

Annual Report
Of the
Virginia Center on Aging
Virginia Commonwealth University
www.vcu.edu/vcoa

Accomplishments in 2005

And

Goals for 2006

Overview

This report summarizes activities of the Virginia Center on Aging (VCoA) during calendar 2005. We have organized this report by calendar year because of the practice of providing an annual report to the Virginia General Assembly when it convenes in January.

We did meet our Goals for 2005, including helping to secure three externally funded projects, completing our partnered project on overcoming unhealthy lifestyle behaviors, and obtaining an increase, effective July 1, 2005, in appropriations from the General Assembly for the Alzheimer's and Related Diseases Research Award Fund (ARDRAF) that we administer for the Commonwealth. VCoA's overall appropriation of \$302,500 in calendar year 2005 (half of fiscal 2004-05's \$262,500, half of fiscal 2005-06's \$342,500) partially supported the Center's core staff positions (*Director; Associate Director for Research and Administrator of the Alzheimer's and Related Diseases Research Award Fund [ARDRAF]; Assistant Director for Education; Elderhostel Coordinator - Richmond; and Accountant*) and provided monies to award in the ARDRAF seed grant program that we administer.

In the enabling legislation, VCoA was charged with 10 responsibilities, encompassing three principal functions: 1) interdisciplinary studies, including training in aging-related topics and the education of older adults; 2) research; and 3) information sharing. VCoA maintains a statewide commitment, conducting at least one of its three principal functions in all five geographic regions of Virginia every year. We annually list agencies and businesses that we have worked with by geographic region. In calendar year 2005, VCoA partnered with at least **280** regional and **32** statewide businesses, departments, coalitions, and non-profit organizations, and **34** units of Virginia Commonwealth University (VCU) in satisfying its legislated mandates. (See *Appendix A for a listing of those we worked with.*) These partnerships enabled us to accomplish our work, augmenting our staffing level and compensating somewhat for decreases in our funding streams.

In calendar 2005 the Virginia Center on Aging's annualized appropriation from the General Assembly of \$302,500 produced \$1,871,000 in non-state grants; non-resident Elderhostel tuition, course related expenditures and discretionary spending by our Elderhostelers; and documented ARDRAF seed grant consequences. In other words, **for every dollar that the General Assembly invested in the Virginia Center on Aging, we generated \$6.19 in direct economic returns.**

Mission

The General Assembly, in creating the Virginia Center on Aging by amendment to the Code of Virginia in 1978, charged it to be **“an interdisciplinary study, research, (and) information and resource facility for the Commonwealth of Virginia...”** It is the only such Center in the Commonwealth.

The Virginia Center on Aging (VCoA) is satisfying its mandate from the General Assembly and is operating across Virginia, in a statewide capacity. Characteristically, the VCoA is accomplishing its activities through partnerships with various units, both across the Commonwealth and within Virginia Commonwealth University. VCoA believes that these partnerships serve the aging-related needs of Virginia in a most cost-effective manner and broaden the capacity of units within VCU and across Virginia to conduct aging-related research, education, and community service.

Under **“interdisciplinary study,”** the General Assembly’s mandate includes:

- Continuing education and in-service training for those who work with the elderly
- Education and training of older persons
- Educational preparation of non-gerontology students

Under **“research,”** the General Assembly’s mandate includes:

- Conduct of research in the field of gerontology
- Dissemination of research findings

Under **“information and resource facility,”** the General Assembly’s mandate includes:

- Collection and maintenance of data about older persons statewide and regionally
- Serving as a resource to the State Office on Aging (now called the Virginia Department for the Aging) and to all organizations and state agencies involved in aging-related planning and service delivery

In 1982 the General Assembly also charged VCoA with responsibility for administering the **Alzheimer’s and Related Diseases Research Award Fund (ARDRAF)** as a stimulus for research into the causes, consequences and treatments of dementing illnesses.

Activities in 2005

During calendar 2005 the Virginia Center on Aging interacted and collaborated with colleagues in state, regional, and local agencies and organizations, both public and private, with businesses, and with units of Virginia Commonwealth University, in order to achieve its responsibilities.

The following are representative activities:

- ◆ VCoA and the VCU Police Department, both members of the Central Virginia Task Force on Older Battered Women, completed a second yearlong training project for law enforcement and domestic violence agency personnel on preventing and responding to abuse, exploitation, and violence against older women. The project, supported by a grant from the Virginia Department of Criminal Justice Services, administering federal funds, met its objectives and has been re-funded for calendar 2006.
- ◆ VCoA contributed substantially to a successful proposal application to the Bureau of Health Professions, USDHHS, submitted by the Virginia Geriatric Education Center (VGEC) for five years (2005-2010) of continued core funding of the VGEC.
- ◆ VCoA maintained its position as the largest provider of Elderhostel programs in Virginia and the 16th largest provider in the United States of approximately 1000 providers, by designing new Elderhostel programs and increasing the diversity of program formats. VCoA's VCU Elderhostel has held these distinctions since 2003, despite challenges and competition. This is a creditable distinction, since Virginia itself is not one of the top 20 states for Elderhostel enrollments.
- ◆ VCoA is a founding sponsor of the Lifelong Learning Institute in Chesterfield (LLI), which began offering classes in March 2004 for midlife and older adults. The LLI, modeled as an Elderhostel Institute, is administered and operated by its volunteer members and sponsors. Co-sponsoring partners include the Brandermill Woods Foundation, Chesterfield County Public Schools, and the Brandermill Woods Retirement Community. The LLI is housed in the Watkins Annex Building in Midlothian. During 2005, the LLI drew learners to 83 courses and several special events over three terms.
- ◆ VCoA and its Advisory Committee and University Council initiated in 2005 and continue at present a comprehensive assessment of its goals and objectives, By-Laws, and functions of its advisory bodies.

- ◆ VCoA administers the Alzheimer's and Related Diseases Research Award Fund (known as ARDRAF) for Virginia-based researchers. The Center solicits research applications, screens, awards, and monitors small seed grants for promising lines of study into the causes, consequences, and impacts of dementia. Since 1982 the Center has awarded 98 seed grants, averaging just over \$14, 000 each, for a total outlay of \$1.4 Million. These awards have, in turn, brought back to Virginia over \$15.7 Million in larger grants from the likes of the National Science Foundation and the National Institutes of Health. This translates to a return on investment of over \$11 for each dollar appropriated.
- ◆ VCoA partnered with statewide aging-related organizations in order to provide research findings and training for professionals across Virginia. VCoA co-sponsored: the conference *Who Will Care? Elder Caregiving in the New Political Reality*, with the Virginia Quality Healthcare Network, in Glen Allen in April; the Eleventh Annual Conference of the Virginia Coalition for the Prevention of Elder Abuse, in Virginia Beach in June; the *Right Choices Forum: Ethical Issues for Older Persons*, with VCU's Department of Gerontology and VGEN, in Richmond in June; and *Lighting the Flame*, a day-long workshop for 225 long-term care workers, with the Culture Change Coalition, in November.
- ◆ VCoA, in partnership with more than 15 other organizations, including the American Lung Association of Virginia, CrossOver Ministries, and the Virginia Association of Free Clinics, helped to launch a national initiative in Virginia, *Partnership for Prescription Assistance (PPARx)* for qualifying patients who lack prescription drug coverage. PPARx brings health care providers, patient advocates, and pharmaceutical companies together to find appropriate public and private patient assistance from among more than 475 patient assistance and 180 pharmaceutical programs.
- ◆ VCoA's VCU Elderhostel, with program locations at Richmond, Natural Bridge, Hampton and Petersburg, is part of the Elderhostel, Inc., network of program providers in North America and more than 100 countries around the world. VCoA, during calendar 2005, offered 40 Elderhostel residential programs that drew over 1,100 older learners to Virginia, infusing approximately \$730,000 into the Commonwealth from instruction-related expenditures and discretionary spending by non-Virginian participants.
- ◆ VCoA continued to serve as a member of the Virginia Arthritis Task Force (VATF), which, during 2005, implemented the next steps of the VATF Action Plan. Priorities include increasing public awareness of the signs of arthritis, encouraging early professional diagnosis, and improving self-management skills.

- ◆ VCoA's Director served as a Delegate to the White House Conference on Aging, a once-a-decade national assembly charged with assessing the status and needs of older Americans and recommending legislative and policy initiatives.
- ◆ VCoA staff's expertise led to at least 10 presentations overall in 2005 at professional meetings and publications in professional journals, including a point-counterpoint national teleconference on aging with lifelong disabilities, broadcast from the Alliance for Aging Research in Washington, DC in May; and presentations on dementia care training; mentoring for geriatric health professionals; promoting healthy alternatives to gambling and addictive behaviors; and intersystem partnerships in aging with lifelong disabilities, at the 26th Annual Meeting of the Southern Gerontological Society in Orlando, FL in March; and presentations on costs and benefits of geriatric mentoring; and identifying addictive behaviors in older adults, at the 58th Annual Scientific Meeting of the Gerontological Society of America in Orlando, FL in November.
- ◆ VCoA is a member of the project, *Abuse and Neglect of Children and Adults with Developmental Disabilities: A Problem of National Significance*. This initiative, directed by the Partnership for People with Disabilities at VCU and funded by the US Administration on Developmental Disabilities, worked to develop and launch in 2005 a web-based course for health care professionals. The course contains 13 self-guided modules on risk factors, identification, assessment, and health care.
- ◆ VCoA's Associate Director of Research is a gubernatorial appointed commissioner on the Commonwealth of Virginia Alzheimer's Disease and Related Disorders Commission. The Commission has launched a statewide virtual Comprehensive Alzheimer's Disease Center. VCoA's member chaired the Databases Work Group, charged with developing a statewide bio-informatics system to include clinical, public health, and epidemiological databases as a resource for research on services utilization.
- ◆ VCoA continued its initiative to educate clergy and lay leaders in communities of faith in matters of aging and wellness, conducting programs for older adult ministries in Bon Air, Midlothian, and Richmond, and for chaplains at Johnston-Willis Hospital in Richmond.
- ◆ VCoA's Dr. Connie Coogle continued as Training Evaluator for the three-year (2004-2007) project *Recognition, Respect, and Responsibility: Transforming the Direct Service Community*. that was awarded to DMAS by the Centers for Medicare and Medicaid Services under the New Freedom Initiative: Demonstration to Improve the Direct Service Community Workforce program. VCoA, the VGEC, and other partners are testing the job retention potential of

offering health insurance benefits for workers who provide personal assistance. The initiative is addressing the complex issues of recruitment and retention of direct service workers through a series of objectives dealing with benefit provision, multi-level training interventions, and initiatives dealing with recruitment and worker recognition.

- ◆ VCoA is partnering in the Area Planning and Services Committee (APSC) for Aging with Lifelong Disabilities, a broad coalition of family caregivers and leaders across metropolitan Richmond in disabilities, health care, aging services, parks and recreation, and more. The APSC membership is assessing needs and designing strategies to assist both those who age with lifelong disabilities, such as mental retardation and cerebral palsy, and their family caregivers.
- ◆ VCoA staff gave substantial services to Virginia's agencies and citizens by serving on the boards of some dozen non-profit organizations, providing leadership, technical assistance, and *pro bono* services to groups such as the Shepherd's Center of Richmond, the Virginia Quality Healthcare Network, the Alzheimer's Association, the Culture Change Coalition, and the Virginia Elder Rights Coalition.

Short recaps of selected activities in 2005 follow, organized according to the mandates from the General Assembly:

a. Interdisciplinary Studies

- Domestic Violence Against Aging Women.
VCoA co-developed and implemented with the Central Virginia Task Force on Older Battered Women its third grant-funded project supported by the Virginia Department of Criminal Justice Services. This project is part of the Virginia Services, Training, Officers, and Prosecution (V-STOP) program, which is funded by the federal Violence Against Women grant program of the U.S. Department of Justice. The VCoA-Task Force partnership addresses the unique needs of middle-aged and older women who are victims of domestic violence or sexual assault. This goals of the projects include increasing awareness and education on domestic violence and sexual assault in later life, promoting more specialized services and training to address the problem, and improving collaboration among law enforcement, legal services, criminal justice, aging services, advocates, and allied professionals. The project, a collaborative effort involving more than 15 aging, domestic violence, law enforcement, legal

services, and criminal justice organizations, serves the jurisdictions of Chesterfield, Hanover, and Henrico Counties, and the City of Richmond. VCoA's Dr. Paula Kupstas and Sgt. Barbara Walker of the VCU Police Department s are project co-directors, and VCoA's Aly Cooper is Project Manager. In July 2005 VCoA applied for and received additional support from the Domestic Violence Victim Fund to expand operational focus from intimate partner and sexual violence to include family violence. In calendar 2005 these two projects: trained 203 allied service professionals, paraprofessionals, judicial/court personnel and volunteers; trained 81 law enforcement officers and cross-trained 20 service providers; conducted four focus groups with older women; provided technical assistance to six individuals/organizations; served on 10 related task forces and coalitions; conducted 42 site visits to partnering agencies; and accomplished other activities.

- Area Planning and Services Committee

VCoA helped establish the Area Planning and Services Committee for Aging with Lifelong Disabilities (APSC) in metropolitan Richmond several years ago as a research-based model strategy to address issues related to the unprecedented aging of adults with lifelong disabilities, such as autism, cerebral palsy, and intellectual disabilities, and the general lack of preparation of human services systems to respond to their needs and abilities. Composed of family caregivers and officially designated representatives of a dozen organizations from mental retardation to healthcare to banking, the APSC conducted a training workshop in 2005 for the public, planners, and service providers on "Down syndrome and dementia," and hosted a significant conference in May 2005 on "Spirituality, Loss, and Aging for persons with Lifelong Disabilities," with Dr. Harry R. Moody as keynoter. Some 150 service providers, caregivers, planners, and others attended.

- Healthy and Unhealthy Lifestyles in Later Life.

VCoA and the VCU Department of Gerontology received funding in mid-2001 from the Delaware Division of Services for Aging and Adults with Physical Disabilities for a multi-year, multi-part project to help older adults seeking assistance to break unhealthy habits. The project, entitled *More Life Left to Live: Educating Older Adults About Healthy and Unhealthy Lifestyles*, built a special statewide model education and prevention program for older adults and service professionals in aging, health, mental health, and substance abuse. This model intervention uses a "train the trainer" approach to broaden the project's impact, and focuses on such unhealthy behaviors as compulsive gambling, smoking, alcoholism, depression, and suicidal ideation. In 2005, immediately after the official conclusion of this grant project, our project staff conducted an additional training session in Newark, DE in concert with the 34th Summer Institute sponsored by the Delaware Division of Substance Abuse and Mental

Health Training Office. Our staff distributed an updated *More Life to Live* toolkit and presented training on topics related to the curriculum.

- Workplace Partners for Eldercare – Awareness, Education, Support
This is a project to help employers develop and/or refine workplace policies, support, and information for their employees who are caregivers. VCoA heads evaluation of this project, directed by Senior Connections: The Capital Area Agency on Aging and funded by the Richmond Memorial Health Foundation. The project is assisting participating businesses to improve the help they give their employees who are caregivers, and focusing on outcomes that can be used by other businesses for long-range planning and policy development. VCoA will be determining the baseline availability of eldercare benefits offered by targeted businesses, establishing the baseline levels of awareness and use of eldercare benefits provided, documenting attempts within the companies to evaluate the current and future needs of their employed caregivers, and assessing plans to provide improved or enhanced eldercare benefits. After we collect this initial data, the Richmond Area Caregiver Coalition will offer support, practical advice, and corporate implementation strategies for participating businesses, as well as training and mentoring for management, supervisors and human resources staff. Subsequent evaluation activities will document changes in the baseline measures outlined.

b. Research

- Alzheimer's and Related Diseases Research Award Fund.
VCoA manages this seed grant program for the Commonwealth without administrative cost. ARDRAF appropriations support promising lines of inquiry by Virginia researchers into clinical, biochemical, behavioral, pharmaceutical, and other aspects of dementing illnesses, in order to better understand their causes, consequences, and treatment. In 2005 the General Fund appropriation was sufficient to support five seed grant awards: two to the University of Virginia, and one each to George Mason University, The College of William & Mary, and Virginia Tech. One UVA study will study the interrelationships of Beta amyloid plaques and intracellular tangles in the brain, and the other will examine how oxidative stress leads to brain cell death. The GMU study will use mice to analyze the effects on memory function of zinc and iron in water. The W&M project will study how to improve relationships between coping families and health care providers. Finally, the Virginia Tech researchers will investigate the role of environmental manganese in contributing to Parkinson's disease. *(See Appendix B for summaries of the 2005-2006 awards and the review*

committee and Appendix C for abstracts of the Final Reports of the 2004-2005 ARDRAF awardees)

- Virginia Geriatric Education Center (VGEC) Core Grant.
VCoA is partnering in a new five-year (2005-2010) grant project, directed by the VCU Department of Gerontology and funded by the Bureau of Health Professions, Health Resources and Services Administration, USDHHS. **We must note that federal funding is currently in extreme jeopardy.** The project's intentions are as follows: The VCoA's Dr. Connie Coogle is directing evaluation of each objective to improve the training in geriatrics of pre-service and in-practice health professionals, including curriculum development, faculty and practitioner training, and the clinical training of students. This new grant project involves the University of Virginia and Eastern Virginia Medical School in a consortium with VCU Medical Center to improve the ability of health practitioners in Virginia to treat and care for older persons and encourage faculty at the respective medical schools to develop curricula that address geriatrics issues. The new grant project will focus sequentially in each of the grant years on one of five particular topics of interest: cognition/dementia, end-of-life care, preventing dependence through falls, nutrition (with emphasis on obesity prevention and treatment), and mental health. These topics support an overall theme of promoting independence of older adults. One of the new objectives involves the development and conduct of a 40-hour continuing education program for 500 nursing home administrators, directors of nursing, and other managerial supervisors of direct care staff in Virginia's Certified Nursing facilities. The training content of training will reflect the principles of chronic illness, the aging process and its impact on health and illness, and the maintenance of function throughout the life span. A special feature will be training designed to improve management of direct service workers, who often have minimal formal education and may not have English as their first language. On-going VGEC evaluation activities include analyzing/reporting on distance learning data, data from Department of Social Services training contract, the Virginia Geriatrics Society conferences, and all other aspects of the VGEC training activities.

c. **Information and Resource Sharing.**

- Age in Action.
VCoA's respected quarterly 20-page publication, co-produced with the Virginia Department for the Aging and Virginia Commonwealth University's Department of Gerontology, reaches some 4,500 professionals, paraprofessionals, elders and families each issue, with educational content, conference, training, and

work opportunities, research, and more. Each issue begins with a case study of a condition or topic of broad gerontological relevance. Volume 20's four case studies included "*Spirituality and Cognitive Impairment*" (Winter 2005), "WorkWORLD Choice Exploration Software" (Spring), "*Male Caregivers*" (Summer), and "*Partnership for Prescription Assistance of Virginia (PPARx)*" (Fall).

- Community Dissemination.

VCoA completed a variety of community-based efforts to disseminate aging-related data and resources, as well as information about its research and training, current and future lifelong learning and Elderhostel programs. These included participation as a presenter or an exhibitor at local conferences, fairs, workshops, and special events, in places across the Commonwealth. Venues included the Alliance for Aging Research in Washington, the Northern Virginia Aging Network in Arlington, and the board of directors of ElderHomes in Virginia Beach.

- Web Page (www.vcu.edu/vcoa).

VCoA upgraded its website during Fall 2005, and noted over 2,200 visits during the months of October-December. The website contains the main features of each quarterly issue of *Age in Action* since fall 1997; listings of current and near-future Elderhostel and other lifelong learning programs; links to web-based data resources and to aging-related organizations both within Virginia and elsewhere; occasional articles published elsewhere that reflect on everyday aspects of older Virginians' lives; a comprehensive overview of the Alzheimer's and Related Diseases Research Award Fund, including past awards since inception in 1982, the current year's awardees, and application procedures; biographical sketches of VCoA staff members and synopses of some of their research interests; and a detailed catalog of VCoA's audiovisual holdings available for loan to individuals, groups, and organizations across Virginia.

Goals 2006

VCoA initiated a comprehensive self-assessment and long range planning process in January 2005 that continues. It involves all Advisory Committee and University Council members, and has helped us to examine our strengths, limitations, and opportunities, so that we might continue to meet our commitment to our legislated mandates.

The following outline of activities intended for 2006 is organized according to the mandates of interdisciplinary studies, research, and information and resource sharing.

Interdisciplinary Studies

- VCoA intends to work diligently to secure General Fund support to continue operations of both the Virginia Geriatric Education Center (VGEC) and the Geriatric Academic Career Award programs, both eliminated when Congress voted no appropriations nationally for these initiatives, effective the 2006-2007 fiscal year.
- VCoA intends to leverage its relatively modest human and material resources by collaborating with other organizations in developing meaningful grant proposals for external funding of projects that are consistent with VCoA's mission.
- VCoA intends to continue its position in addressing domestic violence against older women. This commitment has involved leadership in a regional task force, a growing number of presentations before professionals in adult protective services, three funded V-STOP projects, grant support to focus statewide on family violence, and several grant proposals to broaden awareness of and training related to abuse, exploitation, and violence in later life. In 2006 we will continue our V-STOP work, supported by federal funds through the Virginia Department of Criminal Justice Services, to increase knowledge of these issues among service providers and law enforcement officers.
- VCoA intends to explore the development of new Elderhostel offerings in parts of western Virginia that will capitalize on an emerging Shakespearean theatre scene there. We will also continue to help develop the Lifelong Learning Institute in Chesterfield County whose growth to approximately 120 older learner members has created the base sufficient to initiate targeted curriculum development, membership recruitment, and fund-raising activities.

Research

- VCoA will continue its administration of, and advocacy for, the Alzheimer's and Related Diseases Research Award Fund (ARDRAF), including practical research findings and the remarkable return on investment, most recently (December 2005) determined to be returning \$11 for every \$1 of General Fund appropriation.
- VCoA will continue its evaluation of several partnered projects, including those designed to strengthen the training and retention of long-term care workers, and the relatively new project to assist employers who wish to help their employees who are family caregivers.
- VCoA's Associate Director of Research, a gubernatorial appointee to the Alzheimer's and Related Disorders Commission, will work to help formulate various ways of leveraging the Commonwealth's diverse expertise in dementia-related issues in order to benefit researchers, practitioners, service providers, educators, and families. The Commission's work on a virtual center is taking shape as a highly innovative means of maximizing resources.

Information and Resource Sharing

- VCoA intends to continue its leadership in three productive alliances: the Central Virginia Task Force for Older Battered Women and the Virginia Coalition for the Prevention of Elder Abuse, both of which are committed to preventing and responding to violence against older Virginians; and the Area Planning and Services Committee for Aging with Lifelong Disabilities (APSC), dedicated to identifying services and service needs, fostering communication and collaboration among service providers, cross-training on both aging and developmental disabilities, public awareness, and planning for emerging issues.
- VCoA intends to maintain its extensive involvement on the boards and task forces of several non-profit aging-related organizations, offering *pro bono* gerontological expertise and technical assistance to the benefit of the elders and families that these organizations serve.

- VCoA intends to continue to partner with statewide aging-related organizations in order to disseminate research findings and to expand training for professionals across Virginia. VCoA will co-develop and co-sponsor the annual conferences of associations throughout the year as a commitment to this research application.

Virginia Center on Aging Staff in 2005

Edward F. Ansello, Ph.D., *Director*
Constance L. Coogle, Ph.D., *Assistant Director of Research*
Aly Cooper, B.S.W., *Project Coordinator*
Catherine D. Dodson, M.S., *Elderhostel Coordinator, Richmond*
William F. Egelhoff, M.B.A., M.Div., *Director Emeritus*
James R. Gray, M.S., *Elderhostel Coordinator, Natural Bridge*
Paula Knapp Kupstas, M.B.A., Ph.D., *Research Economist*
Tara Livengood, *Elderhostel Assistant*
Nancy G. Phelps, *Elderhostel Coordinator, Hampton*
Nancy Podbesek, *Research Assistant*
Jane F. Stephan, Ed.D., *Assistant Director of Education*
Katherine A. Young, B.S., *Research Assistant*

Appendix A

Partnerships with Businesses and Agencies In 2005 by Geographic Region

Central Virginia

ABEC Electronics, Richmond
Agecroft Associates, Richmond
A Grace Place Adult Care Center, Richmond
Agecroft Hall, Richmond
Alzheimer's Association-Greater Richmond
American Red Cross, Richmond Chapter
A Movable Feast, Richmond
Appomattox Courthouse, Appomattox
Appomattox Visitor Center
Aramark Educational Services, Richmond
Berkeley Plantation, Charles City
Bettie Weaver Elementary School, Midlothian
Blandford Church, Petersburg
Blandford Cemetery, Petersburg
Bon Secours Richmond Health System
Brandermill Woods Foundation
Bunkie Trinite Trophies, Richmond
Capitol Tours, Richmond
Capitol Square Preservation Council, Richmond
Catering by Jill, Richmond
Catholic Diocese of Richmond
Central Virginia Coalition for Quality End-of-Life Care, Richmond
Central Virginia Legal Aid Society, Richmond
Central Virginia Task Force on Older Battered Women, Richmond
Chesterfield/Colonial Heights Department of Social Services
Chesterfield County
 Board of Supervisors
 Commonwealth Attorney's Office
 Court Services Unit
 Domestic and Sexual Violence Resource Center
 Domestic Violence Task Force
 Parks & Recreation
 Police Department
 Public Schools
 Sheriff's Office

Circle Center Adult Day Services, Richmond
City of Petersburg
 Bureau of Tourism
 Petersburg Visitor Center
City of Richmond
 Behavioral Health Authority
 Commonwealth Attorney's Office
 Court Services Unit
 Human Services Commission, Elderly and Disabled Committee
 Police Department
 Sheriff's Office
 Social Services
Cold Harbor Battlefield Park, National Park Service
Colonial Printing, Richmond
Comfort Inn, Chester
Congregational Health Ministries Consortium, Richmond
Congregation Beth Ahabah Museum and Archives, Richmond
Crater District Area Agency on Aging, Petersburg
Digital Banana, Richmond
Dominion Virginia Power, Richmond
Doubletree Hotel Richmond Airport
ElderHomes Corporation, Richmond
Enterprise Rent-A-Car, Richmond
Episcopal Diocese of Virginia
Faith in Action of Greater Richmond
Family Care Home Health, Inc., Richmond
Fan Free Clinic, Richmond
Five Forks National Battlefield Park, Petersburg
Grant's Headquarters, Hopewell
Greater Richmond Chamber
Great Foods to Go
Hanover Adult Center, Mechanicsville
Hanover County
 Commonwealth Attorney's Office
 Court Services Unit
 Mental Retardation Services
 Parks and Recreation
 Sheriff's Office
 Social Services
Hanover Safe Place
Henrico County
 Commonwealth Attorney's Office
 Court Services Unit

Division of Police
Health Department
Mental Health and Retardation Services
Recreation and Parks
Sheriff's Office
Social Services
Henrico County Coalition Against Domestic Violence
Holiday Inn Select Koger Center, Midlothian
Hollywood Cemetery Foundation, Richmond
Hospice of Central Virginia, Richmond
Hunter Holmes McGuire Veterans Administration Medical Center,
Richmond, Division of Geriatrics
Ikon Office Solutions, Richmond
Incredible Edibles, Richmond
Indian Fields Tavern, Charles City
Instructive Visiting Nurse Association, Richmond
James River Bus Lines, Richmond
Jefferson Hotel, Richmond
John Marshall House Museum, Richmond
Johnston-Willis Hospital, Richmond
John Tyler Community College
Kinko's, Richmond
Lifelong Learning Institute of Chesterfield County, Inc.
Living History Associates, Ltd, Richmond
Maymont Foundation, Richmond
Media General, Richmond
Metro Richmond Convention and Visitors Bureau, Richmond
Museum of the Confederacy, Richmond
Office Depot, Richmond
Pamplin Park Civil War Site, Petersburg
Petersburg National Battlefield
Radisson Historic Richmond Hotel
Retail Merchants Association of Greater Richmond
Richmond Domestic Violence Coordinating Committee
Richmond Magazine
Richmond Marriott
Richmond Memorial Health Foundation
Richmond National Battlefield Park at Tredegar Ironworks
Richmond Redevelopment & Housing Authority
Richmond Residential Services, Inc.
Richmond Riverfront Development Corporation
Safe Harbor-Henrico

Sacred Heart Cathedral, Richmond
Sailor's (Sayler's) Creek Battlefield, Dinwiddie
Saint John's Church, Richmond
Saint Joseph's Home for the Aged, Richmond
Saint Mary's Catholic Church, Richmond
Saint Michael's Episcopal Church, Bon Air
Saint Paul's Episcopal Church, Richmond
Science Museum of Virginia, Richmond
Scotchtown, Hanover County
Second Presbyterian Church, Richmond
Senior Center of Richmond, Richmond
Senior Center of Richmond at Chesterfield, Midlothian
Senior Connections - Capital Area Agency on Aging, Richmond
Shepherd's Center of Richmond
Sheraton Park West Hotel, Richmond
Shirley Plantation, Charles City
Siege Museum, Petersburg
Thompson & McMullan, P.C., Elder Law Section
Tuckahoe Plantation, Goochland
Tuckahoe YMCA, Richmond
Ukrop's Supermarkets, Richmond
United Way Services, Richmond
University of Richmond, Department of Psychology
Valentine Museum, Richmond's History Center
Virginia Civil War Trails, Richmond
Virginia Historical Society, Richmond
Virginia House, Richmond
Virginia Museum of Fine Arts, Richmond
Virginia Patriots, Inc.
Virginia State University, Petersburg
Wachovia Bank
Westover Plantation, Charles City
White House and Museum of the Confederacy, Richmond
Wilton House, Richmond
Woman's Club of Virginia, Richmond
YMCA of Richmond, Virginia

Eastern Virginia

Alzheimer's Association-Southeastern Virginia, Hampton
Boise Cascade Office Products, Norfolk
Center for Excellence in Aging and Geriatric Health, Williamsburg
Christopher Newport University, Newport News, Lifelong Learning
Institute
College of William and Mary, Williamsburg
 Center for Excellence in Aging and Geriatric Health
 Center for Public Policy Research
 Elderhostel
Colonial Services Board, Williamsburg
Colonial Williamsburg Foundation, Williamsburg
Colonial Williamsburg, Williamsburg
Dominion Village of Poquoson, Poquoson
Eastern Virginia Medical School, Norfolk
 Department of Anatomy and Neurobiology
 Glennan Center for Geriatrics and Gerontology
Hampton-Newport News Community Services Board
Hampton University, Department of Pharmaceutical Sciences, School of
Pharmacy
Hampton Veterans Administration Medical Center, Department of
Geriatrics and Extended Care
Holiday Inn Sunspree, Virginia Beach
Jamestown National Park, Jamestown
Jamestown-Yorktown Foundation, Jamestown
Norfolk Convention and Visitors Bureau
Norfolk Healthcare Center
Old Dominion University, Norfolk
 Department of Psychology
 Department of Sociology and Criminal Justice
 Lifelong Learning Institute
Peninsula Agency on Aging, Inc., Newport News
Sentara Williamsburg Community Hospital
Virginia Retired Teachers Association-District D, Prince George
Virginia War Museum, Newport News
Virginia Wesleyan College, Health and Human Services Department,
Norfolk
Westminster-Canterbury, Virginia Beach
Williamsburg Community Hospital

Northern Virginia

Alzheimer's Association - National Capital Area, Fairfax
Arlington County Department of Human Services and Aging
Burke Healthcare Center
Caroline County Historical Society
Fredericksburg Chateau, Fredericksburg
Fredericksburg/Spotsylvania National Park Service, Fredericksburg
George Mason University, Fairfax
 Department of Psychology
 Krasnow Institute for Advanced Study
 Lifelong Learning Institute
 School of Computational Sciences
George Washington's Mount Vernon Estate and Gardens
Gerontological Society of America, Washington DC
INOVA Health Systems, Falls Church
Loudoun County Area Agency on Aging, Leesburg
Loudoun Senior Interest Network
Meadowbrook, Reva
Mount Vernon Inn
Northern Virginia Aging Network, Arlington
Northern Virginia Community College, Annandale
Oak Springs of Warrington, Warrington
Prince William/Manassas Conference & Visitor Bureau, Manassas
Rappahannock Rapidan Community Services Board, Hartwood
Senior Services of Alexandria
Spotsylvania Visitors Center
Stonewall Jackson Shrine, Fredericksburg
Summerville at Prince William, Woodbridge

Northwest Virginia

Albemarle County Historical Society
Alzheimer's Association – Central and Western Virginia Chapter,
Charlottesville
Augusta Medical Center, Fishersville
Blue Ridge Legal Services, Harrisonburg
Cedars, Beverly Healthcare, Waynesboro
Frontier Culture Museum, Staunton
Hall of Valor Civil War Museum, New Market
Harrisonburg-Rockingham Convention and Visitors Bureau, Harrisonburg

Harrisonburg-Rockingham Social Services District, Harrisonburg
James Madison University, Harrisonburg
 Department of Psychology
 Lifelong Learning Institute
Jefferson Area Board for the Aging, Charlottesville
Jefferson Visitor Center, Charlottesville
Mary Baldwin College, Department of Psychology, Staunton
Michie Tavern, Charlottesville
Monticello, Charlottesville
Monticello Foundation, Charlottesville
Mountain View Nursing Home, Aroda
New Market Battlefield and Museum
New Market Battlefield Military Museum
New Market Battlefield State Historical Park
Nursing Assistant Institute, Charlottesville
Orange County Nursing Home, Orange
P. Buckley Moss Museum, Waynesboro
Shenandoah Social Services, Verona
Shenandoah University, Division of Occupational Therapy, Winchester
Summit Hill, Waynesboro
Thomas Jefferson Memorial Foundation, Charlottesville
Turner Ashby House, Port Republic
University of Virginia, Charlottesville
University of Virginia Health System, Charlottesville
 Department of Biology
 Department of Cell Biology
 Department of General Medicine and Geriatrics
 Department of Neurological Surgery
 Department of Neurology
 Department of Pathology
 Department of Physical Medicine and Rehabilitation
 Institute of Law, Psychiatry, and Public Policy
University of Virginia Senior Services, Charlottesville
Valley Program on Aging Services, Waynesboro
Woodrow Wilson Birthplace, Staunton

Southwest Virginia

Abbott Bus Lines, Roanoke
Appalachian Agency for Senior Citizens, Inc., Cedar Bluff
Blacksburg Electronic Village, Blacksburg

Blue Ridge Parkway Ranger Station and Visitor Center, Stuart's Draft
Carillon Health System, Roanoke
College of Health Services, Roanoke
Days Inn, Lynchburg
Duffield Nursing Facility, Duffield
George C. Marshall Museum, Lexington
George C. Marshall Foundation, Lexington
Hamilton Haven, Roanoke
Holiday Inn Select, Lynchburg
Kendal of Lexington
Lakeview Assisted Living, Roanoke
Lee Chapel and Museum, Lexington
Lexington-Rockbridge County Visitors Center, Lexington
LOA-Area Agency on Aging, Inc., Roanoke
Lynchburg College, Belle Boone Center on Aging and the Life Course
Lynchburg Visitor Center, Lynchburg
MacArthur House, Narrows
Mayfair House Assisted Living, Roanoke
Monacan Indian Nation, Inc, Madison Heights
Mountain Empire Older Citizens, Inc., Big Stone Gap
Natural Bridge Caverns
Natural Bridge Inn & Conference Center
Natural Bridge Wax Museum
New River Valley Agency on Aging, Pulaski
Peaks of Otter Restaurant, Bedford County
Peaks of Otter Visitor Center, Bedford County
Piedmont Adult Care Residence, Danville
Poplar Forest, Lynchburg
Quality Quick Print, Lexington
Rockbridge Historical Society, Lexington
Safe Homes, Craig County
Southern Area Agency on Aging, Martinsville
Stonewall Jackson House, Lexington
Stonewall Jackson Memorial Cemetery, Lexington
Virginia Military Institute Museum, Lexington
Virginia Polytechnic Institute and State University, Blacksburg
 Center for Gerontology
 Department of Biochemistry
 Department of Biomedical Sciences and Pathobiology
 Department of Human Development

Washington and Lee University, Lexington
Western State Hospital, Neuropsychology Laboratory, Staunton
World War II Memorial, Bedford

Statewide

AARP Virginia
Alzheimer's Disease and Related Disorders Commission
National Association of Retired Federal Employees
Office of the State Long-Term Care Ombudsman
Prevent Blindness Virginia
SeniorNavigator.com
Virginia Arthritis Task Force
Virginia Association for Home Care
Virginia Association of Area Agencies on Aging
Virginia Association of Community Services Boards
Virginia Association of Non-Profit Homes for the Aging
Virginia Association on Aging
Virginia Culture Change Coalition
Virginia Coalition for the Aging
Virginia Coalition for the Prevention of Elder Abuse
Virginia Department for the Aging
Virginia Department of Criminal Justice Services
Virginia Department of Emergency Management
Virginia Department of Health
Virginia Department of Health Professions
Virginia Department of Medical Assistance Services
Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services
Virginia Department of Rehabilitative Services
Virginia Department of Social Services
Virginia Elder Rights Coalition
Virginia Geriatrics Society
Virginia Guardianship Association
Virginia Health Care Association
Virginia Health Quality Center
Virginia Poverty Law Center
Virginia Quality Healthcare Network
Virginia Sexual and Domestic Violence Action Alliance

Collaboration with Units of Virginia Commonwealth University

Center for Public Policy
Department of Adult Health Nursing
Department of Anatomy and Neurobiology
Department of Art History
Department of Biochemistry
Department of Chemistry
Department of Computer Sciences
Department of Dance and Choreography
Department of Human Genetics
Department of General Medicine
Department of Gerontology
Department of Health Administration
Department of Internal Medicine
Department of Pastoral Care, Program in Patient Counseling
Department of Pathology
Department of Philosophy and Religious Studies
Department of Psychiatry
Department of Psychology
Department of Recreation, Parks, and Sports Management
Department of Rehabilitation Counseling
Geriatric Medicine Section
Office of the Vice President for Health Sciences
Partnership for People with Disabilities
Police Department
School of Allied Health Professions
School of Mass Communications
School of Pharmacy
 Department of Pharmacy
 Department of Pharmaceutics
 Geriatric Pharmacy Program
School of Social Work
Survey and Evaluation Research Laboratory
VCU Health System Forensic Nurse Examiners Program
Virginia Geriatric Education Center
Virginia Institute for Social Services Training Activities (VISSTA)

Appendix B

COMMONWEALTH OF VIRGINIA

Alzheimer's and Related Diseases Research Award Fund

2005-2006 ALZHEIMER'S RESEARCH AWARD FUND RECIPIENTS ANNOUNCED

The Alzheimer's and Related Diseases Research Award Fund (ARDRAF) was established by the Virginia General Assembly in 1982 to stimulate innovative investigations into Alzheimer's disease (AD) and related disorders along a variety of avenues, such as the causes, epidemiology, diagnosis, and treatment of the disorder; public policy and the financing of care; and the social and psychological impacts of the disease upon the individual, family, and community. The ARDRAF competition is administered by the Virginia Center on Aging at Virginia Commonwealth University in Richmond. The six grant recipients of the 2005-2006 awards are as follows:

GMU Jane Flinn, Ph.D. (Dept of Psychology) “The Effect of Enhanced Levels of Zinc and Iron in Drinking Water on Memory, Amyloid Configuration, and Plaque Development in Transgenic Mice”

The brains of those who die with AD are characterized by amyloid plaques which contain high levels of zinc, iron, and copper. These metals have all been shown to play a role in plaque formation, with the different metals affecting the aggregation of amyloid in different ways. Scientific opinion is divided as to whether zinc plays a protective role or is a risk factor for AD. Normal mice have amyloid but do not develop the types of amyloid plaques seen in human brains. Transgenic mice (Tg) have been developed, however, that show these plaques. One of these is a mouse which carries a mutation identical to a major genetic form of human AD. The investigator will raise these mice, together with non-transgenic mice, on zinc-enhanced, iron-enhanced, or normal lab water to examine the effects on plaque formation and amyloid configuration, as well as on several forms of memory that depend on brain structures affected by AD early in the disease. Dr. Flinn will then examine the effects of switching older Tg animals, previously raised on lab water, to increased zinc and decreased iron. It is important to know if an increase or a decrease in either of these metals influences the course of AD, and this research begins to answer this question. (*Dr. Flinn can be reached at 703/993-4107*)

GMU Pamela M. Greenwood, Ph.D. (Department of Psychology) & Karl Fryxell, Ph.D. (Department of Molecular and Microbiology) “Use of Allelic Association to Study the Genetics of Cognitive Aging”

The ability to predict who may develop AD is important to the goals of its delay or prevention. Identifying individuals at increased risk would allow early use of agents that may delay the disease, such as anti-inflammatory and cholesterol-lowering drugs that are not used for this purpose at present. The only genetic risk factor for late-onset, sporadic AD is the apolipoprotein E (APOE) epsilon 4 allele. There is evidence that 4-5 additional genes affect risk of AD, but despite considerable research over more than 10 years, none has been identified. The investigators think that this failure is due, in part, to the approach commonly used. Their preliminary data suggest that using age-related cognitive deficits as the focal point in allelic association studies would increase the power to detect genetic modulation over diagnostic-based studies, due to larger effect sizes. Based on other evidence indicating that the APOE gene exerts its effect on AD through a role in neuronal protection and plasticity, the investigators will look for other genes with a similar role by relating age-related change in cognition to normal variation in genes previously shown to affect cognitive performance in later life. This approach has the potential to increase the number of genetic factors known to alter cognitive integrity, improve early identification of

cognitive decline, and allow the use of delaying treatments. (*Dr. Greenwood can be reached at 703/9993-4268; Dr. Fryxell can be reached at 703/993-1069*)

College of William & Mary **Christine J. Jensen, Ph.D. and colleagues (Center for Public Policy Research)**
“Promoting an Effective Partnership between Families Coping with Alzheimer’s Disease and Their Healthcare Providers”

With an ever-increasing population of Americans with AD, a clear need exists to understand and strengthen the relationship between healthcare providers (e.g., primary care physicians and nurses) and families who care for loved ones with the disease. Promoting appropriate partnerships will serve to facilitate the medical, social, and psychological care that persons with AD and related dementias need to maintain quality of life. In addition, these partnerships can serve to ease the stresses experienced by family caregivers. This study will investigate whether the primary source of AD diagnosis is more likely to be the primary care physician than a specialist, and identify what family caregivers most need as they interact with healthcare providers. Focus groups with primary care physicians and their office staff will help determine the needs of health care providers as they support families caring for relatives with AD. The team of investigators will also identify effective ways to maximize the resources provided by physicians and their staff and make additional resources available. Solutions, on medical and social levels, will be proposed for enhancing care for persons with AD, as well as for their family caregivers. (*Dr. Jensen can be reached at 757/221-1971*)

Virginia Tech **Bradley G. Klein, Ph.D. & Jeffrey R. Bloomquist, Ph.D. (Department of Biomedical Sciences and Pathobiology, College of Veterinary Medicine)**
“Modulation of Cognitive Sequelae of Parkinsonism by Environmental Manganese: Implications for Dementia with Lewy Bodies”

Dementia is a major public health problem that cuts across gender, ethnic and socioeconomic lines, estimated to affect nearly 50% of the population over age 85. Parkinson’s disease is a Lewy body disorder that has long been recognized for its devastating effects upon motor behavior, although anywhere from 20-60% of Parkinson’s disease patients develop some cognitive decline. Manganese, a metal used in industrial settings, is ubiquitous in soil and air, and is often a component in geriatric intravenous parenteral nutrition therapy. In addition, a manganese-containing compound is widely used as a gasoline additive. Manganese overexposure that affects a portion of the brain very close to the neural target of Parkinson’s disease can produce psychiatric symptoms in addition to motor dysfunction. The principal aim of this study, which uses a mouse model of Parkinson’s disease, is to address whether environmental manganese can contribute to, or facilitate, the cognitive decline that has been observed in Parkinson’s disease. Such information may shed light on the underlying mechanisms of cognitive decline in another Lewy body disorder, Dementia with Lewy Bodies, the most common form of neurodegenerative dementia after AD. (*Dr. Klein can be reached at 540/231-7398; Dr. Bloomquist can be reached at 540/231-6129*)

UVA **Michelle King, Ph.D. (Department of Biology)**
“Direct Interactions between A β and Tau in Cultured Cells”

Extracellular accumulations of β -amyloid (A β) fibrils and intracellular accumulations of tau filaments are the two pathological hallmarks of AD. A number of laboratories have provided compelling evidence linking the two molecules within a signaling cascade that places A β upstream of tau. However, no published studies have looked at the real time effects of A β on tau, nor have they characterized the effect of A β monomers and oligomers on cells expressing tau. This study will further explore the relationship between these two proteins by using a live cell culture system and real-time fluorescence

microscopy for imaging. Cells expressing a fluorescent tau protein will be treated with β -amyloid peptides, and movies showing the impact of β -amyloid on tau will be taken and analyzed. Significant changes in cell survival, as well as tau expression and localization will be further studied, and potential candidate signaling pathways linking β -amyloid and tau will be identified and characterized. This evidence will contribute greatly to our understanding of the two primary molecules implicated in AD progression and help to establish a mechanism to describe the neurodegeneration observed in the disease. *(Dr. King can be reached at 434/243-7764)*

UVA Isaac G. Onyango, D.V.M., Ph.D. (Department of Neuroscience and Neurology)
“Molecular Mechanisms of Neurodegeneration in Alzheimer’s Disease”

While AD occurs mainly as a sporadic idiopathic form, mutations in presenilin-1 and presenilin-2, as well as the amyloid β ($A\beta$) precursor protein genes, have been shown to be responsible for roughly half of the early onset (<60 years of age) familial AD cases. Studies have shown that decreased synaptic density and loss of neurons accompanied by reduced expression of neurotrophic factors and oxidative damage are key features in the AD brain. Oxidative damage could result from mitochondrial dysfunction, $A\beta$ and/or glial recruitment and activation, or a combination of these processes. The molecular mechanisms through which oxidative stress leads to neuronal death in AD have yet to be elucidated. One possible mechanism may involve the stress activated protein kinase pathways, and recent studies have demonstrated that some of these pathways are activated in AD brain. In this study the investigator will delineate the common/obligatory signaling pathway(s) active in three different cellular models of sporadic and familial AD in order to understand how compensatory pro-survival intracellular signaling fails to preserve neuronal function under stressful conditions. This holds promise for identifying rational therapeutic approaches based upon cellular events. *(Dr. Onyango can be reached at 434/ 243-9268)*

UVA Heidi Scrable, Ph.D. (Department of Neuroscience)
"Gene Expression Changes in the Aging HPF Axis"

In mouse models of AD, administration of leptin has been shown to reduce the production of the pathological $A\beta$ fragment of amyloid precursor protein (APP) in the brain. The preliminary experiments in this study will address the relationship between the adipocyte-derived hormone, leptin and APP. The investigator has developed a line of transgenic mice (p44), with altered insulin-like growth factor-1 (IGF-1) signaling, that present several hallmarks of AD and undergo accelerated aging, including premature accumulation of ceramide in the brain and reduced serum leptin. Hyperactivation of the IGF-1 receptor in these mice is accompanied by parallel changes in the cascade of events that results in the production of $A\beta$. This study is designed to investigate the hypothesis that the hypothalamic-pituitary-fat cell (HPF) axis that controls metabolic pathways and maintains efficient use of energy, also plays a major role in the pathogenesis of AD. The investigator will use microarray analysis to examine age-associated changes in adipocyte-specific gene expression in the p44 mice. Changes in gene expression in signaling pathways detected by microarray analysis will be verified using techniques such as northern and western blot, qRT-PCR, and immunohistochemistry. The results will provide a global picture of how perturbations in endocrine pathways originating in the periphery, for example, in the adipocyte, can contribute to degeneration of the brain in AD. *(Dr. Scrable can be reached at 434/ 982-1416)*

2005-2006 Awards Committee

Paul Aravich, Ph.D.

Eastern Virginia Medical School

John W. Bigbee, Ph.D.

VCU Medical Center

Douglas M. Gross, Ph.D.

College of William & Mary

John T. Hackett, Ph.D.

UVA Health System

JoAnne Kirk Henry, Ed.D., RN, CS

VCU Medical Center

Colleen Jackson-Cook, Ph.D.

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Peter Kennelly, Ph.D.

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Richard Lindsay, M.D.

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Bernice Marcopulos, Ph.D.

Western State Hospital

Linda Phillips, Ph.D.

VCU Medical Center

Russell H. Swerdlow, M.D.

UVA Health System

Patricia A. Trimmer, Ph.D.

UVA Health System

Appendix C

Commonwealth of Virginia

Alzheimer's and Related Diseases Research Award Fund

FINAL PROJECT REPORTS FROM THE 2004-2005 ALZHEIMER'S RESEARCH AWARD FUND

UVA Kathleen Fuchs, Ph.D. (Department of Neurology) “Beyond Memory Impairment in MCI: Executive Abilities and Implications for Functioning”

Mild Cognitive Impairment (MCI) is a term used to describe the functioning of elderly adults who demonstrate cognitive deficits that are not severe enough to warrant a diagnosis of dementia. Individuals with MCI have been shown to be at increased risk for developing Alzheimer's disease (AD). Because memory impairment is a hallmark symptom of AD, studies of MCI have not focused on other brain systems that are critical to the expression of AD, e.g., those involved in executive functioning (abstract reasoning, novel problem solving, ability to recognize and correct mistakes, and ability to think flexibly). In this study, individuals who mainly exhibit a decline in memory functioning (amnestic MCI) were compared with those whose main area of difficulty is in another cognitive domain (nonamnestic MCI) through evaluations of executive functioning, medication management, driving skills, and Magnetic Resonance Spectroscopy (MRS) in specific brain structures implicated in Alzheimer's disease. There were no statistically significant differences between the two MCI groups on the MRS evaluation. Other results, however, indicate that individuals who carry a clinical diagnosis of MCI exhibit reduced ability in aspects of executive functioning regardless of whether they show prominent memory deficits. Although not impaired, performance was below expectation relative to very high premorbid or baseline functioning on most measures of executive abilities. There was an indication of relatively greater decline on tasks with higher response inhibition and mental flexibility demands than on tasks that primarily tap reasoning and abstraction skills. This decline correlated with performance on a “real world” task of medication management and suggests that individuals with MCI may have greater difficulty with complex activities of daily living than has been supposed. While nearly all subjects in the study had memory complaints, most showed decline in cognitive domains outside of memory functioning, and these declines could have significant implications for an individual's ability to manage complex tasks independently. (*Dr. Fuchs can be reached at 434/ 982-4165*)

UVA David S. Geldmacher, M.D. (Department of Neurology) “Eye-Movement Approaches to Information Processing Abnormalities in Mild Cognitive Impairment”

MCI is characterized by measurable difficulties with memory or other thought processes (cognition) that are more severe than expected for age, but which do not interfere with a person's usual activities. When examining complex visual scenes, individuals with AD have abnormal eye-movement patterns that contribute to their problems in processing visual information. MCI is often a transitional state between healthy aging and AD, and can also be associated with problems in visual processing. This study used a computerized eye-tracking system to compare the eye movements of people with MCI and cognitively

healthy adults without significant memory impairment as they scanned visual images of varying complexity. Usable eye-movement data from 19 subjects indicated that although healthy subjects had significantly higher scores on tests of general cognition and memory, the groups did not differ in picture naming ability. Consistent with the hypothesis of the study, individuals with MCI showed significant differences in eye-movement during examination of complicated images that required more intensive information processing. The MCI subjects required more eye movements and had a less efficient search pattern on tasks that require discerning a figure from a complicated background. However, on a simpler object-naming task no differences in eye-movements were observed between groups. The findings suggest that patients with MCI have deficits on tasks requiring complex visual information processing, and have important implications for activities like employment and driving.

(Dr. Geldmacher can be reached at 434/ 924-5548).

VA Tech Anne Glass, Ph.D. (Center for Gerontology) “The End-of-Life Care Experience for Alzheimer’s Patients and Their Families”

In today's "death-denying" society, end-of-life care is still a topic often avoided. Therefore, little is known about it, and perhaps least of all about how persons with Alzheimer's and related diseases die. The challenges of providing quality end-of-life care are intensified for this population, given the lack of a predictable trajectory and the communication issues that can arise due to the disorientation of the individuals. Use of hospice is a relatively new development. In this partially-funded pilot project, a qualitative interview instrument was developed to use with four family members after the death of their loved ones. The four cases, two males and two females varying in age from 65 to their 80s, revealed a range of end-of-life experiences, suggesting that there is not just one “good” path. The extent of care needed, the responsiveness of the family member, the health of the caregiver(s), and the housing and support situations can all intersect in a variety of ways that make no one scenario the answer for all. Although most people say they would prefer to die at home, in some situations the nursing home can be a satisfactory choice, particularly if hospice is involved. The project produced a new instrument that can be adapted for future research to address the care needed, as well as a broader definition of the environment and how it supports the end-of-life experience for patients and their families.

(Dr. Glass can be reached at 706/425-3222)

Mountain Empire Older Citizens, Inc. Marilyn Pace Maxwell, M.S.W., and Michael Creedon, D.S.W. “Developing, Implementing, and Evaluating Training Modules for High School Students to Teach Alzheimer’s Caregivers to Use the Internet Effectively as a Tool to Assist in Caring for Their Family Members”

A previous ARDRAF-funded study by Creedon and Maxwell determined that a majority of the Alzheimer’s caregivers surveyed in the Big Stone Gap region would like to be trained on the use of personal computers as a tool to assist them with their caregiving responsibilities; and that these caregivers would welcome instruction about the use of a computer and the Internet from a high school student with specialized training on AD and working with family caregivers. Working in cooperation with Wise County Schools, LENOWISCO Planning District Wired Community Project, and the University of Virginia’s Health Sciences Library Outreach at Wise, the currently-funded investigation recruited 25 senior Caregivers, who wished to use computers and the Internet to help with caregiving duties, and 17 Teen Volunteer trainers from the junior class at Powell Valley High School. The project developed in-depth training for the Teen Volunteers that focused on Understanding Alzheimer’s Care and Helping the Senior Citizen Learner, and five training modules for use by the Volunteer Teens in one-on-one training with Caregivers. With assistance from the region’s Chapter of the Alzheimer’s Association, project staff held three training sessions for Teen Volunteers and then paired them with

Caregivers in two combined group training programs. Evaluation results from both the Teen Volunteers and the Caregivers documented the success of the project. Caregivers appreciated the assistance from Teen Volunteers and the skills offered to them. The program lessened Caregivers' feelings of isolation and lack of confidence in their ability to learn. Teen Volunteers learned a great deal about caregiving and gained a new understanding of the difficulties faced by family caregivers of those with Alzheimer's disease. They also became more knowledgeable about teaching adult learners and gained insights into their own lives. Recorded observations by the project leaders suggested that the training materials were appropriate for both groups and offered suggestions for future efforts. Eventual statewide replication of the collaboration, *Big Stone Gap Teens and Caregivers: Across the Tech Divide*, could significantly increase the ability of caregivers to make use of information technology as a caregiving resource. *(Ms. Maxwell can be reached at 276/523-4202; Dr. Creedon can be reached at 703/560-7220)*