

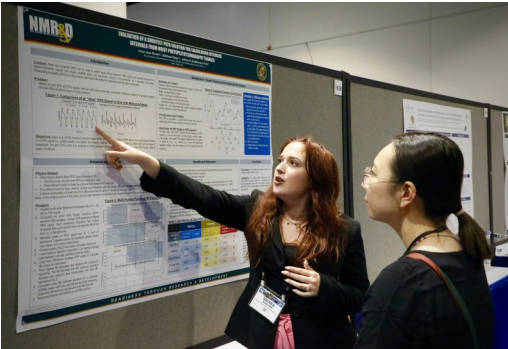
NM R&D

NAVY MEDICINE **RESEARCH & DEVELOPMENT**



2026 MHSRS EVENT GUIDE

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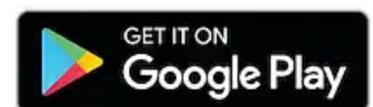


NMR&D is proud to return to this year's Military Health System Research Symposium. This year we will lead over two dozen breakout sessions and have nearly a hundred posters on display. The NMR&D exhibit is located in the exhibit hall at booth 225.

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

Follow the below steps to download the EventPilot mobile app:

- Select the appropriate QR code or search for "EventPilot" in your device store. Install and open the app.
- Enter Access Code "MHSRS26" in the text field and click on the search icon.
- You will see "Event Found" and the 2026 MHSRS app will automatically open on your device.



NMR&D GROUP PHOTO TUESDAY | AUG. 4 | 1215-1245

We plan to take the photo on the lawn outside, across from the dining area and below the walkway. Meet there by 1210. Photo at 1215. All NMR&D personnel are encouraged to attend.

BREAKOUTSESSIONS

The information that follows is based on data provided by participating commands and verified against the official MHSRS breakout schedule and EventPilot mobile application at the time of publication. Presentation times, locations, presenters and poster assignments remain subject to change. Please consult the EventPilot app for the most current schedule.

MONDAY | AUG. 3

1330-1345 | Sun A

Novel Cell-Mediated RNA-Based Antimicrobial Solutions to Prevent Combat Wound Infections Suited for Austere Conditions

Yoann Le Breton, NMRC

1445-1500 | Coastal D-910

Factors Impacting Sleep Across Deployment in United States Navy Aviation Personnel

Alice LaGoy, NHRC

1445-1500 | Sun D

Occupations at High Risk for Low-Level Blast Exposure & Suicide Among United States Service Members & Veterans

Neika Sharifian, NHRC

1530-1545 | Coastal B-45

Military Cancer Outcomes Research (MilCan): Linking Military Occupational & Environmental Exposures to Cancer Outcomes

Erin L. Richard, NHRC

1615-1630 | Sun C

Field Testing Autonomous Heated Footwear for Frostbite Prevention in Extreme Cold Environments

Doug Jones, NHRC

1615-1630 | Coastal B-45

PFAS Exposures in Military Firefighters Enrolled in the Millennium Cohort Study

Rudolf Rull, NHRC

1700-1715 | Sun B

Mapping Sensory-Motor Boundaries in Augmented Reality: Implications for Vestibular Rehabilitation

Vrajeshri Ordek, NHRC

1700-1715 | Coastal C-678

Production of Shelf-Stable PCR Reagents that are Deployed at Ambient Conditions Strengthening Supply Chain Stability

Mark Munson, Luis Estrella, NMRC



TUESDAY | AUG. 4

0830-0845 | Sun A

Accelerating Force Health Protection: Humanized HIS DRAGA Mouse as a Preclinical Platform for Infectious Disease Countermeasures
Sofia Casares, NMRC

1300-1315 | Coastal B-45

U.S. Military Service Characteristics & Health Behaviors Impact Dental Readiness
Rudolf Rull, NHRC

1430-1445 | Coastal B-45

Integrating Phage Therapy into Endodontics for Increased Operational Readiness: Biofilm Reduction and Phage-Sealer Compatibility
Yoon Hwang, NAMRU-SA

WEDNESDAY | AUG. 5

0800-0815 | Sun C

Beyond Unemployment: An Assessment of Underemployment, Dissatisfaction, and Career Impact Among U.S. Military Spouses
Kelly Woodall, NHRC

0830-0845 | Sun A

Modular Phage Therapeutics: A New Class of Living Drugs to Combat Superbugs
Biswajit Biswas, NMRC

0915-0930 | Sun C

Children Serve Too: Military Life Stress Among the Children of Newly Enrolled Millennium Cohort Family Study Participants
Sabrina M. Richardson, NHRC

0915-0930 | Coastal B-45

Validation of the Bethesda Eye & Attention Measure for Multimodal Screening & Longitudinal Monitoring of Mild TBI
Mark L. Ettenhofer, NHRC

0945-1000 | Sun A

Advancement of Pathogen-Agnostic CLAROMER Peptoids as Deployable Countermeasures for Battlefield Wound Infection Treatment
Zachary Rivas, NMRC

1300-1315 | Sun D

Convergence of Hogan Derailment Risk and Multisource Leadership Feedback in U.S. Navy Submarine Operations
Dana Dilweg, NSMRL

1330-1345 | Sun D

Diving Effects of Excess CO₂ and O₂: Multiomic Characterization of Physiological Responses to Hyperbaric Hypercapnic Hyperoxia
Luke Belval, NSMRL

1345-1400 | Sun D

Inert Gas Elimination in the Injured Lung
Michelle R. Jennette, NMRC

WEDNESDAY | AUG. 5 (CONT)

1400-1415 | Coastal C-678

Exceptional Physical Fitness Associated with Decreased First-Term Attrition in U.S. Navy Recruits

Meg Robinson, NHRC

1400-1415 | Sun D

Predicting Middle Ear Barotrauma Using Eustachian Tube Function Tests in Recruits Undergoing Pressurized Submarine Escape Training

Kristine Sonstrom-Malowski, NSMRL

1430-1445 | Sun D

Informative Data Science to Predict Performance-Limiting Pulmonary Symptomatology for Divers

Nicholas Napoli, NSMRL

THURSDAY | AUG. 6

0900-0915 | Sun D

Wearable Data Utility and Perceived Value: Lessons Learned from Monitoring Sleep on Nine Warships During Navy Deployments

Rachel Markwald, NHRC

1000-1015 | Sun B

In Vitro Vascular Endothelial Response to a Novel Whole Blood Analogue for Resuscitation

Dao Ho, NAMRU-SA

1145-1200 | Coastal A-123

95 GHz Radiofrequency Energy Elicits Unique Functional and Molecular Changes in Immune and Vascular Endothelial Cells

Liliane Moorhead, NAMRU-SA

1200-1215 | Coastal A-123

Modeling Directed-Energy Laser Injury Using Human iPSC-Derived Retinal Pigment Epithelium

Hope Newcomer-Neeson, NAMRU-SA

1300-1315 | Coastal A-123

Distinctive Muscular Injury Following Near-Infrared High-Energy Laser (NIR-HEL) Exposure

Dickson Kirui, NAMRU-SA



POSTERSESSIONS

POSTER SESSION 1

TUESDAY | AUG. 4 | 1000-1200 | EXHIBIT HALL D-F

3103 | *Resistance to Permethrin in Aedes aegypti from Dengue-Endemic Regions in Honduras*
Adalid Palma, NAMRU SOUTH

3111 | *Characterization of Antimicrobial Resistance in ESKAPE-E Pathogens from Four Hospitals in Honduras, 2023-2025*
Faviola Reyes, NAMRU SOUTH

3104 | *Integrated Dengue Virus and Genetic Insecticide Resistance Surveillance in Aedes aegypti from Iquitos, Peru*
LCDR Ryan Moore, NAMRU SOUTH

800 | *Strengthening Respiratory Surveillance to Protect Military Readiness: Rapid Etiologic Investigation of Respiratory Outbreaks in Peruvian Armed Forces*
Steev Loyola, NAMRU SOUTH

3201 | *Geospatial Modeling of Arbovirus Threats in Southwest Nigeria: A Strategic Risk Assessment*
Hala Bassaly, NAMRU-EAC

3200 | *Shifting Anopheline Vector Dynamics in Djibouti: The Reappearance of Native Malaria Vectors After a Decade of Anopheles stephensi*
Alia Zayed, NAMRU-EAC



601 | *Characterization of Antimicrobial Resistance Phenotypes in Surgical Site Infections at a Military Hospital in Cameroon*

Isabelle Nakhla, Rania Nada, NAMRU-EAC

3202 | *Pfhrp2/3 Gene Deletions and Antimalarial Resistance Genes in Plasmodium falciparum Malaria Patients in Sindh, Pakistan*

Hanan ElMohammady, Rania Nada, NAMRU-EAC

806 | *Strategic Relevance of Respiratory Surveillance Among U.S. Troops Deployed in AFRICOM and CENTCOM Post-COVID-19*

Mayar Said, NAMRU-EAC

709 | *Identifying Symptom Phenotypes and Their Association with Respiratory Pathogens Using Latent Class Modelling*

Shirley Nimo-Paintsil, Eric Behene, NAMRU-EAC

3203 | *Wastewater Surveillance for Emerging Infectious Disease Pathogens in a Military Hospital in Ghana*

Naiki Attram, NAMRU-EAC

3013 | *Integration of Real-World Biosurveillance at SOCAF Multi-National Military Exercise, Flintlock 2026*

CDR Rebecca Pavlicek, NAMRU-EAC

507 | *Injury Epidemiology & Bacteriologic Characteristics of Inpatient Bone, Joint & Soft Tissue Wound Infections in Hanoi, Vietnam*

Chu Thanh Binh, CAPT Robert J. Carpenter, NAMRU-IP

1402 | *Lower Extremity Fractures and the Impact on Medical Readiness in the U.S. Navy and Marine Corps*

Andrew MacGregor, NHRC

2303 | *Understanding Limitations of Fatigue Risk Performance Modeling for Military Operators*

Sarah Chabal, NHRC

2501 | *Neurocognitive Eye Tracking Predicts Simulated Operational Readiness: A Longitudinal Study in Active-Duty Service Members with Subacute and Chronic Mild Traumatic Brain Injury*

Mark Ettenhofer, NHRC

1906 | *Discovering Disease and Injury Associations Among Combat Veterans Using Diagnosis Groups and Topic Modeling*

James Zouris, NHRC

2700 | *Combat Exposure and Mental Health Among U.S. Navy Sailors Deployed to a Combat Zone*

Cameron McCabe, NHRC

2907 | *Disentangling the Effects of Problematic Anger and PTSD Symptoms on Intimate Partner Violence Among U.S. Military Couples*

Hope McMaster, Travis Ray, NHRC

1700 | *Fifteen-Year Health Outcomes Following Upper Limb Amputation and Serious Extremity Injury in Operations Enduring and Iraqi Freedom: A Retrospective Analysis*

Ted Melcer, NHRC

1907 | *Pre-Deployment Health Assessments: Using Machine Learning to Assist Military Health Care Providers in Predicting Non-Deployability*

Nicholas Chao, NHRC

2300 | *Evaluating Mobile Application Usage Among Active-Duty Navy Sailors: A Cross-Sectional Evaluation*

Vanessa Perez, NHRC

2908 | *Sexual Assault Among U.S. Military Spouses: Findings from the Millennium Cohort Family Study*

Travis Ray, NHRC

1905 | *Sequential Machine Learning Model for Predicting Cardiovascular Physical Readiness Test Failure*
Meg Robinson, NHRC

2906 | *The Social Cost of Moving: How Permanent Change of Station Moves and School Changes Affect Military Adolescent Friendships*
Neika Sharifian, NHRC

2103 | *Continually Adapting Language Models for Sailor Clinical Notes*
Justin Stamets, NHRC

703 | *Characterization of 2025-2026 Seasonal Influenza Strains by Antigenic Cartography and IRINA*
LT Austin Folger, NMRC

710 | *Illuminating Klebsiella pneumoniae Infections: A Bioluminescent Platform for Longitudinal Assessment of Antibacterial Efficacy*
Gabrielle Corley Bernstein, NMRC

402 | *MEG Reveals Vaccination Protection from Dengue-Related Reductions in Global Resting State Brain Activity in Nonhuman Primates*
Jennifer Stapleton-Kotloski, NMRC

110 | *Efficacy of a Novel Antimicrobial Peptide in Eradicating Multidrug-Resistant Bacterial Infections and Biofilm*
John C. Vitucci, NMRC

502 | *Genomic Analysis of Acinetobacter baumannii Post-Phage Exposure Reveals the Loss of a Conjugative Plasmid Carrying an Integrin*
Lidimarie Trujillo Rodriguez, NMRC

602 | *Evaluation of Field-Deployable Broadly Neutralizing Monoclonal Antibodies to Counter MRSA Infections in Combat Wounds*
Lucas Brown, NMRC

204 | *Engineering Antimicrobial RNA Therapeutics to Combat Staphylococcus aureus in Human Cell Models of Combat Wound Infections*
Mackenzie Ryan, NMRC

3311 | *Impact of Carbon Dioxide on Simulated Disabled Submarine Survival and Decompression Sickness at 5 ATA Air in a Swine Model*
Miriam Weiss, NMRC

708 | *Synthetic Alteration of Bacteriophage Expands Lytic Spectrum and Suppresses Resistance in Multidrug-Resistant Bacteria*
Nicholas Poplawski, NMRC

3300 | *An Examination of Adverse Events Associated with Schedule II Stimulant Waivers Among Divers*
Anna Oppenheimer, NSMRL

3304 | *Evaluating the Impact of Risk Prediction Using Machine Learning for Prevention of Unplanned Losses in the Submarine Force*
Dominica Hernandez, NSMRL

3310 | *Quantifying Grip Endurance for Submarine Escape: A Case for Two-Handed Escape Release Device Design*
Eric DuBois, Dylan Holly, NSMRL

3308 | *Feasibility Testing Supports Tablet-Based Neurocognitive Assessment During Cold Water Dives While Wearing Thermal Protective Gear*
Justin Handy, NSMRL

3212 | *Common Stress Coping Strategies Among U.S. Submariners: Perspectives from the Foundry to the Fleet*

Krystina Diaz, NSMRL

2412 | *Subjective and Objective Indicators of Fatigue as Predictors of Performance on a Sustained-Attention Sonar Task*

Sierra Nastasi, NSMRL

2309 | *Individual Training Performance Is Correlated with Outcomes on a Sonar Operator Task*

Sylvia Guillory, NSMRL

3303 | *Understanding Help-Seeking Behaviors in the U.S. Submarine Force: Comparing Non-AI and AI-Augmented Qualitative Analytic Methods*

Sruthi Chintalacharuvu, NSMRL

POSTER SESSION 2

TUESDAY | AUG. 4 | 1530-1730 | EXHIBIT HALL D-F

2802 | *Incidence of Intracranial Injury Among Active-Duty Pilots and Aircrew*

Charles Weisenbach, LCDR Ian McIver, NAMRU Dayton

1808 | *Bilateral Zygomatic Fracture Model in Sheep for Evaluation of Resorbable Fixation Implants*

Daniel Thompson, Nancy Millenbaugh, NAMRU-SA

310 | *Evaluation of a Field-Deployable Whole Blood Analog for Resuscitation in a Cynomolgus Macaque Model of Hemorrhagic Shock*

Erica Molina, NAMRU-SA

311 | *Evaluation of Coagulation for Whole Blood Analog in a Prolonged Casualty Care Scenario Using a Cynomolgus Macaque Hemorrhage Model*

Peter Hemond, Melissa Romero, NAMRU-SA

1804 | *The ROSS M1 Sterilization Impact on the Emergency Reuse of Disposable Dental Instruments and 3D-Printing Materials*

Tarea Burton, Andres Martinez Murillo, NAMRU-SA

709 | *Drone-Related Injuries Among United States Military Personnel from 2023-2024*

Jessamyn Boltz, NHRC

1105 | *Preclinical Evaluation of a Spray-On Nanopolymer Hydrogel for Full-Thickness Burn Management in a Porcine Prolonged Field Care Model*

Crystal Leonhardt, NMRC

2406 | *Temporal and Dose-Dependent Changes in Neurodegenerative Markers After Blast Overpressure Exposure*

Usmah Kawoos, NMRC

103 | *The Role of the Gut Microbiome on Submariner Health and Performance During a Seven-Month Deployment*

Zachary Liechty, John Florian, NSMRL

POSTER SESSION 3

WEDNESDAY | AUG. 5 | 1000-1200 | EXHIBIT HALL D-F

1506 | *Neuromodulation of the Anti-Inflammatory Reflex During the Development of Noise-Induced Hearing Loss*

Elliott Dirr, NAMRU Dayton

812 | *Thinking in 3D: Electromagnetic Radiation Exposure in a Novel 3D In Vitro Model*

Brooke McGill, Jenny Mendez, NAMRU-SA

811 | *High-Power Acoustic Model for Early Cellular Stress Signaling*

Cally Moore, Isaac Abasah, NAMRU-SA

1511 | *An Evaluation of Non-Care Seeking for Tinnitus in the Military Health System*

Andrew MacGregor, NHRC

1811 | *Sexual Assault Reporting in United States Military Personnel: Findings from the Millennium Cohort Study*

Anna Baccetti, NHRC

1809 | *Comparison of Provider Types Referring to Mental and Behavioral Health Care on the Post-Deployment Health Assessment, 2012-2022*

Jessamyn Boltz, NHRC

1805 | *Mental Health Disorders Impact Aboard U.S. Navy Shipboard Personnel, 2016-2020*

CDR Ryan Smith, NHRC

2912 | *A Novel Survey of U.S. Navy Sailors to Inform the Design of Next-Generation Shipboard Mattresses That Improve Sleep and Readiness*

Evan Chinoy, NHRC

204 | *Military Occupations with and Without Presumed Jet Fuel Exposures and miRNA Expression Following Military Deployment*

Matthew Igo, NHRC

206 | *Conserved MicroRNA Signatures Associated with Burn Pit Exposure Identified Through Cross-Cohort and Longitudinal Analysis in Military Personnel*

Aarti Gautam, NHRC



3304 | *Relationships Between Stimulant Use, Screen Time, Sleep, and Fatigue in Deployed U.S. Sailors*
J. Eduardo Uriarte, NHRC

600 | *Comparison of Tactical Combat Casualty Care Skills in Arctic and Temperate Environments*
Douglas Jones, NHRC

3200 | *Chronic Polyphenol Supplementation Effects on Physiological and Cognitive Responses to Cold Water Immersion*
Lynn Kam, Michael Stone, NHRC

1810 | *Impact of USMC Recruit Training on the Stress Response in Male Recruits*
Karen Kelly, NHRC

2905 | *Differences in Clinical Sleep Outcomes and Mood During Dayshift and Nightshift Schedules in U.S. Navy Watchstanders*
Emily Moslener, NHRC

202 | *Age-Related Deployment and Combat Exposure and Risk of New-Onset Asthma in the Millennium Cohort Study*
Sahra Mohazzab-Hosseini, NHRC

2904 | *Through the Ring: Stress Testing Oura Ring 4 Sleep-Tracking Performance in Multiple Operational U.S. Navy Contexts*
Remington Mallett, NHRC

1800 | *Occupations of Peak Physical Performance in the U.S. Navy*
Meg Robinson, NHRC

1808 | *Tobacco Use and Physical Fitness Activity Among U.S. Navy and Marine Corps Personnel: Longitudinal Results from the Annual Periodic Health Assessment, 2017-2021*
James Romine, NHRC

2903 | *Military Occupation and Sleep Trends: Longitudinal Results from the Annual Periodic Health Assessment of Active-Duty U.S. Navy and Marine Corps Personnel, 2017-2021*
James Romine, NHRC

1500 | *How Vestibular Symptoms and Imbalance Relate to Performance on Two Dynamic Balance Virtual Environments*
Kerry Rosen, NHRC

602 | *Evaluation of Casualty Hypothermia Protection with the CASEVAC EcoSystem*
MAJ Titus Rund, NHRC

1802 | *Evaluation and Validation of Three Abbreviated Posttraumatic Stress Disorder Checklist Measures in the Millennium Cohort Study*
Neika Sharifian, NHRC

3201 | *Comparison of Micronutrient Intakes of Navy Officer Candidates to Military Dietary Reference Intakes at Officer Training Command*
Michael Stone, Trisha Sterringer, NHRC

3202 | *Operationalizing Nutrition: Lessons Learned Across Navy Populations*
Michael Stone, Lynn Cialdella-Kam, NHRC

2901 | *Testing Alternative Shipboard Mattresses to Improve Sleep and Readiness in U.S. Navy Surface Sailors*
Trevor Viboch, NHRC

601 | *Influence of Tyrosine Supplementation on Cognition and Physiology During Outdoor Cold Stress*
Patrick Zacher, NHRC

