



The AFIRM RCC Consortium

The Armed Forces Institute of Regenerative Medicine *Frequently Asked Questions*

What is the Armed Forces Institute of Regenerative Medicine?

The Armed Forces Institute of Regenerative Medicine (AFIRM) is a multi-institutional, interdisciplinary network working to develop advanced treatment options for our severely wounded servicemen and women. The AFIRM is managed and funded through the US Army Medical Research and Materiel Command (MRMC), with additional funding from the US Navy, the US Air Force, the National Institutes of Health, the Veterans Administration, and local public and private matching funding.

Which institutions make up the AFIRM?

The AFIRM is made up of two civilian research consortiums working with the US Army Institute of Surgical Research (USAISR) in Fort Sam Houston, Texas. One consortium is led by Rutgers, the State University of New Jersey and the Cleveland Clinic and one is led by Wake Forest University and The McGowan Institute in Pittsburgh. Each of these civilian consortia is itself a multi-institutional network. See last page for a full list of the institutions.

How much funding is allocated to the AFIRM?

Each of the civilian consortiums was awarded \$42.5 million over a period of five years. In addition, the two consortia are bringing local public and private matching funds amounting to more than \$80 million that will be added to their research budgets. In each case, the full amount of the grant was allocated to the lead institution. Those lead institutions are responsible for distributing the funds among their consortium partners according to peer-reviewed work plans that address the AFIRM therapeutic objectives.

How were the AFIRM Consortia chosen?

The process for awarding the AFIRM grants began in January 2007, with a Request for Information from the US Army MRMC. Twenty-eight institutions responded to this RFI. In April 2007, a draft Request for Proposal (RFP) was sent to those 28 respondents for comment. In August 2007, a Program Announcement was released by the Army MRMC. Seven consortia responded to this PA. From those, two finalists were chosen for oral presentations to the Scientific Review Panel in December 2007. Ultimately, both finalists were deemed to have built excellent programs and both were recommended for funding.

***Alliance for Regenerative Medicine Participating Institutions:** ♦Rutgers, the State University of New Jersey ♦Cleveland Clinic Foundation ♦ Carnegie Mellon University ♦Case Western Reserve University ♦Dartmouth Hitchcock Medical Center ♦Massachusetts General Hospital/Harvard Medical School ♦Massachusetts Institute of Technology ♦Mayo Clinic College of Medicine ♦Northwestern University ♦Stony Brook University ♦University of Cincinnati ♦University of Medicine and Dentistry of New Jersey ♦University of Pennsylvania ♦University of Virginia ♦Vanderbilt University



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When does the AFIRM program start?

Much of the research activity to be funded by the AFIRM is already underway at the individual participating institutions. MRMC has issued cooperative agreements with the lead institution for each consortium and work will be starting during spring and summer 2008.

What sorts of therapies will be developed within the AFIRM?

The AFIRM was designed to speed the delivery of regenerative medicine therapies to treat our most critically injured servicemembers from around the world, but in particular those coming from our theaters of operation in Iraq and Afghanistan. There are five major programs: Limb Repair, Craniofacial Repair, Burn Repair, Scarless Wound Repair, and Compartment Syndrome Repair.

Regenerative Medicine? Does that mean stem cells?

Adult stem cells and progenitors are an integral part of normal wound healing and the formation of all new tissues. Many of the strategies being developed by AFIRM seek to improve wound healing and tissue repair by increasing the number or improving the function of adult stem cells. A patient's own cells, or in some cases, cells from another adult, are used in conjunction with special drugs called bioactive factors, or with advanced biomaterials that serve as scaffolds for growth of new tissues.

Will AFIRM researchers be using embryonic stem cells?

No. All of the research now funded through the AFIRM will use adult-derived stem cells taken from the patient or from another consenting adult.

Can these stem cells regenerate entire arms and legs?

No; not at present. However, the use of these cells, bioactive factors and biomaterials can help injured servicemembers to optimize their own capacity to heal and recover by forming new bone, skin, nerves, tendons, muscles, and blood vessels to replace damaged tissues. AFIRM collaborators plan to use these new strategies to dramatically speed and enhance the outcome of tissue repair, leading to greater opportunity and a more effective return to productive life after injury.

What are tissue scaffolds?

Tissue scaffolds are the medical implants of the future: small, porous, tissue-like implants made of fully degradable, specially designed biomaterials that support cells at the site of injury and assist the body in growing new, functional tissue. When the damaged or lost tissue has been successfully replaced by new tissue, the scaffold will have completely

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resorbed. Examples are regeneration of damaged or missing sections of bones, nerves, ligaments, blood vessels and skin.

Are companies participating in the AFIRM?

Dozens of commercial interests have expressed a willingness to work with the AFIRM consortia as commercialization partners. We are extremely pleased that the American medical device industry has taken such a keen interest in speeding these important new therapies to market not just for injured service members, but for civilian patients as well. We believe that this participation will ultimately lead to better healthcare options for all Americans.

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Participating AFIRM Institutions

USA ISR Core

- The US Army Institute of Surgical Research, Ft. Sam Houston, TX
- Brooke Army Medical Center, Ft. Sam Houston, TX

RCC Consortium (led by Rutgers and the Cleveland Clinic)

- Rutgers, The State University of New Jersey
- Cleveland Clinic
- Carnegie Mellon University
- Case Western Reserve University
- Dartmouth Hitchcock Medical Center
- Massachusetts General Hospital/Harvard Medical School
- Massachusetts Institute of Technology
- Mayo Clinic
- Northwestern University
- Stony Brook University
- University of Cincinnati
- University of Medicine and Dentistry of New Jersey
- University of Pennsylvania
- University of Virginia
- Vanderbilt University

WFM Consortium (led by Wake Forest University and the McGowan Institute)

- Wake Forest University
- The McGowan Institute for Regenerative Medicine, the University of Pittsburgh
- Allegheny Singer Research Institute
- California Institute of Technology
- Carnegie Mellon University
- Georgia Institute of Technology
- Oregon Medical Laser Center
- Rice University
- Stanford University
- Tufts University
- University of California, Santa Barbara
- University of Wisconsin
- Vanderbilt University

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