supports the Military Health System (MHS) in areas including but not limited to: Personalized/Precision Medicine; Military and Family Health & Resilience; Regenerative / Restorative Medicine; Disease, Injury & Pain Management; The Tri-Service orthopedic outcome-based research program, and the disease/non-battle musculoskeletal injury surveillance program for active-duty service members.

In collaboration with the Air Force Medical Evaluation and Support Activity (AFMESA) at Ft. Detrick, MD, the CAMD tests and evaluates new systems, methods of analyses, and detection platforms to improve mission effectiveness, which includes reliability studies for field transitions and medical readiness.

CAPABILITIES

Personnel:

The Center is staffed with a highly-qualified team which includes research coordinators, clinical and research scientists, certified laboratory technologists, a QA/QC manager, and an Air Force NCOIC.

Protocol Monitoring:

Clinical research coordinators support new protocol development, ongoing protocol management, assistance with Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC) amendments and reports, as well as database support and maintenance.

External Collaborations/Support:

We provide expert scientific and regulatory consultations to investigators interested in collaborating with DoD projects which align with and meet current military needs and strategic goals. In support of our education and training mission, the CAMD mentors graduate, post-graduate, GME/SAUSHEC students from our fellow academic collaborators. The Center provides assistance/support in the design, drafting, submission, and execution of both, intramural and extramural biomedical and clinical research efforts with partners in Academia, DoD, Dept. of Veterans Affairs, and Industry.

Administrative/Internal Support:

The CAMD has access to the following accredited 59 Medical Wing (MDW) in-house organizations: the Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), and the Office of Research and Technology Applications (ORTA) to assist in the development and conduct of human and animal studies as well as their respective technology transfers, for complete support of a medically ready force.

PARTNERSHIPS

UT Health San Antonio

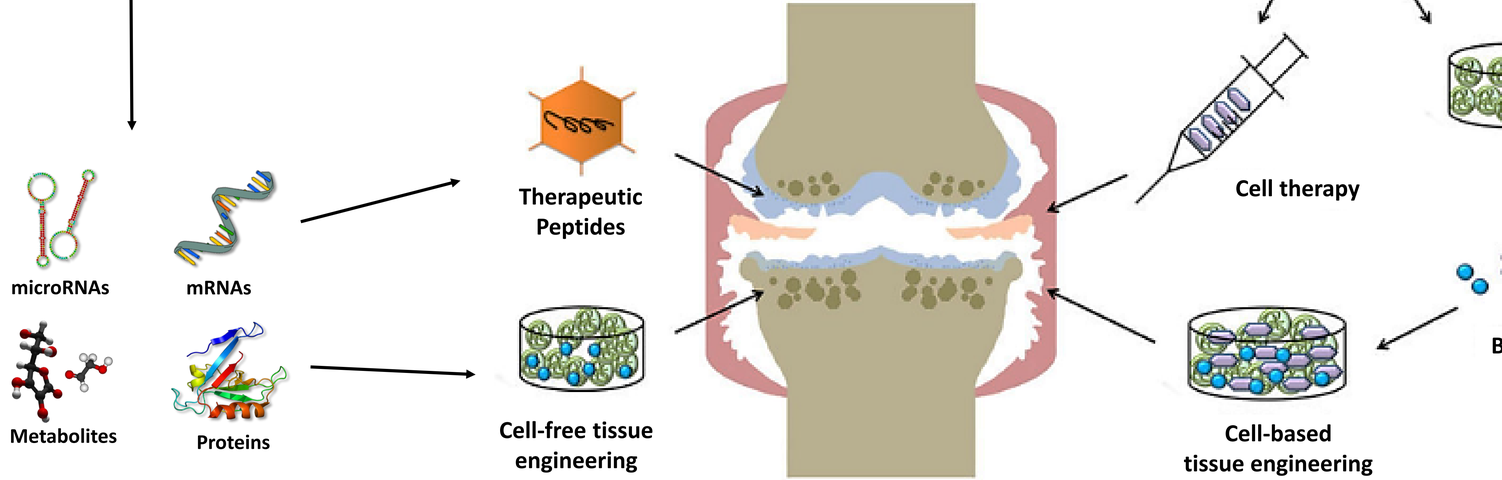
THE UNIVERSITY OF TEXAS AT SAN ANTONIO — PRAESIDIUM DISCIPLINA CIVITATIS

STATE UNIVERSITY OF NEW YORK AT BINGHAMTON — UNITY IDENTITY EXCELLENCE — 1946

UNIVERSITY OF THE INCARNATE WORD — 1881

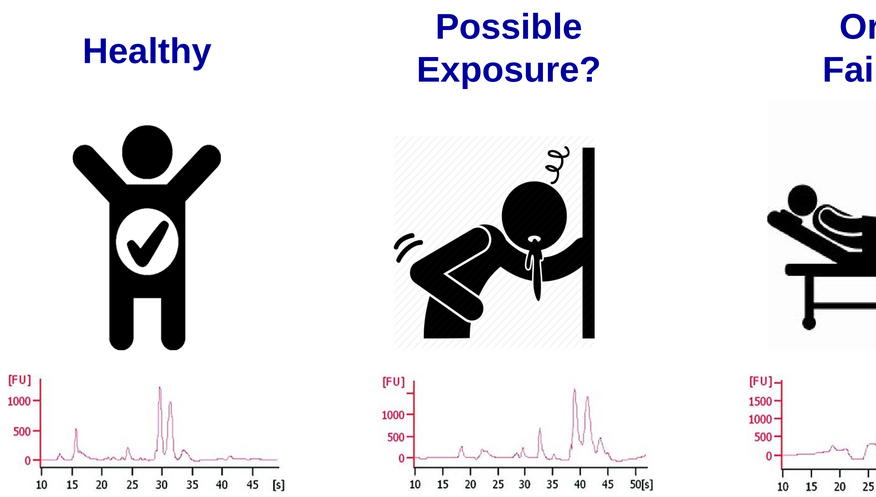
NAVAL MEDICAL RESEARCH UNIT SAN ANTONIO

MADE IN SPACE



Precision & Regenerative Medicine Research

The physical training requirements of our warfighters increases injuries which can contribute to early onset of osteoarthritis a degenerative joint disorder. Due to its low vascularity, articular cartilage has a slow self-healing capacity and limited trea options, which negatively impacts troop readiness. Upcoming research focuses on regenerative therapies (such as differen autologous mesenchymal stem cell implantation) as promising options to safely accelerate cartilage repair and ultimately r both, healthy tissue and maximum joint function.



Biomarkers of Diagnostic Significa

Minimally invasive samples are collected and tested for clinically releva which are extracted, analyzed, and characterized in order to generate spec signatures. Collectively, data driven molecular outcomes can be correla molecular signatures that are indicative of patient status to providers.