# Mission

The mission of the Atlanta VA Rehabilitation Research and Development Center is to improve the everyday function and quality of life of aging Veterans with vision loss and their caregivers.


This mission will be accomplished by:

Research directed toward a multidisciplinary understanding of the mechanisms causing and interacting with vision loss and then applying this understanding to develop creative interdisciplinary rehabilitative interventions.

Incorporating these creative rehabilitative interventions into comprehensive rehabilitation that accounts for multifactorial disabilities associated with aging and common comorbidities to improve everyday function and quality of life for the whole person.

Evaluating, in concert with VA and other clinical Rehabilitation Services, the utilization, cost-effectiveness, and satisfaction associated with these interventions.

Rev: Aug 04

# Research Support

**Research Career Development Award**

A mentored three-year award for clinicians at the doctoral level that have had limited or no research experience.

**Advanced Research Career Development Award**

A mentored three-year award for doctoral level clinicians who have had limited research experience.

**Research Career Development Enhancement Award**

Designed to support established clinician scientists who wish to secure time to enter a new area of research specialization, especially in areas of importance to the VA mission.

**Rehabilitation Research Disability Supplement**

Support to assist qualified people with disabilities to participate in the Rehabilitation Research and Development Service sponsored research programs.

**Associate Investigator Program**

To provide research training for clinician and non-clinician scientist with little or no research experience.

For additional information, visit:

*www.vard.org/fund/fund.htm*

# Rehabilitation R&D Center of Excellence for Aging Veterans with Vision Loss

VA RESEARCH & DEVELOPMENT

## Atlanta VA Medical Center

**1670 Clairmont Road**
**Decatur, Georgia 30033**
**Phone: 404.728.5064**
**Fax: 404.728.4837**
***www.varrd.emory.edu***

# Research Areas

The Center's R&D Program focuses on understanding the relationship of visual impairment (from low vision to total blindness) and normal age-related vision loss to disabilities that affect the everyday function and quality of life of aging Veterans. To encourage development of comprehensive rehabilitative interventions, three interactive research areas are emphasized.

## Environment

This physical and social environmental research area studies building conditions, (e.g., lighting levels), objects used in everyday activities, and behavior related to everyday activities and social interaction (especially that of caregivers).

## Mobility

This research area studies the effects of physical function and performance on independence in the environment. Research includes orientation and mobility, exercise, biomechanics and physical therapy.

## Cognition

This research area studies visual based cognitive performance and function including perception, attention, memory, problem solving, and print text comprehension/literacy.

# Research Mentors

## With Research Program

**Ronald Schuchard, Ph.D., Director**
Evaluating the visual and ocular motor function in people with macular scotomas including retinal prosthesis evaluation.

**Ronald Tusa, M.D., Ph.D., Medical Director**
Role of exercises to improve vision and balance in people with inner ear damage.

**Jay Alberts, Ph.D.**
CNS control and coordination mechanisms for skillful upper extremity actions in patients with Parkinson's disease and stroke.

**Bruce Blasch, Ph.D.**
Evaluation of wayfinding, biomechanical and physical mechanisms of orientation and mobility.

**Bettye Rose Connell, Ph.D.**
Effect of physical environment and processes of care in nursing homes on resident functioning, behavior, and QOL.

**Katharina Echt, Ph.D.**
The factors contributing to and interventions for lower health literacy performance in older adults.

**Charles Epstein, M.D.**
Transcranial Magnetic Brain Stimulation in the treatment of depression among patients with Parkinson's disease.

**Susan Herdman, P.T., Ph.D.**
Determining treatment efficacy and mechanisms of recovery in people with vestibular disorders and dizziness.

**Machell Pardue, Ph.D.**
Evaluating mechanisms of retinal degeneration with animal models.

**Dale Strasser, M.D.**
The social and organizational factors which contribute to patient outcomes in stroke rehabilitation.

# Research Equipment

Scanning Laser Ophthalmoscope (Rodenstock)

ISCAN ETL 400 High Speed Binocular Table Mount Pupil Eyetracker & Monocular Wireless Cap Mounted Mobile Pupil Eyetracker

ASL 504 Pupil Eye Tracker with Magnetic Headtracking or with fMRI Long Range Optics Attachments

Digital Highspeed 3-D videography System from Peak Performance Inc.

OPTOTRAK 3020, Infra-red 3-D Movement Analysis System

Cybex NORM Isokinetic Dynamometer

Telemetered and Wearable Electromyography (EMG)

Smart Equitest from Neurocom

Dexa Densitometer

Cambridge Research Systems Visual Stimuli Generator (Desktop & Mobile)

Useful Field of View (UFOV) Analyzer

GDx Nerve Fiber Layer Analyzer

VERIS Multi-Focal ERG/VEP System

Diagnosis and LKC ERG/VEP Systems

NeuroScan 80 Channel EEG System (with fMRI MagLink)

The Center collaborates with researchers from Emory University, Georgia Institute of Technology, University of Georgia and Georgia State University, as well as with clinical researchers from rehab service programs within and outside the Department of Veterans Affairs.