



2025 MHSRS EVENT GUIDE



2025 MHSRS EVENT

NMR&D is proud to return to this year's Military Health System Research Symposium. This year we will lead over two dozen breakout sessions and have nearly a hundred posters on display. The NMR&D exhibit is located in the exhibit hall at booth 903.

Disclaimer: The information that follows is based on data received by participants and verified by the EventPilot app at time of writing. Times and locations may change ahead of final placements and presentations. Commands listed after presenter names may not be the appropriate affiliation.

Please consult the EventPilot app if you cannot find a poster or session based on the information herein.

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BREAKOUTSESSIONS

MONDAY / AUG 4

Below are the times and locations for all breakout sessions presented by NMR&D. Sessions are listed chronologically, with locations listed before the presentation title, and presenters after.

1315-1330 Sun C *Perceived Health and Wellness Barriers among Civil Service Mariners: An Exploratory Qualitative Investigation* — **Karen Tannenbaum**, NHRC

1345-1400 Coastal A *Prevalence of Head Injuries, Concussion, and Traumatic Brain Injuries in Navy and Marine Corps Explosive Ordnance Disposal Technicians* — **Nikita Tovey**, NHRC

1400-1415 Sun D *In Vitro Vascular Endothelial Response to Novel Whole Blood Analogue for Resuscitation*, **Dao Ho**, NAMRU San Antonio

1415-1430 Coastal C *Harnessing Phage Technology for Rapid Development of Thermostable Nanoparticle Vaccines* — **Biswajit Biswas**, NMRC

1445-1500 Sun A *Strategic Use of Hospital-Acquired Infection Surveillance in detecting Antimicrobial Resistance in Jordan* — **Tamer Osman**, NAMRU EURAFCENT

1530-1545 Sun D *Towards a High Energy Laser Skin Injury Clinical Practice Guideline* — **LCDR Cameron Burnett**, NAMRU San Antonio

1615-1630 Coastal B *Endotyping of sepsis transcriptomic trajectories using Dynamical Systems Cost-fitting Landscape* — **Mehran Fazli**, NMRC

1645-1700 Sun C *Partial Pressure of Oxygen and Nitrogen Effects the Development of Noise-Induced Hearing Loss* — **Elliott Dirr**, NAMRU Dayton



BREAKOUTSESSIONS

TUESDAY / AUG 5

0800-0815 Sun C *Investigating Links between Parent Mental Health and Child Well-being across Married and Single Parenting Service Members: Findings from the Millennium Cohort Family Study* — **Sabrina Richardson**, NHRC

0930-0945 Sun C *Understanding Financial Problems and Instability among Military Spouses* — **Hope McMaster**, NHRC

1430-1445 Sun A *Clinical Evaluation of Travelan® an Oral Prophylactic for Prevention of Travelers' Diarrhea: A Phase 2 Clinical Trial to assess a Single Daily Dosing Regimen suitable for Deployed Military* — **Jerry Kanellos**, NMRC

1445-1500 Sun A *Research and Development of a Military-grade Travelan® Hyperimmune Bovine Colostrum Product to Prevent Diarrhea* — **Renee Laird**, NMRC

WEDNESDAY / AUG 6

0800-0815 Sun C *Development and Efficacy of a Habituation Program for Improving Warfighter Survival during Unplanned Cold-Water Immersion* — **Douglas Jones**, NHRC

0815-0830 Sun C *Determining the Effect of Arctic Conditions on Field Medical Equipment* — **Andres Martinez Murillo**, NAMRU San Antonio

0830-0845 Sun C *Maintaining optimal hand performance in cold-weather flight operations: The development of tactile gloves* — **Stephanie Warner**, NAMRU Dayton

0900-0915 Sun C *Effects of Cold-Water Immersion on Shivering Magnitude and Postural Stability* — **Amy Schwartz**, NHRC

1300-1315 Coastal D *Longitudinal Associations between Health-Related Quality of Life and Women Service Member Readiness: Findings from the US Millennium Cohort Study* — **Isabel Jacobson**, NHRC

BREAKOUTSESSIONS

THURSDAY / AUG 7

0900-0915 Coastal C *The impact of carbon dioxide on simulated DISSUB survival and decompression sickness at 5ATA air in a swine (*Sus scrofa*) model* — **Miriam Weiss**, NMRC

0915-0930 Coastal C *Decoding Auricular Vagus Nerve (Cranial Nerve X) Activity to Extract Physiological Endpoints Predictive of Diver Health and Performance* — **Aaron Hall**, NMRC

0930-0945 Coastal C *Novel Statistical Analysis of CNS Oxygen Toxicity Incidence Using Historical Data Sets* — **Alan Metelko**, NMRC

0945-1000 Coastal A *Use of Pathogen Agnostic and Semi-Agnostic Sequencing Methods to Enhance Molecular and Immunological Biosurveillance Data from Cases of Acute Febrile Illness in Latin America* — **Adrian Paskey**, NMRC

1000-1015 Coastal C *Evaluation of diver-worn noise dosimeters in underwater operational noise environments* — **Kristine Sonstrom Malowski**, NSMRL

1015-1030 Coastal C *Overview of Injury-Related Mishaps Onboard U.S. Submarines from 2008-2023* — **Linda Hughes**, NSMRL

1030-1045 Sun A *A Novel Antimicrobial Peptide Against Multiple Drug-resistant Bacteria and their Biofilms Improves Infection Outcomes in Mice* — **John Vitucci**, NMRC

1030-1045 Coastal C *Examining a Developmental Program to Reduce Attrition in the Submarine Force* — **David Clark & Dominica Hernandez**, NSMRL

1230-1245 Coastal C *Effects of Inhalation Valve Obstruction in the Flight Mask* — **Frank Robinson**, NAMRU Dayton

POSTERSESSION1

TUESDAY / AUG 4 / 1000-1200

#13642 *In Vitro Testing of a Field-Deployable, Injectable, Prophylactic Treatment for the Prevention of Frostbite* — **Sabrina Snyder**, NAMRU San Antonio

#13701 *Antigenic Characterization of Currently Circulating Seasonal Influenza Strains Using Antigenic Cartography* — **Kayla Septer**, NMRC

#13708 *Deployment-related diarrhea management: developing solutions for prevention, diagnosis, and treatment* — **Tahaniyat Lalani**, NAMRU EURAFCENT

#14005 *Mercury Abatement of Dental Amalgam with Improved and Compact Amalgam Separators for Military Use* — **Meaghan Rose**, NAMRU San Antonio

#14020 *Development of a Polymicrobial Biofilm Model for Wound Infections of *Acinetobacter baumannii*, *Klebsiella pneumoniae*, and *Staphylococcus aureus** — **Corley Mills**, NMRC

#14171 *Synthetically Altered Bacteriophage Have Increased Host Range and Reduced Occurrence of Phage Resistance* — **Sydney Gaskin**, NMRC

#14251 *MetaDetector and VirusSeeker 2.0, two bioinformatic pipelines to identify pathogens and discover viruses in agnostic sequence data* — **Quinn Thomas**, NMRC

#14258 *Harnessing the RNA Technology to Develop Innovative Antimicrobial Countermeasures to Combat Multidrug-Resistant Biothreats Causing Severe Wound Infections* — **Yoann Le Breton**, NMRC

#14262 *Evaluation of a Hydrogen Peroxide and Ozone Portable Sterilizing Unit for the Sterilization of Stainless Steel and 3D Printed Dental Instruments* — **Tarea Burton**, NAMRU San Antonio

#14323 *The Combinatorial Effect of Wireless Electroceutical Dressing and Bacteriophage to Disrupt Biofilm and Enhance Wound Healing* — **Dahnielle Milton**, NMRC

POSTERSESSION1

TUESDAY / AUG 4 / 1000-1200

#14382 *Travelan® an Oral Prophylactic for Prevention of Travelers' Diarrhea Promotes Clearance of Pathological Bacteria and a more Rapid Recovery of the Gut Microbiota in a Controlled Human Challenge Model* — **Joanne Casey**, NMRC

#14407 *Development of a small animal model of Campylobacter jejuni infection for preclinical evaluation of therapeutic candidates* — **Heather Eggleston**, NMRC

#14415 *Investigating Trust with Human-Machine Teaming During a Sustained Operational Task: The Relationship Between Humans and AI [Pilot Study]* — **Sierra Nastasi**, NSMRL

#14424 *Aotus nancymae: Preclinical Translational Animal Model for Diarrheagenic Bacterial Countermeasures* — **Juan Carlos Gaspar**, NAMRU SOUTH

#14523 *The Choice of Dental Restorative Materials to Treat Dental Emergencies Occurring in Deployed US Army Personnel* — **Amer Tiba**, NAMRU San Antonio

#14541 *Development of a Sheep Model for Evaluation of Midface Fracture Treatments* — **Nancy Millenbaugh**, NAMRU San Antonio

#14561 *Utilizing Advanced Bacteriophage Mixtures to Pre-Emptively Target Phage-Resistant Bacterial Populations and Modulate Antibiotic Sensitivity* — **Eric Starkey-Siebert**, NMRC

#14568 *Survival Analysis of a Dental Self-Healing Composite* — **Sabrina Snyder**, NAMRU San Antonio

#14653 *Parameter Optimization for Creation of HEL-induced Burns in Ex Vivo Porcine Models* — **Dickson Kirui**, NAMRU San Antonio

POSTERSESSION1

TUESDAY / AUG 5 / 1000-1200

#14710 *Development of Novel 3D Cell-Based In Vitro Model to Address Radio Frequency Bioeffects* — **Jenny Mendez**, NAMRU San Antonio

#14726 *Assessment of Energy and Nutrient Intake During Navy Officer and Recruit Training* — **Mary Polan**, NHRC

#14765 *Generation of a Stable Avirulent Staphylococcus aureus strain for Safe Manufacturing of Therapeutic Phages* — **Mackenzie Ryan**, NMRC

#14771 *Protection of the Injured Endothelium by FDA-Approved and Experimental Drugs in Human and Canine In Vitro Models* — **Phylisia Dimas**, NAMRU San Antonio

#14798 *Informing the Need for a SARS-CoV-2 Booster Vaccine Based Upon the Immune Responses Among U.S. Active-Duty Sailors to Late 2024 Variants* — **LCDR Huy Nguyen**, NAMRU INDO PACIFIC

#14829 *A Phase 1 Double-Blinded, Randomized, Placebo-Controlled Study Assessing Safety and Tolerability of a Pre-/Post-Exposure Prophylactic Transchromosomal Bovine Derived Anti-Influenza Human Immunoglobulin* — **LCDR Javier De Luca-Johnson**, NMRC

#15076 *Development of an Advanced Phage Library to Overcome Phage-Resistant ESKAPE Pathogen Infections* — **Biswajit Biswas**, NMRC

#15148 *A Clinically Translatable Model of Prolonged Casualty Care Following Polytraumatic Hemorrhagic Shock in Cynomolgus Macaques (Macaca Fascicularis)* — **Erica Molina**, NAMRU San Antonio

#15149 *Recent back and neck pain diagnoses and the impact on deployment readiness* — **Andrew MacGregor**, NHRC

#15169 *A healthy human microbiome-informed method for enhancing in silico predictions of therapeutic phage safety* — **Quinn Thomas**, NMRC

#15258 *Spinal loads during vertical vibration exposure* — **Andrew Spencer**, NAMRU Dayton

#15472 *Revealing the Dynamics of Infections Among Febrile Patients in a Military Hospital: Examining the Role of Multiplex PCR Panel* — **Shirley Nimo-Paintsil**, NAMRU EURAFCENT

POSTERSESSION1

TUESDAY / AUG 5 / 1000-1200

#15671 Near-Infrared High Energy Laser Exposure to the Great Vessels of the Neck Does Not Induce a Systemic Effect in a Goat Model (*Capra aegagrus hircus*) of Combat-Relevant Injury — **Skyler Ruiz**, NAMRU San Antonio

#15705 Etiology and impact of enteric disease to deployed U.S. military personnel in Honduras, 2015-2023 — **Jesus Rojas**, NAMRU SOUTH

#15847 Pirfenidone-Encapsulated Liposomes Inhibit Epithelial Mesenchymal Transition in an In Vitro Model of Proliferative Vitreoretinopathy — **Heuy-Ching Wang**, NAMRU San Antonio

#16063 The Host Response Biomarker Pancreatic Stone Protein Distinguishes Sepsis Survivors from Non-Survivors in a Global Cohort — **Josh Chenoweth**, NMRC

#16499 Characterization of Superficially Penetrating Radiofrequency Energy in Wound –Healing Fibroblasts — **CDR Rachel Werner**,



POSTERSESSION2

TUESDAY / AUG 5 / 1530-1730

#13586 *Fifteen-Year Health Outcomes following Lower Limb Amputation and Serious Extremity Injury in Operations Enduring and Iraqi Freedom: A Retrospective Analysis* — **Ted Melcer**, NHRC

#13713 *Reproductive Dysfunction in Marine Recruits During Boot Camp* — **Emily Kloss**, NHRC

#14015 *Impact of U.S. Marine Corps Recruit Training on Hormone Status in Male and Female Marine Recruits* — **Lauren Visconti**, NHRC

#14200 *Engineering Neutrophil-membrane Coated Nanoparticles as an Effective Drug Delivery System During Ischemia Reperfusion Injury on the Battlefield* — **Jessica Saul-McBeth**, NAMRU San Antonio

#14267 *Concussion Predicts New-Onset PTSD Diagnosis Following a Multiple Casualty Incident* — **Andrew MacGregor**, NHRC

#14446 *Using Big Data to Monitor Health Promotion Metrics: Smoking and Electronic Cigarette Use among U.S. Navy and Marine Corps Personnel* — **James Romine**, NHRC

#14451 *Leveraging Machine Learning to Predict Mental Health Referral Follow-up among U.S. Military Personnel* — **Juan Diego Vera**, NHRC

#14566 *Assessment of the Effects of Blast Overpressure Exposure (BOP) on a Rat Model of Spinal Cord Injury (SCI)* — **Maiya Snowton**, NMRC

#14575 *Impact of Marine Corps Boot Camp on Body Composition Changes: Difference between Sex* — **Laura Palombo**, NHRC

#14608 *The Relationship between Gender and Combat-related Experiences on Probable PTSD: Findings from the Post-Deployment Health Assessment, 2012-2022* — **Jessamyn Boltz**, NHRC

#14657 *Location-specific musculoskeletal injury risk following mild traumatic brain injury among United States service members* — **Alexander Posis**, NHRC

#14860 *Prehospital Lyophilized Cryoprecipitate Improves Coagulation Function and Blood Pressure Compared to Crystalloid in a Nonhuman Primate Polytrauma Hemorrhage Model* — **Clifford Morgan**, NAMRU San Antonio

POSTERSESSION2

TUESDAY / AUG 5 / 1530-1730

#14891 *Inhibition of ADAM 17 mitigates chronic inflammatory dysregulation associated with exposure to repetitive low-level blast —*

Rania Abutarboush, NMRC

#14980 *Predicting Adverse Career Outcomes in The U.S. Submarine Force To Identify Targets for Early-Career Support Interventions*

— **David Clark, NSMRL**

#14999 *Prevalence and Risk Factors for Peripartum Cardiomyopathy among Active-Duty Servicewomen —*

MAJ Laura Manzo, NHRC

#15725 *Compliance with Pregnancy-recommended Vaccinations among United States Military Service Members, 2016-2023 —*

Monica Burrell, NHRC

#15882 *Does a history of an operative pelvic injury influence the mode of delivery in childbirth? A retrospective review —*

Jasmine Scott, NHRC



POSTERSESSION3

WED / AUG 6 / 1000-1200

#13674 *Early Postinjury Correlates of Screening for Acute Stress Disorder using the Post Deployment Health Assessment* — **Ted Melcer**, NHRC

#13694 *Sex and seasonal differences in Vitamin D status in San Diego Marine recruits* — **Andrea Givens**, NHRC

#13733 *Cumulative Stress and Cardiovascular Health among Contemporary U.S. Service Members: The Millennium Cohort Study* — **Sheila Castaneda**, NHRC

#13763 *The Impact of Problematic Anger on Relationship and Family Functioning in Military Couples: Findings from the Millennium Cohort Program* — **Cynthia LeardMann**, NHRC

#13979 *Evaluation of Per- and Polyfluoroalkyl Substance (PFAS) Exposure Effects on Human Induced Pluripotent Stem Cell-Derived Motoneurons* — **Eric Romer**, NAMRU Dayton

#14083 *How is Spouse Employment Influenced by Military Moves and Military Work-Family Conflict?* — **Hope McMaster**, NHRC

#14121 *Pilonidal Disease: Recent Burden of the Disease and Treatment Strategies Among U.S. Military Service Members* — **LCDR Dylan Griffiths**, NHRC

#14135 *Sex-dependent effects of cold acclimation and acute cold exposure on hippocampal function and cognitive performance* — **Joyce Rohan**, NAMRU Dayton

#14182 *Novel and acute febrile illness-associated viruses in ticks in Georgia (South Caucasus) identified via genomic surveillance* — **Adrian Paskey**, NMRC

#14225 *Be A Depression Lifeline (BADL): A Help-Seeking Intervention Research Protocol* — **Karen Tannenbaum**, NHRC

#14259 *Rotary-wing Aircraft Relevant Whole-Body Vibration Exposures Cause Muscle Weakness in a Rat Model* — **Shannon Romer**, NAMRU Dayton

#14281 *Evaluating the Satisfaction of the Advance Integrated Resilience System (AIRS) Training Component among Active Duty Navy Sailors* — **Vanessa Perez**, NHRC

POSTERSESSION3

WED / AUG 6 / 1000-1200

#14351 *Predictors of Healthcare Utilization among Military Spouses: Findings from the Millennium Cohort Family Study* — **Travis Ray**, NHRC

#14366 *Wearable Sleep Tracking in USMC Aviation: Acceptability, Feasibility, and Implications for Fatigue Mitigation* — **Daniel Bennett**, NHRC

#14558 *Help-Seeking and Disclosure among Men who Experienced Military Sexual Trauma* — **Lauren Hurtado**, NHRC

#14562 *In silico methodology for rapid assessment of potential Parkinson's Disease associated chemicals for environmental exposure research* — **Laura Olsen**, NAMRU Dayton

#14583 *Disease Chronicity and Mortality in Young Children with Medical Complexity Born to Military Families* — **Jackie Lanning**, NHRC

#14689 *Assessment of Energy Balance in United States Navy Explosive Ordnance Disposal Candidates* — **LT Matthew Peterson**, NHRC

#14694 *Using a Digital Clinician Decision Support Platform to Treat Insomnia in Service Members with a History of Traumatic Brain Injury* — **Emmanuel Espejo**, NHRC

#14728 *Earth Vertical Motions Disrupt Sleep and Next Day Performance* — **Dan Merfeld**, NAMRU Dayton

#14729 *Comparison of Navy Body Composition Assessment (BCA) Standards to Other Methods of Body Composition Assessment* — **Lynn Cialdella-Kam**, NHRC

#14797 *Alcohol Use and Reduced Bystander Intervention: The Mediating Roles of Comfort with Sexism and Bystander Efficacy among Navy Service Members* — **Travis Ray**, NHRC

#14814 *Strategic Importance of Febrile Illness Surveillance in the AFRICOM region* — **Rania Nada**, NAMRU EURAFCENT

#14828 *Biosurveillance of vector-borne pathogens associated with ticks, fleas and sandflies in tropical environments, using Malaysia as a study model* — **LCDR Irina Etobayeva**, NAMRU INDO PACIFIC

POSTERSESSION3

WED / AUG 6 / 1000-1200

#14835 *Surveillance of respiratory threats among Peruvian military personnel and beneficiaries to inform force health protection and opportunities of vaccination countermeasures* — **Steev Loyola**, NAMRU SOUTH

#14962 *Identifying Predictors of Unplanned Loss in the U.S. Submarine Force* — **David Clark**, NSMRL

#14995 *The Association between Preservice Factors and Combat Exposures on New-Onset Posttraumatic Stress Disorder* — **Diane Williams**, NHRC

#15008 *Trends in Pre-Service Characteristics among Male Marine Recruits from 2001-2021* — **LT Nathan Carnes**, NHRC

#15110 *Strategic Importance of Respiratory Surveillance in USCENTCOM Region* — **Mayar Said**, NAMRU EURAFCENT

#15205 *Physiological and Cognitive Responses of Navy Divers under Prolonged Cold Water Immersion* — **Krystina Diaz**, NSMRL

#15210 *Using Existing Health Assessments to Improve Screening and Referral Protocols: Depression following Military Deployment* — **Andrew MacGregor**, NHRC

#15216 *Perspectives on Occupational Stress and Coping among Active-Duty Submariners* — **Krystina Diaz**, NSMRL

#15292 *Evaluation of a Shortest Path Solution for Calculating Interbeat Intervals from Noisy Photoplethysmography Signals* — **Anna Jane Brown**, NSMRL

#15333 *Medical Waivers among U.S. Navy Divers* — **Linda Hughes**, NSMRL

#15359 *Patterns of Help-Seeking Among Men Who Experienced Military Sexual Trauma* — **Sarah Carinio**, NHRC

#15460 *Durability, Effectiveness, and Acceptability of Etofenprox and Permethrin Treated Uniforms and Metofluthrin Spatial Repellent among Active-duty Malaysian Armed Forces Soldiers in Malaysia* — **Badrul Hisham bin Abdul**, NAMRU INDO PACIFIC

#15478 *Next Generation Sequencing of Crimean-Congo Hemorrhagic Fever Virus Suggests Possible Circulation of Different Strains in Ghana* — **Shirley Nimo Paintsil**, NAMRU EURAFCENT

#15800 *First molecular detection of leishmania infantum in blood-engorged lutzomyia longipalpis and pintomyia evansi from Comayagua state, Honduras* — **Adalid Palma**, NAMRU SOUTH

POSTERSESSION3

WED / AUG 6 / 1000-1200

#15814 *Frequency of kdr mutations associated with pyrethroid resistance in aedes aegypti populations from Tegucigalpa city, Honduras* — **Adalid Palma**, NAMRU SOUTH

#15844 *Visual Performance of Remotely Piloted Aircraft Operators While Wearing Optical Filters* — **CDR Erica Poole**, NAMRU Dayton

#16045 *Surveillance of Arthropods and Associated Infectious Disease Pathogens in the Lao People's Democratic Republic* — **LCDR Irina Etobayeva**, NAMRU INDO PACIFIC

#16560 *Advanced Development of a Tablet-Based Neurocognitive Testing Capability for Undersea Environments* — **Justin Handy**, NSMRL



