



LINKS: *Minority Research & Training*

Successful Mentoring— Everyone Wins!

A successful mentor/mentee relationship does not just happen. Ilene Siegler, Ph.D., M.P.H., professor of medical psychology at Duke University in Durham, NC, believes it results from a careful matching of two people with common research interests and a mutual commitment to their scientific field. She believes that when a mentoring relationship works, both partners come away enriched.

Siegler knows what she's talking about. She has been the mentor for a number of "great students," many of whom are mentors now themselves. One of her former students, Ruth Greene, Ph.D., calls Siegler the "grandmother of all my students."

For 10 years Siegler ran the post-doctoral program at Duke's Center for the Study of Aging and Human Development—one of the first such programs funded by the National Institute on Aging (NIA) and the National Institute of Mental Health. This 2-year program for Ph.D.s and M.D.s combines research in the candidate's chosen field with training in all aspects of gerontology.

Siegler believes that if there are "shared research interests and if the topic the post-doc wants to work on relates to your own research, then you can really teach them something.... If they have a true intellectual commitment to their research ideas and want to know the answers to the questions they are pursuing, the mentor can teach the person what they need to know to get there."

That was certainly her approach with Greene, now professor of psychology at Johnson C. Smith University (JCSU), a small, private, historically black university in Charlotte, NC. Before meeting Siegler, Greene "wanted to strengthen my university's capability to conduct biomedical research, but needed more training myself." She especially wanted to learn more about developmental psychology with a focus on minority aging.

An associate suggested she contact Siegler who was studying the connections between personality, behavior, and chronic disease. After discussing her research and career goals, Greene decided to apply for a Ford Foundation fellowship to explore racial differences in reactions to stress and coping. The fellowship enabled her to join Siegler at Duke.

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Knee Pain-Does It Mean Osteoarthritis?

Scientists at the University of Michigan, Ann Arbor, report that African-American women may experience the early stages of osteoarthritis differently than do Caucasian women. Osteoarthritis is a debilitating joint disease that affects many people as they grow older, especially women.

The Michigan investigators, led by MaryFran Sowers, Ph.D., Department of Epidemiology, School of Public Health, found that African-American women reporting

knee pain were more likely to have radiographic evidence of osteoarthritis of the knee (OAK) than were Caucasian women. This finding suggests that the two groups perceive pain differently and that Caucasian women may more often have pain unrelated to osteoarthritis than do African-American women.

What causes these differences? Weight, especially for these African-American women, was one of the factors related to both the presence of pain and radiographic evidence of OAK.

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Marcellus Monte Merritt, Ph.D. : From High Aspirations to Hypertension Research



Marcellus Merritt, Ph.D., demonstrates the blood pressure monitor used on NIA's mobile Medical Research Vehicle.

What does a supportive family, community encouragement, and a deep interest in health and research yield? Marcellus Monte Merritt, Ph.D.—NIA Intramural Research Training Award Fellow, and recipient of the 2001 Nathan Shock Post-doctoral Poster Award for his research on cardiovascular health in older African-Americans.

Merritt was born in western North Carolina. From early

childhood, he was the reserved son, a bookworm with a strong work ethic. His parents and teachers were solid role models. His community offered a support network. All of which provided a foundation for his unique accomplishments. Merritt is the first in his immediate family to graduate college and attain a post-graduate degree.

In 1992, Merritt received his B.A. in psychology from the University of North Carolina at Charlotte. As an undergraduate his interest was in race relations and social psychology. At the University of California at Santa Cruz, he focused on group/race relations and social/racial identity, earning his M.S. in psychology in 1994. A Ph.D. followed in 1997 from Howard University in Washington, DC. At Howard, Merritt began to focus on health psychology and benefited from outstanding mentors. For example, Dr. Jules Harrell inspired Merritt to think beyond the traditional mainstream; Dr. Wade Boykin influenced Merritt's ability to sell ideas. "He showed me that you don't just do research, you have to go out and prepare it and arrange it so that it's digestible for the public," says Merritt.

After receiving his Ph.D., Merritt worked as a post-doc in cardiovascular behavioral medicine at Duke University Medical Center in the Behavioral Medical Research Center with Redford Williams, M.D. It was here that Merritt began to look at the interplay of psychology and physiology in cardiovascular health. Cardiovascular reactivity and cardiovascular behavioral medicine are based on the idea that stress, experienced consistently over a period of time, leads to physiological responses that aren't healthy.

Even with all his academic success, Merritt notes there were challenges. As an African-American male in the research community, he had to deal with the struggle to succeed in a world lacking in sufficient minority role models. Merritt notes, "We all have to deal with the fact that even though things are improving for many of us, there still are not as many minority role models as there should be." It was the positive reinforcement Merritt received from his mentors that allowed him to develop confidence to talk about the area of research that interests him most—how and why high blood pressure seems to be disproportionately affecting the African-American community and what can be done to improve that situation. "Even though the rates are going down," it troubles Merritt that, "the differentials are still higher." He believes that studying people along the lifespan can lead to interventions to increase the likelihood of healthy aging.

Merritt is currently a post-doctoral fellow in the NIA's Intramural Research Program where he is conducting studies in the community as part of the Healthy Aging in Nationally Diverse Longitudinal Samples (HANDLS) study. And, Merritt is enthusiastic—his research has already generated some intriguing findings. For example, participants in emotion tasks are showing heightened blood pressure even after the tasks are completed. This sustained vascular response makes Merritt wonder why test participants have trouble decreasing their elevated blood pressure under these relatively

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benign conditions and how they manage to keep their blood pressure under control in real life situations.

Merritt advises minority researchers interested in pursuing aging research to consider:

- It's important to network and search for a mentor whose research interests match your own.
- Create opportunities to present your research ideas and findings.

- Make sure people are familiar with your work. It will help your research as well as enhance your job prospects.
- Don't ignore the hard science. Behavioral scientists should work with molecular and biological researchers in order to understand all the facets of the mysterious human organism.

Merritt looks back at his journey from reserved bookworm to collaborating researcher and remembers, "I felt it was my destiny to evolve to do something productive." And so he has. ❖

Mentoring (continued from page 1)

According to Greene, "Ilene was very committed and worked along with me on my project. She introduced me to others in my field."

"Ilene made a difference through what she taught me—not just in my life, but in the lives of my students. Her influence has gone beyond me to them and to my institution," says Greene. As Siegler inspired Greene, so Greene has encouraged several students to go on to get their master's and doctoral degrees. She is also actively engaged in trying to get other JCSU faculty members involved in writing grant applications.

Cheryl Armstead, Ph.D., is another of Siegler's success stories. Armstead is now an assistant professor of psychology at the University of South Carolina in Columbia. Near the conclusion of her post-doctoral training Armstead discussed common research interests with Siegler. She decided to then spend time with Siegler as a post-doc.

Armstead enjoyed the nurturing environment she found in Siegler's lab. "Ilene spends lots of intense time with her mentees and is always available for any question—personal, career, or research related," Armstead observed. "She was a taskmaster about doing certain things I didn't want to do," Armstead remembers, "but that proved to be a valuable experience for me in my own research."

Like Siegler, another respected mentor at Duke, Redford Williams, M.D., professor of behavioral medicine, appreciates independence in a post-doctoral fellow. "I have always been able, first, to provide those trainees working with me access to the research methodologies they need to be able to pursue their research goals," observed Williams, "and, second, to be hands off enough to allow them to work independently."

He thinks he has been "unusually lucky to have highly motivated, energetic, and creative people" working in his lab. One of these was Marcellus Merritt, Ph.D., now in NIA's Laboratory of Personality and Cognition. Both men are interested in psychosocial factors affecting cardiovascular disease (CVD). Merritt wanted to look at the effects of discrimination on CVD in African-American men. Williams provided resources, such as helping develop a laboratory model, and Merritt did the rest. (See related article, page 2.)

Common research interests and a committed post-doctoral fellow who enjoys working independently create a solid foundation for a successful mentor/mentee relationship. Then both participants benefit. As Siegler observed, "if you have a good relationship, you will learn a lot from the students as well as them learning from you." ❖

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SUMMER INSTITUTE ON



AGING RESEARCH, 2001



Application deadline: 3/8/02. Contact Taylor Harden at 301-496-0765 or hardent@nia.nih.gov.

African-American women with a body mass index (BMI) greater than 32 were 7 times more likely than women with normal BMI to have x-ray findings of OAK and 29.7 times more likely if their BMI was 40 or higher. Caucasian women were, respectively, 3.9 and 8.8 times more likely.

BMI is a measure of weight in relation to height. A normal BMI for a 5'5" woman is 18.5 to 24.9 (between about 114 and 149 pounds).

The scientists looked at 829 women age 40-53 years already taking part in either the Michigan Bone Health Study (MBHS) or the Study of Women's Health Across the Nation (SWAN). BMI was calculated for each participant, knee x-rays were

performed, and the women answered an arthritis questionnaire about pain, especially knee joint pain, as well as being asked about their race or ethnicity.

Analysis of BMI, x-ray results, responses on the arthritis questionnaire, and race/ethnicity of the participants showed that the presence of knee joint pain was more likely to be associated with radiographic evidence of OAK in African-American women than in Caucasian women. X-rays in 23.2% of African-American women showed OAK, while 29.4% of these women reported having knee joint pain at the time of the testing. Similar tests in Caucasian women revealed 8.5% with x-ray evidence of OAK and 19.2% with current knee joint pain.

Previous knee injury increased the likelihood of knee joint pain in both groups of women, but was only significant in the Caucasian group. In addition, only in those women did researchers find a connection between BMI and participant-reported pain. Caucasian women with BMIs of 32 or higher were 2.2 times more likely than Caucasian women with normal BMI to say they were experiencing knee pain; those with BMIs of 40 or higher were 3.3 times more likely to report such pain.

Doctors recognize that some women experience knee pain but, when x-rayed, do not have evidence of osteoarthritis. The opposite can also occur. Yet x-ray is a common method of identifying OAK. As a

result, some experts believe that the condition may be under diagnosed.

As this study continues, Sowers and her group hope to determine "if pain—and what types of pain—can be considered a precursor to the structural damage" shown in x-rays. She notes, "Well-developed longitudinal studies will help us understand the natural history of the report of pain in osteoarthritis."

Sowers's program at the University of Michigan is one of seven sites participating in SWAN, a large-scale national study that since 1996 has been tracking the health of women ages 42 to 52. Her site has expanded studies of musculoskeletal conditions like osteoarthritis. SWAN has a

special emphasis on racial and ethnic differences. It is supported by NIA, the National Institute of Nursing Research, and NIH's Office of Research on Women's Health.

The Michigan Bone Health Study, also directed by Sowers, is a longitudinal study of Caucasian premenopausal women ages 25-45 that looks at how and why bone diseases such as osteoarthritis develop. It is supported by the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

The NIA's interest in this disease extends to a new public-private partnership called the Osteoarthritis Initiative. According to Dr. Richard Hodes, NIA director, "Our efforts to help people with osteoarthritis have been frustrated by our inability to correlate the results of physical examination, radiological evidence, and biospecimens." This new consortium brings together resources dedicated to finding the biological markers that will allow scientists to measure and define the progression of this debilitating disease.

For more information about this initiative, contact the NIA Office of Communications and Public Liaison at 301-496-1752.

Lachance, L., Sowers, M., Jamadar, D., Jannausch, M., Hochberg, M., and Crutchfield, M (2001). The experience of pain and emergent osteoarthritis of the knee, Osteoarthritis and Cartilage, 9, 527-532. ❖

"Well-developed longitudinal studies will help us understand the natural history of the report of pain in osteoarthritis."

Minority Supplements Encourage Students

Principal investigators of existing NIH-funded grants should know that NIH funds minority supplements to train students. The Minority Supplements Program is an NIH-wide program that began in 1989. The aim of these supplements is to attract and encourage minority individuals to enter and pursue biomedical and behavioral research careers.

Minority supplements vary by level and amount. The supplements provide research opportunities for high school, undergraduate, graduate, pre and post-doctoral students, and investigators or faculty. The supplements allow qualified individuals to participate in research training within an existing NIH grant. Many different kinds of research grants are eligible. Among them R01s, cooperative agreements, program projects, and center grants.

Principal investigators must apply for the supplement. There is a rolling receipt date, which allows for year-round applications. At NIA, applications undergo an administrative review. It takes a minimum of 9 days until the principal investigator and candidate can learn whether or not the application is likely to be paid. The usual standard is one supplement per grant; however, larger grants may have more if there are sufficient mentoring resources in the grant. Supplements are awarded based on an appropriate length of time for the trainee to achieve his/her goals. Supplements can be awarded for up to 4 years.

NIA's minority supplements program is quite active. "We want principal investigators to be able to express clearly what the supplement will do to provide a step up in the candidate's research career," says Robin Barr, Ph.D., NIA Office of Extramural Affairs.

For more information, phone: (301) 496-9322 or e-mail: RB42H@nih.gov.

NIA advertises its supplements in the NIH Guide. To read mentoring success stories or for more information about this supplement program, visit the NIH online at <http://www.nih.gov>. ❖

Loan Repayment Programs

The National Center on Minority Health and Health Disparities (NCMHD) Loan Repayment Programs are available to interest highly qualified health professionals in research pertinent to the many issues associated with health disparities. Eligible candidates may apply for either the Loan Repayment Program for Health Disparities Research (HDR) or the Extramural Clinical Research (ECR) Loan Repayment Program for individuals from disadvantaged backgrounds. Both programs require a 2-year research commitment.

HDR provides repayment of educational loans for health professionals who agree to engage in basic, clinical, or behavioral research directly related to health disparities. ECR is for qualified health professionals with clinical training.

Participants receive a maximum of \$35,000 per year for loan repayment depending on the applicant's outstanding debt and the availability of funds.

For more information or an application package, contact: Kenya D. McRae, NCMHD, 6707 Democracy Blvd., Suite 800, MSC 5465, Bethesda, MD 20892-5465. Phone: (301) 402-1366; Fax: (301) 402-7040; E-mail: McRaeK@od.nih.gov. Visit the NIH Guide online at <http://grants.nih.gov/grants/guide/index.html>. ❖

LET US HEAR FROM YOU!

We are always interested in hearing from minority program faculty, alumni, and students. Please drop us a line and let us know where you are and what you are doing.

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NIA Health Information in Spanish

NIA has a variety of publications now available in Spanish. The Institute has adapted one of its most popular publications, *Exercise: A Guide from the National Institute on Aging*, for a Hispanic audience. Now, older Hispanics have access to culturally appropriate, science-based information to help them start and stick with a safe, effective exercise program.

The 107-page guide, *El Ejercicio y Su Salud* comes with a fotonovela, *Nunca Es Tarde Para Empezar*. Extensive testing was done at Hispanic senior centers to make sure the guide is appropriate for the Hispanic market. Single copies of the book are free.

The Institute has also translated several of its most popular *Age Pages*. Each of these free fact sheets provides basic health information and additional resources on specific topics related to health and

disease prevention. Titles currently available in Spanish are:

- *Consejos para Dormir Bien (Sleep)*
- *El Cuidado de los Pies (Foot Care)*
- *El VIH, el SIDA y las Personas Mayores (HIV/AIDS)*
- *¿Está Considerando Hacerse una Cirugía? (Surgery)*
- *Hipertermia—Muy Caliente Para su Salud (Hyperthermia)*
- *Hipotermia: El Peligro de las Bajas Temperaturas (Hypothermia)*
- *La Mala Memoria: No es Siempre lo que Usted Piensa (Memory Loss)*
- *La Realidad del Cancer en Hombres y Mujeres a Partir de los 50 años (Cancer)*
- *Los Accidentes Vasculo-Cerebrales (AVC) conocidos como trombosis, embolia y derrame cerebral: Prevención y Tratamiento (Stroke Prevention)*
- *Medicamentos: Uselos con Cuidado (Medicine Use)*
- *¿Viviendo con la Diabetes? (Diabetes)*

To order copies of these publications call toll-free 1-800-222-2225 (1-800-222-4225 TTY) or write NIAIC/Links, P.O. Box 8057, Gaithersburg, MD 20898-8057.

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