NAVY MEDICINE

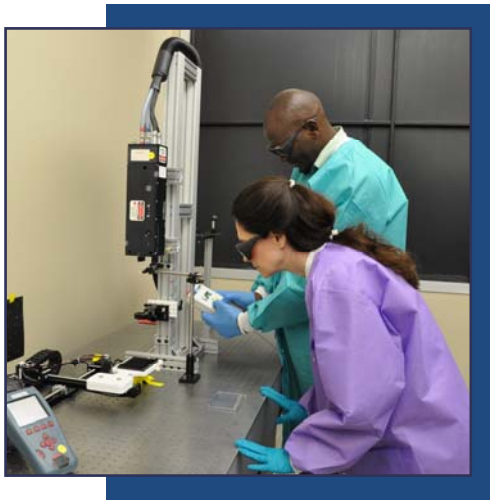
WORLD-CLASS CARE...ANYTIME, ANYWHERE

NAVAL MEDICAL RESEARCH UNIT SAN ANTONIO

Naval Medical Research Unit San Antonio (NAMRU-SA) is located on the San Antonio Military Medical Center campus, Joint Base Fort Sam Houston, Texas. NAMRU-SA serves as one of the leading research and development laboratories of the U.S. Navy under the Department of Defense and is one of eight subordinate research commands in the global network of laboratories operating under the Naval Medical Research Center (NMRC), Silver Spring, Maryland.

MISSION

Conduct medical, craniofacial, and biomedical research, which focuses on ways to enhance the health, safety, performance, and operational readiness of Navy and Marine Corps personnel and addresses their emergent medical and oral/facial problems in routine and combat operations.



VISION

Provide innovative, translational research that optimizes warfighter readiness and saves lives.

CAPT Elizabeth A. Montcalm-Smith
Commanding Officer

CAPT Barry Adams
Executive Officer

Join the Conversation: @navalmedicalresearchcenter

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http://www.med.navy.mil/sites/nmrc/Pages/namrusa.htm

NAVAL MEDICAL RESEARCH UNIT SAN ANTONIO

Research Directorates and Departments

Combat Casualty Care and Operational Medicine

Expeditionary and Trauma Medicine Department

Expeditionary and Trauma Medicine Department conducts RDT&E focused on the protection, resuscitation, and stabilization of combat casualties at frontline points of care in the combat theater. The Trauma Medicine Group focuses on primary and pre-clinical RDT&E for the development and optimization of drug products and advanced therapies for the treatment of hemorrhagic shock. The Expeditionary Medicine Group works to identify and effectively mitigate stressors and improve survivability through the evaluation of products and agents that deliver capabilities to meet rapidly evolving expeditionary warfare requirements.

Cellular and Immune Based Adjuncts for Casualty Care Department

Cellular and Immune Based Adjuncts for Casualty Care Department conducts RDT&E on stem cell and immune based therapeutics intended to improve warfighter outcomes and survival. The division of stem cell therapeutics focuses on the comparison and assessment of stem cells from different tissue sources, the assessment of protein secretomes or exosomes for preventing and reducing injury from trauma/hemorrhagic shock, and the targeted treatment of severe tissue defects in order to promote tissue repair. The division of immune based therapeutics focuses on immunomodulation to prevent and reduce tissue and organ damage resulting from trauma and hemorrhagic shock.

Biomedical Systems Engineering and Evaluation Department

Biomedical Systems Engineering and Evaluation Department applies engineering principles and design concepts to develop and evaluate medical devices, treatments, and diagnostic tools used in military medicine. Core capabilities include advanced trauma mannequin systems and expertise designing human subjects research studies to evaluate design, safety, efficacy, and human factors aspects of medical devices deployed in prehospital medicine. The department also provides broad engineering expertise for a diverse portfolio of projects within the laboratory, including design and prototype development, computational modeling, custom machining/fabrication, and software development/automation. Recent development efforts include a field-portable sterilization system, an automated electrospinning system used to generate nanofiber scaffolds for wound care, and an imaging system for assessing dental pulp vitality.

Craniofacial Health and Restorative Medicine

Epidemiology and Biostatistics Department

The Epidemiology and Biostatistics Department studies the distribution of oral, dental, and craniofacial diseases and injuries occurring in Sailors and Marines. Research is directed toward the improvement of diagnosis, treatment, and prevention of oral/dental diseases and injuries that affect the health and readiness of Sailors and Marines while deployed or in garrison.

Maxillofacial Injury and Disease Department

The Maxillofacial Injury and Disease Department conducts research on the microbiology, immunology, etiology, diagnosis, and treatment of medical and dental diseases, especially infections and biofilms that are resistant to currently used antibiotics. Novel laser-acoustic methods and nanoparticle technologies are being studied to increase the armamentarium available to clinicians for the treatment of resistant infections.

Biomaterials and Environmental Surveillance Department

The Biomaterials and Environmental Surveillance Department conducts research, development, testing and evaluation of biomaterials used in medicine and dentistry. As the lead agent for mercury abatement in Navy Dental Treatment Facilities, the department is responsible for the development and testing of systems and technologies that minimize the environmental impact and occupational hazards of Navy Dentistry.