Kenneth Urish

MHSRS-19-00548 - SESSION 1 - #090
Elevated Cap-D3 Levels in Intestinal Epithelial Cells Cause Global Chromatin Disorganization and May Have Implications for Crohn's Disease
Presentation Author: Dr. Michelle Longworth

MHSRS-19-00640 - SESSION 1 - #091
Comparative Biocompatibility and Osteogenic Potential of Two Bioceramic Sealers
Presentation Author: Dr. Rodney Phoenix

MHSRS-19-00853 - SESSION 1 - #092
Boosting Innate Immunity through P53 to Counter Viral Infection
Presentation Author: Dr. Robert Shalwitz

MHSRS-19-00890 - SESSION 1 - #093
Addressing Unmet Needs in HIV Research via Project-driven, Cohort Specific Human Biospecimen Collection
Presentation Author: Dr. Thomas Bell

MHSRS-19-00895 - SESSION 1 - #094
Detection and Classification of Shigella Toxin Producing Escherichia Coli by Surface Enhanced Raman Scattering Spectroscopy
Presentation Author: Dr. Luis Martinez

MHSRS-19-01069 - SESSION 1 - #095
Use of a Porcine Wound Model for Evaluation of Eskape Pathogens Bacterial Burden
Presentation Author: Dr. Francoise Arnaud

MHSRS-19-01072 - SESSION 1 - #096
Synergistic Inactivation of Pseudomonas Aeruginosa by Oregano Oil and Blue Light
Presentation Author: Mr. Min Lu

MHSRS-19-01093 - SESSION 1 - #097
Passive Immunotherapeutic of Hyperimmune Bovine Colostrum to Prevent Shigellosis in a Non-human Primate Model
Presentation Author: Ms. Nattaya Ruamsap

MHSRS-19-01094 - SESSION 1 - #098
Novel Prophylactic and Therapeutic Approach against Dengue Infection through Viral Protease Inhibition
Presentation Author: Dr. Bernd Van Buuren

MHSRS-19-01280 - SESSION 1 - #099
Identification and Validation of the Plasmodium Cell-cycle in Blood-stage by Flow Cytometry in Comparison to Optical Microscopy
Presentation Author: Dr. Qigui Li
MHSRS-19-01326 - SESSION 1 - #100
Prevention of Tick Transmitted Lyme Spirochete Infection in Nonhuman Primates by Anti-OspA Human Monoclonal Antibody
Presentation Author: Dr. Yang Wang

MHSRS-19-01347 - SESSION 1 - #101
Oral Administration of an Anti-CFA/I Secretory IgA Antibody Protects against Enterotoxigenic Escherichia Coli Diarrheal Disease in a Non-human Primate Model
Presentation Author: Dr. Yang Wang

MHSRS-19-01395 - SESSION 1 - #102
Analysis of Lyme Disease in Class Cohort (2013-17) of U.S. Military Academy Cadets and Tips on Exposure Prevention
Presentation Author: LTC Vanessa Melanson

MHSRS-19-01426 - SESSION 1 - #103
Pharmacokinetics and Tolerability of Primaquine Enantiomers in Human Volunteers
Presentation Author: Dr. Larry Walker

MHSRS-19-01428 - SESSION 1 - #104
Antifungal Activity of Scorpion Venom-derived Peptide Analogues against Candida Albicans
Presentation Author: Dr. Nancy Millenbaugh

MHSRS-19-01592 - SESSION 1 - #105
ATI-1503, A Novel Negamycin Analogue for the Treatment of Multi Drug Resistant Gram-negative Infection
Presentation Author: MAJ Armand Balboni

MHSRS-19-01598 - SESSION 1 - #106
Nitric Oxide Releasing Coatings for Heparin Free Extracorporeal Life Support with Antimicrobial, Antithrombogenic and Antifouling Properties
Presentation Author: Dr. Hitesh Handa

MHSRS-19-01624 - SESSION 1 - #107
Initial Perceptions of Efficacy of a Spatial Repellent against Arbovirus Infections: Recent Evidence from an Ongoing Clinical Trial in Peru
Presentation Author: Lt Eugenio Abente

MHSRS-19-01626 - SESSION 1 - #108
Nitric Oxide-releasing Polymers with Antimicrobial Properties via Solvent Impregnation of Plasticized Polyvinyl Chloride
Presentation Author: Dr. Elizabeth Brisbois

MHSRS-19-01667 - SESSION 1 - #109
Alligators and the Discovery of Novel Peptides with Broad Antibacterial Efficacy
Presentation Author: Dr. Barney Bishop

MHSRS-19-01720 - SESSION 1 - #110
Treatment of Drug Resistant Malaria with Light: Exploiting the Parasite’s Manipulation of Vestigial Erythrocytic Pathways
Presentation Author: Dr. Akilan Palanisami
MHSRS-19-01801 - SESSION 1 - #111
Burden of Diarrhoeal Disease on Overseas Exercises in the Post-Afghanistan Era
Presentation Author: MAJ Daniel Burns

MHSRS-19-01825 - SESSION 1 - #112
Trends and Antibiotic Resistance Rates of Group a Streptococcus across Military Recruit Training Sites
Presentation Author: Ms. Julianne Mesa

MHSRS-19-01827 - SESSION 1 - #113
Enhancing Resistance to Nosocomial Infections with Synthetic Toll-like Receptor Agonists
Presentation Author: Dr. Antonio Hernandez

MHSRS-19-01831 - SESSION 1 - #114
Developing New Immunotherapeutic Strategies against Human Disseminated Candidiasis by Medically Important Candida Species
Presentation Author: Dr. Hong Xin

MHSRS-19-01886 - SESSION 1 - #115
Point-of-use Generation of Nitric Oxide to Prevent and RemEDIATE Infected Wounds
Presentation Author: Dr. Jacob Adams

MHSRS-19-01913 - SESSION 1 - #116
Trial of New Combination Therapies to Protect Malarone and Examine Treatment Options for Militaries affected by Malaria in Southeast Asia
Presentation Author: MAJ Mariusz Wojnarski

MHSRS-19-01987 - SESSION 1 - #117
Standard Issue Antimicrobial Field Dressings Based on a One Shot Method for Sterilization and Coating using Supercritical Carbon Dioxide
Presentation Author: Dr. Aaron Strickland

MHSRS-19-01996 - SESSION 1 - #118
In Vitro Eryptosis Assays: An Evaluation of Apoptotic Activities by Antimalarial Compounds
Presentation Author: Dr. Xiannu Jin

MHSRS-19-02026 - SESSION 1 - #119
Pursuing a Cure: Monoclonal Antibodies for Treatment of HIV-1
Presentation Author: Dr. Trevor Crowell

MHSRS-19-02041 - SESSION 1 - #120
A New and Improved Collaborative System to Efficiently Evaluate Natural Product Extracts for any Therapeutic Area: Proof-of-concept in Malaria, Multi-drug Resistant Bacteria, and Leishmaniasis
Presentation Author: Ms. Patricia Lee

MHSRS-19-02062 - SESSION 1 - #121
Innovative Implant Nanocoatings with Controlled Dual Drug Release for Infection Prevention
Presentation Author: Dr. Bingyun Li

MHSRS-19-02140 - SESSION 1 - #122
Inertial-based Fluidic Platform for Rapid Capture of Blood-borne Pathogens
Presentation Author: Mr. Todd Giorgio
In Situ Topical Treatment with ASP-105 Microbicide Effectively Sterilizes Drug Resistant Staphylococcus Aureus in An Experimental Murine Wound Infection Model
Presentation Author: Mr. Joseph Hoffmann

Sanaria® PfSPZ Vaccine: Progress towards Licensure of a 3-dose 28-day Regimen for Protection against Infection with Plasmodium Falciparum
Presentation Author: CAPT Judith Epstein

INFLUENZA PREVENTION: OPTIMAL STRATEGIES TO ENHANCE READINESS

Shoulder Injury Related to Vaccine Administration: The DoD Experience
Presentation Author: Ms. Laurie Housel

Burden of Respiratory Infections in Trainees Higher than Healthcare Records Indicate: Results from an Anonymous Survey
Presentation Author: Dr. Stephanie Richard

Effect of Influenza a Viral Infection on Blood Coagulation Factor VIII Levels in the Lungs
Presentation Author: Mr. Teodor Brumeanu

Active Surveillance for Respiratory Pathogens among DoD Beneficiaries
Presentation Author: Mr. Cyril England

Active Surveillance for Respiratory Pathogens among High Risk U.S. Military Personnel in the Recruit Training Environment
Presentation Author: Mr. Evan Stiner

Automation of Influenza EHR Documentation Tasks to Reduce Clinical Workflow Burdens, Enhance Clinical Coding Accuracy, Increase Access to Care, and Improve Patient Care across the Army and Navy during the 2018-2019 Flu Season
Presentation Author: Mr. Ronald Yeaw

Cutaneous Mastocytosis Presenting as Anaphylaxis to Multiple Immunizations: A Case Report
Presentation Author: Capt Benjamin St. Clair

Pragmatic Assessment of Influenza Vaccine Effectiveness in the DoD: Immunogenicity Sub-Study
Presentation Author: Dr. Rhonda E. Colombo
MHSRS-19-02076 - SESSION 1 - #133
Pragmatic Assessment of Influenza Vaccine Effectiveness in the DoD: Influenza-like-illness Rates in Year 1
Presentation Author: CAPT Timothy Burgess

MHSRS-19-02165 - SESSION 1 - #134
“Pragmatic Assessment of Influenza Vaccine Effectiveness in the DoD,” Influenza-like-illnesses Sub-Study at the Marine Corps Recruit Depot - San Diego, CA during the 2018-2019 Influenza Season
Presentation Author: CAPT Ryan Maves

MHSRS-19-02191 - SESSION 1 - #135
Disparities in Healthcare Seeking Behaviors in the Pragmatic Assessment of Influenza Vaccine Effectiveness in the DoD Study
Presentation Author: Dr. Christina Schofield

MHSRS-19-02317 - SESSION 1 - #136
Translating Surveillance Data into Policy and Practice: A Data-driven Tool for Local Influenza Response at Naval Medical Center Portsmouth
Presentation Author: Dr. Kathleen Creppage

MHSRS-19-02487 - SESSION 1 - #137
Local Respiratory Viral Surveillance Can Focus Public Health Interventions to Decrease Influenza Disease Burden
Presentation Author: 2ndLt Elena Crouch

MHSRS-19-02623 - SESSION 1 - #138
Urticaria Temporally Associated with Influenza Vaccination: A Case Series
Presentation Author: Ms. Jennifer Ritschl

OCCUPATIONAL AND ENVIRONMENTAL EXPOSURE: BASIC AND APPLIED RESEARCH

MHSRS-19-00159 - SESSION 1 - #139
Using Drugpath: A New Database for Mapping Polypharmacology to Assess Multi-drug Treatments for Gulf War Illness
Presentation Author: Mr. Rajeev Jaundoo

MHSRS-19-00346 - SESSION 1 - #140
Expeditionary Field Decontamination of Military Working Dogs in a CBRN Environment
Presentation Author: Dr. Kristina McElroy

MHSRS-19-00415 - SESSION 1 - #141
Mitigation of Radiation-induced Morbidity and Mortality of Mice by a Thrombopoietin Mimetic (JNJ-26366821) Administered alone and in Combination with Filgrastim
Presentation Author: Dr. Gregory Holmes-Hampton

MHSRS-19-00477 - SESSION 1 - #142
Protection from Targeted Radiation Injury to Lungs by Gamma Tocotrienol Treatment
Presentation Author: Dr. Vidya Kumar
MHSRS-19-00516 - SESSION 1 - #143
Senolytic Drugs Can Mitigate Radiation Induced Astrocyte Senescence that Promotes Glioblastoma Growth
Presentation Author: Capt Eliot Fletcher

MHSRS-19-00554 - SESSION 1 - #144
Incorporation of Thermal Stress Effects into Physiologically Based Pharmacokinetic Models Leading to Enhanced Exposure Profiling of Department of Defense Personnel
Presentation Author: Mr. Evan Pitts

MHSRS-19-00574 - SESSION 1 - #145
Improving Envenomation Outcomes with Spreading Factor Inhibitors
Presentation Author: Dr. Angela Jockheck-Clark

MHSRS-19-00661 - SESSION 1 - #146
Mechanism Prediction through Dose-responsive Phase-specific Effects on the Zebrafish Photomotor Response Assay
Presentation Author: Mr. Chance Carbaugh

MHSRS-19-00721 - SESSION 1 - #147
PF-clean: Detection and Degradation of Perfluorinated Compounds in Water Supplies
Presentation Author: Dr. J. Jordan Steel

MHSRS-19-00811 - SESSION 1 - #148
Comparison of Operational Jet Fuel and Noise Exposures: Noise Dosimetry Results
Presentation Author: SSgt Kerrine LeGuin

MHSRS-19-00826 - SESSION 1 - #149
In Vitro Methods to Study Human Microbiome Systems
Presentation Author: Dr. Andrea Timm

MHSRS-19-00861 - SESSION 1 - #150
Insuine-IGF1 Axis at the Core of Resistance to Lethal Radiation: A Deep Sequencing Analysis of Multi-tissue Cross Talk among Multi Minipig Strain Model
Presentation Author: Mr. Nabarun Chakraborty

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Competency-based Simulator Training in TRUS Side-fire Templated Prostate Biopsy
Presentation Author: Dr. Samsun Lampotang

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Enhancing Functional Relevance of in vitro CNS Models by Recapitulating Native Cellular Composition, Extracellular Matrix, and Architecture
Presentation Author: Dr. Nicholas Fischer

MHSRS-19-01042 - SESSION 1 - #153
Recapitulating Complex Neuronal-Glia Networks in an in Vitro System for Toxicant Characterization
Presentation Author: Dr. Heather Enright

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Presentation Author: Dr. Frank Golich
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Presentation Author: Dr. Clinton Hall

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Curcumin Preserves Mitochondrial Integrity, Alleviates Oxidative Stress and Minimizes Heat-induced Skeletal Muscle Injury in Mice
Presentation Author: Mr. Jacob Dohl

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Effects of Military-relevant Environmental Contaminant, Benzo[a]pyrene, on the Blood-Brain Barrier and Behavior
Presentation Author: Dr. Dao Ho

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Presentation Author: Dr. Mang Xiao

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Thromboelastography Detects Coagulopathy Faster than Standard Coagulation Studies in Simulated Pit Viper Envenomation Using Human Blood
Presentation Author: Lt Andrew McGowan

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Presentation Author: Lt Col Kirk Jensen

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Presentation Author: Dr. Mungunsukh Ognoon

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Presentation Author: Mrs. Raina Kum

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Presentation Author: Dr. Nyamkhishig Sambuughin

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Presentation Author: LCDR Hanns Leonhard Kaatsch
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Presentation Author: Mr. Craig McPherson

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Presentation Author: Dr. Theodore Picou

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Refractive Surgery: A Review of Enhancing the Warfighter and Optimizing Performance
Presentation Author: COL Bruce Rivers

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Augmenting the Warfighter through Smart Probiotics that Sense and Modulate Stress Levels of Cortisol
Presentation Author: Mr. Vaughn Litteral

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Presentation Author: Dr. Jordan Betz

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Comprehensive Chemical Identification: Evaluation of in Silico Libraries to Identify Small Molecules in Environmental and Exposure-related Samples
Presentation Author: Dr. Ryan Renslow

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Signatures of Chemical and Radiation Exposures in the Skin Microbiome
Presentation Author: Dr. Kristin Loomis

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Point of Care Diagnostic Device for Toxic Organ Injury from Saliva Samples
Presentation Author: Dr. Richard Baldwin

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Presentation Author: Dr. Jamie Everman

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Presentation Author: Dr. Phillip Beske

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Presentation Author: Dr. Sarah Piel

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Afghanistan Particulate Matter Increases Mouse Airway Hyperresponsiveness, Partially through IL-33 Signaling
Presentation Author: Ms. Reena Berman

MHSRS-19-02457 - SESSION 1 - #181
Noise-induced Otolith Organ Injury and Altered Motor Performance in Rats
Presentation Author: Dr. Courtney Stewart

MHSRS-19-02466 - SESSION 1 - #182
Neuroimmunological Responses to Environmental Exposures: Lessons Learned from Gulf War Illness
Presentation Author: Dr. Murugu Brahmajothi

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Lethal Box Jellyfish Envenomation Syndromes: Murine- and Porcine- in vitro and Human Blood Based Model Approaches
Presentation Author: Dr. Angel Yanagihara

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Presentation Author: CPT Rowan Sheldon

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Presentation Author: Ms. Ivonne Cruz

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Presentation Author: Dr. Aaron Wright

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Presentation Author: Dr. Jonathan Soboloff

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Presentation Author: Dr. Gloria See

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Presentation Author: Dr. Abdulnaser Alkhalil

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A Translational Medicine Approach to Gulf War Illness: From Cells to Therapy
Presentation Author: Dr. Kristina Aenlle

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Circulating Biomarkers of Acute Nerve Agent Exposure
Presentation Author: Mr. Kevin McGarry Jr.

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Presentation Author: Mr. Kevin McGarry Jr.

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Presentation Author: Capt David Leonard

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Presentation Author: Dr. Oksana Pavlyuk

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**MHSRS-19-01308 - SESSION 1 - #202**
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Presentation Author: Ms. Stacy Strausborger

**MHSRS-19-01488 - SESSION 1 - #203**
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Presentation Author: Dr. Anamika Ray

**MHSRS-19-01701 - SESSION 1 - #204**
A Mouse Model of Gulf War Illness Allows for Mechanistic Studies and the Search for Antidotes
Presentation Author: Mrs. Nadezhda Sabeva

**MHSRS-19-02260 - SESSION 1 - #205**
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**MHSRS-19-02334 - SESSION 1 - #206**
Development of a Versatile, Translational, Porcine (Sus Domesticus) Model for Lethal Snake Envenomation and Rescue: Experience with 70 Animals
Presentation Author: Dr. Lyndi Gilliam

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Presentation Author: Mrs. Kristina Ieronimakis

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Presentation Author: Lt Col Irene Folaron

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Heat Strain Assessment: Use of Meteorological Data as a Cost-effective Means to Estimate Wet Bulb-Globe Temperature
Presentation Author: Ms. Ericka Crosley
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Presentation Author: Mr. Douglas Jones

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40% Body Surface Area Burned is an Inappropriate Cutoff for the U.S. Army’s Standards of Medical Fitness for Burn Injuries: Effects of Work Intensity
Presentation Author: Dr. Craig Crandall

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Presentation Author: Dr. Nyamkhishig Sambuughin

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Presentation Author: Mr. Jay Heaney

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Magnitude and Persistence of Clinical Laboratory Markers Following Exertional Heat Stroke
Presentation Author: CPT Matthew Ward

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Spatial Audio Cues Help Helicopter Pilots Fly When They Can’t See
Presentation Author: Ms. Lana Milam

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Performance and Safety Monitoring in Aquatic Environments
Presentation Author: Dr. Regina Shia

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Presentation Author: Lt Geoffrey Ciarlone

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Presentation Author: Dr. Brian Williams

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Presentation Author: Mrs. Hanbing Zhou

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Presentation Author: Ms. Trang Young

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Presentation Author: Dr. Joshua Cohen

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Presentation Author: Mr. Eddie Gil

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Presentation Author: Dr. Carey Balaban

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Model to Predict Probability of Significant Skin Burn Injury from Radiant Heat Source
Presentation Author: Dr. Anthony Iyoho
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Presentation Author: LCDR Micah Kinney

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Presentation Author: MAJ Timothy Usset

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Presentation Author: Dr. Jessica Castner

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Transitioning Home Following Traumatic Brain Injury: Examination of the Long-term Service Needs and Barriers to Care among Caregivers of Service Members and Veterans Following Mild Traumatic Brain Injury
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Caring for a Service Member or Veteran Following Traumatic Brain Injury Influences Caregiver Mental Health
Presentation Author: Dr. Tracey Brickell
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Supportive Supervisor Behaviors and Family and Health Outcomes
Presentation Author: Dr. Leslie Hammer

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Presentation Author: Ms. Lisa Shank

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Presentation Author: Dr. Nida Corry

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Presentation Author: Dr. Mamta Sapra

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Presentation Author: Ms. Joanne Barnieu

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Presentation Author: Dr. Elizabeth Hisle-Gorman
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Presentation Author: Dr. Penny Pierce

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Presentation Author: MAJ Joetta Khan

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“Band of Brothers” or “Broken Family?” - The Role of Social Support in the U.S. Military’s Depression Crisis
Presentation Author: SSgt Aaron San Miguel

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Presentation Author: MAJ Elizabeth Belleau

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Presentation Author: Dr. Stacey Iobst

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Presentation Author: Mr. Daniel Triplett

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Web-delivered Financial Readiness Education Increases Knowledge of Predatory Lending
Presentation Author: Dr. Tim Hoyt

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Impact of Tobacco Smoking on Cognition after Traumatic Brain Injury: VA TBI Model Systems Study
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A Safer Abuse Deterrent Method to Prevent Opioid Abuse and Addiction
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Presentation Author: Lt Thuyvi Amy Truong

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Presentation Author: Dr. Jie Lin

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Presentation Author: MAJ Julianna Jayne

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Presentation Author: Dr. Nikki Wooten

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Presentation Author: Dr. Nikki Wooten

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Presentation Author: Dr. Andrew Monte

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Presentation Author: Dr. Andrew Monte

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Presentation Author: Dr. Gerald Talcott
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Presentation Author: LCDR Peter Walker

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Presentation Author: Dr. Michelle Bovin

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Exploration of Emotional Intelligence and Self-perceived Invincibility
Presentation Author: Mr. Simon Esbit

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Presentation Author: Mr. Kyle LaFollette

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Big Five Personality Traits and How They Relate to Self-perceived Invincibility
Presentation Author: Mr. Michael Strong

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Presentation Author: MAJ Marlene Arias-Reynoso

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Examining the Influence of Autism Symptoms and Unit Cohesion on Suicide Risk among Military Personnel
Presentation Author: Mr. Austin Gallyer

HITTING THE TARGET—ENSURING OPTIMAL HUMAN PERFORMANCE, PSYCHOLOGICAL HEALTH AND READINESS THROUGHOUT MILITARY SERVICE

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Presentation Author: Ms. Shawna Gallegos

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Presentation Author: Dr. Raymond Kaempfer

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Presentation Author: Dr. Mikeljon Nikolich

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Presentation Author: Dr. Nina Bionda

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Presentation Author: Mr. Joel Gil
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Presentation Author: Dr. Daniel Zurawski

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**MHSRS-19-01643 - SESSION 1 - #449**  
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Presentation Author: Dr. Justin Baker

**MHSRS-19-01853 - SESSION 1 - #450**  
Strategic Manning for Embedded Mental Health in Operational Settings: A Data-driven Approach  
Presentation Author: CDR Jeffrey Millegan

**MHSRS-19-01974 - SESSION 1 - #451**  
Effectiveness of A Mindfulness-based Group Therapy Integrative Restoration for Active Duty Personnel with Mild Traumatic Brain Injury in an Outpatient Clinic  
Presentation Author: Ms. Brianna Biel

**MHSRS-19-01977 - SESSION 1 - #452**  
Identifying Error Rates in Suppressed Emotions during Training  
Presentation Author: 2LT Raul Betancourt-Perez

**MHSRS-19-02036 - SESSION 1 - #453**  
Use of Mobile Technology Paired with Heart Rate Monitor to Remotely Quantify Behavioral Health Markers among Military Reservists and First Responders  
Presentation Author: Dr. Maria Davila

**MHSRS-19-02080 - SESSION 1 - #454**  
A Pilot Study to Examine Psychological and Neuropsychological Outcomes and a Novel Detoxification Program for Gulf War Illness  
Presentation Author: Dr. Donald Graves

**MHSRS-19-02284 - SESSION 1 - #455**  
Healthcare Utilization in Soldiers with Concussion and Other Deployment-related Injuries  
Presentation Author: Ms. Kristina Clarke-Walper
The Impact of Personality Disorders On CPT Treatment Outcome in Active Duty Military
Presentation Author: Dr. Sahli Cavallaro

Approaches to Prevention and Treatment of High-risk Behaviors using Neuromodulation
Presentation Author: Mr. Richard Hanbury

INNOVATIONS IN PTSD PROPHYLAXIS/PREVENTION AND BIOMARKER RESEARCH IN MILITARY POPULATIONS

Characterization of Pro-inflammatory and Anti-inflammatory Microglial Phenotypes in a Rat Model of PTSD
Presentation Author: CPT Thomas Cotrone

Fear Memory Extinction is Blocked in Rats Following Acute Glial Cell Inhibition: Implications for Targeting Neuroinflammation in Traumatic Stress Exposure
Presentation Author: Dr. Rachel Taylor

Outcomes of Intensive Outpatient Prolonged Exposure Psychotherapy for Combat-related Posttraumatic Stress Disorder: A Randomized Clinical Trial
Presentation Author: Dr. Alan Peterson

Delta Opioid Receptor Biased Agonists as a New Treatment Paradigm for PTSD
Presentation Author: Dr. Mark Peterson

A Novel Orally Active Triple Reuptake Inhibitor for the Treatment of Post-traumatic Stress Disorder: D-578 Attenuates Abnormal Fear Behavior in a Rodent Model of Traumatic Stress
Presentation Author: Mr. Frank Bymaster

Using a Brain Biomarker Discovery to Rapidly Diagnose and Precisely Treat Post-traumatic Stress Disorder
Presentation Author: Dr. Jennifer Perusini

Intravenous Ketamine Infusion Does Not Alter Long-term Fear Memory in Male Rats
Presentation Author: CDR Kennett Radford

Predicting Mental Illness by Whole Genome Risk Analytics in the Vietnam Era Twin Cohort
Presentation Author: Dr. Daniel Hupalo
MHSRS-19-02023 - SESSION 1 - #466
A Multivariate Prediction Model of Neuroendocrine Dysregulation in Canadian Combat Veterans with Recent versus Chronic Posttraumatic Stress Disorder
Presentation Author: Dr. Shawn Rhind

MHSRS-19-02286 - SESSION 1 - #467
Blockade of mGlu7 Receptor as a Novel Therapeutic Approach for Post-traumatic Stress Disorder: Preclinical Evidences
Presentation Author: Dr. Guillaume Duvey

MHSRS-19-02326 - SESSION 1 - #468
Altered Suppression of Beta Band Oscillations during Memory Encoding is Predictive of Lower Subsequent Recognition Performance in Mild Traumatic Brain Injury with Significant Post-traumatic Stress Disorder Symptoms
Presentation Author: Dr. Thomas DeGraba

MHSRS-19-02375 - SESSION 1 - #469
Salivary Hormone Analysis: A Useful Tool to Detect Detrimental Stress Responses during Military Deployments?
Presentation Author: MAJ Jeffrey Colburn

MHSRS-19-02432 - SESSION 1 - #470
Sex-related Differences in the Effects of Intravenous Ketamine on Dissociative Behaviors, Antinociception, and Hormone Levels in Sprague-dawley Rats
Presentation Author: Dr. Kwang Choi

COGNITIVE READINESS: BRIDGING THE GAP BETWEEN NEUROPSYCHOLOGICAL TESTS AND WARFIGHTER READINESS

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Presentation Author: Dr. Mark Ettenhofer

MHSRS-19-00125 - SESSION 1 - #472
Attentional Improvements Following Neurofeedback Therapy for Traumatic Brain Injury in Service Members: A Single-group Pilot Study
Presentation Author: Dr. Jamie Hershaw

MHSRS-19-00311 - SESSION 1 - #473
Service Member Experience and Patient Satisfaction Following Utilization of Military Teleneuropsychology Service
Presentation Author: Dr. Scott Mooney

MHSRS-19-00473 - SESSION 1 - #474
Attention-deficit/hyperactivity Disorder is Linked to Reduced Cognitive Resiliency to Subconcussive Head Impact: A Case-control Intervention Study
Presentation Author: Dr. Keisuke Kawata
MHSRS-19-00689 - SESSION 1 - #475
Heart Rate Variability Changes Following Live Z Score Neurofeedback Therapy
Presentation Author: Ms. Megan Loftin

MHSRS-19-00999 - SESSION 1 - #476
Post-traumatic Stress Symptoms are Associated with Worse Neuropsychological Functioning, but not Diffusion Tensor Imaging Findings, in Military Service Members following Mild Traumatic Brain Injury
Presentation Author: Dr. Rael Lange

MHSRS-19-01012 - SESSION 1 - #477
Resilience Influences Neurocognitive Performance and Neurobehavioral Symptom Reporting following Uncomplicated Mild Traumatic Brain Injury in U.S. Military Service Members
Presentation Author: Dr. Rael Lange

MHSRS-19-01103 - SESSION 1 - #478
A Review of Research into Training as a Cognitive Performance Enhancement Technique
Presentation Author: Ms. Amanda Hayes

MHSRS-19-01122 - SESSION 1 - #479
Profile of Brief Symptom Inventory-18 Scores in Civilian and Military Collegiate Athletes
Presentation Author: Dr. Thomas McAllister

MHSRS-19-01150 - SESSION 1 - #480
Normative Reference Values for National Guard Soldiers on the Automated Neuropsychological Assessment Metrics (Version 4) Battery
Presentation Author: Ms. Caitlin Haven

MHSRS-19-01915 - SESSION 1 - #481
Assessing Neurocognitive Performance using Handheld Software Defined Radios
Presentation Author: Mr. Matthew Yanagi

MHSRS-19-01950 - SESSION 1 - #482
Changes in Affordance Perception Behaviors during Exposure to Acute Military Operational Stress
Presentation Author: Ms. Alice LaGoy

MHSRS-19-02031 - SESSION 1 - #483
Cognitive Rehabilitation for the Warfighter: Application of Smart
Presentation Author: Dr. Ida Babakhanyan

MHSRS-19-02177 - SESSION 1 - #484
Using the Virtual Multiple Errands Task to Assess Executive Functioning in Traumatic Brain Injury
Presentation Author: Ms. Marielle Nagele

MHSRS-19-02425 - SESSION 1 - #485
Repetitive Transcranial Magnetic Stimulation as a Protective Measure against Early-Onset Alzheimer's Disease: A Case Report
Presentation Author: Mr. Jared Garland
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**MHSRS-19-02474 - SESSION 1 - #486**
Mindfulness: An Emerging Strategy for Enhancing Health and Readiness in the Military  
Presentation Author: CPT Thomas Nassif

**MHSRS-19-02597 - SESSION 1 - #487**
Paradoxical Effect of Stimulus Density on PVT Time-on-task Effect during Sleep Deprivation  
Presentation Author: Dr. Kimberly Honn

**LONG-TERM IMPAIRMENT FOLLOWING CONCUSSION: UNDERSTANDING DISCREPANCIES IN REPORTED OUTCOMES AND IMPLICATIONS FOR RETURN-TO-DUTY**

**MHSRS-19-00096 - SESSION 1 - #488**
Does Method of Receiving A Traumatic Brain Injury Influence Care Seeking?  
Presentation Author: Ms. Bianca Chavez

**MHSRS-19-00116 - SESSION 1 - #489**
Telerehabilitation for Combat Wounded with Traumatic Brain Injury and Post Traumatic Stress Disorders  
Presentation Author: Dr. Kris Siddharthan

**MHSRS-19-00342 - SESSION 1 - #490**
Non-medical Predictors of Long-term TBI Outcomes  
Presentation Author: Ms. Catherine Butt

**MHSRS-19-00601 - SESSION 1 - #491**
Task Practice Intensity Estimation in Individuals with Traumatic Brain Injury  
Presentation Author: Dr. Sandeep Subramanian

**MHSRS-19-00685 - SESSION 1 - #492**
Medical Comorbidities Predict Psychological Health After Traumatic Brain Injury: A VA TBI Model Systems Study  
Presentation Author: Ms. Emily Noyes

**MHSRS-19-00761 - SESSION 1 - #493**
Comorbidity Burden Contributes To Community Reintegration and Employment After TBI: A VA TBI Model Systems Study  
Presentation Author: Ms. Deveney Ching

**MHSRS-19-00814 - SESSION 1 - #494**
Impact of Medical Comorbidities on Rehabilitation Outcomes Following TBI: A VA TBI Model Systems Study  
Presentation Author: Dr. Risa Nakase-Richardson

**MHSRS-19-00833 - SESSION 1 - #495**
Demographic and Mental Health Predictors of Arrests 1-10 Years Post-TBI: A VA TBIMS Study  
Presentation Author: Dr. Shannon Miles

**MHSRS-19-00834 - SESSION 1 - #496**
Obstructive Sleep Apnea and PTSD Symptoms in Veterans with TBI  
Presentation Author: Dr. Leilia Abuelhiga
MHSRS-19-00837 - SESSION 1 - #497
Arrest Rates in Veterans and Military Personnel after TBI: A VA TBI Model Systems Study
Presentation Author: Dr. Elizabeth Gavin

MHSRS-19-00936 - SESSION 1 - #498
Time Interval to Follow Commands in Severe Traumatic Brain Injury Survivors with Favorable Outcomes at 2 Years
Presentation Author: Dr. Tiffany Wilkins

MHSRS-19-01125 - SESSION 1 - #499
Specific Sleep Disorder Targeted Intervention Therapy Impact on Sleep Quality and Satisfaction with Life Scale: A Team-TBI Study
Presentation Author: Dr. Matthew Mesley

MHSRS-19-01221 - SESSION 1 - #500
Prevalence of Sleep Apnea Differs by Severity of Traumatic Brain Injury in Veterans and Service Member: A VA TBI Model System Study
Presentation Author: Ms. Amanda Royer

MHSRS-19-01325 - SESSION 1 - #501
Identifying Risk Factors for Pain Related Disability in Veterans and Service Members Exposed to Mild Traumatic Brain Injury
Presentation Author: Dr. Michelle Hoot

MHSRS-19-01334 - SESSION 1 - #502
Pupillary Evidence for Impaired Neural Gain Modulation in Chronic Mild Traumatic Brain Injury
Presentation Author: Dr. Jamie Hershaw

MHSRS-19-01373 - SESSION 1 - #503
Outcome Following Concussion: Prospective Investigation into the Effects of Prior Brain Injury on Recovery in Military Personnel
Presentation Author: Dr. Jason Bailie

MHSRS-19-01436 - SESSION 1 - #504
Validation of NIH Toolbox Emotion Battery for Traumatic Brain Injury
Presentation Author: Dr. Ida Babakhanyan

MHSRS-19-01477 - SESSION 1 - #505
Functional Status Examination versus Glasgow Outcome Scale Extended as Outcome Measures in Traumatic Brain Injuries: How Do They Compare?
Presentation Author: Dr. Nancy Temkin

MHSRS-19-01565 - SESSION 1 - #506
Efficacy of Vision Therapy to Ameliorate Long Term Impairment in a MTBI Patient Population
Presentation Author: Dr. Tina Aldana

MHSRS-19-01582 - SESSION 1 - #507
Quantitative Evaluation of Visual and Auditory Dysfunction in TBI Patients: Description of Study and Characteristics of Early Participants
Presentation Author: Ms. Catherine Diethelm
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Cognitive Impairment, Psychological Health and Functional Status after Traumatic Brain Injury: A Team-TBI Study
Presentation Author: Ms. Allison Borrasso

MHSRS-19-01586 - SESSION 1 - #509
Lifetime Experience of mTBI Blocks Facilitated Acquisition of Eyeblink Conditioning In Anxiety-prone Veterans
Presentation Author: HM1 Richard Servatius

MHSRS-19-01677 - SESSION 1 - #510
Self-reported Sleep Quality in Persons with Chronic TBI: Can Exercise Help?
Presentation Author: Mr. Kevin Balibay

MHSRS-19-01685 - SESSION 1 - #511
Telephone-assessed Neuropsychological Performance Predicts Disability Severity Level after Traumatic Brain Injury: VA TBI Model Systems Study
Presentation Author: Ms. Erin Brennan

MHSRS-19-01742 - SESSION 1 - #512
Unmet Rehabilitation Needs Five Years Post Traumatic Brain Injury: A VA TBI Model Systems Study
Presentation Author: Dr. Elaine Mahoney

MHSRS-19-01857 - SESSION 1 - #513
Long-term Health Outcomes of Active Duty Service Members with Combat versus Non-combat Concussion
Presentation Author: CDR Lalon Kasuske

MHSRS-19-01861 - SESSION 1 - #514
Burden of Behavioral Health Comorbidities on Active Duty Service Members with a First MTBI
Presentation Author: CDR Lalon Kasuske

MHSRS-19-01903 - SESSION 1 - #515
The Effects of Fatigue and Sleep on Reported Concussion-related Symptoms
Presentation Author: Dr. Daniel Leeds

MHSRS-19-01909 - SESSION 1 - #516
MTBI and PTSD are Dissociable using Novel Virtual Reality Postural Assessments
Presentation Author: Dr. W. Geoffrey Wright

MHSRS-19-01952 - SESSION 1 - #517
Do Males and Females in the Military Differ in Terms of MTBI Reporting and Seeking Care?
Presentation Author: Dr. Sandra Escolas

MHSRS-19-02106 - SESSION 1 - #518
Comparing Acute Phase and Persistent Symptoms Following a First Mild Traumatic Brain Injury
Presentation Author: Mr. Peter Hoover

MHSRS-19-02256 - SESSION 1 - #519
Psychosis Secondary to Repetitive MTBI
Presentation Author: Lt Devon Johnston
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Reviewing Clinical Practice Guidelines on Patient-reported Outcome Measures Use for Individuals Diagnosed with TBI: On an Evaluative Literature Review
Presentation Author: Ms. Lauren Earyes

MHSRS-19-02353 - SESSION 1 - #521
Neck Pain and Sleep Quantity in the Etiology of Headaches in Service Members with and without Mild Traumatic Brain Injury: A Comparison
Presentation Author: Dr. Matthew Reid

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Gender Differences in Symptom Presentation and Functional Outcomes in a Matched Sample of Veterans with Mild TBI
Presentation Author: Dr. Maheen Adamson

MHSRS-19-00538 - SESSION 1 - #523
Vestaid: A Tablet-based Technology for Objective Exercise Monitoring in Vestibular Rehabilitation
Presentation Author: Dr. Pedram Hovareshti

MHSRS-19-01133 - SESSION 1 - #524
Adding an Objective Biomechanical Assessment into the Management of Knee Osteoarthritis for Civilian Patients Improves Pain, Function and Treatment Satisfaction: A Pragmatic Cluster Randomized Controlled Trial
Presentation Author: Dr. Alexandre Fuentes

MHSRS-19-01331 - SESSION 1 - #525
Disparity of Self-reported Injuries with Abbreviated Injury Scale Scores in Service Members Following Traumatic Brain Injury and Polytrauma
Presentation Author: Dr. Tracey Brickell

MHSRS-19-01437 - SESSION 1 - #526
The Relationship Between Vision Loss, Head Trauma, Traumatic Brain Injuries and Ocular Injuries in American Service Members from 2001 to 2015
Presentation Author: Dr. Tom Velez

MHSRS-19-01490 - SESSION 1 - #527
Visual Exploration and Gait in People with Mild Traumatic Brain Injury
Presentation Author: Dr. Samuel Stuart

MHSRS-19-01507 - SESSION 1 - #528
Recovery of Long Term Potentiation in Rat Organotypic Hippocampal Slice Cultures to Inform Return-to-duty Criteria in Soldiers Following Blast-induced Traumatic Brain Injury
Presentation Author: Mr. Nevin Varghese

MHSRS-19-01580 - SESSION 1 - #529
Traditional vs. Dynamic Reaction Time Assessments: Are We Really Evaluating Reaction Time after Concussion?
Presentation Author: Dr. Robert Lynall
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Subdural Infusion of Anti-inflammatory Proteins Targeting Coagulation and Chemokine Pathways Provides Early Neuroprotection after Spinal Cord Injury
Presentation Author: Dr. Jacek Kwiecien

MHSRS-19-01885 - SESSION 1 - #531
Effect of Impaired Balance by Fatigue, Reduced Plantar Sensation and Mild Traumatic Brain Injury
Presentation Author: Dr. Zachary Domire

MHSRS-19-01928 - SESSION 1 - #532
Evaluating the Effect of Varying Muscle Activation on Head Kinematics During Non-injurious Head Impacts in Human Volunteers
Presentation Author: Ms. Kristen Reynier

MHSRS-19-01939 - SESSION 1 - #533
Most- A Multi-site Observational Study Comparing Combined Intensive Concussion and Pain Management Interdisciplinary Outpatient Programs to Usual Care
Presentation Author: Ms. Dawn Collins

MHSRS-19-01992 - SESSION 1 - #534
Comparison of Subjects with MTBI and Healthy Control Group in the Development of the Powar-total: A Test of Return-to-duty Readiness Following MTBI
Presentation Author: Ms. Larysa Petrenko

MHSRS-19-02131 - SESSION 1 - #535
Development and Validation of a Mobile Application to Detect Visual Dysfunction Following Mild Traumatic Brain Injury
Presentation Author: Dr. Susan Linder

MHSRS-19-02160 - SESSION 1 - #536
The Assessment of Dual-task Function Conducive for use in Military Mild Traumatic Brain Injury
Presentation Author: Dr. Susan Linder

MHSRS-19-02273 - SESSION 1 - #537
Characterization of Healthy Control Group in the Development of the POWAR-TOTAL- A Test of Return to Duty Readiness Following Concussion
Presentation Author: Ms. Kellie Adams

MHSRS-19-02297 - SESSION 1 - #538
Characteristics of Active Duty Service Members Post-concussion Referred to Physical Therapy
Presentation Author: Dr. Karen L McCulloch

MHSRS-19-02553 - SESSION 1 - #539
Using an Immersive 3D Scenario-based Rehabilitation Program to Enhance Daily Functioning in Veterans Surviving Traumatic Brain Injury
Presentation Author: Ms. Zhengsi Chang

MHSRS-19-02649 - SESSION 1 - #540
Exploring the Role of Combined Cognitive and Motor Dual-task Assessment and Rehabilitation for Individuals with Residual Symptoms after Mild Traumatic Brain Injury
Presentation Author: Dr. Margaret Weightman
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Assessment of Biomechanical Properties and Biocompatibility of 3D Printed Collagen Nerve Conduits: The Effects of Ruthenium versus Riboflavin Photocrosslinking
Presentation Author: Dr. Shailly Jariwala

MHSRS-19-00024 - SESSION 1 - #542
Volumetric Changes in Edentulous Alveolar Ridge Sites Utilizing Guided Bone Regeneration and a Custom Titanium Ridge Augmentation Matrix
Presentation Author: Dr. Rodney Phoenix

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Evaluation of Mesenchymal Stromal Cell Differentiation for Healing of Large Tissue Defects
Presentation Author: Dr. Rodney Phoenix

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Buccal Bone Thickness Adjacent to Virtual Dental Implants Following Guided Bone Regeneration
Presentation Author: CPT Daniel J. Phillips

MHSRS-19-00092 - SESSION 1 - #545
Tunnel Access for Guided Bone Regeneration
Presentation Author: CPT Ryan T. McGary

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Rational Prophylactic Antibiotic Selection for Sinus Elevation Surgery
Presentation Author: MAJ Joshua A. Akers

MHSRS-19-00138 - SESSION 1 - #547
Engineering of Volumetric Skeletal Muscle Tissue for Accelerated Restoration of Pelvic Floor Muscle Function
Presentation Author: Dr. Jihyun Kim

MHSRS-19-00142 - SESSION 1 - #548
Accelerated Innervation of 3D Bioprinted Muscle Construct with Pre-fabricated Neuromuscular Junctions and Neurotrophic Factor Release System
Presentation Author: Dr. Jihyun Kim

MHSRS-19-00192 - SESSION 1 - #549
Implementation of Direct Access Physical Therapy at Joint Base Lewis McChord: Leading the Way in Musculoskeletal Readiness
Presentation Author: CPT Casey Shutt-Hoblet

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A Novel BMP-2 Delivery Device Induces Superior Bone Formation in a Rabbit Posterolateral Fusion Model
Presentation Author: Dr. Yi Arnold
MHSRS-19-00293 - SESSION 1 - #551
Defining the Immune Response to Post-traumatic Osteoarthritis and Therapeutic Targeting of Inflammatory-induced Senescence Pathways to Promote Repair
Presentation Author: Ms. Hong Zhang

MHSRS-19-00332 - SESSION 1 - #552
Novel Calibrated Real-time Pressure Sensor Reveals Wide Variations in Current Nerve Crush Injury Models
Presentation Author: Dr. John Elfar

MHSRS-19-01262 - SESSION 1 - #553
Peripheral Nerve Laceration Injury in Mice: Standardized Methods Result in Reproducible Functional, Morphological, Cellular, and Molecular Characteristics in Nerve and Muscle
Presentation Author: Dr. John Elfar

MHSRS-19-01268 - SESSION 1 - #554
Purposeful Misalignment of Transected Sciatic Nerve Stumps Results in Aggravated Functional Deficit, with Unexpected Prevention of Muscle Atrophy
Presentation Author: Dr. John Elfar

MHSRS-19-01633 - SESSION 1 - #555
Transdermal Delivery of 4-aminopyridine, A Potassium Channel Blocker, Promotes Peripheral Nerve Injury Recovery with Decreased Axonal Degeneration, Improved Myelination, Faster Nerve Conduction, and Enhanced Global Motor Function
Presentation Author: Dr. John Elfar

MHSRS-19-01656 - SESSION 1 - #556
Treatment of Denervation Atrophy with 4-aminopyridine: Improved Limb Function and Intrinsic Muscle Force with Suppression of the Expression of Muscle Atrophy Genes
Presentation Author: Dr. John Elfar

MHSRS-19-00353 - SESSION 1 - #557
Dexamethasone Improves Neuromuscular Junction Recovery from Ischemia-reperfusion Injury Induced by Tourniquet Application in Mouse Hindlimb
Presentation Author: Dr. Huiyin Tu

MHSRS-19-00393 - SESSION 1 - #558
A Novel, Promising Strategy for Repairing Peripheral Nerve Defect: Nerve Graft Prefabrication
Presentation Author: Dr. Huseyin Karagoz

MHSRS-19-00639 - SESSION 1 - #559
Lower Abdominal-penoscrotal Vascularized Composite Allotransplantation
Presentation Author: Dr. Richard Redett

MHSRS-19-00677 - SESSION 1 - #560
A Human Joint Model System to Study the Pathogenesis and Treatment of Post-traumatic Osteoarthritis
Presentation Author: Dr. Melissa VonDran

MHSRS-19-00817 - SESSION 1 - #561
Desensitization using Costimulatory Blockade and Bortezomib Does Not Prevent DSA Formation and Rejection in Reconstructive Transplantation
Presentation Author: Dr. Franka Messner
MHSRS-19-00839 - SESSION 1 - #562
WISP1 Regulates Chondrogenic Differentiation in Tendon Associated Heterotopic Bone
Presentation Author: Dr. Aaron James

MHSRS-19-00860 - SESSION 1 - #563
Bone Surgery Followed by Prolonged Musculoskeletal Disuse Aggravates Atrophy: Apoptosis Concomitant with Immune Deficiency
Presentation Author: Mr. Nabarun Chakraborty

MHSRS-19-00896 - SESSION 1 - #564
Nuclear Sequestration of NF\(\kappa\)B Delays the Inflammatory Switch in Raw 264.7 Macrophages
Presentation Author: CPT Alexander Kolb

MHSRS-19-00899 - SESSION 1 - #565
The Adapter Proteins MyD88 and TRIF are Primary Regulators of Inflammation in Bone Marrow Derived Macrophages
Presentation Author: Ms. Marinaliz Reynoso

MHSRS-19-00917 - SESSION 1 - #566
Nerve Graft Prefabrication via Lateral Axonal Sprouting into Allogeneic Epineural Sheath Conduit Induced by Adipose-derived Mesenchymal Stem Cells or Fat Graft
Presentation Author: Dr. Huseyin Karagoz

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A Porous Collagen-GAG Scaffold Promotes Muscle Regeneration Following Volumetric Muscle Loss Injury
Presentation Author: Dr. Adriana Panayi

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An Entirely New Approach to Flexor Tendon Repair
Presentation Author: Dr. Aaron Dingle

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The Mesh Suture Research Program: Using a Trans-discipline Research Model to Drive a Surgical Paradigm Shift
Presentation Author: LCDR Jason Souza

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Suturable Mesh Laparotomy Closure Outperforms Conventional Suture Closure in a Ball Burst Repetitive Stress Model
Presentation Author: LCDR Jason Souza

MHSRS-19-01185 - SESSION 1 - #571
Stem Cell and Novel Neurotrophic Factor Therapies to Improve Outcomes in Neuromusculoskeletal Injuries
Presentation Author: Dr. Shashikumar Salgar

MHSRS-19-01240 - SESSION 1 - #572
Innovative Approach to Nerve Repair
Presentation Author: Dr. Yoojeong Kim

MHSRS-19-01290 - SESSION 1 - #573
Innovative Catheter Design to Enable Safe Urinary Management of Warfighters with Neurogenic Bladder
Presentation Author: Mr. Derek Herrera
MHSRS-19-01363 - SESSION 1 - #574
Development of Biological Approaches to Improve Functional Recovery after Compartment Syndrome Injury
Presentation Author: Dr. Tracy Criswell

MHSRS-19-01440 - SESSION 1 - #575
Effects of Visual Biofeedback on Loading Symmetry in Recovery from a Multi-ligamentous Knee Injury and Dislocation
Presentation Author: Dr. Julianne Stewart

MHSRS-19-01451 - SESSION 1 - #576
Conversion of Foot Strike Pattern To Treat Service Members With Running-related Knee Pain
Presentation Author: Dr. Brittney Mazzone

MHSRS-19-01485 - SESSION 1 - #577
Point-of-Care Tomosynthesis Imaging of the Wrist
Presentation Author: Dr. Yueh Lee

MHSRS-19-01551 - SESSION 1 - #578
Articulated Joint Distraction 12-weeks after an Intra-articular Fracture Induces Cartilage and Intra-articular Soft Tissue Formation in a Minipig Model
Presentation Author: Dr. Jessica Goetz

MHSRS-19-01575 - SESSION 1 - #579
Opioid Paradoxically Exacerbates Postfracture Pain despite Evidence of Bone Union
Presentation Author: Dr. Fletcher White

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The Vascular Architecture in Microvascular Free Flaps: Analysis of Vessel Morphology and Morphometry in a Murine Free Flap Model
Presentation Author: MAJ Andreas Pabst

MHSRS-19-01826 - SESSION 1 - #581
Side-to-Side Supercharging Allograft
Presentation Author: Dr. Satya Mallu

MHSRS-19-01904 - SESSION 1 - #582
Vascularized Composite Allograft transplantation in Swine (Sus Scrofa) Using a Graft Implanted Immunosuppressive Protocol
Presentation Author: Dr. Jaclyn Yracheta

MHSRS-19-01963 - SESSION 1 - #583
Examining Medical Separation Rates in Infantry and Combat Support U.S. Enlisted Service Members Following Anterior Cruciate Ligament Reconstruction, a Case-control Study
Presentation Author: Ms. Veronika Pav

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Modulating Macrophage Phenotype to Decrease Muscle Fibrosis in Ischemia Reperfusion Injury
Presentation Author: Mr. Chase Pagani
MHSRS-19-02006 - SESSION 1 - #585
Large Gap Peripheral Nerve Repair with Photochemical Tissue Bonding and Acellular Nerve Allograft in a Non-human Primate Model
Presentation Author: Dr. Marek Hansdorfer

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Center for Disruptive Musculoskeletal Innovations as a Model for Rapid Advancement of Prevention, Management and Treatment Strategies
Presentation Author: LCDR Dustin Huber

MHSRS-19-02048 - SESSION 1 - #587
Blast Injury Prevention Standards Recommendation Process: Skull Fracture Blast Injury Type
Presentation Author: Dr. Matthew Downs

MHSRS-19-02073 - SESSION 1 - #588
Soft Tissue Manipulation Attenuates Inflammation, Modulates Pain and Improves Gait in Conscious Rodents with Induced Low Back Pain
Presentation Author: Dr. Mary Loghmani

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The Effect of Gelatin MW on Lubricating Ability of an HA-Gelatin Compound in a Tendon Injury Model
Presentation Author: Dr. Peter Amadio

MHSRS-19-02170 - SESSION 1 - #590
Viral Vector Delivery of Follistatin Enhances Recovery of Reinnervated Muscle
Presentation Author: Dr. Satya Mallu

MHSRS-19-02179 - SESSION 1 - #591
Time to Anterior Cruciate Ligament Reconstruction in the U.S. Military: Does Delay to Surgery Increase Medical Separation Risk?
Presentation Author: Ms. Veronika Pav

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Presentation Author: LTG Enrique Smith-Forbes

MHSRS-19-02213 - SESSION 1 - #593
Psychosocial Predictors of Outcomes in Upper Extremity Vascularized Composite Allotransplantation with Mock Patient Vignettes
Presentation Author: Dr. Simon Talbot

MHSRS-19-02217 - SESSION 1 - #594
Critical Perfusion Threshold for Segmental Tissue at Risk after Cervical Spinal Cord Injury
Presentation Author: Dr. Zin Khaing

MHSRS-19-02243 - SESSION 1 - #595
The First Preclinical Porcine Model to Study Facial Scar Contractures and their Mechanisms
Presentation Author: Dr. Sashwati Roy
MHSRS-19-02244 - SESSION 1 - #596
A Combinatorial Approach to Cartilage Repair using Fractional Laser Treatment with Dynamic Self-regenerating Cartilage
Presentation Author: Dr. Yingfang Fan

MHSRS-19-02295 - SESSION 1 - #597
A Novel Nurse-managed Stress Fracture Rehabilitation Program: A Pilot Study
Presentation Author: LTC William Brown

MHSRS-19-02298 - SESSION 1 - #598
Defining Value for Navy Medicine through Musculoskeletal Integrated Practice Units
Presentation Author: CDR Leslie Hair

MHSRS-19-02361 - SESSION 1 - #599
Weightbearing CT Scan after Pilon Fracture Fixation Demonstrates Significant Early Joint Space Narrowing
Presentation Author: Dr. Michael Willey

MHSRS-19-02363 - SESSION 1 - #600
A Novel Ceramic-binding Variant TBMP-2 Delivered on a Ceramic Fiber Carrier Exhibits Dose-dependent Superiority in Union Rate over Standard of Care in a Five-centimeter Chronic Caprine Tibial Defect Model
Presentation Author: Dr. Yi Arnold

MHSRS-19-02413 - SESSION 1 - #601
Toward the Development of Patient-reported Outcome Measures for Vascularized Composite Allotransplantation of the Hand
Presentation Author: CDR Scott Tintle

MHSRS-19-02420 - SESSION 1 - #602
Cervical Spine Motion Characteristics as Objective Indicators of Neck Health
Presentation Author: Mr. Jonathan Dufour

MHSRS-19-02482 - SESSION 1 - #603
Engineering a Hybrid Thymus to Unravel the Tolerogenic Properties of Vascularized Composite Allotransplants
Presentation Author: Ms. Jialu Wang

MHSRS-19-02498 - SESSION 1 - #604
Qualitative Evaluation of Psychosocial Predictors of Outcomes in Upper Extremity Vascularized Composite Allotransplantation
Presentation Author: Dr. Simon Talbot

MHSRS-19-02527 - SESSION 1 - #605
A Porous Collagen-glycosaminoglycan Scaffold for the Treatment of Service Members affected by Volumetric Muscle Loss Injury
Presentation Author: Dr. Kristo Nuutila

MHSRS-19-02540 - SESSION 1 - #606
Tissue Protective Immunologic Response Following Early Definitive Fixation of Femur Fractures In Polytrauma Patients
Presentation Author: Dr. Todd McKinley
MILITARY HEALTH SYSTEM RESEARCH SYMPOSIUM

Poster Session 1

MHSRS-19-02548 - SESSION 1 - #607
Transcutaneous Contrast-enhanced Ultrasound Imaging of The Post-traumatic Spinal Cord Following Laminectomy
Presentation Author: Mr. Matthew Bruce

MHSRS-19-02555 - SESSION 1 - #608
Tissue Engineering and Regenerative Medicine Technology for Restoration of Bone in Cases of Significant Bone Loss
Presentation Author: Dr. Jing Lim

MHSRS-19-02593 - SESSION 1 - #609
Validating the Mechanical Robustness of a Passive Implantable Mechanism in the Chicken Extensor Tendon Model
Presentation Author: Mr. Justin Casebier

MHSRS-19-02601 - SESSION 1 - #610
In Situ Skeletal Muscle and Bone Tissue Handheld Printers
Presentation Author: Mr. Jacob Quint

MHSRS-19-02622 - SESSION 1 - #611
A Novel Protective Role of GPNMB/Osteoactivin in Post-traumatic Osteoarthritis
Presentation Author: Dr. Fayez Safadi

MHSRS-19-02643 - SESSION 1 - #612
A Retrospective Analysis to Determine Outcomes for Active Duty Service Members Status Post Hallux Valgus Surgical Correction Performed at Brooke Army Medical Center
Presentation Author: MAJ Tyson Baynes

MHSRS-19-02657 - SESSION 1 - #613
Combination Bone Replacement Graft With Dense Polytetrafluoroethylene Barrier Membrane for Treatment of an Infrabony Periodontal Defect
Presentation Author: MAJ Joseph F. Capetillo
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REHABILITATION FOLLOWING LIMB TRAUMA AND AMPUTATION

MHSRS-19-00015 - SESSION 1 - #614
Classification and Description of Outpatient Medications Prescribed Following Serious Combat Injury: A Retrospective Study
Presentation Author: Dr. Ted Melcer

MHSRS-19-00031 - SESSION 1 - #615
Correlates of Outpatient Prescription Medication Activity Following Serious Combat Injury: A Retrospective Analysis
Presentation Author: Dr. Ted Melcer

MHSRS-19-00038 - SESSION 1 - #616
IDEO Work Reliance Increases after Functional Training
Presentation Author: Mr. John Collins

MHSRS-19-00085 - SESSION 1 - #617
Presentation Author: Dr. Marc Schweizer

MHSRS-19-00186 - SESSION 1 - #618
Loading Effect of Prosthetic Feet’s Anthropomorphicity on Transtibial Osseointegrated Implant
Presentation Author: Dr. Mark Pitkin

MHSRS-19-00206 - SESSION 1 - #619
Prosthetic Feet Options and Balance Performance in Persons with Transtibial Amputation
Presentation Author: Dr. Amy Silder

MHSRS-19-00250 - SESSION 1 - #620
Kinesiophobia and its Associations with Self-reported Pain and Function in Individuals with Lower Limb Amputations
Presentation Author: Dr. Brittney Mazzone

MHSRS-19-00279 - SESSION 1 - #621
Development of a Balance Measure for Amputees
Presentation Author: Ms. Jennifer Johansson

MHSRS-19-00280 - SESSION 1 - #622
Tissue-engineered Electronic Nerve Interfaces: A Next-generation Technology for Amputees
Presentation Author: Dr. Jack Judy

MHSRS-19-00304 - SESSION 1 - #623
Beyond Limb Salvage: Institutional Trends in Limb Restoration Efforts Following Complex Combat-related Extremity Injuries
Presentation Author: 2LT Colin Harrington

MHSRS-19-00320 - SESSION 1 - #624
Early Clinical Evaluation of Active Cooling System for Improving Residual Limb Care
Presentation Author: Dr. Ryan Myers
MHSRS-19-00435 - SESSION 1 - #625
Developing a Combat-relevant Translatable Large Animal Model of Heterotopic Ossification
Presentation Author: Dr. Dustin Williams

MHSRS-19-00505 - SESSION 1 - #626
Mechanics of Abnormal Trunk Motion during Walking in Service Members with a Transtibial Amputation: A Whole-body Perspective
Presentation Author: Mr. Adam Yoder

MHSRS-19-00587 - SESSION 1 - #627
A Multi Domain Approach to Decision Making in O&P
Presentation Author: Dr. Sarah Chang

MHSRS-19-00799 - SESSION 1 - #628
Enabling Technology for Prosthetic Telerehabilitation and Performance Optimization
Presentation Author: Dr. David Boone

MHSRS-19-00882 - SESSION 1 - #629
In-vivo Kinetic System to Sustain Residuum Health of Service Members with Lower Limb Loss: From Proof-of-concept to Digital Twin
Presentation Author: Dr. Laurent Frossard

MHSRS-19-00939 - SESSION 1 - #630
Criteria for Advanced Prosthetic Foot Prescription: A Multi-center Clinical Trial
Presentation Author: Dr. Jason Maikos

MHSRS-19-01000 - SESSION 1 - #631
Cuff and Sieve Electrode: Proof of Principal for the Combination of Neural Electrodes for Bi-directional Peripheral Nerve Interfaces
Presentation Author: Dr. Aaron Dingle

MHSRS-19-01078 - SESSION 1 - #632
An Overview of Combat-related Extremity Injury in U.S. Service Members
Presentation Author: Ms. Katheryne Perez

MHSRS-19-01082 - SESSION 1 - #633
Developing New Items for the Extremity Trauma and Amputation Quality of Life Measurement System: Cognitive Debriefing Interviews
Presentation Author: Dr. Callie Tyner

MHSRS-19-01267 - SESSION 1 - #634
Early Outcomes of Patients Who Have Undergone Modified Amputations Incorporating Agonist-antagonist Myoneural Interface Construction
Presentation Author: Dr. Matthew Carty

MHSRS-19-01314 - SESSION 1 - #635
Early Outcomes of Skin Penetration Site Management in Osseointegrated Implants in Transshumeral and Transfemoral Amputations
Presentation Author: 2LT Colin Harrington
MHSRS-19-01336 - SESSION 1 - #636
Characterization of a Novel Shoe Testing Approach for use in Custom Orthotic Device Evaluation
Presentation Author: Dr. Jason Wilken

MHSRS-19-01464 - SESSION 1 - #637
Burn Injuries and Combat-related Amputation in U.S. Service Members
Presentation Author: Ms. Katheryne Perez

MHSRS-19-01523 - SESSION 1 - #638
Machine Learning Strategies for Automatically Determining Ground Slope and Walking Speed for Individuals with Amputation using a Robotic Knee/ankle Prosthesis
Presentation Author: Dr. Aaron Young

MHSRS-19-01546 - SESSION 1 - #639
A Bio-mimetic Adapter for Real-time Self-alignment of Prosthetic Foot
Presentation Author: Dr. Md Amanul Haque

MHSRS-19-01566 - SESSION 1 - #640
Military-specific Virtual Reality Training Improves Physical Function in Service Members with Lower Extremity Injury
Presentation Author: Ms. AuraLea Fain

MHSRS-19-01600 - SESSION 1 - #641
Development of an Integrated Platform for Performing Multi-center Extremity Trauma and Rehabilitation Research
Presentation Author: Dr. Kenton Kaufman

MHSRS-19-01616 - SESSION 1 - #642
Amputee Preference and Perception of Ankle-foot Stiffness during Walking
Presentation Author: Dr. Elliott Rouse

MHSRS-19-01629 - SESSION 1 - #643
Should I Stay or Should I Go? Identifying Systemic and Individual Factors in the Decision to Return to Duty Following Lower Extremity Injury
Presentation Author: Dr. Jonathan Wilson

MHSRS-19-01644 - SESSION 1 - #644
Bioenergetic Consequences of Lower Limb Trauma: Comparisons Between Lower Limb Reconstruction and Amputation
Presentation Author: Dr. Elizabeth Russell Esposito

MHSRS-19-01649 - SESSION 1 - #645
Enhanced Non-invasive Peripheral Nerve Stimulation for Sensory Restoration and Neuropathic Pain Treatment
Presentation Author: Mr. Andres Pena

MHSRS-19-01673 - SESSION 1 - #646
Military Culture as a Therapeutic Factor in Rehabilitation: An Ethnographic Account
Presentation Author: Dr. Seth Messinger
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MHSRS-19-01696 - SESSION 1 - #647
Kinematic Comparison of Treadmill and Overground Walking In Persons With and Without Transfemoral Amputation
Presentation Author: Dr. Amy Silder

MHSRS-19-01703 - SESSION 1 - #648
Prosthesis Satisfaction and Quality of Life in Service Members with Deployment-related Major Traumatic Amputation
Presentation Author: Dr. Susan Eskridge

MHSRS-19-01750 - SESSION 1 - #649
Power and Work Comparisons between IDEO Users and Patients with Transtibial Amputation
Presentation Author: Mr. Trevor Kingsbury

MHSRS-19-01803 - SESSION 1 - #650
In Vitro Characterization of Osteogenic Differentiation Potential of Porcine Mesenchymal Stem Cells Derived from Multiple Integumentary Tissues for Improved Durability of the Skin/implant Interface
Presentation Author: Dr. Devaveena Dey

MHSRS-19-01818 - SESSION 1 - #651
In Vitro Adhesion of Porcine Mesenchymal Stem Cells to Percutaneous Osseointegrated Prostheses for Improved Skin/implant Therapies
Presentation Author: Dr. Devaveena Dey

MHSRS-19-01843 - SESSION 1 - #652
The Point Digit: Mechanical Design and Testing of a Ratcheting Prosthetic Finger
Presentation Author: Dr. Levin Sliker

MHSRS-19-01922 - SESSION 1 - #653
Proprioceptive Sonomyographic Control: Towards Natural and Intuitive Control of Multi-articulated Upper Extremity Prosthesis
Presentation Author: Dr. Biswarup Mukherjee

MHSRS-19-01961 - SESSION 1 - #654
Early Research Toward a Muscle-driven, Implantable Limb Prosthesis
Presentation Author: Dr. Dustin Crouch

MHSRS-19-02021 - SESSION 1 - #655
Osseointegration among Service Members with Transfemoral Limb Loss: A Preliminary Look at Functional Outcomes within the First Year
Presentation Author: Dr. Brad Hendershot

MHSRS-19-02039 - SESSION 1 - #656
Biomechanical Loading Patterns During Drop Landings among Service Members with Unilateral Transtibial Limb Loss: Toward Informing Prosthesis Prescription and Return to Duty Decisions
Presentation Author: Dr. Brad Hendershot

MHSRS-19-02043 - SESSION 1 - #657
Clinical Assessment of Trunk Postural Control within a Fall-prevention Training Program for Service Members with Lower Extremity Trauma and Limb Loss
Presentation Author: Dr. Brad Hendershot
MHSRS-19-02153 - SESSION 1 - #658
Prosthetic Care for Combat Casualties at Walter Reed National Military Medical Center
Presentation Author: Mr. Akshay Thaper

MHSRS-19-02392 - SESSION 1 - #659
Bi-directional Control and Sensory Restoration Solution for Amputees
Presentation Author: Dr. Edward Keefer

MHSRS-19-02395 - SESSION 1 - #660
The Impact of Sensory Feedback on Grasping Performance with Different Prosthetic Types
Presentation Author: Dr. Deanna Gates

MHSRS-19-02415 - SESSION 1 - #661
The Extremity Trauma Toolbox Training Program: Standardizing Assessment of Functioning, Community Reintegration and Quality of Life After Major Extremity Trauma
Presentation Author: Dr. Jerry Slotkin

MHSRS-19-02427 - SESSION 1 - #662
Influence of Strut Stiffness on the Mechanical Properties of the IDEO during Walking
Presentation Author: Mr. Trevor Kingsbury

MHSRS-19-02435 - SESSION 1 - #663
Comparison of Two Different Hydrogel Biomaterial on Tendon Friction in a Turkey Tendon Model
Presentation Author: Dr. Peter Amadio

MHSRS-19-02458 - SESSION 1 - #664
The Extremity Trauma and Amputation Quality of Life Assessments: Developing a New Measurement System for Neuromusculoskeletal Trauma
Presentation Author: Dr. David Tulsky

MHSRS-19-02462 - SESSION 1 - #665
Clinical Evaluation of the Revolutionizing Prosthetics Modular Prosthetic Limb System for Upper Extremity Amputees: Phase III Take-home
Presentation Author: Ms. Emilia-Marie Jaskot

MHSRS-19-02476 - SESSION 1 - #666
Dietary Magnesium Intake and Associated Risk for Type 2 Diabetes Mellitus in a Military Population with Traumatic Lower Traumatic Limb Loss
Presentation Author: MAJ Joetta Khan

MHSRS-19-02500 - SESSION 1 - #667
Excess Body Fatness in a Traumatic Lower Limb Loss Population is associated with Increased Cardiovascular Disease Risk
Presentation Author: MAJ Joetta Khan

MHSRS-19-02515 - SESSION 1 - #668
Rehabilitation and Clinic Utilization of Patients with Combat Related Limb Loss in the U.S. Military Health System
Presentation Author: Mr. William Roddy
BLAST, BLUNT, ACCELERATIVE EXPOSURE IN TRAINING

MHSRS-19-00073 - SESSION 1 - #669
Identifying miRNA Biomarkers For Repeated Low-level Blast-induced Traumatic Brain Injury
Presentation Author: Dr. Lanier Heyburn

MHSRS-19-00464 - SESSION 1 - #670
Validation Procedures and Experimental Testing to Simulate Behind Armor Blunt Trauma Injuries using a Finite Element Model
Presentation Author: Mrs. Madelyn Eaton

MHSRS-19-00815 - SESSION 1 - #671
Correlation of Pathophysiological Markers in the Brain with Cumulative Effects of Repeated Blast
Presentation Author: Dr. Sujith Sajja

MHSRS-19-00902 - SESSION 1 - #672
Explosive Breaching Career Personnel: Auditory, Ocular Motor, and Vestibular System Assessments
Presentation Author: MAJ Brian Johnson

MHSRS-19-00908 - SESSION 1 - #673
Examining Headache and Postural Control Variability in Serial Blast-related Training Exposure
Presentation Author: Dr. Walter Carr

MHSRS-19-01123 - SESSION 1 - #674
The Neurological Impact of Overpressure Exposure: An Examination of Major Blast Exposure and Chronic, Low-level Overpressure Exposure using Post-deployment Health Assessment Records
Presentation Author: Dr. Jennifer Belding

MHSRS-19-01455 - SESSION 1 - #675
A Prediction Model of Military Combat and Training Exposures on VA Service Connected Disability: A CENC Study
Presentation Author: Dr. Clara Dismuke-Greer

MHSRS-19-01478 - SESSION 1 - #676
Advanced Total Body Model for Impact Injury Analysis
Presentation Author: Dr. Laurel Ng

MHSRS-19-01609 - SESSION 1 - #677
High Energy Head Impacts Measured in Humans Impair Readiness and Performance
Presentation Author: Dr. Adam Bartsch

MHSRS-19-01738 - SESSION 1 - #678
A Computational Study of the Biomechanical Response of the Human Lower Extremity Subjected to High Rate Vertical Accelerative Loading
Presentation Author: Ms. Jazmine Aira

MHSRS-19-01797 - SESSION 1 - #679
Investigating Training Associated Blast Pathology in Service Members Exposed to Repeated Sub-concussive Blast Events: Design and Implementation of the Invicta Study
Presentation Author: CDR Josh Duckworth
MHSRS-19-01898 - SESSION 1 - #680
Association between Concussion Education Sources and Concussion Disclosure Knowledge, Attitudes, Perceived Norms, Intentions, and Behaviors among First-year Service Academy Cadets: Implications for Concussion Education and Training
Presentation Author: Dr. Johna Register-Mihalik

MHSRS-19-01925 - SESSION 1 - #681
Firsthand Accounts of Potential Concussive Events Experienced by Post-911 Service Members and Veterans: A Chronic Effects of Neurotrauma Consortium Study
Presentation Author: Mr. Jonathan Yee

MHSRS-19-02152 - SESSION 1 - #682
Superficial Ballistic Trauma and Subjective Pain Experienced During Force-on-Force Training with Simulated Ammunition
Presentation Author: Lt Adam Biggs

MHSRS-19-02156 - SESSION 1 - #683
Investigation of Cranial Strains and Strain Rates in a 3D Human Head Model during the Helmet Military Specification Test
Presentation Author: Dr. Chad Hovey

MHSRS-19-02242 - SESSION 1 - #684
Vertebral Level-specific Neck Forces and Moments under G-X Accelerative Loading
Presentation Author: Mr. John Humm

MHSRS-19-02280 - SESSION 1 - #685
A Qualitative Study of Concussion Reporting at the U.S. Air Force Academy
Presentation Author: Dr. Christopher D’Lauro

MHSRS-19-02303 - SESSION 1 - #686
Interdisciplinary Efforts to Test and Implement Perceived Cost-based Concussion Interventions at the US Air Force Academy
Presentation Author: Dr. Christopher D’Lauro

MHSRS-19-02387 - SESSION 1 - #687
Peripheral Markers of Operational Blast Exposure
Presentation Author: Dr. Fatemeh Haghighi

MHSRS-19-02402 - SESSION 1 - #688
Developing Multiscale Computational Models for Traumatic Brain Injury Prediction
Presentation Author: Mr. Connor Bradfield

MHSRS-19-02407 - SESSION 1 - #689
Optimization of Structural Imaging on Chinchilla Lanigera as a Pre-clinical Model of Blast TBI.
Presentation Author: Dr. Vijaya Prakash Krishnan Muthaiah

MHSRS-19-02468 - SESSION 1 - #690
Interview and Biosample Analysis of Blast Overpressure Exposure among Service Members
Presentation Author: Dr. Michael Egnoto
MHSRS-19-02472 - SESSION 1 - #691
The Characterization of Flashbangs used by Law Enforcement and Military Personnel
Presentation Author: Dr. Michael Egnoto

MHSRS-19-02479 - SESSION 1 - #692
Acoustic Exposure Comparison on Instructors that are Experienced During Heavy Wall Explosive Breaching, Ballistic Breaching, and Grenades Training
Presentation Author: Dr. Michael Egnoto

MHSRS-19-02508 - SESSION 1 - #693
Design of Helmet Liner for Mitigating Blast Induced Traumatic Brain Injury
Presentation Author: Mr. Xiancheng Yu

ANCILLARY TOPICS

PRECISION MEDICINE FOR ACUTE AND TRAUMA AND CRITICAL CARE

MHSRS-19-00710 - SESSION 1 - #694
A Random Forest Model to Predict Bacteremia in Combat Trauma Patients
Presentation Author: Dr. Vivek Khatri

MHSRS-19-00847 - SESSION 1 - #695
Stimulating Mitochondrial Energetics Resuscitates Life-threatening Shock Syndromes
Presentation Author: Dr. Charles McCall

MHSRS-19-01066 - SESSION 1 - #696
Infusensor: A “Smart” Catheter and Platform for Dynamic, “Closed-loop” Sedation and Anesthesia
Presentation Author: Dr. Edward Chaum

MHSRS-19-01104 - SESSION 1 - #697
Continuing Towards Early Prediction of Vasospasm and Mortality Following Severe Traumatic Brain Injury
Presentation Author: Dr. Vivek Khatri

MHSRS-19-01131 - SESSION 1 - #698
Predicting Severe Sepsis in Surgical ICU Patients
Presentation Author: Dr. Seth Schobel

MHSRS-19-01287 - SESSION 1 - #699
Predicting Acute Respiratory Distress Syndrome in Surgical ICU Patients
Presentation Author: Dr. Seth Schobel

MHSRS-19-01294 - SESSION 1 - #700
Trauma Patients Wound Infection and the Relations with Injury and Clinical Progress
Presentation Author: Dr. Mingqing Song

MHSRS-19-01353 - SESSION 1 - #701
Joint Trauma System Developing a Robust Performance Improvement Model to Optimize Trauma Outcomes
Presentation Author: Dr. Kimberly Smith
MHSRS-19-01412 - SESSION 1 - #702
Serum Metabolites Linked to Mitochondrial Dysfunction and Mortality in a Combat-relevant Polytrauma Porcine Model
Presentation Author: Dr. Manjula Darshi

MHSRS-19-01503 - SESSION 1 - #703
3D Bioprinted Bone Tissue Construct for Craniomaxillofacial Reconstruction
Presentation Author: Dr. Sang Jin Lee

MHSRS-19-01504 - SESSION 1 - #704
Tissue-engineered Small Diameter Blood Vessels for Limb Reconstruction
Presentation Author: Dr. Sang Jin Lee

MHSRS-19-01506 - SESSION 1 - #705
3D Bioprinted Human Skeletal Muscle Tissue Constructs for Restoration of Muscle Function
Presentation Author: Dr. Sang Jin Lee

MHSRS-19-01521 - SESSION 1 - #706
Estimating the Development of Heterotopic Ossification in Combat-related Extremity Trauma
Presentation Author: Dr. Felipe Lisboa

MHSRS-19-01614 - SESSION 1 - #707
A Novel Therapy to Improve Cognitive Recovery Following Moderate/Severe Traumatic Brain Injury
Presentation Author: Mr. Paco Herson

MHSRS-19-01615 - SESSION 1 - #708
Surgical Critical Care Initiative: Consensus-driven Harmonization and Standardization of Biorepository Terminology
Presentation Author: Ms. Mary-Beth Joshi

MHSRS-19-01669 - SESSION 1 - #709
Surgical Critical Care Initiative: Maintenance of Good Clinical Laboratory Practices through Proficiency Testing of Peripheral Blood Mononuclear Cells
Presentation Author: Ms. Robyn Osborne

MHSRS-19-01698 - SESSION 1 - #710
Woundx-SC2i Program for Tissue and Data Acquisition: Supporting Advances in Precision Medicine for Wound Closure in the Military and Civilian Sectors
Presentation Author: Dr. Neal Iwakoshi

MHSRS-19-01754 - SESSION 1 - #711
Development of a Universal, Chemically Defined, and Xeno-free Human Primary Cell Growth and Maintenance Culture Medium for Regenerative Medicine Technologies
Presentation Author: Dr. Ronald Nelson

MHSRS-19-01883 - SESSION 1 - #712
Patient-specific Immunotypes Correspond to Trauma Tolerance and Trauma Sensitivity in Multiple Injured Patients
Presentation Author: Dr. Todd McKinley
MHSRS-19-01947 - SESSION 1 - #713
Precision Medicine Research to Meet Military Trauma Care Requirements
Presentation Author: Dr. Debra Niemeyer

MHSRS-19-02045 - SESSION 1 - #714
Rapid, Non-invasive, Accurate Assessment of Cardiovascular Function for Screening, Acute and Chronic Care: Application of Avicena’s Vivio to Military Medicine
Presentation Author: Dr. Marie Csete

MHSRS-19-02078 - SESSION 1 - #715
Light-activated Sealing to Improve Outcomes Following Penetrating Bowel Trauma
Presentation Author: Dr. Robert Redmond

MHSRS-19-02216 - SESSION 1 - #716
Identification of Novel Agents which Inhibit Collagen Secretion using High-throughput Drug Screening against Keloid Fibroblast
Presentation Author: Dr. Yuanyuan Kang

MHSRS-19-02221 - SESSION 1 - #717
Combat Medic Testing of a Novel Monitoring Capability for Early Detection of Hemorrhage
Presentation Author: Ms. Natalie Koons

MHSRS-19-02271 - SESSION 1 - #718
Inhibition of DPP4 Suppresses Collagen Synthesis in Keloids
Presentation Author: Dr. Yuanyuan Kang

MHSRS-19-02308 - SESSION 1 - #719
Delayed Custom Synthetic Implant Cranioplasty for Host National Patients: Retrospective Case Series
Presentation Author: Dr. Peter Liacouras

MHSRS-19-02338 - SESSION 1 - #720
CMX-2043 Suppresses Mitochondrial Stress Signaling and Improves Outcomes after Focal Traumatic Brain Injury in a Large Animal Preclinical Trial
Presentation Author: Dr. Meagan McManus

MHSRS-19-02347 - SESSION 1 - #721
Understanding Disease Heterogeneity through Machine Learning Applications: High-resolution Spatial Metabolomics and Integrated Multi-omic Analysis
Presentation Author: Dr. Daniel Montemayor

MHSRS-19-02430 - SESSION 1 - #722
Apollo Lung Cancer Moonshot: Comprehensive Proteogenomic Analytics for Classification and Predicting Patient Outcome
Presentation Author: Dr. Anthony Soltis

MHSRS-19-02450 - SESSION 1 - #723
TLR4/MYD88 Signaling Pathway Mediates Peripheral Tissue Injury Induced Ileus and Systemic Inflammation
Presentation Author: Dr. Anthony Bauer
WHAT'S NEW IN GLOBAL HEALTH ENGAGEMENT RESEARCH

MHSRS-19-00084 - SESSION 1 - #724
Description of Trauma among French Service Members in the Department of Defense Trauma Registry: Understanding the Nature of Trauma and the Care Provided
Presentation Author: Dr. Marc Schweizer

MHSRS-19-00220 - SESSION 1 - #725
Previous Medical Exposure in the Israeli Air Force as a Motivator for a Medical Career
Presentation Author: Dr. Uri Manor

MHSRS-19-00345 - SESSION 1 - #726
Measuring the Strategic Impact of Tactical Programs: A Quantitative Evaluation of DHAPP in Sub-Saharan Africa
Presentation Author: Dr. Solomon Major

MHSRS-19-00416 - SESSION 1 - #727
Value and Purpose in Global Health Engagement Research: Research Futures and the USU School of Medicine’s New Division of Global Public Health
Presentation Author: LTC Eric Garges

MHSRS-19-00469 - SESSION 1 - #728
Carcinoma Ex-pleomorphic Adenoma Diagnosis during Global Health Engagement Operations – A Case Report and Review of the Literature
Presentation Author: LCDR Art Ambrosio

MHSRS-19-00491 - SESSION 1 - #729
Presentation Author: CAPT Lisa Braun

MHSRS-19-00492 - SESSION 1 - #730
Analysis of an Electronic Medical Record Platform for Military Humanitarian Assistance and Disaster Response Operations
Presentation Author: CAPT Gregory Gorman

MHSRS-19-00684 - SESSION 1 - #731
The African Cohort Study: A MIL-MIL and MIL-CIV Collaboration Evaluating HIV Outcomes in Resource Limited Settings
Presentation Author: LTC Julie Ake

MHSRS-19-00728 - SESSION 1 - #732
Alcohol Use and its Association with Sexual Risk Behaviors in the Armed Forces of the Republic of the Congo
Presentation Author: Dr. Bonnie Tran

MHSRS-19-00748 - SESSION 1 - #733
Shaping the Future of the Department of Defense Infectious Disease Surveillance Enterprise in Support of the U.S. Combatant Commands
Presentation Author: LTC Sueann Ramsey
MHSRS-19-00755 - SESSION 1 - #734
Developing and Deploying Ideal Teams for Optimal Global Health Engagement Outcomes
Presentation Author: Col Edwin Burkett

MHSRS-19-01037 - SESSION 1 - #735
Big Data Framework for Predicting Impact of Disasters on Human Health
Presentation Author: Dr. Kajal Claypool

MHSRS-19-01074 - SESSION 1 - #736
Leptospirosis and Rickettsial Diseases Sero-conversion Surveillance among U.S. Military Personnel in Honduras
Presentation Author: Dr. Chien-Chung Chao

MHSRS-19-01226 - SESSION 1 - #737
An Update on the Development of Novel Anthelmintic Medications
Presentation Author: Dr. Belinda Jackson-Thompson

MHSRS-19-01265 - SESSION 1 - #738
Expanded Fever Surveillance among Provincial Hospitals in the Lao People’s Democratic Republic
Presentation Author: Lt Jose Garcia

MHSRS-19-01282 - SESSION 1 - #739
Bundeswehr Medical Service Research Program - Overview
Presentation Author: COL Sabine Sauer

MHSRS-19-01311 - SESSION 1 - #740
Patterns of Pediatric Dental Care during a U.S. Navy Humanitarian Aid Provided to Populations Stressed by Venezuelan and Central American Migration
Presentation Author: Lt Courtney Clark

MHSRS-19-01321 - SESSION 1 - #741
Pediatric Outpatient Care during U.S. Humanitarian Assistance Operations in Response to Venezuelan and Central American Migration
Presentation Author: CAPT Greg Gorman

MHSRS-19-01635 - SESSION 1 - #742
Surveillance for Antibiotic Resistance in Eskape Pathogens from Latin America
Presentation Author: Mr. Paul Rios

MHSRS-19-01674 - SESSION 1 - #743
Assessing Incidence of Tropical Diseases in Deploying Peruvian Military Personnel
Presentation Author: Mr. Crystyan Siles

MHSRS-19-01788 - SESSION 1 - #744
Building Disease Surveillance Capacity in the Peruvian Navy with Mobile Data Collection and Enhanced Analytics
Presentation Author: Ms. Shraddha Patel

MHSRS-19-01838 - SESSION 1 - #745
Optimization of Medical Site Performance during USNS Comfort’s Operation Enduring Promise 2018
Presentation Author: LCDR Paul Roszko
MHSRS-19-01995 - SESSION 1 - #746
Improving Infectious Disease Modeling and Prediction through Global Health Engagement  
Presentation Author: CPT Suzanne Mate

MHSRS-19-02103 - SESSION 1 - #747
Development of DoD Laboratory Capability in Next Generation Sequencing and Bioinformatics for Infectious Disease Research and Public Health  
Presentation Author: Dr. Irina Maljkovic Berry

MHSRS-19-02205 - SESSION 1 - #748
Detergent-enhanced Lamp for Detecting African Trypanosomes in Clinical CSF Samples  
Presentation Author: Dr. Dennis Grab

MHSRS-19-02357 - SESSION 1 - #749
Leveraging Whole Genome Sequencing for Global Surveillance of Transferable Carbapenem Resistance  
Presentation Author: Dr. Patrick McGann

MHSRS-19-02503 - SESSION 1 - #750
Teaching Pocus in Austere Environments – A Tool for Immediate Impact in Patient Care and Capacity Building  
Presentation Author: Lt John Sullivan

MHSRS-19-02531 - SESSION 1 - #751
Battlefield Trauma Data Tool Development, Collection and Analysis for the Afghanistan National Army  
Presentation Author: LTC Russell Giese

MHSRS-19-02544 - SESSION 1 - #752
Battlefield Trauma Data Development, Collection and Analysis for the Afghanistan National Army, 203rd Corps  
Presentation Author: LTC Russell Giese
TOPICS IN RESEARCH SUPPORT, COMPLIANCE, AND ETHICS

MHSRS-19-00351 - SESSION 1 - #753
Eliminating Threats to Scientific Validity: Identifying Careless and Insufficient Effort Responders from Self-report Databases
Presentation Author: Mr. Michael Andrews

MHSRS-19-00894 - SESSION 1 - #754
Role-out of the DoD-mandated eIRB Platform
Presentation Author: Dr. Christine Carter

MHSRS-19-01048 - SESSION 1 - #755
Fostering Readiness Investigation in Graduate Medical Education
Presentation Author: Ms. Jessica Cromheecke

MHSRS-19-01687 - SESSION 1 - #756
Motivations for Participation in Clinical Research: A Survey
Presentation Author: 2LT Nicholas Dulin

MHSRS-19-02049 - SESSION 1 - #757
Human Research Protection Program Compliance Trends in the Department of the Navy
Presentation Author: Mrs. Chidima Ioanou

MHSRS-19-02235 - SESSION 1 - #758
Department of Defense Small Molecule Antibiotic Development Effort Coordination – The Integrated Product Team Approach
Presentation Author: Dr. Jason Rohde

MHSRS-19-02282 - SESSION 1 - #759
Exploring the 99MDG Regional Clinical Investigation Program
Presentation Author: Ms. Jill Clark
MHSRS 2019 – Poster Session 2

EXPEDITIONARY MEDICINE

INNOVATIVE APPROACHES TO PREVENT, DIAGNOSE AND TREAT SEPSIS DURING PROLONGED FIELD CARE

MHSRS-19-00165 - SESSION 2 - #001
Presentation Author: Dr. Elizabeth Gadsby

MHSRS-19-00643 - SESSION 2 - #002
An Analysis of the Effectiveness of High Level Disinfection for Surgical Instruments Used By DoD Austere Surgical Teams
Presentation Author: Col Mark Ervin

MHSRS-19-00654 - SESSION 2 - #003
Hemoperfusion to Protect the Endothelium during Sepsis: Removal of Sepsis Mediators and Pathogens
Presentation Author: Dr. Keith McCrea

MHSRS-19-00859 - SESSION 2 - #004
Metabolite Panel to Diagnose Sepsis Days before the Standard Clinical Diagnosis: A Longitudinal Study in Burn Patients
Presentation Author: Mr. Nabarun Chakraborty

MHSRS-19-01348 - SESSION 2 - #005
Metabolite Panel to Diagnose Sepsis Days before the Standard Clinical Diagnosis: A Longitudinal Study in Burn Patients
Presentation Author: Mr. Ross Campbell

MHSRS-19-00873 - SESSION 2 - #006
Monoclonal Antibody-mediated Inhibition of Activated FXII Reduces Inflammation, Coagulopathy and Death in Primates Challenged with Staphylococcus Aureus
Presentation Author: Dr. Sven Olson

MHSRS-19-01931 - SESSION 2 - #007
Portable, Handheld Device for Rapid Sepsis and Infection Diagnosis in the Field
Presentation Author: Dr. Alan Fine

MHSRS-19-01938 - SESSION 2 - #008
Evaluation of Sepsis Using Compensatory Reserve Measurement
Presentation Author: CPT Avishai Tsur
MHSRS-19-02201 - SESSION 2 - #009
Improving Soldier Performance, Readiness and Care through Application of Mass Spectrometry Technologies
Presentation Author: Dr. Jon Jacobs

MHSRS-19-02311 - SESSION 2 - #010
Sepsis in Austere Environments: Derivation of Clinically Relevant Patient Subgroups From Locally Available Data
Presentation Author: Dr. Deborah Striegel

MHSRS-19-02351 - SESSION 2 - #011
Identifying Protein Expression Phenotypes in Sepsis Patients from Austere Settings Using Topological Data Analysis
Presentation Author: Dr. Joost Brandsma

MHSRS-19-02496 - SESSION 2 - #012
Diagnosis of Sepsis Using the FcMBL ELISA
Presentation Author: Dr. Michael Super

ACUTE LIFESAVING TRAUMA INTERVENTIONS

MHSRS-19-00224 - POSTER SESSION 2 - #013
Seeing is Believing–Evaluation of Life Saving Surgical Procedures under Black Out Conditions
Presentation Author: CPT Daniel Lammers

MHSRS-19-00372 - POSTER SESSION 2 - #014
Outcomes of Casualties without Airway Trauma Undergoing Prehospital Airway Interventions: A Department of Defense Trauma Registry Study
Presentation Author: MAJ Steven Schauer

MHSRS-19-00420 - POSTER SESSION 2 - #015
A Consensus-based Recommendation for Oxygenation Targets in Critically Injured Patients
Presentation Author: MAJ Steven Schauer

MHSRS-19-00421 - POSTER SESSION 2 - #016
An Analysis of the Pediatric Casualties Undergoing Massive Transfusion in Iraq and Afghanistan
Presentation Author: MAJ Steven Schauer

MHSRS-19-00422 - POSTER SESSION 2 - #017
Incidence of Hyperoxia in Combat Wounded in Iraq and Afghanistan: A Potential Opportunity for Oxygen Conservation
Presentation Author: MAJ Steven Schauer

MHSRS-19-00898 - POSTER SESSION 2 - #018
Optimal Initial Positioning of Chest Tubes to Prevent Retained Hemothorax Using a Novel Steerable Chest Tube with Extendable Infusion Canula
Presentation Author: Dr. John Fortune

MHSRS-19-00972 - POSTER SESSION 2 - #019
Improving the Military–Civilian Taxonomy and Process to Determine Prehospital Injury Survivability
Presentation Author: COL Brian Eastridge
MHSRS-19-01014 - POSTER SESSION 2 - #020
Hemodynamic Effects of Acute Over-ventilation in a Swine Hemorrhage Model
Presentation Author: Dr. Megan Blackburn

MHSRS-19-01090 - POSTER SESSION 2 - #021
Stimulating Mitochondrial Energetics Reverses Shock Syndromes
Presentation Author: Dr. Charles McCall

MHSRS-19-01159 - POSTER SESSION 2 - #022
Emergency Department Intubation Success with Succinylcholine versus Rocuronium: A National Emergency Airway Registry Study
Presentation Author: Lt Col Joseph Maddry

MHSRS-19-01166 - POSTER SESSION 2 - #023
The Arai Auto-injector Platform – Setting a New Standard of Care at the Point Of Need and in Prolonged Field Care
Presentation Author: Mr. Amir Genosar

MHSRS-19-01174 - POSTER SESSION 2 - #024
Compact Infusion Pump for the Delivery of Drugs, Fluids and Blood at the Point-of-Injury, and During En-route Care, Prolonged Field Care and Forward Surgical Care
Presentation Author: Dr. Stephane Bibian

MHSRS-19-01198 - POSTER SESSION 2 - #025
Wound Trauma Aggravates Radiation-induced Brain Hemorrhage that is Mitigated by Ghrelin Therapy with Pegylated G-CSF
Presentation Author: Dr. Juliann Kiang

MHSRS-19-01201 - POSTER SESSION 2 - #026
Creating Intravenous Oxygen
Presentation Author: Dr. Brian Polizzotti

MHSRS-19-01218 - POSTER SESSION 2 - #027
Ounces Make Pounds, Pounds Make Pain–An Assessment of the Medic Aid Bag
Presentation Author: Ms. Nguvan Uhaa

MHSRS-19-01249 - POSTER SESSION 2 - #028
Training Simulator for Mechanical Circulatory Support for Extra Corporeal Membrane Oxygenation in Adult Patients
Presentation Author: Dr. Pramod Chembrammel

MHSRS-19-01288 - POSTER SESSION 2 - #029
Successful Transplants of Whole Functioning Mouse Hearts After 24-hour Subzero Storage Using Biomimetic Ice-interactive Polymers
Presentation Author: Dr. Xiaoxi Wei

MHSRS-19-01470 - POSTER SESSION 2 - #030
Chest Decompression for Chest Injuries: What Can Be Learned from Fluctuating Trends in the Past Decade?
Presentation Author: CPT Avishai Tsur
MHSRS-19-01474 - POSTER SESSION 2 - #031
Time Trends in Rate and Quality of Prehospital Documentation in the Israel Defense Forces Trauma Registry, 2010-2018
Presentation Author: CPT Avishai Tsur

MHSRS-19-01483 - POSTER SESSION 2 - #032
The Use of Different Types of Supraglottic Airway Devices by Medics on a Manikin Under Tactical Conditions: A Proof of Concept Trial
Presentation Author: CDR Christoph Jaenig

MHSRS-19-01590 - POSTER SESSION 2 - #033
A Descriptive Study of U.S. Special Operations Command Fatalities, 2001-2018
Presentation Author: Dr. Russ Kotwal

MHSRS-19-01597 - POSTER SESSION 2 - #034
Injury Severity Validation with Bronchoalveolar Lavage Cell Analysis: Expression of HMGB1 and TLR4 after Smoke Inhalation Injury and Burns Treated with Extracorporeal Life Support
Presentation Author: Dr. Andriy Batchinsky

MHSRS-19-01605 - POSTER SESSION 2 - #035
Local Expression of HMGB1, TLR4, AQP5 and TGFβ1 in ARDS Due to Smoke Inhalation and Burns in Swine Treated with Minimally Invasive Extracorporeal Life Support
Presentation Author: Dr. Andriy Batchinsky

MHSRS-19-01606 - POSTER SESSION 2 - #036
Systemic Expression of Damage Associate Molecule Pattern in ARDS Due to Smoke Inhalation and Burns in Swine Treated with Extracorporeal Life Support
Presentation Author: Dr. Andriy Batchinsky

MHSRS-19-01612 - POSTER SESSION 2 - #037
Effects of Humerus Intraosseous Administration of Epinephrine in a Normovolemic and Hypovolemic Cardiac Arrest Model
Presentation Author: Col Arthur Johnson

MHSRS-19-01625 - POSTER SESSION 2 - #038
Investigation of Intraosseous, Endotracheal, and Intravenous Administration of Epinephrine in a Hypovolemic, Cardiac Arrest Swine Model
Presentation Author: Prof. Voicu Popescu

MHSRS-19-01661 - POSTER SESSION 2 - #039
Predicting Need for Trauma Center Admission Emergency Intubation: Comparison of Field Glasgow Coma Scale with In-flight Patient Vital Signs
Presentation Author: Dr. Peter Hu

MHSRS-19-01693 - POSTER SESSION 2 - #040
Prehospital Continuous Vital Signs Data Analysis Outperforms Lactate for the Prediction of Lifesaving Interventions in Patients with Traumatic Shock
Presentation Author: Dr. Peter Hu
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**Introducing Tattoos to Advanced Trauma Life Support: A Process Improvement Initiative**  
Presentation Author: Dr. Luis Llerena

**See-What-I-Do: Increasing Mentor and Trainee Sense of Co-presence in Trauma Surgeries with the Star Platform**  
Presentation Author: CDR Thomas Douglas

**A Porcine Model of Combined Burn and Traumatic Brain Injury**  
Presentation Author: Capt Marguerite Spruce

**Novel Endotracheal Tube Design Utilizing Novel Architectured Materials and Feedback Sensors**  
Presentation Author: Mr. David Berard

**Ventilator-induced Lung Injury: A Unifying Hypothesis**  
Presentation Author: Mr. Gary Nieman

**Understanding the Time Controlled Adaptive Ventilation Protocol for Acute Lung Injury**  
Presentation Author: Mr. Gary Nieman

**Metabolic and Bioenergetic Maladaptation in Non-resolving Lung Fibrosis**  
Presentation Author: Dr. Jaroslaw Zmijewski

**Addressing Post Intensive Care Syndrome**  
Presentation Author: Dr. Samuel Brown

**Effects of Acinar Interdependence in a Computational Model of the Acutely Injured Lung**  
Presentation Author: Dr. David Kaczka

**Lung Sealing and Hemostasis without Compression: Evaluation of Visco-liquid Polyhedral Oligomeric Silsesquioxane in a Swine Model**  
Presentation Author: Dr. Drew Hildebrandt

**Heparin-free ECLS: Developing New Material Solutions for Next Generation Extracorporeal Life Support**  
Presentation Author: Dr. Teryn Roberts
Poster Session 2

MHSRS-19-01251 - POSTER SESSION 2 - #052
Inhalation of a RNA Biodrug Targeting Extracellular Histones Protects from Acute Lung Injury
Presentation Author: Dr. Francis Miller

MHSRS-19-01264 - POSTER SESSION 2 - #053
Tissue Resident Alveolar Macrophages Have a Distinct Metabolism Compared to Recruited Monocyte Derived Macrophages and Do Not Undergo Glycolytic Reprogramming During Activation
Presentation Author: Dr. Gokhan Mutlu

MHSRS-19-01293 - POSTER SESSION 2 - #054
An in-vitro Model of the Alveolar-capillary Barrier for Screening Potential Therapeutics for Acute Respiratory Distress Syndrome
Presentation Author: Ms. Lucero Alvarado

MHSRS-19-01390 - POSTER SESSION 2 - #055
Developing MG53 as a Novel Protein Therapeutic for Acute Lung Injury
Presentation Author: Dr. Jianjie Ma

MHSRS-19-01779 - POSTER SESSION 2 - #056
Mysterious Presentation of Pediatric Respiratory Failure and Multilobar Atelectasis
Presentation Author: 2LT Gerrit Davis

MHSRS-19-01837 - POSTER SESSION 2 - #057
Nanoparticle-facilitated Inhalational Delivery of Antisense Erythropoietin Receptor cDNA Mitigates Murine Acute Lung Injury
Presentation Author: Dr. Connie Hsia

MHSRS-19-01847 - POSTER SESSION 2 - #058
Reflactance and Specrafilm Imaging in the Upper Airways
Presentation Author: Dr. Gianluca Turcatel

MHSRS-19-01895 - POSTER SESSION 2 - #059
4MDM is a Potential Small Molecule Therapeutic Agent for Acute Lung Injury that Modulates the Enzyme Kinetic Mechanism of Pro-gly-pro Hydrolysis by the Leukotriene A4 Hydrolase Enzyme
Presentation Author: Dr. Mikell Paige

MHSRS-19-01926 - POSTER SESSION 2 - #060
Handheld Ultrasound Training and Use for Sepsis in an Austere Environment
Presentation Author: CAPT Dennis Faix

MHSRS-19-02301 - POSTER SESSION 2 - #061
Injury and Biomarkers from Pigs Following Isolated Open-field Blast Exposure Depend on Ballistic Protection Level
Presentation Author: Lt Col Nicolas Prat

MHSRS-19-02504 - POSTER SESSION 2 - #062
Heme Released After Trauma Increases Susceptibility to Bacterial Pneumonia
Presentation Author: Ms. Ghee Rye Lee
ADVANCES IN BURN WOUND MANAGEMENT DURING PROLONGED CARE

MHSRS-19-00067 - POSTER SESSION 2 - #064
Mitigating Burn Injury Severity and Infection by Using a Novel Dressing that Targets Oxidative Stress Pathways
Presentation Author: Dr. Jahnabi Roy

MHSRS-19-00131 - POSTER SESSION 2 - #065
A Plasma-alginate Composite Gel Provides Improved Mechanical Support for Stem Cell Growth and Delivery
Presentation Author: Dr. Nicholas Clay

MHSRS-19-00317 - POSTER SESSION 2 - #066
Non-contact Tissue Viability Assessment
Presentation Author: Mr. Michele Pierro

MHSRS-19-00455 - POSTER SESSION 2 - #067
Myeloid-derived Suppressor Cells and the Immunoinflammatory Response to Burn Injury
Presentation Author: Dr. Martin Schwacha

MHSRS-19-00493 - POSTER SESSION 2 - #068
Hypercoagulation and Hypermetabolism in Severely Burned Adults
Presentation Author: Dr. Wenjun Martini

MHSRS-19-00670 - POSTER SESSION 2 - #069
Cerium Nitrate Stabilizes Burn Eschars and Reduces Circulating Damage-associated Molecular Pattern Molecules in a Rat Scald Burn Model
Presentation Author: Dr. Liwu Qian

MHSRS-19-00819 - POSTER SESSION 2 - #070
Improved Blood Flow Assessment in Evaluating Burn Wounds Using Multimodal Wide-field Optical Imaging
Presentation Author: Dr. Ben Lertsakdadet

MHSRS-19-00971 - POSTER SESSION 2 - #071
Fluorescence Biomodulation for the Management of Burn Injuries: Acting at a Cellular Level to Control Inflammation and Improve Healing
Presentation Author: Dr. Lise Hebert

MHSRS-19-01034 - POSTER SESSION 2 - #072
Breed Differences in a Porcine Burn Progression Model
Presentation Author: Dr. Christine Kowalcz ewski
MHSRS-19-01144 - POSTER SESSION 2 - #073
Assessing Polarization-sensitive Optical Coherence Tomography as a Tool to Volumetrically Map Collagen Structure in Partial Thickness Burns
Presentation Author: Dr. Nestor Uribe-Patarroyo

MHSRS-19-01278 - POSTER SESSION 2 - #074
Fibronectin-derived Peptides cP12 and cNP8 Enhance PDGF-BB-stimulated Human Dermal Fibroblast Migration in-vitro and Granulation Tissue Formation in-vivo
Presentation Author: Dr. Richard Clark

MHSRS-19-01285 - POSTER SESSION 2 - #075
Metabolomic Profiling of Burn Wounds Following Treatment with Different Skin Substitutes
Presentation Author: Dr. Hilmar Kjartansson

MHSRS-19-01555 - POSTER SESSION 2 - #076
In Situ Skin Regeneration Through Induction of Skin Allograft Chimerism by Mobilizing Host Endogenous Stem Cells
Presentation Author: Mr. Ali Ahmadi

MHSRS-19-01646 - POSTER SESSION 2 - #077
Using Pyoverdine for Rapid and Early Detection of Pseudomonas Aeruginosa in Burn Wounds
Presentation Author: Dr. Gregory Fernandes

MHSRS-19-01980 - POSTER SESSION 2 - #078
The Regulatory Environment for Tissue-engineered Products for the Treatment of Burns in the U.S.
Presentation Author: Ms. Kimberly Belsky

MHSRS-19-02051 - POSTER SESSION 2 - #079
Burncare: Virtual Tablet Training to Enhance Burn Injury Care and Treatment
Presentation Author: Dr. Austin Baird

MHSRS-19-02137 - POSTER SESSION 2 - #080
SP16 Drug, Phase II Ready for Treatment of Sepsis or Burn Wounds
Presentation Author: Dr. Cohava Gelber

MHSRS-19-02231 - POSTER SESSION 2 - #081
Ultra-wide Band RF Quantitative Diagnostics and Imaging of Burn Injuries
Presentation Author: Dr. Vladimir Makarenko

MHSRS-19-02253 - POSTER SESSION 2 - #082
Skin Function is Compromised with Biofilm Ceramidases
Presentation Author: Dr. Mithun Sinha

MHSRS-19-02255 - POSTER SESSION 2 - #083
Spatial Frequency Domain Imaging for Assessment of Burn Wound Debridement in a Porcine Model
Presentation Author: Dr. Gordon Kennedy
MHSRS-19-02319 - POSTER SESSION 2 - #084
Treatment of Full-thickness Wounds with Microfragmented Adipose Tissue and Plasma-based Hydrogels
Presentation Author: Dr. Shanmugasundaram Natesan

MHSRS-19-02348 - POSTER SESSION 2 - #085
Development of Nitric Oxide Releasing Bio-active Wound Dressing for Combat Burn Wound Infection Treatment
Presentation Author: Dr. Shanmugasundaram Natesan

MHSRS-19-02350 - POSTER SESSION 2 - #086
Reduction in Donor Skin Requirements for Full Thickness Burns After Fish Skin Treatment
Presentation Author: Dr. Randolph Stone

MHSRS-19-02573 - POSTER SESSION 2 - #087
Single-cell Sequencing Analysis of Interaction between Pathogen and CD8-positive T Cells in Burn Patients with Sepsis
Presentation Author: Ms. Chengxiao Chen

MHSRS-19-02595 - POSTER SESSION 2 - #088
Antimicrobial Efficacy Testing of a Novel Composite Dressing
Presentation Author: Dr. Mina Izadjoo

MHSRS-19-02603 - POSTER SESSION 2 - #089
A Robust Next Generation Technology for Full Thickness Skin Grafts
Presentation Author: Dr. Mina Izadjoo

MHSRS-19-02617 - POSTER SESSION 2 - #090
Microneedle Arrays for Burn Wound Healing
Presentation Author: Mr. Jacob Quint

ADVANCES IN PROLONGED CARE

MHSRS-19-00060 - POSTER SESSION 2 - #091
How to Properly Carry Your Cross: Combat Resuscitation Organ Support System
Presentation Author: Dr. Andriy Batchinsky

MHSRS-19-00222 - POSTER SESSION 2 - #092
Large Animal Models of Combined Traumatic Brain Injury and Hemorrhagic Shock: A Systematic Review and New Directions
Presentation Author: Dr. Andrew Mayer

MHSRS-19-00289 - POSTER SESSION 2 - #093
Enhancing the Damage Control Skills of Far Forward Providers Using Augmented Reality: A Technical Integration and Demonstration Study
Presentation Author: COL Tyler Harris
MHSRS-19-00403 - POSTER SESSION 2 - #094
Antimicrobial and Hemostatic Activities of Cotton-based Dressings Designed to Address Prolonged Field Care Applications
Presentation Author: Dr. Judson Edwards

MHSRS-19-00427 - POSTER SESSION 2 - #095
An Objective Model to Facilitate Designation of Military-Civilian Partnership Hospitals for Sustainment of Military Trauma Readiness
Presentation Author: MAJ Andrew Hall

MHSRS-19-00578 - POSTER SESSION 2 - #096
Synchronous Activation of Pro-inflammatory and Anti-inflammatory Responses in Civilian Trauma Patients
Presentation Author: Dr. Zhangsheng Yang

MHSRS-19-00854 - POSTER SESSION 2 - #097
Plasma Lactate and its Clearance Relates to the Mortality Following Severity of Blast Exposure and Hemorrhagic Shock in Rats
Presentation Author: Dr. Pushpa Sharma

MHSRS-19-00913 - POSTER SESSION 2 - #098
Evaluation of the Utility of a Point-of-Care Hematology Device to Triage Radiation Casualties Following Exposure to Mixed Field (5.5 Neutron to Gamma Ray) and Gamma Only Radiation Exposure
Presentation Author: Dr. William Blakely

MHSRS-19-00989 - POSTER SESSION 2 - #099
Preliminary Analysis of Military Working Dog Injuries in Theater Between 2001 and 2018
Presentation Author: Dr. Laura Scott

MHSRS-19-01001 - POSTER SESSION 2 - #100
Adipocyte Lipolysis is Necessary for Acute Stress-induced Insulin Resistance
Presentation Author: Dr. Thurl Harris

MHSRS-19-01332 - POSTER SESSION 2 - #101
Modeling Mass Casualty Patients after a Nuclear Detonation: Opportunities to Prepare for Logistic Challenge Beyond Initial Surge
Presentation Author: Col William Skinner

MHSRS-19-01345 - POSTER SESSION 2 - #102
Efficacy of Four Hemostatic Strategies for Prolonged Field Care in a Swine (Sus Scofa) Model of Hemorrhagic Injury
Presentation Author: LCDR Grace Landers

MHSRS-19-01514 - POSTER SESSION 2 - #103
Development of an Advanced Respiratory Rate Algorithm and Deployment in a Field Medic Utilized Fingertip Oximeter
Presentation Author: Dr. Marcus Kramer
MHSRS-19-01594 - POSTER SESSION 2 - #104
In-situ Acoustic-radiation-force 3D Printer for Non-invasive Internal Bleeding Control
Presentation Author: Dr. Li Li

MHSRS-19-01852 - POSTER SESSION 2 - #105
Wound Healing Prediction in Critical Limb Ischemia via Continuous Tissue Oxygen Measurements
Presentation Author: Ms. Natalie Wisniewski

MHSRS-19-02071 - POSTER SESSION 2 - #106
Early Initiation of Thromboprophylaxis in Operative Spine Trauma Does Not Increase the Risk of Bleeding Complications
Presentation Author: Dr. Christopher Gonzales

MHSRS-19-02128 - POSTER SESSION 2 - #107
Evaluating an Ultra-portable Operating Room Paradigm to Improve Surgical Safety in the Field
Presentation Author: Dr. Debbie Teodorescu

MHSRS-19-02215 - POSTER SESSION 2 - #108
Intraoperative Optical Coherence Tomography Imaging of Trauma – Technology Development and Demonstration of Peripheral Nerve Imaging in Non-human Primates
Presentation Author: Dr. Mohsen Erfanzadeh

MHSRS-19-02265 - POSTER SESSION 2 - #109
Powering Expeditionary Surgical Equipment from Mine-resistant Ambush-protected All-terrain Vehicles
Presentation Author: CPT Erick Thronson

MHSRS-19-02423 - POSTER SESSION 2 - #110
Review of Evidence-based Nutrition Related Strategies and Research Gaps to Address While Treating Patients with Spinal Cord Injuries
Presentation Author: MAJ Joetta Khan

MHSRS-19-02579 - POSTER SESSION 2 - #111
Integrated Pressure Sensing/optical Coherence Tomography Probe for Localized Dynamic Airway Compliance Measurement
Presentation Author: Mr. Yusi Miao

MHSRS-19-02619 - POSTER SESSION 2 - #112
Anticipating Death: The Utilization of the Revised Trauma Score to Predict Mortality in the Combat Zone
Presentation Author: CPT Daniel Lammers
CARING FOR TRAUMATIC SOFT TISSUE AND ORTHOPEDIC INJURY IN AUSTERE ENVIRONMENTS

**MHSRS-19-00020 - POSTER SESSION 2 - #113**

Placement of Antibiotic Powder In Wounds in the Emergency Room
Presentation Author: Ms. Abigail Wheeler

**MHSRS-19-00827 - POSTER SESSION 2 - #114**

A Strategy to Identify Putative Prognostic Biomarkers of Pathological Scarring in Traumatic Skin Wounds
Presentation Author: Dr. Sridevi Nagaraja

**MHSRS-19-00885 - POSTER SESSION 2 - #115**

Comparison of Devices for Acute Compartment Syndrome under Real World Conditions
Presentation Author: Dr. Ed Harvey

**MHSRS-19-01025 - POSTER SESSION 2 - #116**

Optical Clearing Techniques for Imaging Composite Tissues
Presentation Author: Dr. Huseyin Karagoz

**MHSRS-19-01152 - POSTER SESSION 2 - #117**

Synthetic Bioreorbable Wound Matrix Promotes Healthy Neotissue Formation and Wound Closure
Presentation Author: Dr. Jed Johnson

**MHSRS-19-01153 - POSTER SESSION 2 - #118**

Wound Healing for the Modern-day Warfighter Using Novel Autologous Therapy for Complete Regeneration of Functional Skin and Bone in Multicomponent Traumatic Injuries
Presentation Author: Dr. Ivy Estabrooke

**MHSRS-19-01193 - POSTER SESSION 2 - #119**

Blinded, Prospective, Randomized Clinical Trial on 170 Acute Wounds Shows Significantly Faster Healing Rate with Intact Fish Skin Compared to Human Amniotic Membrane
Presentation Author: Dr. Hilmar Kjartansson

**MHSRS-19-01275 - POSTER SESSION 2 - #120**

Biodegradable Tissue Adhesives with Antibacterial Properties for Addressing Soft Tissue and Maxillofacial Trauma
Presentation Author: Dr. Abraham Joy

**MHSRS-19-01409 - POSTER SESSION 2 - #121**

Capillary Suction Device-A Novel Approach to Provide the Benefits of Negative Pressure Wound Therapy to Veterans at a Fractional Cost
Presentation Author: Dr. Ranjit Chatterjee
MHSRS-19-01513 - POSTER SESSION 2 - #122
Quality of Life after Open Abdominal Treatment: Long-term Results of Vacuum-assisted Wound Closure and Mesh-mediated Fascial Traction
Presentation Author: Dr. Sebastian Schaaf

MHSRS-19-01731 - POSTER SESSION 2 - #123
Extended Tourniquet Use is Associated with Increased Traumatic Heterotopic Ossification Formation in a Combat Applicable Model of Blast Associated Lower Limb Trauma
Presentation Author: LCDR Philip Spreadborough

MHSRS-19-01849 - POSTER SESSION 2 - #124
A Novel Off-the-shelf Therapy for Full-thickness Skin Regeneration in an Ischemic Rabbit Ear Model
Presentation Author: Dr. Jialun Li

MHSRS-19-01891 - POSTER SESSION 2 - #125
Ex Vivo Normothermic Perfusion Preserves the Viability of Amputated Limbs for up to Fifty Hours
Presentation Author: Dr. Carlos Ordenana

MHSRS-19-01955 - POSTER SESSION 2 - #126
Dermisphere™: An Advanced Dermal Regeneration Scaffold to Heal Full and Partial Thickness Skin Loss Wounds
Presentation Author: Dr. Yulia Sapir-Lekhovitser

MHSRS-19-02005 - POSTER SESSION 2 - #127
Novel Delivery System of TGF-1 Utilizing Fabricated Scaffold for Bone Regeneration of Compromised Wounds in a Swine Model (Sus Scrofa)
Presentation Author: Dr. Jaclyn Yracheta

MHSRS-19-02018 - POSTER SESSION 2 - #128
Resorption Kinetics of 3D Printed, Resorbable, Poly (Propylene Fumarate) Bone Tissue Engineered Implants
Presentation Author: Dr. David Dean

MHSRS-19-02202 - POSTER SESSION 2 - #129
Fabrication of Stiffness Matched, 3D Printed, and Regenerative Nitinol Skeletal Fixation Plates
Presentation Author: Dr. David Dean

MHSRS-19-02203 - POSTER SESSION 2 - #130
Hydrogel Scaffolds for the Targeted, Controlled Regeneration of Osteochondral Injuries
Presentation Author: Dr. Lindsay Woodard

MHSRS-19-02209 - POSTER SESSION 2 - #131
Non-invasive Diagnostic Device for Compartment Syndrome Detection
Presentation Author: Mr. Steven Hansen

MHSRS-19-02360 - POSTER SESSION 2 - #132
Loading a First-in-class Antibiofilm Compound Into Polyurethane Foam for Negative Pressure Wound Therapy
Presentation Author: Dr. Dustin Williams
MHSRS-19-02659 - POSTER SESSION 2 - #133
Evaluating the Impact of Perfusate Composition on Viability of Abdominal Wall Allografts Following Ex Vivo Preservation
Presentation Author: Ms. Sara Salehi

BLOOD AND BLOOD PRODUCTS

MHSRS-19-00046 - POSTER SESSION 2 - #134
CLEC-2 and GPVI Receptor Expression as an Indicator of Platelet Product Potency for Repairing Damaged Endothelium
Presentation Author: CPT Jacquelyn Messenger

MHSRS-19-00155 - POSTER SESSION 2 - #135
V25 Emergency Whole Blood Transfusion Program: A Proof of Concept for the Marine Infantry
Presentation Author: LCDR Russell Wier

MHSRS-19-00187 - POSTER SESSION 2 - #136
Valkyrie Emergency Fresh Whole Blood Transfusion Training for Fleet Marine Force Corpsmen in the Ground Combat Element
Presentation Author: LCDR Russell Wier

MHSRS-19-00201 - POSTER SESSION 2 - #137
Nanotrap® Particles for Improved Biomarker Discovery via Mass Spectrometry: A Case Study on Novel Antimicrobial Peptide Discovery
Presentation Author: Dr. Megan Devine

MHSRS-19-00242 - POSTER SESSION 2 - #138
Novel Manufacturing Method for Producing Apohemoglobin and its Biophysical Properties
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Magnetically-induced Self-assembly of Skin Microcolumns to Produce Full-thickness Skin Constructs  
Presentation Author: Dr. Joshua Tam

MHSRS-19-01399 - POSTER SESSION 2 - #293  
Exploiting Extracellular Matrix Dynamics to Preserve and Protect the Warfighter
Presentation Author: Dr. Adam Mellott

**MHSRS-19-01495 - POSTER SESSION 2 - #294**
3D Printing Biomimetic Functional Graphenic Scaffolds for Bone Regeneration
Presentation Author: Dr. Stefanie Sydlik

**MHSRS-19-01619 - POSTER SESSION 2 - #295**
Use of Bone Marrow Derived-mesenchymal Stem Cells to Allow for Early Split-thickness Skin Graft and Noteworthy Overall Outcome
Presentation Author: Ms. Divya Aickara

**MHSRS-19-01728 - POSTER SESSION 2 - #296**
Development and in-vivo Implantation of Lego-like 3D Printed Bone Scaffolds
Presentation Author: Mr. James Jones

**MHSRS-19-01744 - POSTER SESSION 2 - #297**
Human Mesenchymal Stromal Cells Have a Therapeutic Window for Immunosuppression in the Mixed Lymphocyte Reaction Assay
Presentation Author: Ms. Maryanne Herzig

**MHSRS-19-01757 - POSTER SESSION 2 - #298**
Injectable Nanofiber Powder Mediates Enhanced Adipose Cell Engraftment and Volume Retention
Presentation Author: Ms. Ludmila Diaz-Starokozheva

**MHSRS-19-01775 - POSTER SESSION 2 - #299**
CTDSP1 Knockdown in Trauma-induced Mesenchymal Progenitor Cells as a Novel Strategy to Promote Peripheral Nerve Regeneration after Traumatic Injury
Presentation Author: Dr. Noreen Gervasi

**MHSRS-19-01836 - POSTER SESSION 2 - #300**
Tunable Biomimetic Scaffolds for Directing Stem Cell Growth and Differentiation for Tissue Regeneration Applications
Presentation Author: Dr. Mary Caldorera-Moore

**MHSRS-19-01872 - POSTER SESSION 2 - #301**
Controlled Assembly of 3D Nanofiber Matrices for Regenerative Medicine
Presentation Author: Dr. Mark Carlson

**MHSRS-19-01882 - POSTER SESSION 2 - #302**
Metabolic Profiling of Human Skeletal Muscle during Ex-vivo Normothermic Limb Perfusion
Presentation Author: Ms. Elizabeth Rohde

**MHSRS-19-01968 - POSTER SESSION 2 - #303**
Role of Mechanosensing and FAK Expression in a Murine Model of Traumatic Heterotopic Ossification
Presentation Author: Dr. Amanda Huber

**MHSRS-19-02038 - POSTER SESSION 2 - #304**
Intentional Positioning Of Cells in Decellularized Muscle Tissues  
Presentation Author: Dr. Bradley Berron

MHSRS-19-02066 - POSTER SESSION 2 - #305

Human Genetic Platform for Improved Cell Therapy and Cell Therapy Manufacturing  
Presentation Author: Dr. Amy Greene

MHSRS-19-02068 - POSTER SESSION 2 - #306

An Extracellular Matrix Replacement Biomaterials Approach to Skin Regeneration in Full-thickness Skin Injuries  
Presentation Author: Dr. Emily English

MHSRS-19-02070 - POSTER SESSION 2 - #307

β2-adrenergic Receptor Activation Prolongs Survival of Vascularized Composite Tissue Allotransplants in a Murine Model  
Presentation Author: Dr. Minhyung Kim

MHSRS-19-02146 - POSTER SESSION 2 - #308

LPS Induced Inflammation Pre-ACL Rupture Exacerbates Post-traumatic Osteoarthritis  
Presentation Author: Dr. Gabriela Loots

MHSRS-19-02200 - POSTER SESSION 2 - #309

Immunodeficient State of Athymic Rats Enhances the Ability of Decellularized Muscle Matrix to Support Regeneration in a Volumetric Muscle Injury  
Presentation Author: Dr. Michael McClure

MHSRS-19-02287 - POSTER SESSION 2 - #310

Targeting MHCII/self-peptide Presentation as a Method of Treating Established Autoimmunity  
Presentation Author: Dr. Jason Lees

MHSRS-19-02372 - POSTER SESSION 2 - #311

Interaction of Specific Integrin Heterodimers and Fibronectin Potentially Modulate the Adhesion and Osteogenic Differentiation of Human Mesenchymal Stem Cells on Oxidized Graphene  
Presentation Author: Dr. Madhu Dhar

MHSRS-19-02433 - POSTER SESSION 2 - #313

Peripheral Tissue Injury and Acute Pancreatitis Cause a SIRS-induced Intestinal Microvascular Leak Triggering Ileus via a Specific Enteric Leak Factor  
Presentation Author: Dr. Anthony Bauer

MHSRS-19-02442 - POSTER SESSION 2 - #314

Implantation of Bioengineered Innervated Terminal Gut as a Replacement Therapy for Injured Anus
MILITARY HEALTH SYSTEM RESEARCH SYMPOSIUM

Poster Session 2

Presentation Author: Mr. Khalil Bitar

**MHSRS-19-02489 - POSTER SESSION 2 - #315**
ST266 Amnion Derived Cytokine Secretome for Polytrauma Treatment
Presentation Author: Dr. Larry Brown

**MHSRS-19-02528 - POSTER SESSION 2 - #316**
Pre-clinical Evaluation of the Efficacy and Safety of Bone Marrow Mesenchymal Stem Cells for Corneal Wound Healing
Presentation Author: Mr. Ilham Putra

**MHSRS-19-02556 - POSTER SESSION 2 - #317**
The Effect of an Autologous Keratinocyte Spray on Human Skin Wound Healing Transcriptome
Presentation Author: Dr. Kristo Nuutila

**MHSRS-19-02591 - POSTER SESSION 2 - #318**
Circulating Plasma Micrornas Trigger Innate Immune Activation in a Mouse Model of Polytraumatic Injury
Presentation Author: Dr. Andrew Suen

**CLINICAL DECISION SUPPORT, MEDICAL ROBOTICS, AND AUTONOMOUS MEDICAL SYSTEMS FOR PROLONGED CARE AND EVACUATION**

**MHSRS-19-00007 - POSTER SESSION 2 - #319**
Algorithm Directed Troop Medical Care Digital Version App
Presentation Author: Mr. James Chrosniak

**MHSRS-19-00028 - POSTER SESSION 2 - #320**
Where's the Ondansetron? Preventing Nausea and Vomiting Without the Familiar Favorites
Presentation Author: LCDR Chad Moore

**MHSRS-19-00122 - POSTER SESSION 2 - #321**
Quantifying the Effects Of Wound Healing Risk and Potential on Clinical Measurements and Outcomes of Severely Burned Patients: A “Big Data” Approach
Presentation Author: Mr. Nehemiah Liu

**MHSRS-19-00128 - POSTER SESSION 2 - #322**
Developing an Intelligent Decision Support System to Support Tactical Combat Casualty Care and Prolonged Care
Presentation Author: Ms. Rebecca Lee

**MHSRS-19-00162 - POSTER SESSION 2 - #323**
Digitizing Air Force Medical Standards for the Creation of a Readiness Decision-support Tool
Presentation Author: Capt Colby Uptegraft

**MHSRS-19-00166 - POSTER SESSION 2 - #324**
Digital Transformation in the Bundeswehr Medical Service
Presentation Author: Lt Col Frank Balszuweit

**MHSRS-19-00216 - POSTER SESSION 2 - #325**
Novel Prehospital Documentation and Communication System Tested at Guardian Response 2018
Presentation Author: Ms. Alexandra Cholewczynski

**MHSRS-19-00281 - POSTER SESSION 2 - #326**
Classifying Burn Wound Severity Using Spatial Frequency Domain Imaging and Supervised Machine Learning
Presentation Author: Ms. Rebecca Rowland

**MHSRS-19-00308 - POSTER SESSION 2 - #327**
Deployed Exercise Using T6 Health Systems Web-based Application Electronic Trauma Resuscitation Documentation and Decision Support
Presentation Author: Lt Col Valerie Sams

**MHSRS-19-00671 - POSTER SESSION 2 - #328**
Protein Retention Levels of Fresh Frozen Plasma and Cryoprecipitate Derived from Pathogen Reduced Fresh Whole Blood
Presentation Author: Dr. Francisco Rentas

**MHSRS-19-00822 - POSTER SESSION 2 - #329**
Visual Perception Research for Medical Robotic and Autonomous Systems Applications
Presentation Author: Mr. Nathan Fisher

**MHSRS-19-00869 - POSTER SESSION 2 - #330**
Improving Prognostication of Death on the Battlefield: Development and Internal Validation of a Dynamic Bayesian Network to Enhance Decision-support and Governance
Presentation Author: Dr. Somayyeh Mossadegh

**MHSRS-19-00951 - POSTER SESSION 2 - #331**
Using the Low Minute Ventilation Parameter from a Non-invasive Respiratory Volume Monitor in Perioperative Management of OSA Patients in an Ambulatory Setting
Presentation Author: Dr. Vimal Desai

**MHSRS-19-01076 - POSTER SESSION 2 - #332**
Improved Human Machine Interface for Combat Medics to Capture and Transfer Clinical Data to an Electronic Health Record System
Presentation Author: Dr. Lauren Shluzas

**MHSRS-19-01213 - POSTER SESSION 2 - #333**
Using EHR Data in the Development of Machine Learning Models for Shock Identification and Differentiation
Presentation Author: Dr. Adam Amos-Binks

**MHSRS-19-01247 - POSTER SESSION 2 - #334**
Tactical Combat Casualty Care Decision Support for Medics, Battalion Aid Station and Field Hospital Clinicians
Presentation Author: Dr. Christopher Nemeth

**MHSRS-19-01255 - POSTER SESSION 2 - #335**
Active Breast Biopsy Needle for an Autonomous Needle Insertion System
Presentation Author: Dr. Bardia Konh

MHSRS-19-01324 - POSTER SESSION 2 - #336
Benefits of Telesonography in Diagnostic Support on Military Deployments Abroad
Presentation Author: Lt Col Lorenz Scheit

MHSRS-19-01352 - POSTER SESSION 2 - #337
U.S. Air Force Project ECHO Diabetes: Our Seven-year Experience
Presentation Author: MAJ Darrick Beckman

MHSRS-19-01423 - POSTER SESSION 2 - #338
Wearable Ultrasound Array for Rapid Point-of-Care Assessment
Presentation Author: Dr. Rahul Singh

MHSRS-19-01461 - POSTER SESSION 2 - #339
Morphomic Mapping of Airway Location, Dimensions and Orientation in Live Humans
Presentation Author: Dr. Stewart Wang

MHSRS-19-01508 - POSTER SESSION 2 - #340
Pulse and Respiration Rate Measurement Through RF Sensing in Search and Rescue and Through-wall 3D Imaging
Presentation Author: Mr. Hossein Ghaffari Nik

MHSRS-19-01517 - POSTER SESSION 2 - #341
Development of a Low Power Wireless Pulse Oximeter, Wearable on the Torso, for Tele-medical Monitoring
Presentation Author: Dr. Marcus Kramer

MHSRS-19-01561 - POSTER SESSION 2 - #342
Photoacoustic Transesophageal Echocardiography for Improving Early Management of Hemorrhagic Shock: Towards a Field-deployable Prototype
Presentation Author: Dr. Li Li

MHSRS-19-01663 - POSTER SESSION 2 - #343
Toward Robotic-assisted Casually Extraction in Multi-domain Operations
Presentation Author: Mr. Nathan Fisher

MHSRS-19-01704 - POSTER SESSION 2 - #344
Developing Automated Clinical Decision Support for Wound Infection Evaluation and Care: A Combined Imaging and Machine Learning Approach
Presentation Author: Dr. Petra Wilder-Smith

MHSRS-19-01799 - POSTER SESSION 2 - #345
A Wearable System Which Reduces Motion Sickness and Improves Recovery of Balance
Presentation Author: Dr. Didier Depireux

MHSRS-19-01844 - POSTER SESSION 2 - #346
Miniaturized Continuous Lactate Monitor with Additional Analyte Monitoring Capability for Real-time Injury Status Assessment
Presentation Author: Dr. Avid Najdahmadi

MHSRS-19-01848 - POSTER SESSION 2 - #347
Development of an Application Specific Integrated Circuit Based Field Deployable Near-infrared Spectroscopy System
Presentation Author: Dr. Timothy Quang

MHSRS-19-01856 - POSTER SESSION 2 - #348
Detection of Internal Bleeding Through Optical Measurements of Draining Lymph Nodes
Presentation Author: CAPT Judith Runnels

MHSRS-19-01875 - POSTER SESSION 2 - #349
Persistent Access to Tactical Casualty Health
Presentation Author: Dr. Ryan Myers

MHSRS-19-01948 - POSTER SESSION 2 - #350
Novel Monitoring of Tissue Microvasculature Oxygenation Using Resonance Raman Spectroscopy
Presentation Author: Mrs. Amanda Pennington

MHSRS-19-01985 - POSTER SESSION 2 - #351
From the Desk (Dexterous Surgical Skill) to the Battlefield–A Robotics Exploratory Study
Presentation Author: Dr. Juan Wachs

MHSRS-19-02120 - POSTER SESSION 2 - #352
Movement and Maneuver Controls for Unmanned Casevac
Presentation Author: Mr. Mitchell Bauer

MHSRS-19-02154 - POSTER SESSION 2 - #353
Development and Validation of Low Cost 3D Printed Anatomical Models for Pre-surgical Planning and Clinical Education
Presentation Author: Mr. David Salazar

MHSRS-19-02158 - POSTER SESSION 2 - #354
Bioprinting in Austere Military Environments: Results and Design Considerations
Presentation Author: Dr. Joel Gaston

MHSRS-19-02162 - POSTER SESSION 2 - #355
A National Survey of Radiation Oncologists and Urologists on Proton Beam Radiotherapy and Robotic Surgery for Localized Prostate Cancer
Presentation Author: Dr. Luke Bidikov

MHSRS-19-02184 - POSTER SESSION 2 - #356
Creating an Automated, Enhanced Lund Browder Diagram to Enable More Accurate and Timely Burn Wound
Annotations
Presentation Author: Mr. Gregory Rule

MHSRS-19-02197 - POSTER SESSION 2 - #357
Prehospital Point Of Care Testing for the Prediction of Lifesaving Interventions in Trauma Patients
Presentation Author: Dr. Shiming Yang

MHSRS-19-02228 - POSTER SESSION 2 - #358
In-flight Vital Signs Predict Emergency and Massive Blood Transfusion after Trauma
Presentation Author: Dr. Shiming Yang

MHSRS-19-02270 - POSTER SESSION 2 - #359
Modeling Healthcare: Capacity, Access and Resource Allocation
Presentation Author: COL Mary Lowe Mayhugh, USA Retired

MHSRS-19-02364 - POSTER SESSION 2 - #360
Benefits and Design Consideration of a Platform for an Autonomous Medical System
Presentation Author: Ms. Tracy Rausch

MHSRS-19-02377 - POSTER SESSION 2 - #361
Integrated Platform for Point-of-Care Testing
Presentation Author: Mr. Robert Granier

MHSRS-19-02437 - POSTER SESSION 2 - #362
Reliability and Validity of A-mode Ultrasound to Quantify Body Composition
Presentation Author: Dr. Michael Willey

MHSRS-19-02492 - POSTER SESSION 2 - #363
Convolutional-neural-network Based Machine-learning Interpretation of Lung Ultrasound Images: Ultrasound Detection of Lung Complications in Patients with Hematological Malignancies
Presentation Author: Dr. Meihua Zhu

MHSRS-19-02537 - POSTER SESSION 2 - #364
Building a “Real” Telemedicine Ultrasound Supported Medical Intervention Mousetrap: Creating a Practical Multi-modality Telementoring Capacity for Far Forward Resuscitation
Presentation Author: Ms. Jessica Mckee

MHSRS-19-02545 - POSTER SESSION 2 - #365
Noninvasive Breath Analysis Using NASA E-nose Technology for Health Assessment
Presentation Author: Dr. Jing Li

MHSRS-19-02580 - POSTER SESSION 2 - #366
Implementation of a Modified Early Warning System Real-time Clinical Decision Support Application to Evaluate Interoperable Medical System Capabilities
Presentation Author: Dr. Julian Goldman

MHSRS-19-02633 - POSTER SESSION 2 - #367
Applicability of the Automotive Levels of Automation to Autonomous Medical Systems
Presentation Author: Dr. Julian Goldman

EN ROUTE CARE FUTURE RESEARCH CHALLENGES

MHSRS-19-00259 - POSTER SESSION 2 - #368
Vibration Alone Induces the Inflammatory Response in an Experimental Animal Model
Presentation Author: CDR Carl Goforth

MHSRS-19-00513 - POSTER SESSION 2 - #369
Effect of Blood Flow on Platelets, Leukocytes, and Extracellular Vesicles in Thrombosis of Simulated Extracorporeal Circulation
Presentation Author: Dr. Andrew Meyer

MHSRS-19-01006 - POSTER SESSION 2 - #370
Development and Evaluation of a Trans-cutaneous Tissue Oxygenation Wearable Device
Presentation Author: Dr. Juan Cascales

MHSRS-19-01031 - POSTER SESSION 2 - #371
Validation and Training Requirements Definition for Effective Combat Casualty Care Handoff Operations
Presentation Author: Dr. Camilla Knott

MHSRS-19-01341 - POSTER SESSION 2 - #372
Joint Trauma System Medical Enroute Care Registry (MERCURY): A Six Month Glimpse of Data
Presentation Author: Dr. Kimberly Smith

MHSRS-19-01610 - POSTER SESSION 2 - #373
A Groundbreaking Method to Safely Transport Medical & Pharma Items
Presentation Author: Mr. Robert Allan Sailer

MHSRS-19-01970 - POSTER SESSION 2 - #374
The Effect of Experience on Critical Care Air Transport Team Coordination
Presentation Author: Dr. Frank Robinson

MHSRS-19-01991 - POSTER SESSION 2 - #375
A Novel Test of Night Vision Goggle Compatibility of Medical Carry On Equipment
Presentation Author: Dr. Marcy Conti

MHSRS-19-02166 - POSTER SESSION 2 - #376
Aeromedical-Relevant Hypobaria Exposure-Induced Oxidative Stress in Rats with Mild Traumatic Brain Injury Facilitates Homocysteine Flux Through the Transsulfuration Pathway: A Compensatory Mechanism to Mitigate the Secondary Injury Process
Presentation Author: Dr. Flaubert Tchantchou

MHSRS-19-02379 - POSTER SESSION 2 - #377
Space Expeditionary Medicine: Miniature, Low-power, Low-mass, Autonomous Robots for Lunar and Expeditionary Surgery
Presentation Author: Dr. Dmitry Oleynikov

MHSRS-19-02426 - POSTER SESSION 2 - #378
Interoperability Challenges in ERC: Exploring Combined Training and Collaborative Research Exchange Opportunities with International Partners
Presentation Author: Lt Col Sarah Huffman

INNOVATIONS IN MEDICAL TECHNOLOGIES TO ADVANCE EN ROUTE PATIENT CARE

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Remote Health Monitoring of Patient with Glaucoma
Presentation Author: LTC Jennifer Stowe

MHSRS-19-00163 - SESSION 2 - #380
Smart Threads as Sutures and Bandages for Monitoring and Treatment of Wounds
Presentation Author: Mr. Sameer Sonkusale

MHSRS-19-00468 - SESSION 2 - #381
Telemedicine Training for Novice Providers during Underway Naval Operations
Presentation Author: LCDR Art Ambrosio

MHSRS-19-00622 - SESSION 2 - #382
Rapid Reconstitution Packages for Storage and Delivery of Emergency Drugs in Combat Theater
Presentation Author: Dr. Noel Elman

MHSRS-19-00667 - SESSION 2 - #383
Transcontinental Dialysis at 30,000 Feet
Presentation Author: Capt Paul Pikman

MHSRS-19-00757 - SESSION 2 - #385
A Novel Index from a Wearable Continuous Wave Ultrasound Patch Instantly Detects Fall In Cardiac Output
Presentation Author: Dr. Jon-Emile Kenny

MHSRS-19-00784 - SESSION 2 - #386
Baseline Proportions of False Negatives in Simulated 12-Core Templated Transrectal Ultrasound Prostate Biopsy
Presentation Author: Dr. Samsun Lampotang

MHSRS-19-00964 - SESSION 2 - #387
Assessing the Feasibility and Accuracy of a Novel Physiological Monitoring Device for Service Members
With Traumatic Brain Injury
Presentation Author: Mr. Dylan Scarton

MHSRS-19-01147 - SESSION 2 - #388
Developing and Validating an Accelerated Extracorporeal Membrane Oxygenation Course for Military Critical Care Clinicians Using Yorkshire Swine (Sus Scrofa)
Presentation Author: Lt Col Joseph Maddry

MHSRS-19-01149 - SESSION 2 - #389
Advancing Combat Casualty Evacuation: Patients Amenable to Aeromedical Evacuation via Unmanned Aerial Vehicles
Presentation Author: Lt Col Joseph Maddry

MHSRS-19-01380 - SESSION 2 - #390
Go with the Flow—Comparison of Acellular Solutions for Ultraportable Ex-vivo Perfusion of Amputated Limbs
Presentation Author: Dr. Valentin Haug

MHSRS-19-01545 - SESSION 2 - #391
Comparison of the Effects of Motion and Dirt on Hand-held and Fingertip Pulse Oximeters Accuracy
Presentation Author: CPT Avishai Tsur

MHSRS-19-01627 - SESSION 2 - #392
High-end Diagnostics in the Field and at the Point Of Care
Presentation Author: Dr. Avishay Bransky

MHSRS-19-01684 - SESSION 2 - #393
Patient Experience and Perception of Using Telehealth for Post-surgery Wound-healing Follow-ups at the AMEDD Medical Centers: Results From a Proof-of-concept Study
Presentation Author: Dr. Vahe Heboyan

MHSRS-19-01721 - SESSION 2 - #394
Micro-oxygen Sensors Measure Tissue Oxygen in a Porcine Radiation Model
Presentation Author: Mr. Scott Nichols

MHSRS-19-01824 - SESSION 2 - #395
Noninvasive Sub-organ Ultrasound Stimulation for Targeted Neuromodulation
Presentation Author: Mr. Jeffrey Ashe

MHSRS-19-01846 - SESSION 2 - #396
Administration of Purified Exosome Product for Sciatic Nerve Autograft Regeneration
Presentation Author: Dr. Chunfeng Zhao

MHSRS-19-02002 - SESSION 2 - #397
Using Modular Principles to Efficiently Design and Build New Simulators and Part Task Trainers for Different
Healthcare Procedures
Presentation Author: Dr. Samsun Lampotang

**MHSRS-19-02034 - SESSION 2 - #398**
The Wound Healing Effects of a Next-generation Advanced Antimicrobial Silver Hydrofiber Wound Dressing on Deep Partial Thickness Wounds Using a Porcine Model
Presentation Author: Mr. Joel Gil

**MHSRS-19-02058 - SESSION 2 - #399**
A Light-weight, Portable CT System for Forward Surgical and En Route Care
Presentation Author: Dr. Rajiv Gupta

**MHSRS-19-02196 - SESSION 2 - #400**
Dependability and Adaptability in a Family of Surgical Robots
Presentation Author: Dr. Dmitry Oleynikov

**MHSRS-19-02212 - SESSION 2 - #401**
Continuous Blood Pressure Band-aid® Sensor for Real-time Beat-to-beat Monitoring of the Warfighter
Presentation Author: Dr. Michelle Khine

**MHSRS-19-02269 - SESSION 2 - #402**
Designing and Building Ruggedized Microfluidic Cards for Point Of Care Applications
Presentation Author: Mr. Matt Coleman

**MHSRS-19-02354 - SESSION 2 - #403**
Manufacturing of Flexible Wireless Devices for Human Health and Performance Monitoring
Presentation Author: Dr. Azar Alizadeh

**MHSRS-19-02366 - SESSION 2 - #404**
Development of a Point Of Care Technology for Military Medical Applications in Austere Environments
Presentation Author: Dr. David Loftus

**MHSRS-19-02637 - SESSION 2 - #405**
24-hour Ex Vivo Perfusion with Acellular Solution Enables Successful Replantation of Porcine Forelimbs
Presentation Author: Dr. Valentin Haug

**EFFECTS OF CARE ENVIRONMENTS ENROUTE**
MHSRS-19-00915 - POSTER SESSION 2 - #406
Pre-surgical Environmental Stress Activates the Pituitary to Produce Increased Levels of Prolactin and Luteinizing Hormone in the Porcine Air Transport Stress Model
Presentation Author: Dr. Suizhao Wang

MHSRS-19-01016 - POSTER SESSION 2 - #407
Oxygen Supplementation of Injured Swine during Flight
Presentation Author: Dr. Francoise Arnaud

MHSRS-19-01115 - POSTER SESSION 2 - #408
Vibration Does Not Affect Short-Term Outcomes Following Traumatic Brain Injury in a Porcine Model
Presentation Author: Dr. Mackenzie Morris

MHSRS-19-01558 - POSTER SESSION 2 - #409
The Swine Distress Assessment Score Sheet Identified Pre-surgical Stress in the Porcine Air Transport Stress Model
Presentation Author: Dr. Richard Kelly

MHSRS-19-02238 - POSTER SESSION 2 - #410
Optimal Physical Space for En Route Care: Medic Posture and Injury Survey
Presentation Author: Ms. Laura Kroening

APPROACHES FOR MONITORING WARFIGHTER BLAST-RELATED EXPOSURES IN TRAINING TO DEVELOP EFFECTIVE SAFETY STANDARDS

MHSRS-19-00284 - POSTER SESSION 2 - #411
A DoD-wide Survey Study to Characterize Service Member Blast Exposure
Presentation Author: Lt Claire Modica

MHSRS-19-00533 - POSTER SESSION 2 - #412
Development of Field Deployable Technologies to Detect Persistent TBI
Presentation Author: Dr. Steven Kornguth

MHSRS-19-00631 - POSTER SESSION 2 - #413
The Effect of Peak Overpressure and Impulse on the Reflected Pressure: An Experimental Study Using 2D Planar Geometry Model with Implications for Occupational Exposure Measurements
Presentation Author: Dr. Maciej Skotak

MHSRS-19-00772 - POSTER SESSION 2 - #414
A New Innovative Sensor and Dosimeter Technology for Blunt Impact and Blast Over-pressure Exposure Measurement and Injury Prediction
Presentation Author: Mr. Stephen Pruitt

MHSRS-19-00905 - POSTER SESSION 2 - #415
Effects of Animal Orientation on Brain Responses to Primary Blast
Presentation Author: Dr. Ginu Unnikrishnan

**MHSRS-19-00929 - POSTER SESSION 2 - #416**
The Current and Potential Future Roles of Hearing Conservation Programs in Monitoring the Effects of Repetitive Blast Exposure in Military Populations
Presentation Author: Dr. Douglas Brungart

**MHSRS-19-01050 - POSTER SESSION 2 - #417**
Measurements of Infrasound Signatures from Grenade Blast During Training
Presentation Author: Dr. Alessio Medda

**MHSRS-19-01063 - POSTER SESSION 2 - #418**
How Do You Characterize “Breachers' Brain?”
Presentation Author: Dr. Walter Carr

**MHSRS-19-01097 - POSTER SESSION 2 - #419**
Soldier Self-report in a Combat Zone: Subclinical Outcome Associations with Blast Exposure
Presentation Author: Dr. Walter Carr

**MHSRS-19-01358 - POSTER SESSION 2 - #420**
Systematic Review of Low Level Blast Exposure – Clinical Effects on Humans
Presentation Author: Dr. Heather Belanger

**MHSRS-19-01366 - POSTER SESSION 2 - #421**
Comparison of In-brain Pressure in Blast for Surrogate Headforms with Gel-fluid Interface and Gel-skull Interfaces
Presentation Author: Dr. Amit Bagchi

**MHSRS-19-01402 - POSTER SESSION 2 - #422**
Computational Models of Protein Concentrations Following Repeated Blast Overpressure Exposure
Presentation Author: Mr. Jonathan Statz

**MHSRS-19-01415 - POSTER SESSION 2 - #423**
The Role of Acoustic Signatures in Overpressure Symptomatology
Presentation Author: Dr. Sujith Sajja

**MHSRS-19-01472 - POSTER SESSION 2 - #424**
Force Preservation through Individual Blast Exposure Surveillance
Presentation Author: Dr. David Borkholder

**MHSRS-19-01516 - POSTER SESSION 2 - #425**
Experimental Models of TBI Using Novel Controlled Dynamic Rotation Devices
Presentation Author: Dr. Daniel Shedd

**MHSRS-19-01601 - POSTER SESSION 2 - #426**
Biofidelic Human Head Phantoms for Studies of Traumatic Brain Injury
MHSRS-19-01767 - POSTER SESSION 2 - #427
Optimizing Helmet Pad Placement Using Computational Predicted Injury Pattern to Reduce mTBI
Presentation Author: Dr. Peter Matic

MHSRS-19-01800 - POSTER SESSION 2 - #428
Characterization of the Performance of Human Torso and Animal Physical Models Exposed to Underwater Impulse Acoustics
Presentation Author: Dr. Brandon Casper

MHSRS-19-01806 - POSTER SESSION 2 - #429
Formulation and Characterization of Apocynin Loaded Albumin Nanoparticle and its Pharmaco-therapeutic Effects on Animal Model of Repeated Low-level Blast
Presentation Author: Dr. Namas Chandra

MHSRS-19-01815 - POSTER SESSION 2 - #430
Delineating the Roles of Resident Microglia and Infiltrating Monocytes in Causing Chronic Neuroinflammation and Behavioral Deficits Using a Mouse Model of Blast-induced Traumatic Brain Injury
Presentation Author: Dr. Namas Chandra

MHSRS-19-01839 - POSTER SESSION 2 - #431
The Combat and Training Queryable Exposure/event Repository Operational Monitoring Program
Presentation Author: CDR Josh Duckworth

MHSRS-19-01892 - POSTER SESSION 2 - #432
The Effect of Impulse on Brain Pathology in an Animal Blast TBI Model: A Telltale Case Study for Occupational Low-level Blast Human Studies?
Presentation Author: Dr. Maciej Skotak

MHSRS-19-01893 - POSTER SESSION 2 - #433
Occupational Blast Wave Exposure during Multiday .50 Caliber Rifle Course
Presentation Author: Dr. Maciej Skotak

MHSRS-19-02150 - POSTER SESSION 2 - #434
Measuring Head Motion for TBI Detection and Prevention
Presentation Author: Mr. Ron Szalkowski

MHSRS-19-02171 - POSTER SESSION 2 - #435
Dynamic and Static Stability in Experienced Breachers
Presentation Author: LCDR F. J. Haran

MHSRS-19-02339 - POSTER SESSION 2 - #436
The VHA 4 Question TBI Screening Tool Effectively Identifies Individuals with TBI-related Multi-sensory Effects
Presentation Author: Dr. Felix Barker

MHSRS-19-02349 - POSTER SESSION 2 - #437
Bioprinted 3D In Vitro Co-cultures of the Blood-brain Barrier for Testing the Effects Of Blast-related Overpressure
Presentation Author: Dr. Joel Gaston

MHSRS-19-02397 - POSTER SESSION 2 - #438
Blast Part 1: Deriving Safe Exposure Thresholds from Blast Sensor Data
Presentation Author: Dr. Tim Walilko

MHSRS-19-02429 - POSTER SESSION 2 - #439
Blast Part 2: Establishing Safe Exposure Thresholds for Repeated Blast
Presentation Author: Dr. Tim Walilko

MHSRS-19-02436 - POSTER SESSION 2 - #440
Blast Part 3: Assessing Safe Exposure Thresholds after Blast Exposure
Presentation Author: Dr. Tim Walilko

MHSRS-19-02481 - POSTER SESSION 2 - #441
Exposure to Low-level Blast during Breacher Training–Possible Effects on Brain Health and Performance
Presentation Author: Mr. Niclas Wisen

OCULAR INJURIES CAUSED BY EXPOSURE TO BLAST OVERPRESSURE

MHSRS-19-01124 - SESSION 2 - #442
Analysis of Far Forward Ocular Trauma among Combat Casualties in Afghanistan
Presentation Author: Mrs. Jennifer Trevino

MHSRS-19-01550 - SESSION 2 - #443
Severe Ocular Injuries during LDF Low Intensity Combat and the use of Protective Eyewear
Presentation Author: CPT Avishai Tsur

MHSRS-19-01937 - SESSION 2 - #444
Long-term Prognosis of Patients with Ocular Blast Injuries
Presentation Author: CPT Alexander Stoddard

MHSRS-19-02222 - SESSION 2 - #445
Preservation of Vision Following Severe Ocular Trauma Through the Application of Nanofiber-reinforced Hydrogel Bandages
Presentation Author: Dr. Lindsay Woodard

MHSRS-19-02391 - SESSION 2 - #446
Low-intensity Repeated Blast Exposure Leads to Visual System Damage in Rats
Presentation Author: Dr. James DeMar

MHSRS-19-02538 - SESSION 2 - #447
Blast Injury Prevention Standards Recommendation Process: Ocular Blast Injury Type
Presentation Author: Ms. Jennifer Lombardo

PAIN MANAGEMENT FOR THE FUTURE FIGHT
MHSRS-19-00322 - SESSION 2 - #448
Effects of Opioid Analgesics (Morphine, Fentanyl, and Sufentanil) and Trauma on Survival Time After Severe Conscious Hemorrhage in Rats
Presentation Author: Ms. Mariam Calderon

MHSRS-19-00350 - SESSION 2 - #449
Effect of Chronic Stress and Morphine Treatments on Spinal Nerve Growth Factor in a Rat Model
Presentation Author: Dr. Hans Linsenbardt

MHSRS-19-00463 - SESSION 2 - #450
Effect of High Omega-6 Diet on Sensory Neuron Excitability and Pain Behavior
Presentation Author: Dr. Kenneth Hargreaves

MHSRS-19-00531 - SESSION 2 - #451
Efficacy of Pulpal Anesthesia Using a Needle-less Syringe
Presentation Author: Dr. Kraig Vandewalle

MHSRS-19-00674 - SESSION 2 - #452
Reductions in Opioid Consumption with Percutaneous Medial Branch Peripheral Nerve Stimulation for Chronic Low Back Pain
Presentation Author: Dr. Steven Cohen

MHSRS-19-00690 - SESSION 2 - #453
Development and Implementation of the Military Treatment Facility Engagement Committee to Support Pragmatic Clinical Trials in the Military Health System
Presentation Author: Mr. Dylan Scarton

MHSRS-19-00788 - SESSION 2 - #454
Fentanyl Impairs but Ketamine Preserves the Microcirculatory Response to Hemorrhage—A Novel Approach to Evaluate Hemodynamic Impacts of Analgesics
Presentation Author: Dr. Lusha Xiang

MHSRS-19-00858 - SESSION 2 - #455
Metagenomic Marker of Pain Management in Mouse Model of Partial Bone Resection Followed by Prolonged Musculoskeletal Unloading
Presentation Author: Mr. Nabarun Chakraborty

MHSRS-19-00874 - SESSION 2 - #456
Sustained Analgesic and Anti-inflammatory Efficacy of a Single Dose COX-2 Inhibiting Nanomedicine in a Mouse CFA-induced Inflammatory Model
Presentation Author: Dr. Jelena M. Janjic

MHSRS-19-00887 - SESSION 2 - #457
Determining the Role of Acupuncture, Chiropractic and Yoga in Functional Restoration among Active Duty Service Members with Chronic Pain
Presentation Author: Dr. Diane Flynn
Determinants of Optimal Dosage and Sequence of Functional Restoration and Integrative Therapies Study in Service Members with Neuromusculoskeletal Injury
Presentation Author: Dr. Diane Flynn

Improving Primary Care Pain Management through Weekly Didactic and Case-based Telementoring
Presentation Author: Dr. Diane Flynn

Effect of Midazolam on Morphine-mediated Analgesia, Tolerance, and Respiration in a Rat Model
Presentation Author: Dr. Bopaiah Cheppudira

Presentation Author: Mr. Thomas Garza

Pain Registry Biobank: A Protocol for a Novel Approach to Studying Pain
Presentation Author: Mr. Raymond Kroma

Pilot of a Novel Online Survey to Assess Risk-benefit Profile of Pain Treatments
Presentation Author: Dr. Janetta Iwanicki

Duration of Chronic Pain before Referral for Interdisciplinary Pain Care and its Relationship to Likelihood of Medical Retirement among Service Members: A Retrospective Analysis
Presentation Author: LTC Justin Stewart

Naloxone Co-prescription Policy Implementation: Pilot Program to Reduce Overdose-related Mortality in Military Beneficiaries
Presentation Author: Dr. Nicholas A. Giordano

Analgesics in the Pre-hospital Setting: Ketamine Does Not Alter Tolerance to Simulated Hemorrhage in Humans
Presentation Author: Dr. Craig Crandall

Association of Oral or Parenteral Opioids in the ED Treatment of Back Pain with Future Opioid Aberrant Use
Presentation Author: Dr. Kennon Heard

Long-lasting, Non-opioid and Drug-free Method of Treating Pain
Presentation Author: Dr. Lilit Garibyan
MHSRS-19-01281 - SESSION 2 - #469
Kerecis Fish Skin Healing of Painful Ulcers: A Case Study on Amputation Prevention and Pain Management
Presentation Author: Dr. Mark Suski

MHSRS-19-01511 - SESSION 2 - #470
Delivery of Bupivacaine from Ultra-high Molecular Weight Polyethylene and Implications for Post-arthroplasty Pain
Presentation Author: Dr. Ebru Oral

MHSRS-19-01628 - SESSION 2 - #471
Antibacterial Properties of Anesthetic-eluting Ultra-high Molecular Weight Polyethylene
Presentation Author: Dr. Ebru Oral

MHSRS-19-01579 - SESSION 2 - #472
Opioid Use and Length of Stay Significantly Reduced With Enhanced Recovery after Surgery Program Utilizing Liposomal Bupivacaine for Total Knee Arthroplasty
Presentation Author: Dr. Garen Collett

MHSRS-19-01581 - SESSION 2 - #473
Study to Identify the Genetic Variations Associated with Phantom Limb Pain
Presentation Author: Mrs. Natalie Ivanina

MHSRS-19-01617 - SESSION 2 - #474
Pain Relieving Antimicrobial Dressing for Burn Wounds
Presentation Author: Dr. Kris Rangan

MHSRS-19-01678 - SESSION 2 - #475
Chemokine Receptor Antagonists Increase Opioid Potency in Incisional Pain in Rats
Presentation Author: Dr. Toby Eisenstein

MHSRS-19-01690 - SESSION 2 - #476
Nsaid Topical Transdermal Diclofenac Epolamine Spray Film DSF100 for the Management of Acute Musculoskeletal Pain
Presentation Author: Dr. Lucille Russell

MHSRS-19-01716 - SESSION 2 - #477
Sustained Non-opioid Pain Management in Prolonged Field Care and Hospital Settings Using LBL100
Presentation Author: Dr. Lucille Russell

MHSRS-19-01752 - SESSION 2 - #478
Evaluation of Analgesia and Clotting Time of Novel Acetaminophen Analogs
Presentation Author: Mr. David Trapolsi

MHSRS-19-01822 - SESSION 2 - #479
Percutaneous Peripheral Nerve Stimulation Provides Relief of Chronic Pain to Enable Improvements in Function Following Amputation
Presentation Author: COL Steven Cohen
MHSRS-19-01865 - SESSION 2 - #480
Pain Management in the Operational Environment Using Noninvasive Neuromodulation Technology
Presentation Author: Mr. Richard Hanbury

MHSRS-19-01971 - SESSION 2 - #481
Presentation Author: Dr. Patrick Richard

MHSRS-19-02010 - SESSION 2 - #482
Arylepoxamides Receptor Targets: Potent Analgesics Lacking Side-effects
Presentation Author: Dr. Susruta Majumdar

MHSRS-19-02040 - SESSION 2 - #483
Local Immunomodulation at the Site of Neuronal Injury with Theranostic Analgesic Regenerative Gel-emulsion Technology Controls Pain and Neuroinflammation
Presentation Author: Dr. Mallory Wampler

MHSRS-19-02104 - SESSION 2 - #484
A Rat Model for Assessing Post-surgical Pain and Recovery Following Joint Replacement
Presentation Author: Dr. Yingfang Fan

MHSRS-19-02119 - SESSION 2 - #485
Low Frequency Pulsed Electromagnetic Field Acts as a Modulator of Inflammatory Signaling Pathways
Presentation Author: Dr. Tracy Criswell

MHSRS-19-02173 - SESSION 2 - #486
A Review of Casualties that Underwent Pain Management Before Reaching Role 2 in Afghanistan
Presentation Author: CPT Ian Hudson

MHSRS-19-02396 - SESSION 2 - #487
Utilizing Internal Behavioral Health Consultants to Treat Chronic Pain in Primary Care Settings
Presentation Author: Dr. Don McGeary

MHSRS-19-02547 - SESSION 2 - #488
Development of a Novel, Non-opioid, Non-NSAID, Non-hepatotoxic Analgesic for Pain Management
Presentation Author: Dr. Kevin Bunker

MHSRS-19-02561 - SESSION 2 - #489
Examining Spatial Dimensions of the Prescription Opioid Rate Across the U.S.
Presentation Author: Dr. Kyle Fluegge

MHSRS-19-02658 - SESSION 2 - #490
Focus on Epithelialized Palatal Grafts. Part 3–Methods to Enhance Patient Comfort at Palatal Donor Sites
Presentation Author: CPT Joshua P Berridge
FRONTLINE CARE: TBI TREATMENT & MANAGEMENT IN THE PREHOSPITAL ENVIRONMENT

MHSRS-19-00364 - SESSION 2 - #491
Immune Modulating Nutrition Supplements in an Animal Model of Traumatic Brain Injury
Presentation Author: Dr. Angus Scrimgeour

MHSRS-19-00856 - SESSION 2 - #492
Cerium Oxide Nanoparticles in the Treatment of Traumatic Brain Injury and Parkinson's Disease
Presentation Author: Dr. Beverly Rzigalinski

MHSRS-19-00990 - SESSION 2 - #493
Effective Inhibitors of Traumatic Brain Injury-induced Systemic Endothelial Dysfunction
Presentation Author: Dr. Fletcher White

MHSRS-19-01351 - SESSION 2 - #494
Alpha-methyltyrosine Inhibits the Cardiovascular and Behavioral Sequelae of Traumatic Brain Injury
Presentation Author: Dr. Ryan Woodman

MHSRS-19-01430 - SESSION 2 - #495
Groundbreaking Evaluation for TBI in Deployed Settings
Presentation Author: MAJ Nicholas Koreerat

MHSRS-19-01526 - SESSION 2 - #496
Novel Monitoring Modality of TBI Patients Using Transocular Brain Impedance
Presentation Author: Dr. Mohamad Hakam Tiba

MHSRS-19-01783 - SESSION 2 - #497
Protective Role of ADORA3 Agonist AST-004 in Blast and Blunt TBI Models
Presentation Author: Dr. Eda Bozdemir

MHSRS-19-01821 - SESSION 2 - #498
A Novel Nmda Receptor Modulator, NYX-458, Shows Therapeutic Potential for Cognitive Impairment Associated with TBI
Presentation Author: Dr. Katherine Leaderbrand

MHSRS-19-01930 - SESSION 2 - #499
Improving Health Outcomes for Acute Concussion Patients
Presentation Author: Dr. Kendra Jorgensen-Wagers

MHSRS-19-01935 - SESSION 2 - #500
Pre-hospital Whole Blood Resuscitation Reduces Fluid Requirement and Improves Cerebral Physiology Compared to Crystalloid Resuscitation in a Severe Model of TBI
Presentation Author: Dr. Zachary Bailey

MHSRS-19-01942 - SESSION 2 - #501
Nicotine Administration Ameliorates Motor & Cognitive Deficits in Rats Following Penetrating Brain Injury  
Presentation Author: Dr. Matthew Rice

MHSRS-19-02141 - SESSION 2 - #502  
Transcriptomic Analysis of Mouse Brain Regions after TBI Indicates Candesartan Treatment Alters Novel Molecular Pathways  
Presentation Author: LTC Peter Attilio

MHSRS-19-02211 - SESSION 2 - #503  
Curcumin Nanoparticle Therapy after TBI Prevents Memory Impairment and Depression with Reduced Tissue Loss and Neuroinflammation, and Increased Hippocampal Neurogenesis  
Presentation Author: Dr. Maheedhar Kodali

MHSRS-19-02628 - SESSION 2 - #504  
Supplementation of Itaconate to Resuscitation Fluid Improves Survival in a Combined Traumatic Brain Injury and Hemorrhagic Shock Mouse Model  
Presentation Author: Mr. Alfredo Lucas

MHSRS-19-02652 - SESSION 2 - #505  
The Effect of Fear Conditioning on Fractional Anisotropy in the Mouse Model of Mild TBI Under Implicit and Explicit Conditions and of Bicycling and Other Implicit Learning Tasks on Service Members Suffering from Mild TBI  
Presentation Author: Dr. Joachim Spiess

WHAT'S NEW IN BRAIN HEALTH FOR ELITE WARFIGHTERS

MHSRS-19-00064 - SESSION 2 - #506  
Revisiting Blast versus Non-blast Traumatic Brain Injury Profiles in an Active Duty Cohort  
Presentation Author: Dr. Lars Hungerford

MHSRS-19-00530 - SESSION 2 - #507  
USSOCOM Comprehensive Strategy and Action Plan for SOF Warfighter Brain Health  
Presentation Author: Mr. F Bowling

MHSRS-19-00781 - SESSION 2 - #508  
Randomized Controlled Trial of Allostatic Neurotechnology to Treat Mild Traumatic Brain Injury  
Presentation Author: Dr. Michael Roy

MHSRS-19-00871 - SESSION 2 - #509  
Multi-site RCT of Targeted Dietary Manipulation as an Adjunct Strategy for Managing Chronic Post-traumatic Headache  
Presentation Author: Dr. Kimbra Kenney

MHSRS-19-00891 - SESSION 2 - #510  
Poor Baseline Eye-tracking is Associated with Postconcussive Symptoms  
Presentation Author: Dr. Angela Lumba-Brown

MHSRS-19-00958 - SESSION 2 - #511
Survival among Glioma Cases in the U.S. Military Health System: A Comparative Study with Cases from the U.S. General Population in the National Surveillance, Epidemiology, and End Results Program
Presentation Author: Dr. Jie Lin

MHSRS-19-01210 - SESSION 2 - #512
Olfactory Functional MRI (FMRI) Using T2-prepared Bold FMRI at Ultra-high Field (7T)
Presentation Author: Mr. Adrian Paez

MHSRS-19-01338 - SESSION 2 - #513
A New Concussion Clinical Profiles Screening Tool: Preliminary Evidence
Presentation Author: Dr. Anthony Kontos

MHSRS-19-01999 - SESSION 2 - #514
Differences in Vestibular Ocular Motor Screening Scores between Military Personnel with Acute mTBI and Healthy Controls: Preliminary Findings
Presentation Author: Dr. Anthony Kontos

MHSRS-19-01549 - SESSION 2 - #515
Brain Gauge: Measuring Brain Health for Concussion Recovery
Presentation Author: Dr. Kendra Jorgensen-Wagers

MHSRS-19-01969 - SESSION 2 - #516
Evolution of a Study of Bilateral Prefrontal Transcranial Magnetic Stimulation to Treat the Symptoms of Mild TBI and PTSD: Research Methods, Participant Demographics, and Tolerability
Presentation Author: Mr. Jared Garland

MHSRS-19-02059 - SESSION 2 - #517
Primary Care Practices and Perceptions in Care for Service Members with Post-traumatic Headache: Does Self-reflection in a Mixed-methods Study Modify Practice?
Presentation Author: Dr. Seth Kiser

MHSRS-19-02143 - SESSION 2 - #518
Physics-based Neutralization of Threats to Human Tissues and Organs
Presentation Author: Dr. Stylianos Koumlis

MHSRS-19-02245 - SESSION 2 - #519
Healthcare among Special Operations Forces Diagnosed and Treated for Traumatic Brain Injury
Presentation Author: Dr. Heather Belanger

MHSRS-19-02246 - SESSION 2 - #520
A Prospective, Double Blind, Randomized, Sham-controlled, Clinical Trial to Evaluate the Safety and Efficacy of Biometrics-guided Magnetic EEG Resonance Therapy Treatment of Persistent Post-concussive Symptoms Following Traumatic Brain Injury
Presentation Author: Dr. David Keyser

MHSRS-19-02272 - SESSION 2 - #521
Moderate-to-severe Self-reported Insomnia and Frequent Daytime Sleepiness Increase Athletes' Risk for Sustaining
a Sports-related Concussion
Presentation Author: Dr. Adam Raikes

MHSRS-19-02325 - SESSION 2 - #522
Using Trait Resilience and Heart Rate Variability to Predict Cerebrovascular Reactivity in Special Operations Forces Soldiers
Presentation Author: Ms. Nikki Barczak

MHSRS-19-02449 - SESSION 2 - #523
Monosodium Luminol Alleviates Brain Dysfunction in a Model of Chronic Gulf War Illness with Modulation of Oxidative Stress and Inflammation in the Brain and Circulating Blood
Presentation Author: Mrs. Sahithi Attaluri

MHSRS-19-02574 - SESSION 2 - #524
Cognitive Functioning Following Concussion and the Role of Sleep
Presentation Author: Ms. Kristina Clarke-Walper

TBI BIOMARKERS: DIAGNOSTIC AND PROGNOSTIC INDICATORS

MHSRS-19-00089 - SESSION 2 - #525
Assessment of Far-forward Provider Performance in Using a Hand-held Algorithmic Electroencephalogram Device to Screen Traumatic Brain Injury
Presentation Author: Dr. Robert DeLorenzo

MHSRS-19-00230 - SESSION 2 - #526
Towards a Cognitive Stress Test for Concussion: Normobaric Hypoxia Reveals Hidden Deficits in the Saccades of Service Members with Mild Traumatic Brain Injury History
Presentation Author: Dr. Leonard Temme

MHSRS-19-00328 - SESSION 2 - #527
Deployable Visually Evoked Potential Monitor for Detecting Traumatic Brain Injury at Forward Clinics (Clinical Update)
Presentation Author: Mr. Gordon Hirschman

MHSRS-19-00333 - SESSION 2 - #528
Impact of Shock Wave Physics in Open Air on Blast-induced Traumatic Brain Injury
Presentation Author: Ms. Barbara Rutter

MHSRS-19-00458 - SESSION 2 - #529
Gender Difference Of Cortical Thickness and Diffusion Properties for the Patients with Traumatic Brain Injury
Presentation Author: Dr. Maheen Adamson

MHSRS-19-00489 - SESSION 2 - #530
Animal Model of Multiple Low-level Blast Injury Displays a Spectrum of Neuropathological and Neurobehavioral Changes
Presentation Author: Dr. Kakulavarapu RamaRao

MHSRS-19-00567 - SESSION 2 - #531
Widespread Dendritic Pathology is Evident Following Severe Penetrating Brain Injury in Rats
Presentation Author: Dr. Sindhu Kizhakke Madathil

MHSRS-19-00605 - SESSION 2 - #532
Neuron- and Glia-derived Exosomes as Novel Blood Biomarkers of Concussion and Subconcussive Conditions
Presentation Author: Dr. Masato Mitsuhashi

MHSRS-19-00779 - SESSION 2 - #533
A Novel Portable Venomanometer to Measure Episcleral Venous Pressure: A Biomarker for Intracranial Pressure
Presentation Author: Dr. Deepta Ghate

OPEN - SESSION 2 - #534

MHSRS-19-00960 - SESSION 2 - #535
The Utility of Single-photon Emission Computed Tomography/computed Tomography in Mild Traumatic Brain Injury: Case Report
Presentation Author: Dr. Irma Molina-Vicenty

MHSRS-19-00985 - SESSION 2 - #536
Combat and Operational Stress Effects on Amygdala Blast Neuropathology and Behavior
Presentation Author: Dr. Michael Urban

MHSRS-19-01011 - SESSION 2 - #537
Rapid and Sensitive Detection of Glial Fibrillary Acidic Protein by Utilizing Plasmonic Nanoparticles
Presentation Author: Dr. Fei Peng

MHSRS-19-01045 - SESSION 2 - #538
Development of a Novel in-vivo Objective Retina Test to Diagnose Traumatic Brain Injury
Presentation Author: Dr. Lyndsay Randolph

MHSRS-19-01092 - SESSION 2 - #539
Mild Traumatic Brain Injury Assessment: Towards the Development of Reliable Diagnostic and Prognostic Biomarkers
Presentation Author: Dr. George Zouridakis

MHSRS-19-01102 - SESSION 2 - #540
Normalization of Brain Activity Accompanies Reduced Insomnia in Chronic Post-concussive Syndrome - A Team TBI Study
Presentation Author: Mr. Donald Krieger

MHSRS-19-01113 - SESSION 2 - #541
Toward Validation of mTBI Phenotyping with Neurocomputational Models of Static Balance and Dynamic Walking
Presentation Author: Dr. Gregory Ciccarelli

MHSRS-19-01121 - SESSION 2 - #542
Automated Optic Nerve Sheath Diameter Measurement
Presentation Author: Dr. Reza Soroushmehr

**MHSRS-19-01135 - SESSION 2 - #543**
Presentation Author: Dr. Davneet Minhas

**MHSRS-19-01181 - SESSION 2 - #544**
Fusion Neurocognitive Eye Tracking: Validation of an Optimized Mobile Platform for Assessment of Mild Traumatic Brain Injury in Military Medical Environments
Presentation Author: Dr. Mark Ettenhofer

**MHSRS-19-01189 - SESSION 2 - #545**
A Novel Machine Learning Model to Disentangle Patient Heterogeneity for Accurate Prognosis of Individuals with Mild Traumatic Brain Injury
Presentation Author: Dr. Jing Li

**MHSRS-19-01273 - SESSION 2 - #546**
Virtual Reality Based Assessment of Visual and Cognitive Performance of the Warfighter
Presentation Author: Dr. Wolfgang Fink

**MHSRS-19-01307 - SESSION 2 - #547**
Associations Between White-matter Abnormalities and Clinical Outcomes in Sport-related Concussion: A Longitudinal Study of Diffusion Magnetic Resonance Imaging from the NCAA-DoD Care Consortium
Presentation Author: Dr. Yu-Chien Wu

**MHSRS-19-01342 - SESSION 2 - #548**
Blood Biomarkers in Acute Sport-related Concussion: Findings from the NCAA-DoD Care Consortium
Presentation Author: Dr. Michael McCrea

**MHSRS-19-01354 - SESSION 2 - #549**
Optimization of the Concussion Assessment Battery
Presentation Author: Dr. Steven Broglio

**MHSRS-19-01381 - SESSION 2 - #550**
Longitudinal Changes in Homotopic Region Connectivity in Concussion: A FMRI Study
Presentation Author: Dr. Catherine Chong

**MHSRS-19-01386 - SESSION 2 - #551**
Post-traumatic vs Non-traumatic Headaches: Differences in Phenotype, Prognosis, and Medical Consultation
Presentation Author: Dr. Ann Scher

**OPEN - SESSION 2 - #552**

**MHSRS-19-01425 - SESSION 2 - #553**
Correlation of Elevated Serum MicroRNA Expression with Neurocognitive Function in Sub-concussive and
**Concussive Sports Injuries**
Presentation Author: Dr. Manish Bhomia

**MHSRS-19-01462 - SESSION 2 - #554**
Cumulative Adversity May Predict the Development of Persistent Symptoms Following Mild Traumatic Brain Injury
Presentation Author: Dr. Matthew Reid

**MHSRS-19-01509 - SESSION 2 - #555**
The UCD-DGMC TBI Precision Medicine Network for Complex Trauma
Presentation Author: Dr. Ryan Martin

**MHSRS-19-01647 - SESSION 2 - #556**
Exploring Genomic Signatures of Neural Regeneration to Assess Long-term Recovery from Blast Brain Injury and Mechanical Neurotrauma
Presentation Author: Dr. Stan Svetlov

**MHSRS-19-01686 - SESSION 2 - #557**
Injury Severity Profile of Repeated Closed-head Concussions on Cognitive Outcome and White Matter Pathology
Presentation Author: Dr. Adem Can

**MHSRS-19-01710 - SESSION 2 - #558**
Alterations in Brain Microrna Expression Following Closed-head Concussive Injury
Presentation Author: Dr. Bernard Srambical Wilfred

**MHSRS-19-01711 - SESSION 2 - #559**
Systolic Target Assessment Tool
Presentation Author: Mr. Justin Massey

**MHSRS-19-01759 - SESSION 2 - #560**
Understanding Headaches Characteristics in the VA Traumatic Brain Injury Population
Presentation Author: Ms. Nytzia Licona

**MHSRS-19-01785 - SESSION 2 - #561**
The Use of the QEEG in the Diagnosis and Rehabilitation of the Brain Injured Patient
Presentation Author: Dr. Kirtley Thornton

**MHSRS-19-01894 - SESSION 2 - #562**
Blood Based Biomarkers of Neurodegeneration Predict Disordered Sleep in Mild Traumatic Brain Injury Warfighters
Presentation Author: LCDR J. Kent Werner

**MHSRS-19-01896 - SESSION 2 - #563**
White Matter Integrity Predictors of Changes in Postconcussive Symptom Reporting – A CENC Study
Presentation Author: Dr. Nicholas Davenport

**MHSRS-19-01901 - SESSION 2 - #564**
Comparison of Traumatic Injury Biomarker Profiles Between Burned vs. Non-burned Trauma Patients: Are Burn Patients Different?
Presentation Author: Dr. Nam Tran

MHSRS-19-01917 - SESSION 2 - #565
Subacute HDAC Inhibition Reduces the Long-term Neuropathology and Behavior Dysfunction in Mouse CCI Model of Traumatic Brain Injury
Presentation Author: Dr. Samba Reddy

MHSRS-19-01965 - SESSION 2 - #566
A Novel Device for Modeling Blast Traumatic Brain Injury Pressures in Laboratory
Presentation Author: Dr. Ricardo Mejia-Alvarez

MHSRS-19-02072 - SESSION 2 - #567
In Vitro Quantitative Analysis of Neuronal-structural and Electrophysiological Changes Following Mechanical Loading
Presentation Author: Dr. Ann Mae DiLeonardi

MHSRS-19-02105 - SESSION 2 - #568
Biomarker Examination Studies and Translation: A Novel Biomarker Core
Presentation Author: Dr. Katie Edwards

MHSRS-19-02132 - SESSION 2 - #569
A Novel Algorithm That Integrates Clinical Data, Electroencephalogram, and Neuroimaging Biomarkers in TBI Diagnosis
Presentation Author: Mr. Santosh Srinivasaiah

MHSRS-19-02175 - SESSION 2 - #570
Neurophysiological Bases of Human Neurofunctional Assessments of mTBI
Presentation Author: Dr. Oleg Favorov

MHSRS-19-02218 - SESSION 2 - #571
RNA Sequencing Following Multiple Traumatic Brain Injuries in a Closed-head Mouse Model
Presentation Author: Dr. Kartik Balachandran

MHSRS-19-02227 - SESSION 2 - #572
Impact of Blue-wavelength Light Therapy on Cortical Volume and Simple Reaction Time Following Mild TBI
Presentation Author: Dr. Sahil Bajaj

MHSRS-19-02236 - SESSION 2 - #573
Acute Biomarkers in Military Cadets Sustaining Concussions Outside of Varsity Sports Participation
Presentation Author: Dr. Christopher Giza

MHSRS-19-02237 - SESSION 2 - #574
Moderate Traumatic Brain Injury Leads to Acute Changes in Cardiac Function In Rats
Presentation Author: Mr. Alfredo Lucas

MHSRS-19-02381 - SESSION 2 - #575
In-vitro Experiments of Highly Dynamic Loading of Brain Slices and Cell Cultures
Presentation Author: Mr. Suhas Vidhate

MHSRS-19-02390 - SESSION 2 - #576

In Vivo Mapping of Linear Acceleration in Central Vestibular Nuclei
Presentation Author: Dr. Avril Genene Holt

MHSRS-19-02400 - SESSION 2 - #577

Ultra-high Performance Head Gradient for Assessment of Brain Microstructure Changes in Mild Traumatic Brain Injury at 3.0 Tesla: Initial Imaging Tests
Presentation Author: Dr. Thomas Foo

MHSRS-19-02451 - SESSION 2 - #578

Automated Pupillary Screening and a Portable Headset for Ocular Monitoring
Presentation Author: Dr. Dogancan Temel

MHSRS-19-02464 - SESSION 2 - #579

Elevation of Neuronal Olfactory Receptors in Human Serum and Cerebrospinal Fluid after Traumatic Brain Injury
Presentation Author: Dr. Manish Bhomia

MHSRS-19-02497 - SESSION 2 - #580

Plasma Levels of Neurotrophic Factors in Mild Traumatic Brain Injury Compared to Gulf War Illness
Presentation Author: Dr. Brahma Mulugu

MHSRS-19-02505 - SESSION 2 - #581

Progressive Structural and Functional Neurodegeneration in Veterans with Mild Traumatic Brain Injury
Presentation Author: Dr. Casey Gilmore

MHSRS-19-02549 - SESSION 2 - #582

Middle Cerebral Artery Flow Velocity, a Measure of Cerebral Blood Flow, Measured Acutely Following Sports Related Concussion, May Predict Symptom Burden and Cognitive Functioning 30 and 90 Days after Injury
Presentation Author: Dr. Tonia Sabo

MHSRS-19-02563 - SESSION 2 - #583

Improving Blast Traumatic Brain Injury Outcomes by Exploring Individual Vulnerabilities
Presentation Author: Capt Paul Elsbernd

MHSRS-19-02581 - SESSION 2 - #584

Identifying Individuals who had Suffered from mTBI with the Head and Intraocular Trauma Test
Presentation Author: Mr. Carlos Torres-Quinones

MHSRS-19-02588 - SESSION 2 - #585

Providing MRI Calibrated Ground Truth Measurement of Tissue Pathology Across Brain Space, Instruments, and Time for Brain Health Monitoring Enabling Normative Diagnostics of TBI
Presentation Author: Dr. Walter Schneider

OPEN - SESSION 2 - #586
COMBAT CASUALTY CARE FOR THE NAVY: CHALLENGES AT SEA

**MHSRS-19-00358 - POSTER SESSION 2 - #587**  
*Augmented Reality Fasciotomy Anatomy and Surgical Training Tool*  
Presentation Author: Dr. Win Liu

**MHSRS-19-01088 - POSTER SESSION 2 - #588**  
*Maritime Capabilities to Conduct Damage Control Surgical Interventions*  
Presentation Author: Ms. Domenique Selby

**MHSRS-19-01160 - POSTER SESSION 2 - #589**  
*Development of a Comprehensive Navy Medicine Trauma Strategy*  
Presentation Author: CDR David Barrows

**MHSRS-19-01689 - POSTER SESSION 2 - #590**  
*U.S. Navy Search and Rescue Patient Transport and Care Missions at Sea, 2009–2018*  
Presentation Author: Ms. Stephanie McWhorter

**MHSRS-19-02606 - POSTER SESSION 2 - #591**  
*Trauma Knowledge, Confidence, and Stress Assessments at Navy Trauma Training Center: Preliminary Analyses*  
Presentation Author: CDR Tony Torres
WARFIGHTER PERFORMANCE

LOWER AND UPPER EXTREMITY MUSCULOSKELETAL INJURY PREVENTION IN THE TRAINING AND OPERATIONAL DISMOUNTED ENVIRONMENT

MHSRS-19-00148 - SESSION 2 - #592
Restricting Lower Limb Flail is Key to Preventing Fatal Pelvic Blast Injury
Presentation Author: Dr. Iain Rankin

MHSRS-19-00775 - SESSION 2 - #593
Reinforced Pelvic Protection Mitigates the Effects of Dismounted Pelvic Blast Injury
Presentation Author: Dr. Iain Rankin

MHSRS-19-00161 - SESSION 2 - #594
Fitforce Planner: Data-driven Physical Training Programming for Reducing USMC Musculoskeletal Injuries
Presentation Author: Mr. Timothy Clark

MHSRS-19-00181 - SESSION 2 - #595
New Training System Based on the Discovery of Subperiosteal Transmission of Pressures between Joint Capsules
Presentation Author: Dr. Mark Pitkin

MHSRS-19-00340 - SESSION 2 - #596
U.S. Service Member Fall Injuries, 2001-2018: A Descriptive Study with Implications for Prevention
Presentation Author: Ms. Jessica Liendo

MHSRS-19-00363 - SESSION 2 - #597
Exploring Nonbattle Injury Prevention in the Deployed Military Environment Using Existing Databases
Presentation Author: LTC David Kauvar

MHSRS-19-00481 - SESSION 2 - #598
Differential Transcriptome Expression Analysis of Osteoarthritis and Rheumatoid Arthritis Synovial Tissues
Presentation Author: Mr. Manuel Caballero

MHSRS-19-00832 - SESSION 2 - #599
In-processing Musculoskeletal Screening for a Large Army Base: The Wins, the Losses and Moving Forward
Presentation Author: CPT John Harless

MHSRS-19-00946 - SESSION 2 - #600
A Software Platform for Dynamic Simulation of Anatomically Realistic Warfighter Avatars during Military-relevant Tasks
Presentation Author: Dr. Nathan Pickle

MHSRS-19-00994 - SESSION 2 - #601
Biomechanical and Physiological Simulations of Individual Warfighters Based on Individualized Avatars with Complete Anatomy
Presentation Author: Dr. Zhiqing Cheng
MHSRS-19-01163 - SESSION 2 - #602
Shoulder Proprioception Quantification for Injury Prevention and Return To Duty Decision-making
Presentation Author: LTC Margaret Nowicki

MHSRS-19-01176 - SESSION 2 - #603
The Prevalence of Bunion Deformity in the Active Duty Military
Presentation Author: LTC Deanna Duran

MHSRS-19-01257 - SESSION 2 - #604
A Non-inferiority Study Comparing a Photobiologic Therapy Kiosk to Oral Vitamin D Supplementation to Optimize Serum 25(OH)D
Presentation Author: Dr. Mary McCarthy

MHSRS-19-01454 - SESSION 2 - #605
A Retrospective Study of Foot Biomechanics and Injury History in Elite Athletes at the U.S. Naval Academy
Presentation Author: Mr. Joshua Jeffries

MHSRS-19-01813 - SESSION 2 - #606
Associations between an Integrated Musculoskeletal Injury Risk Mitigation Program and Self-reported Pain during U.S. Military Training
Presentation Author: Ms. Carolyn Dartt

MHSRS-19-02342 - SESSION 2 - #607
Novel Approaches to Get Ahead of Neuro-musculoskeletal Injuries in Conventional Military Forces through Embedded Multi-disciplinary Teams
Presentation Author: MAJ Nicholas Koreerat

MHSRS-19-02653 - SESSION 2 - #608
Loss Of Hypoxia Signaling Limits Skeletal Muscle Response To Aerobic Exercise In Aging
Presentation Author: Dr. Yori Endo

MANAGEMENT OF SLEEP AND FATIGUE FOR MAXIMIZATION OF SOLDIER OPERATIONAL READINESS

MHSRS-19-00215 - SESSION 2 - #609
Self-report Insomnia Symptoms Robustly Predicts Posttraumatic Stress across the Deployment Cycle in an Armored Brigade Combat Team
Presentation Author: CAPT Ashlee McKeon

MHSRS-19-00251 - SESSION 2 - #610
Adverse Childhood Experiences and Post-deployment Functional Impairment: Evidence for a Mechanistic Role for Sleep Disturbance
Presentation Author: Dr. Morgan Conway
MHSRS-19-00341 - SESSION 2 - #611
Getting Ahead of Head Injuries: Sleep Disturbance Predicts Greater Functional Impairment among Soldiers with Self-reported Concussion
Presentation Author: Ms. Jayne Holzinger

MHSRS-19-00447 - SESSION 2 - #612
Treatment of Comorbid Sleep Disorders and PTSD: Self-report Findings
Presentation Author: Dr. Daniel Taylor

MHSRS-19-00488 - SESSION 2 - #613
Developing and Testing a Web-based Provider Training for Cognitive Behavioral Therapy of Insomnia
Presentation Author: Dr. Daniel Taylor

MHSRS-19-00484 - SESSION 2 - #614
Comparison of Alternative Scoring Paradigms of Rest-activity Consolidation on to Inform a Biomarker of Circadian Disruption after TBI: A VA TBI Model System Study
Presentation Author: Dr. Risa Richardson

MHSRS-19-00506 - SESSION 2 - #615
Exploring the Impact of Sleep Deprivation and Caffeine on Operationally Relevant Complex Cognitive Processes in Medical Professionals
Presentation Author: Dr. Tracy Jill Doty

MHSRS-19-00585 - SESSION 2 - #616
In-bed Pose Estimation Using Under Cover Imaging via Thermal Diffusion
Presentation Author: Dr. Sarah Ostadabbas

MHSRS-19-00669 - SESSION 2 - #617
Event-based Brainwave and Muscle Signal Analysis during Sleep Related to Soldier Operational Readiness
Presentation Author: Dr. Eugene Ren

MHSRS-19-00712 - SESSION 2 - #618
Sleep Extension and Deprivation Alters the Processing of Threat-related Information
Presentation Author: Dr. Sara Alger

MHSRS-19-00722 - SESSION 2 - #619
A Comparison of Medical-grade Actigraphy Devices with Polysomnography during Inpatient Rehabilitation for Traumatic Brain Injury
Presentation Author: Dr. Risa Nakase-Richardson

MHSRS-19-00723 - SESSION 2 - #620
Optimal Countermeasures to Maximize Warfighter Alertness
Presentation Author: Dr. Francisco Vital-Lopez

MHSRS-19-00724 - SESSION 2 - #621
Pap Adherence in Veterans with Moderate to Severe Traumatic Brain Injury
MHSRS-19-00729 - SESSION 2 - #622
2B-alert Web 2.0: An Open-access Tool to Optimize Warfighter Alertness
Presentation Author: Dr. Jaques Reifman

MHSRS-19-01202 - SESSION 2 - #623
Sleep Quality and Sleep Leadership as Predictors of Performance among West Point Cadets
Presentation Author: MAJ Angela Yarnell

MHSRS-19-01219 - SESSION 2 - #624
Fatigue and Clinicopathological Risk Indexes Across Conus Army Installations: Retrospective Analyses of FY17 OTSG Health of the Force
Presentation Author: CPT Allison Brager

MHSRS-19-01447 - SESSION 2 - #625
Circadian Misalignment through Night Shift Simulation Disrupts Plasma Lipidome
Presentation Author: Dr. Jennifer Kyle

MHSRS-19-01705 - SESSION 2 - #626
Sleep Apnea and Duration of Illness Predicts Performance on Telephone-assessed Neuropsychological Test: A VA TBI Model Systems Study
Presentation Author: Ms. Erin Brennan

MHSRS-19-01773 - SESSION 2 - #627
Sleep Deficit in Drill Sergeants and Increased Risk of Accidents
Presentation Author: Dr. Toby Elliman

MHSRS-19-01777 - SESSION 2 - #628
Effects of a Live-fire Military Exercise and Group Membership on Subjective Sleepiness, Fatigue, and Mood
Presentation Author: Ms. Carolyn Mickelson

MHSRS-19-01798 - SESSION 2 - #629
Subjective Sleep Quality Among U.S. Army Tank Crewmen During a Mission Readiness Training Exercise at the National Training Center
Presentation Author: Ms. Maria St. Pierre

MHSRS-19-01811 - SESSION 2 - #630
Differences in Self-reported Sleep Duration, Sleep Quality, Alertness, Fatigue, and Mood Across a 72-hour Mission Training Exercise
Presentation Author: Dr. Tina Burke

MHSRS-19-01881 - SESSION 2 - #631
Fatigue Recovery Enhancement in Extreme Conditions Using Noninvasive Neuromodulation Technology
Presentation Author: Mr. Richard Hanbury

MHSRS-19-02516 - SESSION 2 - #632
Fatigue Recovery Enhancement Using Noninvasive Neuromodulation Technology
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**MHSRS-19-02003 - SESSION 2 - #633**
Evaluation of Sleep Quality in a Military Population: The Military Service Sleep Assessment
Presentation Author: MAJ Matthew Brock

**MHSRS-19-02542 - SESSION 2 - #634**
Features of Nightmares during In-lab Video Polysomnography
Presentation Author: MAJ Matthew Brock

**MHSRS-19-02013 - SESSION 2 - #635**
Findings from a U.S. Army Aviator Survey on Energy Drink Usage
Presentation Author: Lt Col Claire Goldie

**MHSRS-19-02028 - SESSION 2 - #636**
Enhancing Crew Endurance in the U.S. Navy: Progress from the First Year of a 3-year Training Project
Presentation Author: Dr. Nita Shattuck

**MHSRS-19-02189 - SESSION 2 - #637**
Integrated Proteomic and Metabolomic Network Analysis of Circadian Misalignment Following Simulated Night Shift Work
Presentation Author: Dr. Jason McDermott

**MHSRS-19-02232 - SESSION 2 - #638**
Electrooculogram-based Wearable Eye Tracking for Objective Fatigue Assessment
Presentation Author: Dr. Paul Calamia

**MHSRS-19-02268 - SESSION 2 - #639**
Posttraumatic Stress Disorder Severity and Insomnia-related Sleep Disturbances: Longitudinal Associations in a Large, Gender-balanced Cohort of Combat Exposed Veterans
Presentation Author: Mrs. Ashley Magnavita

**MHSRS-19-02438 - SESSION 2 - #640**
Using Multiple Stimuli to Promote Rapid Circadian Acclimatization
Presentation Author: Dr. Shawn Youngstedt

**MHSRS-19-02448 - SESSION 2 - #641**
Daily Administered Blue Light Therapy Reduces Daytime Sleepiness and Improves Somatic Symptoms Following Mild Traumatic Brain Injury
Presentation Author: Dr. Adam Raikes

**MHSRS-19-02452 - SESSION 2 - #642**
Sleep Problems Associated with Posttraumatic Stress Disorder and Depression Following Mild Traumatic Brain Injury in U.S. Military Service Members
Presentation Author: Dr. Lisa Lu

**MHSRS-19-02455 - SESSION 2 - #643**
The Relationship Between Sleep Onset Latency and Gratitude
Presentation Author: Ms. Anna Burns

**MHSRS-19-02463 - SESSION 2 - #644**
“Early to Bed and Early to Rise Makes a Man Healthy, Wealthy and Wise”: The Impact of Sleep on Health, Income and Education
Presentation Author: Dr. Cristobal S. Berry-Caban

**MHSRS-19-02511 - SESSION 2 - #645**
Inadequate Sleep Quality and Duration Predicts Disinhibited Shooting on a “Shoot/no Shoot” Task
Presentation Author: Mr. Kyle LaFollette

**MHSRS-19-02520 - SESSION 2 - #646**
Sleep Characteristics in Active Duty Service Members with PTSD: Novel Findings and Implications
Presentation Author: Capt Brent Jacobus

**MHSRS-19-02534 - SESSION 2 - #647**
Effects of Cooled Compression Exercise Technology on Health, Sleep, and Quality of Life in Veterans
Presentation Author: Ms. Chloe Wernecke

**MHSRS-19-02569 - SESSION 2 - #648**
Use of High Energy Visible Light-emitting Glasses to Improve Sleep and Mood during 24-hour Military Operations
Presentation Author: Dr. Heather Clifton

**MHSRS-19-02572 - SESSION 2 - #649**
Stressor Reactivity in Sleep-deprived Normal Sleepers and Sleep-onset Insomniacs
Presentation Author: Dr. Devon Hansen

**MHSRS-19-02584 - SESSION 2 - #650**
Patients’ Perception of a Behavioral Intervention for CPAP Treatment Adherence in a Military Treatment Facility
Presentation Author: Dr. Juliana Ee

**MHSRS-19-01976 - SESSION 2 - #651**
Descriptive Epidemiology of U.S Air Force Aviators Referred for Evaluation of Obstructive Sleep Apnea
Presentation Author: Lt Col Dara Regn

**MANAGING PHYSIOLOGIC EVENTS IN MILITARY AVIATION**

**MHSRS-19-01978 - SESSION 2 - #652**
Pulmonary Function in U.S. Aviators: Past and Present
Presentation Author: Lt Col Dara Regn

**MHSRS-19-00156 - SESSION 2 - #653**
Global Evaluation and Rapid Upward Reporting Application for Pilot Breathing Air Contamination Data Using Open-Source Software
Presentation Author: Mr. Converse Griffith
MHSRS-19-00171 - SESSION 2 - #654
Effects of Altitude/barometric Pressure and G-forces on Adult Human Blood Flow and Breathing Rates:
Literature Review, Meta Analysis, and Data Gaps
Presentation Author: Dr. Lisa Sweeney

MHSRS-19-01053 - SESSION 2 - #655
Development of a New Research Capability and a First-of-its-kind Human Subject Research Study:
Manned Testing of Rapid Pressure Fluctuation Physiological Episodes Associated with Naval Aviation
Physiological Events
Presentation Author: Lt Travis Doggett

MHSRS-19-01164 - SESSION 2 - #656
Effects of Occupational Hypobaric Exposure on White Matter Integrity in a Cohort of U-2 Pilots and Air Force
Chamber Technicians
Presentation Author: Col John Sladky

MHSRS-19-01791 - SESSION 2 - #657
Facial Neuropraxis and Alternobaric Vertigo: Rare Manifestations of Eustachian Tube Dysfunction
Presentation Author: MAJ Matthew Wimmer

MHSRS-19-01819 - SESSION 2 - #658
Cope-fighter Summit: Characterizing and Optimizing the Physiologic Environment in Fighter Aircraft
Presentation Author: Dr. Ryan Mayes

MHSRS-19-02099 - SESSION 2 - #659
Impact of Hypoxia on Cognitive Functioning and Efficacy of Hypoxia Training
Presentation Author: Ms. Sabrina Drollinger

SECURING WARFIGHTER DOMINANCE IN THE FUTURE AIR BATTLESPACE

MHSRS-19-01110 - SESSION 2 - #660
Human Factors in Maintainer Mishaps
Presentation Author: Lt Aditya Prasad

MHSRS-19-02388 - SESSION 2 - #661
Enhanced Capabilities for Navy Aviation Hypoxia Training: System Design and End User Testing to Validate
System Capabilities
Presentation Author: Mr. Matthew Pierce

MHSRS-19-02582 - SESSION 2 - #662
U.S. Air Force Operational Based Vision Assessment Laboratory Stereoscopic Remote Vision System Aerial
Refueling Visual Performance
Presentation Author: COL Steven Hadley
SPINAL MUSCULOSKELETAL INJURY PREVENTION IN FIXED AND ROTARY WING ENVIRONMENTS

MHSRS-19-01387 - SESSION 2 - #663
Pilot Questionnaire to Characterize Neck Pain Related to Forward Helmet Center of Gravity (A Pilot Venture Focused on the Air National Guard)
Presentation Author: Mr. Anthony Turner

MHSRS-19-01448 - SESSION 2 - #664
A Novel Application of Head Tracking Data in the Analysis and Assessment of Cervical Spine Range of Motion for Army Aviators
Presentation Author: Mr. Steven Williams

MHSRS-19-01544 - SESSION 2 - #665
Global-local Finite-element Modeling during Neck Tension
Presentation Author: Dr. Harsha T. Garimella

MHSRS-19-02123 - SESSION 2 - #666
Comparative Finite Element Modeling Study of Anterior Cervical Arthrodesis versus Cervical Arthroplasty with Bryan or Prodisc C
Presentation Author: Dr. Hoon Choi

MHSRS-19-02512 - SESSION 2 - #667
Osteoactivin and BMP2, Orthobiologics Comparison for Efficacy and Safety in Spinal Fusion
Presentation Author: Dr. Fayez Safadi

ANCILLARY TOPICS

DELIVERING AND APPLYING ARTIFICIAL INTELLIGENCE FOR WARFIGHTER HEALTH & READINESS-A COMBAT MULTIPLIER

MHSRS-19-02107 - POSTER SESSION 2 - #668
mTBI Detection using Coordination of Vocal Dynamics in a Deep Learning Context
Presentation Author: Ms. Sophia Yuditskaya
EXPEDITIONARY NURSING

MHSRS-19-00072 – POSTER SESSION 2 - #669
Perioperative Deployment Readiness Guide
Presentation Author: CPT Julia Catanese

MHSRS-19-00785 – POSTER SESSION 2 - #670
Nonbattle-related Deaths among U.S. Service Members Deployed in Iraq and Afghanistan: Etiology and Trends
Presentation Author: Dr. Tuan Le

MHSRS-19-00941 – POSTER SESSION 2 - #671
Evaluation of Clinical Nurse Transition Program at United States Army Hospitals
Presentation Author: LTC Pedro Oblea

MHSRS-19-00965 – POSTER SESSION 2 - #672
Military Surgical Team Communication: Implications for Safety
Presentation Author: LTC Christopher Stucky

MHSRS-19-01362 – POSTER SESSION 2 - #673
Combat Casualty Care Readiness Achieved Following Level 1 Trauma/burn Clinical Exposure
Presentation Author: Mrs. Krystal Valdez-Delgado

MHSRS-19-01832 – POSTER SESSION 2 - #674
A Theory for Expeditionary Nursing Practice – Service Beyond Self
Presentation Author: Dr. Mona Pearl Treyball

MHSRS-19-01842 – POSTER SESSION 2 - #675
Practical Obesity Management Course Improves Obesity Treatment Skills in Healthcare Providers
Presentation Author: Dr. Magdalena Pasarica

MHSRS-19-02109 – POSTER SESSION 2 - #676
Antibiotics in Active Duty Appendicitis Population Trial
Presentation Author: LCDR Mary Arbuthnot

MHSRS-19-02608 – POSTER SESSION 2 - #677
Options for Maintaining Clinical Proficiency during Peacetime
Presentation Author: Dr. Heather Krull

MHSRS-19-02646 – POSTER SESSION 2 - #678
Risk Factors for Pressure Injury Development in Non-critical Aeromedical Evacuation Trauma Patients
Presentation Author: Ms. Darcy Mortimer
UPDATES ON MILITARY WOMEN’S HEALTH

MHSRS-19-00120 - POSTER SESSION 2 - #679
The Impact of Safe Passages Training on the Incidence of Perineal Trauma During Childbirth
Presentation Author: Col Barton Staat

MHSRS-19-00236 - POSTER SESSION 2 - #680
Long-term Health Consequences of Preeclamptic Pregnancies in the United States Armed Forces: A Case-control Study in Progress
Presentation Author: Dr. Andrea Loewendorf

MHSRS-19-00258 - POSTER SESSION 2 - #681
Germline Testing in African American Women with Invasive Breast Cancer
Presentation Author: Dr. Rachel Ellsworth

MHSRS-19-00260 - POSTER SESSION 2 - #682
Evaluation of Surgical Disparities between African American and European American Women Treated for Breast Cancer within an Equal-access Military Health Care System
Presentation Author: Dr. Rachel Ellsworth

MHSRS-19-00261 - POSTER SESSION 2 - #683
Pathology and Survival of Breast Cancer within the Active Duty Servicewoman Population
Presentation Author: Dr. Rachel Ellsworth

MHSRS-19-00266 - POSTER SESSION 2 - #684
Pathologic Characteristics of African American Women with Breast Cancer Treated at the DoD's Murtha Cancer Center: Understanding Why Survival Cancer is not Disparate to European American Women When Treated Within the U.S. Military Healthcare System
Presentation Author: Dr. Rachel Ellsworth

MHSRS-19-00385 - POSTER SESSION 2 - #685
An Analysis of Concussion Injuries During the First Three Years of Mandatory Boxing for Female Cadets at the U.S. Air Force Academy
Presentation Author: Dr. Joel Robb

MHSRS-19-00442 - POSTER SESSION 2 - #686
Relationship of Prenatal Anxiety and Deployment on Maternal Inflammatory Cytokines: Machine Learning Provides Insight to Highly Dimensional Data
Presentation Author: Dr. Karen Weis

MHSRS-19-00452 - POSTER SESSION 2 - #687
Differentiating Compensatory Mechanisms Associated to Low Tolerance to Central Hypovolemia in Women
Poster Session 2

Presentation Author: Dr. Taylor Schlotman

MHSRS-19-00591 - POSTER SESSION 2 - #688
Peptide-based Nanohydrogels for Urinary Incontinence in Women
Presentation Author: Dr. Eun Ji Chung

MHSRS-19-00699 - POSTER SESSION 2 - #689
Female Military Officers Report a Desire for Menstrual Suppression During a 6-month Military Training Course
Presentation Author: Dr. Emily Southmayd

MHSRS-19-00703 - POSTER SESSION 2 - #690
Interrelationship between Sex, Age, Blood Volume and VO2max
Presentation Author: Dr. Mithun Suresh

MHSRS-19-00704 - POSTER SESSION 2 - #691
Capacity to Compensate for Central Hypovolemia and Effects of Menstrual Cycle Phases
Presentation Author: Dr. Taylor Schlotman

MHSRS-19-00901 - POSTER SESSION 2 - #692
Sex Differences on Postconcussion Symptom Reporting in Military Service Members Following Mild Traumatic Brain Injury are Moderated by Post Traumatic Stress Symptoms
Presentation Author: Dr. Rael Lange

MHSRS-19-00935 - POSTER SESSION 2 - #693
Time to Surgery and Overall Survival after a Breast Cancer Diagnosis in the Military Health System
Presentation Author: Dr. Yvonne Eaglehouse

MHSRS-19-01621 - POSTER SESSION 2 - #694
Implementation of Obstetrical Emergency in-situ Team Simulation Drills with Novel Reporting and Analytical System for all United States Military Hospitals
Presentation Author: Col Barton Staat

MHSRS-19-01707 - POSTER SESSION 2 - #695
Menstrual Practices in Operational Military Women
Presentation Author: MAJ Angela K. Phillips

MHSRS-19-01828 - POSTER SESSION 2 - #696
Evaluation of Laser Microdissected Primary Breast Tumors for RNA-seq Over Bulk Processing
Presentation Author: Dr. Praveen-Kumar Raj-Kumar

MHSRS-19-02075 - POSTER SESSION 2 - #697
Survival Outcomes in Epithelial Ovarian Cancer Patients in an Equal Access Health System Compared with the National Surveillance, Epidemiology, and End Results Program
Presentation Author: MAJ David Anderson

MHSRS-19-02124 - POSTER SESSION 2 - #698
Gender Differences in Gulf War Illness: A Re-analysis of Data from the CDC Air Force Study Using CDC and Kansas
Case Definitions
Presentation Author: Dr. Vahe Heboyan

MHSRS-19-02187 - POSTER SESSION 2 - #699
Sex Differences in Risk-taking Behavior and Brain Morphometry in Healthy Individuals
Presentation Author: Dr. Sahil Bajaj

MHSRS-19-02194 - POSTER SESSION 2 - #700
Frequency of Symptoms among Female Veterans of the 1991 Gulf War Era: Results from the Cooperative Studies Program 585 Gulf War Era Cohort and Biorepository
Presentation Author: Dr. Stacey Iobst

MHSRS-19-02408 - POSTER SESSION 2 - #701
Age, Histology and Stage Predict Survival Following Adjuvant Chemotherapy and Radiation versus Radiation Therapy Alone in High-risk Endometrial Cancer: An Observational Study of 20,015 Patients Based on PORTEC-3 Criteria
Presentation Author: Lt Col Yovanni Casablanca

MHSRS-19-02475 - POSTER SESSION 2 - #702
Perceptions of Race and Gender Equality in Leadership and Career Advancement among Military Family Physicians
Presentation Author: MAJ Mariama Massaquoi

MHSRS-19-02522 - POSTER SESSION 2 - #703
Factors to Explain Racial Disparity in Survival for Women with Uterine Cancer: Further Investigations by Histologic Subtype
Presentation Author: Dr. Kathleen Darcy

MHSRS-19-02536 - POSTER SESSION 2 - #704
Histology Matters in Developing a Framework For Explaining Racial Disparity in Cervical Cancer Survival
Presentation Author: Dr. Kathleen Darcy

MHSRS-19-02526 - POSTER SESSION 2 - #705
Contraceptive Use and Childbirth Rates by Service Branch During the First 24 Months on Active Duty in the United States Military from 2013 to 2018: A Retrospective Cohort Analysis
Presentation Author: MAJ Joshua Smalley

MHSRS-19-02571 - POSTER SESSION 2 - #706
Longitudinal Influence of Military Policy on Contraceptive Use and Childbirth among Female Recruits
Presentation Author: MAJ Joshua Smalley
PREDICTIVE ANALYTICS WITHIN THE MILITARY HEALTH SYSTEM

MHSRS-19-00027 - POSTER SESSION 2 - #707
Factors Related to Re-excision Following Primary Breast Conserving Surgery for Women with Breast Cancer in the U.S. Military Health System
Presentation Author: Dr. Yvonne Eaglehouse

MHSRS-19-00927 - POSTER SESSION 2 - #708
Racial Comparisons in Receipt of Recommended Colon Cancer Treatment in an Equal-access Health System
Presentation Author: Dr. Yvonne Eaglehouse

MHSRS-19-00151 - POSTER SESSION 2 - #709
Evaluation of a High-utilizer Case Management Pilot Program
Presentation Author: Ms. Shing Lai Cheng

MHSRS-19-00176 - POSTER SESSION 2 - #710
Genetic Testing to Reduce Musculoskeletal Injuries in SOF
Presentation Author: Dr. Stuart Kim

MHSRS-19-00453 - POSTER SESSION 2 - #711
Presentation Author: Dr. Yll Agimi

MHSRS-19-01796 - POSTER SESSION 2 - #712
Estimates of Long-term Disability among U.S. Service Members with Traumatic Brain Injuries
Presentation Author: Dr. Yll Agimi

MHSRS-19-00509 - POSTER SESSION 2 - #713
Artificially Genetic: Using Precision Operational Health and Performance Principles to Predict Risk, Outcomes, and Utilization in the Military Health System
Presentation Author: Dr. Richard Chapleau

MHSRS-19-00808 - POSTER SESSION 2 - #714
Proportion of Non-adenomatous Pathology on Colonoscopic Biopsy among Patients Treated in a Military Treatment Facility
Presentation Author: ENS Samuel Billingslea

MHSRS-19-00920 - POSTER SESSION 2 - #715
Prevalence of Sleep Disorders and Medication Use Among Active Duty Army for Fiscal Year 2018: Impact on Deployability
Presentation Author: Dr. Jaime Devine

MHSRS-19-00925 - POSTER SESSION 2 - #716
Determining the Appropriate Follow-up Times for Apollo Studies from TCGA Data
Presentation Author: Mr. Jianfang Liu

MHSRS-19-00948 - POSTER SESSION 2 - #717
Individualized Avatar with Complete Anatomy: Repositioning and Animating
Presentation Author: Dr. Zhiqing Cheng

MHSRS-19-00949 - POSTER SESSION 2 - #718
Brain Cancer Incidence: A Comparison of ACTUR and SEER Populations
Presentation Author: Ms. Julie Bytnar

MHSRS-19-00991 - POSTER SESSION 2 - #719
Comparative Study of Survival, Diagnosis and Treatment among Small Cell Lung Cancer Cases in the U.S. Military Health System and Cases from the U.S. National Surveillance, Epidemiology, and End Results Program
Presentation Author: Dr. Jie Lin

MHSRS-19-00995 - POSTER SESSION 2 - #720
Comparison of Survival among Colon Cancer Cases in the U.S. Military Health System and Cases from the U.S. General Population in the National Surveillance, Epidemiology, and End Results Program
Presentation Author: Dr. Jie Lin

MHSRS-19-01141 - POSTER SESSION 2 - #721
The Burden of Skin Disease on Deployed Servicemembers
Presentation Author: CPT Elizabeth Taylor

MHSRS-19-01227 - POSTER SESSION 2 - #722
Predicting Day Length of Duty Restriction Using Text Mining and Machine Learning Algorithms
Presentation Author: Mr. Aron Trevino

MHSRS-19-01283 - POSTER SESSION 2 - #723
Predictive Analytics to Identify Patients with Rising Risks of Chronic Conditions for Disease Management
Presentation Author: Mr. Lemma Regasa

MHSRS-19-01309 - SESSION 2 - #724
Similarity Analysis Using Deep Learning And Latent Semantic Indexing Techniques
Presentation Author: Dr. Bernardo Buenviaje

MHSRS-19-01339 - POSTER SESSION 2 - #725
Development of a Predictive Healthcare Tool Using Electronic Health Record Bioinformatics to Inform Personalized Evidence-based Pressure Injury Management for Veterans With Spinal Cord Injury
Presentation Author: Dr. Kath Bogie

MHSRS-19-01375 - POSTER SESSION 2 - #726
External Validation of PATHFx Version 3.0 in Patients Treated Surgically and Non-surgically for Symptomatic Skeletal Metastases
Presentation Author: Lt Ashley Anderson
MHSRS-19-01383 - POSTER SESSION 2 - #727
Racial and Service Connected Disability Disparities in Civilian Assault and Firearm TBI Injury and Costs among U.S. Military Veterans: Evidence from a Level One Trauma Center
Presentation Author: Dr. Clara Dismuke-Greer

MHSRS-19-01393 - POSTER SESSION 2 - #728
Clarity Bioanalytics: Applications of Machine Learning for Biological Cell Image Analysis
Presentation Author: Dr. Patrick McLendon

MHSRS-19-01397 - POSTER SESSION 2 - #729
Pharmacogenomics and Readiness in the Military Health System
Presentation Author: Ms. Lydia Hellwig

MHSRS-19-01446 - POSTER SESSION 2 - #730
Five Year Risk of Hypertension after Combat Injury: A Predictive Model
Presentation Author: Lt Col Ian Stewart

MHSRS-19-01484 - POSTER SESSION 2 - #731
Identification of Candidate Biomarkers for Head and Neck Cancer Using Targeted Proteomics and Longitudinal Samples from the DoD Serum Repository
Presentation Author: Dr. Tao Liu

MHSRS-19-01524 - POSTER SESSION 2 - #732
Predictors of Overdose, Chronic Opioid Use and Suicide Related Behaviors in Veterans: Why We Need DoD Data to Understand the DoD-VA Transition
Presentation Author: Dr. Mary Jo Pugh

MHSRS-19-01525 - POSTER SESSION 2 - #733
Medical Utilization as a Measure of Return on Investment for Traumatic Brain Injury Care in Europe
Presentation Author: Dr. Stephanie Maxfield-Panker

MHSRS-19-01527 - POSTER SESSION 2 - #734
Clinical Utility of Heart Chest Pain Protocol at NMCP
Presentation Author: Lt Michael Lloyd

MHSRS-19-01536 - POSTER SESSION 2 - #735
Predictors of Attrition from Combat Training: The IDF Perspective
Presentation Author: CPT Avishai Tsur

MHSRS-19-01542 - POSTER SESSION 2 - #736
Predictive Modeling for Cardiovascular Event Prevention
Presentation Author: Ms. Patricia Nguyen

MHSRS-19-01655 - POSTER SESSION 2 - #737
Predictive Modeling for Cardiovascular Event Prevention
Presentation Author: Mrs. Patricia Nguyen

**MHSRS-19-01668 - POSTER SESSION 2 - #738**
Developing Models To Predict Performance on Selected HEDIS® Diabetes Quality of Care Measures in the MHS Population
Presentation Author: Mrs. Brooke Asbury

**MHSRS-19-01680 - POSTER SESSION 2 - #739**
Developing Models to Predict Performance on Selected HEDIS® Diabetes Quality of Care Measures in the MHS Population
Presentation Author: Ms. Brooke Asbury

**MHSRS-19-01706 - POSTER SESSION 2 - #740**
Non-invasive Measurement of Carotid Plaque Composition to Improve Risk Assessment of Stroke
Presentation Author: Dr. Russell Fedewa

**MHSRS-19-01722 - POSTER SESSION 2 - #741**
Contribution of Department of Defense Cancer Information to the Oncology Research Information Exchange Network Avatar Research Program
Presentation Author: Ms. Kimberly Murtha

**MHSRS-19-01874 - POSTER SESSION 2 - #742**
Predicting the Future Occurrence of Hemorrhage Using a Noninvasive Approach
Presentation Author: Mr. Navid Rashedi

**MHSRS-19-01954 - POSTER SESSION 2 - #743**
Homeland Explosive Consequence Assessment Tool Medical Mitigation Model: Assessing the Benefits of the Public Health Response to an Explosive Terrorism Attack
Presentation Author: Mr. Kevin Wegman

**MHSRS-19-01972 - POSTER SESSION 2 - #744**
Utilization, Cost and Clinical Outcomes Before and After Implementation of Separate Pediatric Protocols for Care of the Febrile Child Younger than 160 Days
Presentation Author: LT Megan Halliday

**MHSRS-19-01990 - POSTER SESSION 2 - #745**
The Establishment and Implementation of Murtha Cancer Center Biobank as a Participating Member of the Oncology Research Information Exchange Network
Presentation Author: Ms. Nicole Wolf

**MHSRS-19-02052 - POSTER SESSION 2 - #746**
Discrete Event Simulation for Modeling of Military Medical Center Response to a Mass Casualty Incident
Presentation Author: CPT Christopher Marenco

**MHSRS-19-02089 - POSTER SESSION 2 - #747**
Noninvasive Enabling Technology, New Physiological Monitoring, and Big Data
Presentation Author: Dr. Joseph Chaiken
MHSRS-19-02206 - POSTER SESSION 2 - #748
An Informatics Infrastructure Task Force for the Applied Proteogenomics Organizational Learning and Outcomes Consortium as Part of the Cancer Moonshot Program
Presentation Author: Mr. Leonid Kvecher

MHSRS-19-02240 - POSTER SESSION 2 - #749
Predictors of Psychological Well-Being among Junior Enlisted Sailors in the Navy Nuclear Propulsion Training Pipelines
Presentation Author: Dr. Justin Handy

MHSRS-19-02322 - POSTER SESSION 2 - #750
Presentation Author: Mr. Benjamin Clapp

MHSRS-19-02323 - POSTER SESSION 2 - #751
Utilization of the Emergency Department in a Universally Covered Population
Presentation Author: Dr. Tomas Andriotti

MHSRS-19-02368 - POSTER SESSION 2 - #752
Admissions from the Emergency Department in a Universally Covered Population
Presentation Author: Dr. Tomas Andriotti

MHSRS-19-02373 - POSTER SESSION 2 - #753
Identifying Risk Factors for Opioid Abuse and Misuse in Outpatient Active Duty Air Force
Presentation Author: Dr. Paul Schroeder III

MHSRS-19-02409 - POSTER SESSION 2 - #754
Developing an Asplenic Patient Registry for Air Force Readiness
Presentation Author: Dr. Paul Schroeder III

MHSRS-19-02416 - POSTER SESSION 2 - #755
Predicting Deployability from Modifiable Behaviors in Active Duty Air Force Service Members
Presentation Author: Dr. Paul Schroeder III

MHSRS-19-02383 - POSTER SESSION 2 - #756
AMSARA/DSAR: Leveraging Epidemiological Research and Predictive Analytics for Military Stakeholders
Presentation Author: Mrs. Caitlin Rushin

MHSRS-19-02384 - POSTER SESSION 2 - #757
Trends in Prediabetes Prevalence in the U.S. Active Duty Military Population
Presentation Author: Capt Courtney Clutter
MHSRS-19-02401 - POSTER SESSION 2 - #758
Predictive Modeling for Differential Diagnosis and Mortality Risk Assessment
Presentation Author: Dr. Tony Lindsey

MHSRS-19-02631 - POSTER SESSION 2 - #759
Does Objective, Adjunctive Information from EEG Change Prescribing in Depression?
Presentation Author: Mr. George Carpenter

MHSRS-19-02634 - POSTER SESSION 2 - #760
Centralization of Pathology Consultations at the Joint Pathology Center Permits the Tracking and Trending of Diagnoses and Quality across the DoD and VA Healthcare Systems
Presentation Author: COL Joel Moncur

MHSRS-19-02640 - POSTER SESSION 2 - #761
Analysis of Joint Pathology Center Consultations from 2018 Identifies the Most Common Diagnostic Challenges across DoD and VA Healthcare
Presentation Author: COL Joel Moncur