History of VA Research Accomplishments

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1925—Conducted the first hospital-based medical studies to be formally considered part of VA's newly established research program. Began publishing the U.S. Veterans' Bureau Medical Bulletin, designed, in part, to "promote research along practical lines."

1928—Reported findings from early VA studies looking at treatments for malaria, the long-term health effects of chemical warfare, and hospitalization and mortality among Veterans with mental illness.

1932—Published data comparing outcomes at VA clinics with those at other hospitals. The VA facilities compared favorably. Also, established the Tumor Research Laboratory at the Hines (Ill.) VA—the first research lab to receive funds from VA Central Office specifically for research.

1935—Published a series of articles in the *New England Journal of Medicine* about heart disease among Veterans.

1941—Established a research lab at the Northport (N.Y.) VA medical center to conduct clinical and biomedical research in neuropsychiatric disorders; contribute to the nationwide standardization of diagnostic and treatment methods; and teach the latest concepts and methods in neurology, psychiatry, and neuropathology to VA doctors.

1946—Developed and tested effective therapies for tuberculosis following World War II. These tuberculosis studies were among the first-ever large-scale clinical trials and led to development of the Cooperative Studies Program, which has since produced effective treatments for diseases and conditions including schizophrenia, diabetes, depression, heart disease, and stroke.

1958—Contributed to the development and early use of the implantable cardiac pacemaker, helping many patients prevent potentially life-threatening complications from irregular heartbeats.

1960—Pioneered concepts leading to development of computerized axial tomography (CAT scan).

1968—Performed the first successful liver transplants and developed techniques for suppressing the body's natural attempt to reject transplanted tissue.

1970—Published the results of a landmark VA Cooperative Study on hypertension, showing that drug treatment was effective in controlling blood pressure and reducing the incidence of major cardiovascular events.

1977—Nobel Prize awarded to VA researchers Dr. Andrew Schally, for his research on peptide hormone production in the brain; and Dr. Rosalyn Yalow, for her development of radioimmunoassay to detect and measure various substances in the blood.

1984—Developed the nicotine patch and other therapies to help smokers give up the habit.

1991— Developed Functional Electrical Stimulation (FES) systems that allow patients to move paralyzed limbs.

1994—Demonstrated that one aspirin tablet a day reduced by half the rate of death and nonfatal heart attacks in patients with unstable angina.

1994—Identified a gene associated with a major risk for schizophrenia.

2000—Conducted the first large clinical trials of hearing aids, documenting that the devices can help the hearing-impaired in both quiet and noisy environments.

2001—Initiated a landmark clinical trial to assess the effectiveness of deep brain stimulators for Parkinson's disease.

2002—Published, together with National Institutes of Health colleagues, the main results from the landmark ALLHAT study, the largest hypertension study ever, which found that conventional diuretics were better than newer medicines for treating high blood pressure.

2003—Launched the largest-ever clinical trial of psychotherapy to treat posttraumatic stress disorder (PTSD).

2004—Took on leadership of a five-year, $60-million nationwide study—funded by the National Institute on Aging and other partners—to identify brain changes linked to Alzheimer's disease.

2005—Showed the effectiveness of a new vaccine for shingles, a painful skin and nerve infection that affects older adults.

2006—Launched a Genomic Medicine initiative to advance knowledge of how genes affect health and to promote personalized medicine for Veterans.

2007—Unveiled the first powered ankle-foot prosthesis, developed in collaboration with researchers at MIT and Brown University.

2008— Sponsored an international conference on traumatic brain injury (TBI) and expanded VA research in this area, including studies looking at TBI in association with PTSD, hearing and vision loss, chronic pain, and other conditions.

2009—Began a first-of-its kind study at VA medical centers to optimize the design of an advanced prosthetic arm, made by DEKA Research and Development through funding from the Defense Advanced Research Projects Agency.

2009—Initiated the largest health study ever of Vietnam-era women Veterans, with up to 10,000 women expected to take part.

2009—Launched one of the largest studies to date on the genetics of schizophrenia and bipolar disorder, to involve 38,000 Veterans at more than 20 VA sites.

2009—Launched a four-year study of long-term health and social outcomes of OEF/OIF Veterans with serious burn injuries.

2009—Showed that the traditional "on pump" method of heart bypass surgery yields better outcomes after one year than a newer method that does not use a heart-lung machine.

2010—As part of the VA Genomic Medicine Program, announced a groundbreaking genetics study—the Million Veteran Program—to study the effects genes have on health, with some one million Veterans expected to take part over the next five to seven years.

2010—Combined efforts with the U.S. Army to study ways to prevent suicide among active-duty service members, Veterans, and reservists and to build on existing suicide research in VA, the Department of Defense, and the civilian sector; and conducted research with the U.S. Marines to determine why certain service members develop PTSD while others do not.

2010—Began work on a computerized vision system to bridge the limitations of handheld GPS devices for blind users and offer additional mobility and independence for Veterans with vision loss.

2010—Determined that Veterans with a mental health condition, especially PTSD, tend to have more physical ailments than those who do not, and that older Veterans with chronic PTSD had a higher risk for dementia than their peers without the disorder.

2010—Found evidence that prior head injury may double the risk of developing amyotrophic lateral sclerosis (ALS), commonly known as Lou Gehrig's disease.

2010—Determined that robots can be used to provide repetitive, high-intensity therapy for stroke patients, and confirmed previous findings that patients can recover function through therapy even years after a stroke.

2010—Found that the immune system is likely to have a role in the development of Parkinson's disease.

2010—Identified a potential biomarker for PTSD through the use of a super-fast scanner that captures crosstalk between groups of neurons in the brain.

2010—Found that smoking cessation treatment that is made part of mental health care for Veterans with PTSD improves quit rates in those Veterans.

2011—Expanded the REACH (Resources for Enhancing Alzheimer's Caregiver Health in VA) program to support caregivers of Veterans with Alzheimer's disease throughout the nation. In the program, based on earlier research by VA and university investigators, caregivers are provided individual and group counseling, a caregiver guide, education on safety and patient behavior management, and training for their individual health and well being.

2011—Identified a potential blood marker for cognitive decline, through a study of nearly 1,000 older volunteers.

2011—Published study results showing that the tiny, biocompatible brain implant that is part of the BrainGate neural control system remains viable and continues to effectively record brain signals for at least 2.7 years. The technology promises to help those with paralysis achieve more independence, and is also being studied as a prosthetic control system.