

Research Work Group Questions

1. Discuss the mechanisms by which physiological mechanisms are impacted by both psychological stress and TBI? Is it possible to discern post-concussion syndrome from traumatic psychological stress?
2. If a warrior has been exposed to an active theater of operations and develops PTSD how can PCS be eliminated as an initiating factor, i.e., is it possible to determine when PTSD is unrelated to a TBI?
3. Can a psychometric tool be developed to differentiate symptoms where both psychological and physical brain injury have occurred? Or is possible to develop a tool that can determine if only one condition is present?
4. Can pre-deployment environmental experience (EE) have a role in how the brain responds to injury and traumatic stress? If so, can the brain be made more resilient to injury and PTSD?
5. What is environmental enrichment and in what ways can it be beneficial? How can EE, as opposed to pharmaceutical interventions, be used to reduce post-injury inflammation? When that is appropriate? What sorts of EE are appropriate in the various stages of recovery? Can aspects of the pre-clinical research on EE be integrated into a clinical study involving community re-entry rehabilitation?
6. How do we determine what level of type of environmental stress will build resilience rather than degrade resilience? What factors of timing, severity, and individual differences should we consider?
7. Is the hormonal (gonadal, stress, inflammatory) status of a warrior when deployed into theater important marker for susceptibility? Is it possible to prepare an individual prior to injury to reduce the stress or inflammatory response post-injury?
8. What are the benefits to long-term psychological health of moderating inflammation post-injury? Are there drawbacks?
9. Can genetic or metabolic assays be developed to determine susceptibility to injury or traumatic stress? Can subsequent resilience training and/or treatments be tailored based this individual information?
10. Does imaging have a role in rehabilitating those with TBI and/PTSD? Are imaging methods reliable and cost-effective at this time to monitor the recovery process in the clinic?