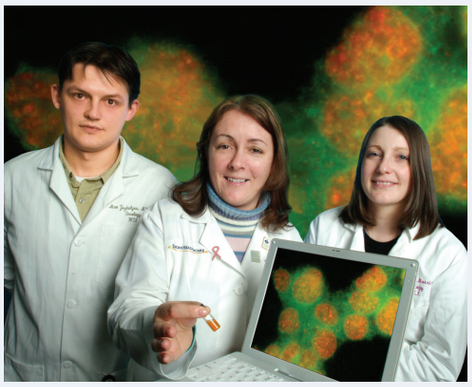
Think pink

This year marked a milestone for cancer treatment in Georgia—the first ever statewide cancer clinical trial for breast cancer. Coordinated by the Georgia Center for Oncology Research and Education (Georgia CORE) and Emory's Winship Cancer Institute, the study is the first of its kind in Georgia in which an investigator from an academic medical center will collaborate with community-based oncology practices and other academic centers to enroll patients in a statewide clinical trial for early-stage breast cancer patients.



Ruth O'Regan is leading the first statewide clinical trial in breast cancer, which brings innovative treatments to Georgians no matter where they live in the state.

Although the American Cancer Society (ACS) reports cancer death rates have dropped steadily since 1990 due in part to earlier detection and better treatments, breast cancer remains a serious health risk for women. In fact, the ACS estimates that 180,510 new cases of invasive breast cancer were diagnosed in 2007, and the chance that breast cancer will be responsible for a woman's death is about 1 in 33.

Fortunately, cancer clinical trials are making progress against breast and other cancers by testing and finding effective new treatments. At Winship alone, more than 200 clinical trials are currently under way to find cures for brain, lung, gastrointestinal, and prostate cancers as well as other malignancies. Winship's goal in pursuing these trials is to promote translational research—taking the latest discoveries and putting them to work as quickly as possible to treat people with cancer.

Building relationships with community doctors to help educate patients and their families about new cancer treatment options, including clinical trials, is key to this progress, according to Winship hematologist and oncologist Ruth O'Regan. "Our vision is that patients throughout the state have access to the most innovative treatment opportunities regardless of where they live," says O'Regan, who is principal investigator of the study. "This is an important step forward toward that goal."

Sponsored by Georgia CORE and supported by Sanofi-Aventis, the Phase II clinical trial is currently enrolling early-stage breast cancer patients. The randomized study's goal is to compare two different methods for administering the anti-cancer drugs docetaxel (brand name Taxotere) and capecitabine (Xeloda) to see if the regimens produce the same or different outcomes. After the drug treatment cycles are completed, the patients have surgery.

"We are delighted to be able to work with the community oncologists on this exciting project. To date we have accrued almost 30 patients, half of which are African-Americans," says O'Regan. —Sherry Baker

The statewide clinical trial will be available at the following sites:

- Winship Cancer Institute (Atlanta)
- Georgia Cancer Center for Excellence at Grady Health System (Atlanta)
- Emory Crawford Long Hospital (Atlanta)
- Augusta Oncology Associates (Augusta)
- Central Georgia Cancer Care (Macon, Warner Robbins)
- Charles B. Eberhart Cancer Center at DeKalb Medical Center (Decatur)
- John B. Amos Cancer Center (Columbus)
- South Atlanta Hematology Oncology (East Point, Riverdale, Stockbridge)
- Suburban Hematology Oncology (Duluth, Lawrenceville, Snellville)
- Wellstar Health System-Georgia Cancer Specialists (Marietta, Austell)
- Wellstar Health System-Northwest Georgia Oncology Centers (Austell, Carrollton, Marietta).

For more information, patients and referring physicians may contact Georgia CORE's Research Director Diane Hicklin at dhicklin@georgia-core.org or 404-588-4082.

State of the heart

It's been a busy year so far in Emory's Heart Failure and Transplantation Program. In the first eight months of 2007 alone, Emory surgeons transplanted more hearts than during any similar period of the previous 18 years. And clinicians are treating approximately 600 heart failure patients each month.

Why the increase? For one thing, heart failure remains the only major cardiovascular disease in the developed world that is increasing in incidence and prevalence. In this country, more than 550,000 patients are diagnosed annually, and 5 million currently live with the disease. The aging of the baby boomers is a contributing factor, with those over 65 at greater risk for developing heart failure.

Emory is responding to this public health challenge with new inroads in heart failure research and technology, along with a booming transplant service that performs between 68% and 75% of all heart transplants in Georgia. "The size and scope of our program is unmatched in the state," says medical director Andrew Smith.

On the research front, cardiologist Javed Butler is studying how to better define whether patients will progress to heart failure based on results from physical exams, blood tests, echocardiograms, and genotyping. If patients already have a diagnosis of heart failure, Butler, director of heart failure research, is using this battery of information to accurately determine their prognoses. Another key research area involves monitoring disease progression and outcomes of heart failure patients after transplantation.

The heart failure program is using ventricular-assist devices (VADs) as destination, or lifelong, therapy for end-stage heart failure in patients who are not candidates for transplant. The VAD serves as a replacement for the heart, pumping a normal amount of blood to support circulation and allowing a patient to lead an active life. Smith predicts that VADs will be so advanced in a decade that the number of VAD implants will rival transplants performed.

In heart muscle regeneration, cardiologist Arshed Quyyumi and hematologist/oncologist Edmund Waller are conducting a clinical trial at Emory Crawford Long Hospital using stem cells of patients who have recently experienced an acute heart attack. Bone marrow is harvested from the patient's hip, spun to sort out progenitor cells, and reinfused into the patient's heart muscle through cardiac catheterization. The goal is for the stem cells to grow new blood vessels or repair damaged ones, improving blood flow and heart function.

In technology advances, Emory Hospital was the first in the state to use two types of VADs as permanent therapy for heart failure. Last year, the hospital also became the first in Georgia to offer a non-surgical device for patients who have experienced severe heart attacks or who need support to improve their health enough to be placed on the transplant waiting list. In this procedure, the VAD pump, which remains outside the body, is attached to two tiny cannulae that are threaded through the femoral artery and implanted in the heart to restore blood flow, giving it and other vital organs a chance to heal.

Emory also is pursuing telemedicine monitoring systems to help decrease hospital stays for heart failure patients. In the past, doctors had to monitor ventricular or pulmonary artery pressure in the ICU. The new technology includes a wireless pressure sensor implanted in patients, who then use an external monitor to transmit wireless, web-based data from their homes back to Emory. Program nurse managers monitor the data and alert any patients who need follow-up care. Another monitoring device will transport web-based data to Emory every time a patient steps on the scale to monitor weight gain from fluid retention. —Lee Jenkins

WEB CONNECTION *To locate a heart failure expert or to refer a patient to the Emory heart failure program, see* **emoryhealthcare.org** *or call 404-778-7777 or 1-800-753-6679.*