THE INFECTIOUS DISEASE CLINICAL RESEARCH PROGRAM (IDCRP) was founded in 2005 under an interagency agreement between the Uniformed Services University of the Health Sciences (USU) and the National Institute of Allergy and Infectious Diseases (NIAID). The work of the program, executed through a unique, adaptive and collaborative clinical research network, has a direct impact on force readiness by advancing clinical practice and informing health policy for military personnel.

In collaboration with partners from the Department of Defense (DoD), academia, government and industry, IDCRP supports a broad clinical research portfolio within the Military Health System. From observational, longitudinal cohort studies to field-based interventional trials to evaluation of long-term health outcomes, IDCRP conducts protocols that address critical knowledge gaps in the control and prevention of infectious diseases in the military. What is learned from these studies has far-reaching implications for public health and disease prevention within and beyond military communities.

VISION
To substantially reduce the impact of infectious diseases in the military population through collaborative clinical research

MISSION
To conduct infectious disease clinical research of importance to the military through a unique, adaptive and collaborative network to inform health policy and clinical practice and disseminate findings throughout the scientific community
IDCRP PROJECTS FALL WITHIN ONE OF SEVEN RESEARCH AREAS:

ACUTE RESPIRATORY INFECTIONS
• Describe the epidemiology, clinical characteristics and outcome of influenza-like illness among active duty military personnel
• Assess the impact of antiviral treatment, as well as annual vaccination, on the clinical course and outcome of influenza infection
• Model the transmission dynamics of respiratory pathogens in military recruits

DEPLOYMENT AND TRAVEL RELATED INFECTIONS
• Describe high-impact, militarily relevant infectious disease (e.g., vector-borne febrile disease, traveler’s diarrhea and influenza-like illness) associated outcomes, and evaluate prevention and treatment strategies for these infections
• Generate evidence to refine clinical practice guidelines for treatment of acute infectious diarrhea
• Develop and validate molecular diagnostics to detect enteropathogens associated with traveler’s diarrhea
• Describe the characteristics and impact of emerging infectious diseases, such as Chikungunya, among deployed military personnel

EMERGING INFECTIOUS DISEASES AND ANTIMICROBIAL RESISTANCE
• Collaborate with NIAID to make Ebola virus treatment and post-exposure prophylaxis experimental products available to US service members
• Describe the epidemiology, clinical characteristics and outcome of infections due to novel pathogens with pandemic potential among US service members
• Compare immune responses between naturally occurring anthrax and those in vaccinated US service members

SEXUALLY TRANSMITTED INFECTIONS
• Evaluate novel strategies for treatment and prevention of skin infections due to methicillin-resistant Staphylococcus aureus colonization and infection among military recruits
• Describe novel infection presentations in polytrauma casualties

HUMAN IMMUNODEFICIENCY VIRUS
• Mitigate specific complications of HIV and highly active antiretroviral therapy (HAART) among military HIV-infected patients
• Identify, treat and prevent HIV-associated neurocognitive disorders (HAND) in the US military health care system
• Develop and employ predictive models to optimize individualized management of HIV
• Improve therapeutic outcomes with the ultimate goal of functional cure of HIV infection
• Assess acquisition among HIV-infected active duty troops and how to prevent new infections

SKIN AND SOFT TISSUE INFECTIONS
• Characterize the epidemiology, microbiome and immunology of Staphylococcus aureus colonization and infection among military recruits
• Evaluate novel strategies for treatment and prevention of skin infections due to meticillin-resistant Staphylococcus aureus in congregate military populations

TRAUMA RELATED INFECTIONS
• Multi-site, prospective, observational cohort study using predefined standardized methodology to evaluate short- and long-term infectious outcomes among military personnel with traumatic injuries, collaborating with investigators across various medical specialties and local commands
• Microbiology analysis investigating bacterial antagonism in wounds, anaerobic bacterial infections, presence of antibiotic resistance genes/ virulence mechanisms and their association with antibiotics and clinical outcomes, and biofilm dispersal
• Develop and improve evidence-based Joint Trauma System clinical practice guidelines
• Describe novel infection presentations in polytrauma casualties

A UNIQUE CENTRAL IRB
The USU Infectious Disease Institutional Review Board (ID IRB), established in 2008 via a Memorandum of Understanding, created a single review pathway for multi-center research and eliminated the need for multiple and repetitive scientific, ethical and second-level reviews at multiple medical treatment facilities.

TRAINING THE NEXT GENERATION OF INFECTIOUS DISEASE RESEARCHERS IN THE MILITARY
Core to the program’s mission is training the next generation of clinical infectious disease researchers. Medical students, residents, fellows, graduate students and junior faculty are engaged in educational and mentoring opportunities with IDCRP investigators on the topics of epidemiology and bioinformatics, as well as the conduct of clinical trials, and pursue independent projects leading to presentations and manuscripts.

DATA ACQUISITION AND PROCESSING
The Data Coordination Center (DCC) is the home of the IDCRP’s data management and data processing professionals. Its mission is to support the program’s scientific goals through efficient and effective utilization of both human and electronic resources. The DCC staff provides expertise in clinical data management systems, data collection instrument development, data validation and data analysis preparation. The DCC staff have won industry and government awards for their employment of mobile technology to expand beyond the boundaries of traditional data collection methodologies.

STATE OF THE ART SPECIMEN REPOSITORIES
The program maintains study-specific repositories of host (e.g., blood), diagnostic (e.g., nasal wash) and/or pathogen (e.g., bacterial culture) specimens. IDCRP partners on the maintenance and application of these collections with groups such as the Military HIV Research Program, USU Department of Microbiology and Immunology, and the San Antonio Military Medical Center. This vast collection of human and microbiologic specimens is invaluable for studies of disease pathogenesis, the host immune response, and the development and evaluation of novel diagnostic methods.

For more information visit idcrp.org.