



For more information:

Megan McRaney

Institute Communications and Public Affairs

Georgia Tech

404-894-6016

megan.mcraney@icpa.gatech.edu

Georgia Tech/Emory Create Institute to Help Health Care Industry Better Manage and Use Information

Institute will create technology to connect doctors, patients and payors

ATLANTA (March 02, 2006) — Paramedics have just wheeled in a child in critical condition. His family members, their vacation abruptly halted, sit nervously in the waiting room. With very little time to spare, the attending doctor takes out a handheld device and immediately accesses the child's full medical record, including a genetic profile, from his doctor in another state. The doctor decides on a course of treatment, and his recommendations are immediately transmitted to all attending nurses and the operating room and his medication dosages are sent to the pharmacy.

A new institute at Georgia Tech and Emory University will develop systems and technologies designed to help improve communication among all the players in health care, from the patients to the doctors, administrators and insurers. Tech will receive funding totaling \$5 million to establish the institute, called The Health Systems Institute (HSI). The institute will partner with local, regional and national health care organizations to research, develop, implement, test and distribute improved technologies for health care that will integrate state-of-the-art information, decision support, communication and biomedical technologies.

"Health care is the industry that is the most information intensive, yet it has to support and utilize all this information with technology and tools that are lagging far behind other industries," said François Sainfort, director of the new institute and the William W. George Professor of Health Systems at Georgia Tech. "Our goal is to streamline the industry and decrease health care costs for consumers."

"The partnership between Emory and Georgia Tech will advance our goal of creating a new model of health care that translates advances in genomics, bioinformatics, and systems biology into long-term and lifelong health for individuals and populations," said Michael M.E. Johns, MD, CEO of the Woodruff Health Sciences Center and executive vice president for health affairs at Emory University. "The Health Systems Institute

augments our new Predictive Health Initiative, which will depend on our ability to generate, process, protect and integrate vast amounts of information.”

Administrative costs make up about 30 percent of the \$1.79 trillion Americans spent on health care in 2004. But with more advanced systems and technologies to manage patient information, the health care industry could significantly reduce administrative costs.

The new institute’s key goal is to move beyond using information technology for a simple electronic record to using new technologies to provide a complete patient record. This electronic patient record could contain everything from a genetic profile and socio-demographic information to comprehensive clinical and insurance information to help doctors and health professionals make better-informed and more efficient decisions about a patient’s health care.

The HSI is led by the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University and brings together the expertise of many disciplines at Georgia Tech and Emory, including Georgia Tech’s School of Industrial and Systems Engineering, the School of Civil and Environmental Engineering, the School of Electrical and Computer Engineering, the Georgia Tech Research Institute, the College of Computing, the College of Management, the College of Architecture, the School of Public Policy and Economic Development and Technology Ventures, as well as Emory’s School of Medicine, School of Public Health, School of Nursing and Winship Cancer Institute.

“With the tremendous success of our biomedical engineering/bioengineering programs and rapidly growing relationships with Emory and other health care providers, such as Children’s Healthcare of Atlanta, we are in a position to set a new, multiscale model for health systems by extending the concept of health systems and personalized care from the molecular level to the delivery of healthcare,” said Don P. Giddens, dean of the College of Engineering at Georgia Tech, Lawrence L. Gellerstedt Jr. Chair in Bioengineering and a Georgia Research Alliance Eminent Scholar.

Children’s Healthcare of Atlanta will contribute a major part of the institute’s initial funding and partner on several large research projects, and several other Atlanta-area hospitals as well as health care information technology providers are developing collaborations with HSI.

The institute’s work includes designing health information systems such as a computer or kiosk interface in a waiting room that could help cancer patients let doctors know about all their preferences, medications and treatment before they get in to see the doctor. By the time the patient is seen, the doctor already has a printout of all the patient’s responses and can make a more personalized decision on treatment strategies.

The institute is also working on a handheld device that would give doctors and nurses complete access to patients’ records, test results and vitals while also connecting them to the pharmacy and administrative offices.

But the institute's projects will also capitalize on biomedical research and technologies such as sensors for diabetics that could continuously transmit data on the patient's glucose levels and insulin needs to a monitoring doctor.

Aside from clinical and medical projects, the institute also plans to develop technologies for better billing and administration for health care-related businesses and organizations.

"We'd like to attract not only the providers, such as the hospitals and the physician's offices, but also the insurers and companies developing products for the health industry," Sainfort said. "The idea is to develop and implement systems that save lives and save money in such a way that everybody benefits."