



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Injury Models

Non-Human Primate (*Macaca mulatta*) Poly-trauma Model Development

Researchers sponsored by BUMED are working to develop a clinically translatable primate model of concurrent injury (polytrauma) that simulates multiple injury patterns (e.g. hemorrhagic shock, soft tissue injury, and musculoskeletal injury) and permits acute and long-term assessments of outcomes (e.g. metabolic insult, acute coagulopathy of trauma, and systemic inflammatory response). Because of the frequency of polytrauma, the causation of overall casualty death is multifaceted, and valid models of overall physiological insult are required not only to understand the pathologies to be treated, but also to evaluate potential therapeutic strategies. This results from this study will meet the objectives set forth by DHP's JPC-6 Combat Casualty Care Committee and ONR Force Health Protection Program of developing clinically translatable research models that will serve to identify novel targets for therapeutic interventions and provide a definitive final validation of concept prior to transitioning therapeutics into clinical trials.