NATIONAL INSTITUTE ON AGING
National Institutes of Heath

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LINKS: *Minority Research & Training*

NIA Lays Groundwork for a New Frontier

The National Institute on Aging (NIA) laid the groundwork for a "new frontier of aging research" by conducting a major review of its minority health research portfolio – the first institute at the National Institutes of Health (NIH) to do so, observes James S. Jackson, PhD. He was chair of the National Advisory Council on Aging's (NACA) Minority Aging Ad Hoc Review Committee, which authored the report.

Jackson, professor at the University of Michigan's Institute for Social Research, comments that the time is ripe for scientific research on older minority populations. He says for years research on minorities has been rife with racist undertones or simply ignored.

"The NIA report on minority research is so important because it might influence the direction of research at NIA and maybe NIH." Jackson notes, "If we understand the mechanism by which social class and socioeconomic status influences health, we can develop interventions that can make a difference. Why do African Americans have such poor mortality and morbidity rates compared to whites? These are legitimate and important areas of research."

Jackson was especially impressed by the thorough and thoughtful participation of all Committee members. Members of the NACA Minority Aging Ad Hoc Review Committee included:

- David Espino, MD, University of Texas Health Science Center in San Antonio, TX;
- Harold Freeman, MD, North General Hospital in New York City, and now, NIH;
- Richard Goldsby, PhD, Amherst College in MA.;
- Mary Harper, PhD, RN, University of Alabama in AL,
- William Hazzard, MD, Puget Sound Health Care System in WA,

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Eliminating Health Disparities is a Crucial Goal, NIH Acting Director Tells Congress

On July 26, 2000, Ruth Kirschstein, MD, acting director of the National Institutes of Health (NIH), testified before Congress on NIH's efforts to eliminate health disparities. The following are excerpts of her speech to the Senate Committee on Health, Education, Labor and Pensions' Subcommittee on Public Health:

"The evidence of health disparities in this country is striking and beyond dispute. Mortality from coronary heart disease is 40 percent higher in African Americans than whites. The mortality rate from stroke in African Americans is nearly 80 percent higher than the rate among Caucasians. These disparities exist with virtually every major disease, including cancer, AIDS, end-stage renal disease, liver disease, tuberculosis, and osteoarthritis.

The elimination of health disparities will require a cross-cutting effort, involving not only various components of the

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Opportunities and Challenges Abound for Minority Research and Researchers

The swelling ranks of minority elders and the growing disparities in their health status pose urgent research opportunities and challenges, according to a new report by the National Institute on Aging. The NIA's National Advisory Council on Aging (NACA) charged the ad hoc Minority Aging Review Committee with the task of assessing past achievements and future opportunities in aging research on ethnic and minority populations. The NIA's landmark review, and the concurrent development of its strategic plan, will provide a "road map" to improving the health of older minorities, according to the report.

NIA asked the committee to review minority-related research and training activities from 1993 to 1998, evaluate how effective NIA has been in enhancing the competitiveness of minority research applicants, and comment on NIA's initiatives and activities that address major health problems from which older minority people suffer disproportionately. Based on the review, the committee made eight general recommendations to supplement and clarify the goals and objectives of the strategic plan.

"Reviewers noted with enthusiasm the efforts and progress made by NIA's extramural and intramural research programs."

Although much work is still needed, the reviewers noted with enthusiasm the efforts and progress made by NIA's extramural and intramural research programs. Reviewers commended NIA on the success of the:

- Research Supplements for Underrepresented Minorities Program which supports high school, undergraduate, graduate, research assistants, post-doctoral students, and minority investigators — supplements have been used for research expenses, the applicant's salary and related fringe benefits, and travel;
- Intramural Research Training Awards to engage underrepresented minorities in training opportunities at the Gerontology Research Center;
- The annual Technical Assistance Workshop, in conjunction with the Gerontological Society of America; and
- The Summer Institute on Aging Research, which brings together emerging scientists with nationally recognized faculty to discuss aging research.

Reviewers cited particular strengths of the following programs:

Resource Centers for Minority Aging Research (RCMARs). These centers have as their long-range goal decreasing the minority/non-minority differential in health and its social sequelae. Reviewers noted that RCMARs have been exceptionally productive. They further suggested that an evaluation strategy for RCMAR accomplishments can serve as a model for similar research and training programs. Among the most striking accomplishments, new research funded by associated faculty rose from 5 in FY1998 to 34 in FY 1999. Further, the number of publications by faculty and students rose from 53 in FY 1998 to 202 in FY 1999.

Study of Women's Health Across the Nation (SWAN). The SWAN's primary objective is to chart the biological and psychosocial factors related to menopause and the effect of this transition on health and risk-factors for age-related disease in 5 diverse community samples. The communities include African Americans, Puerto Ricans, Japanese, Chinese, and Caucasian women. Reviewers said SWAN will contribute substantive new knowledge on the menopause transition through its prospective design, multi-ethnic/racial composition, representation of defined populations, and comprehensive measurement and power.

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- James Vaupel, PhD, Max Planck Institute for Demographic Research, in Germany;
- Eugenia Wang, PhD, Lady Davis Institute for Medical Research in Canada, and now, University of Kentucky, KY;
- Jeanne Wei, MD, PhD, Harvard Medical School, in MA;
- Norman Anderson, PhD, NIH, and now Harvard University in MA;
- Raynard Kington, MD, PhD, National Center for Health Statistics, in MD;
- Spero Manson, PhD, the University of Colorado Health Sciences Center in CO;
- Richard Mayeux, MD, Columbia University in NY;
- Vivian Pinn, MD; John Ruffin, PhD; and J. Taylor Harden, PhD, all at NIH.


James Jackson, PhD

Over the course of the year, the Committee met with NIA staff and reviewed program plans and portfolios. The recommendations generated by this landmark self-assessment will help guide NIA research decisions. Jackson believes this is critically important, "We need to do the science now so we can develop beneficial interventions. It's the right thing to do, and there will be a major, bottom-line benefit to society, especially with the increasing number of minority elders."

"Historically, race, ethnicity, and, to some degree, gender were viewed as nuisance variables," he said. These factors got in the way and confounded scientists' understanding of universal principles, which could then be extrapolated to the population at large. Instead of universalism, Jackson endorses a more culturally specific view that if scientists want to understand the ways people age, they need to understand the racial and ethnic influences, particularly the social and psychological ones.

Some historical approaches moved beyond the philosophical into the perilous, Jackson said. Some researchers, for example, incorrectly assumed that genes controlling physical characteristics were also related to intellectual development. He reflected that this research was racist by accident or design and probably chilled legitimate research on genetic and biological factors in minority health.

According to Jackson, another faulty past strategy has been to avoid minority research entirely. "If you have a theory that African Americans are genetically disposed to be lazy and shiftless and you see that African Americans are not as well off materially as whites, you don't need to do the research. You have a ready-made explanation," he said.

Under Jackson's direction, the ad hoc committee provided NIA eight recommendations, with related sub-recommendations, aimed at improving the health status of minority elders and expanding the participation of under-represented scientists in aging research. The recommendations will supplement the goals and objectives of NIA's strategic plan. They are:

1: Eliminate health disparities

1a) Continue to disentangle the effects of socioeconomic status, environmental exposure, health behaviors, and race and ethnicity status on health

1b) Make efforts to improve knowledge regarding prevalence of and risk factors for Alzheimer's disease, dementia, and other neurological and psychological disorders

1c) Conduct a review of the Alzheimer's Centers and satellite programs to determine participation and research relevance for minority populations

1d) Conduct research on the impact of socioeconomic status, environmental exposure, health behaviors, race and ethnicity on differences in disease prevalence (cancer and cardiovascular disease), incidence, morbidity and mortality among older population groups

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2: Define race, culture, ethnicity, and socioeconomic status

2a) Continue to work on clarifying the most appropriate definition of and use for the concepts of race, culture, and ethnicity in aging research

2b) Improve the working definitions of race, ethnicity, culture, and socioeconomic status and encourage standardization across studies

2c) Host a conference to initiate a discussion of measuring and explaining cross-racial/cross-cultural differences in health and disease outcomes among various populations

2d) Clarify the goals of the Intramural Research Program's Baltimore Longitudinal Study of Aging (BLSA) as a means to improve understanding of race and socioeconomic effect on health and effect of health on socioeconomic status

3: Implement longitudinal and life course studies

3a) Encourage longitudinal, population-based studies

4: Integrate biology, genomics, and the genetics of aging

4a) Encourage genetics research, with caution and sensitivity

4b) Continue research on biological and genetic variations that address the relationships among genetic variations and social and cultural conditions within and among ethnic and racial minority groups

4c) Support the BLSA in clarifying and extending genetics research to focus on health issues and successful aging across population groups

5: Refine methods and strategies

5a) Support research to improve methods and strategies for conducting research with minority populations

5b) Improve instruments and methods, including standardization across populations to study cognitive disorders and mental health decline in minority populations

5c) Improve scales and instruments for use across older population groups

6: Improve recruitment and retention of minorities in research

6a) Encourage and support research to improve strategies for recruitment and retention of minority elders in research with goals of hypothesis testing

6b) Assist the NIH to clarify the process of monitoring the inclusion of minorities in clinical studies

7: Strengthen and clarify the NIH policy on inclusion of minorities in clinical research

7a) Change the NIH implementation of the policy on inclusion of women and minorities in clinical research

7b) Encouraging NIH and Office of Research on Women's Health to design a system for tracking inclusion of women and minorities in clinical research that will include recruitment and retention data as well as data that track the performance of investigators in meeting the mandate and intent of public law

8: Build capacity and enhance training and information dissemination

8a) Devote resources to facilitating networks of scholars focusing on minority issues and to conferences focusing on common issues in career development

8b) Encourage long-term support of the Resource Centers on Minority Aging Research

8c) Continue to support, develop and expand existing mechanisms for developing scientists focused on topics relevant to the aging of minority subpopulations

8d) Support mentoring of new investigators

8e) Expand physician/scientist opportunities

8f) Disseminate information

An executive summary of this report is available on the NIA website: http://www.nih.gov/nia. ❖

Turning Recommendations into Actions

Recommendations can sometimes seem not much more than abstract goals. The following list matches selected recommendations with currently funded NIA research to highlight how investigators can work to address these goals:

EXAMPLE: Eliminate health disparities

Dr. Kim Tyrell at the University of Pittsburgh is studying 1,250 participants (African American and White) to look at vascular stiffness measures in conjunction with a variety of variables such as age, sex, race, and diet. Identifying reproducible measures to evaluate vascular stiffness may be an important step in determining atherosclerosis and hypertension risks for a diverse population.

EXAMPLE: Integrate biology, genomics, and the genetics of aging

Dr. Keith Whitfield at the Pennsylvania State University intends to identify the sources of individual variation in the health of African-American twin pairs age 65+. He hopes that this information will allow greater insight into the role of environment and genetics in aging among the general public.

EXAMPLE: Build capacity and enhance training and information dissemination

Resource Centers for Minority Aging Research (RCMARs*) are cultivating long-term relationships with minority investigators nationwide. Outcomes from these enduring investments are starting to be seen in a myriad of initiatives that build on, but are not dependent upon, work done at RCMARS. For example:

- Sue Levkoff at Harvard Medical School in Massachusetts will develop an academic research and training infrastructure in minority aging and health.
- James Goodwin at University of Texas in Galveston will recruit academically promising students into the study of health and older minorities. The goal is to increase the pool of researchers pursuing research relevant to the health of older minorities.
- Carol Magai at Long Island University in New York will establish a vigorous training program for ethnogerontology – a field of study looking at social and behavioral aspects of aging.

**Current RCMAR sites include: Center for African American Aging, Detroit, MI; Columbia Center for the Active Life of Minority Elders, NYC, NY; Native Elder Research Center, Denver, CO; Michigan Center for Urban African-American Aging Research, Ann Arbor, MI; Resource Center for Aging Research in Diverse Populations, San Francisco, CA; Center for Advancing Minority Aging Research Efforts, Chapel Hill, NC.*❖

Summer Institute on Aging Research, 2000

NIA Extramural and Intramural Programs Cultivate Minority Inclusion

NIA's intramural and four extramural programs (Behavioral and Social Research, Biology of Aging, Geriatrics Program, and Neuroscience and Neuropsychology of Aging) continue to seek ways to increase minority investigators and minority-related science. The following overview of each extra/intramural program includes examples of promising endeavors in minority aging research as described in the Minority Aging Ad Hoc Review Committee report.

Behavioral and Social Research (BSR) focuses on the cognitive changes related to aging, the interrelationships between older people and social institutions, and the societal impact of changing population age composition.

Several of BSR's branches have engaged in minority-specific research. For example, the Cognitive Functioning and Aging section investigates cognitive interventions in African Americans, cognition trajectories and ethnic differences in information processing, medication adherence, bilingual language processing, and cognitive/emotional development. The Personality and Social Psychological Aging section focuses on ethnic differences in social support, bereavement, and stereotyping.

The Demography and Population Epidemiology branch supports research and training on social, demographic, economic, and health characteristics of older people. Population epidemiology includes race, ethnicity, and socioeconomic differential in mortality in its research on health and mortality issues. The Office of Demography of Aging also looks at socio-economic differentials in mortality, immigration, and internal migration.

The Behavioral Medicine and Medical Sociology Branch is responsible for the management of NIA's Resource Centers for Minority Aging Research (RCMAR) and the second generation of Hispanic Studies and the Exploratory Centers of Health Promotion and Minority Aging. This branch also supports research in:

- The influence of racial and ethnic identity on health and behaviors and places special emphasis on minority aging research.
- The impact of race and ethnic consequences on differential health care delivery, access, and use, and on different services use outcomes, as well as the availability of services.
- The influence of social institutions on people — minority group status has social and cultural implications for this research.

For more information contact BSR at 301-496-3131

The Biology of Aging Program (BAP) aims to elucidate the biochemical, genetic, and physiological mechanisms of aging. BAP has been extensively involved in developing the "pipeline" to increase the numbers of minority investigators in aging research, starting with mentoring high school students. It also grants minority dissertation awards, minority predoctoral fellowships, and minority research supplements.

In 1999, BAP established the NIA Pilot Research Grant Program to support "research leading to identification of underlying mechanisms, including cellular and molecular mechanisms, linked to racial/ethnic differences in late life function or disease, e.g., cognition, Alzheimer's disease, cardiovascular disease, cancer, infectious disease, and diabetes." The BAP plans an initiative on the biological mechanisms underlying racial/ethnic health disparities in aging.

Among its efforts to increase minority investigators in the biology of aging research, BAP is requesting renewal of the Nathan Shock Centers. The research development core may include a specific plan for support of minority research and training of either students or faculty.

BAP staff also plans to visit Historically Black Colleges and Universities and other minority-serving institutions to encourage minorities to enter the field of biology of aging research and to inform them of funding opportunities. The staff also will contact appropriate faculty at these institutions to ascertain

faculty or student interest in attending BAP workshops and devise a plan to select attendees and help pay expenses for them to attend.

For more information contact BAP at 301-496-6402.

The Geriatrics Program (GP) supports research and research training on the pathophysiology, diagnosis, treatment, and prevention of age-related diseases, degenerative conditions, and disabilities.

The goals of the program are (1) inclusion in research projects of majority and minority group members in sufficient numbers and variety to allow analyses of how their diversity affects risk for a particular disease or disability, accuracy of a diagnostic technique, or response to a treatment or preventive intervention; and (2) acquisition and analysis of information on genetic, nutritional, behavioral, and environmental characteristics of majority and minority participants in such studies.

Because of the breadth of the research supported, the GP addresses many minority-related research issues, including:

- Endocrinology – Focusing on differences among ethnic groups in menopause symptoms and treatment. The largest project is SWAN (the Study of Women's Health Across the Nation).
- Osteoporosis — Differences in osteoporosis are being studied in the Study of Osteoporotic Fractures, a community-based prospective study of older women.
- Sarcopenia and Physical Frailty — A longitudinal study will characterize the rate of muscle loss, changes in regional body composition, physical activity levels, energy expenditures, and functional performance in elderly African Americans.
- Diabetes — NIA is supporting research on physical activity intervention for Type 2 diabetes in older African American women. At least 30% of African American women over age 55 have Type 2 diabetes mellitus.
- Cardiovascular Diseases — The prevalence of high blood pressure in African Americans is among the highest in the world. The GP has studies exploring the mechanisms of diet and physical activity, vascular stiffness, and the interactions of genetic and hormonal factors affecting high blood pressure in minorities.
- Cancer — The most active research focuses on minorities and prostate cancer.
- Functional Assessment and Disability — Studies show high rates of functional disabilities in minority populations.

For more information contact GP at 301-435-3044.

Neuroscience and the Neuropsychology of Aging (NNA) supports research and training on age-related normal and pathological changes in the structure and function of the nervous system and its effects on behavior. Included in the portfolio is research on Alzheimer's disease (AD), the AD Patient Registry program, clinical trials for the treatment of AD, and the etiology, treatment, and diagnosis of AD.

The Alzheimer's Disease Centers (ADCs) Program coordinates AD research. Because recruitment of minority subjects is a high priority for the ADCs, the program has examined strategies for increasing participation of ethnic minorities. Some ADCs have opted to establish Satellite Diagnostic and Treatment Centers while others have designed recruitment strategies to increase the heterogeneity of the research patient pool in the clinical core. In addition, many ADCs have evaluated existing instruments or developed new ones to more accurately measure cognitive performance in minority populations.

In fiscal year 2000, NIA supported a 5-year initiative on health disparities in Alzheimer's disease. Risk factors, diagnosis, progression, response to treatment, and caregiving management may each be affected by race, ethnicity, gender, and socio-economic status. A recently completed study indicated that prevalence rates for AD might be higher for African Americans and Hispanics than for other ethnic groups.

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Among the other research projects supported by the NNA program are studies on:

- Sensory changes in aging minority populations,
- Minority related sleep studies,
- Minority research in epidemiology, and
- Prevalence, incidence and genetic epidemiology.

For more information contact NNA at 301-496-9350

The Intramural Research Program (IRP) goals are targeted to conditions that disproportionately affect older and minority populations. These include Type II diabetes, prostate cancer, hypertension, cardiovascular disease, cerebrovascular disease, and neurodegenerative disorders. The program approaches the question of minority health issues through the:

- Ethnic and socioeconomic demographic diversification of the Baltimore Longitudinal Study of Aging, a non-interventional, normative study of aging,
- Development of appropriate minority-specific hypotheses in cardiovascular, cerebrovascular, and neurologic disease,
- Planned examination of the effects of socioeconomic status on health outcomes and health status among the elderly,
- Planned targeted recruitment of minority patients in clinical intervention trials conducted in the IRP interventional trials unit to be opened in 2000.

Because of the difficulty in recruiting qualified scientists, and particularly minority scientists, IRP is funding a biomedical recruitment officer. In addition, NIA continues to support Minority Access to Research Careers (MARC) students, a program open to undergraduate honors students majoring in the sciences. Students are placed with mentors to conduct specialized research, attend weekly research seminars at NIH, and participate in lab meetings and receive career guidance for 10 weeks between May and August each year.

NIA also established a connection with the Howard University School of Medicine's Geriatrics Program. Interested fourth year medical students rotating through the Geriatrics elective may spend part or all of that time within the IRP.

NIA "adopted" a Baltimore City elementary school so students in grades 3-5 can meet NIA scientists and staff members and learn about science. The ultimate goal is to encourage minority students to view science as an exciting career possibility.

For more information contact IRP at 410-558-8182

The Epidemiology, Demography, and Biometry (EDB) Program within IRP conducts research on the epidemiology of health and disease and the demographic and social factors affecting the health of older people. EDB has focused on minority aging research in four major research studies. They include the:

- Piedmont Health Survey of the Elderly – the study of a predominantly black cohort of men and women, 65 and older;
- Honolulu-Asia Aging Study — an ongoing study of coronary heart disease and stroke among men of Japanese ancestry, living in Hawaii, born between 1900 and 1919;
- Women's Health and Aging Study – a prospective cohort study of 1,000 community-dwelling, cognitively intact, women age 65 years and older with moderate to severe physical disability (28% are African American); and
- Health and Body Changes (HEALTH ABC) Study – an intensive study to improve our understanding of the disabling process through serial measurement of body weight, muscle and fat mass and their distribution, bone mineral density, muscle strength, endurance, and physical function in a biracial cohort. The study consists of 3,079 men and women — of the 1,499 men, 33% are African Americans; of the 1,580 women, 46% are African Americans.

For more information contact EDB at 301-496-1178

Federal Government, but the private sector as well. At NIH, we are committed to fulfilling our own role in the battle against health disparities. We have the responsibility to place special emphasis on those diseases and conditions that are major contributors to health disparities, with the goal of making measurable progress against these problems. We have the responsibility to ensure that the new knowledge we generate in our laboratories and our clinics benefit all our citizens and all our communities. We also have the responsibility to attract and train the next generation of scientists and health care professionals to ensure that we will have the culturally and ethnically diverse work force in research and medicine that is essential to eliminating health disparities.

NIH has a history of addressing health disparities through its Institutes and Centers through a number of targeted programs and research projects. More recently, health disparities have been an area of increased research emphasis and a budget priority at NIH. Ten years ago, the Office of Research on Minority Health was established. With the support of the Congress, we have devoted significant resources to health disparities research. We have substantially increased the numbers of minorities participating in NIH-sponsored clinical trials. We are training minority scientists. NIH is funding partnerships between Historically Black Colleges and Universities and Institutions that have a longer history of NIH support.

However, as long as health disparities exist, and in some cases continue to widen, more could be done. Today, I want to emphasize what we are doing now, and what we will do in the future.

"....Scientific research is about trying new approaches...This philosophy applies to health disparities...We have made strides, but we will not rest until health disparities no longer exist - - period."

Scientific research is all about trying new approaches when current ideas do not achieve expected results. This philosophy applies to health disparities. We have made strides in some areas, but we will not rest until health disparities no longer exist - - period. It is clear that we need a different approach.

The Administration has proposed to create a coordinating center in the FY 2001 budget and legislative authority for the Office of Research on Minority Health to award grants in certain circumstances. We would also support the creation of a national center for research on minority health and health disparities as proposed in S.1880 and H.R. 3250.

For the past 6 months, NIH has been developing a comprehensive Strategic Plan to Reduce and Ultimately Eliminate Health Disparities. The Plan, which for the first time will coordinate the research resources of the NIH Institutes and Centers, is currently in draft form and is being reviewed by the outside advisory committee of the NIH Office of Research on Minority Health. The goal is for the Strategic Plan to be ready for submission as part of the NIH Fiscal Year 2002 budget, as an outline of the NIH's priorities and commitment to research on health disparities. The Plan sets forth the NIH objectives for reducing and eliminating health disparities over the next five years. The plan focuses on three major areas: 1) research; 2) research infrastructure; and 3) public information, outreach and education.

As we proceed, we intend to work with this Subcommittee and other congressional panels to ensure that our approaches to health disparity research, including women's research, have public input, and receive priority." ❖

Links: *The Minority Research and Training Newsletter* is published by the Work Group on Minority Aging; Office of the Directory; National Institute on Aging; Building 31, Room 5C35; Bethesda, MD 20892; 301-496-0765. This is an administrative document.

Opportunities and Challenges
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Claude D. Pepper Older Americans Independence Centers (OAICs). Maintaining independence of older people by conducting research on the aging processes and the diagnosis and treatment of age-related diseases and disorders, including menopause, is the primary focus of the OAICs. The OAICs facilitate research impacting minority populations and train substantial numbers of researchers. Reviews noted, for example, that the Harvard OAIC has begun to collaborate with faculty members in two historically Black colleges and universities: the Meharry Medical College in Nashville, TN., and Howard University in Washington, DC.

Alzheimer's Disease Research Centers (ADRCs) and Satellite diagnostic Treatment Clinics (SDTCs). Both ADRCs and SDTCs foster interdisciplinary cooperation among those investigating Alzheimer's disease (AD) and related dementias. Reviewers suggest setting up SDTCs designed specifically to increase the diversity of the patient pool. Greater diversity would facilitate investigations in the neuropathology and genetics of AD in minority groups.

This review is the first step in a strategic effort to evaluate progress in minority aging research across the NIA, researchers noted. Though not exhaustive, the review will serve as the current basis from which future research and training activities can evolve. ❖

Summer Institute on Aging Research, 2001 — Applications Available

The 2001 Summer Institute on Aging Research will be held July 6–13 at Airlie Conference Center in Airlie, VA. For application information contact Dr. J. Taylor Harden 301-496-0767; email: hardent@exmur.nih.gov