



# Making the Connection



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*“Expansion of the USC/GHS relationship is in the best interests of both institutions and the citizens of South Carolina. Through development of interdependent programs and endeavors, the University of South Carolina Division of Health Sciences and the Greenville Hospital System University Medical Center can evolve into a model Academic Health System able to meet the present and future challenges plaguing health and health care delivery in the United States.”*

– Harris Pastides &  
Jerry Youkey

## Welcome & Introduction

Over the past two years, planning of the USC-GHS Academic Health System (AHS) has proceeded with the involvement of a large number of persons associated with each of the two institutions. Nonetheless, up to the present, the planning process has been a relatively quiet, behind-the-scenes undertaking. That is about to change. As we approach the 2009-10 academic year, this new partnership is poised for transition to a highly functional state.

The AHS is intended to leverage the resources of the two partners in three critical areas:

- **Institute for Advancement of Healthcare (IAHC):** Led by Dr. Andrew Sorensen, former president of the University of South Carolina, the IAHC will undertake innovative research and workforce development programs aimed at transforming our nation’s healthcare system to meet the challenges of the 21<sup>st</sup> century.
- **Health Science Degree Programs:** In close collaboration with GHS the University of South Carolina will expand its delivery of degree programs in the health sciences on the GHS campus and elsewhere in the Greenville area. All five USC health science schools and colleges will participate – this includes the School of Medicine, College of Nursing, South Carolina College of Pharmacy, College of Social Work, and the Arnold School of Public Health.
- **Clinical and Translational Research:** In addition to the research activities of the IAHC, GHS and USC will work closely together in fostering collaborative research that leverages the clinical resources of GHS and the research capacities of USC. These collaborative studies will aim to improve health and healthcare delivery in the communities we serve.

In this issue of “Making the Connection” we highlight several of the inter-institutional projects that have already been launched. These creative programs point to the enormous potential of the AHS to benefit the citizens of South



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## GHS – South Carolina College of Pharmacy Partnership

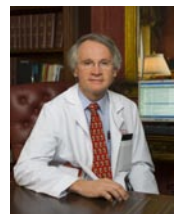
The Greenville Hospital System (GHS) and University of South Carolina Health Sciences Division (USC) partnership is destined to improve the healthcare of South Carolinians in the Upstate. One significant benefit of this relationship is the opportunity for more pharmacy students to study and train on the GHS University Medical Center campus. As a direct result of the relationship, the South Carolina College of Pharmacy (SCCP) soon

will be able to offer up to 25 students the chance to spend their third and fourth years on the GHS campus. Within a few years, students will have the opportunity to spend their entire four-year program in the Upstate. SCCP currently has a full-time Upstate regional director, Dr. Alissa Smith, based at GHS. GHS and SCCP also co-fund 15 pharmacists who are part-time clinical faculty members at SCCP and who

are GHS employees. When the new Research and Education Innovation Institute (REII) is opened, pharmacy faculty and students will have over 5,000 square feet of dedicated space (classrooms, practice labs, offices) as well as considerable shared space for instruction and student support. This state-of-the-art facility will foster interprofessional education and is a multidisciplinary model of healthcare.

## Oncology Rehabilitation Program

Greenville Hospital System's Cancer Center will soon unveil the newly revised and expanded program of oncology rehabilitation at GHS' Life Center. In 1991 we had the opportunity to create a novel program that addressed the prevalence and impact of the profound fatigue and de-conditioning associated with cancer and its therapy. The critical importance of aerobic conditioning was demonstrated and this concept formed the backbone of oncology rehab programs that began across the country.



**Larry Gluck, MD**  
Medical Director of  
Oncology Services

In collaboration with the University of South Carolina School of Medicine Department of Exercise Science, GHS' Cancer Center will begin a new initiative that seeks to advance our understanding of the physiologic and molecular basis of the physical and neuro-cognitive compromise of cancer therapy. In addition to refocusing the original oncology rehab program known as Moving On to serve our patients needs, the strategic alliance between USC and GHS will investigate the mechanisms of metabolic dysfunctions such as mitochondrial toxicity as well as to delineate central nervous system changes underlying the physical and cognitive alterations. These clinical trials will set the platform for research into treatment and prevention strategies.

Further information will be communicated in the near future as to the revised oncology rehab program's launch at the Life Center. The offerings of Moving On include exercise reconditioning, lymphedema management, physical therapy, nutritional support, counseling and mind/body programs such as massage therapy and yoga, and will be available mid-March. The clinical trial opportunities as part of the USC/ GHS research collaboration will be available later in the spring of 2009. The oncology rehab program is being offered as part of the expanding portfolio of integrated oncology at GHS' Cancer Center.

## Promoting Resources in Development Education

Promoting Resources in Developmental Education (PRIDE) is a program funded by the Duke Endowment to promote early identification of children with developmental problems, and increase the rate of timely referral of these children to appropriate early intervention services. Led by Dr. Desmond Kelly, Director of Developmental-Behavioral Pediatrics at Children’s Hospital of GHS, with Project Manager Jane Witowski, PRIDE interventions are aimed at key players in a young child’s life: parents, primary care physicians, and child care providers. In primary care practices PRIDE provides training on standardized developmental screening per current recommended guidelines and assists

in establishing routine screening procedures tailored to each office. PRIDE staff members also educate physicians on resources and referral. Parents of children born in GHS facilities receive regular mailings with information on developmental milestones, activities to promote healthy development, and signs of delays or problems that they should discuss with their child’s physician. Child care providers receive education on milestones, activities, warning signs, communicating concerns to parents, and resources. Implemented in Greenville County for the last 4 years, PRIDE recently received funding to expand to Spartanburg County. The USC Health Sciences Research Core (Drs. Robert McKeown and Bob Moran)

and the Center for Health Services and Policy Research (Drs. Elizabeth Fore and Dave Murday) are working with PRIDE to evaluate program implementation and effectiveness using interviews with physicians, parents, and child care providers; surveys to assess implementation and impact; and data on referral rates and age at referral for developmental problems in Greenville and Spartanburg Counties.



**Desmond P. Kelly, MD**  
PI, PRIDE Program

## More Medical Students – Better HealthCare Across South

In the early 1990’s a pilot program was established for four University of South Carolina School of Medicine (USCSOM) students to complete their third and fourth years of medical education at the Greenville Hospital System University Medical Center (GHSUMC). Since that time, the number of medical students completing their clinical training in Greenville has grown. Presently, there are 44 medical students at GHSUMC and there are plans to expand that number in the coming years. The USCSOM has requested from the Liaison Committee on Medical Education, the accrediting body of all medical schools in the United States, to increase its class size from 85 students to 100 students per year to help address the present and projected physician shortage in South Carolina. The 15 additional positions will be used to expand the clinical program at GHSUMC to 40 students in the third and fourth years. Thus, there will be a total of 80 medical students on the Greenville campus.

GHSUMC has a long tradition of Graduate Medical Education. There are presently over 140 residents and fellows in its 7 residency and 4 fellowship training programs. Many medical students who have completed their medical school education in Greenville have elected to continue their training in one of the GHSUMC residencies and ultimately practice in the Upstate. The USCSOM and the GHSUMC are very excited about the expanding partnership between the two institutions and look forward to enhancing both quality and access to healthcare for all the citizens of South Carolina.



**Paul Catalana, MD**



**Richard Hoppmann, MD**



## USC Health Science Research Core Seminar Series

As part of the developing research collaboration under the umbrella of the USC-GHS AHS, the USC Health Science Research Core is providing a series of seminars in research methods for residents and faculty at GHS. The current monthly series began in January and will continue through June. The series is intended to introduce participants to some of the fundamental concepts, methods, and skills necessary to conduct clinical research. Some of the topics covered and the presenters are:

1. What's the question? Defining the research question before you collect the data. (Dr. Robert McKeown)
2. ABCs of conducting a research project; and What do you mean my data's no good? Working with statisticians and epidemiologists before you collect the data. (Dr. McKeown)
3. Sources of Data: Potential and Pitfalls; and Collecting and Managing Data for Research. (Dr. Robert Moran)
4. Determining the appropriate analysis for the data, design, and question; and Understanding sample size and power. (Dr. Moran and Dr. James Hardin)
5. If it's in JAMA it has to be right, right? Reading the literature and doing a lit review. (Dr. Susan Steck)
6. I have how many words? Writing an abstract for review or for publication. (Dr. Hardin)



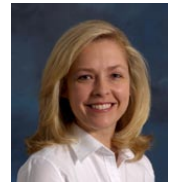
**Robert McKeown, PhD**  
HSRC Director



**James Hardin, PhD**  
BCU Director



**Robert Moran, PhD**  
Director Data Support Services Unit



**Susan E. Steck, PhD**  
Research Assistant Professor  
Epidemiology and Biostatistics

## Master of Nurse Anesthesia Program – Planned Partnership between University of South Carolina and GHSUMC

The Master's of Nurse Anesthesia (MNA) program is a cooperative initiative between the USC School of Medicine and the affiliated teaching hospital Palmetto Health Richland. First established in 1969 at Palmetto Health Richland Hospital, School of Medicine Faculty have participated in the training program since 1985. A cooperative program between the School of Medicine and Palmetto Health Richland established a Master's of Nurse Anesthesia degree program in 1993 with now over 200 graduates.

In 2010, the MNA Program plans to partner with the Greenville Hospital System University Medical Center (GHSUMC). This proposed partnership establishes an additional primary clinical training site that will provide increased student enrollment and production of needed nurse anesthetists for the upstate. For these students based at GHSUMC, a Distance Education delivery format will be used for the required pharmacology and physiology courses taught in Columbia by faculty from the School of Medicine Department of Pharmacology, Physiology, and Neuroscience. The Distance Education format will utilize GHSUMC's new Research and Education Institute (REI) building for interactive videoconferencing via the statewide, high-definition, multipoint communication system using Internet2 trunk lines as the backbone. To promote active learning and sustain student engagement, desktop videoconferencing technology will be used for virtual office hours and study groups. Anesthesia students based at GMSUMC will then obtain the required clinical courses and experience at GHSUMC, including a minimum of 550 anesthesia cases covering general and regional anesthetics for pediatrics, obstetrics, geriatrics, cardiovascular-thoracic, neurological, plastic otolaryngology, ophthalmology, urology, orthopedics, and radiological procedures. In November 2008, GHSUMC and USC submitted a grant proposal to the U.S. Department of Health And Human Services Health Resources and Services Administration for support of specialized equipment and staffing for distance education in the planned partnership in Nurse Anesthesia.

Visit the website <http://anesthesia.med.sc.edu/> for more information.



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Refer to the Networking Agreement Executive Summary at the following Web site addresses to learn more about the USC/GHS relationship:

USC: <http://www.sc.edu/research/>

GHS: <http://www.ghs.org/Content.aspx?id=78480>