

# 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 six 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

> idcrp.usuhs.edu www.idcrp.org





# **IDCRP**

**INFECTIOUS DISEASE CLINICAL RESEARCH PROGRAM** 









# **IDCRP RESEARCH AREAS:**

#### **ACUTE RESPIRATORY INFECTIONS (ARI)**

- Evaluate strategies for the prevention of influenza and other ARI, and treatments designed to reduce morbidity from non-severe illness
- Understand and mitigate ARI transmission in congregated and deployed settings to reduce ARI burden and impact on operational readiness
- Investigate severe, epidemic, or emerging respiratory threats, and undiagnosed influenza-like illness to identify etiology and pathogenesis, evaluate diagnostics, describe epidemiology and clinical characteristics, course and outcomes encountered by the DoD to inform development of effective countermeasures

#### COVID-19

- Improve the speed and accuracy of SARS-CoV-2 detection for DoD active-duty and other Military Health System beneficiaries, including the diagnosis of infectious hosts
- · Characterize the epidemiology, burden, transmission dynamics, acute-to-chronic clinical phenotype, and immunopathological correlates of SARS-CoV-2 infection in US military members and their dependents
- Predict the risk of SARS-CoV-2 infection and complications in US military and dependents using demographic, clinical, laboratory, environmental, and other data
- Improve the treatment of COVID-19 in US military members and dependents to reduce morbidity, mortality, and functional impairment
- Improve the prevention of SARS-CoV-2 infection and complications in US military members and dependents to reduce morbidity, mortality, and functional impairment

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

current mitigation strategies

• Evaluate the risk and operational impact of infectious disease threats

during deployments and military exercises and the effectiveness of

among high-risk populations in CONUS (e.g., trainees), as well as

- · Evaluate the knowledge of infectious disease threats and prevention methods, as well as counseling and prescription practices of providers in the pre-travel and pre-deployment settings, including current practice and evidence generated through research
- Assess diagnostic test platforms (including field expedient diagnostics) and patient reported severity and outcome scores for travelers' diarrhea (TD)
- Evaluate the safety and effectiveness of novel preventive and treatment strategies for TD, with a focus on conducting clinical trials that are relevant to Force Health Protection
- Evaluate the impact of emerging or re-emerging infectious diseases, including multidrug-resistant pathogens on US military medical readiness

#### HUMAN IMMUNODEFICIENCY VIRUS (HIV)

- Identify and understand relevant clinical outcomes related to HIV infection with a focus on developing and evaluating strategies to mitigate those that are serious or have significant military impact



- Understand the functional consequences of HIV-associated neurocognitive disorder (HAND) in high-demand military settings, improve the diagnosis of HAND, and evaluate prevention and treatment strategies with the goal of informing military clinical practice guidelines and healthcare policy
- Optimize outcomes of HIV treatment in the military population, including reconstitution of immune system function and elimination of residual inflammation, with the ultimate goal of functional cure of HIV

#### SEXUALLY-TRANSMITTED INFECTIONS (STIs)

Evaluate novel STI treatment strategies

of wound infections among military personnel

WOUND INFECTIONS

and role in transmission

and vaccine-based strategies

· Evaluate the impact of high risk/high prevalence pathogens in the Military Health System

 Support development of biomedical countermeasures and evaluate prevention efforts among active duty for policy and practice

Describe epidemiology (burden), clinical characteristics, and outcomes

· Evaluate microbiologic factors associated with colonization or infection and their impact on clinical course, response to antimicrobial exposure,

protection against disease, and favorable clinical response

Combating Antibiotic-Resistant Bacteria US Initiative

• Determine humoral and cellular immune responses to Staphylococcus aureus, Group

A Streptococcus, and other wound pathogens associated with colonization, infection,

Evaluate optimal treatment duration and effectiveness of novel strategies and therapies

for treatment and prevention of wound infections (with emphasis on multidrug-resistant

Assess Military Health System antibiotic stewardship, to include adherence and outcomes

guidance for skin and soft-tissue infection prevention and management, in support of the

of Joint Trauma System Clinical Practice Guidelines, as well as community-based

infections) in high-risk trauma and congregate military populations, including hygiene-



## **STREAMLINED & COMPLIANT SCIENTIFIC & ETHICAL REVIEW**



## 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 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.

#### For more information, visit idcrp.usuhs.edu





### 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 manuscripts.



#### 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.

