

Georgia Tech and St. Joseph's Announce Unique Collaboration

Biotech innovation and translational research move novel treatments to patients faster.

Atlanta

(March 14, 2008) —In an innovative collaboration, the Georgia Institute of Technology, Saint Joseph's Health System and Saint Joseph's Translational Research Institute (SJTRI), a division of Saint Joseph's Health System, have signed agreements designed to move new treatments, therapies and products into clinical use with patients more rapidly. The agreements call for the \$18.5 million relocation and expansion of the SJTRI research facilities to Technology Enterprise Park (TEP), a new bio-business park located adjacent to the Georgia Tech campus, and collaboration between physicians and researchers at Saint Joseph's Hospital and Georgia Tech faculty and students.



The collaborative agreements include reciprocal faculty and research appointments for Saint Joseph's clinicians and Georgia Tech academic faculty.

“The greatest roadblock to getting new therapies or devices from the research lab to patients has been the silo approach to research,” says Nicolas Chronos, MD, president of the Saint Joseph's Translational Research Institute. “This relationship between Saint Joseph's and Georgia Tech brings all the forces together – clinicians, patient care, biotechnology, bioengineering, bioscience and entrepreneurial business—for cross collaboration and innovation that will move the process ahead much faster for the benefit of patient care.”

Phase one, the expanded SJTRI facility in Technology Enterprise Park (TEP), is 32,000 square feet and includes catheterization labs, expanded vascular physiology lab, surgical suites, and additional research capabilities. Georgia Tech researchers will have access to the research facility for clinical trial activities.

“Collaboration between the engineer/scientist and clinicians is key to new discoveries, so we welcome this opportunity to collaborate with Saint Joseph's to help accelerate the development and application of advances being made across a broad range of medical specialties,” said Mark Allen, Senior Vice Provost of Research and Innovation at Georgia Tech. “Working with the physicians and researchers of Saint Joseph's will give our faculty and students new opportunities to combine what they learn in our classrooms and research laboratories with clinical experience.”

Phase one of the new facility is expected to be completed by early 2009.

“We’re committing \$18.5 million to this expansion to bring our patients potentially life-saving treatments, procedures and products faster,” says Kirk Wilson, president and CEO of Saint Joseph’s Health System. “This affiliation with Georgia Tech puts Saint Joseph’s Translational Research Institute and Saint Joseph’s Hospital at the forefront of this very exciting period in health care.”

The collaborative agreements include reciprocal faculty and research appointments for Saint Joseph’s clinicians and Georgia Tech academic faculty. Initial areas of scientific collaboration include:

Orthopaedics:

Georgia Tech currently hosts the nation’s first Master’s degree program in prosthetics and orthotics and conducts extensive research in the development of advanced devices to serve a growing population of users. Saint Joseph’s Hospital offers access to the most active joint replacement and spine care program in Atlanta and the most advanced surgical procedures, including minimally-invasive and robotic-assisted partial knee replacements.

Bioengineering: SJTRI is currently conducting pre-clinical work in tissue engineering for replacement cardiac valves and vessels that are constructed from living cells which are durable, regenerative and above all, able to grow with a pediatric patient. Georgia Tech bioengineers are working to create a prototype valve for preclinical trials and, ultimately, clinical trials.

Cardiovascular Surgery/Cardiology

– Working with Saint Joseph’s Center for Minimally Invasive Surgery and Robotics, Georgia Tech and Saint Joseph’s are looking at engineering and computing solutions for surgical techniques and instruments that further reduce trauma to the body and improve patients’ recovery and experience.

Genomics, Systems Biology and Infomatics: Georgia Tech has assembled one the nation’s most sophisticated genomics programs focused on analyzing complex gene expression patterns in disease cell types with the goal of developing new diagnostics, targeted treatments and therapies in the areas such as cancer and cardiovascular care. Through their extensive clinical work, Saint Joseph’s physicians and scientists will effectively partner with this new technology to address pressing clinical needs for new approaches to the diagnosis and treatment of disease.

Advanced Diagnostic and Therapeutic Technologies

–Georgia Tech’s leadership in microfabrication and nanotechnology, combined with Saint Joseph’s clinical and genomics interest, opens the door for development of nanomedicine applications including development of nanoscale particles/molecules used in the treatment of disease for unique medical effects; development of self-assembling particles or other types of nanomaterial that improve the mechanical properties and biocompatibility of biomaterials for medical implants; development of particles/materials that improve electrode surfaces and biocompatibility (active implants), as well as in vivo imaging using contrast agents, particularly for MRI and ultrasound for improved contrast and favorable biodistribution; and in vitro diagnostics using novel sensor concepts based on nanotubes, nanowires and cantilevers.

Robotics and Surgical Education

– Surgical training and education will be most cost-effective and accessible via simulation and remote learning. As a leader in simulation technology, Georgia Tech and Saint Joseph’s are on the forefront of providing this state of the art education experience for physicians from around the world on new technology, including robotics.

Facilities Design and Process Improvement

– Close collaboration between Saint Joseph’s Hospital and Georgia Tech’s School of Industrial & Systems Engineering and the College of Architecture offers students and hospital designers opportunities to develop facilities based upon advanced electronic medical records management, improved processes and user-friendly environments.

About Saint Joseph’s -

Saint Joseph’s, the regions premier provider of cardiac and vascular services and recognized as one of the 50 top hospitals in the country, is Atlanta’s oldest hospital. Founded by the Sisters of Mercy in 1880, today Saint Joseph’s is a 410-bed, acute-care hospital recognized as one of the leading specialty-referral hospitals in the Southeast and is a part of Saint Joseph’s Health System which also includes the Saint Joseph’s Translational Research Institute (SJTRI). As a leader in cardiac,

neurologic, vascular, gastrointestinal, respiratory, orthopaedic and cancer care, among others, Saint Joseph's offers its patients the latest procedures and treatments by providing its medical staff of more than 750 physicians with research services and the most advanced technology available. In addition to serving the metro-Atlanta area, patients come from all over Georgia, nearby states and internationally because of Saint Joseph's specialized services, excellent reputation and unique patient experience. Sponsored by the Sisters of Mercy, Saint Joseph's is a member of Catholic Health East. For more information, visit the website at www.saintjosephsatlanta.org.

Related Links

- [Technology Enterprise Park](#)
- [Saint Joseph's](#)

The Georgia Institute of Technology is one of the nation's premiere research universities. Ranked seventh among *U.S. News & World Report's* top public universities, Georgia Tech's more than 18,000 students are enrolled in its Colleges of Architecture, Computing, Engineering, Liberal Arts, Management and Sciences. Tech is among the nation's top producers of women and African-American engineers. The Institute offers research opportunities to both undergraduate and graduate students and is home to more than 100 interdisciplinary units plus the Georgia Tech Research Institute.

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