



Clinical & Rehabilitative Medicine Research Program

MILITARY MEDICINE PARTNERSHIP DAYS
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Purpose



To increase understanding of the Clinical & Rehabilitative Medicine Research Program (CRM RP), the CRM RP Program Areas, and the Program Areas' objectives.

- Outline
 - *CRM RP Overview*
 - *CRM RP Program Areas*
 - *Neuromusculoskeletal Injury*
 - *Pain Management*
 - *Regenerative Medicine*
 - *Sensory Systems*



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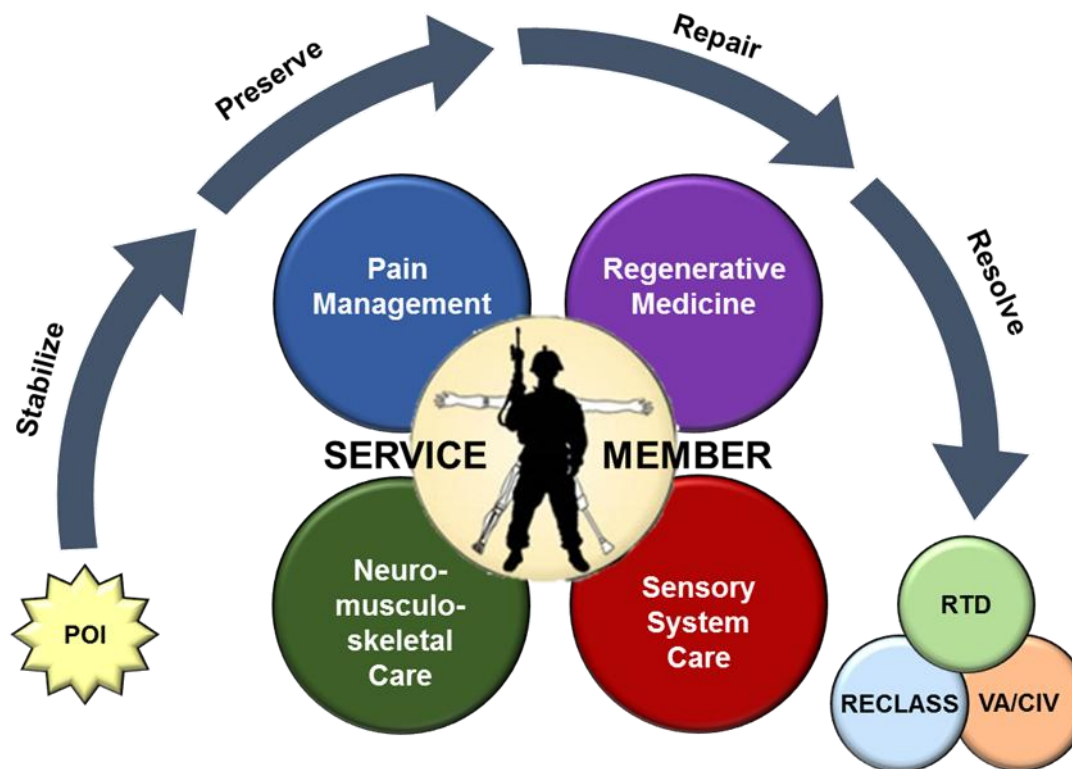


CRMRP Overview



Mission

To implement long-term strategies to develop knowledge and materiel products to reconstruct, rehabilitate, and provide definitive care for injured Service Members. The ultimate goal is to return the Service Member to duty and restore their quality of life.





CRMRP Program Areas



Pain Management: Management of pain ranging from the point of injury to chronic pain management



Regenerative Medicine: Extremity and craniomaxillofacial injuries, burns and scarless wound healing, hand and face transplants, genitourinary lower abdominal reconstruction



Neuromusculoskeletal Injury: Prosthetics, orthotics, and orthopedic injury rehabilitation



Sensory Systems: Visual, auditory, and vestibular dysfunction associated with traumatic injury





Neuromusculoskeletal Injury



Neuromusculoskeletal Injury includes research (applied science to advanced development) in rehabilitation/reintegration in the areas of amputation/prosthetics, limb trauma/orthotics and other neuromusculoskeletal injury.

Purpose: Maximized rehabilitation after service-related neuromusculoskeletal injuries.

Neuromusculoskeletal Injury Objectives:

1. Development/evaluation/validation of new and existing reintegration interventions
2. Evaluation of afferent/efferent systems toward enhanced and intuitive control of prosthetics
3. Identifying biomarkers of secondary health deficits
4. Evaluation/validation of dose, timing, frequency, and duration of rehabilitation





Pain Management

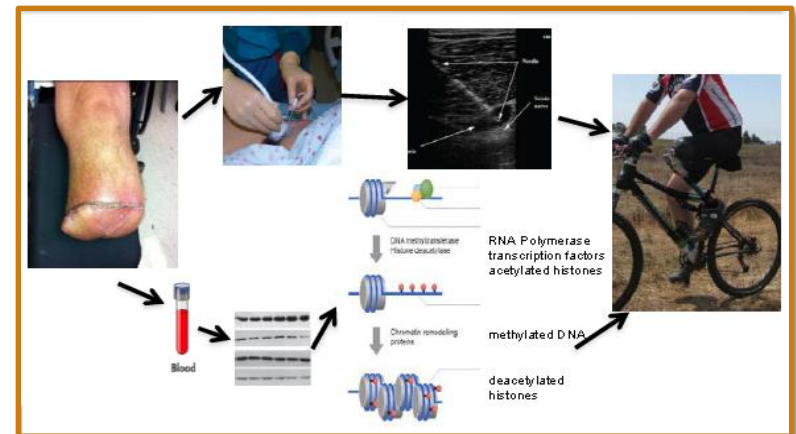
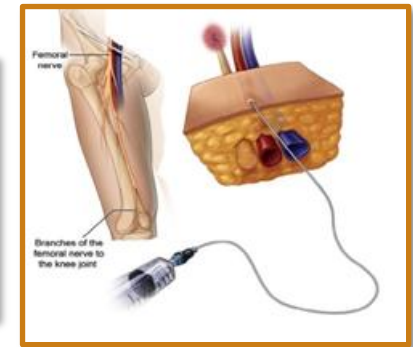


Pain Management includes research (applied science to advanced development) for the management of pain ranging from point of injury to chronic pain management.

Purpose: Provide products and information solutions for the diagnosis and alleviation of battlefield, acute and chronic pain and sequela.

Pain Management Objectives:

1. Investigate battlefield pain management strategies
2. Investigate precision medicine/ personalized pain management strategies
3. Investigate treatment approaches for chronic pain in complex patients
4. Validate non-pharmacological approaches to pain management





Regenerative Medicine



Regenerative Medicine includes research (applied science to advanced development) in repair, reconstruction or regeneration of tissue lost or damaged from traumatic injury in the areas of: extremity injury, craniomaxillofacial injury, burns/scarring, composite tissue transplantation, and genitourinary/lower abdomen reconstruction.

Purpose: Restoration of form and function to injured bone and soft tissues.

Regenerative Medicine Objectives:

1. Identify/evaluate technologies that increase speed and completeness of healing following volumetric muscle loss, peripheral nerve and vascular injury
2. Identify/evaluate technologies to generate and integrate functional composite tissues
3. Identify/evaluate technologies that increase speed and completeness of skin healing following burn injuries





Sensory Systems

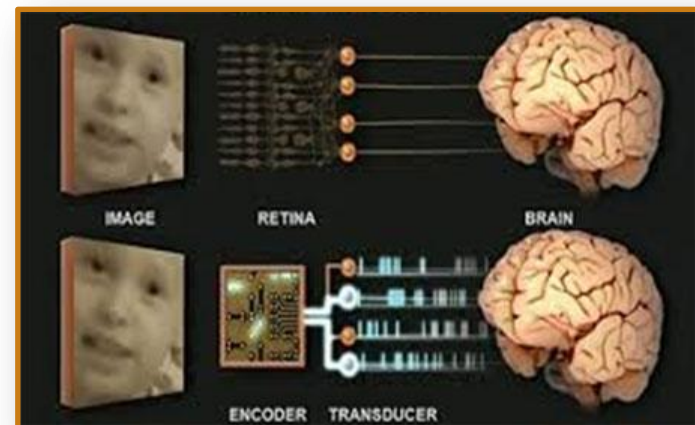
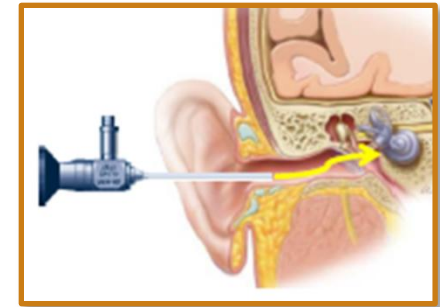
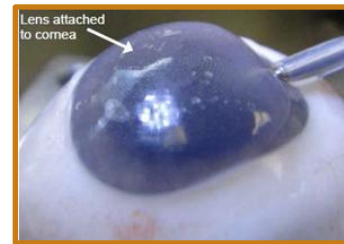


Sensory Systems includes research (applied science to advanced development) focused on understanding the mechanisms of and developing treatment strategies for traumatic injuries resulting in visual, auditory, and vestibular dysfunction.

Purpose: Restore and rehabilitate sensory systems (vision, hearing and balance) following traumatic injury.

Sensory System Objectives:

1. Identify/evaluate optimal corneal treatment options
2. Identify/evaluate regenerative and pharmaceutical therapies for restoring and treating optical nerve injuries
3. Quantify impacts of TBI on multisensory integration and balance to aid diagnosis and treatment post-injury





Questions?



For additional questions after the conclusion of the conference, send an email message to usarmy.detrick.medcom-usamrmc.mbx.mmpd@mail.mil

