**Moderate Aerobic Exercise in Older Adults Shown to Improve Memory**

By Sharon S. Blake

A new study shows that one year of moderate physical exercise can increase the size of the brain’s hippocampus in older adults, leading to an improvement in spatial memory. The project—conducted by researchers at the University of Pittsburgh, University of Illinois at Urbana-Champaign, Rice University, and Ohio State University—is considered the first study of its kind focusing on older adults who are already experiencing atrophy of the hippocampus, the brain structure involved in various forms of memory formation. The study, funded through the National Institute on Aging, appears in the Jan. 31 Proceedings of the National Academy of Sciences (PNAS).

The scientists recruited 120 sedentary older people without dementia and randomly placed them in either a control group or one of two exercise groups—those who began an exercise regimen of walking around a track three times a week, three days a week, or those limited to stretching and toning exercises. Magnetic resonance images were collected before the study began and after six months, and at the end of the one-year study.

The aerobic exercise group demonstrated an increase in volume of the left and right hippocampus of 2.12 percent and 1.97 percent, respectively. The same regions of the brain in those who did stretching exercises decreased in volume by 1.40 and 1.43 percent, respectively.

Spatial memory tests were conducted for all participants at the three intervals. Those in the aerobic exercise group showed improved memory function, when measured against their performance at the start of the study, an improvement associated with the increased size of the hippocampus. The authors also examined several biomarkers associated with brain health, including brain-derived neurotrophic factor (BDNF), a small molecule that is involved in learning and memory. They found that the increases in hippocampal size were associated with increased amounts of BDNF.

“We think of the atrophy of the hippocampus in later life as almost inevitable. But we’ve shown that even moderate exercise for one year can increase the size of that structure. The brain at that stage remains modifiable.” —Kirk Erickson

The results of the study are particularly interesting in that they suggest that even modest amounts of exercise by sedentary older adults can lead to substantial improvements in memory and brain health, says Art Kramer, director of the Beckman Institute at the University of Illinois and the senior author. “Such improvements have important implications for the health of our citizens and the expanding population of older adults worldwide.”
**Briefly noted**

**Chinese Contemporary Art Exhibition To be Shown at Pitt Feb. 15-March 18**

Show explores maximalism, an artistic movement that emphasizes process over product.

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**Bookshelf**

Adding to Scholars’ Tool Kit

The U.S. Census Bureau reports that one in every three Americans is a person of color, a statistic that is expected to increase to one in two by the middle of this century. And experts say it is likely that the differences that have historically existed between racial groups are likely to sustain themselves.

For this reason, and also because of the question of how members of an ethnic group regard themselves and others and is an important part of the Pitt School of Social Work have a comprehensive understanding of the instruments or measures that focus on racial and ethnic groups.

Measuring Race and Ethnicity (Springer, 2011) is written by Larry E. Davis—who is the School of Social Work dean, Donald M. Henderson Professor, and director of the Center on Race and Social Problems at Pitt—and Rafael Engel, a professor of social work. The book offers psychological measures of common phenomena such as racial identity, acculturation, and intra- and intergroup relations that are used by researchers to compare concepts across groups and to better evaluate differences and disparities. Most of the instruments date from the 1990s or later, though the book also includes still-useful scales from earlier years.

Included are 14 measures for African Americans, such as the Rejection Sensitivity Race Questionnaire; eight Caucasian-specific instruments, including the Being White in America scale; 19 acculturation scales for Latinos, some specific to Puerto Ricans, Cubans, and Chicanos; 17 scales for Asian Americans; and others.

Measuring Race and Ethnicity is expected to be a valuable resource for researchers, particularly those in psychology, social work, and public health who are focusing on Social Science, culture, and race-related topics. The authors said they are committed to updating the volume every few years, citing the field’s fast-paced change and the need, for example, for more ethnospecific scales to be developed.

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**REES to Hold Feb. 11 Symposium on African American Perspectives on Russian, Slavic Studies**

The University of Pittsburgh’s Center for Russian and East European Studies (REES) will hold a daylong symposium, “African American Perspectives on Russian and Slavic Studies,” 8:30 a.m.-5:10 p.m. on Feb. 11 in 4130 Ponder Hall. The symposium will explore the experiences of African Americans who have studied, taught, and conducted research in Russia and in Russia- or Russian-related languages, literatures, and cultures, an academic field in which African Americans are underrepresented.

The event will open with a morning panel discussion by African American scholars about their current research on Russian literature. The afternoon session will include a screening of the 2001 documentary film Black Racists, about the lives of contemporary Afro-Russian in the post-Soviet period. The film will be followed by a discussion with the filmmaker, Kara Lynch of Hampshire College. Additional participants will include two Russian-language teachers, along with current and former students, from public high schools with predominantly African American student populations, and African American faculty and alumni of U.S. universities who have worked in the former Soviet Union. The symposium is free, but pre-registration is required. It is sponsored by REES (with funding from the U.S. Department of Education), Pitt’s Department of Slavic Languages and Literatures and African Studies Program, and several other organizations.

For more information, visit www.rees.pitt.edu/events.shtml or contact REES assistant director Gina Pense at gpence@pitt.edu.

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**Developer of Drill Bit Used in Chilean Mine Rescue to Talk Feb. 10**

Brandon Fisher, whose company was integral to the heroic rescue of 33 Chilean miners lost for 69 days, will be the featured speaker in the University of Pittsburgh’s Center for National Preparedness Seminar Series from 3 to 5 p.m. Thursday, Feb. 10, in Room 532, Alumni Hall. The lecture, “RESCUE 33: Lessons Learned From the Mine Rescue in Chile” is free and open to the public.

Fisher is founder and president of Center Rock, Inc., of Berlin, Pa. The company’s Low Profile drill was used to bore through rock quickly to rescue the Chilean miners weeks before most experts thought possible. Fisher and his associates spent 37 grueling days and nights drilling the rescue shaft. His firm also led drilling operations for the Sommerset, Pa., Queenzek mine rescue, which extracted nine miners from danger in July 2002.

Fisher will present a summary of the Chilean rescue operation and comment on lessons learned from his experience, including how he thought on the role of the private sector in public-private collaborations relating to disaster preparedness and response.

The Center for National Preparedness is an interdisciplinary collaboration of experts and department of Pitt. It provides research, education, and service aimed at advancing the science, policy, and implementation of effective federal, state, and local emergency preparedness programs. Information on the artists follows.

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**Fingerprint by Zhang Yu**

Chinese Contemporary Art Exhibition

A genre of contemporary Chinese art unfamiliar to many Westerners will be featured in a free University of Pittsburgh exhibition titled Mind Space, Maximalism in Contrasts, Feb. 15-March 18 in the University Art Gallery, Frick Fine Arts Building. Gallery hours are 10 a.m.-4 p.m. Mondays through Fridays. An opening reception, with the two of the exhibition’s four artists in attendance, will be held from 5 to 7 p.m. Feb. 14.

The exhibition, presented by Contrasts Gallery in Shanghai, China, will explore maximalism, according to the exhibition’s curator, Pitt professor of art history Gao Minglu. “Maximalism is a concept that places the emphasis on the spiritual experience of the artist in the process of creation as a self-contemplation outside and beyond the artwork itself,” said Minglu. “Meaning is not reflected directly in a work, because artists believe that what is in the artist’s mind at the moment of creation may not necessarily appear in his work.”

The exhibition will feature works by artists Zhu Jinshi, Zhang Yu, Lei Hong, and He Xiangyu. After its showing at Pitt, the exhibition is slated to travel to Dallas, New York City, and Los Angeles.

Information on the artists follows.

Zhu Jinshi has devoted himself to abstract painting for three decades. His installation work often involves Chinese rice paper and ink. In this exhibition, Jinshi presents a metal container filled with ink and a half-submerged sheet of rice paper. As the top of the paper gradually darkens, the viewers observe the art process without human involvement.

For more than two decades, Zhang Yu has used random fingerprints to make ink paintings on scrolls. The repetition creates the fingerprints, symbols of human identification, to lose their traditional meaning and become abstract marks of beauty and infinity, according to Minglu.

Lei Hong makes pencil drawings comprising dots, lines, and squares that are characteristic of Western abstract paintings but without Western art’s rational structural elements. The dots and lines, the traditional marks of Chinese ink painting, convey a sense of spiritual humanism, a narrative about the artist’s feelings, Minglu says.

He Xiangyu uses crystallized soft drinks as ink for painting and calligraphy, transforming a commercial product into literati expressionism. Xiangyu’s art attempts to imbue the process of mass reproduction with the spiritual quality of self-meditation, according to Minglu.

For more information, contact Vanessa Trento at Vtrento@pitt.edu.

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**Chinese Contemporary Art Exhibition To be Shown at Pitt Feb. 15-March 18**

Show explores maximalism, an artistic movement that emphasizes process over product.
Vernon Franklin: A Purposeful Life

By Amanda Leff Ritchie

Vernon Franklin, a communications specialist and computer trainer within Pitt’s Computing Services and Systems Development (CSSD), has been working at the University for three decades. Though he has held multiple positions at Pitt since he began in 1981, Franklin says his true passion is personal and professional development—helping people identify and pursue the purposes of lives well lived.

Eight years ago, Franklin says, he came to understand that his own purpose was to help others find theirs. “Mentoring individuals is my whole life,” he says. “Friends and family members have always sought me out for advice.”

Leading weekly training sessions during Pitt’s Human Resources orientation sessions for new hires is just one of the many ways that Franklin provides computer guidance to Pitt employees. He also trains faculty, staff, and students on new software when the University upgrades technology.

The biggest challenge as a computer trainer is the need to continually learn new technologies, says Franklin. “But once I get an understanding of a new technology, I can teach it. After I receive training on new software from our vendors, I develop our custom tools and training manuals.”

Unbeknownst to Franklin when he was an undergraduate at Geneva College, an elective course in computers would set his future path. A sociology major, Franklin liked the computer classes and decided to pursue a minor in business data processing. He received his bachelor’s degree in sociology in 1976 and returned to Geneva for his master’s degree in organizational leadership, which he received in 2000.

At Pitt, Franklin is highly regarded, particularly by his CSSD colleagues. Communications supervisor Orr Goehring has worked with Franklin since 2004 and said that he is an exemplary representative of the department at orientation sessions across campus. “I can’t think of anyone better than Vernon to be the first point of contact from our department,” says Goehring. “He’s approachable and knowledgeable. He’s a great trainer and meticulous in his preparation.”

When asked to describe his greatest success at Pitt, Franklin answered without hesitation, “The greatest successes are when people leave my classes empowered. Many people have told me that I have a teaching style that is very patient and very thorough.”

Working in academic computing has put Franklin in touch with many students throughout the years. He said he’s taken many young students under his wing and helped them set and reach their goals.

“Helping others motivates me. That is one of my gifts—when I’m able to be of service.”

—Vernon Franklin

Franklin seems to have an endless supply of energy. When he is not offering training at Pitt and doing community work with his church, he can be found running in Highland Park before dawn; baking a variety of cakes, cookies, and breads; and experimenting with vegetarian cooking. And because he loves teaching, he also finds time to lead computer courses as an adjunct faculty member at the Community College of Allegheny County.

Franklin’s desire to work within the church can be traced to his upbringing. His grandparents founded Pittsburgh’s Victory Baptist Church, which began in his grandmother’s home. Growing up, he was often asked to volunteer with the church. As an adult, Franklin pursued formal ministerial training. In 2002, he received a certificate in Biblical counseling from Christian Research and Development, a ministerial training program based in Philadelphia, and he studied urban ministry at Pittsburgh Theological Seminary in 1998.

Through ACAC, Franklin also served as the coordinator for Aftercare Ministry, an inmate release program offered through the Allegheny County Jail. The program provides a place for people recently released from jail to be mentored and receive assistance with finding housing, transportation, and jobs. The program allowed Franklin and the other mentors to meet once a week with former inmates. “We went over life skills and also had Bible lessons,” says Franklin.

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Tyler Karns (A&S ’08) is one Pitt graduate who has benefited from a friendship with Franklin. The two met when Karns was a student worker for CSSD in 2005.

“He has been a mentor to me,” says Karns. “He makes me think about how I can better myself as a person—how I live my life. We have some very deep conversations about what is going on in our lives and what we can do to better ourselves.”

Jackie Huggins (A&S ’95), a communications specialist technical coordinator in CSSD, has worked with Franklin for 13 years and also calls him her mentor. Huggins says Franklin has often helped her with her own personal and professional development and attributes many of her training skills to him. “I didn’t have a strong teaching background, but I had a background in information technology. Vernon helped me bridge the gap between knowing my subject and actually communicating and teaching it to someone else. Vernon can help you see a different perspective on things,” she adds. “He has also helped me to recognize some of my own strengths. He sheds light on a lot of things professionally.”

Franklin has found many opportunities to pursue his interest in personal and professional development at his church, Allegheny Center Alliance Church (ACAC) on Pittsburgh’s North Side. In addition to serving on the Board of Elders and as a lay counselor, he has, for nearly eight years, led a life-purpose course. “We look at personality type, passion, talents, spiritual gifts, and life-shaping experiences to see how a person is wired and how God has equipped us as individuals,” says Franklin. “We try to match people with their life purpose, life profession, or life ministry.”

With his many commitments and activities, it’s a wonder that Franklin’s momentum never seems to flag. “Helping others motivates me. That is one of my gifts—when I’m able to be of service.”
Umbrage is the act of anger or insulting another person.