**VA Research...An Overview**

VA Research is unique because of its focus on health issues that affect Veterans. It includes VA investigators—most of whom also provide direct patient care to Veterans—have resulted in three Nobel prizes, seven Lasker awards, and many other distinctions within the medical and scientific communities.

To expand its impact, VA Research fosters dynamic collaborations with its university affiliates, other federal agencies, nonprofit organizations, and private industry—thus furthering the programs impact on the health of Veterans and the nation. For example, VA’s landmark Million Veteran Program, now the world’s largest biorepository and genomic database linked to a health care system, has led to partnerships with private firms such as IBM and federal agencies such as the departments of Defense and Energy.

**Clinical Science Research and Development**

This division focuses on clinical trials and other research involving human volunteers to study new treatments, compare existing therapies, and improve clinical practice and care. The Cooperative Studies Program within this division is responsible for planning and conducting VA’s large multicenter clinical trials and epidemiological studies on health issues vital to our nation’s Veterans.

**Biomedical Laboratory Research and Development**

This division conducts preclinical research to understand life processes from the molecular, genomic, and physiological level in regard to diseases affecting Veterans. It includes research on animal models and investigations of tissues, blood, or other biologic specimens from humans, but does not include studies with people.

**Health Services Research and Development**

This division supports research to improve the delivery of health care to Veterans. Among the areas studied are quality and organization of care; patient access and outcomes; and cost-effectiveness. The division’s Quality Enhancement Research Initiative (QUERI) is designed to translate research findings into advancements in Veterans’ care.

**Rehabilitation Research and Development**

This division conducts research to discover knowledge and create innovations that restore Veterans who have become disabled due to injury or disease to their greatest possible functional capacity in their families, communities, and workplaces.

**Intramural Program Collaborative Spirit**

VA Research consists of four main research services working together to address the full spectrum of Veterans’ health needs. The program is intramural, meaning only investigators with VA appointments can receive VA research funding. However, VA investigators also compete successfully for funding from the National Institutes of Health and other public and private sources.

**Cross-cutting Components**

Other programs are cross-cutting. The Program for Research Integrity Development and Education (PRIDE), for example, is responsible for policy development, guidance, training, and education in relation to the protection of human research participants throughout VA. The Technology Transfer Program moves discoveries and inventions into everyday practice—for example, by obtaining patents and identifying commercial partners—to help ensure that Veterans benefit from the innovations of VA researchers.

**Productive Partnerships**

While embracing its status as an intramural program with close ties to its academic affiliates, VA Research also fosters and develops dynamic collaborations with other federal agencies, nonprofit organizations, and private industry. Such teamwork promotes the leveraging of discoveries, speeds the translation of study results into clinical practice, and maximizes the overall impact of VA Research.

Through innovation and discovery that have led to advances in health care for Veterans and all Americans, VA Research:

- Offers Veterans a brighter tomorrow.
- Serves as a model of research excellence.
- Attracts exceptional investigators.
- Fosters dynamic collaborations.
Mental Health
Mental health—including issues such as substance use, posttraumatic stress disorder (PTSD), anxiety, depression, and schizophrenia—is a major focus of VA Research. Researchers are studying new drug therapies, enhancing primary care models of mental health care, and improving access to mental health care through telehealth and other innovative technologies.

Pain Management
Developing powerful new approaches to assess, manage, and treat chronic pain is a high priority for VA researchers. Some research groups focus on promoting safer use of opioids. Others are examining changes at the cellular and molecular levels in hopes of finding new ways to prevent or treat pain and inflammation.

Precision Medicine
In conjunction with the nationwide Precision Medicine Initiative, VA is working on ways to tailor diagnosis, prevention, and care for Veterans based on genetic and other individual factors. A cornerstone of the effort is VA’s Million Veteran Program. MVP data is already being used in studies on heart disease, kidney disease, and other areas.

Prosthetics and Amputation Care
VA researchers are designing and testing prosthetic devices that are lighter, more natural, and more functional than existing models. Researchers are also exploring new methods to improve the reconstruction of injured extremities and studying how to best match available prosthetic components to the needs of amputees, many of whom seek to maintain active lifestyles that demand versatile, high-performance prostheses.

Women’s Health
Women represent a growing segment of the VA patient population. In response, VA researchers have been focusing increasingly on their unique health needs. VA funds studies looking at the cellular mechanisms involved in breast and cervical cancer; the role of hormones in stroke and aging; prosthetic designs specifically for women; PTSD-related challenges that are unique to women; and access to gender-appropriate services within VA.

Homelessness
For more than 20 years, VA has operated programs for Veterans who are homeless. VA researchers have been involved from the outset—evaluating effectiveness, comparing alternative strategies, and exploring new approaches. VA’s programs in this area have been studied more extensively than any others, and today make up the nation’s—probably the world’s—largest integrated network of homeless treatment and assistance services.

Iraq and Afghanistan Veterans
VA researchers are working on new ways to ease the physical and psychological pain of recently returned Veterans and to improve their access to health care services. Key areas of study include polytrauma, mental health disorders, vision and hearing loss, traumatic brain injury, spinal cord injury, amputations and prosthetics, and pain management.

Chronic Diseases
Health promotion and chronic disease management are high priorities for VA Research. Below are examples of work in this area:

• Developing and testing innovative diabetes care strategies, such as group visits, telemedicine, peer counseling, and internet-based education.
• Investigating the biochemical pathways involving dopamine—a brain chemical implicated in Parkinson’s disease—and testing a variety of treatment approaches for Parkinson’s disease, including medication, surgery, and electrical stimulation.
• Probing the genetic and lifestyle causes of cardiovascular disease, and developing new rehabilitation methods, especially for stroke.
• Exploring potential drug therapies for the prevention and treatment of Alzheimer’s disease and studying the best ways to provide long-term care.
• Researching the biological causes of cartilage degeneration and testing new drugs and other medical rehabilitation treatments for arthritis.