### Research VA Advanced Postdoctoral Fellowship War Related Illness and Injury Study Center Washington DC VA Medical Center





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## **Specific requirements:**

## Participate in ongoing research projects and proposals

- Recruitment activities
- Acquire informed consent
- Participant Follow-up
- Data management
  - Data quality checks performed during study data collection timepoints
  - Organizing data files (renaming to convention)
  - Data inventory keeping and reporting
- Online survey operations using Qualtrics
- Research equipment inventory keeping, maintenance and management according to study protocol
- Assist with IRB protocol amendments, regulatory audits and review. Involves interacting with PI, Privacy Officer, ORD personnel, IRB and R&D.
- Perform literature review for presentations and manuscripts
- Participate in data analysis efforts
- Participate in manuscript writing for publication in scientific journals and present at conferences.
- Attend regular staff/research meetings

Note: Training will be provided for all the above tasks. The tasks themselves provide real world experience in conducting research studies in a clinical setting within a Government Agency.

# TBI and blast exposure / Neuro-cognition Focus

- Assist in protocol development for large project on blast and chemical exposure assessment in Active Duty Service Members and Veterans with Explosive Ordinance Disposal experience (EOD-Track).
- Perform key functions in ongoing study on TBI and blast exposure in Veterans involving multimodal remote data acquisition such as 2-year longitudinal self-report measures, EEG, comprehensive sleep evaluation, heart rate, actigraphy and neuropsychological assessment.
- Assist / Lead manuscript development using data from multiple ongoing and completed WRIISC-DC research studies and clinical trials with a focus on the following research questions:
  - o Brain-Body-Behavior relationship
  - Mindfulness and meditation related health outcomes
  - TBI blood biomarker characterization
  - Characterizing MRI markers and its relationship with health outcome and behavior
  - Characterizing EEG markers in the context of mindfulness meditation
  - Self-report and clinically diagnosed mental health outcomes
  - Neuropsychology related outcomes
- Develop neurofeedback proof-of-concept projects to enhance brain function / cognitive resiliency
- Weekly journal club meeting / brain storming session for idea generation and advancing manuscripts.

### **Exercise Physiology Focus**

- Assist with the development of exercise interventions for clinical populations
- Oversee primary data collection in both remote and onsite settings, including:
  - Actigraphy and other wearable devices for monitoring Veterans remotely
  - Self-report questionnaires and diaries
  - Fitness tests (e.g., cardiovascular, flexibility, strength, and body composition)
  - Exercise-related parameters
- Prepare data for analysis
  - $\circ\,$  Example: process actigraphy data to define sleep/wake patterns, circadian rhythms, and physical activity levels
- Evaluate and interpret data from multiple sources and tests protocols
- Supervise exercise sessions (remote and onsite)
- Assist and/or lead manuscript development using data collected from exercise-related studies and/or other ongoing WRIISC-DC research studies

### Military occupational exposure

- Assist with the development of Veterans Military Occupational Assessment Tool (VMOAT)
- Assist with understanding and extracting service records through the Individual Longitudinal Exposure Records (ILER) and health registries
- Oversee primary data collection in both remote and onsite settings:
  - Self-report questionnaires
  - Quantitative interview
- Prepare data for analysis
- Evaluate and interpret data from multiple sources and tests protocols
- Assist and/or lead manuscript development using data collected from exposure-related studies and/or other ongoing WRIISC-DC research studies