

# Spinal Cord Injury Research Program





"I am honored to serve as the co-chair of the Spinal Cord Injury Research Program with the goal of advancing the understanding of spinal cord injury and ameliorating its consequences. The SCIRP provides an extraordinary opportunity to explore innovative developments and fund research that will have the greatest impact."

**COL Janet Harris,  
R.N., Ph.D.  
Integration Panel  
Co-Chair**

# Congressionally Directed Medical Research Programs

## History

The Congressionally Directed Medical Research Programs (CDMRP) was born from a powerful grassroots effort led by the breast cancer advocacy community that resulted in a congressional appropriation of funds for breast cancer research. The CDMRP was created as an office within the U.S. Army Medical Research and Materiel Command (USAMRMC) in fiscal year 1993 (FY93) to manage these funds, initiating a unique partnership among the public, Congress, and the military. Having grown to encompass multiple targeted research programs, the CDMRP has received almost \$5.4 billion in appropriations since its inception in FY93 through FY09. Funds for the CDMRP are added by Congress to the Department of Defense budget annually, where support for individual research programs such as the Spinal Cord Injury Research Program (SCIRP) is allocated via specific guidance from Congress.

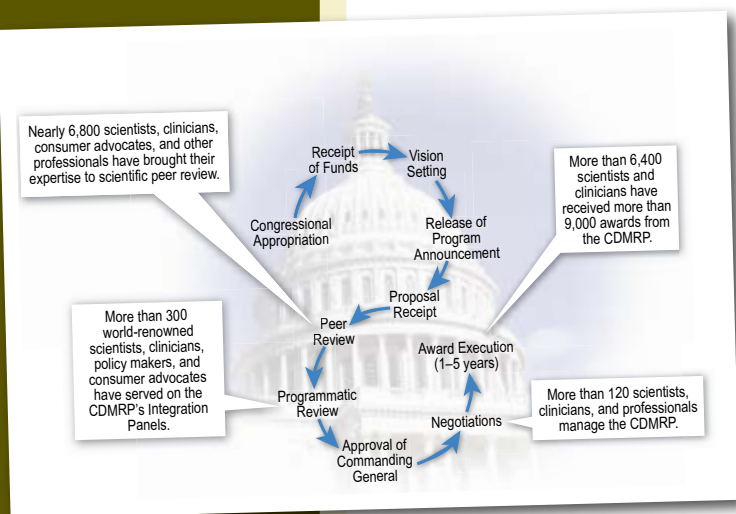
## Proposal Review Process

The CDMRP program management cycle includes a two-tier review process recommended by the National Academy of Sciences' Institute of Medicine. Each level of review is conducted by panels composed of scientists and clinicians—subject matter experts—and consumers. The first tier of evaluation is an external scientific peer review of applications against established criteria for determining scientific merit. The second tier is a programmatic review conducted by members of the Integration Panel, who compare submissions and make funding recommendations based on relative scientific merit, portfolio balance, and relevance to program goals.

## Consumer Advocacy Participation

A unique aspect of the CDMRP is the active participation of consumer representatives throughout the program's annual cycle.

Consumers work collaboratively with leading scientists and clinicians in setting program priorities, reviewing proposals, and making funding recommendations. From a unique perspective gained through personal experience—as someone with a spinal cord injury—the consumer brings a sense of urgency and focus to all levels of decision making. Consumers evaluate proposals based on the potential impact and benefit to the patient population, encouraging funding recommendations that reflect the concerns of patients, their families, and the clinicians who treat them.



# Spinal Cord Injury Research Program

Spinal cord injuries (SCI) are serious and complex neurotraumatic wounds affecting military service members serving in Iraq and Afghanistan. The SCIRP was established by Congress in FY09 with a \$35 million appropriation to support research into regenerating/repairing damaged spinal cords and improving rehabilitation therapies. In FY10, Congress appropriated \$11.25 million to continue this research. The SCIRP focuses its funding on innovative projects that have the potential to make a significant impact on improving the function, wellness, and overall quality of life for military service members as well as their caregivers, families, and the American public. Areas of research encouragement for the FY09 SCIRP include:

- Neuroprotection and repair
- Rehabilitation and complications of chronic SCI
- Outcome measures to include development and validation

Within the areas of encouragement are several areas of particular interest:

- The identification, refinement, and validation of outcome measures and devices to allow improved assessment of interventions in animal models and humans.
- A biophysiological understanding of the mechanism of injury and repair throughout the progression of the injury from acute to subacute to chronic.
- Understanding the relationship between animal models and clinical/human application, including an understanding of the scaling issues between animals and humans as well as the pathobiological and behavioral relevance of animal models.
- Understanding and leveraging the clinical characteristics of injury and repair that can translate back to and guide priorities for basic research.
- Predictors of poor clinical outcomes and associated maladaptive plasticity.
- Comparative clinical trials that assess the differences between rehabilitation methods.
- Understanding the physiological basis (neuroplasticity) for rehabilitation therapies and evaluating whether there are quantitative benefits of activity-dependent rehabilitation training.
- Development and refinement of assistive and rehabilitation strategies and technologies to deliver improved functional capacity for people living with SCI.
- Research into advanced rehabilitation technologies including their contribution to neuroplasticity (e.g., tele-rehabilitation, simulation, virtual reality, functional electrical stimulation, exoskeleton movement systems, and robotics).
- Prevention of medical complications from SCI (e.g., cardiac disease, autonomic dysreflexia, spasticity, pain, skin care issues, bladder and bowel dysfunction, sexual dysfunction, and bone fractures).
- Utilization of existing clinical trials infrastructure and resources of established collaborations to enable rapid initiation of research that leverages available systems for structured data collection, analysis, and/or outcomes assessment.

## VISION

Advance the understanding of spinal cord injury and ameliorate its consequences.

## MISSION

To fund innovative and interdisciplinary research and foster collaborative environments for the development and translation of more effective strategies to improve the health and well-being of individuals with spinal cord injury.

## FY09 AWARD MECHANISMS

Advanced Technology/  
Therapeutic  
Development

Clinical Trial—  
Rehabilitation

Exploration—  
Hypothesis  
Development

Investigator-Initiated  
Research

Translational Research  
Partnership



“The spinal cord injury research field has gained a new partner in its efforts to improve the function and quality of life of those affected by spinal cord injuries. This provides an excellent opportunity for new leadership and new directions to emerge in the field.”

**Thomas Stripling**  
*Integration Panel Member*



"It has been an honor to participate in the Spinal Cord Injury Research Program recommendation process. Our credo continues to be one of having something unique to offer each one of our Veteran patients.

SCIRP is an important program that can make the difference in terms of what was available yesterday but is really needed today. The ongoing SCIRP process will not only improve care but will substantially extend the boundaries of biomedical knowledge."

**J. Thomas Pierce, M.B.B.S., Ph.D.**  
**Integration Panel Chair**

"The SCIRP provides a rare opportunity to bring together the best and brightest in the field of spinal cord research, medicine, and rehabilitation. The diverse membership enables the exchange of varying perspectives on each proposal to reach consensus and to focus upon those projects that will yield the greatest return for scant research dollars."

**Paul Tobin, Integration Panel Member**



For more information, visit

**<http://cdmrp.army.mil>**

or contact us at:

**[CDMRP.PublicAffairs@amedd.army.mil](mailto:CDMRP.PublicAffairs@amedd.army.mil)**

**(301) 619-7071**

