



LINKS: *Minority Research & Training*

Phyllis M. Wise, Ph.D.: Making Her Good Fortune

“Sometimes you just have to be fortunate,” according to Phyllis M. Wise, Ph.D., professor and chair of physiology at the University of Kentucky College of Medicine, National Institute on Aging (NIA) grantee, and member of the National Advisory Council on Aging (NACA). She believes that good fortune has played a role in some of the choices she has faced throughout her career—a post-doctoral assignment or career advice from a mentor, for example.

However, it was almost predestined that she would follow a career related to medicine. Wise’s father was an M.D., Ph.D., with specialties in physiology and pharmacology. Her mother was a full-time nurse educator. Both of her parents are first-generation Chinese who raised Wise in the Asian tradition that a child follows the advice of his/her parents. Thus, they expected her to have a medical career. Fortunately for Wise, the choice was also a natural one for her, having enjoyed her exposure to medicine throughout her life.

Although her father would have preferred Wise to pursue a career as a clinician, she has “always loved

the discovery aspect of research—finding out something no one has known before.” She believes that “research is intellectually challenging because each project builds on the success or failure of a previous investigation.”

A native of New York City, Wise attended Swarthmore College and got married after graduation. She pursued her M.A. and Ph.D. degrees in physiology at the University of Michigan in Ann Arbor, as well as a postdoctoral fellowship there under Dr. Anita Payne. Payne was a “fortunate” choice because, as it turns out, she was the exact role model Wise needed. Married with children, Payne was successfully pursuing a full-time academic research career. In the early 1970’s that was something women were often not able to do.

Then in 1974 Wise’s husband was offered an academic position at the University of New Mexico, and the family moved. She became a research associate in the Department of Physiology there and later an adjunct assistant professor. Two years later Wise and her husband both found opportunities at the University of Maryland, where she became assistant professor in the Department of Physiology at the

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African-Americans Develop Alzheimer’s Disease and Other Dementias at Twice the Rate of Africans

Older African-Americans in Indianapolis were twice as likely to develop dementia and Alzheimer’s disease (AD) as African elders in Ibadan, Nigeria, according to a 10-year study funded by NIA and published in the *Journal of the American Medical Association*.

Researchers from the Indiana University (IU) School of Medicine and the University of Ibadan followed 2,147 African-Americans in Indianapolis and 2,459 Africans in Ibadan, age 65 and older, to see if they developed dementia or AD.

In the African-American group, 3.24 percent per year developed dementia, including 2.52 percent per year who developed AD. In the African group, 1.35 percent per year developed dementia, including 1.15 percent per year who

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David V. Espino, M.D.: A Passion for Research and Teaching



David V. Espino, M.D., has been appointed to NIA's NACA. Espino is currently a professor of Family Medicine and Geriatrics at the University of Texas Health Science Center

at San Antonio. He is also chief of the Division of Community Geriatrics of the Department of Family & Community Medicine at the University of Texas Health Science Center, and Medical Director of the Cognitive Disorders Clinic of the University Health System.

A native of Texas, Espino was born and raised in San Antonio. A graduate of the Texas public school system, Espino received an Associate of Science degree from San Antonio College and an undergraduate degree from the University of Texas at San Antonio. It was in his sophomore year that Espino was exposed to a minority medical school program that turned him on to medicine. His medical degree is from The University of Texas Medical Branch at Galveston. After a 3 year family medicine residency in Corpus Christi, Texas, Espino spent his geriatric fellowship at the Mt. Sinai Medical Center in New York City. The transition from Texas to New York was a challenge for Espino. He says, "the Northeast is a wonderful place with everything moving at a much faster pace." Espino's New York experience was enhanced by mentors he describes as, "the first generation geriatricians," including Drs. Robert N. Butler, Leslie Lebow, and Myron Miller. His experience at Mt. Sinai was valuable and he carries on the credo of "each one teach one" by mentoring and being an educator himself.

Early in his clinical practice, Espino noticed that many of his older patients reached a plateau where there appeared to be no marked improvement in their health. He wanted to make a difference in their quality of life so he redirected his attention toward research and education. Coming from a family of teachers, Espino found that he had a previously hidden talent for writing and so pursued research opportunities that would put those skills to use. While he enjoys all areas of his work, his passion is for research and teaching because he enjoys, "shaping young minds in the pursuit of their academic research endeavors and their professional development." Espino sees himself as a mentor and writer. The encouragement he offers students just starting is "there are exciting opportunities in the field of geriatrics. New geriatricians can actually make an impact on the quality of life of older people."

Espino has authored and co-authored a variety of papers on minority health issues, concentrating on Mexican-American elders. Currently, he is co-principal investigator of an NIA-funded longitudinal study of Mexican-American elders in the Southwest. This grant allows researchers to focus on a variety of issues that confront the Mexican-American population such as medication usage and hip fractures. Related findings will be used to validate instruments to measure cognition in older adults. Espino's other research interests are in biomedical epidemiology, cognition and Alzheimer's disease in the Mexican-American population.

Espino brings a wealth of experience and knowledge to the NIA Council. The appointment is a 4-year term beginning January 2001. NACA provides direction to NIA on initiatives and funded research in the areas of geriatrics, biology of aging, social and behavioral issues, and neurosciences. For more information on NACA visit the NIA's website at <http://www.nih.gov/nia/naca>. ♦

"New geriatricians can actually make an impact on the quality of life of older people."

School of Medicine in Baltimore. Eventually she became professor of physiology.

In 1985, when the opportunity arose for Wise and her husband to be visiting scientists at the University of Goettingen, the family moved to Germany for a year. Having lived in Europe for a while as a child, Wise thought it would be a valuable experience for her career and for the children, then ages 8 and 14. Indeed, as it turned out, when it was time to leave Germany and return to the University of Maryland, the children were reluctant to go.

It was when Wise returned to Maryland that good fortune again played a role in her career. She met Dr. Tyson Tilden, Associate Dean of Research and Graduate Studies. He suggested that she start working toward a position in administration, noting, "You'll be looking for new adventures in 5 years. Getting an administrative level position takes a lot of time and planning." Never before had she really felt the need to plan her career moves.

Tilden helped her explore several career moves before 1993 when Wise chose the position of professor and chair of the Department of Physiology at the University of Kentucky College of Medicine in Lexington. She chose Kentucky because of the "new and different challenges the position presented." Wise commented, "I've been very fortunate to run into good people and wonderful opportunities at just the right times."

Throughout her career Wise has pursued her interest in basic research, focusing on how the endocrine system and the brain work together. She is interested in the role of estrogen in the aging of the brain, especially how it protects neurological function in the brain during aging and after injury.

Wise became a member of NACA last year. She is also currently president-elect of the Association of Chairs of Departments of Physiology and a member of numerous groups, including:

- the Executive Council of the Endocrine Society,
- the Council of the American Physiological Society,
- the advisory committee of the Claude D. Pepper Older Americans Independence Center at Bowman-Gray School of Medicine,
- the editorial boards of several journals.

Would she have done anything differently in her career? Wise thinks she "could have been a little more assertive. Women tend to be more passive than men, even today. They wait for things to happen to them in their careers."

Over the years Wise has worked with numerous post-doctoral fellows and graduate students. When asked what she would tell a young person considering a career in basic research, she said, "If you like exploring new areas and working on intellectually challenging projects, it's great." ❖

February Regional Meeting



The NIA Regional Meeting, "Initiative in Aging Research," was held at the University of Oklahoma Health Sciences Center February 13. Scientists

interested in aging research gathered at the University's Biomedical Research Center to explore new opportunities that exist in aging research and to learn about NIH grant support mechanisms and new science initiatives. During a break in the meeting, local host, Marie A. Bernard, M.D., The Donald W.

Reynolds Chair in Geriatric Medicine at the Oklahoma Health Sciences Center (left), talked with Carla Porterfield, secretary to Dr. Bernard (center), and Steve Jones, District Director to Congressman Ernest J. Istook, Jr., OK. Mr. Jones spoke at the meeting.



Approximately 50 scientists from Oklahoma, Louisiana, Texas, and Puerto Rico met at the February meeting to share their ideas about aging research.

Many American Indians and Alaska Natives Use and Like Traditional Healing

More than two-thirds of American Indians and Alaska Natives living near Seattle and participating in a study funded in part by the NIA used traditional healing practices in the year before they were interviewed. More than half of that group also said it significantly improved their health. Traditional healing practices used by these city dwellers included herbal medicines, smudging (burning herbs and fanning the smoke around someone's body in order to purify it), and participating in specialized healing or sweat lodge ceremonies.

Most of the randomly-selected 829 American Indians and Alaska Natives who responded to the 59-item self-survey said, if available, they would use traditional healing methods regularly and would like greater access to them, according to the study by Dedra Buchwald, M.D., with the Department of Medicine, University of Washington, Seattle; and Janette Beals, Ph.D., and Spero Manson, Ph.D., both from the Department of Psychiatry at the University of Colorado. The Administration on Aging and the National Institute of Mental Health also provided funding for the study involving patients at a comprehensive primary care program between 1995 and 1996.

Patients responding most frequently sought relief from traditional healers for pain of uncertain origins like back and joint pain. Because pain is often difficult to treat, patients explored numerous interventions: they used biomedical healing to provide relief of acute symptoms and traditional health practices to address the underlying causes of their health problems. Traditional healing typically attempts to restore the sense of balance, harmony, and coherence that the traumatic events disrupt, the study said.

"It is appropriate for biomedical doctors to know about traditional healing and how they intersect and impact each other," said Manson, director of the

Native Elder Research Center in Denver, Colorado, one of the Resource Centers for Minority Aging Research. "Without this knowledge, biomedical doctors could recommend treatments that run counter to a particular requirement of a traditional approach. There are appropriate and sensitive ways to inquire about traditional methods and uses and their importance to biomedical healing."

Overall, 579 patients reported using traditional practices for health-related reasons in the previous year. More than half (52%) reported the traditional healing "helped quite a bit" in keeping them healthy, 28% stated it "helped some," 15% said it "helped a little," and 5% said it "did not help at all." The more closely the urban American Indians and Alaska Natives identified with their cultural origin, the more likely they were to use traditional health practices, the study suggested.

Related studies indicate that urban and reservation health programs, as well as some federal agencies are beginning to include Native healers in their respective medical settings and to reimburse them for their services. Questions that remain to be answered include:

- Who refers patients from medical settings for traditional healing?
- What kinds of problems are referred?
- How effective is the referral process?
- How well do traditional methods work in medical settings?
- How do health care systems justify and support providing traditional healing in medical settings?
- How does traditional healing compare to other types of complementary medicine?

Buchwald, D., Beals, J., Manson, S.H. (2000). Use of Traditional Health Practices Among Native Americans in a Primary Care Setting, *Medical Care*, 38(12), 1191-1199. ❖

developed AD. The majority of those who developed dementia in either country developed AD. In both communities, two-thirds of the study subjects were female.

The study began in 1991 with a total of 4,500 participants in the two cities, all at least 65 years old with normal memory and reasoning skills. Participants were examined in 1994 and 1995 and again in 1997 to 1998. They were divided into three performance groups (good, intermediate, and poor) based on their most current screening scores and change since the previous review. All of those in the poor performance group were clinically assessed and received a diagnosis of normal, cognitively impaired, or demented. A sampling of participants in the intermediate and good performance groups also was clinically assessed. This is the first study that showed a significant difference in the incidence of dementia and AD using the same methods among people in industrialized and non-industrialized countries.

Among the African-Americans, the study revealed only a marginally significant association between AD and apolipoprotein E gene (APOE), a form of which has been linked to an increased risk of Alzheimer's disease in other populations. Among the Africans, researchers found no significant association between APOE and AD. The researchers will continue to explore the molecular genetic disparities between the two groups.

A continuing study, also funded by NIA, will try to pinpoint the cause of the significant disparity in rates of dementia and AD between African-Americans and Africans. Researchers will pay special attention to vascular diseases such as heart disease and stroke that may contribute both to dementia and to the development, progression, and severity of Alzheimer's disease. Hypertension, diabetes, and high cholesterol levels, which can increase the risk of vascular diseases, will receive particular attention in the new study. All of these conditions are less prevalent in the African group than in the African-American group, possibly due to the African diet of yams, cassava, palm oil, and a little fish, said Dr. Hugh C. Hendrie, a psychiatry professor at Indiana University School of Medicine and lead author of the new study.

The current study was authored by Hendrie, former chair of the IU School of Medicine Department of Psychiatry; Adesola Ogunniyi, M.D., a neurologist at the University of Ibadan; Kathleen S. Hall, Ph.D., an IU School of Medicine epidemiologist; and nine others from the IU School of Medicine and the University of Ibadan. Hendrie also is affiliated with the IU Center for Aging Research and the Regenstrief Institute for Health Care.

Hendrie, H.C., et al. (2001). Incidence of Dementia and Alzheimer Disease in 2 Communities. *Journal of the American Medical Association*, 285(6), 739-7470. ❖

Availability of Funds

- NIA's Biology of Aging Program will fund travel awards for selected graduate students, postdoctoral fellows and early career faculty to attend the 2001 American Society for Cell Biology meeting December 8 -12 in Washington, DC. For more information (or other travel assistance for minority researchers) visit the NIA website at <http://www.nih.gov/nia/research/extramural/biology>. For more information about the American Society for Cell Biology, visit their website at www.ascb.org/ascb.
- NIA will support 3 scientists (graduate students, postdoctoral fellows, and young investigators) to attend the Molecular Biology of Aging Course at the Marine Biological Laboratory (MBL) in Woods Hole, MA. For more information (including deadlines and notification information) and an application form, visit the MBL website <http://courses.mbl.edu>.

Alzheimer's Disease—A Greater Threat to Certain Ethnic Groups Than to Whites

African-Americans and Caribbean Hispanics may be at greater risk of developing Alzheimer's disease than whites, according to investigators at Columbia University and the New York State Psychiatric Institute. They recently reported that the number of newly diagnosed cases of Alzheimer's disease (AD) was twice as high in African-Americans and Caribbean Hispanics as it was in whites during their 7-year study in New York City, but the question remains, why?

AD, the debilitating brain disease that robs people of their memory, independence, and ability to enjoy life, affects an estimated 4 million people in the United States. This number is expected to increase as baby boomers grow older. To complicate matters, the percentage of African-Americans and Hispanics over age 65 is rising faster than the percentage of whites. If these groups are indeed at greater risk for AD, they could contribute significantly to the number of people suffering from AD in the future. Therefore, understanding the reasons for their increased risk is especially important.

The study results were reported by Dr. Richard Mayeux, senior investigator, and his colleagues. They recruited 1,788 residents in the Washington Heights and Inwood communities in New York City. Thirty-four percent (34.1 %) described themselves as "African-American, non-Hispanic," 23.4 % as "White, non-Hispanic," and 42.5 % as "Hispanic," most of whom were from the Caribbean.

The group was followed for 7 years. Every 2 years the participants were interviewed, and their health status was assessed. After each evaluation, specialists including neurologists, psychiatrists, and neuropsychologists discussed each individual and reached agreement about the presence or absence of dementia and, if present, the type of dementia—probable or possible Alzheimer's disease, vascular dementia, or others.

During the study period, probable or possible AD developed in 156 residents. The new cases occurred at a rate of 1.9 % per year for whites, 4.2 % per year for African-Americans, and 3.8 % per year for Caribbean Hispanics. The investigators then looked at only probable AD, but the rate differences between ethnic groups remained.

The cumulative risk of developing Alzheimer's disease over the duration of the study was 5.4 % for whites, 10.5 % for African-Americans, and 9.8 % for Caribbean Hispanics. Although this study does not provide the reason for this increased risk, it does rule out several possibilities. For example, adjusting for level of education, diabetes, hypertension, heart disease, or stroke did not significantly change the increased risk of African-Americans and Caribbean Hispanics for developing AD.

Previously Mayeux and his colleagues found that the apolipoprotein E4 (APOE4) allele, the gene associated with an increased risk of AD among whites, does not have the same effect in African-Americans and Hispanics. Members of these two ethnic groups without the APOE4 allele were 4 and 2 times, respectively, more likely to develop AD than were whites. The presence of APOE4 did not increase their risk further. (See *Minority Research and Training News*, Fall 1998, p. 3 and *JAMA*, 279(10): 751-755.)

According to Mayeux, Gertrude H. Sergievsky Professor of Neurology, Director of the Sergievsky Center, and Co-Director of the Taub Institute for Research on Alzheimer's Disease and the Aging Brain, "we tried several ways to see why the rates were higher for these groups than for whites, but couldn't come up with a satisfactory explanation. Because of our earlier results, we decided to focus on families with more than one member affected by AD." He continued, "we chose Dominican Republic Hispanic families because the average family there has 3 or 4 living siblings, as opposed to the 1 or 2 siblings in African-American or white families."

Now, Mayeux's team is in the middle of a 5-year study of pairs of siblings in up to 450 families in the Dominican Republic. They are obtaining DNA samples from the participants and starting cell lines in order to search for any genes that might be

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responsible for the higher incidence of AD in Caribbean Hispanics. So far, 300 families in the Dominican Republic and in New York City, each with 2 or more members with AD are enrolled. Genome scans have begun. Mayeux is hopeful that his research will, in time, explain why some ethnic groups appear to have an increased risk of Alzheimer's disease. "There may prove to be a unique gene, cluster of genes, or perhaps a mutation that increases the AD incidence in a specific population, such as

Caribbean Hispanics. This, in turn, may enhance our understanding of AD risk in African-Americans, who share some genetic background with Caribbean Hispanics."

Tang, M.X., Cross, P., Andrews, H., Jacobs, D.M., Small, S., Bell, K., Merchant, C., Lantigua, R., Costa, R., Stern, Y., and Mayeux, R. (2001). Incidence of AD in African-Americans, Caribbean Hispanics, and Caucasians in Northern Manhattan, *Neurology*, 56(1) 49-56. ❖

Institute Funds Testing of New Data CD-ROM

Selected researchers and administrators are providing suggestions and comments about the collection of statistical data contained in a new Minority Aging and Health CD-ROM before its formal release to the general public. The CD is distributed by the National Archive of Computerized Data on Aging (NACDA), which is funded by NIA.

"Our intent is to provide data on minority populations to stimulate the interest of those engaged in studying these populations, but who may not have access to basic research data, in order to encourage research on aging issues in these groups," explained Sidney M. Stahl, Ph.D., Chief, Health Care and Social Institutions, Behavioral and Social Research, NIA. "We hope this becomes a standard tool for aging research that will increase the capacity of the scientific community to do research on these issues."

This new CD-ROM contains approximately 15 datasets, including some of the most current, publicly available datasets on minorities such as the 1994 Hispanic Epidemiologic Studies of the Elderly, the 1987 National Survey of the Japanese Elderly, and the National Survey of Black Americans, 1979-1992. It also includes several historical studies that

are still of value to researchers, such as the oversample of black households from the 1910 U.S. Census. Officials at NACDA and NIA hope that the distribution of this CD-ROM will also generate studies needed to update the data on it and to fill in the gaps about underrepresented minorities such as Native Americans, Asians, and Pacific Islanders.

The next step in evaluating this CD-ROM took place at the RCMAR (Resource Centers for Minority Aging Research) meeting at the end of April 2001. Investigators received training in its use and were asked for their opinions. This was also an opportunity to test the training materials being developed for this CD-ROM. According to Stahl, "there is a real art to using secondary data and that is part of the training these researchers will receive. One has to learn how to ask appropriate research questions that can be answered by these datasets." Once the comments currently being received and those from the RCMAR meeting are incorporated into a final version, the CD-ROM should be available for general distribution.

NACDA is located in Ann Arbor, Michigan, at the Inter-University Consortium for Political and Social Research (ICPSR). Their collection numbers more than 100 datasets and is constantly growing. In addition, they are able to link to about 500 other datasets at the ICPSR. ❖

Links: The Minority Research and Training Newsletter is published by the Work Group on Minority Aging; Office of the Director; National Institute on Aging; Building 31, Room 5C35; Bethesda, MD 20892; 301-496-0765. Thanks to Karin Kolsky, Jeannine Mjoseph, Glaciera Mason, and Freddi Karp. This is an administrative document.

Minority Dissertation Awards

Increasing the participation of minority investigators in aging research is a high priority at NIA. As part of this effort, the Institute awards small grants to such scientists pursuing their dissertation research in the aging field. As these individuals begin their research careers, they receive not only much needed support but also valuable experience in the grants application process.

Each grant provides a small salary for the degree candidate, as well as support for the research project and related costs. The awards are for a maximum of 2 years and a total support of up to \$30,000. Recent recipients are:

- Tamara A. Baker, Pennsylvania State University, "Psychological and Physical Health in Arthritic African-Americans"
- Gracie E. Boswell, Case Western Reserve University, "Assessment of Holistic Health and Spirituality in Elders"
- Karen D. Lincoln, University of Michigan, "Social Interaction and Well-being Across the Life Course"
- Iveris Martinez, Johns Hopkins University, "Aging in Exile: Results of Migration for Cuban Elders"
- Margaret P. Moss, University of Texas Health Science Center, Houston, "Zuni Elders: Ethnography of American Indian Aging"

Technical Assistance Workshop — Applications Available

NIA will sponsor a Technical Assistance Workshop on November 14–15, 2001 in Chicago, Illinois. The workshop will be held in conjunction with the Gerontological Society of America's annual conference. Applications are due August 14, 2001. For application information contact Daphne Gaulden at 301-496-0767; email: gauldend@exmur.nia.nih.gov.

MINORITY RESEARCH & TRAINING

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