

# **VISION**

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

# MISSION

To conduct multicenter infectious diseases clinical research, focuing on high-impact cohort and interventional trials, and to inform and improve care of the Warfigher.

# Strategic Aims

Aim 1: Plan, execute, and disseminate clinical infectious diseases research of relevance and impact for the US military

Aim 2: Establish, maintain, and augment collaborative relationships with partner Department of Defense (DoD) and Interagency organizations

Aim 3: Align and support infectious diseases clinical investigator education and training among military officers ("Building the Bench")

Aim 4: Develop and sustain a robust military clinical research network, with capability to execute US Food and Drug Administration-regulated clinical trials

#### THE INFECTIOUS DISEASE CLINICAL RESEARCH PROGRAM

is a Department of Defense (DoD) Research Center based at the Uniformed Services University of the Health Sciences (USU) and operates in collaboration with the National Institute of Allergy and Infectious Diseases (NIAID). The IDCRP has seven research areas (detailed inside) to address clinical questions of military-relevant infectious disease threats. IDCRP research provides a bridge between DoD health surveillance and command-directed product development efforts from research and development organizations. Success requires broad collaborations among healthcare facilities within the Military Health System, NIAID investigators, as well as affiliations with partners from other US government agencies, academia, and industry. The IDCRP is executed as a research center through USU via a cooperative agreement with the Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (HJF).





#### INFECTIOUS DISEASE CLINICAL RESEARCH PROGRAM

Uniformed Services University of the Health Sciences Department of Preventive Medicine & Biostatistics

www.idcrp.org



# **IDCRP**

INFECTIOUS DISEASE CLINICAL RESEARCH PROGRAM









## **IDCRP RESEARCH AREAS:**

#### **ACUTE RESPIRATORY INFECTIONS**

- Study the distribution, etiology, clinical features, and burden of influenza-like illness and other respiratory infections in active-duty service members and their families
- Evaluate novel diagnostic platforms for clinical use and characterize the host immune response to identify those at risk for severe disease
- Investigate the impact of vaccination and novel therapies on acquisition, clinical course, and outcomes of influenza infection to improve the effectiveness of control strategies
- Characterize severe, epidemic, or emerging respiratory threats to generate evidence to refine therapeutic and preventive measures

#### **DEPLOYMENT AND TRAVEL-RELATED INFECTIONS**

- Describe key infectious disease syndromes (travelers' diarrhea [TD], influenza-like illness, vector-borne, and febrile infections) among high-risk deployments and military exercises to assess operational impact and the effectiveness of mitigation strategies
- Evaluate knowledge of infectious disease threats and provider practices relevant to Force Health Protection and travel medicine
- Assess field expedient diagnostic test platforms for TD, vector-borne, and febrile infections
- Evaluate safety and effectiveness of novel TD preventive and treatment strategies, with a focus on clinical trials relevant to Force Health Protection

#### EMERGING INFECTIOUS DISEASES AND ANTIMICROBIAL RESISTANCE

- Evaluate the health burden of emerging infectious diseases among DoD beneficiaries, with a focus on high-consequence pathogens and/or militarily-relevant infections
- Establish and maintain contingency protocols at military hospitals that facilitate clinical research for characterizing exposure risks, clinical outcomes, and other epidemiologic information needed for the DoD to respond to outbreaks of high-consequence pathogens
- Evaluate multidrug-resistant organisms affecting military personnel with regards to incidence, transmission, resistance mechanisms, clinical outcomes, and effectiveness of therapies
- Coordinate multicenter efforts evaluating trends and practices driving antimicrobial prescribing patterns in support of assessing effectiveness of DoD antibiotic stewardship programs

#### HUMAN IMMUNODEFICIENCY VIRUS

prevention and treatment strategies

• Improve understanding of relevant adverse clinical outcomes attributable to HIV infection and develop strategies to prevent these outcomes

understand the functional consequences in high-demand military settings, and evaluate

• Improve outcomes of HIV treatment, including optimizing reconstitution of immune system

• Evaluate military and clinical impact of multidrug-resistant gonorrhea and high-risk/high-

• Develop and test STI prevention efforts among active-duty members to inform DoD health

• Evaluate biomedical countermeasures to improve STI treatment outcomes and practices in

• Expand understanding of SSTI epidemiology, host factors, and transmission dynamics in military

Staphylococcus aureus in congregate military populations, including vaccine-based strategies

• Evaluate novel strategies for treatment and prevention of SSTIs due to methicillin-resistant

Improve the diagnosis of HIV-associated neurocognitive disorders,

function, with the ultimate goal of functional cure of HIV

SEXUALLY-TRANSMITTED INFECTIONS (STIs)

prevalence STIs among active-duty members

SKIN AND SOFT-TISSUE INFECTIONS (SSTIs)

populations to inform prevention and mitigation strategies

policy and impact clinical practice

**TRAUMA-RELATED INFECTIONS** 

the military

- manuscripts.



## STREAMLINED & COMPLIANT SCIENTIFIC & ETHICAL REVIEW

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 in the maintenance and application of these collections with military treatment facilities and DoD Research Programs. 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.



combat blast-related wounds and infections with a focus on extremity wound

• Describe the epidemiology, clinical characteristics, and outcomes among

infections, invasive fungal wound infections, and polytrauma

- Evaluate short- and long-term health impacts of combat-related infections through ongoing care in the military and through Veterans Affairs
- Support refinement and development of Joint Trauma System (JTS) Clinical Practice Guidelines and antibiotic stewardship in support of DoD's Combating Antibiotic Resistant Bacteria Initiatives





## 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 biostatistics, as well as the conduct of clinical trials, and pursue independent projects leading to presentations and



## DATA ACQUISITION AND PROCESSING

The IDCRP Data Coordination Center (DCC) coordinates and executes data management and data processing for research studies. The DCC staff provides expertise in clinical data management systems, data collection instrument development, data validation, and data analysis preparation.

The IDCRP Scientific Review Board and the USU Institutional Review Board provide a single, streamlined review pathway for multicenter scientific, ethical, and regulatory compliance. New research is developed cooperatively with DoD investigators and the IDCRP team.

#### STATE OF THE ART SPECIMEN REPOSITORIES

