Office of Research and Development

John R. Feussner, M.D.
Chief Research and Development Officer

Cooperative Studies Program
John R. Feussner, M.D.
Director

Health Services Research and Development Service
John G. Demakis, M.D.
Director

Medical Research Service
Paul M. Hoffman, M.D.
Director

Rehabilitation Research and Development Service
Mindy Aisen, M.D.
Director
# Table of Contents

Preface ..................................................................................................................... 5

*Translating Research Into Practice* ......................................................................... 7

*Science at the Cutting Edge*  
The Medical Research Service ................................................................................. 10

*Applying New Knowledge*  
The Cooperative Studies Program ........................................................................ 12

*Delivering Quality Care*  
The Health Services Research and Development Service ..................................... 13

*Improving Quality of Life*  
The Rehabilitation Research and Development Service ...................................... 16

*Making a Difference*  
Dissemination ..................................................................................................... 18

*Enhancing Research Efforts*  
Research Collaborations ...................................................................................... 21

*Funding for Research* ............................................................................................ 22

*Opportunities and Challenges*  
Future Outlook .................................................................................................... 24

Research and Development Career Development Awardees 1998 ............................ 27

Summary of 1998 Research and Development Projects ................................. 31
Preface

Amid sweeping transformation, VA continues to keep its sights focused on one constant and overriding goal: its mission of providing excellent health care for America’s veterans. Critically important to guiding and supporting this mission is VA’s research program managed by the Office of Research and Development.

The Office of Research and Development focuses on those health problems that affect veterans most, its highly successful programs spanning the entire range of biomedical, clinical, health services, rehabilitation and epidemiologic research. It also produces technology assessments on new medical treatments, devices, and techniques. VA researchers have long played key roles in developing important health care innovations, and are dedicated to keeping VA at the cutting edge of science and medicine.

Under the leadership of Chief Research and Development Officer John R. Feussner, M.D., the VA research enterprise is strengthening its connection with patient care, so that lessons gleaned from newly acquired knowledge are quickly put into practice where they can benefit veterans.

This second annual VA research report provides an overview of the Office of Research and Development, including details of its evolving structure and highlights of its recent contributions to improving veterans’ health care. More than anything, this report underscores the commitment of VA research to helping VA provide the best possible care for our patients. I am happy to share this document with you and hope you will find it a useful resource.

Kenneth W. Kizer, M.D., M.P.H.
Under Secretary for Health
“No other research program in the United States has as much opportunity to directly improve the lives of patients as does the VA’s Office of Research and Development.”
No other research program in the United States has as much opportunity to directly improve the lives of patients as does the VA’s Office of Research and Development. As one of the largest integrated health care systems in the United States, the VA provides care to nearly 3.5 million veterans. Nested within this dynamic and evolving health care system, the Office of Research and Development is able to put into practice the findings of its scientific investigations and trials and observe their effects. Here, the discovery and the application of new health care knowledge go hand in hand.

Shortly after World War II the modern VA research program began with a $1 million appropriation to fund prosthetic research, education, and training to meet the needs of amputees returning home from the battlefield. The foundation of the fledgling program was built on affiliations between VA medical centers and schools of medicine and on models of care used in academic medicine. In the late 1950s, research became embedded in VA’s authorizing legislation. As a result, research increasingly became an integral part of VA medical center operations. This, in turn, nurtured the environment for excellence in patient care for America’s veterans.

Today, the scope of the VA research portfolio extends from basic laboratory research on the cause, treatment, and cure for a variety of diseases, disorders, and disabilities to research on patient care management. Although the program’s emphasis is on diseases and disorders that affect veterans, the results of VA research are applicable to the health of all Americans.

The mission of the VA research enterprise is “to discover knowledge and create innovations that advance the health and care of veterans and the nation.” In its strategic plan, the Office of Research and Development identified a number of goals, objectives and strategies in support of this mission. Key among these are goals to:

- Sustain an environment of inquiry that is conducive to the highest quality of research, education, and patient care.
- Integrate basic, clinical, and applied research in the best way to meet the health care needs of veterans.
- Ensure that new research results reach clinical care and health system operations settings, where they can make a difference in veterans’ health.
These goals reinforce VA’s commitment to research as it charts a course through the dramatic changes that are reshaping health care delivery not only in VA, but also throughout the country. As the focus of VA’s clinical care enterprise shifts from hospital-based services to patient-centered, ambulatory-based care, VA’s research activities will play an increasingly important role in informing and effecting that transformation.

The Office of Research and Development at VA National Headquarters oversees research within VA through its four service areas:

**The Medical Research Service** provides knowledge of the fundamental biological processes to form an understanding of disease pathology, diagnosis, and treatment.

**The Cooperative Studies Program** applies the knowledge gained from medical research to patients by determining the effectiveness of novel or unproved therapies using multicenter clinical intervention trials.

**The Health Services Research and Development Service** contributes to improving the quality, effectiveness, efficiency, and accessibility of health care services for veterans.

### Designated Research Areas

**Acute and Traumatic Injury**
- Amputation (due to injury or disease)
- Bone fractures and joint injuries (including repair and replacement)
- (Traumatic) brain injury
- Multi-organ failure
- Shock (including sepsis)

**Military & Environmental Exposures**
- Emerging pathogens
- Post-traumatic stress disorder (PTSD)
- Psychological stress (including violence, sexual abuse)
- Thermal exposure (burns, hypothermia)
- Toxins and irritants (e.g., dermal, reproductive, and respiratory)

**Chronic Diseases**
- Bone and joint disorders (including chronic low back pain, osteoarthritis and osteoporosis)
- Cancers (adult leukemia/lymphoma, and solid tissue tumors; including cancer pain)
- Cardiovascular, cerebrovascular and peripheral vascular diseases (including related acute events such as myocardial infarction, stroke, and heart failure)
- Chronic infectious diseases (HIV/AIDS, hepatitis)
- Chronic lung disease
- Chronic renal disease
- Dementia & neuronal dysfunction (including Alzheimer’s Disease, Parkinson’s)
- Diabetes & major complications
- Gastrointestinal disorders (including bowel and liver disorders)
- Spinal cord injury & regeneration

**Sensory Disorders and Loss**
- Hearing disorders
- Vision disorders
- Disorders of taste and smell
The Rehabilitation Research and Development Service addresses the minimization of disability and restoration of function in veterans disabled by trauma or disease.

While each of these four services have particular foci and expertise, the new strategic plan for VA research streamlines and combines appropriate goals and objectives into one integrated effort. Built into this plan, Designated Research Areas identify primary research targets prevalent in the veteran patient population. (See below for detailed listing). These Designated Research Areas cut across the traditional boundaries of VA's four research services to achieve a new synergy. Major initiatives in the coming years will reflect the conviction that solving complex health problems requires not only specialized expertise but continuing synthesis, re-examination of important issues, and communication among disciplines.

Through this dynamic program, VA conducts an array of research activities concentrating on some of the most difficult health care challenges facing society today. Following is a more in-depth description of these activities and recent VA research achievements.

**Mental Illness**
- Anxiety disorders
- Behavioral disorders
- Depression and mood disorders
- Schizophrenia
- Specialized VA mental health services (behavioral and medical interventions)

**Substance Abuse**
- Alcohol
- Drug
- Tobacco
- Dual diagnosis (e.g., alcohol and drugs)
- Specialized substance abuse services (behavioral and medical interventions)

**Special (Underserved, High Risk) Populations**
- Veterans with permanent disabilities (e.g., blind and paralyzed)
- Veteran cohorts defined by shared military experience (e.g., prisoners of war, Persian Gulf veterans)
- Historically underserved veterans (e.g., women, racial, ethnic and cultural minorities, rural veterans)
- Veterans whose living arrangements pose challenges to their health (e.g., homeless or homebound)

**Aging and Age-Related Changes**
- Normal age-related changes
- Aging syndromes (e.g., frailty, immobility, falls)
- Compound problems and comorbidities (e.g., coexisting diabetes and coronary artery disease, dementia and hip fracture)
- Care of elderly veterans
- End of life issues
Science at the Cutting Edge

The Medical Research Service

VA researchers play key roles in developing new medical innovations—the cardiac pacemaker, the CT scan, magnetic resonance imaging, and modern drug therapy for mental illness resulted from VA research. VA surgeons performed the first kidney transplant in the United States.

A world leader in the care and treatment of the elderly, VA is deeply involved in studies of the aging process, including Alzheimer’s disease, prostate disease, and osteoporosis. VA cares for approximately 6 percent of the adult AIDS population in the United States and has made great strides in research on drug therapy and survival rates. Drug addiction, alcoholism, schizophrenia, spinal cord injury, post-traumatic stress disorder, and tissue regeneration are other areas of VA Medical Research.

VA Medical Research continues to make important advances that benefit not only veterans, but all Americans. Recently, for example, VA investigators in Seattle, in collaboration with an international team, discovered the first human gene associated with aging—a major advance in efforts to determine how the aging process leads to age-related diseases. The researchers identified the gene that causes Werner’s Syndrome, a rare
inherited disorder marked by premature aging. Additionally, VA investigators collaborated to identify a gene that plays a key role in development of Alzheimer’s disease—a discovery that may allow researchers to better understand how the disorder develops in people who carry the gene. Another major contribution from VA Medical Research is the recent discovery of a gene that plays a major role in schizophrenia, one of the most common causes of disability among veterans. Although other schizophrenia genes have been discovered, this gene is the first to be found in a majority of families studied and has been linked to two different physiological defects found in schizophrenics and their families. The gene codes for a brain receptor activated by nicotine and helps explain why schizophrenics as a group tend to be heavy smokers. Although well documented, the high incidence of smoking among schizophrenics had been overlooked as a possible link to the root cause of schizophrenia.

Among other recent Medical Research Service achievements, investigators in Portland have paved the way for new treatments of brain tumors. In protecting brain tissue, the blood-brain barrier prevents chemotherapy drugs from reaching tumors from the bloodstream. The Portland team found that a sugar solution temporarily shrinks barrier cells to open spaces through which drugs can enter. Meanwhile, researchers in Minneapolis and Nashville found a way to reduce chronic pain without destroying the normal pain sensations that help protect against serious injuries. Their work may play a key role in the development of new treatments for chronic pain. Another group of investigators in San Diego recently advanced the understanding of how inflammation causes atherosclerosis—clogging of the arteries. If they can stop immune system cells from attacking artery walls in reaction to inflammation, they may be able to prevent the condition that is a leading cause of death in the United States.

Additionally, the Medical Research Service has established a new program that allows VA scientists to take novel approaches to studying biomedical problems common among veterans. The Research Enhancement Awards Program (REAP) supports multidisciplinary research, pilot studies, and research training for young investigators. Thus far, 18 proposals have been approved for funding in research areas including lung disease, bone disease, Parkinson’s disease, heart disease and heart failure, kidney disease, gastrointestinal disorders, spinal cord injury, ulcer wound healing, cancer, multiple sclerosis, Hepatitis C, Alzheimer’s disease, and depression.
Applying New Knowledge

The Cooperative Studies Program

During the past 22 months, the Cooperative Studies Program has launched 22 large new multicenter clinical trials on problems as diverse as heart disease, atherosclerosis, cardiac revascularization, heart failure, arrhythmia, pulmonary nodules, thromboembolism, hernia repair, post-traumatic stress disorder, schizophrenia, alcohol abuse, and substance abuse. This represents a major expansion of VA’s clinical trials program.

VA research clearly improves the survival and quality of life for veteran patients. Studies compare surgery or other invasive treatment with medical treatment, evaluate the most appropriate use of health care services, and assess the cost-effectiveness of competing treatment strategies. For example, a VA study compared the use of subcutaneous versus intravenous human recombinant erythropoietin for treating anemia in patients with end-stage kidney disease. VA researchers demonstrated that the subcutaneous route was much more cost effective while maintaining equal quality of care. The study results will influence policy decisions and prescribing patterns for end stage renal disease patients in VA and other federally supported health care programs.

Another recent VA clinical trial, VANQWISH, evaluated medical management strategies for patients with a common type of heart attack (non-Q wave). It found that most of these patients did not benefit from routine, early invasive management—a conclusion counter to conventional practice. This study will influence health policy and clinical practice in the VA and may improve practice strategies in the private sector as well.

Other Cooperative Studies identified a better treatment for refractory schizophrenia with clozapine, established the optimal medical management for benign prostatic enlargement, and affirmed definitively the effectiveness of urologic surgery for prostate enlargement.

Three Epidemiology Research and Information Centers are the newest addition to the Cooperative Studies Program. The Centers, located in Boston, Durham and Seattle, are studying the incidence, distribution and control of diseases among various subgroups of veterans. Many clinical research questions related to the cause of disease, application of health risk assessment, identification of risk profiles, quantification of prognostic variables, and disease surveillance and control techniques can be informed by this epidemiologic research. These new Centers are conducting numerous investigator-initiated epidemiology research projects on problems such as post-traumatic stress disorder, osteoporosis in men, prostate and colon cancer, ischemic heart disease, diabetes, HIV infection, and spinal cord injury.
The Health Services Research and Development Service

Health Services Research examines the impact of the organization, financing, and management of health care services on the delivery, quality, cost, access to, and outcomes of those services. The overarching objectives of the Health Services Research and Development Service (HSR&D) are to improve the quality of patient care and to increase the efficiency of health care delivery. Examples of issues under investigation by health services researchers include the shift from inpatient to outpatient care, use of non-physician professionals, telephone care and telemedicine, home care strategies, health care technology assessment and appropriate techniques for disseminating research findings. For example, researchers studying a Home Based Primary Care (HBPC) model found potential for lowering total health care and hospital readmission costs among severely disabled and terminally ill patients while increasing patient satisfaction. In an ongoing study of a telephone-based disease management program for diabetic patients, investigators are looking at the use of an automated voice messaging system (AVM) with nurse telephone follow-ups. The AVM calls patients weekly to monitor their health status. Nurses use the patient’s responses to the system to decide appropriate follow-up. Thus
far, the system has shown potential to serve as a “clinician extender” bringing monitoring, diabetes education, and behavior support services into the homes of VA patients with diabetes.

HSR&D’s technology assessment efforts inform VA technology-related policy and decision making. For example, VA owns 10 positron emission tomography (PET) imaging facilities that require a commitment of significant resources to maintain and operate. When the question of whether VA should acquire additional PET capacity arose, HSR&D’s Technology Assessment Program conducted a systematic review of the literature to evaluate what is known about the usefulness of PET in diagnosing diseases important to the veteran population. The assessment found that diagnostic applications of PET were not supported in the literature and VA decided not to invest in additional PET centers. In another technology assessment, the effectiveness and appropriateness of stereotactic pallidotomy, a surgical procedure for the treatment of Parkinson’s disease, was reviewed. The report concluded that the quality of existing evidence was fair to poor with few data on long term outcomes. Most recently, a prospective cooperative trial in 15 VA Medical Centers has been approved for planning to compare the efficacy, safety, and costs of pallidotomy for relieving symptoms of Parkinson’s disease.

A highly productive component of VA’s Health Services Research and Development Service is its complement of 11 Centers of Excellence throughout the United States. These centers have major program expertise in areas such as primary care, care of the elderly, mental health, quality of care, evidence-based medicine, practice management, provider behavior, management of chronic disease, management systems research, and organizational research. In addition, the Management Decision and Research Center bridges research with managers, policy-makers and clinicians. Our newest center, the VA Information Resource Center provides information about reliability and validity of VA data sources.

During the past two years, Health Services Research has announced dozens of new research initiatives. These cover a broad array of outcomes research priorities, including access to care, the impact of managed care practices, primary care and complementary roles of generalists and specialists, implementation of clinical practice guidelines, ethnic and cultural variation in the use of health care services, and a nursing research initiative. Just this year, VA announced new solicitations in patient safety and qualitative research projects in patient-centered care.
VA health services researchers recently published the comprehensive results of VA’s National Surgical Quality Improvement Program, a collaborative effort of VA’s Health Services Research and the Office of Quality Management. Through this initiative, VA has demonstrated its leadership in capturing information on the quality of surgical care, patient-based mortality, morbidity, and health services use. This project began in 1992 and showed a consistent decline in hospital length of stay accompanied by a significant decrease in surgical mortality and morbidity. The program serves as a tremendous resource for VA managers in enhancing the quality of surgical care, and its many contributions have been acclaimed by the non-VA surgical community as well.

In May 1998, VA began extending its research activities in evidence-based medicine to explore strategies for translating research results into clinical practice and health policy. Initially, this new Quality Enhancement Research Initiative (QUERI) will target such high-priority issues for veterans as ischemic heart disease, congestive heart failure, stroke, diabetes, spinal cord injury, prostate disease, prostate and colon cancer, AIDS, depression, schizophrenia, and substance abuse. Over the next several years, QUERI projects will seek to identify best practices in additional priority areas for veterans’ health care and facilitate the implementation of those practices.
Improving Quality of Life

The Rehabilitation Research and Development Service

Rehabilitation Research is dedicated to promoting the health of American veterans with disabilities through a wide spectrum of research activities. Rehabilitation Research Service portfolio is designed to elucidate the pathophysiology of, and implement new, restorative treatments for chronic impairment including paralysis, hearing and vision loss, amputation, and cognitive defects. Rehabilitation engineers create accessible environments and apply novel technologies to the care of veterans with disabilities. Individual investigators focus on a wide array of relevant areas ranging from amputation prevention and joint replacement to optimal wheelchair propulsion, orientation techniques for people who are blind, and early detection of hearing loss.

Rehabilitation Research funds six Centers of Excellence nationally in areas such as aging with a disability, spinal cord injury, functional electrical stimulation, limitations in mobility, geriatric rehabilitation, amputations and prosthetics, and sensory impairment. Recently, the Center of Excellence in Cleveland, which focuses on functional electrical stimulation, was honored for creating an award-winning innova-
tion, a hand-grasp neuroprosthesis known as the Freehand System. This implantable, pacemaker-like device allows people with spinal cord injury to grasp, hold, and release objects of various sizes and shapes. A solicitation for establishing new Centers was just released in November and expands Rehabilitation R&D’s areas of special interest to include low vision, upper extremity prostheses, traumatic and other brain injury, Parkinson’s Disease (novel rehabilitation interventions), stroke and neurologic repair, multiple sclerosis, and spinal cord injury/disease.

Rehabilitation investigators at the New York VA Medical Center Rehabilitation Research Team won first place in the health care category at the 1998 Microsoft Windows World Open with the VA Pedorthic CAD/CAM System. This computer-aided design and manufacture method for custom orthopedic footwear benefits the growing veteran population at risk for amputation from problems such as peripheral vascular disease and diabetes. In 1998, the AdVAntage Arm became available on the commercial market, leapfrogging upper extremity prosthetic technology out of its stagnant state. Developed with Rehabilitation R&D funding, the veteran population was the first to benefit from the lighter weight and increased range of motion of this prosthesis. More than 100,000 veterans stand to benefit from VA developed liquid-crystal, dark-adapting eyeglasses which improve functional mobility, contrast sensitivity, and acuity for people with low vision. Three companies are pursuing plans to manufacture and market this product.

New initiatives planned for Fiscal Year 1999 include technology transfer educational workshops, organizing cooperative trials and research opportunities to advance treatment of Multiple Sclerosis. Rehabilitation R&D and Medical Research are in the process of forming a collaborative panel for evaluating new initiatives in neurorehabilitation to promote research efforts which bridge the gap between the laboratory and the clinical arena for veterans with conditions such as stroke, Parkinson’s Disease, and spinal cord injury.
Dissemination

Dissemination is key to translating research into practice. The Office of Research and Development has a two-pronged commitment to dissemination:

- Disseminate information from research as broadly as possible using a variety of approaches, and;
- Identify and utilize the most appropriate evidence based dissemination methods to ensure effectiveness and efficiency.

Our goal is to disseminate information that is timely, audience specific, appropriate and easily accessible.

Each of the four research services, Cooperative Studies Program, Health Services Research, Medical Research, and Rehabilitation Research, are encouraged to develop dissemination plans and materials for their service. Funded investigators within each of the services are also encouraged to develop dissemination plans for their research findings. From this information flow, Research and Development produces targeted dissemination pieces such as those listed below.
Examples of Research and Development Publications

**IMPACTS**, a document produced annually by each of the four Research and Development Services, provides brief lay language summaries of important current impacts from research studies.

**R&D Catalog**, a biannual document, provides an overview and research focus of all Research and Development funded centers with contact information. The catalog also includes a summary of new initiatives and funding opportunities.

**Priority Research Initiatives**, a biannual document providing an overview of all Office of Research and Development research activities to address areas of unique or special concern to veterans.

**VA Research and Development Annual Report**, an annual piece reporting on the status of Research and Development funding, emphasis areas and significant accomplishments.

**Journal of Rehabilitation Research and Development**, a quarterly publication providing multidisciplinary coverage of rehabilitation research.

**Rehabilitation Research and Development Progress Reports**, an annual compendium of all research being carried out in the area of disability management.

**Reports**, such as the **Annual Report of Activities on VA Efforts on Gulf War Veterans' Illnesses**, are written to inform particular audiences such as the Secretary, Under Secretary for Health, Congress, Special Committees or constituent groups about a specific research effort.

**VA Practice Matters**, a semi-annual document addressing an important health care issue in a concise, easy to read format. The product is targeted at health care providers and clinical managers providing them with the most recent research evidence, and suggestions for implementation based on the evidence. Topics addressed this year were Acute Stroke Treatment and Diagnosis and Management of Benign Prostatic Hyperplasia.

**VA Research and Development Web Page**, contains current information about Research and Development, the services, funding priorities and solicitations as well as a number of publications and reports that can be downloaded.

**Rehabilitation Research and Development Clinical Guides** have successfully relayed research results to veterans and clinicians alike. Areas such as physical fitness for persons with disabilities and practical hearing aid selection continuously require reprints and have even entered the university classroom as teaching tools. Upcoming guides will include a focus on gait analysis.
External Publications


Conferences, Workshops and Seminars

Many VA Research and Development investigators are leaders in their fields of study and, as such, are invited to conduct presentations at conferences, workshops and seminars throughout the United States.
Research Collaborations

The Office of Research and Development enhances its work through collaborative relationships with other government, non-government, as well as private industry organizations. VA Research works with the Department of Defense on important areas such as Mechanisms of Emerging Pathogens; Combat Casualty and Wound Repair; Stress Related Chronic Illnesses (including Post-Traumatic Stress Disorder and Related Gulf War Illnesses) and Prostate Disease, including Prostate Cancer. In addition, VA Research has a number of collaborative activities with the National Institutes of Health and the Agency for Health Care Policy and Research.

On the private industry side, VA Research has collaborations with a number of leading biotechnology and pharmaceutical companies including: Amgen, Astra Merck, Aviron, Bayer Corporation, Berlex Laboratories, Boehringer Ingelheim, Bristol Myers Squibb & Sanofi, DuPont, Eli Lilly, Fugisawa, Glaxo-Wellcome, Hoescht Marion Roussel, Hybritech, InterCardia, Johnson & Johnson (Ortho), KOS, Marion Merrell Dow, Merck, Pfizer, Reckitt/Colman, Rhone-Polenc Rorer, Sandoz, Schein Pharmaceuticals, Schering Schwartz Pharmaceuticals, Smith Kline Beecham, Warner Lambert/Parke-Davis, and Wyeth-Ayerst.

In the area of diabetes, VA Research and Development has funded three Diabetes Research Centers jointly with the Juvenile Diabetes Foundation.
The number of Research and Development funded research projects is contingent on the level of appropriated resources, and the average cost per project. The Office of Research and Development administers the research appropriation for Medical Research, Rehabilitation Research, Health Services Research, and Cooperative Studies. During fiscal year 1998, VA Research funds supported research projects conducted by over 2000 VA Medical Center employees in 109 VA facilities. These projects are initiated on the basis of a VA employee’s own scientific interest or in response to a solicitation from the Research and Development Services in VA Headquarters. Figure 1 shows the recent growth in the Research and Development budget appropriation to support the direct costs of this work. VHA allocates Medical Care dollars to support the research infrastructure or indirect costs such as laboratory facilities, ancillary support services, and physician/clinician salaries. Given the high quality of VA investigators and the overall quality of the research program, VA Research and Development funded investigators have been successful in augmenting the research effort through partnering with other federal agencies, private foundations and industry. Figure 2 provides a summary of all budgetary resources for the past three years and a projection for fiscal year 1999.
Budget Appropriation and Summary of Budget Resources

Figure 1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical and prosthetic research appropriation</td>
<td>$256,678</td>
<td>$262,000</td>
<td>$272,000</td>
<td>$316,000</td>
</tr>
<tr>
<td>Medical Care Support</td>
<td>$334,700</td>
<td>$319,793</td>
<td>$310,665</td>
<td>$353,910</td>
</tr>
<tr>
<td>Other*</td>
<td>$331,615</td>
<td>$402,767</td>
<td>$430,073</td>
<td>$474,648</td>
</tr>
<tr>
<td>Total budgetary resources.</td>
<td>$922,993</td>
<td>$984,560</td>
<td>$1,012,738</td>
<td>$1,144,558</td>
</tr>
</tbody>
</table>

*Includes federal grants, NIH, DOD, private foundations and industry

Figure 2
Opportunities and Challenges

Future Outlook

The outlook for health related research is quite promising in the near term. Support for enhanced federal investment in health related research is strong at both executive and legislative levels. Recognition of the value provided by health related research to the country’s global competitiveness seems to be at a new high.

Our Opportunities

Within VA, research and scientific opportunities are outstanding. The VA research program couples scientific opportunities with clear prioritization of research activities to reflect the burden of disease characterizing the veteran population we serve. Currently, more than 99% of the VA research portfolio is devoted to health problems facing veterans.

Our People

The greatest resource within the Office of Research and Development is our people. We strive to attract and retain the best and the brightest investigators to conduct research that will improve the health and quality of life of our veterans. We will continue working to assure that competitive investigators receive the time obligated in their grants to do their research work.

Additionally, VA continues to redouble its support for the training of future investigators, especially clinician investigators. During FY 1999, VA’s investment in research career development will approach 10% of its entire research appropriation. This is a level of investment not matched in this decade. VA research has observed a gratifying increase in applicants for its career development awards including new awardees in surgical specialties as well as physician investigators in medicine and psychiatry.

Our Programs

In the coming years, VA will focus on many new initiatives critical to improving the health of our veteran patients.

Medical Research will experience continued growth of the new program in epidemiology research. Basic research focusing on the biology of Hepatitis C infection will be an increasing priority as this pathogen threatens to emerge in epidemic dimensions. New initiatives focus on fundamental research on neuro-degenerative diseases, especially Parkinson’s disease, with possible new collaboration with the National Parkinson Foundation.
New collaborations between medical and rehabilitation research on neural regeneration and basic research initiatives concerning spinal cord injury will receive additional funding. Rehabilitation research recently released a call for applications for additional Centers of Excellence, focusing on such high priority areas as upper extremity prostheses, low vision, traumatic brain injury, spinal cord injury, and rehabilitation for patients with stroke and multiple sclerosis.

Health Services Research continues to focus on implementation of research results that demonstrate improvements in patient outcomes and systems efficiencies. The goal of the Quality Enhancement Research Initiative (QUERI) is to create new synergy among innovators such as researchers, clinicians, experts in informatics, managers, and policy-makers. QUERI will become fully operational in FY 1999 and will produce near-term quality improvements while planning new research projects to facilitate future improvements in health care. Heart disease, stroke, cancer, diabetes, AIDS/HIV, schizophrenia, depression, substance abuse, and spinal cord injury are initial focus areas.

The Cooperative Studies Program has released program announcements in several areas resulting in exciting new projects in 1999. Notable among them are three new projects investigating Gulf War illnesses. These include completion of the congressionally mandated survey of Persian Gulf veterans, Phase III; and two treatment trials focusing on antibiotic treatment and non-pharmacological treatments. New and ambitious treatment trials for Parkinson's disease are in the planning stages.

Prostate cancer remains a high priority for VA research. Efforts to prevent this cancer may lead to new collaborations with the National Cancer Institute. VA's minority patients, especially Hispanic and African American men, add a new dimension to the NCI research effort. Other anticipated collaborations with the National Institutes of Aging include treatments of problems especially prevalent among aging Americans. This research effort is building on the strengths of both institutions to conduct research that neither could accomplish efficiently alone.
Our Challenge

VA shares many challenges in common with our academic affiliates. For the immediate future, these concerns include sustaining executive and legislative support for health related research. We will work to secure support for research infrastructure, especially the research equipment and wet-laboratory space needed for VA research to remain world class.

Hopefully, the outlook for health related research will remain bright. Research will continue to add value to the quantity and quality of life for veterans, and all Americans, if we focus on illnesses prevalent in the population we serve, and work purposefully to translate the research discoveries to enhance patient outcomes and health systems efficiencies.

We remain optimistic and enthusiastic about our future.
The VA Office of Research and Development is committed to supporting and strengthening the development of its investigators in the early, mid and advanced stages of their careers in order to attract and retain the best and the brightest. Career development awards within the Health Services, Medical and Rehabilitation Research Services provide salary support for investigators. This salary support frees up time for the investigators to conduct their research or obtain specific training to enhance their research skills. Following is a list of investigators who received Career Development Awards during the 1998 Fiscal Year.

Health Services Research and Development Service

David A. Asch, M.D., M.B.A., Philadelphia, PA

Steven Asch, M.D., Los Angeles, CA

Brenda Booth, Ph.D., Little Rock, AR*

Samuel Bozzette, M.D., Ph.D., San Diego, CA

John Concato, M.D., M.S., M.P.H, West Haven, CT

Kendon Conrad, Ph.D., Hines, IL*

David Edelman, M.D., Durham, NC

Nathan R. Every, M.D., M.P.H., Seattle, WA

Vincent Freeman, M.D., Hines, IL

Terri Fried, M.D., West Haven, CT

Alan Garber, M.D., Ph.D., Palo Alto, CA

Raul I. Garcia, D.M.D., M.Med.Sc., Boston, MA

Megan Gerety, M.D., San Antonio, TX

Mary K. Goldstein, M.D., M.S., Palo Alto, CA

Howard Gordon, M.D., Houston, TX

Paul Heidenreich, M.D., M.P.H., Palo Alto, CA

Timothy Hofer, M.D., M.Sc., Ann Arbor, MI

Susan Hughes, D.S.W., Hines, IL*

T. Michael Kashner, Ph.D., J.D., M.P.H., Dallas, TX*

Lewis E. Kazis, Sc.D., Bedford, MA*

Eve Kerr, M.D., Ann Arbor, MI

JoAnn Kirchner, M.D., Little Rock, AR

Richard A. Marotolli, M.D., M.P.H., West Haven, CT
Rudolph Moos, Ph.D.,
Palo Alto, CA*

Richard Owen, M.D.,
Little Rock, AR

Douglas Owens, M.D., M.Sc.,
Palo Alto, CA

John Peabody, M.D.,
West Los Angeles, CA

Laura Petersen, M.D., M.P.H.,
Houston, TX*

Dawn Provenzale, M.D.,
Durham, NC

Linda Rabeneck, M.D., M.P.H.,
Houston, TX

Jaya Rao, M.D.,
Indianapolis, IN

M. Carrington Reid, M.D., Ph.D.,
West Haven, CT

Kenneth Rosenfeld, M.D., M.P.H.,
West Los Angeles, CA

Gary Rosenthal, M.D.,
Cleveland, OH

Lisa Schwartz, M.D., M.S.,
White River Junction, VT

Alfredo Selim, M.D., M.P.H.,
Boston, MA

Paul Shekelle, M.D., Ph.D.,
Los Angeles, CA

James Tulsky, M.D.,
Durham, NC

Peter A. Ubel, Ph.D., M.D.
Philadelphia, PA

Morris Weinberger, Ph.D.,
Indianapolis, IN*

John Whited, M.D.,
Durham, NC

Mary Whooley, M.D.,
San Francisco, CA

John Williams, M.D., M.H.S.,
San Antonio, TX

Steven Woloshin, M.D., M.S.,
White River Junction, VT

*HSR&D Research Career Scientist

Medical Research Service

Sherry L. Abboud, M.D.,
San Antonio, TX

Carlos L. Arteaga, M.D.,
Nashville, TN

Raj Batra, M.D.,
West Los Angeles, CA

Peter Bloom, M.D.,
Baltimore, MD

Douglas Bremner, M.D.,
West Haven, CT

Matthew D. Breyer, M.D.,
Nashville, TN

Blase A. Carabello, M.D.,
Charleston, SC

Paul J. Christensen, M.D.,
Ann Arbor, MI
Melissa P. Clark, M.D.,
Nashville, TN

Robert J. Coffey, Jr., M.D.,
Nashville, TN

Mark E. Dibner-Dunlap, M.D.,
Cleveland, OH

Lois J. Geist, M.D.,
Iowa City, IA

Scott D. Gitlin, M.D.,
Ann Arbor, MI

Martin Gluck, M.D.,
Bronx, NY

Carla Greenbaum, M.D.,
Seattle, WA

Michael C. Heinrich, M.D.,
Portland, OR

Karl P. Houglum, M.D.,
San Diego, CA

Arif Hussain, M.D.,
Baltimore, MD

F. Frank Isik, M.D.,
Seattle, WA

Randy H. Kardon, M.D., Ph.D.,
Iowa City, IA

Carolyn J. Kelly, M.D.,
San Diego, CA

William J. Kovacs, M.D.,
Nashville, TN

Michael Kozal, M.D.,
Iowa City, IA

Arthur M. Krieg, M.D.,
Iowa City, IA

David J. Kusner, M.D., Ph.D.,
Iowa City, IA

H. Jeffrey Lawrence, M.D.,
San Francisco, CA

Steven R. Lentz, M.D., Ph.D.,
Iowa City, IA

Daniel E. MacDonald, D.M.D.,
Sc.D.,
Bronx, NY

Richard Macko, M.D.,
Baltimore, MD

Rama K. Mallampalli, M.D.,
Iowa City, IA

Peter J. Mannon, M.D.,
Durham, NC

Stephen E. McGowan, M.D.,
Iowa City, IA

Barbara E. Menzies, M.D.,
Nashville, TN

Joseph M. Moates, M.D.,
Nashville, TN

James C. Oates, M.D.,
Charleston, SC

Terrence X. O’Brien, M.D.,
Charleston, SC

Mohammed B. Omary, M.D., Ph.D.,
Palo Alto, CA

Dan Oren, M.D.,
West Haven, CT

John H. Peters, M.D.,
West Los Angeles, CA

Joseph Pisegna, M.D.,
West Los Angeles, CA
Barbara A. Ramlo-Halsted, M.D., San Diego, CA
Michael Reale, M.D., West Haven, CT
Robert F. Reilly, M.D., West Haven, CT
Jane E. B. Reusch, M.D., Denver, CO
George Sachs, M.D., West Los Angeles, CA
Barbara E. Scanley, M.D., Ph.D., West Haven, CT
Andrew V. Schally, Ph.D., New Orleans, LA
Jeremiah E. Silbert, M.D., Bedford, MA
Catherine Stehman-Breen, M.D., M.S., Seattle, WA
Richard T. Stravitz, M.D., Richmond, VA
Roger H. Unger, M.D., Dallas, TX
Douglas E. Vaughan, M.D., Nashville, TN
Margaret E. Wierman, M.D., Denver, CO

Rehabilitation Research and Development Service
Linda Auther, Ph.D., Nashville, TN
Anne S. Carter, Ph.D., Mountain Home, TN
Graham Creasy, M.D., Cleveland, OH
Margot S. Damaser, Ph.D., Hines, IL
Steven A. Gard, Ph.D., Chicago, IL
Carolyynn Patten, M.S., Ph.D., Palo Alto, CA
Karen L. Perell, Ph.D., West Los Angeles, CA
Lisa Riolo, Ph.D., Atlanta, GA
Summary of 1998
Research and Development Projects

Following is a summary of all VA Research and Development funded studies during Fiscal Year 1998. Studies are organized by research service, (Cooperative Studies Program, Health Services Research and Development Service, Medical Research Service and Rehabilitation Research and Development Service), and then alphabetically by investigator.

**Cooperative Studies**

Vitamin E Treatment of Tardive Dyskinesia
Adler, Lenard, M.D.
$4,086

Reducing the Efficacy-Effectiveness Gap in Bipolar Disorder
Bauer, Mark S., M.D.
$1,084,377

VA Non-Q-Wave Infarction Strategies In-Hospital (VANQWISH)
Boden, William E., M.D.
$52,166

The Clinical and Economic Impact of Olanzapine Treatment on Refractory Schizophrenia
Charney, Dennis S., M.D.
Rosenheck, Robert, M.D.
$454,138

Evaluation of GEM Units and Geriatric Follow-Up
Cohen, Harvey J., M.D.
Feussner, John, M.D.
$692,855

Beta-Blocker Evaluation of Survival Trial (BEST)
Eichhorn, Eric J., M.D.
Domanski, Michael, M.D.
$872,865

National Health Survey of Persian Gulf Veterans and their Families
Eisen, Seth, M.D.
Kang, Han
Murphy, Frances
$1,601,280

Warfarin and Aspirin in Secondary Prevention
Fiore, Louis, M.D.
Ezekowitz, Michael, M.D., Ph.D.
$1,896,905

F-Fluorodeoxyglucose (FTP) Positron Emission Tomography (PET) Imaging in the Management of Patients with Solitary Pulmonary Nodules
Fletcher, James W., M.D.
$499,158

Group Treatment of PTSD for Vietnam Theater Veterans (TOP)
Friedman, Matthew J., M.D., Ph.D.
Schnurr, Paula, Ph.D.
$1,216,341

Registry to Obtain Long Term Patency Data on Saphenous Vein and Internal Mammary Artery Grafts
Goldman, Steven, M.D.
$181,931
RCT to Assess the Efficiency of Prevention from Natural Influenza Virus of Live Attenuated and Inactivated Influenza Virus Vaccines in Patients with Chronic Obstructive Pulmonary Disease
Gorse, Geoffrey, M.D.
$728,385

Processes, Structures, and Outcomes of Care in Cardiac Surgery
Hammermeister, K. E., M.D.
Glover, Frederick
$166,279

Oral Anticoagulant Therapy to Improve Patency of Small Caliber Prosthetic Bypass Grafts
Johnson, Willard, M.D.
$131,489

Naltrexone in the Treatment of Alcoholism
Krystal, John, M.D.
Rosenheck, Robert, M.D.
$1,027,693

NIDCD/VA Hearing Aid Trial
Larson, Vernon D., Ph.D.
$541,165

Natural History of Large Abdominal Aortic Aneurysms
Lederle, Frank A., M.D.
$30,922

Aneurysm Detection and Management (ADAM)
Lederle, Frank E., M.D.
Wilson, Samuel A., M.D.
$672,939

Effect of Polyunsaturated Lecithin on Liver Fibrosis
Lieber, Charles W., M.D.
$1,498,372

Prospective Evaluation of Risk Factors for Large (>1 cm) Colonic Adenomas in Asymptomatic Subjects
Lieberman, David, M.D.
$373,344

The Coronary Artery Revascularization Prophylaxis Trial (CARP Trial)
McFalls, Edward O., M.D., Ph.D.
$297,669

Colchicine in the Treatment of Alcoholic Cirrhosis of the Liver
Morgan, Timothy R., M.D.
$1,189,700

Urgent Revascularization in Unstable Angina (AWESOME)
Morrison, Douglass, M.D.
Gulshan, Sethi, M.D.
$891,963

Trial of Varicella Vaccine for the Prevention of Herpes Zoster and its Complications
Oxman, Michael N., M.D.
$312,937

Treatment of Seizures in the Elderly Population
Rowan, A. James, M.D.
Ramsay, R. Eugene, M.D.
$1,228,933
The VA HDL Intervention Trial (HIT):
Secondary Prevention of Coronary Heart Disease in Men with Low HDL-Cholesterol and Desirable LDL-Cholesterol
Rubins, Hanna, M.D., M.P.H.
Robins, Sander, M.D.
$1,174,093

The Effects of Antiarrhythmic Therapy in Maintaining Stability of Sinus Rhythm in Atrial Fibrillation
Singh, Steven N., M.D.
Singh, Bramah N., M.D., Ph.D.
$1,002,809

Comparison of Anterior and Posterior Chamber Lens Implants After Vitreous Loss in Attempted Extracapsular Cataract Extraction
Smith, Thomas, M.D.
$116,356

Follow-Up Study of the Medical and Surgical Therapies for Gastroesophageal Reflux Disease
Spechler, Stuart, M.D.
$172,485

A Genetic Linkage Study of Schizophrenia
Tsuang, Ming, M.D., Ph.D.
$264,826

A Multi-Site Randomized Trial of Team Managed Hospital Based Home Care
Weaver, Frances, Ph.D.
Cummings, Joan, M.D.
Hughes, Susan, D.S.W.
$692,855

VA Topical Tretinoin Chemoprevention Trial
Weinstock, Martin, M.D., Ph.D.
$228,014

Costs and Outcomes of Telephone Care Pilot
Welch, H. Gilbert, M.D., M.P.H.
$332,679

Normative Evaluation of a Computer-Assisted Neuropsychological Screening Battery Pilot
White, Roberta, Ph.D.
$499,149

Prostate Cancer Intervention Versus Observation Trial (PIVOT): A Randomized Trial Comparing Radical Prostatectomy versus Palliative Expectant Management for the Treatment of Clinically Localized Prostate Cancer
Wilt, Timothy J., M.D., M.P.H.
Brawer, Michael, M.D.
$1,252,693

The Iron (Fe) and Atherosclerosis Study (FeAST) - Pilot
Zacharski, Leo R., M.D.
$23,400
Health Services Research And Development Service

Preventing Progression to Chronic Back Pain
Atkinson, Joseph, M.D.
$157,300

Rehabilitation Issues of Concern for Women with Spinal Cord Injuries
Bach, Carol Ann, Ph.D.
$43,164

Developmental Projects Program at Providence, RI: Ambulatory Care, Mental Health
Bauer, Mark, M.D.
$100,000

Quality of Life and Patient Utility for Veterans with Prostate Cancer
Bennett, Charles, M.D., Ph.D.
$190,752

Pressure Ulcer Care in Nursing Homes: Effect of Clinical Guidelines
Berlowitz, Dan, M.D., M.P.H.
$282,200

Enhancing Access to Primary Care for Veterans with Psychiatric Illness
Bozzette, Samuel A., M.D., Ph.D.
$122,700

Developmental Projects Program at Baltimore, MD: Outcomes, Geriatrics
Bradham, Douglas, M.D., Ph.D.
$97,128

Veteran Women’s Alcohol Problems: Prevalence, Screening and Self Help
Bradley, Katherine A., M.D., M.P.H.
$131,096

Pain Management and Behavioral Outcomes in Patients with Dementia
Buffum, Martha, D.N.Sc.
$68,939

Psychophysiology of PTSD in Female Nurse Vietnam Veterans
Carson, Margaret, R.N., Ph.D.
$200,000

The Effect of Managed Care on VA Hospital Costs
Cary, Kathleen, Ph.D.
$135,200

Reducing Lower Back Injuries in VAMC Nursing Personnel
Caska, Barbara, Ph.D.
$95,385

Comprehensive Outcomes of Nonmelanoma Skin Cancer
Chren, Mary-Margaret, M.D.
$40,666

Prostate Cancer Outcome Measures: Age and Race Effects
Clark, Jack, Ph.D.
$149,454

Informal Caregivers of Veterans with Dementia: Cost, QOL and Service Use
Clipp, Elizabeth, Ph.D.
$168,656

Outcomes Assessment for Dementia Care: Development of a Module
Cody, Marisue, Ph.D., R.N.
$11,709
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Investigator(s)</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercises Effect on Aerobic Capacity and QOL in Heart Failure</td>
<td>Collins, Eileen, Ph.D., R.N.</td>
<td>$120,900</td>
</tr>
<tr>
<td>Effectiveness of Screening for Prostatic Cancer: A Cohort Study</td>
<td>Concato, John, M.D.</td>
<td>$121,025</td>
</tr>
<tr>
<td>Risk Mortality in Prostate Cancer</td>
<td>Concato, John, M.D.</td>
<td>$148,470</td>
</tr>
<tr>
<td>Educational Efforts to Reduce the Cultural and Ethnic Variation in Cardiac Procedure Use</td>
<td>Conigliaro, Joseph, M.D., M.P.H.</td>
<td>$153,446</td>
</tr>
<tr>
<td>Home Walking Exercise Training in Advanced Heart Failure</td>
<td>Corvera, Teresita, R.N., M.N.</td>
<td>$124,250</td>
</tr>
<tr>
<td>Ethnic/Cultural Variations in the Care of Veterans with Osteoarthritis</td>
<td>Covinsky, Kenneth, M.D., M.P.H.</td>
<td>$109,800</td>
</tr>
<tr>
<td>Migration Patterns of U.S. Veterans</td>
<td>Cowper, Diane, M.A.</td>
<td>$49,000</td>
</tr>
<tr>
<td>Familial Patterns in Prostate Cancer</td>
<td>Cunningham, Glenn, M.D.</td>
<td>$101,537</td>
</tr>
<tr>
<td>SAFE-GRIP Fall/Injuries Interventions: A Randomized Trial</td>
<td>Devito, Carolee, Ph.D., M.P.H.</td>
<td>$186,700</td>
</tr>
<tr>
<td>Nurse Counseling for Physical Activity in Primary Care Patients</td>
<td>Dubbert, Patricia, Ph.D.</td>
<td>$122,675</td>
</tr>
<tr>
<td>Processes, Structure, and Outcomes of Post-Stroke Rehabilitation Care</td>
<td>Duncan, Pamela W., Ph.D.</td>
<td>$436,124</td>
</tr>
<tr>
<td>Treatment of Depression in Patients with PTSD</td>
<td>Dunn, Nancy Jo, Ph.D.</td>
<td>$189,803</td>
</tr>
<tr>
<td>A Follow-up Investigation of the Effectiveness and Efficiency of GEM Care</td>
<td>Engelhardt, Joseph, Ph.D.</td>
<td>$21,800</td>
</tr>
<tr>
<td>Developmental Projects Program at Decatur, GA: Quality, Cost, Performance Measures</td>
<td>Etchason, Jeff, M.D.</td>
<td>$108,300</td>
</tr>
<tr>
<td>Evaluation of Subacute Rehabilitation Care</td>
<td>Evans, Ron, M.S.W.</td>
<td>$90,050</td>
</tr>
<tr>
<td>An Evaluation of the Organization of Subspecialty Cardiac Care within VA</td>
<td>Every, Nathan, M.D.</td>
<td>$236,360</td>
</tr>
<tr>
<td>Ambulatory Care Quality Improvement Project: (ACQUIP)</td>
<td>Fihn, Stephan, M.D., M.P.H.</td>
<td>$780,365</td>
</tr>
<tr>
<td>Cost-Effectiveness of Lung Volume Reduction Surgery</td>
<td>Fihn, Stephan, M.D., M.P.H.</td>
<td>$23,500</td>
</tr>
</tbody>
</table>
Schizophrenia Outcomes Module: Enhancement and Field Testing
Fischer, Ellen, Ph.D.
$269,451

Decision Making for Depression in Women Veterans: Patient and Physician Factors
Frayne, Susan, M.D., M.P.H.
$28,300

A Pilot Study: Effectiveness of Telecare in the Management of Diabetes
Gaehde, Steven, M.D.
$34,762

Gait and Balance Training in Reducing Occurrence and Fear of Falls in the Elderly
Galindo-Ciocon, Daisy, Ph.D.
$93,350

Assessment of Respiratory Function in Chronic Spinal Cord Injury
Garshick, Eric, M.D., M.O.H.
$62,212

Practice Patterns and Variations in Care of VA Patients with Acute MI
Gaziano, Michael J., M.D., M.P.H.
$238,100

Utility of PTF Data in Monitoring Outcomes of Surgical Care
Geraci, Jane, M.D., M.P.H.
$82,451

Improved Management of Patients with Chronic Airflow Obstruction
Goldman, Michael, M.D.
$37,900

Costs, Quality of Life and Functional Outcomes in Veterans Treated for MS with Beta-Interferon 1-B (Beta seron)
Guarnaccia, Joseph, M.D.
$178,051

Using Pain Resource Nurses to Improve Cancer Patient Pain Outcomes
Hagan, Susan, M.S.
$65,850

Ethnicity and Veteran Identity as Determinants of VA Ambulatory Care Use
Harada, Nancy, Ph.D.
$200,700

Effectiveness of Team Treatment of Depression in Primary Care
Hedrick, Susan, Ph.D.
$168,529

Evaluating HEDIS 3.0 for VHA
Hendricks, Ann, Ph.D.
$209,200

Evaluating Quality of Care Screens from Laboratory Databases
Hofer, Timothy, M.D.
$244,047

Guidelines for Drug Therapy of Hypertension: Closing the Loop
Hoffman, Brian, M.D.
$53,175

Developmental Projects Program at Lexington, KY: Pulmonary Rehabilitation Treatments, Cost and Physician-Patient Preferences
Holleman, Donald, M.D.
$25,000
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Investigator(s)</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Management and Outcomes of Veterans with Strokes at VAMC</td>
<td>Horner, Ronnie, Ph.D.</td>
<td>$54,780</td>
</tr>
<tr>
<td>Protocols to Manage Resistance to Care in Veterans with Alzheimer’s Disease</td>
<td>Hurley, Ann, R.N., D.N.Sc.</td>
<td>$95,382</td>
</tr>
<tr>
<td>Database Resource Center</td>
<td>Hynes, Denise, Ph.D.</td>
<td>$68,861</td>
</tr>
<tr>
<td>Oral Health and Quality of Life in Older Veterans</td>
<td>Jones, Judith, D.D.S.</td>
<td>$122,400</td>
</tr>
<tr>
<td>A Randomized Trial to Implement the AHCPR Smoking Cessation Guideline</td>
<td>Joseph, Ann, M.D., M.P.H.</td>
<td>$6,842</td>
</tr>
<tr>
<td>Cultural Factors in Adaptation to Chronic Illness</td>
<td>Katz, Murray, M.D.</td>
<td>$137,800</td>
</tr>
<tr>
<td>Developmental Projects Program at Tucson, AZ: Special Populations</td>
<td>Katz, Murray, M.D.</td>
<td>$18,750</td>
</tr>
<tr>
<td>Health Related Quality of Life in Veterans: A Pilot Study</td>
<td>Kazis, Lewis, Sc.D.</td>
<td>$310,963</td>
</tr>
<tr>
<td>Toward Gender-Aware VA Health Care: Staff Ideology, Sensitivity, &amp; Knowledge</td>
<td>King, Lynda, Ph.D.</td>
<td>$79,900</td>
</tr>
<tr>
<td>Proactive Diabetes Case Management</td>
<td>Krein, Sarah, Ph.D., R.N.</td>
<td>$600</td>
</tr>
<tr>
<td>Mental Health Outcomes Associated with Bosnia Peacekeeping Mission</td>
<td>Litz, Brett, Ph.D.</td>
<td>$94,482</td>
</tr>
<tr>
<td>Nurse Managed Clinic for Dementia Patients and Family Caregivers</td>
<td>Maddox, Melitta, M.S.N., R.N.C.S.</td>
<td>$24,550</td>
</tr>
<tr>
<td>Impact of Provider Substance Abuse Education on Guideline Implementation</td>
<td>McCormick, Richard, Ph.D.</td>
<td>$221,700</td>
</tr>
<tr>
<td>Development of Individual-Patient Physical Health Profiles with IRT</td>
<td>McHorney, Colleen, Ph.D.</td>
<td>$71,887</td>
</tr>
<tr>
<td>Area Variation in Length of Stay, Pre and Post-hospital Care and Survival</td>
<td>Menke, Terri, Ph.D.</td>
<td>$114,602</td>
</tr>
<tr>
<td>Developmental Projects Program at Augusta, GA: Tech Assessment (Telemedicine)</td>
<td>Middleton, Ill, Henry, M.D.</td>
<td>$64,040</td>
</tr>
<tr>
<td>Determinants of VA and Non-VA Health Care Use Among Elderly Veterans</td>
<td>Morgan, Robert, Ph.D.</td>
<td>$71,200</td>
</tr>
<tr>
<td>Gender Differences in Compensation and Pension Claims Approval for PTSD</td>
<td>Murdoch, Maureen, M.D., M.P.H.</td>
<td>$109,160</td>
</tr>
</tbody>
</table>
Developmental Projects Program at Tampa, FL: Labor Management Issues, Outcomes, Rehabilitation
Nelson, Audrey, R.N., Ph.D.
$99,996

Redesigning Patient Handling Tasks to Prevent Nursing Back Injuries
Nelson, Audrey, R.N., Ph.D.
$132,800

Evaluating Society’s Costs for Veterans’ Healthcare Through VHA
Nugent, Gary, M.H.A.
$818,662

Race, Patient Preference and Stroke Risk Reduction
Oddone, Eugene, M.D., M.H.Sc.
$339,867

A Multi-site Study of Strategies for Implementing Schizophrenia Guidelines
Owen, Richard, M.D.
$211,982

The Quality of Medication Management for Schizophrenia
Owen, Richard, M.D.
$202,648

Are Clinical Vignettes Better than Chart Abstraction to Measure Quality?
Peabody, John W., M.D., Ph.D.
$93,174

Evaluation of a Comprehensive Advance Care Planning Intervention
Pearlman, Robert, M.D.
$164,414

Appropriateness and Necessity of Cardiac Procedure Use After AMI in VHA
Petersen, Laura, M.D., M.P.H.
$78,964

Factors that Influence the Demand for Outpatient VA Services
Phibbs, Ciaran S., Ph.D.
$103,200

Automated Calls with Nurse Follow-up to Improve Diabetes Ambulatory Care
Piette, John, Ph.D.
$197,600

Predicting Inpatient Service Use Among VA Substance Abuse Patients
Piette, John, Ph.D.
$29,700

Developmental Projects Program at Columbia, MD: Labor Management Issues, Managed care
Pillinger, Carole, M.D.
$122,170

VA and Non-VA Resource Use and Outcomes in HIV Infected Men
Rabeneck, Linda, M.D., M.P.H.
$24,162

Developmental Projects Program at Cincinnati, OH: Outcome Measurement, Cost, Quality, Access, Satisfaction
Render, Marta, M.D.
$107,064

Effect of Activity on Sleep of Cognitively-Impaired Veterans
Richards, Kathleen, Ph.D., R.N.
$165,542
Coronary Angioplasty Outcomes—Veterans and the Private Sector
Ritchie, James L., M.D.
$92,231

Ambulatory Case Mix Measures: Implications for VA Managed Care
Rosen, Amy, Ph.D.
$196,100

Decline in Functional Status as a Quality Indicator for Long-Term Care
Rosen, Amy, Ph.D.
$167,025

Practice Patterns in Care of Chronically Mentally Ill and Homeless Veterans
Rosenheck, Robert, M.D.
$233,458

Impact of Outsourcing VA Cardiac Surgery on the Cost and Quality of Care
Rosenthal, Gary E., M.D.
$29,700

A Regional Market-Based Analysis of Patient Outcomes in a VA Hospital
Rosenthal, Gary, M.D.
$100,700

A Casefinding and Referral System for Older Veterans Within Primary Care
Rubenstein, Laurence, M.D., M.P.H.
$188,680

Efficacy of Telepsychiatry in the Treatment of Depression
Ruskin, Paul E., M.D.
$108,705

A Prospective Study of Patient Preferences for Prostatic Cancer Treatment
Schapira, Marilyn, M.D.
$25,169

The Impact of a Specific Drug Program on Alcoholics
Schuckit, Marc, M.D.
$78,776

Implementing Smoking Cessation Guidelines: Randomized Trial of Evidence Based Quality Improvement
Sherman, Scott, M.D.
$40,198

Effect of Behavioral Management on Quality of Life in Heart Failure
Shively, Martha, Ph.D.
$52,150

Quality of Life in Women Veterans Using VA Ambulatory Health Care
Skinner, Catherine, Ph.D.
$51,137

Effectiveness and Cost Impact of Telecommunications System in COPD
Sparrow, David, D.Sc.
$62,664

Randomized Control Trial of Exercise Training in Patients with COPD
Sparrow, David, D.Sc.
$93,785

Developmental Projects Program at Buffalo, NY: Outcomes, Chronic Diseases
Spaulding, Steven, M.D.
$102,159
PTSD Among VA Ambulatory Care Patients
Spiro, Arron, III, Ph.D.
$165,000

Developmental Projects Program at Omaha, NE: Customer Satisfaction, Cost, Chronic Diseases, Special Populations
Spurzem, John R., M.D.
$99,684

Objective Measurement of Daily Activity in COPD
Steele, Bonnie, Ph.D.
$79,012

Causes of Protein-Energy Undernutrition Among Elderly Patients
Sullivan, Dennis M.D.
$23,170

An Integrated Model of Primary Care in Mental Health
Swindle, Ralph, Ph.D.
$214,044

Health Services Databases and Data Quality Information
Swindle, Ralph, Ph.D.
$99,700

Computerized Guidelines Enhanced by Symptoms & History: Clinical Effects
Tierney, William, M.D.
$280,196

Matching Outcomes and Costs in Substance Abuse/Psychiatric Treatment
Timko, Christine, Ph.D.
$82,775

Defining the Attributes of the Quality of Dying
Tulsky, James A., M.D.
$87,070

Negotiating Patient Expectations and Requests in A Managed Care Environment
Tulsky, James A., M.D.
$158,140

Patient Preferences and the Care of Diabetes
Vijan, Sandeep, M.D.
$400

Developmental Projects Program at Iowa City, IA: Tech Assessment (Telemedicine)
Wakefield, Bonnie, Ph.D., R.N.
$72,190

Development of a VA Long-Term Care Database
Weaver, Frances, Ph.D.
$14,785

Surgical Risks and Outcomes of Women Treated in VA Hospitals
Weaver, Frances, Ph.D.
$123,650

Delivery of Mental Health Services to American Indians and Hispanic Americans in New Mexico and Minnesota
Westermeyer, Joseph, M.D., M.P.H., Ph.D.
$205,190

Teledermatology: Diagnosing Dermatologic Lesions by Digital Imaging
Whited, John, M.D.
$65,050
Cultural Barriers to Access to VA Blind Rehabilitation Services
Williams, Marjory, R.N.
$55,650

An Objective Indicator of Risk of Developing a Pressure Ulcer
Wilson, Paulette Russell, Ph.D.
$64,051

Patient Preferences in End Stage Prostate Cancer
Wray, Nelda, M.D., M.P.H.
$100,525

Managed Care Performance of VHA Primary Care Delivery Systems
Yano, Elizabeth, Ph.D.
$186,937

Studies of Protein Kinase CK2 Regulation in Cell Growth
Ahmed, Khalil, Ph.D.
$56,640

Mechanism of Colon Cancer Prevention by NSAIDs
Ahn, Dennis J., M.D.
$110,000

Molecular Analysis of Eosinophil Activation by Chemokines
Ahuja, Sunil, M.D.
$157,940

Radioiodine Uptake Restoration in Dedifferentiated Human Thyroid Cancer
Ain, Kenneth B., M.D.
$59,940

Striatal and Subthalamic mGluRs
Albin, Roger L., M.D.
$77,550

Heterogeneity of the Interhepatic Biliary Tree
Alpini, Gianfranco D., Ph.D.
$103,230

Thyroid Hormone Metabolism by Sulfate Conjugation
Anderson, Robert J., M.D.
$50,160

Mechanisms of Cutaneous Neuroinflammation
Ansel, John C., M.D.
$72,710

Mechanisms of Development of Parapneumonic Effusions
Antony, Veena B., M.D.
$94,490

Medical Research Service

CSF-1 Gene Expression in Osteoclast Biology
Abboud, Sherry L., M.D.
$50,800

Growth Factors and Mesangial Cell Function
Abrass, Christine K., M.D.
$109,010

Radiation, Cell Cycle and Protein Kinase C
Acevedo-Duncan, Mildred E., Ph.D.
$72,630

Role of Bombesin-Like Peptides in Chronic Airflow Obstruction
Aguayo, Samuel M., M.D.
$110,000

Mechanisms of Protein Kinase CK2 Regulation in Cell Growth
Ahmed, Khalil, Ph.D.
$56,640

Mechanism of Colon Cancer Prevention by NSAIDs
Ahn, Dennis J., M.D.
$110,000

Molecular Analysis of Eosinophil Activation by Chemokines
Ahuja, Sunil, M.D.
$157,940

Radioiodine Uptake Restoration in Dedifferentiated Human Thyroid Cancer
Ain, Kenneth B., M.D.
$59,940

Striatal and Subthalamic mGluRs
Albin, Roger L., M.D.
$77,550

Heterogeneity of the Interhepatic Biliary Tree
Alpini, Gianfranco D., Ph.D.
$103,230

Thyroid Hormone Metabolism by Sulfate Conjugation
Anderson, Robert J., M.D.
$50,160

Mechanisms of Cutaneous Neuroinflammation
Ansel, John C., M.D.
$72,710

Mechanisms of Development of Parapneumonic Effusions
Antony, Veena B., M.D.
$94,490
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Investigator(s)</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer's Disease and Aging: Therapeutic Potential of Estrogen</td>
<td>Asthana, Sanjay, M.D.</td>
<td>$57,480</td>
</tr>
<tr>
<td>Aging and Lymphocyte Luteinizing Hormone-Releasing Hormone</td>
<td>Azad, Nasrin, M.D.</td>
<td>$73,700</td>
</tr>
<tr>
<td>Oligodeoxynucleotides as Cancer Immunotherapeutic Agents</td>
<td>Ballas, Zuhair, M.D.</td>
<td>$108,900</td>
</tr>
<tr>
<td>Role of Adaptive Processes in Mediating the Effects of Drugs on Mood</td>
<td>Barrett, Robert J., Ph.D.</td>
<td>$65,670</td>
</tr>
<tr>
<td>Genetic Determinants of Plasma Factor VII Levels</td>
<td>Bauer, Kenneth A., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Cross-Sensitization as a CNS Model for Gulf War Chemical Intolerance</td>
<td>Bell, Iris R., M.D., Ph.D.</td>
<td>$48,000</td>
</tr>
<tr>
<td>GRP Receptor Expression and Functional Regulation in Cancers of the Stomach and Colon</td>
<td>Benya, Richard, M.D.</td>
<td>$104,500</td>
</tr>
<tr>
<td>PLA2 Mechanisms in an Animal Model Relevant to Schizophrenia</td>
<td>Berger, S. Paul, M.D.</td>
<td>$109,890</td>
</tr>
<tr>
<td>Sarcolemmal Ion Transport in Ischemic Myocardium</td>
<td>Bersohn, Malcolm M., M.D., Ph.D.</td>
<td>$43,920</td>
</tr>
<tr>
<td>The Effect of Microtubules on B-Adrenergic Responsiveness in the Heart</td>
<td>Bies, Roger D., M.D.</td>
<td>$14,214</td>
</tr>
<tr>
<td>Molecular Mechanisms of Function of the B Cell Transforming Protein LMP1</td>
<td>Bishop, Gail A., Ph.D.</td>
<td>$128,133</td>
</tr>
<tr>
<td>Hyperoxia and the L-Arginine: NO Pathway in Human Lung Endothelium</td>
<td>Block, Edward R., M.D.</td>
<td>$59,640</td>
</tr>
<tr>
<td>Cell-Assisted Tendon Repair with Aging</td>
<td>Boivin, Gregory P., M.S., D.V.M.</td>
<td>$55,560</td>
</tr>
<tr>
<td>Chronic Inflammation and Gastrointestinal Cancer</td>
<td>Boland, C. Richard, M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Physiological Arousal and the Measurement of Sleepiness</td>
<td>Bonnet, Michael H., Ph.D.</td>
<td>$62,500</td>
</tr>
<tr>
<td>Structure-Function Studies of the SHV-1 B-lactamase</td>
<td>Bonomo, Robert A., M.D.</td>
<td>$43,020</td>
</tr>
<tr>
<td>Oncogene Intervention into Hematopoietic Signaling</td>
<td>Boswell, Scott, M.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>Project Description</td>
<td>Investigator(s)</td>
<td>Funding (in USD)</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Genetic Analysis of T-Cell Leukemogenesis</td>
<td>Brandt, Stephen J., M.D.</td>
<td>$42,900</td>
</tr>
<tr>
<td>Androgen Effects in Men</td>
<td>Bremner, William J., M.D., Ph.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Postmenopausal Hormone Therapy and HDL Metabolism</td>
<td>Brinton, Eliot A., M.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>Cellular and Molecular Mechanisms of Enhanced Wound Healing</td>
<td>Browder, I. William, M.D.</td>
<td>$78,100</td>
</tr>
<tr>
<td>3882 Psychological, CNS &amp; Myocardial Mechanisms in Mental Stress Ischemia</td>
<td>Burg, Matthew M., Ph.D.</td>
<td>$30,000</td>
</tr>
<tr>
<td>Regulation of Bone-Forming Cells by Calcitonin Gene-Related Peptide</td>
<td>Burns, Douglas M., Ph.D.</td>
<td>$136,850</td>
</tr>
<tr>
<td>The Cellular Immune Response to Myelin Antigens in Multiple Sclerosis</td>
<td>Burns, James B., M.D.</td>
<td>$67,100</td>
</tr>
<tr>
<td>Molecular Genetics of Acquired and Hereditary Human Disease</td>
<td>Buxbaum, Joel, M.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>The Behavioral Pharmacology of Conditioned Responses Induced by Drugs of Abuse</td>
<td>Carey, Robert J., Ph.D.</td>
<td>$53,240</td>
</tr>
<tr>
<td>Molecular Regulation of B Lymphocyte Activation by CD19</td>
<td>Carter, Robert H., M.D.</td>
<td>$87,450</td>
</tr>
<tr>
<td>Parenteral Nutrition, Gut Hypoplasia, and Cancer Cachexia</td>
<td>Chance, William T., Ph.D.</td>
<td>$109,259</td>
</tr>
<tr>
<td>Cytokine Cascades in Granuloma Formation</td>
<td>Chensue, Stephen W., Ph.D., M.D.</td>
<td>$103,108</td>
</tr>
<tr>
<td>Molecular Interaction Between Phosphocitrate and Calcium Crystals</td>
<td>Cheung, Herman S., Ph.D.</td>
<td>$105,820</td>
</tr>
<tr>
<td>Influence of Platelet Protein Phosphorylation on Platelet Function</td>
<td>Chiang, Tom M., Ph.D.</td>
<td>$123,227</td>
</tr>
<tr>
<td>Surfactants for the Disinfection of Complex Wounds</td>
<td>Christensen, Gordon D., M.D.</td>
<td>$52,800</td>
</tr>
<tr>
<td>Translational Regulation of Gene Expression</td>
<td>Chu, Edward, M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Structural Analysis of the Interleukin-2 Receptor Complex</td>
<td>Ciardelli, Thomas L., Ph.D.</td>
<td>$137,410</td>
</tr>
<tr>
<td>Safety and Efficacy of Aortomyoplasty for Long-term Counterpulsation</td>
<td>Cmolik, Brian L., M.D.</td>
<td>$42,720</td>
</tr>
</tbody>
</table>
Mechanisms of UV Radiation Therapy in Psoriasis
Cooper, Kevin D., M.D.
$110,000

Bacterial DNA Induction of Macrophage/Dendritic Cell IL-12 Production
Cowdery, John S., M.D.
$54,480

Recruitment and Activation of Pulmonary Lymphocyte Subsets
Curtis, Jeffrey L., M.D.
$87,230

A New Protective Antigen of Group A Streptococci
Dale, James B., M.D.
$59,820

T Cell Receptor - MHC - Peptide Interactions in Rheumatoid Arthritis
Davey, Michael P., M.D., Ph.D.
$40,740

Mechanisms of Gonadotropin Action
Davis, John S., Ph.D.
$106,700

A Program in Biological Psychiatry
Davis, Kenneth L., M.D.
$57,480

Pulmonary Circulation: Hemodynamics and Nonrespiratory Function
Dawson, Christopher A., M.D.
$110,000

5434 Antioxidant Supplementation in Diabetic Nephropathy
De Rubertis, Frederick R., M.D.
$50,215

Neuroendocrine Prostate Cancer
Deftos, Leonard J., M.D.
$109,670

Asymmetrical Cognitive Profiles in Individuals with ApoE-E4 Genotype
Delis, Dean C., Ph.D.
$78,820

Inositol Phosphate and Ca2+ Signaling in Xenopus Oocytes
Delisle, Sylvain, M.D.
$54,480

Parallel Processing of Information in the Human Visual System
DeMarco, Paul J., Ph.D.
$39,870

Pulmonary Artery Smooth Muscle Cell Proliferative Response to Hypoxia
Dempsey, Edward C., M.D.
$55,200

Schwann Cell Response to Myelin-Derived Peptides
Devries, George H., Ph.D.
$177,900

Growth Factor Regulation of the Bradykinin Receptor in Vascular Injury
Dixon, Bradley S., M.D.
$86,240

Lipoprotein Metabolism: Lipase Processing and Regulation
Doolittle, Mark H., Ph.D.
$137,590

The Effects of C-Reactive Protein on Autoimmunity
Du Clos, Terry W., M.D., Ph.D.
$60,000
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Investigator</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Stable Isotopes to Examine In Vivo Levodopa Pharmacokinetics in Parkinson Disease</td>
<td>Durso, Raymon, M.D.</td>
<td>$104,500</td>
</tr>
<tr>
<td>Human Vascular Responses to Anesthesia</td>
<td>Ebert, Thomas J., M.D., Ph.D.</td>
<td>$57,180</td>
</tr>
<tr>
<td>Intracellular Angiotensin II and Nuclear Receptors of Vascular Tissue</td>
<td>Eggena, Peter, Ph.D.</td>
<td>$54,360</td>
</tr>
<tr>
<td>CaN19 Function in Regenerative Epidermal Differentiation</td>
<td>Elder, James T., M.D., Ph.D.</td>
<td>$59,040</td>
</tr>
<tr>
<td>Mechanisms of Myocyte Apoptosis</td>
<td>Engler, Robert L., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Structure &amp; Function of Na+-pump: Site-Directed Mutagenesis/180 Exchange</td>
<td>Faller, Larry D., Ph.D.</td>
<td>$155,554</td>
</tr>
<tr>
<td>Molecular Pathogenesis of Hepatopulmonary Syndrome</td>
<td>Fallon, Michael B., M.D.</td>
<td>$42,360</td>
</tr>
<tr>
<td>3625 The Role of Phospholipids in the Mechanism of Action of Insulin</td>
<td>Farese, Robert V., M.D.</td>
<td>$90,900</td>
</tr>
<tr>
<td>Oxidative Damage in Parkinson's Disease</td>
<td>Ferrante, Robert J., Ph.D.</td>
<td>$57,120</td>
</tr>
<tr>
<td>Strategies to Reverse Neuronal Death, in Aging, Disease and Trauma</td>
<td>Festoff, Barry W., M.D.</td>
<td>$109,890</td>
</tr>
<tr>
<td>CD4 Regulatory Cells in Immune Tolerance</td>
<td>Field, Elizabeth H., M.D.</td>
<td>$97,300</td>
</tr>
<tr>
<td>Normal Aging and Alzheimer's Disease: Blood-Brain Barrier Dynamics</td>
<td>Fine, Richard E., Ph.D.</td>
<td>$100,450</td>
</tr>
<tr>
<td>Neurotrophin Gene Transfer</td>
<td>Fink, David J., M.D.</td>
<td>$57,480</td>
</tr>
<tr>
<td>Paroxysmal Dystonia-Choreoathetosis</td>
<td>Fink, John K., M.D.</td>
<td>$24,975</td>
</tr>
<tr>
<td>Structure-function Relationships in Glutamate Dehydrogenases</td>
<td>Fisher, Harvey F., Ph.D.</td>
<td>$126,550</td>
</tr>
<tr>
<td>Episodic Hypoxia as a Cause of Chronic Blood Pressure Elevation</td>
<td>Fletcher, Eugene C., M.D.</td>
<td>$42,061</td>
</tr>
<tr>
<td>Mechanisms of Protein Accumulation in Renal Hypertrophy</td>
<td>Franch, Harold A., M.D.</td>
<td>$39,660</td>
</tr>
<tr>
<td>Quantitative Imaging of Articular Cartilage with Magnetic Resonance</td>
<td>Frank, Lawrence R., Ph.D.</td>
<td>$36,600</td>
</tr>
<tr>
<td>Project Title</td>
<td>Investigator(s)</td>
<td>Funding in USD</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Markers for Alzheimer’s Disease in Cerebrospinal Fluid</td>
<td>Galasko, Douglas R., M.D.</td>
<td>$90,200</td>
</tr>
<tr>
<td>Benzodiazepines: Behavior and Functional Neuroanatomy</td>
<td>Gallaher, Edward J., Ph.D.</td>
<td>$101,120</td>
</tr>
<tr>
<td>Mediators of Hepatic Pathophysiology</td>
<td>Gandhi, Chandrashekhar R., Ph.D.</td>
<td>$45,520</td>
</tr>
<tr>
<td>The Role of Protein Kinase C in Glomerular Disease</td>
<td>Ganz, Michael B., M.D.</td>
<td>$86,520</td>
</tr>
<tr>
<td>Desire for Assisted Suicide in Terminally-Ill Patients</td>
<td>Ganzini, Linda K., M.D.</td>
<td>$81,400</td>
</tr>
<tr>
<td>TIPS vs Large Volume Paracentesis for Refractory Ascites</td>
<td>Garcia-Tsao, Guadalupe, M.D.</td>
<td>$46,260</td>
</tr>
<tr>
<td>Familial Non-Affective Psychosis: Nosology and Pathology II</td>
<td>Garver, David L., M.D.</td>
<td>$59,400</td>
</tr>
<tr>
<td>Adenoviral Vector Replication in Non-Small Cell Lung Cancer</td>
<td>Garver, Jr., Robert I., M.D.</td>
<td>$109,890</td>
</tr>
<tr>
<td>Regulation of HIV-1 Replication</td>
<td>Gaynor, Richard B., M.D.</td>
<td>$106,090</td>
</tr>
<tr>
<td>Myocardial Protection During Cardiac Arrest</td>
<td>Gazmuri, Raul J., M.D., Ph.D.</td>
<td>$54,060</td>
</tr>
<tr>
<td>Preclinical and Clinical Genetic Studies of Anxiety Disorders</td>
<td>Gelernter, Joel, M.D.</td>
<td>$127,540</td>
</tr>
<tr>
<td>Colonization for the Prevention of Clostridium difficile Disease</td>
<td>Gerding, Dale N., M.D.</td>
<td>$90,810</td>
</tr>
<tr>
<td>Islet Gene Expression in Diabetes Mellitus</td>
<td>Giddings, Stephen J., Ph.D., M.D.</td>
<td>$76,560</td>
</tr>
<tr>
<td>MRI Hippocampal Volume in Twins Discordant for Combat Exposure and PTSD</td>
<td>Gilbertson, Mark W., Ph.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>Control of Cellular Function in Heart Failure</td>
<td>Goldman, Steven, M.D.</td>
<td>$58,200</td>
</tr>
<tr>
<td>Clinical Correlation of Automated Neuropsychological Test Systems</td>
<td>Goldstein, Gerald, Ph.D.</td>
<td>$98,230</td>
</tr>
<tr>
<td>Rotavirus: Studies of Viral Entry, Protection and Lymphocyte Homing</td>
<td>Greenberg, Harry B., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Metabolic and Genetic Basis of Atherogenic Dyslipidemia</td>
<td>Grundy, Scott M., M.D., Ph.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Research Topic</td>
<td>Investigator</td>
<td>Grant Amount</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Mechanistic Approaches to Radiation-Immunotherapy of Murine Renal Cancer</td>
<td>Haas, Gabriel P., M.D.</td>
<td>$59,880</td>
</tr>
<tr>
<td>Anesthetics and GABA Receptors on Human Dorsal Root Ganglion Cells</td>
<td>Hackman, John C., Ph.D.</td>
<td>$84,240</td>
</tr>
<tr>
<td>Synthesis and Control of Endogenous Ouabain, a Digitalis-like Factor</td>
<td>Hamilton, Bruce P., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Control of Cerebral Blood Flow During Hypoxia</td>
<td>Harder, David R., Ph.D.</td>
<td>$99,110</td>
</tr>
<tr>
<td>Extracellular SOD in Atherosclerosis</td>
<td>Harrison, David G., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Homocysteine Decreases Endothelial Cell Glutathione, Increasing the Sensitivity to Oxidants</td>
<td>Hempel, Stephen L., M.D.</td>
<td>$44,280</td>
</tr>
<tr>
<td>Neuropeptide Modulation of Pavlovian Learning</td>
<td>Hernandez, Linda L., Ph.D.</td>
<td>$101,090</td>
</tr>
<tr>
<td>Cerebral Endothelial Cell Activation in Stroke: Role of NFkB</td>
<td>Hess, David C., M.D.</td>
<td>$97,790</td>
</tr>
<tr>
<td>Strategies to Inhibit Effector Function of Activated T Cells</td>
<td>Hinrichs, David, Ph.D.</td>
<td>$123,450</td>
</tr>
<tr>
<td>TGF-Beta1 in Vein Graft Intimal Hyperplasia</td>
<td>Hoch, John R., M.D.</td>
<td>$108,680</td>
</tr>
<tr>
<td>Hypercholesterolemia Perturbation of Vascular Permeability</td>
<td>Holland, James A., M.D.</td>
<td>$46,380</td>
</tr>
<tr>
<td>Novel SAPK Activating Kinase in Renal Epithelial Stress</td>
<td>Holzman, Lawrence B., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Organization of Mitochondrial Fatty Acid Oxidation</td>
<td>Hoppel, Charles L., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>The Role of GABAa Receptors in Absence Seizures</td>
<td>Hosford, David A., M.D., Ph.D.</td>
<td>$107,360</td>
</tr>
<tr>
<td>Targeting HIV to Myeloid Cells: A Novel Approach to Vaccine Development</td>
<td>Howell, Alexandra L., Ph.D.</td>
<td>$174,400</td>
</tr>
<tr>
<td>Mechanisms by Which the Estrous Cycle Modulates Cancer Spread</td>
<td>Hrushesky, William J. M., M.D.</td>
<td>$105,160</td>
</tr>
<tr>
<td>Role of Angiotensin in Progression of Renal Disease</td>
<td>Hutchison, Florence N., M.D.</td>
<td>$58,200</td>
</tr>
</tbody>
</table>
Molecular Staging of Colon Cancer
Jacobson, Daniel R., M.D.
$84,810

Neuroendocrine and Metabolic Regulation of Growth Hormone Secretion
Jaffe, Craig A., M.D.
$56,640

Impact of HIV on Mucosal and Serum Responses to Cholera Vaccines
Janoff, Edward N., M.D.
$108,790

Molecular Analysis of Virulent Escherichia coli Clones
Johnson, James R., M.D.
$71,190

Cloning and Characterization of Proteins that Interact with GLUT4
Jung, Chan Y., M.D., Ph.D.
$60,000

Efflux-related Multidrug Resistance in Staphylococcus Aureus
Kaatz, Glenn W., M.D.
$81,290

Characterization of a Cellular Protein that Interacts with HIV-1 Tat
Kamine, James R., Ph.D.
$133,920

Mechanisms of Asbestos-Induced Alveolar Epithelial Cell Injury
Kamp, David W., M.D.
$88,490

Cell Signaling in Cardiac Fibroblasts
Karliner, Joel S., M.D.
$58,020

Identification and Characterization of a Human Renal Sulfate Transporter
Karniski, Lawrence P., M.D.
$84,150

Optimizing Insulin Therapy for the Prevention of Type I Diabetes
Karounos, Dennis G., M.D.
$51,120

Glomerular Basement Membrane Proteoglycan in Diabetes Mellitus
Kasinath, Balakuntalam S., M.D.
$99,220

Cellular and Matrix Glomerular Barrier Function in Early Diabetic Nephropathy
Katz, Murray A., M.D.
$30,200

Duodenal Mucosal Defense Mechanisms
Kaunitz, Jonathan D., M.D.
$90,375

Mapping Genes for Information Processing Deficits in Schizophrenia
Kelsoe, Jr., John R., M.D.
$110,000

Mechanisms of Altered Opioid Disposition
Kharasch, Evan D., M.D., Ph.D.
$111,550

Prolonged ex vivo Preservation of the Donor Porcine Heart
Khuri, Shukri, M.D.
$109,670

Interactions of Lipoproteins and Cells in Diabetes Mellitus
Klein, Richard L., M.D.
$141,060
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Investigator(s)</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal Stone Crystal Attachment Factors</td>
<td>Kleinman, Jack G., M.D.</td>
<td>$48,420</td>
</tr>
<tr>
<td>Prevention of Breast Cancer: Role of Dietary Glutamine</td>
<td>Klimberg, V. Suzanne, M.D.</td>
<td>$101,640</td>
</tr>
<tr>
<td>Pathophysiology of Nerve Injury and Neuroma</td>
<td>Kocsis, Jeffery D., Ph.D.</td>
<td>$97,320</td>
</tr>
<tr>
<td>Cerebral Morphology, Cognitive Functions and Symptoms of Schizophrenia</td>
<td>Kulda, John M., M.D.</td>
<td>$59,280</td>
</tr>
<tr>
<td>Standardized Relevant Antigens of Allergic Aspergillosis</td>
<td>Kurup, Viswanath P., Ph.D.</td>
<td>$30,060</td>
</tr>
<tr>
<td>Characteristics and Mechanisms of Respiratory Muscle Fatigue</td>
<td>Laghi, Franco, M.D.</td>
<td>$28,800</td>
</tr>
<tr>
<td>Phosphoprotein/G-protein Interactions in Vision and Blindness</td>
<td>Lee, Rehwa H., Ph.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>Investigation and Treatment of Vestibulo-Visual Disorders</td>
<td>Leigh, R. John, M.D.</td>
<td>$80,080</td>
</tr>
<tr>
<td>Mechanisms of Ischemic Damage to Cytochrome Oxidase</td>
<td>Lesnefsky, Edward J., M.D.</td>
<td>$106,590</td>
</tr>
<tr>
<td>Opioids, Feeding and Reward</td>
<td>Levine, Allen S., Ph.D.</td>
<td>$109,890</td>
</tr>
<tr>
<td>Lipopolysaccharide Depression in Cardiac Myocytes</td>
<td>Lew, Wilbur Y. W., M.D.</td>
<td>$104,000</td>
</tr>
<tr>
<td>Determinants of Transport in Dialysis-Associated Peritonitis</td>
<td>Leypoldt, John K., Ph.D.</td>
<td>$150,160</td>
</tr>
<tr>
<td>Regional Gene Therapy to Heal Segmental Bone Defects: Genetic Modification of Cells Via Retroviral and Adenoviral Gene Transfer</td>
<td>Lieberman, Jay R., M.D.</td>
<td>$106,810</td>
</tr>
<tr>
<td>Lipoprotein Metabolism and Cell Lipoprotein Interactions in Diabetes Mellitus</td>
<td>Lopes-Virella, Maria F., M.D., Ph.D.</td>
<td>$114,750</td>
</tr>
<tr>
<td>PFC 5-HT and Limbic D3 Receptors: Relevance for Chronic Schizophrenia?</td>
<td>Lynch, Minda R., Ph.D.</td>
<td>$4,900</td>
</tr>
<tr>
<td>ZO-1 Protein Regulation of Intestinal Epithelial Paracellular Barrier</td>
<td>Ma, Thomas Y., M.D., Ph.D.</td>
<td>$118,890</td>
</tr>
<tr>
<td>Neurohumoral-Immunologic Activation Following Myocardial Infarction</td>
<td>Maisel, Alan S., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Research Area</td>
<td>Investigator</td>
<td>Funding</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>The Metastatic Phenotype of Transitional Cell Carcinoma</td>
<td>Malkowicz, Stanley B., M.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>Lipid Regulation of Cytidylyltransferase in Adult Lung</td>
<td>Mallampalli, Rama K., M.D.</td>
<td>$25,000</td>
</tr>
<tr>
<td>Cause and Consequence of TNF Overexpression in the Heart</td>
<td>Mann, Douglas L., M.D.</td>
<td>$93,690</td>
</tr>
<tr>
<td>Characterization of Peptide YY as a Growth Factor in Intestinal Epithelium</td>
<td>Mannon, Peter J., M.D.</td>
<td>$24,000</td>
</tr>
<tr>
<td>Induction of Apoptosis in Prostate Cancer Cell Lines</td>
<td>Marcelli, Marco, M.D.</td>
<td>$93,430</td>
</tr>
<tr>
<td>Thromboregulation by Endothelial Cells: Role of CD39</td>
<td>Marcus, Aaron J., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Characterization of Two Novel Endothelial Basement Membrane Components</td>
<td>Marinkovich, M. Peter, M.D.</td>
<td>$71,610</td>
</tr>
<tr>
<td>Regulation of Calcium Channel Expression</td>
<td>Marsh, James D., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Purkinje Origin of Ischemic Ventricular Tachycardia</td>
<td>Martins, James B., M.D.</td>
<td>$57,540</td>
</tr>
<tr>
<td>Virulence Related to the Mycobacterium Avium Hemolysin</td>
<td>Maslow, Joel N., M.D., Ph.D.</td>
<td>$60,000</td>
</tr>
<tr>
<td>Calcium/Calmodulin-Dependent Protein Kinase II Regulation of PTH Secretion</td>
<td>Matovcik, Lisa M., Ph.D.</td>
<td>$131,170</td>
</tr>
<tr>
<td>Control of Graft vs Host Disease in Bone Marrow Transplantation</td>
<td>Maziarz, Richard T., M.D.</td>
<td>$108,020</td>
</tr>
<tr>
<td>Gene Regulation of Thrombopoietin Expression</td>
<td>McCarty, John M., M.D.</td>
<td>$78,650</td>
</tr>
<tr>
<td>Calmodulin Signaling in the Pathogenesis of HIV-1 Infection</td>
<td>McDonald, Jay M., M.D.</td>
<td>$95,260</td>
</tr>
<tr>
<td>Regulation of Myocardial Protein and Glucose Metabolism</td>
<td>McNulty, Patrick H., M.D.</td>
<td>$54,560</td>
</tr>
<tr>
<td>Linkage and Association Studies in Juvenile Myoclonic Epilepsy</td>
<td>McNamara, James O., M.D.</td>
<td>$110,000</td>
</tr>
<tr>
<td>Mechanisms of Diabetic Impotence</td>
<td>McVary, Kevin T., M.D.</td>
<td>$68,090</td>
</tr>
<tr>
<td>DNA Immunization against Leishmania donovani</td>
<td>Melby, Peter C., M.D.</td>
<td>$105,865</td>
</tr>
</tbody>
</table>
HIV-1 Resistance to RT and Protease Inhibitors
Mellors, John W., M.D.
$110,000

Interactions Between Food and the Gut in Health and Disease
Meyer, James H., M.D.
$58,190

Cognitive Deficit Identification in Dementia
Milberg, William P., Ph.D.
$93,500

Pharmacodynamics in Patients with Small Cell Lung Cancer
Miller, Antonius A., M.D.
$35,750

Gene Expression During Adipocyte Differentiation
Miller, Richard E., M.D.
$59,820

Biological Function of Liv 88 a Novel Gene Encoding a RING-H2 Motif, in Liver Development
Mishra, Lopa, M.D.
$94,490

Synovial Fibroblasts and Adhesion Molecules in Dialysis Amyloidosis
Moe, Sharon M., M.D.
$38,100

Encapsulation and Virulence of Vibrio Vulnificus
Morris, Jr., J. Glenn, M.D.
$110,000

Higher Order Processes in Vision
Motter, Brad C., Ph.D.
$123,055

Cardiovascular Isoforms of PDE3 Cyclic Nucleotide Phosphodiesterase
Movsesian, Matthew A., M.D.
$105,710

Mechanisms of Beta-Amyloid Vasoactivity & Relevance to Alzheimer's Disease
Mullan, Michael, M.D., Ph.D.
$104,390

Mechanisms of the Relative Hypogonadism of Aging
Mulligan, Thomas M., M.D.
$96,910

Osteoblast Differentiation, BMP, and the Calpain System
Murray, Samuel S., M.D.
$73,370

Clearance of Cartilage Markers in Osteoarthritis
Myers, Stephen L., M.D.
$91,685

Ammonia Production and Transport by the Proximal Tubule
Nagami, Glenn T., M.D.
$94,600

Coulomb Controlled Iontophoresis for Treatment of CMV Retinitis
O'Grady, Guy E., M.D.
$39,600

Regulation of Sucrase-Isomaltase by TRANS-acting Proteins
Olsen, Ward A., M.D.
$110,000

Role of the Cdk-Inhibitors p21 and p27 in Melanoma Invasion
Orengo, Ida, M.D.
$109,780
Smoke-Induced Inhibition of Active Sodium Transport in Stratified Squamous Epithelium: Mechanisms and Effects on Cell pH, Volume, and Sur
Orlando, Roy C., M.D.
$59,340

Pathobiology of p185neu/EGF Receptor Interactions
O'Rourke, Donald M., M.D.
$49,740

Effects of Nitric Oxide on Metalloproteinase Activity
Owens, Michael W., M.D.
$41,100

Alveolar Epithelial Cell-Macrophage Interactions in Host Defense
Paine, III, Robert, M.D.
$88,220

Pathogenesis of Human Insulin Dependent Diabetes
Palmer, Jerry P., M.D.
$60,000

Chromogranin A and the Plasminogen/t-PA System: Regulatory Interactions
Parmer, Robert J., M.D.
$105,950

Angiotensin IV Receptor Regulation of Lung Endothelium NO Synthase
Patel, Jawaharlal M., Ph.D.
$96,022

Endothelial Cell Barrier Regulation by Adhesive Processes
Patterson, Carolyn E., Ph.D.
$52,230

Serotonin-2 Receptors and Corticotegmental Excitatory Amino Acid Release
Pehek, Elizabeth A., Ph.D.
$48,240

Neural Mechanisms of Cognitivo-Motor Processes
Pellizzer, Giuseppe, Ph.D.
$85,250

Learned Helplessness Model of Stress
Petty, Frederick C., M.D., Ph.D.
$169,600

Mechanism of ras-Oncogene-Induced Cell Transformation
Pincus, Matthew R., M.D.
$29,760

Molecular Biology of Primary Polycythemias
Prchal, Josef T., M.D.
$60,000

3033 Effects of Cirrhosis on the Pathogenesis of Pneumococcal Infection
Preheim, Laurel C., M.D.
$27,300

Gentry, Martha J., Ph.D.
$67,850

Combined Nortriptyline and Transdermal Nicotine for Smoking Cessation
Prochazka, Allan, M.D., M.Sc.
$60,000

A Novel Signaling Pathway Activating Multiple Antibiotic Resistance
Rather, Phillip N., Ph.D.
$112,640
The 5-HT Transporter: Function and Expression in Antidepressant Therapy
Rausch, Jeffrey L., M.D.
$110,000

Novel Serotonergic Pathways Activate Fibroblast MAP Kinase
Raymond, John R., M.D.
$96,300

The Role of Glutathione in Delay Wound Healing
Rees, Riley S., M.D.
$108,570

Pharmacologic Manipulation of Aortic Aneurysms
Reilly, Jeffrey M., M.D.
$29,820

The Neuropharmacology of Impulsivity in American Veterans
Reist, Christopher, M.D.
$70,840

Melanoma Growth Stimulatory Activity
Richmond, Ann, Ph.D.
$169,450

A Radical Approach to Delivery of Chemotherapeutic Agents
Riscoe, Michael K., Ph.D.
$186,300

In vivo Analyses of Hypertrophy Mediated Gene Activation
Ritchie, Michael E., M.D.
$88,000

Naltrexone and Nicotine Replacement Effects on Cue Reactivity of Smokers
Rohsenow, Damaris, Ph.D.
$87,595

Combined Pharmacologic/Behavioral Treatment for Smoking Cessation
Rose, Jed E., Ph.D.
$170,697

Immunotherapy in Animal Models of Neuroimmunologic Disease
Rose, John W., M.D.
$55,200

Effects of Stress on REM Sleep: Limbic Mechanisms
Ross, Richard J., M.D., Ph.D.
$104,500

Central ET & Control of AVP and Arterial Pressure: Baroreflex Integration
Rossi, Noreen F., M.D.
$109,670

Sodium Channel Function in Myotonia and Myasthenia Gravis
Ruff, Robert L., M.D., Ph.D.
$61,490

Mechanisms and Modulation of Lung Excitotoxicity
Said, Sami I., M.D.
$59,160

Oxyradicals and Macromolecular Damage in Aging Dopaminergic Neurons
Sanchez-Ramos, Juan R., M.D., Ph.D.
$87,690
Supplemental Oxygen and Anastomotic Intimal Hyperplasia
Santilli, Steven M., M.D., Ph.D.
$70,180

Molecular Mechanisms of Drug Resistance in Small Cell Lung Cancer
Savaraj, Niramol, M.D.
$72,650

Structure-Function Analyses of Macromolecules Relevant to the VA Mission
Sax, Martin, Ph.D.
$55,000

Alterations in Ion Transport During Preconditioning
Schaefer, Saul, M.D.
$94,490

Visuospatial Information Processing as a Risk Factor for Alcoholism
Schandler, Steven L., M.D.
$123,330

Identification of the Frontotemporal Lobe Dementia Gene
Schellenberg, Gerard, Ph.D.
$110,000

Regulators of Ventricular Hypertrophy
Schiebinger, Rick J., M.D.
$52,140

Tuberculosis and Macrophage Lectin Biology
Schlesinger, Larry S., M.D.
$60,000

Nicotine Delivery Systems: Research and Treatment
Schneider, Nina G., Ph.D.
$110,302

Regulation of Gastric Endocrine and Exocrine Secretion
Schubert, Mitchell L., M.D.
$100,800

Mechanics of Stomach and Small Intestine
Schulze, Konrad S., M.D.
$58,410

Neurophysiologic Mechanisms of Attention in Schizophrenia
Schwartz, Barry D., Ph.D.
$111,918

Positional Cloning of the LPS Gene
Schwartz, David A., M.D.
$110,000

Requirements for Recognition of Class I MHC Antigens by Ly-49 Receptors
Seaman, William E., M.D.
$102,630

Penile Advanced Glycation End Products Produce Impotence in Aging Men
Seftel, Allen D., M.D.
$53,880

Sensitivity to Pyridostigmine Bromide: Persistent Neural Dysfunction
Servatius, Richard J., Ph.D.
$90,590

Heme Oxygenase and Subarachnoid Hemorrhage
Sharp, Frank R., M.D.
$118,480

Lectin-Mediated Phagocytosis of Mycobacterium
Shepherd, Virginia L., Ph.D.
$102,190
Mechanisms for the Induction of Homology-Dependent Genomic Rearrangement
Shmookler Reis, Robert J., Ph.D.
$102,250

Effects of Trophic Factors in Models of Parkinson’s Disease
Shults, Clifford W., M.D.
$109,730

Neuronal Activity Responsible for Cataplexy
Siegel, Jerome M., M.D.
$150,000

Ion Channel Function/Regulation in Astrocytes Activated by CNS Injury
Simard, J. Marc, M.D., Ph.D.
$57,780

Integrin Signaling in Renal Tubule Cells After Oxidant Stress
Simon, Eric E., M.D.
$36,600

Mechanisms of Implanted Enteric Neurons Using an Opossum Achalasia Model
Singaram, Chandar, M.D.
$37,000

Adhesive Interaction Between Lymphocytes and Fibroblasts
Smith, Theresa H., Ph.D.
$70,800

Alveolar Wall Remodeling in the Pathogenesis of Emphysema
Snider, Gordon L., M.D.
$108,570

Androgenic Regulation of EGF Expression and EGF mRNA Metabolism
Spaulding, Stephen W., M.D.
$110,000

Influence of T Cell Activation on the Regulation of HIV Replication
Spina, Celsa A., Ph.D.
$130,569

Fluoxetine as a Quit Smoking Aid for Depression-Prone Smokers
Spring, Bonnie J., Ph.D.
$158,290

Effects of Neovascularization Upon Transplanted Islet Function
Stagner, John I., Ph.D.
$109,120

Atherogenicity of Oxidized Lipids in the Diet
Staprans, Ilona, Ph.D.
$88,200

Neurobiology of Severe Psychological Trauma in Women
Stein, Murray B., M.D.
$105,710

Respiratory Control and Obesity
Strohl, Kingman P., M.D.
$110,000

Molecular Biology Studies of the IGF II System in Bone Cells
Strong, Donna D., M.D.
$126,740

Immunopathogenesis of Collagen-Induced Arthritis
Stuart, John M., M.D.
$60,000
V-erbA: DNA Binding Specificity and Function
Subauste, Jose S., M.D.
$40,260

Topoisomerase II in Prostate Cancer Drug Resistance and Apoptosis
Suttle, D. Parker, Ph.D.
$106,283

The Role of Basic Fibroblast Growth Factor (bFGF) in Ulcer Pathogenesis
Szabo, Sandor, M.D., Ph.D.
$49,920

Dendritic Mechanisms Underlying Neuronal Hyperexcitability
Tang, Cha-Min, M.D., Ph.D.
$30,000

IL-8 and Inflammation in Chondrocalcinosis
Terkeltaub, Robert A., M.D.
$98,920

Sprouting by Substance P Axons in the Spinal Cord
Tessler, Alan, M.D.
$82,940

Growth Hormone Regulation of IGF-1 Gene Expression
Thomas, Michael J., M.D., Ph.D.
$3,873

Central Nervous System Glial Ion Channels and Potassium Homeostasis
Timpe, Leslie C., Ph.D.
$155,640

Tissue Function and Late-Stage Inhibition of Cholesterol
Tint, G. S., Ph.D.
$172,910

Leukemic Fusion Proteins as Nucleosome Associated Phosphatases
Tkachuk, Douglas, M.D.
$55,320

Bartonella: Characterization and Isolation of Angiogenic Factors
Tompkins, David C., M.D.
$73,040

Mycobacterium marinum, A Surrogate Model for the Study of M. tuberculosis
Trucksis, Michele, M.D., Ph.D.
$63,580

Insulin and Hypertension: Modulation of Vascular Cell Signaling Pathways
Tuck, Michael L., M.D.
$99,000

Viral and Cellular Gene Regulation in Papillomavirus-Associated Neoplasia
Turek, Lubomir P., M.D.
$103,700

Surgical Studies on Injury-Induced Pulmonary Edema
Turnage, Richard H., M.D.
$59,620

Regulation of Insulin-like Growth Factor Binding Protein-1
Unterman, Terry G., M.D.
$109,670

Liver and Proton Transport and Endocytosis
Van Dyke, Rebecca W., M.D.
$59,400

A Transgenic Model to Test the Mitochondrial Theory of Aging
Van Remmen, Holly, Ph.D.
$42,600
Opioid Mediated Myocardial Protection
Van Winkle, Donna M., Ph.D.
$101,961

Role of Plasminogen Activator Inhibitor-1 in Diabetic Vasculopathy
Vaughan, Douglas E., M.D.
$101,310

Markers for Differential Diagnosis and Virulence of Prostate Cancer
Vessella, Robert L., Ph.D.
$150,179

Immunopathogenesis of Murine Graft-vs-Host Disease
Via, Charles S., M.D.
$101,310

Cardiac Peptide Fragments in the Regulation of Body Fluid Balance
Villarreal, Daniel, M.D.
$75,350

Function of Midbrain Structures in Oculomotor Control
Waitzman, David M., M.D., Ph.D.
$58,140

Motion Perimetry: A New Method for Early Detection of Visual Loss
Wall, Michael, M.D.
$78,540

Cytoskeleton in Polyamine-Dependent GI Mucosal Restitution
Wang, Jian-Ying, M.D., Ph.D.
$88,000

Taxonomy, Physiology and Antigenic Composition of Mycobacteria
Wayne, Lawrence G., Ph.D.
$60,000

6961 MRI and 1H MRSI of Post Traumatic Stress Disorder
Weiner, Michael W., M.D.
$30,000

Regulation of Prostate Cancer Progression by EGF Receptor Signaling
Wells, Alan, M.D.
$87,890

Molecular Genetics of H. pylori assoc. Gastric MALT and MALT Lymphoma
Weston, Allan P., M.D.
$52,920

The Role of Citrullinated Myelin Basic Protein in Multiple Sclerosis
Whitaker, John N., M.D.
$108,990

Cellular Defense Against Complement
Whitlow, Michael B., M.D.
$75,130

Regulation of Gonadotropin Releasing Hormone (GnRH) Gene Expression
Wierman, Margaret E., M.D.
$58,620

Substance P-saporin: A Selective Toxin for NK1-R Expressing Neurons
Wiley, Ronald G., M.D., Ph.D.
$89,760

Effect of Substitutions at Position 443 on the Function of C1 Inhibitor
Wisnieski, Jeffrey J., M.D.
$110,000
Antipsychotics Alter Serotonin Signal Transduction in the Basal Ganglia
Wolf, William A., Ph.D.
$85,500

Pathophysiology of Negative Syndromes in Schizophrenia
Wolkin, Adam, M.D.
$60,000

Cutaneous Oncology-Genotypic/Phenotypic Analysis of Lymphomas
Wood, Gary S., M.D.
$107,800

Psychobiologic Alterations in Aging Combat Veterans with PTSD
Yehuda, Rachel, Ph.D.
$109,890

Control of Gene Expression by Hepatitis B Virus
Yen, Tien-Sze B., M.D., Ph.D.
$59,940

Rehabilitation Research And Development Service

Factors Contributing to Older Adult Disability in Rising from a Bed and from the Floor
Alexander, Neil, M.D.
$124,046

Factors Affecting Time Between CVA Onset and Rehabilitation in the VA
Bates, Barbara, M.D.
$15,000

Effects of Work Activity and Cognitive Rehabilitation on Schizophrenia: A Matching Study
Bell, Morris D., Ph.D.
$212,600

Rehabilitation Effects of Pay, Activity and Support on Schizophrenia
Bell, Morris D., Ph.D.
$47,525

Feasibility of a Cross Trained Rehabilitation Therapy Assistant on an Inpatient Rehabilitation Team:
Blake, Donna Jo, M.D.
$37,500

Development of a Data Base of Cane Techniques
Blasch, Bruce, Ph.D.
$22,896
The Effect of Hydrostatic Pressure on Intervertebral Disc Metabolism
Boden, Scott, M.D.
$109,886

Synergy of Osteoinductive Protein and Electric Stimuli for Spinal Fusion
Boden, Scott, M.D.
$140,000

Electrical Control of Bowel and Bladder in Spinal Cord Injury Patients
Bodner, Donald, M.D.
$196,500

Quantification of Prosthetic Treatment Outcomes
Boone, David, C.P.
$114,352

Investigation of Dynamic Prosthetic Function: Flexibility
Boone, David, C.P.
$173,004

Development and Pilot Testing of Plantar Ulcer Healing Boot
Boone, David, C.P.
$24,913

Exercise Program Designs for Older Adults
Boyette, Lisa W., M.Ed.
$62,810

A Prospective Study of Plantar Foot Pressure and Diabetic Foot Ulcer Risk
Boyko, Edward, M.D.
$175,131

Long-Term Strength Training and Functional Status in Older Adults
Brandon, L. Jerome, Ph.D.
$106,400

Improving Stepping-Over Responses in the Elderly Using Simulated Objects
Brown, David, Ph.D.
$89,150

Differential Pressure Walking Assistance
Burgar, Charles G., M.D.
$95,800

Graded Weight-Bearing Exercise for Improving Ambulation After Stroke
Burgar, Charles G., M.D.
$93,800

Mechanically Assisted Upper Limb Movement for Assessment and Therapy
Burgar, Charles G., M.D.
$95,000

Mechanical Regulation of Peri-Prosthetic Tissue Differentiation
Carter, Dennis, Ph.D.
$107,300

Stimulation of Bone Healing Using Bone-Matrix-Related Biomaterials
Chakkalakal, Dennis, Ph.D.
$119,000

Finite Element and Gait Analysis: Tools for Prosthesis Design
Childress, Dudley, Ph.D.
$195,700

Technology Transfer of a Computer Aided Socket Fabrication Technique
Childress, Dudley, Ph.D.
$106,858

Generalized EPP Position Controller for Electric-Powered Upper-Limb Prostheses
Childress, Dudley, Ph.D.
$158,600
Out of Laboratory Feedback-Controlled FNS for Locomotion
Chizeck, Howard J., Sc.D.
$184,400

Validation and Field Testing of a National Pain Treatment Outcome System
Clark, Michael E., Ph.D.
$9,860

Continuation of the Center for the Examination of Retrieved, Orthopaedic Prostheses
Collier, John, D.E.
$142,483

Characterizing Postural Stability in Relation to Age and Susceptibility to Falling
Collins, James, Ph.D.
$168,150

Behavioral and Functional Problems in Dementia Patients with Sensory Loss
Connell, Bettye Rose, Ph.D.
$129,442

Effects of Cushion and Back Support on Wheelchair Ride Comfort
Cooper, Rory A., Ph.D.
$109,800

Manual Wheelchair User Upper Extremity Pain
Cooper, Rory A., Ph.D.
$138,313

Restoration of Forearm and Elbow Functions by FNS
Crago, Patrick E., Ph.D.
$60,961

The Neural Basis of Stress Urinary Incontinence
Damaser, Margot, Ph.D.
$25,000

UTI Prophylaxis Using Bacterial Interference Following SCI
Darouiche, Rabih O., M.D.
$116,709

Outcome Assessment of the Rehabilitation of the Visually Impaired
Del’Aune, William, Ph.D.
$151,750

Effects of Stimulus Variability on Speech Recognition
Dirks, Donald, Ph.D.
$56,853

Gait Mechanics of the Partial Foot Amputee
Dorostkar, Mohammad G., M.D.
$146,315

Quantifying Spoken Language Handicap in Aphasia
Doyle, Patrick, Ph.D.
$120,100

Characterizing Measures of Stroke Rehabilitation Outcomes
Duncan, Pamela W., Ph.D.
$252,400

Effects of Aging on Motor Unit Firing Behavior
Erim, Zeynep, Ph.D.
$50,025
Biochemical Analysis of Synovial Activation in Joint Dysfunction
Evans, Christopher, Ph.D.
$149,752

Investigation of Individualized High-Frequency Regions for Early Detection of Ototoxicity
Fausti, Stephen A., Ph.D.
$249,600

Development of an Automated Technique for the Clinical Evaluation of Tinnitus
Fausti, Stephen A., Ph.D.
$75,500

Improved Bone-Formation Through VEGF
Fava, Roy, Ph.D.
$37,500

A Study to Determine the Biomechanical Effects of Shock-Absorbing Pylons
Gard, Steven, Ph.D.
$41,200

In Vivo Tissue Response to In Vitro Synthesized Bone
Garino, Jonathan, M.D.
$79,400

New Strategy for Improved Outcome in Occult Periprosthetic Musculoskeletal Infections
Garvin, Kevin, M.D.
$108,000

Effects of Common Drugs on Recovery After Stroke
Goldstein, Larry, M.D.
$33,750

Development of Improved Middle Ear Prostheses
Goode, Richard, M.D.
$59,300

Soft Tissue Attachment to Proximal Femoral Allografts for Hip Revision
Heiner, John P., M.D.
$162,000

Functional Restoration of Grasp in Quadriplegia
Hentz, Vincent R., M.D.
$104,600

A Study of VA Stroke Rehabilitation Services and Patient Outcomes
Hoenig, Helen M., M.D.
$36,500

Impact of Occupational Therapy on the Health Status of Elderly Veterans
Holleman, Donald R., M.D.
$185,200

Prevention of Recurrent Pressure Ulcers After Myocutaneous Flap
Holmes, Sally, M.D.
$99,300

Changes in Auditory Abilities with Hearing Aid Use
Holte, Lenore, Ph.D.
$76,500

Orthopedic Footwear CAD/CAM and Diabetic Risk of Pedal Ulceration
Houston, Vern, Ph.D.
$263,254

Clinical Testing of the Enhanced VA-Cyberware BK Prosthetics Optical Digitizer
Houston, Vern, Ph.D.
$143,034
Disuse Induced Articular Cartilage Atrophy, Over-Exercise and Arthritis
Howell, David, M.D.
$87,500

Cause of Male Infertility After Spinal Cord Injury and Its Prevention
Huang, Hosea F.S., Ph.D.
$178,060

Quantitative Study and Augmentation of Cough in Persons with Spinal Cord Injury
Jaeger, Robert, Ph.D.
$72,100

Gonadal Steroids as Rehabilitative Agents After Partial Spinal Cord Injury
Jones, Kathryn J., Ph.D.
$116,200

Treatment of Sciatic Nerve Injury with Gonadal Steroids
Jones, Kathryn J., Ph.D.
$86,700

Frequency Selectivity Assessment: Implications for Auditory Rehabilitation
Kane, James, Ph.D.
$60,000

Transport of NGFs + MIF-1 into Spinal Cord
Kastin, Abba J., M.D.
$135,760

Electric Field Effects on Slow Axonal Transport Components in SCI
Khan, Talat, Ph.D.
$135,000

Electric Fields and Carbon Fibers in the Treatment of Spinal Cord Injury
Khan, Talat, Ph.D.
$165,100

Fracture Occurrence and Healing in Spinal Cord Injured Patients
Kiratli, Beatrice J., Ph.D.
$85,200

Static Versus Dynamic FES Exercise and Heart Disease Risk Factors in SCI
Kiratli, Beatrice J., Ph.D.
$111,100

The Effects of Spinal Instrumentation
Kirkpatrick, John, M.D.
$55,225

Polestriding Exercise and Vitamin E for Management of Claudication Pain
Langbein, W. Edwin, Ph.D.
$104,400

Comparing Off-Loading Modalities to Heal Diabetic Foot Wounds
Lavery, Lawrence, D.P.M.
$108,300

The Effect of Exercise Training on Hemoglobin A1c’s of Type II Diabetics in a Controlled Randomized
Leach, Carol, M.H.A.
$59,200

Physical Exercise Strength Training to Improve the Health of Dialysis Patients
Leaf, David, M.D.
$60,250

Biomechanics of the Patellofemoral Joint
Lee, Thay Q., M.S.
$27,475
Biomechanics of Patellofemoral Joint and Peripatellar Retinaculum  
Lee, Thay Q., M.S.  
$22,500

Effect of the Bankart Lesion on Anterior Joint Stability with Simulated Glenohumeral Muscle Forces  
Lee, Thay Q., M.S.  
$29,750

Physiological Basis of Strength Following Surgical Tendon Transfer  
Lieber, Richard L., Ph.D.  
$165,000

Functional Magnetic Cough in Patients with Spinal Cord Injury  
Lin, Vernon W., M.D.  
$186,700

Functional Magnetic Micturition in Patients with Spinal Cord Injury  
Lin, Vernon W., M.D.  
$48,325

High-Frequency Magnetic Stimulation of the Bladder and Bowel  
Lin, Vernon W., M.D.  
$19,325

Acute Effects of Spinal Cord Injury on Sperm Function  
Linsenmeyer, Todd, M.D.  
$99,100

Eustachian Tube and Middle-ear Prosthesis Implants: Chronic Ear Disease  
Linstrom, Christopher, M.D.  
$135,543

Quantitative Measurement of Upper Limb Spasticity  
Little, James, M.D., Ph.D.  
$14,300

A Biodegradable Device for Peripheral Nerve Repair  
Madison, Roger, Ph.D.  
$86,000

Clinical Evaluation of a Dermofluorometer in Diabetic Patients  
Magin, Richard, Ph.D.  
$38,525

Development of the Scanning Laser Ophthalmoscope for Low Vision Rehabilitation - Phase 2  
Maino, Joseph, O.D.  
$211,170

Design of a Motorized Prone Cart  
Malassigne, Pascal, M.I.D.  
$113,330

Factors Leading to Disuse of Low Vision Devices by Visually Impaired Elderly  
Mancil, Gary L., O.D.  
$29,975

Redesign & Evaluation of a Device for Rehabilitation of People with Visual Field Loss  
Mancil, Rickilyn, M.A.  
$49,900

Use of Tretinoin to Prevent Pressure Ulcers in Spinal Cord Injury Patients  
Markowski, Janusz, M.D.  
$48,700
Problem Solving Strategies of Brain Injured and Normal Subjects
Marshall, Robert C., Ph.D. $60,500

FES Mobility in Paraplegia: RF-Controlled Implanted System
Marsolais, E. Byron, M.D. $272,650

Vision Evaluation and Training System (VETS)
Massof, Robert, Ph.D. $111,100

Long-Term Evaluation of Maxillary Sinus Bone Grafts with Dental Implants
McAnear, Jon Tom, D.D.S. $7,520

An In-Vivo Model for Cartilage Regeneration
McGuire, Jr., Hunter H., M.D. $167,932

Development of Quality of Life Measures for Use in Dysphagia
McHorney, Colleen, Ph.D. $118,000

Performance-Based Prevention/Rehabilitation of Falls in Elderly Veterans
Means, Kevin M., M.D. $157,312

Electrophysiology Indices: Auditory Discrimination and Cognitive Processes
Moenter, Darlene, Ph.D. $44,000

Establishing Standard of Care: Upper Limb Prosthetic services
Monga, Trilok N., M.D. $66,166

Electrical Activation of the Diaphragm for Ventilatory Assist
Mortimer, J. Thomas, Ph.D. $275,290

Sweat Response in MS Patients During Exercise - A Pilot Study
Mulcare, Janet, Ph.D. $34,450

Effect of Wrist Exposures on Median Nerve Conduction: A Pilot Study
Nelson, Audrey, Ph.D. $50,000

Quantifying Auditory Perceptual Learning Following Hearing Aid Fitting
Nelson, Charles, M.S. $67,450

A Minimal Test Effort for Patients in Pain using the Back Analysis System
Oddsson, Lars $178,976

Preventing Slips & Falls in the Elderly - Effects of Simple Biomechanical Interventions
Oddsson, Lars $210,950

Optimized Surface Bonding and Stiffness of Femoral Endoprostheses
Orr, Tracy, Ph.D. $99,994

Fracture Prediction for Femurs with Wear Particle-Induced Osteolytic Lesions Associated with
Orr, Tracy, Ph.D. $122,827
Compliance Monitor to Measure Patient Wearing-Time for Spinal Orthoses
Patwardhan, Avinash G., Ph.D.
$63,800

Microphotodiode Tiles as Prostheses for the Restoration of Visual Function
Peachey, Neal, Ph.D.
$127,900

FES Control of the Upper Extremity in SCI
Peckham, P. Hunter, Ph.D.
$240,550

Improvements in a New Technique for Increasing Movement after Stroke
Pidikiti, Rama, M.D.
$124,850

Outcome of Lower Extremity Constraint-Induced Therapy after Stroke
Pidikiti, Rama, M.D.
$195,800

Cognitive Rehabilitation of Dementia by Stimulation-Induced Normalization of the EEG Power Spectrum:
Politoff, Alberto, M.D.
$22,179

Exercise Testing and Training of Multiple Sclerosis Patients
Ponichtera-Mulcare, Janet A., Ph.D.
$26,083

Effects of Medications on Spasticity in Spinal Cord Injury: A Quantitative Study
Priebe, Michael, M.D.
$123,300

Evaluation of Non-Auditory Factors Which Affect Hearing Aid Use in Elderly Veterans
Rappaport, Bruce Z., Ph.D.
$24,475

Clinical Trial of Footwear in Patients with Diabetes
Reiber, Gayle, Ph.D.
$166,998

Colonic Rehabilitation with Microstimulators After Spinal Cord Injury
Riedy, Lisa, Ph.D.
$89,300

Restricted Useful Field of View as a Risk Factor for Falls in Older Adults
Riolo, Lisa, Ph.D.
$55,600

Physical Performance Measures for Young, Middle-Aged and Elderly Manual Wheelchair Users
Rodgers, Mary, Ph.D.
$102,645

Employment of Infra-Red Beacons as Guides for People with Visual Disability
Ross, David, M.S.E.E
$49,980

Back Exercise Prescription and Implementation by Surface Electromyographic Procedures
Roy, Serge H., Sc.D.
$222,000

Effect of Component Placement on the Patellofemoral Joint in TKA
Rubash, Harry E., M.D.
$56,800

Restoration of Gait for Acute Stroke Patients Using FES
Ruff, Robert, M.D.
$169,200
Clinical Trial of Artificial Peripheral Nerve Graft  
Sabelman, Eric, Ph.D.  
$180,800

Advanced Accelerometric Motion Analysis System (Design/Development)  
Sabelman, Eric, Ph.D.  
$119,900

Reliability and Validity of Accelerometric Gait and Balance Diagnosis  
Sabelman, Eric, Ph.D.  
$162,600

Is There an “Acclimitization Effect” with Hearing Aids?  
Sammeth, Carol A., Ph.D.  
$10,800

Biomechanics of Foot Deformities and Alternatives for Surgical Correction  
Sangeorzan, Bruce, M.D.  
$95,715

Neurotrophin Secreting Schwann Cells for Treatment of Spinal Cord Injury  
Sayers, Scott, Ph.D.  
$12,500

Fatigue Strength of Composite Femoral Components for Hip Arthroplasty  
Schutte, Jr., H. Del, M.D.  
$97,980

FES on Spinal Cord Injured Patients: Effects on Muscle Blood Flow and Metabolism  
Scremin, A.M. Erika, M.D.  
$122,000

Evaluation of Limb Blood Flow Measurements with H2150 PET to Determine Level of Amputation  
Scremin, Oscar, M.D., Ph.D.  
$12,500

Evaluation of Word-Recognition Performance with Sentence Materials  
Shanks, Janet E., Ph.D.  
$68,900

Acclimitization in Monaurally Fitted Adults  
Silman, Shlomo, Ph.D.  
$175,954

Effects of Aerobic Exercise on Gait and Functional Performance in Hemiparetic Stroke  
Silver, Kenneth, M.D.  
$72,050

Mechanical Loading Effects on Cartilage Repair and Regeneration  
Smith, Robert Lane, Ph.D.  
$98,818

Randomized Controlled Trial of Upper-Extremity Exercise Training in Patients with COPD  
Sparrow, David, D.Sc.  
$113,500

Modification of Polyethylene to Improve the Wear Performance of Joint Replacement Prostheses  
Spector, Myron, Ph.D.  
$45,396

Team Characteristics and Patient Outcomes on VA Rehab Services  
Strasser, Dale, M.D.  
$150,420
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Investigator</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortical Contributions to the Recovery of Motor Function</td>
<td>Strick, Peter, Ph.D.</td>
<td>$215,900</td>
</tr>
<tr>
<td>Visual Rehabilitation with Retinal Prosthetic Microtiles</td>
<td>Stubbs, Jr., Evan, Ph.D.</td>
<td>$13,625</td>
</tr>
<tr>
<td>Assessment of Reading Capabilities of the Parafoveal Retina and Evaluation of Techniques to Enhance Reading in Patients with Age-Related Macular Degeneration</td>
<td>Szlyk, Janet P., Ph.D.</td>
<td>$45,300</td>
</tr>
<tr>
<td>Evaluation of Central and Peripheral Vision Enhancement Devices for Driving</td>
<td>Szlyk, Janet P., Ph.D.</td>
<td>$215,000</td>
</tr>
<tr>
<td>Video-Based Functional Performance Assessment and Training Tool</td>
<td>Van Der Loos, H. F. Machiel, Ph.D.</td>
<td>$17,100</td>
</tr>
<tr>
<td>Development of an Assistive Robot for Effective Health Care Delivery</td>
<td>Van Der Loos, H.F., Ph.D.</td>
<td>$129,500</td>
</tr>
<tr>
<td>Noninvasive Recording of Bladder Pressure in Elderly Males</td>
<td>Walter, James, Ph.D.</td>
<td>$60,600</td>
</tr>
<tr>
<td>Analysis and Treatment of Apraxic Sound Errors</td>
<td>Wambaugh, Julie L., Ph.D.</td>
<td>$122,800</td>
</tr>
<tr>
<td>Impact of Low Vision and Rehabilitation on Elder Literacy</td>
<td>Watson, Gale R., M.A.Ed.</td>
<td>$30,073</td>
</tr>
<tr>
<td>Measuring Low Vision Reading Assessments Using a Scanning Laser Ophthalmoscope</td>
<td>Watson, Gale R., M.A.Ed.</td>
<td>$62,850</td>
</tr>
<tr>
<td>Fading-in of Right Hemispatial Information in the Treatment of Unilateral Neglect</td>
<td>Webster, Jeffrey, Ph.D.</td>
<td>$96,630</td>
</tr>
<tr>
<td>Cultural Influence on Aphasia in African Americans</td>
<td>Wertz, Robert, Ph.D.</td>
<td>$83,335</td>
</tr>
<tr>
<td>Sensitivity and Specificity of a Clinical Examination of Swallowing</td>
<td>Wertz, Robert, Ph.D.</td>
<td>$112,556</td>
</tr>
<tr>
<td>Predicting Real-World Visual Problems in the Elderly from Vision Tests</td>
<td>White, Janis, Ph.D.</td>
<td>$85,000</td>
</tr>
<tr>
<td>Personal Relevance and Ethnicity in Stoke Patients as a Health Care Delivery Issue</td>
<td>Wolfe, Gary</td>
<td>$21,370</td>
</tr>
<tr>
<td>Biological Responses in the Pathogenesis of Aseptic Loosening</td>
<td>Wooley, Paul, Ph.D.</td>
<td>$174,900</td>
</tr>
</tbody>
</table>
We are deeply grateful to all veterans who have participated in VA research studies. Without the cooperation of thousands of veteran patients, high quality health care research would not be possible.

Veterans’ partnership with VA investigators allows us to conduct research that contributes to the health of veterans and all Americans.