

# healthbeat

Improving People's Health . . . Statewide and Worldwide

arnold school of public health • university of south carolina

SUMMER 2008



## New programs for undergraduate students

The Arnold School of Public Health is introducing two undergraduate degree programs this fall. In adding the Bachelor of Arts and Bachelor of Science programs, the school joins only seven other accredited schools of public health to offer undergraduate majors nationwide. The first class, with a modest initial enrollment, is expected to expand dramatically over the next five years.

The programs will provide an undergraduate education that conveys a general understanding of public health history, cross-cutting competencies, and current issues; requires a broad liberal education with exposure to many disciplines and develops intellectual and civic capabilities; instills a strong sense of values and ethics; and provides the capacity to adapt acquired knowledge and abilities to address new challenges.



Dr. Greg Hand

The programs provide two paths to a broad pre-professional degree. In addition to general education and public health-related coursework in

epidemiology, environmental health, biostatistics, health promotion, and health administration, the BA curriculum will prepare undergraduates through rigorous study of the social and behavioral sciences for entry into social science-based graduate programs, business, and, perhaps, law schools.

Students in the BS major will receive the same general and public health core courses. Additionally they will take courses in the natural sciences leading potentially to graduate work in the public health sciences, allied health, or medicine.

Associate Dean for Academic Affairs Dr. Greg Hand, who was responsible for much of the planning for the new degrees, said South Carolina's public health workforce is both undertrained and losing staff at an alarming rate. Nationally, 25 per cent of this workforce will retire by 2012.

Hand's expectation is that these degrees will result in an increased number of well-trained public health workers, a pool of post-graduate trained persons capable of stepping into leadership positions within state and federal agencies and international organizations, and a general

*New programs, continued on page 5*

## Revised Master's degree program aimed at relieving burden of retiring public health care practitioners

Taking aim at an alarming shortage of trained public health professionals, the Arnold School has rewritten a master's degree program to meet the needs of students and practitioners already on the job.

"Less than five percent of the people practicing public health in South Carolina have an educational background in public health," said Dr. Greg Hand, associate dean for academic affairs.

Moreover, Hand said the situation could only worsen with "a large number of the very senior people in public health expected to retire in the next five years."

In response, the Arnold School is offering a strengthened version of its master of public health in general public health degree.

"This is a broad multidisciplinary degree that targets people who are already public health professionals or students who are looking for leadership positions in public

*Revised degree program continued on page 5*



# Arnold School Training Public Health Workforce



HealthBeat is published 2 times a year by the Office of the Dean and the Office of Public Information.

Contact us at  
 (803) 777-5037  
 Fax: (803) 777-4783  
 E-mail: lahollin@gwm.sc.edu

<http://www.sph.sc.edu/>

Professor and Interim Dean  
**G. Thomas Chandler,**  
 Ph.D.

Editor/Director of  
 Public Information  
**Lucy Hollingsworth**

Photography  
**Tom L. Johnson**  
**Mike Brown**  
**Kim Truett**  
**Keith McGraw**

Graphics  
**Caroline Meyer**

Contributing Writers  
**William Hughes**  
**John Dixon**

## features

- 1** Arnold School Training the Public Health Workforce
- 3** Message from the Dean
- 6** Graduate Programs for Coastal Lab Staffers
- 10** Lecture Honors Longtime Leader in Battle to Improve the Health of South Carolinians
- 11** Vincent was Pioneer in Efforts to Prevent Teen Pregnancy
- 13** Communication Class to Promote Environmental and Public Health Awareness
- 15** Students, Faculty, Alumni Honored at Hooding Ceremony
- 18** The Sweet Sound of Success
- 19** \$25,000 Donation to Support Research

## research news

- 8** Program Doesn't Preach to Church Members
- 9** Breastfeeding Study
- 12** Hooker Suggests More Study
- 14** Low Blood Levels of Vitamin E are Linked to Physical Decline in Seniors.

## alumni

- 4** Competitive Edge
- 20** Alumni News



## message from the dean . . .

As we come to the end of another academic year here at the Arnold School, I can look back with pride on the accomplishments of everyone involved in our school. It has been a very exciting year for me as interim dean. I have learned much about the roles and responsibilities of being a dean here at the University of South Carolina, and I have enjoyed my time thus far leading the school to new heights. We are on track to meet or exceed our outstanding external funding accomplishments of FY 07, with many truly remarkable projects being funded by the NIH, NSF, EPA, CDC, DOD and other agencies in a time of ever declining federal resources for research.

The search for a new dean is in full swing with the search committee bringing in three potential candidates so far this year. Each of the applicants has a unique set of strengths, and the choice of a new dean will take time, effort and careful consideration. Fortunately we have a very capable search committee chaired by Russ Pate, Associate Vice-President for Health Sciences. Selecting a permanent dean will be a difficult decision, but one critical to the future direction of the school.

In addition to searching for new leadership, faculty and staff in the school have been creating both graduate and undergraduate programs to meet the needs of the public health workforce. Taking aim at an alarming shortage of trained public health professionals, they have rewritten a master's degree program to meet the needs of students and practitioners already on the job.

According to Dr. Greg Hand, Associate Dean for Academic Affairs, "Less than five percent of the people practicing public health in South Carolina have an educational background in public health."

In response, the school is now offering a strengthened version of its master of public health in general public health degree. We are also offering graduate education programs for the employees at the NOAA Center for Coastal Environmental Health and Biomolecular Research lab in Charleston via a new memorandum of agreement between NOAA and USC.

In addition to the new graduate degree offerings, we have also developed and received approval for both a BS and a BA undergraduate degree in public health. These degrees will serve to prepare undergraduates for future graduate work and careers in public health research, medicine, nursing, health administration, health education and health policy.

And last, but certainly not least, our faculty and staff have worked very hard this spring to make a number of important findings that will ultimately improve the lives of numerous people in South Carolina and the world. I hope that you will enjoy reading this issue of HealthBeat to see some examples of the kinds of issues we have been tackling here in the Arnold School. Thank you all for your continuing support! Go GameCocks!!

*J. Thomas Chalkley*

# Nursing and Public Health Degrees Give HSPM Grad's Business a competitive edge



## *The Arnold School's MHA program prepares students for management and leadership positions in healthcare organizations*

Health care people are usually a determined group, and if you need proof direct your questions to the pregnant woman in the lawn chair. That is just one takeaway image from the academic career of, a 2003 Arnold School graduate who worked full-time as a registered nurse, started a family and earned a master of health administration degree over three years.

Moreover, since graduating from the school's professional format program, she has launched her own home care business and found her name on The State's 20 Under 40 list of the Midlands' top young business leaders for 2008.

"I didn't realize it at the time but the MHA program gave me the background picture of health care," she said, adding it also gave her the planning, finance, and management skills to start her own nursing homecare service for the elderly and disabled. Besides private patient care, the business also works with area hospices.

### **And about that lawn chair.**

"I was working fulltime at Richland Memorial until I became pregnant with twins and ended up on bed rest. I wasn't even supposed to sit up for more that two hours a day. I was in the weekend program

so my husband would take me to class. I would carry a lawn chair and lie down in the back of the classroom," she said.

The bed rest played out over eight long months, but Liafsha gives credit to, "My professors and classmates who were awesome in helping me stay in school."

The business venture, Homecare Solutions Unlimited based in Lexington, also was a happy outcome of the MHA program when one of her favorite professors urged her to "think outside the box" about her future.

She finished her MHA studies, graduated in December 2003, and launched Homecare Solutions the next spring.

Liafsha said her nursing degree from Spalding University is a plus in marketing her business. She has also worked for hospices and oncology offices in her native Indiana plus stints as a nurse manager at Providence and Palmetto Richland hospitals.

"I bring a medical background to my work. Patients can ask me questions and that can mean fewer trips to the doctor or the Emergency Room," she said.

Liafsha, her husband, Steve, and their 6-year-old boy/girl twins, Hayden and Hailey, live in Lexington where the youngsters attend the Montessori Early Learning Center. She is President of the school's booster club and was the school's mother of the year in 2007.

She serves as campus nurse for Seacoast Church and serves on the board of the South University Health Management Program and the S.C. Women's Business Center.

The Arnold School's MHA program prepares students for management and leadership positions in healthcare organizations such as hospitals, nursing homes, ambulatory care organizations and physician group practices or healthcare-related organizations such as insurance and not for profit health care organizations.

The MHA Professional Program targets health care professionals with several years of experience in a healthcare or related setting, who would like to work on the degree while pursuing career and personal commitments.

## **New programs** *continued from page 1*

understanding of public health issues among USC students who pursue other careers.

A 1999 analysis discovered only 3.6 percent of the S.C. public health workforce is academically prepared in public health. In addition, the public health system is challenged by a large number of retirees and an inadequate number of replacements.

"This drain on the public health system is compounded by severe budget cuts, leaving agencies searching for strategies to enhance and retain the workforce as well as recruit new employees," the Arnold School noted in its report to the S.C. Commission on Higher Education (CHE), seeking approval for the programs.

The application to the CHE also noted that the new degrees can be expected to strengthen the numbers of students in the Arnold School graduate programs, more widely disseminate the body of knowledge regarding public health to USC undergraduates, and attract students interested in law, social sciences, natural sciences and medicine.

Admission requirements for the new degrees include:

New freshmen who meet University admissions standards are eligible for admission to degree programs offered by the Arnold School of Public Health. A student who wishes to enter the Arnold School from another college on the Columbia campus must be in good standing and have a cumulative GPA of 2.75 or higher.

A student who wishes to enter the Arnold School from another USC campus must fulfill one of the following requirements:

Be in good standing, meet the admission requirements for a baccalaureate degree on the Columbia campus, and have a cumulative GPA of 2.75 or higher.

Be in good standing and have completed 30 semester hours with a GPA of 2.75 or higher on a USC campus.

For more information visit the Arnold School web site at <http://www.sph.sc.edu/futurestudents> or e-mail Will Lyerly, MSS at [gwlyer1@gwm.sc.edu](mailto:gwlyer1@gwm.sc.edu).

---

## **Revised Master's degree program** *continued from page 1*

health," said Hand, who also is an associate professor in the Department of Exercise Science.

Hand said the incoming class of students would be covered by the new degree requirements, approved by the graduate school and university administration last December.

The school is expecting the degree program to be available by distance education in the next year, and be available for residents, nurses, and physicians at the Greenville Hospital System (GHS). GHS is part of a research, education and public health partnership that includes USC, the Medical University of South Carolina and Palmetto Health.

The general MPH degree is currently a required part of the curriculum for preventive medicine residents at Palmetto Richland hospital. Dr. Hand

hopes that it will be as successful when implemented at GHS.

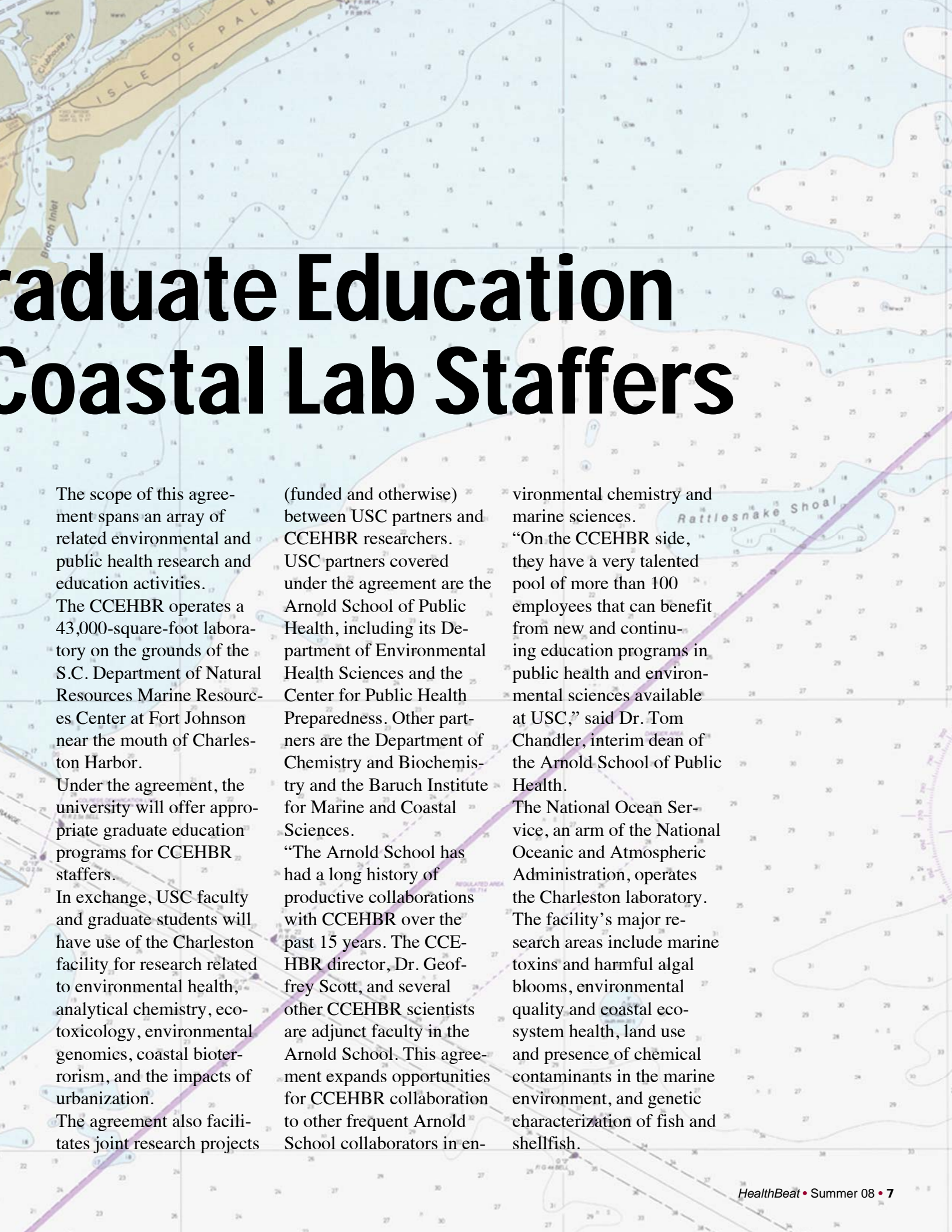
The revised degree requires 42 credit hours of study and is practice-oriented. MPH students complete a supervised internship (practicum) in lieu of a thesis.

Students in the program are expected to:

- understand core functions and philosophies of public health, including concepts and methods of biostatistics, epidemiology, environmental health sciences, health services policy and management, and health promotion, education, and behavior
- develop a broad perspective of issues in public health
- provide expertise in applying concepts and methods of area of interest.

# USC to Offer Graduate Programs for Coastal Environmental Health Sciences

The leadership of the University of South Carolina and the NOAA National Center for Coastal Ocean Sciences has signed a joint memorandum of agreement to encourage collaboration and research partnerships with the NOAA Center for Coastal Environmental Health and Biomolecular Research (CCEHBR) in Charleston.



# Graduate Education Coastal Lab Staffers

The scope of this agreement spans an array of related environmental and public health research and education activities.

The CCEHBR operates a 43,000-square-foot laboratory on the grounds of the S.C. Department of Natural Resources Marine Resources Center at Fort Johnson near the mouth of Charleston Harbor.

Under the agreement, the university will offer appropriate graduate education programs for CCEHBR staffers.

In exchange, USC faculty and graduate students will have use of the Charleston facility for research related to environmental health, analytical chemistry, ecotoxicology, environmental genomics, coastal bioterrorism, and the impacts of urbanization.

The agreement also facilitates joint research projects

(funded and otherwise) between USC partners and CCEHBR researchers.

USC partners covered under the agreement are the Arnold School of Public Health, including its Department of Environmental Health Sciences and the Center for Public Health Preparedness. Other partners are the Department of Chemistry and Biochemistry and the Baruch Institute for Marine and Coastal Sciences.

“The Arnold School has had a long history of productive collaborations with CCEHBR over the past 15 years. The CCEHBR director, Dr. Geoffrey Scott, and several other CCEHBR scientists are adjunct faculty in the Arnold School. This agreement expands opportunities for CCEHBR collaboration to other frequent Arnold School collaborators in en-

vironmental chemistry and marine sciences.

“On the CCEHBR side, they have a very talented pool of more than 100 employees that can benefit from new and continuing education programs in public health and environmental sciences available at USC,” said Dr. Tom Chandler, interim dean of the Arnold School of Public Health.

The National Ocean Service, an arm of the National Oceanic and Atmospheric Administration, operates the Charleston laboratory. The facility’s major research areas include marine toxins and harmful algal blooms, environmental quality and coastal ecosystem health, land use and presence of chemical contaminants in the marine environment, and genetic characterization of fish and shellfish.

# Program Doesn't Preach To Church Members, Rather Involves Them in Setting Goals

**Dr. Sara Wilcox of the Arnold School's Department of Exercise Science is engaging a group of AME churches in eastern and central South Carolina to promote physical activity and healthy eating among congregants.**

If the five-year program is successful, the church will encourage use of it by all of the denomination's 476,000 members in the state.

Wilcox said the program, titled "Faith, Activity, and Nutrition (FAN)," also involves scientists at Clemson University and the Medical University of South Carolina.

Wilcox is principal investigator; co-investigators include Marilyn Laken (MUSC), Allen W. Parrott (AME church), Marge Condrasky (Clemson), Ruth Saunders (USC), Cheryl Addy (USC), Marsha Dowda (USC), and Rebecca Evans (AME Church).

Wilcox has worked on similar research involving the AME Church and the new program will build on that relationship.

She describes FAN as a faith-based effort that gives church leaders an opportunity to do some self-assessment of their churches and "select things they can do to help members eat healthier and be more physically active."

The study also uses a community-based participatory research approach that engaged church members in the design of the program from the start.

The study will initially involve 60 churches and 1,600 members. The project began in the Kingstree and Georgetown areas with churches that belong to the Palmetto Conference, the largest subdivision of the state church with approximately 50,000 local members. The program is also in the Columbia area.

The reasons for that include the wide health disparities in the black community along with an increasing need for guidance in helping people live healthier.

The National Heart, Lung and Blood Institute, an arm of the National Institutes of Health, is funding the research.

For more information on the program, visit the program website at <http://www.sph.sc.edu/exsc/wilcox/fan.htm>.

**"Beloved, I pray that in all respects you may prosper and be in good health, just as your soul prospers."  
(3 John 1:2)**

The effort is culturally and spiritually sensitive and aimed at helping church leaders incorporate health living guidelines and practices into church activities.

One example, Wilcox says, is that churches may decide that fresh fruits and vegetables be on the menu at any church activity that features food.

Wilcox said the AME Church and other African-American denominations have undertaken new responsibilities for the health of their members because of their unique role in the black community.



## Study Involved

# BREASTFEEDING

## women from Columbia and Charleston

Researchers at USC's Arnold School have begun a study of breast milk, seeking to learn which of its immune factors and fatty acids best protect infants against allergy, infections, and asthma.

Dr. Wilfried Karmaus, a professor in the Department of Epidemiology and Biostatistics, is leading the three-year effort that will involve a group of about 150 breastfeeding mothers from the Columbia and Charleston area. The study is funded by the Thrasher Research Fund, which awards grants for pediatric research.

Breast milk has long been considered the perfect source of nutrition for infants. "Breastfeeding creates an emotional connection with the mother, lowers the risk of childhood obesity, and enhances immune factors to protect infants from viruses and bacteria," Karmaus said.

The research will involve two study populations: one a group of early term pregnant women and a second group recruited later in pregnancy who intend to breastfeed.

As part of the study protocol, Karmaus and his team will measure cytokines, immunoglobulins, and 3- and 6-omega fatty acids in breast milk. Then they will follow newborns for 24 months and conduct telephone interviews with the mothers at 6, 12, and 24 months.

In addition to maternal information about the child's health, parents will be asked to take their child, at 12-15 months of age, for an allergic examination at the USC School of Medicine.

"Comparing the risk of allergies, asthma, and infections with the content of



Dr. Wilfried Karmaus

**"Breastfeeding creates an emotional connection with the mother, lowers the risk of childhood obesity, and enhances immune factors to protect infants from viruses and bacteria."**

— *Karmaus said.*

breast milk will then provide information about the factors that render protection. However, this is only a first step. Once we identify the protective factors in breast milk, we then need to determine which diet and lifestyle factors can improve the composition of breast milk," Karmaus said.

Improving the composition of breast milk can only benefit nursing babies who already have lower rates of hospital admissions, rashes, ear infections, diarrhea, and breathing problems than formula-fed babies do, said Karmaus.

Despite the obvious advantages, Karmaus said that in South Carolina, 60 per cent of African-American women and 40 per cent of Caucasian women do not breastfeed.

Pregnant women in Columbia and Charleston will be contacted to participate in the study.

Women who want to learn more about the study can email [peachstudy@gmail.com](mailto:peachstudy@gmail.com) or call 1-888-566-7840. For more information about breastfeeding, Karmaus said women should contact organizations such as La Leche League (1-803-996-0726 in South Carolina), the International Lactation Consultant Association, the National Women's Health Information Center, or the National Breastfeeding Helpline (1-800-994-9662).

Breastfeeding is a protected activity in South Carolina where state law provides that a woman may nurse her child in any location where the mother and the child are authorized to be and that the act of breastfeeding is not considered indecent exposure.

*Working Women* magazine also has information about breastfeeding in the workplace, but S.C. law does not create a right to nurse on the job, support for breastfed children in child-care or excusal from jury duty.

# LECTURE HONORS

## LONGTIME LEADER IN BATTLE TO IMPROVE THE HEALTH OF SOUTH CAROLINIANS

*A respected leader in the battle against cancer among minorities and the medically underserved delivered the first James A. Clyburn Lecture at the University of South Carolina.*

Dr. Lovell A. Jones, director of the Center for Research on Minority Health at the University of Texas, spoke in the auditorium of the Arnold School's Public Health Research Center, to an audience of about 200 people.

The lecture series honors U.S. Rep. James Clyburn, D-S.C., who has served South Carolina's Sixth Congressional District since 1993. The Sumter native was an active member of the 1960s civil rights movement and was S.C. Human Affairs Commissioner from 1974-1992. He currently is House Majority Whip for the 110th Congress.

Dr. Sandra Glover, Arnold School associate dean for health disparities and social justice, said the lecture series is a "joint initiative between Claflin University and the Institute for Partnerships to Eliminate Health Disparities at the University of South Carolina. Its purpose is to bring together researchers and public health professionals in an interactive forum to discuss ways and means to eliminate the public health disparities that continue to plague South Carolina and the rest of the nation."

Glover, who also is director of the Institute for Partnerships to Eliminate Health Disparities, said the continuing series will, in turn, touch on disparities facing South Carolina's minority residents including cancer, stroke, obesity, HIV/AIDS and high blood pressure.

Clyburn, along with Sen. Ernest F. Hollings, D-S.C., helped secure funding to



Dr. Lovell A. Jones

establish the Institute for Partnerships to Eliminate Health Disparities in 2003.

"His commitment to the elimination of health disparities is long-standing. Hence, the naming of the lecture series in honor of his service to the health needs of the people of South Carolina, the Southeast and the nation," said Glover.

Jones' efforts in combating cancer in minorities complements "an area of research strength of the health sciences at USC and an area where we have made significant efforts to join with community stakeholders to begin to focus on solutions," Glover said.

Jones, whose research center is part of the University of Texas M. D. Anderson Cancer Center in Houston, is the founding co-chair of the Intercultural Cancer Council, the nation's largest multicultural health policy group focused on minorities,

the medically underserved and cancer.

He has edited "Minorities & Cancer," one of the few comprehensive textbooks on this subject. He is the founding chair of "Minorities, the Medically Underserved and Cancer," the nation's largest multicultural conference which provides a forum for exchanging the latest scientific and treatment information.

This biennial conference brings together people from all ethnic communities and social strata to share strategies for reducing the incidence of cancer among these populations. Jones also has spearheaded regional hearings on cancer and the poor for the American Cancer Society.

In 2002, Jones, along with Dr. Armin Weinberg, the other cofounder of the Intercultural Cancer Council, received the Humanitarian Award from the American Cancer Society.

Between 1980 and 2007, Jones received more than \$20 million in research funding for studies in which he was the principal investigator.



To commemorate James A. Clyburn Day at the Arnold School, James A. Clyburn was presented a silver tray by Arnold School Interim Dean Dr. Tom Chandler.

# Vincent was pioneer in efforts to prevent teen pregnancy

**A memorial service for Dr. Murray Lee Vincent, distinguished professor emeritus at the USC Arnold School of Public Health, was held Saturday, June 7 at Rutledge Chapel.**

Vincent retired from the faculty of the Department of Health, Promotion, Education, and Behavior, after a 32-year-career. Colleagues and friends remember him as an inspiring leader and mentor who pioneered efforts in teen pregnancy prevention.

Born in Amboy, Ind. Vincent was the son of the late Laurel Estel and Helen Gordon Vincent.

He graduated from Earlham College with a bachelor's degree in health and physical education. He earned a master's in physical education and a doctorate in health and physical education from Temple University.

During his tenure at USC, Vincent was responsible for creating the first undergraduate health education degree in South Carolina as well as all of the health education master's and doctoral degrees at USC.

He was a founder of the S.C. Association for Health Education in 1972, serving as its president in 1981. He also received the SCAHE President's Award, Evaluation Contribution of the Year Award, SCAH-PERD President's Award, Scholar Award and was the 2005 SCAAHE Researcher/Scholar of the Year.

He was an American Association of Health Education Scholar and was inducted into the Health Education Hall of Fame in 2002. Additionally, he received the Luella Klein Award from Emory University.

Those efforts were still bearing fruit in 2006 when the program was cited in a front-page story in the Wall Street Journal.

In the early 1990s, Vincent worked to create the S.C. Council on Adolescent Pregnancy Prevention, now known as the S.C. Campaign to Prevent Teen Pregnancy. He also encouraged the creation

of Community Adolescent Pregnancy Prevention programs in each county.

"I am so saddened by the loss of my dear friend Murray Vincent. He was one of the first faculty to welcome me to public health more than seventeen years ago – with a firm handshake and a wide grin and a visit to my new office," said Arnold School Interim Dean Dr. Tom Chandler.



**The success of his work in teen pregnancy prevention has been widely published. His signature effort started in Bamberg County in 1982 with a \$50,000 federal grant, resulting in one the most successful school-community teen pregnancy prevention programs ever created.**

"Murray frequently encouraged and mentored me as I moved through the trials and tribulations of an academic career here at USC. His sense of humor was infectious, his positive outlook on life and all its possibilities was remarkable, and he was tireless in his willingness to help junior faculty like me learn the academic trade.

"Even in retirement, he stayed involved with new faculty in the school and made frequent visits to say hello and inquire about how well they were doing. Murray never met a stranger, and he never felt he was better than any of the least well-off among us," Chandler said.

Longtime friend and colleague Dr. Steven Blair said Vincent was a tireless advocate for youth sex education.

"He remained passionate about sex education issues and continued to influence thinking on the topic with letters to the editor and in other venues. I first met him in 1963 when we were grad students together at Indiana University. I came to USC in 1966, and he came the next year

after finishing his doctorate at Temple University.

"We were very close to Murray, Virginia, Peter, and Christine. I had many enjoyable hours talking with, even debating, Murray on a variety of issues over the years. We played church league basketball and softball together, played a lot of golf, and ran our first marathon together in 1969," Blair recalled.

Former Arnold Dean Dr. Donna Richter remembered Vincent's personal generosity.

"There was a side of Murray that most people never saw," said Richter, who was Vincent's department chair near the end of his career.

"We had a lady on the custodial staff who was making a minimal salary.

She wanted to retire but she needed a few more years of service to be able to. Murray bought her the needed years of service out of his own pocket.

"That's a remarkable example of caring. Most people just would never think of it," Richter said.

Vincent authored or co-authored 12 published papers since his retirement in 1999. He provided consultative services for teen pregnancy prevention programs and regularly made presentations to organizations and groups on health education issues.

Surviving are his widow, Virginia Field Vincent, daughter and son-in-law, Christine Vincent Prioleau and William Fripp Prioleau Jr. of Columbia; son and daughter-in-law, Peter Harrison Vincent and Melody Kay Kyzer of Lake Waccamaw, N.C.; granddaughter, Virginia Maybank Prioleau, grandsons, William Fripp Prioleau III and River Anatoly Vincent; sister, Beverly Vincent Overman; brothers Wayne Estel Vincent and Wendell Henry Vincent.

# HOOKER *Suggests* MORE STUDY INVOLVING DIFFERENT POPULATIONS

Even a moderate level of aerobic fitness can significantly reduce the threat of a stroke for men and women, according to an exercise science researcher at the Arnold School of Public Health's Prevention Research Center.

"Aerobic Fitness has a protective effect regardless of the presence or absence of other stroke risk factors, including family history of cardiovascular disease, diabetes, high blood pressure, elevated cholesterol levels, and high body mass index," said Dr. Steven Hooker, lead author of the report based on a large, long-running study.

In a presentation at the American Stroke Association's International Stroke Conference 2008, Hooker noted the study is the first to suggest that there may be a significant independent association between cardiorespiratory (aerobic) fitness and fatal and nonfatal stroke in men and nonfatal stroke in women.

Stroke is particularly serious in South Carolina, one of ten southeastern states identified as the nation's "Stroke Belt." The May issue of the American Heart Association journal *Stroke*, identified the coastal plains of the Carolinas and Georgia as the "buckle" of the Stroke Belt.

In this 153-county area stroke deaths are 2.1 times higher than the rate of the nation overall among people ages 35 to 54 and 1.7 times greater for people between 55 and 74.

About 780,000 U.S. adults suffer a stroke each year, and stroke is a leading cause of serious, long-term disability in the United States, according to the American Stroke Association.

Arnold School researchers analyzed data on more than 60,000 people - 46,405 men and 15,282 women who participated

in the Aerobics Center Longitudinal Study between 1970 and 2001 at the Cooper Aerobics Center in Dallas.

The participants, ages 18 to 100 and free of known cardiovascular disease when they entered the study, were followed for an average of 18 years. During that time, 863 people - 692 men and 171 women - had strokes.

Upon entering the study, each participant took a test to measure cardiorespiratory fitness in which they walked on a treadmill at increasing grade and/or speed until they reached their maximal aerobic capacity.

Although many previous studies have looked at an association between self-reported physical activities and cardiovascular disease, few have used direct measurements such as the CRF measure used in this study, Hooker said. This is also the first study to explore the association between CRF and risk of stroke in women.

Men in the top quartile (25 percent) of CRF level had a 40 percent lower relative risk of stroke compared to men in the lowest quartile. That inverse relationship remained after adjusting for other factors such as smoking, alcohol intake, family history of cardiovascular disease, body mass index (an estimation of body fatness), high blood pressure, diabetes and high cholesterol levels, he said.

Among women, those in the higher CRF level had a 43 percent lower relative risk than those in the lowest fitness level.

The overall stroke risk dropped substantially at the moderate CRF level, with the protective effect persisting nearly

unchanged through higher fitness levels. Most persons can achieve a moderate CRF level by doing 30 minutes or more of brisk walking, or an equivalent aerobic activity, five days a week.



*Dr. Steven Hooker*

"We found that a low-to-moderate amount of aerobic fitness for men and women across the whole adult age spectrum would be enough to substantially reduce stroke risk," said Hooker, who also is director of USC's Prevention Research Center.

"Although stroke death rates have declined over the past few decades, the public health burden of stroke-related disabilities continues to be large and may even increase in coming years, as the population ages."

Physical activity is a major modifiable cardiovascular disease risk factor. Increasing the nation's CRF through regular physical activity could be a vital weapon to lower the incidence of stroke in men and women, he said.

One of the study's limitations is that most of the participants were white, well-educated and middle-upper income, he said. He recommended that data be collected from other populations including African Americans.

Co-authors of the study include Dr. Xuemei Sui, Dr. Natalie Colabianchi, Dr. John Vena, Dr. James Laditka, and Dr. Steven N. Blair, all on the USC faculty. Dr. Michael J. LaMonte of the University of Buffalo was also a co-author.

The study was supported by National Institutes of Health grants and the Communities Foundation of Texas.

Dr. Daniela Friedman's communication class promotes

# Environmental and Public Health Awareness

A team of Arnold School of Public Health graduate students mounted a communications effort in April to promote recycling and raise the public health awareness of Columbia residents and the USC community.

Students, being mentored by Dr. Daniela Friedman, an assistant professor in the Department of Health Promotion, Education, and Behavior, kicked off their activities on April 1. This was one of 19 similar efforts across the U.S. sanctioned and financially supported by the Association of Schools of Public Health (ASPH).

The *This is Public Health Campaign* challenge asked students at ASPH member schools across the country to develop communications campaigns that help raise awareness about the effect of public health in our everyday lives.

The Role of Public Health in Promoting a Healthy Environment is the name of the USC program.

The USC graduate student team, enrolled in Friedman's Applied Health Communication course, consisted of Leanne Bailey, Nancy Chase, Gregory Dominick, Ella Ashley Fleming, Diana Marquez, Stacy Smallwood, Manju Tanwar, Amy Trepal, and Helene Vilme. Together they developed the concept and co-wrote the application.

Community and USC partners on this project are the South Carolina Public Health Association, the South Carolina Public Health Consortium, Healthy Carolina, and the Southeast Branch of the Richland County Public Library.

The ASPH approved a \$2000 budget for the campaign to pay for reusable grocery/book bags, recycling bins, multi-media advertisements, draw prizes for students and community members, and other materials which featured the *This is Public Health* logo.

In their application to the ASPH, the students noted that the quantity of waste and pollution is extremely high in South

Carolina. According to the South Carolina Department of Health and Environmental Control, 3.2 million tons of solid wastes were placed in landfills in 2006 while 1.5 million tons were recycled.

The students launched the campaign at the South Carolina Public Health Association's (SCPHA) Public Health Month Kick-Off at the State Museum.

They mingled with attendees, talked about the importance of recycling, and distributed recycling bins featuring *This is Public Health* stickers along with materials from DHEC and other sources. Through surveys, attendees were asked about their recycling habits and knowledge/awareness about the connection between the environment and public health. They also were sent follow-up surveys to determine their knowledge and behaviors (e.g., recycling, reusing bags) after the Kick-Off and National Public Health Month.

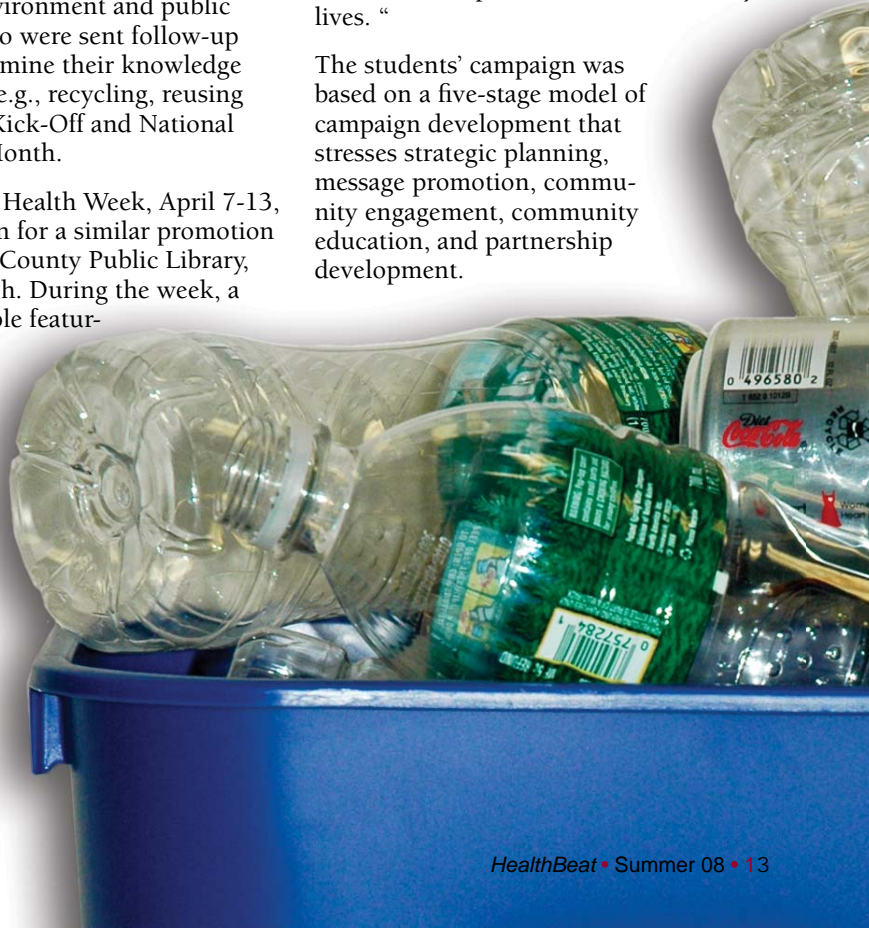
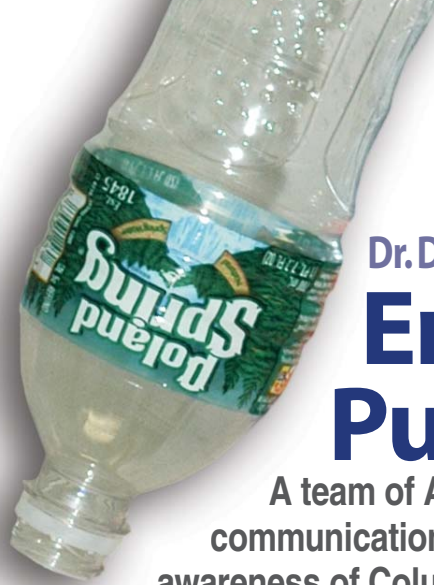
National Public Health Week, April 7-13, was the occasion for a similar promotion at the Richland County Public Library, Southeast Branch. During the week, a large display table featuring the *This is Public Health* logo, stickers, postcards, and posters were set up in the Russell House. Additional recycling bins and promotional efforts took place in Arnold School buildings.

Local commercial and

USC media carried the *This is Public Health* message, beginning a week prior and continuing during National Public Health Week. Media outlets included local TV stations, the USC and Arnold School websites, USC residence television, the *Gamecock* student newspaper, SCPHA newsletter, and student, faculty, and staff e-mail list-serves.

Friedman said this was a fantastic opportunity for students to apply their health communication coursework to development and implementation of an actual campaign. "As evident from their strong campaign proposal, the USC student team was enthusiastic and well prepared to spread the message about the ubiquitous nature of public health in our daily lives."

The students' campaign was based on a five-stage model of campaign development that stresses strategic planning, message promotion, community engagement, community education, and partnership development.



# LOW BLOOD LEVELS OF VITAMIN E ARE PHYSICAL SENIORS

**Low blood levels of Vitamin E are linked to physical decline in seniors, according to a study published in the Jan. 23 issue of the Journal of the American Medical Association. Declining physical function is a serious problem in seniors that leads to frailty and disability.**

Dr. Edward Frongillo, chair of the Arnold School's Department of Health Promotion, Education, and Behavior, said that the findings suggest that a diet with adequate Vitamin E would slow physical decline and that we should be examining further to see if helping seniors maintain adequate Vitamin E intake will better maintain physical function.

Frongillo, one of the study's authors, was a collaborator on the study which began in 1998 under the auspices of the Italian government and the U.S. National Institutes of Health and under the direction of Dr. Luigi Ferrucci.

The 698 study participants, all age 65-plus, were from areas around the Italian city of Florence and were selected

LINKED TO

# DECLINE IN

at random. Blood samples were collected to measure micronutrient levels of folate, iron, and vitamins B6, B12, D, and E.

The participants' physical decline over a three-year period was assessed, using objective tests involving a short walk, balance, and standing up from a seated position. Dietary intake and blood nutrient levels were also assessed.

"There are only a couple of other studies in the world that have data anything like these at all," said Frongillo. "This study is unique in that it not only measured the seniors' diet and nutrient levels, but tracked those numbers over time to see what effects they had on physical decline," he said.

Vitamin E, which is considered an indicator of poor nutrition, was evaluated along with other micronutrients and found to be the only one significantly associated with decline in physical function.

Lead researcher Dr. Benedetta Bartali said, "The odds of declining in physical function were 1.62 times greater in persons with low levels of vitamin E compared with persons with higher levels.

"Our results suggest that an appropriate dietary intake of vitamin E may help to reduce the decline in physical function among older persons." Since only one person in the study used vitamin E supplements, it is not known if taking Vitamin E supplements would have the same beneficial effect.

As an antioxidant, vitamin E seems to help prevent or reduce the proliferation of free radicals in the body, which are linked to physical decline. These free radicals may contribute towards muscle reduction or DNA damage and the development of pathological conditions like atherosclerosis.

The authors concluded that the study... provides empirical evi-

dence that a low concentration of vitamin E is associated with subsequent decline in physical function in a population-based sample of older persons living in the community.

"Although the findings from this epidemiological study cannot establish causality, they provide a solid base that low concentration of vitamin E contributes to decline in physical function.

"Clinical trials may be warranted to determine whether optimal concentration of vitamin E reduces functional decline and the onset of disability in older persons with a low concentration of vitamin E."

An adequate amount of Vitamin E intake can easily be obtained in the diet. It can be found in many foods including vegetable oils (olive, sunflower, safflower oils), nuts, whole grains, and green leafy vegetables.

# Students, Faculty, Alumni Honored at Hooding Ceremony

*The Arnold School of Public Health recognized exceptional achievements by students, faculty and alumni during its 2008 Hooding Ceremony on May 8 at the Koger Center for the Arts.*

A Wisconsin physician recognized for his efforts in preventive cardiology and a USC researcher who has focused on breast cancer and health disparities are the recipients of the 2008 Norman J. and Gerry Sue Arnold alumni awards.

The presentations were made Thursday, May 8 at the Arnold School's 21st annual Hooding Ceremony at the Koger Center for the Arts.

The Norman J. Arnold Medal went to Dr. Patrick E. McBride, a tenured professor and associate dean for students at the University of Wisconsin School of Medicine and Public Health. McBride earned his master's in public health from the Arnold School in 1982.

The Gerry Sue Arnold Award went to Dr. Swann Arp Adams, a research assistant professor in USC's Cancer Prevention & Control Program. Adams earned her doctorate in epidemiology from the Arnold School in 2003.

The awards are an annual feature of the Hooding Ceremony. They were established by the school's leading benefactor and his wife and carry a cash award in addition to the recognition.

McBride has a bachelor's degree from the University of Wisconsin-Milwaukee and a medical degree from the University of Wisconsin-Madison.

Today McBride co-directs a comprehensive clinical preventive cardiology program with more than 20 professional staff members. The program includes inpatient and outpatient cardiac rehabilitation, a preventive cardiology/cholesterol clinic (one of the first in the U.S.), a diabetes prevention program, and many other clinical initiatives for people at risk for cardiovascular disease.

Working with the American Heart Association and the Wisconsin Academy of Family Physicians, McBride was a leader in developing and implementing state-wide teaching programs on cholesterol screening and management and smoking cessation for physicians, nurses, dietitians and physician assistants.

He is the recipient of 11 local and national teaching awards, including a prestigious Distinguished Education Award from the University of Wisconsin.

Adams is a Tennessee native who earned a bachelor's degree from Furman University and a master's degree from the University of Tennessee School of Biomedical Sciences.

Her dissertation work investigated methodological challenges between physical activity and breast cancer.

Last summer she worked as a key author for a special issue of the Journal of the South Carolina Medical Association which served to provide critical epidemiologic information for breast, prostate, and esophageal cancers within the state.

In his nomination, Adam's supervisor, Dr. James Herbert, described her as

*Gerry Sue Arnold presents Swann Adams with the 2008 Gerry Sue Arnold Outstanding Alumni Award.*

gifted and highly motivated with the potential to become an "academic superstar."

The Norman J. Arnold Medal honors an alumnus who graduated more than 10 years ago. It carries a cash award of \$2,500 and a bronze medal.

The Gerry Sue Arnold Medal honors an alumnus who graduated within the last 10 years. It carries a cash award of \$2,500 and a commemorative plaque.

McBride and Adams were selected by a committee of the Arnold School's Alumni Council from among nominees submitted by faculty, staff, alumni and friends of the Arnold School of Public Health.

The alumni awards are the latest example of the Arnold family's philanthropy. Norman Arnold made a major gift in 2000 to endow the University of South Carolina's School of Public Health, which now bears his name.

*Chandler presents the 19th annual Faculty Research Award to Chris Rorden, associate professor in the Department of Communication Sciences and Disorders.*



*Philanthropist Norman J. Arnold shakes hands with Patrick E. McBride, winner of this year's Norman J. Arnold Outstanding Alumni Award.*

Sarah A. Huggins of the Department of Health Promotion, Education, and Behavior, was presented the Jeffrey Keith Mattison Outstanding Achievement Award.

This award is presented each year to the master's level graduating student who best exemplifies the special characteristics of

Jeffrey Keith Mattison, an epidemiology and biostatistics student who died in the fall of 1987.

Huggins grew up in Florence and graduated from Clemson University before coming to the Arnold School. Here she has maintained a 3.98 GPA while concentrating on coursework and research into teen pregnancy, STD, and HIV Prevention. Her career goal is to work for the U.S. Centers for Disease Control or a similar health agency.

Dr. Felipe Lobelo of the Department of Exercise Science was selected for the Doctoral Achievement Award.

Dr. Lobelo, is a native of Colombia, where he earned a medical degree in 2002 and did advanced studies in epidemiol-



*Tom Chandler recognizes Jim Hussey in the Department of Epidemiology and Biostatistics as the 2008 James A. Keith Excellence in Teaching Award winner.*



*Executive Associate Dean Cheryl Addy presented the 2008 Faculty Service Award by Chandler.*

ogy from 2002-2004 at the Universidad Del Rosario Medical School in Bogota. Lobelo, who has been researching health implications of physical activity in youth, is a candidate for a doctorate in exercise science. His nomination notes his success in obtaining research grants from the American Heart Association and the American College of Sports Medicine.

The James A. Keith Excellence in Teaching Award went to Dr. Jim Hussey, a research associate professor in the Department of Epidemiology and Biostatistics.

Hussey's nomination notes widespread support among Arnold School of Pub-

lic Health faculty for his dedication to teaching and his sympathetic support for students. Students give him high marks for his quality lectures and attention to the concerns of students.

Dr. Chris Rorden, an associate professor in the Department of Communication Sciences and Disorders, won the Faculty Research Award.

Rorden is director of USC's McCausland Neuroimaging Center, which has gained an international reputation for neuroimaging research. Currently he is principal investigator and co-principal investigator on three prestigious RO1 research grants. In addition to his record as a scholar, Rorden's nomination cited his strength as a teacher-mentor.

Arnold School Executive Associate Dean Dr. Cheryl Addy, an associate professor of biostatistics, was the recipient of the Faculty Service Award.

Addy's nomination notes her 20 years of service to the Arnold School that includes a term as chair of the Department of Epidemiology and Biostatistics. She spearheaded efforts that led to the school's first full 7-year accreditation by CEPH, supervised the building of the new Public Health Research Center, oversaw faculty development and led the school in implementing the new USC budgetary system. She has chaired or participated in virtually every committee, standing or ad hoc, that the school has established.

Twenty new members of the Delta Omega Society also were recognized. Founded at the School of Hygiene and Public Health at the Johns Hopkins University in 1924, Delta Omega is equivalent to Phi Beta Kappa for undergraduate studies in letters.

New alumni members were: Royce H. "Beebe" Adams, Tina Marie Devlin, Cheryl Der Ananian, Margaret Elizabeth Fore, Romel S. Lacson, Patrick E. McBride, Karen A. McKernan, Myra Clayton Reece, and Robert Langston Spotts.

Student members were Abdoulaye Die-dhiou, Katherine Anne Fiegel, Jennifer Millett Gay, Kristian Lee Gordon, Mamie Rebecca Knight, Felipe Lobelo, Andrea Lynn Morrison, Bankole Adeyemi Olatosi, and Kristina Erin Weis.

Faculty members were Dimitar Deliyski and Daniela Friedman.

Individual departments of the Arnold School of Public Health also presented honors, including:

Department of Communication Sciences and Disorders – Aaron Hasten, 2008 Outstanding Student Award in Communication Sciences and Disorders. Kerry Hershey, 2008 Outstanding Student Award in Communication Sciences and Disorders via Distance Education.

Department of Environmental Health Sciences – Outstanding Student Awards: Emily McDonald and Lucas Odom. McDonald is being honored for her research and selection as a prestigious NOAA Knauss Fellow. Lucas is being honored for his research and project leadership.

Department of Epidemiology and Biostatistics – Li Zhou: Outstanding Graduate in Biostatistics. Kristina Weis: Outstanding Graduate in Epidemiology.

Department of Health Promotion, Education, and Behavior – 2008 Masters Student of the Year, India Dorothy Rose. 2008 Doctoral Student of the Year, Jennifer Lynn Gay. Rose has a bachelor's degree in biology from Brenau University. While at USC, she studied cancer prevention communication for older African-American men. Gay is receiving her doctorate in HPEB.

Department of Health Services Policy and Management – Michael D. Jarrett Award, Aaron O'Brien. Susie B. Yates Scholarship, Sarah Dickie. Michael E. and Sandra P. Samuels Distinguished Alumni Award, Dr. Thomas E. Brown Jr., president and CEO of Lutheran Homes of South Carolina. The Jarrett award, named for the former commissioner of DHEC, goes to a MPH student with a GPA of 3.5 or higher, who demonstrates a commitment to public health and a high potential for leadership. The Yates scholarship recognizes MHA students with the highest GPA from the Carolinas and Georgia. The Samuels award honors outstanding contributions by an HSPM alumnus.

Department of Exercise Science – Outstanding Doctoral Student Felipe Lobelo. Outstanding Masters Students Jamie McClellan and Shannon Pallardy.

The school also awarded Certificates of Appreciation to students for their contributions to the Dean's Student Advisory Council – Meredith Holzbach, Rachel Adams, Sara Powell, Michelle Johnston, Srinivasa Raghavan Madhavan, Rui Lui, Benji McCollum, Jamie McClellan, Megan Baruth, Angie Kolovos, Jessica Bellinger, Kristian Gordon, Greg Dominick and Catherine Carlestedt.

# The Sweet Sound of success

By John Dixon *Columbia Star*

## ***The success of one six-year-old boy who has triumphed over all odds was celebrated last month.***

The South Carolina Speech and Hearing Association celebrated its 50th Anniversary with a luncheon and gala at the Charleston Convention Center February 21 and 22. William James Price, known to all who love him as Jay, was named SCSHA Ambassador for 2008. Jay is the son of Scott and Robin Price of Northeast Columbia. Jay and his family accepted the award in front of a packed house of speech and hearing professionals.

Dr. Cheryl Rogers, director of the Auditory Verbal Therapy Program at the University of South Carolina Speech and Hearing Research Center proudly introduced her protégé and his family and told her story.

Jay was first diagnosed shortly after birth through the First Sounds Neonatal Hearing Screening Program and fit with bilateral hearing aids. Rogers' voice broke slightly with emotion as she told the crowd of first meeting Jay at the age of eight months when he began therapy using hearing aids. She told of his hard work and slow progress, which prompted a second hearing evaluation.

Sadly, Jay's hearing had continued to decline, and he was receiving little to no benefit from his hearing aids. He had become a prime cochlear implant candidate.

Jay received his implant shortly before his third birthday and resumed therapy immediately after the initial stimulation. A few months later, he became a student in the auditory learning partnership program at Windsor Elementary in Northeast Columbia.

Jay continued in his church preschool program in the morning and attended Windsor in the afternoon for the next two-and-a-half years. Along with his parents and older sister Anna, he continued with auditory verbal therapy sessions at

the University of South Carolina.

Before long, all the hard work and team effort paid off. In the fall of 2007, Jay entered mainstream kindergarten at Forest Lake Elementary with his neighborhood peers. He receives minimal support from a teacher of the hearing impaired and a speech language pathologist. His language, cognitive skills, auditory development, and speech production are on par with typically developing kindergartners.

Jay is typical in other ways, too. He loves music, creates awesome artwork, plays baseball, and hunts pirate swag. As Jay charmed the crowd Thursday afternoon with his smile and a few brief words, his father Scott thanked the SCSHA board for the honor of representing them for 2008. He recognized the therapists, teachers, and audiologists who contributed to Jay's success.

Rogers commented, "Jay Price is an excellent ambassador to our field of speech and hearing. The progress he has made provides an example of why many of us choose this profession." Hear Jay's story at <http://breeze.sc.edu/jaysworld2008>.

## Thank you for your support of the Arnold School of Public Health.

**For Online Gifts, go to: <https://giftsonline.sc.edu/give/give.asp>**

Enclosed is my gift of \$ \_\_\_\_\_ to be used as follows:

(Dept. or Fund name) \_\_\_\_\_

Enclosed is a check for \$ \_\_\_\_\_ payable to USC Foundations\*.

Charge my gift to my credit/debit card.

Visa  Mastercard  Discover  Am Ex

Card # \_\_\_\_\_ Exp date \_\_\_\_/\_\_\_\_

Signature \_\_\_\_\_

**I am interested in planned gifts and bequests:**

Please send me information.

Please call \_\_\_\_\_

**Donor Information:**

First, Middle, Last Name \_\_\_\_\_ Class year: \_\_\_\_\_

Address \_\_\_\_\_ City/State/Zip \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

**Mail your gift to:**

Arnold School of Public Health,  
Development Office  
University of South Carolina  
800 Sumter Street  
Columbia, SC 29208

**Questions about giving?** Call,  
(803) 777-3471 or email  
[shaney@gwm.sc.edu](mailto:shaney@gwm.sc.edu).

\*All gifts to USC foundations are used to support the University of South Carolina. Checks can also be made payable to the USC Treasurer's Office; these gifts are managed by the State of South Carolina. Gifts are tax deductible to the extent provided by law.

# \$25,000 donation to support collaborations, travel and other research expenses

**Dr. Steven Blair, professor in the Arnold School's Department of Exercise Science, has donated \$25,000 to support research on physical inactivity as a public health problem.**

Blair said he expects to donate at least another \$25,000 to the Blair Physical Activity Fund this year based on proceeds from his book royalties, speaking fees, and consultations.

"I consider inactivity to be the greatest modifiable public health threat of the 21st Century in the United States and other industrialized countries," said Blair, adding that the fund will support collaborations with researchers on the issue.

It also can be used to support staff travel to scientific meetings, graduate assistantships and other research expenses.

Blair is an internationally recognized authority on exercise and its health benefits. He was among a team of University of South Carolina researchers who reported that seniors who get a regular dose of physical activity live longer than unfit adults, regardless of their body fat.

Those findings were reported in the *Journal of the American Medical Association*. The study, conducted between 1979 and 2001, is the first to examine the link among fitness, body fat and death in older Americans.

Blair was a PE instructor at USC in the 1960s before joining the Cooper Institute in Dallas. He was a researcher, then president and CEO of the nonprofit research and education center recognized as a leader in exercise science.

During his 22-year tenure at Cooper, Blair did extensive research using the Aerobics Center Longitudinal Study that examines the impact that diet, physical activity, and other lifestyle factors have on mortality.

Blair rejoined the USC faculty last fall where he currently has joint appointments in the Department of Exercise Science and the Department of Epidemiology and Biostatistics.

He has published over 360 papers and chapters in the scientific literature, and was the senior scientific editor for the U.S. Surgeon General's Report on Physical Activity and Health.

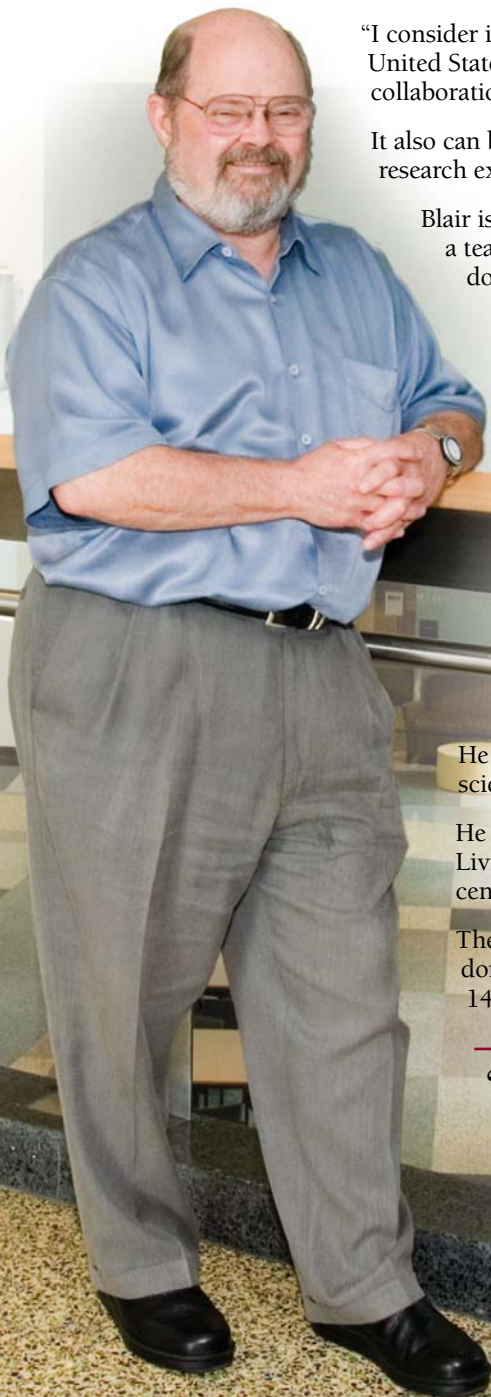
He also is the author, editor or coeditor of several books, including *Fitness After 50*, *Active Living Every Day*, and *Physical Activity and Health*. His recent gift is part of a record 58 per cent increase in private giving during the first six months of fiscal year 2007–08.

The university received \$50 million in gifts and pledges from slightly more than 27,000 donors from July 1 through Dec. 31, 2007. That compares with \$31.6 million received from 14,539 donors during the same period in 2006.

---

**"I consider inactivity to be the greatest modifiable public health threat of the 21st Century in the United States and other industrialized countries."**

– Dr. Steven Blair



# alumni news

1990

**Major Parks G. Gibson**, MHA (HSPM) died in the service of his country April 22, 2007. He is survived by his wife, Cyndie, and his children Carrie, Caleb, and Cayce.

1995

**Scott Middleton**, MHA (HSPM) was named the 2007 Citizen of the Year by the West Metro Chamber of Commerce.

1998

**Janice Enslin**, MPH (HPEB) passed the Illinois CPA exam and works as an auditor at United Airlines. She married Michael Harden on December 1, 2007.

2004

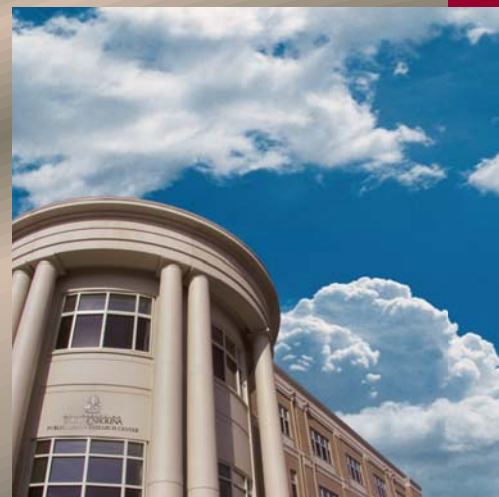
**Sara Lauren Fehling**, MHA (HSPM) is a senior health educator for the Wellness Program of the West Virginia University Health Sciences campus.

2005

**Sarah Elizabeth Cheek**, MHA (HSPM) and Christopher Hudson Harrell were married Saturday, November 3, 2007 in Camden, SC.

2007

**Kerry McIver**, Ph.D. (EXSC) is an assistant professor in the Department of Exercise and Sport Science at East Carolina.



## alumni information

# Update

Alumni, please send us information **about your job changes, research activities, honors received, and personal and professional activities.**

**Send your news to:** Lucy Hollingsworth, Arnold School of Public Health, HealthBeat, University of South Carolina, Columbia, SC 29208, or lahollin@gwm.sc.edu

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Work Phone: \_\_\_\_\_ Home Phone: \_\_\_\_\_ E-mail Address: \_\_\_\_\_

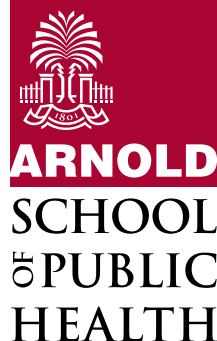
Year of Graduation: \_\_\_\_\_ Program and Major: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

News or Information: \_\_\_\_\_

\_\_\_\_\_

University of South Carolina  
Arnold School of Public Health  
Columbia, SC 29208



UNIVERSITY OF  
SOUTH CAROLINA