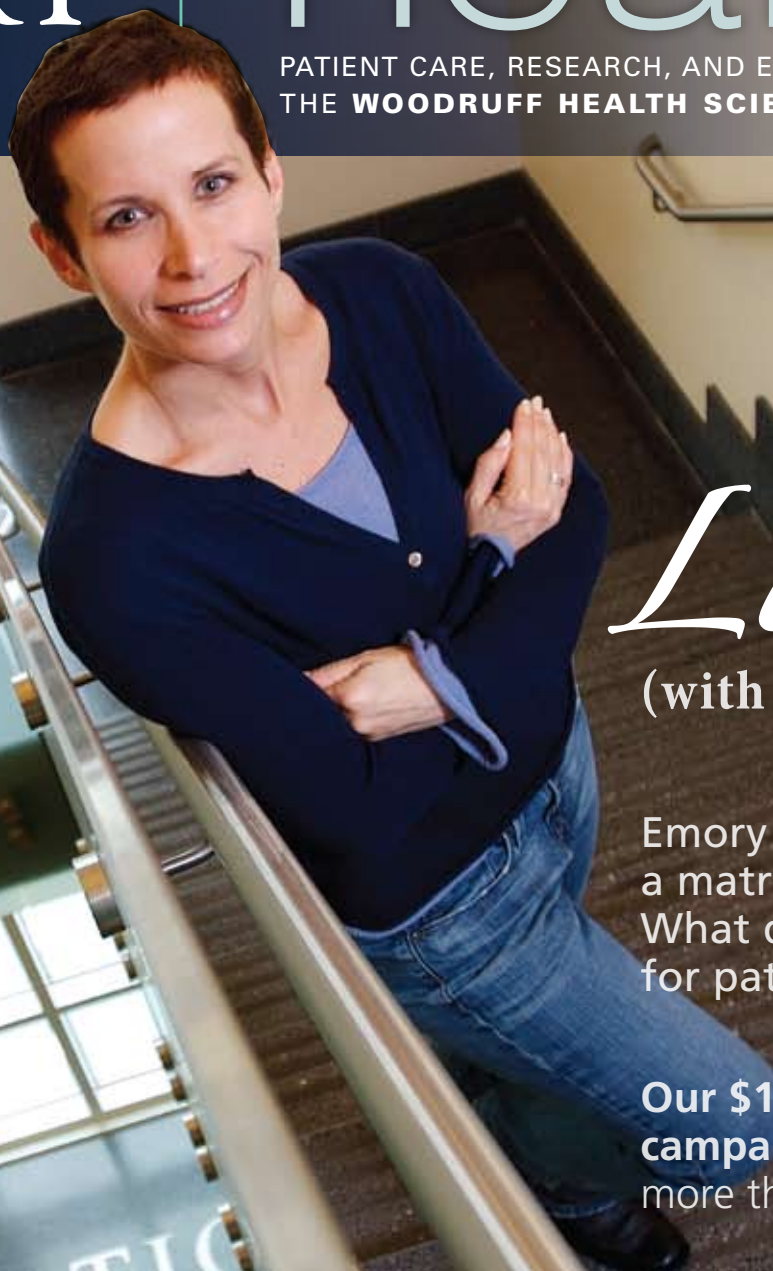


EMORY | health

PATIENT CARE, RESEARCH, AND EDUCATION FROM
THE **WOODRUFF HEALTH SCIENCES CENTER**



Living (with cancer)

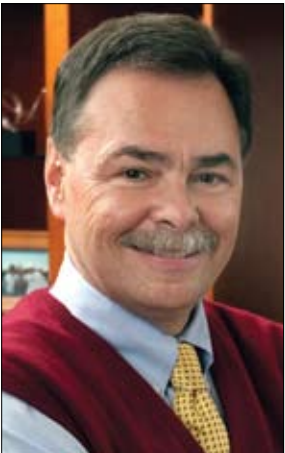
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FROM THE EXECUTIVE VP



Fighting cancer on three fronts

You have cancer. Studies find time and again that this diagnosis is the one Americans fear most. And yet, as American Cancer Society CEO John Seffrin said at a recent lecture at Emory, “The hopeful side of cancer has never been more hopeful” (see page 19).

Indeed, here in Emory’s Woodruff Health Sciences Center, we are proud to be a part of that hope. As an academic health center, we are able to lead the fight against

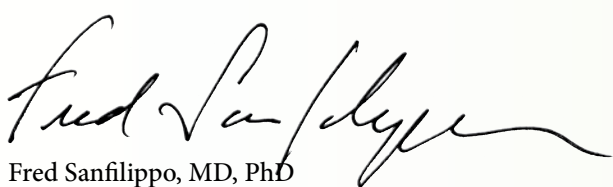
cancer on three fronts—research, education, and patient care.

Emory researchers are pioneering discoveries that attack cancer at its most fundamental level, developing new methods of detecting and treating the disease and advancing the clinical application of new discoveries. The depth and breadth of our research program allows us to take cancer advances from the laboratory to the bedside and to the community more rapidly and effectively than many other organizations.

Our educators are preparing the next generation of health professionals to continue the advances we’ve begun. These new researchers will continue fueling discoveries in cancer that will make all the difference in people’s lives. Our medical and nursing students are learning to work in multidisciplinary teams to provide cutting-edge and compassionate care for patients and families who have to grapple with cancer. And our public health students are gaining the knowledge and tools to track cancer worldwide and educate a global population about prevention and early detection.

Finally, the Emory Winship Cancer Institute provides an invaluable resource to help patients face cancer with the courage and confidence that come from knowing they are receiving the best care possible. Our teams of medical experts provide evidence-based, high-quality, patient-centered care through 100,000 clinic visits each year, and Winship is a leader in bringing more clinical trials to Georgians. Winship also has community programs that assist cancer survivors in getting back their lives and getting on with life.

In this issue of *Emory Health*, you’ll find why there is more hope than ever in responding to the dreaded diagnosis of cancer—and how we’re working on other fronts and with you to transform health and healing ... together.


Fred Sanfilippo, MD, PhD
Please share your feedback at evphafeedback@emory.edu.

The depth and breadth of our research program allows us to take cancer advances from the laboratory to the bedside and to the community more rapidly and effectively than many other organizations.

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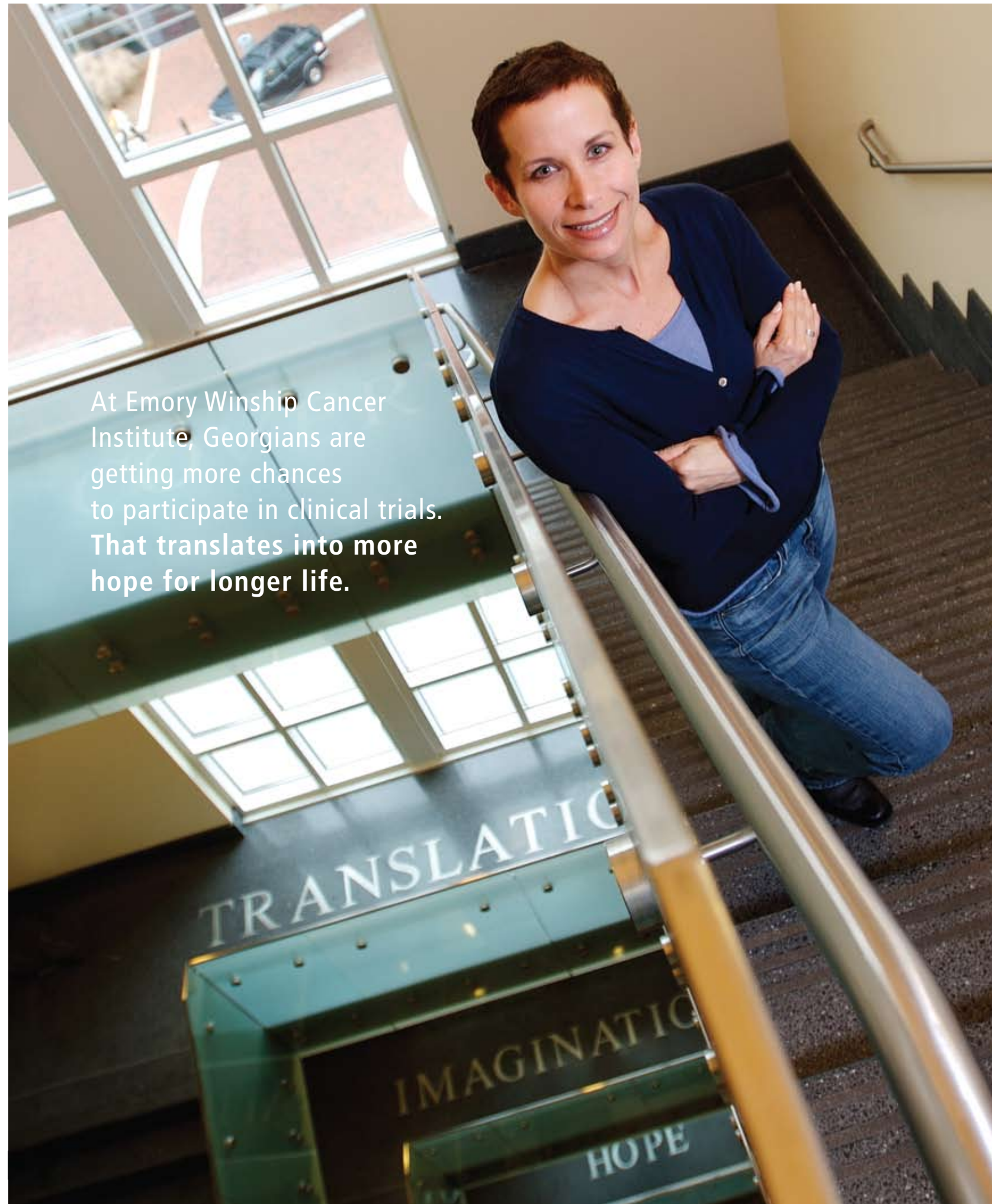
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A clarinet player and former fund-raiser for the Atlanta Symphony Orchestra, Vicki Riedel found a new calling after her baby girl was diagnosed with cancer.

“We asked him straight out, ‘If this was your daughter, your child, would you stay here for treatment or would you go elsewhere?’” 22

What do you think? *Emory Health* welcomes your comments—pro or con—about topics and issues covered in this magazine. Please send comments, letters to the editor, address changes, and other correspondence to **Emory Health**, 1440 Clifton Road, 1st floor, 150M, Atlanta, GA 30322; email to rhonda.mullen@emory.edu; or call 404-727-8166.



At Emory Winship Cancer Institute, Georgians are getting more chances to participate in clinical trials. That translates into more hope for longer life.

Living (with cancer)

A few weeks before she was scheduled to have her first mammogram, **Kristen Moss (left)** discovered a lump in her breast. A biopsy confirmed that the lump was cancer—specifically, HER2 positive breast cancer, a typically aggressive form. When Moss, 40, asked a friend at the American Cancer Society where she should go for treatment, the friend sent her to Emory Winship Cancer Institute.

At Winship, Moss was enrolled right away in a clinical study testing a combination of chemotherapy drugs formulated for her specific type of tumor. After only eight weeks of treatment, an MRI showed no signs of the cancer. She finished the 20-week chemo regimen in October, followed by a mastectomy and reconstructive surgery.

“If I had to have breast cancer, I’m glad I have it now when so many advances have been made, and I’m glad I can be treated at Emory,” says Moss.

By MARTHA NOLAN MCKENZIE • photographs by JACK KEARSE



On a Friday 13 two years ago, one week after his first wedding anniversary, Ned Crystal got lucky. He was diagnosed with cancer—a diagnosis that saved his life. Crystal originally had surgery for a hematoma above his right knee that wouldn't go away more than a year after an ice hockey injury. It turns out the eggplant-sized mass was stage 3 aggressive sarcoma. Crystal underwent treatment (six cycles of chemo and 37 doses of radiation) at Emory with his wife, Kristina, by his side. Today, a cancer-free Crystal is using his luck to reach others through a sarcoma support group at Emory that he helped start and two initiatives—a silent auction and a pheasant hunt— that will raise support for sarcoma research.

Just a few years ago, Moss would have had to go out of state to find this kind of treatment. However, in those years, both Emory and Georgia have been pouring massive resources into Winship to build a world-class, matrix cancer center (*see box on page 5*). The institute offers patients a breadth

and depth of cancer care from basic science research and clinical trials to prevention in the larger population.

“Matrix cancer centers are engines for scientific discovery,” says Winship’s director Brian Leyland-Jones. “Most significant advances in cancer research and care are

developed at academic cancer centers.”

Emory hopes to parlay strengths—including leadership in basic science, surgical oncology, nanotechnology, health disparities research, and imaging technologies—into designation by the National Cancer Institute (NCI) as a comprehensive cancer center. The designation would bring more NCI funding and clinical trials to Winship—and to Georgia. And that translates into more help and hope for Georgians with cancer.

It was this goal that prompted the state, through the Georgia Cancer Coalition (GCC), to invest \$50 million from tobacco settlement funds in Winship. “We are the largest state in the nation without a comprehensive cancer center,” says William Todd, GCC president and CEO. “It goes way beyond window dressing or civic boasting. In our quest to shorten the time from discovery to application, we need robust clinical trial networks where investigator-initiated trials at an NCI center are available to community hospitals, bringing the benefits of science to patients more quickly. A comprehensive cancer center designation for Winship would bring more of those NCI clinical trials to Georgia.”

From the bench

In the beginning, there is a gene that mutates.

That’s the genesis of every cancer. Trying to identify those genes, determining what causes them to mutate, and developing agents that can either prevent or repair the damage or stop the defective cells from multiplying is a major focus of Winship’s basic scientists.

In one approach, researchers are studying the ability of tumor cells to repair damage to their DNA caused by an anti-tumor treatment. “That’s why you can kill 99% of a tumor cell population and not wipe out the cancer,” says Paul Doetsch, Winship’s deputy director for basic research. “That remaining 1% evolves into a drug-resistant form and then grows. So if we are able to target the tumor’s DNA repair pathway with a drug, in many cases we could eliminate the tumor cells’ ability to become resistant, thus making them sensitive to treatment.”

That’s what Winship investigators are trying to do with triple-negative breast cancer. The most aggressive form of breast cancer, it strikes African-American women at twice the rate of whites. Triple-negative breast cancer is so named because it lacks three receptors known to fuel most breast cancers, and that means this type of cancer is resistant to the most successful treatments for breast cancer, which target these receptors.

A Winship team of basic science researchers has proven successful in overcoming that resistance by reactivating estrogen and progesterone receptors in triple-negative breast cancer cells in the lab. That reactivation rendered them sensitive to tamoxifen, the most widely used drug to treat breast cancer.

The basic scientists then handed off the lab results to a clinical team, which is using them to design a clinical trial to be conducted with seven community hospital partners throughout the state. “This work could not have been done at any place other than a matrix cancer center,” says Doetsch. “At Emory, our basic science information gets translated into animal studies or cell culture studies, which are then used to inform clinical trials that may have a very real positive impact on patients.”

“At Emory, our basic science information gets translated into animal studies or cell culture studies, which are then used to inform clinical trials that may have a very real positive impact on patients.” —PAUL DOETSCH, WINSHIP

DEPUTY DIRECTOR FOR BASIC RESEARCH

To patients

Translating research into practice is the ultimate goal of the cancer center. Discoveries in the lab are used to develop new drugs and therapies, which may then be tested in clinical trials. The trip from the research bench to the bedside is often a relatively short one at Winship, just as it was for Kristen Moss.

One reason for that is Emory’s support of interdisciplinary collaboration, says Fadlo Khuri, chair of of hematology and medical oncology at Emory and deputy director for translational research at Winship. “Because of the complexity of the many diseases known as ‘cancer,’ finding new avenues for prevention, treatments, cures, and causes involves work in a host of scientific disciplines from chemistry and epidemiology to pathology and oncology. These disciplines and others all come together within Winship.”

In fact, Emory has one of the strongest collaborative environments of any institution in the country, says Dong Moon Shin, director of Winship’s chemoprevention program. “At other institutions, researchers compete for tumor tissue, for access to imaging, for resources, but here everyone is on the same team. As a result, discoveries in the lab tend to get translated into treatments more quickly.”

A group of Emory researchers, for example, has developed a biodegradable nanodrug that promises to attack cancer cells while leaving healthy cells untouched. The team created a nanoparticle by linking the cancer drug Taxol and folic acid with a biodegradable heparin molecule. The folic acid acts like a heat-seeking missile, flying past normal cells to crash into the many folate receptors in head and neck tumors to deliver its payload of Taxol. Since normal cells are

What is a matrix cancer center?

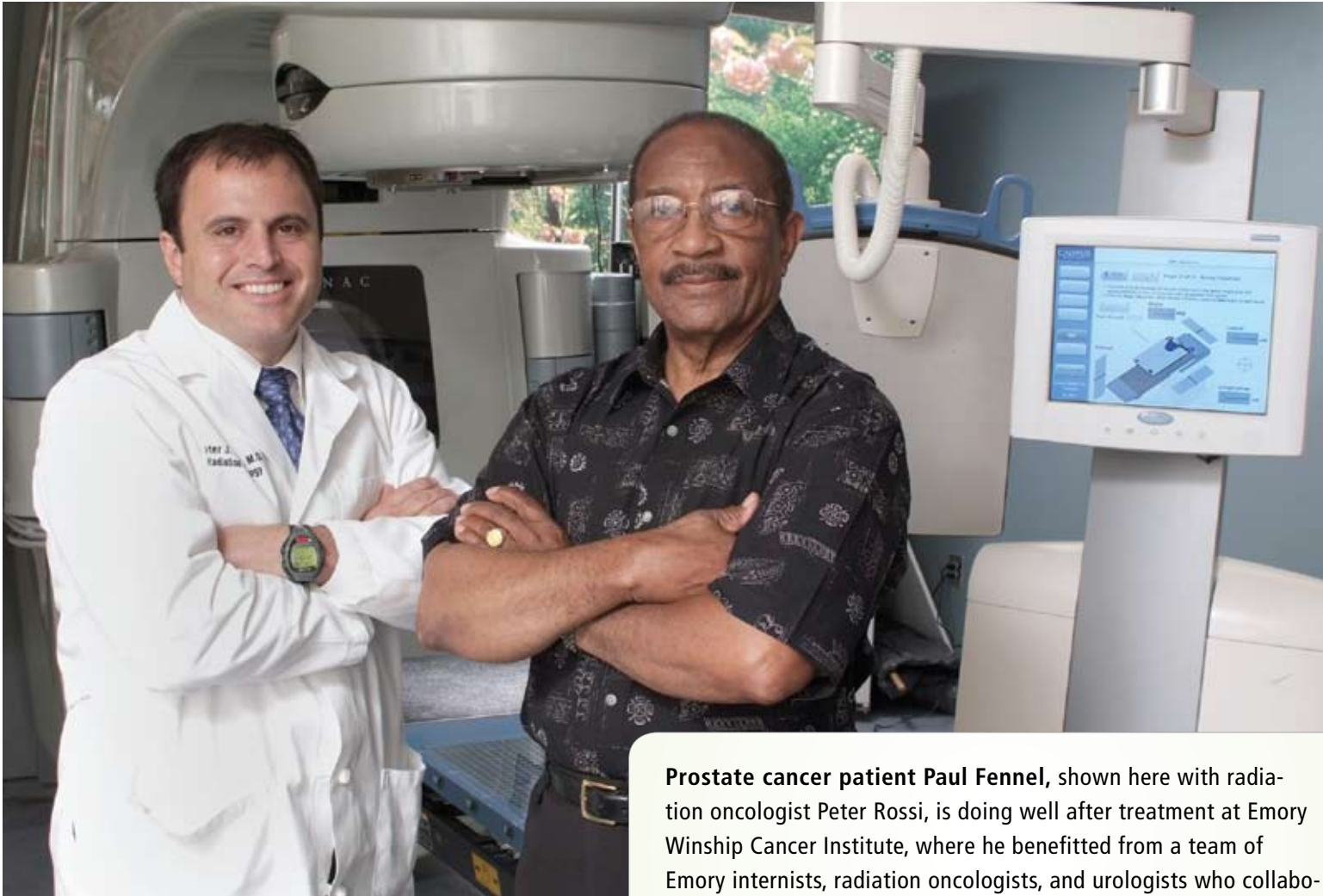


It starts with interdisciplinary teams of researchers, physicians, epidemiologists, nurses, engineers, and social workers, who come together to understand cancer along its entire continuum and to treat it. The key focus is building up the full Emory family into a huge translational force—a matrix—for cancer research, treatment, and prevention.

In the lab, researchers identify specific gene mutations involved in the development of cancer and develop biomarkers for early detection of tumors. In the clinic, physicians use those discoveries to test new drugs and therapies in clinical trials. At the population level, epidemiologists study risk factors and prevention strategies to help shape public policy on cancer. And Emory Winship goes a step further, to provide public information about programs, cancer education, and outreach to health care professionals and the community.

All that is supported by core facilities, such as those for cell imaging, biomarker profiling, and pathology. So while a typical researcher who needs to look inside cancer cells to study DNA might be stymied by locating and paying for the use of a microscope powerful enough to complete the work, Emory Winship researchers need only go to the cell-imaging core with high powered microscopes and staff expertise to use them.

Beyond the team on its own campus, Winship draws on unparalleled community partnerships—the CDC, American Cancer Society, Georgia Institute of Technology, Georgia Cancer Coalition, and Georgia Research Alliance, to name a few.



Prostate cancer patient Paul Fennel, shown here with radiation oncologist Peter Rossi, is doing well after treatment at Emory Winship Cancer Institute, where he benefitted from a team of Emory internists, radiation oncologists, and urologists who collaborated on his care.

unaffected, the often debilitating side-effects of chemo are avoided. The nanodrug showed promising results in animal studies, and Shin hopes to follow up with a clinical trial soon.

Other new drugs and therapies have already moved to the next step. One of those is a drug combo—growth factor inhibitor EGFR-TK1 and anti-inflammatory celecoxib—being tested to see if it blocks the formation of tumors in pre-malignant cells. Participants in the trial are typically current or past smokers who have pre-malignant cells in their mouth or throat. “We know this is a very high-risk population, and untreated, about half of these people will develop cancer,” says Shin.

In pre-clinical studies, this drug combo not only has blocked the development of pre-

malignant cells into cancer cells but also has caused cells to revert back to their normal, healthy state. Shin’s team is running a trial to see if the same drug combo can prevent recurrence of cancer in those who have already been treated successfully for head and neck cancer.

For patients, the ability to enroll in a clinical trial is a godsend. “I believe the best care for any patient is through participation in high-quality clinical trials,” says Walter Curran, Winship’s chief medical officer. “That’s where they’ll receive the most advanced, cutting-edge treatments. And the more trials a center has available, the greater the likelihood that the patient will have an opportunity to participate.”

Winship patients are getting more and

more of these opportunities, thanks in part to Curran. For the past decade, he has served as national group chair of the Radiation Therapy Oncology Group (RTOG), the world’s leading research group conducting major multicenter clinical trials for radiation therapy for cancer. When Curran joined Winship in 2008, he brought the RTOG trials with him.

In addition, Emory’s work in the community is increasing awareness about cancer prevention, screening, and access to care. A recent study by Emory researchers at the AVON Comprehensive Breast Center at Grady Memorial Hospital found that community-based programs aimed at raising awareness and use of breast cancer screening may improve breast cancer survival rates

for African American women, who have a higher risk of death from the disease.

And beyond

Promising new cancer drugs and clinical trials may capture the most news headlines, but prevention is given equal weight at Winship. “Prevention really goes to the heart of the matter,” says Theresa Gillespie, Winship’s deputy director for administration. “We want to be able to predict who might get cancer so we can intervene or encourage them to engage in activities to prevent cancer from the get-go.”

Winship epidemiologists, behavioral scientists, and health policy experts are teaming up to understand how lifestyle and diet influence a person’s risk for developing cancer. They are developing biomarkers to determine who is at elevated risk for certain types of cancers. They are deciphering how societal forces (such as insurance, access to health care, and economics) impact cancer outcomes. And they are finding ways to prevent comorbidities or additional disorders such as depression and sleep problems in patients who have cancer.

Toward those ends, Winship, in collaboration with the GCC, is mounting an aggressive study that will identify 140,000 cancer-free subjects throughout Georgia and follow them for decades to see who develops cancer and who doesn’t.

“For each subject, we’ll collect a wealth of personal and medical history information via questionnaires. We’ll collect blood and urine samples and store them,” says epidemi-

ologist Robin Bostick, leader of the Cancer Control and Population Sciences project. “We’ll check in with them every year or two. Then, when enough people have developed a certain type of cancer, we will do analyses to see the differences between the people who developed it and those who didn’t. Did they tend to exercise less? Smoke more? Eat more animal fat?”

The potential impact of the Georgia Cancer Cohort Study is immense. “It aims to do for cancer what the Framingham Heart Study has done for cardiovascular disease,” says GCC’s Todd, referring to the 50-year landmark heart study of residents of Framingham, Mass. “It was from that study that the concept of risk factors first emerged. As a result, the incidence of heart disease in this country has been decreasing for the past 35 years. We hope to identify similar risk factors for cancer and eventually see a fall in its incidence.”

The Georgia cohort study offers researchers a particularly wide window on cancer because of the diversity of the state’s population. “There are other prospective cohort studies, but they tend not to be representative of the general population,” says Bostick. “In Georgia, we have a diverse population —racially, ethnically, and in terms of rural versus urban. This will help us identify disparities in the incidence of cancer.”

For her part, Moss was unaware of the research and clinical trials going on at Winship. She just knew she was getting the best cancer care, and she was getting it at home. And that’s all that mattered. ☐

“We want to be able to predict who might get cancer so we can intervene or encourage them to engage in activities to prevent cancer from the get-go.”

—THERESA GILLESPIE, WINSHIP DEPUTY DIRECTOR FOR ADMINISTRATION

Diagnosing without drilling

Brain tumor biology is hard to ferret out because of the tumor’s location inside the skull, a particularly difficult place to access. “With imaging, you don’t learn very much,” says Irwin Van Meir, co-director of Emory Winship’s brain tumor working group and director of the lab for molecular neuro-oncology. “You might be able to detect that something is there, but it doesn’t tell you much about the biology of the tumor.”

So Van Meir and his colleagues began looking for clues in a different place—in the cerebral spinal fluid (CSF) that surrounds the brain and the spinal column. It was, it turns out, a good place. Proteins secreted by brain tumors end up in the CSF.

Working with scientists in the core facilities that support biomarker research, Van Meir imbedded nanoparticles—tiny magnetic particles—with scores of different antibodies, each attracted to a different specific protein. They then introduced the nanoparticles into CSF drawn from brain tumor patients. The result: the scientists not only were able to identify more than 100 proteins in the CSF but also they developed a signature of proteins that could determine specifically what type of brain tumor was present.

“A spinal tap is a little more invasive than a blood draw, but it is nothing in comparison to having someone drill a hole in your head,” says Van Meir. “Potentially you could combine nanoparticles with your favorite ‘sticky glue,’ such as antibodies that hone in on something very specific, then inject them into the patient. If a tumor is present, the antibodies will cover it, and the nanoparticles, since they are magnetic, will show up on an MRI. So potentially you’ll not only be able to see if a tumor is there, but depending on which antibodies were attracted to it, exactly what type of tumor it is.”

Emory’s brain tumor program also is participating in the Cancer Genome Atlas, an NIH project that will catalogue DNA alterations in brain, lung, and ovarian cancers with the goal of finding new treatments.

WEB CONNECTION For patient resources, visit or call the following: Emory Winship Cancer Institute, 404-778-1900, cancer.emory.edu; Emory Healthcare, 404-778-7777, emoryhealthcare.org; Cancer Quest, cancerquest.org; Georgia Cancer Coalition, 404-584-7720, georgiacancer.org; NCI, 800-4-CANCER, cancer.gov; and the American Cancer Society, 800-ACS-2345, cancer.org.



Telling our stories

With a \$1.6 billion campaign in full swing, Emory is speaking up about the good it can do for health and healing.

FOR THE PAST 15 YEARS, Emory University has been quietly going about its business. Educating generations of health care providers. Recruiting scientists of international repute. Discovering life-saving drugs. Growing its outside research funding faster than all but one other school in the country. But despite Emory's steady climb into the ranks of America's best 20 universities, it sometimes has remained less visible than many of its peers.

By RHONDA MULLEN • Illustrations by NATE WILLIAMS

Emory is now ready to make up for its lower profile. In September, the university launched its first campaign in 15 years. Its goal of \$1.6 billion marks the biggest fund-raising effort in Emory's history and the biggest ever in Georgia, and the university is already more than halfway to meeting that goal. Of the total amount, 2/3 of the money raised—some \$1.07 billion—will go to health sciences.

Fred Sanfilippo, Emory's executive VP for health affairs and CEO of the Woodruff Health Sciences (WHSC), is no stranger to campaigns. During his tenures at Duke, Hopkins, and Ohio State, he says that "all those institutions were continuously in campaign mode." By contrast, "folks here are not in the habit of spreading the message of what we're doing and why it's valuable. We don't tell our stories well or often enough."

For that reason, Sanfilippo sees Campaign Emory as an important and welcome cultural shift for the campus. "The campaign is about more than dollars," he says. "It's about educating people about what we do and why it's important and getting them engaged. It's about raising our visibility and impact, which in turn raises support for what we do."

He learned the value of raising visibility by watching his wife, Janet, run the first campaign for the children's hospital and center at Duke in the early 1980s. While Sanfilippo was impressed by the celebrities who participated (Perry Como, Frank Sinatra, Gerald Ford) and the engagement of thousands of people, he was surprised that the campaign didn't generate much money. "I was naive back then," he says. "I thought it was all about the money. But what happened was that raising the awareness for the Duke children's center in that campaign allowed the center's fund-raising to really take off within the next five years."

These many years and multiple campaigns later, Sanfilippo knows that what a successful campaign really does is "increase the awareness and level of engagement of those we serve—patients and families, students and parents, faculty and staff, corporate partners and foundation friends. It helps us do a better job of serving them downstream.

"Service in the health sciences encompasses a broad range of support for people, places, and programs with the goal of transforming health and healing," says Sanfilippo. "It involves development of a new model for health care, a switch from treating disease to creating health. It involves building new facilities that not only have state-of-the-art technology but also center on patients' and families' needs. It means discovering the basic science behind today's biggest killers and translating those findings into new treatments and cures. It means building an endowment for health care to make sure it is growing and vital for future generations."

These past 15 years, Emory has, in fact, been engaged on all these fronts. But now, to continue to grow, to go to the next level, it needs to raise both money and visibility. It's time to speak up.



Dining at the animal house

The fall dinner party that Stuart Zola hosted wasn't just any Friday night get-together. The event brought Zola together with 16 strangers, so to speak. The 16 were Emory students who had signed up to dine with the director of the Yerkes National Primate Research Center. And helping Zola host were six Yerkes employees, including a vet, researchers, and staff members, three of whom were Emory graduates themselves.

The occasion gave Zola a chance to talk about a favorite topic—the critical role animals play in scientific progress and life-saving medical developments. At Yerkes, one of only eight research centers designated by the NIH as a national primate research resource, animal research has led, for example, to a promising AIDS vaccine and discoveries about age-related neurodegenerative diseases such as Alzheimer's.

One of Zola's priorities is to tell the stories of Yerkes, and there are many. Scientists at Yerkes are exploring new imaging technologies to tailor medications to treat cocaine addiction. They are examining the role of cells in controlling immune responses, with applications for preventing organ rejection after transplant. And researchers are working on treatments and a vaccine to treat Alzheimer's.

Yerkes also shares its stories through a program that takes researchers into the community and brings students and others to the center for hands-on experiences. Last year, along with hosting these groups, Yerkes opened its doors to nine Emory freshmen mentoring groups, and during fall and spring finals weeks, sponsored study breaks, providing another opportunity for Emory students to interact with staff.

Public education is a slow process, demanding patience, hard work, and a commitment to truth, but Zola believes it is vital that the community understand what Yerkes is about and the good it is doing for health. "Researchers have a new part to their job description: to educate, explain, and counter the misinformation that can be damaging to our work," he says.



“The campaign is about more than dollars, it’s about educating people about what we do and why it’s important and getting them engaged. It’s about raising our visibility and impact.” —FRED SANFILIPPO, EMORY’S EXECUTIVE VP FOR HEALTH AFFAIRS AND CEO OF THE WOODRUFF HEALTH SCIENCES CENTER

The endowment bucket

After a historic gift from the Emily and Ernest Woodruff Foundation in 1979, Emory’s endowment shot to the fifth largest in the nation. Yet over the years, as other institutions have engaged in multiple fund-raising campaigns, they have bypassed Emory in endowment. In 2007, Emory’s endowment had dropped in rank to 17. And the current economic meltdown has wrecked further havoc on Emory’s endowment as well as on others throughout the country. It’s no surprise that almost half of Campaign Emory is focused on increasing endowment.

Why is endowment so important? Endowed gifts are invested, preserving the principal gift and giving the university future security. But a portion of the investment earnings (approximately 4% to 5%) is spent annually, providing funds for operating expenses and the enhanced ability to pay for unexpected opportunities that arise.

Ronnie Jowers, vice president of health affairs and health sciences CFO, gives a rundown of the picture he puzzles every day. As of August 2008, 37% of the university’s total endowment was in health sciences. Of the WHSC portion of endowment, only 3.5% is in health care. “There are zero dollars in endowment for the Emory Clinic,” says Jowers.

While he hopes to get designated gifts for endowed chairs, scholarships, and new buildings, what he really needs to handle those unexpected expenses are unrestricted funds. “Designated money goes into specific buckets. If we get a request for a new initiative that doesn’t fall in any bucket, then we may not be able to fund it.”

And there are many out-of-bucket expenses to fund. “Every day, we get requests to support so many good ideas and initiatives brought forward by deans and directors,” says Jowers. “We have more ideas than we can afford to fund. But that is a good problem to have.”

Dividends unavailable in the market

Margery McKay, vice president for health sciences development at Emory, says that with so many worthy areas to support, “we’re fortunate we have a very clear roadmap for moving forward.” She’s referring to the Emory

strategic plan that details overarching goals of the university and specific areas of distinction and focus. It is a thoughtful plan that identifies areas where Emory can make a difference on the world stage, says McKay.

As a fund-raiser, she takes the long view when faced with raising \$1.6 billion on the rollercoaster of the current economy. In the past 40 years, philanthropy nationally has been fairly stable, with only three years falling flat, according to McKay. She believes that even in these incredibly tough economic times, people will want to invest in Emory.

President James Wagner echoes her belief. “If anything,” he wrote to the Emory community after the collapse of financial markets in October, “now is the time to redouble our efforts to secure private funding for our future and to offer opportunities for donors to invest in ways that produce dividends of the sort not available in financial markets.”

Interesting those donors is really about education. “We demonstrate the value of faculty work in areas where donors are interested, and it is an easy presentation when you have world-class work to showcase,” says McKay. “It is also important to steward gifts, to come back to donors and show them how their funds have been used, that we have used the support wisely.”

McKay has plenty of priorities to match to donor interests—scholarships, for one. Scholarships attract the highest achievers to medicine, nursing, and public health, students who could not otherwise afford an education of Emory’s caliber. Scholarships also reduce the debt that students carry after graduation. Currently, for example, many Emory medical students graduate with between \$110,000 and \$120,000 in debt for medical school alone, not counting any undergraduate debt they might have. Often, that burden causes them to choose specialties based on income rather than personal interest.

Recruiting and retaining the best faculty, including funding endowed chairs, is another priority. In the past two to three years, Emory School of Medicine has recruited or is in the process of recruiting nine new chairs, and Rollins School of Public Health currently is searching for three chairs. “Recruiting a chair is like trying to hire a



The public health ROI

Amy Rollins Kreisler didn’t have just any grandfather. O. Wayne Rollins was a businessman extraordinaire, building a national empire of radio and television stations, oil and gas services, pest control, and security systems. When he died in 1991, he was one of the largest landowners in Florida and Georgia.

“Ever the businessman, my grandfather would always consider return on investment, even in his philanthropy,” Kreisler said at the launch of Campaign Emory in September. “He would ask himself, ‘What kind of return will this get as far as humanity is concerned?’”

As executive director of the O. Wayne Rollins Foundation, Kreisler believes her grandfather would be proud of the return on investment achieved through contributions to the Emory school of public health that carries the name of her family. Since the family’s early support for the Grace Crum Rollins Public Health Building, named for Kreisler’s grandmother, the Rollins School of Public Health has tripled its number of faculty, students, and researchers. Now ranked among the top 10 schools of public health, the school has a reach that extends from preventing cancer in rural Southwest Georgia to preventing infectious pneumonia in South Africa.

From Atlanta’s backyard to Kenyan fields, Rollins faculty are working to create a healthier world. They are collaborating with researchers in India to prevent and treat a burgeoning diabetes epidemic. They are developing a simple panel of tests to detect colon cancer risk before the disease occurs. They are exploring the long-lasting effects of improved nutrition on children in Latin America and spearheading efforts to improve water and sanitation for the 2.4 billion people who lack safe water worldwide.

The Rollins family has enabled much of that good to spread through endowed gifts to the school. And most recently, the family pledged a lead gift for construction of the Claudia Nance Rollins Building, named for Wayne’s mother. The building will more than double the space for the fast-growing school.

“My grandfather believed that giving to a living institution that goes on and on and affects people’s lives is the highest kind of giving because you are investing in people,” says Kreisler. “I can’t think of a better reason why our family supports Emory University.”



The businessman’s businessman, O. Wayne Rollins believed in return on investment, even in philanthropy. His foundation is supporting a new public health building, which is named for his mother, Claudia Nance Rollins (shown here with her son at her Catoosa County home in northwest Georgia).

“If anything, now is the time to redouble our efforts to secure private funding for our future and to offer opportunities for donors to invest in ways that produce dividends of the sort not available in financial markets.” —PRESIDENT JAMES WAGNER

free agent baseball star,” Jowers says. “You have to put together a good package. It’s expensive.”

Beyond investments in people, health sciences continues to garner support for facilities such as new clinical and research buildings and a second building for public health. “For every penny we raise, that’s money we don’t have to borrow,” says Jowers.

Then there are the myriad initiatives and programs—to fund the five Centers of Excellence (in heart and vascular, neurosciences, transplant medicine, respiratory health, and cancer), to improve global health, to cure cancer and AIDS, to address global nursing shortages, to develop vaccines for today’s most devastating diseases, and to increase the power of computational life sciences. None of these is a small project. All take more than a little money.

Return on investment

One of the questions that Jowers gets most often, is: “Ronnie, where are you going to find the money?”

Leveraging is one answer he gives. “It helps us advance our work by working with affiliates,” says Jowers. For example, the Emory-Children’s Center is developing a closer alliance with Children’s Healthcare of Atlanta and already has created one of the largest multi-specialty pediatrics practices in the country. With Georgia Tech, Emory shares a Department of Biomedical Engineering that is ranked second in the United States, and Emory is collaborating with Tech on other projects such as a predictive health institute. The Emory Winship Cancer Institute has received funding to attract distinguished researchers and scholars through the Georgia Cancer Coalition. Likewise, the Georgia Research Alliance has supported many joint projects with Emory.

Campaign Emory will generate further support to help the health sciences rise to meet its big-picture goals. “I know that what we do is helping society,” says Jowers. “If I can play a small role in educating the next generation of health care professionals, in finding a cure for cancer, in learning how to keep the body from rejecting organ transplants, I’ll do that.

Our missions are extraordinarily good for making a difference in the world.”

Undergirding Campaign Emory is a desire to lead not just in Georgia but also in the larger world. President James Wagner summed it up in his remarks to launch the campaign. “Our vision is guiding Emory to become the very best that it can be, not to be like another university. I have no desire to beat any university, but I do have a burning desire to lead them. That is the difference between competitive excellence and contributory excellence. That is the part that requires resources of a magnitude that we have not had before, focused in areas where Emory is especially well positioned to lead education in our society.”

Sanfilippo has similar sentiments. “Hands down, Hopkins provided the 20th-century model for academic medicine, but Emory is building the 21st-century model for academic health care.” One reason for his claim is Emory’s ability to reach across interdisciplinary lines to solve health care challenges. “It’s clear that science, education, and patient care all benefit from an interdisciplinary approach,” says Sanfilippo. “But interdisciplinary work is difficult in the academic setting because it requires work across silos. In an academic environment, faculty are often promoted by what they do themselves, not what they do as a team. Yet Emory has many interdisciplinary programs because our structure allows us to pursue this approach.”

Emory’s model of interdisciplinary collaboration is ready to take on diseases, such as pancreatic cancer, where little progress has been made. It is a model to change from disease care to disease prevention and health promotion.

Just as surely and steadily as it has in the past 15 years, Emory will continue going about its work to improve health at home and in the world. But with Campaign Emory now in full swing, don’t expect Emory to be quiet about it. ☐



WEB CONNECTION To read another Emory story from the nursing school, see the back cover of this issue. To learn more about the campaign, visit campaign.emory.edu.



Eggs in the medical basket

Founder of the online job-search giant Monster.com, Andrew McKelvey began his career at age 12. He delivered eggs door to door for a dime-a-dozen profit and was hooked on business. He believed his great success since those humble beginnings came with an obligation to do good.

Before his death in November of pancreatic cancer, McKelvey made good on that obligation through designation of more than \$25 million to the McKelvey Center for Lung Transplantation and Pulmonary Vascular Diseases at Emory. The gift has enabled Emory to recruit a dozen star faculty members, build new research laboratories, advance the treatment of patients with lung disease, and triple its number of lung transplants. It also has provided seed money to young researchers to pursue new approaches to lung disease.

McKelvey himself had sarcoidosis, which causes inflammation and scarring of the lungs, reducing their capacity. He credited Emory pulmonologist Clint Lawrence for improving the quality of his life.

Support from donors like McKelvey has impacted people, places, and programs throughout Emory’s School of Medicine. Donor investments, for example, have led to innovations such as the world’s first artificial cornea transplant, repair of hearts while they are still beating, and development of a drug used to treat 94% of Americans with HIV/AIDS. They have allowed Emory to train more than 32,000 physicians, who over time have staffed the majority of Georgia’s hospitals and health care practices. They have helped the school open a new building with simulation laboratories, wireless classrooms, and technologically advanced auditoriums for training the next generation of medical professionals.

Likewise, donors have supported a research base that is taking on heart disease, Alzheimer’s, Parkinson’s, cancer, and other major killers. Emory researchers are developing islet cell transplants to treat diabetes and working to decrease organ rejection after transplantation. They are making possible initiatives by Emory with other universities to develop biomedical nanotechnologies to detect cancer before it gains a foothold and to change the model of health care from disease treatment to prevention.

Like McKelvey, these donors are putting a lot of eggs in Emory’s basket.

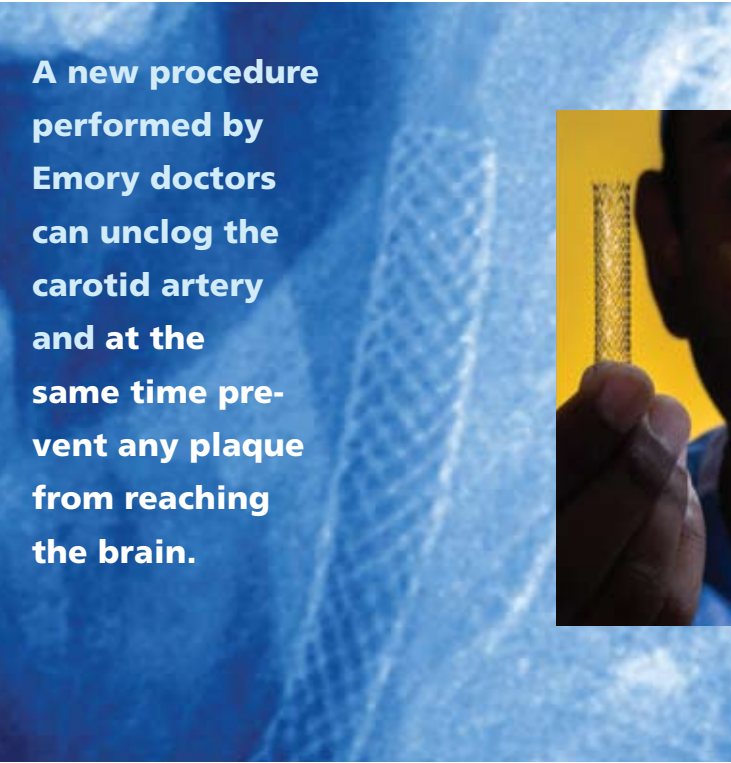
The late Andrew McKelvey attributed his success in business to hard work, persistence, timing, and instinct. His support at Emory allowed the lung transplant center to recruit new faculty, build research labs, improve patient care, and triple its number of lung transplants.



A safer stent for stroke prevention

Some stroke patients never seem like themselves afterward. In time, their behavior changes. They become short-tempered, forgetful, confused.

Vascular dementia, as it is known in stroke patients, mirrors the symptoms of Alzheimer’s disease—the mood swings, the loss of recognition of familiar places and faces, the sometimes inappropri-



A new procedure performed by Emory doctors can unclog the carotid artery and at the same time prevent any plaque from reaching the brain.

ate behavior. While Alzheimer’s is better known, vascular dementia is gaining a new foothold in an aging baby boomer population, with more than 5 million people suffering a stroke in 2005. Right now, one in four people who have a stroke go on to develop vascular dementia within three months, according to the Alzheimer’s Disease Society.

Researchers are paying increasing attention to the connection between stroke and dementia. During a stroke, plaque clogs the carotid artery that runs from the heart to the brain, impeding the flow of blood. However, a popular treatment to unclog the artery may in turn predispose stroke patients to vascular dementia.

Commonly, stroke patients are treated with angioplasty. During the procedure, a balloon is inserted into the carotid artery to compress the plaque and widen the passageway. Unless the artery is too

small, doctors usually place a fine mesh tube, called a stent, into the artery to support the arterial walls and reduce the chance that the artery will close. A filter is put in place to remove large pieces of plaque from the blood that could reach the brain and cause a stroke.

The procedure, however, still allows tiny pieces of plaque, 100 microns or less, to reach the brain. Although that amount of plaque fails to cause stroke or dementia outright, researchers now believe the presence of plaque in the brain can predispose a person to vascular dementia in five to 10 years. A new procedure performed by Emory doctors can unclog the carotid artery and, at the same time, prevent any plaque from reaching the brain.

In a clinical trial to test the Parodi antiembolism system (PAES), a device is inserted in the artery, and a balloon is inflated just below the clogged portion. “This prevents forward blood flow to the brain during the angioplasty and stenting, thereby preventing any plaque from reaching the brain,” says Karthikeshwar Kasirajan, (left), an Emory vascular surgeon who uses the PAES, which is also known as NPS, or neuro protection system.

With this approach, a second catheter is inserted in a vein near the femoral artery that allows for reversal of the blood flow. As the blood travels in the opposite direction, surgeons essentially siphon the blood, filtering out all the plaque before returning it to the body through the femoral vein. Because there is no plaque reaching the brain, a patient’s chance of having a stroke is greatly reduced.

Clinical trials led by vascular surgeon Juan Parodi, who invented PAES, showed less than 2% stroke occurrence with the carotid stent with retrograde blood flow. By comparison, patients who underwent carotid stenting with a distal filter had a stroke rate of 9.6%.

In a second NPS clinical trial in which Emory participated, 40 patients received the flow reversal system. All are doing well, says Kasirajan, who trained with Parodi at Cleveland Clinic. —Kay Torrance

**WEB CONNECTION** For more information about carotid artery disease, visit emoryhealthcare.org/departments/vascular/index.html. To schedule an appointment, call 404-778-3712.

Tapping patient knowledge

It was a crucial day for the breast cancer patient at Emory, a day when she’d find out whether her treatment had cured her cancer or had failed. After her mammogram, she had to wait while a radiologist interpreted the results, and she was led into a small room with other vulnerable patients facing a similar scenario. She asked her technician if a friend could accompany her, to ease her mind while she waited. She was told “No.” The reason? The waiting room was so small it could accommodate only those waiting for results. Still, the patient remembers, “In my most vulnerable moment, when I was most afraid and really needed someone I knew and trusted to sit with me, I was told I had to sit alone.”



EMORY PATIENT AND CANDLER THEOLOGY GRADUATE ELAINE PLUNKETT IS BACK ON CAMPUS, THIS TIME TO GIVE VITAL INPUT TO IMPROVE HEALTH CARE SERVICES. SHE HAS WORKED ON TEAMS FOR BUILDING DESIGN AND FUNCTIONAL IMAGING AND WITH NURSES WHO ARE LOOKING TO IMPROVE REPORTING AT CHANGE OF SHIFTS.

“It is stories like this that confirm our decision to move toward patient- and family-centered care at Emory Healthcare,” says Hal Jones, director of care transformation. In his new role, Jones is helping the system invite patients and families to participate in decision-making to improve services. The breast cancer patient, who thankfully received a good prognosis on the day she waited alone, is just one of many patients Emory has recruited to help identify and fix flaws in design, communications, and care.

“We want to go beyond doing things for patients to doing things with them,” Jones says. “We want to learn how to empower patients and their families so that their voices are heard and we learn from them. Patients and families can help us identify what’s really going on, and they can point out areas where we can improve. And they can help us keep from making mistakes.” Jones is looking for volunteers who can describe the good and bad sides of their experiences and who aren’t shy about speaking up. Eventually Emory Healthcare hopes to have patients serve on every key committee, participating in the design of waiting and hospital rooms, admissions materials, new faculty and staff recruitments, and services at all of Emory’s hospitals and clinics.

Although it will take time to fully integrate these patient advocates, already more than a dozen have participated on advisory committees and projects at Emory hospitals. This fall, several former patients participated in a retreat that focused on how to achieve the ideal patient- and family-centered experience.

Who better than patients to advise the leaders? One pointed out that Emory admis-

sions materials were written from the hospital point of view, telling patients how to pay and make decisions on advance directives before telling them what the Emory team was going to do to care for them. A mom of a patient admitted to Emory’s neuro ICU reported that the open design and unrestricted visiting hours made her feel included in her son’s healing. Others requested a daily, interactive posting on television screens in rooms to see when doctors would arrive and procedures were scheduled.

One patient is helping Emory Healthcare rewrite its disclosure policy. She originally came to Emory for emergency surgery on her elbow, but because of a series of errors, she ended up having surgery on the wrong elbow. Emory disclosed the mistake to the patient, and surgeons then performed an operation on the correct elbow. However, the woman left the hospital with two arms in slings, unable to function without help from her community. Adding insult to injury, Emory failed to contact the patient to check on her progress after she returned home, Jones is chagrined to report. When he met with her, she agreed to help. She said, “I want to make sure this doesn’t happen to anyone else.”

Jones wants to engage more of these kinds of patients. “That patient is able to transcend her own experience to see the bigger picture. She has the spirit of wanting to help us improve.”

For most patients whom he’s approached to sit on committees or volunteer advice, he’s found an open reception. “I get the sense that they are thinking, ‘What took you so long?’” —Rhonda Mullen

Resurfacing for hipsters



HIP RESURFACING PRESERVES THE WAY A NORMAL HIP MOVES AND FEELS, SAYS ORTHOPAEDIC SURGEON THOMAS BRADBURY.

Emory orthopaedic surgeon Thomas Bradbury knew he'd found an ideal patient for hip resurfacing surgery. The woman, age 50, had been incapacitated with hip pain so severe that it had kept her from working on the farm or riding horses for more than a year. But within eight weeks of undergoing surgery, she got her life back. She once again was able to ride horseback and do her chores on the farm.

This alternative to traditional total hip replacement allows patients to preserve more natural bone and more accurately restores natural anatomy. The procedure is particularly appealing for younger patients, who want to retain quality of life through their more active years.

Bradbury identifies two advantages of hip resurfacing over total hip replacement. "For the patient, the procedure preserves the way a normal hip moves and feels, allowing a greater stability and range of motion,"

he says. "And if future work needs to be done, preserving the bone stock makes it easier for the physician to make repairs later on."

Although European doctors have been performing total hip resurfacing since the early 1990s, the FDA only approved it in 2006 in the United States. Since then, the number of hip resurfacing procedures has been on the rise, including at Emory, where resurfacing makes up approximately 10% of the volume of hip arthroplasty procedures performed.

Both total hip replacement and total hip resurfacing involve the ball and socket of the hip joint. With resurfacing, the damaged hip ball is reshaped, then covered with a metal cap. The resulting bigger hip ball may reduce the risk of dislocation after it is attached to a polished metal socket. By contrast, with traditional total hip replacement, the ball of the hip is completely removed and replaced with a metal prosthesis. It is then set into a metal socket covered with an inner liner.

"Total hip resurfacing is more difficult than a standard primary total hip replacement because of the required precise fit of the metal ball cap and a more challenging exposure to insert the metal socket," says Emory orthopaedic surgeon Greg Erens, who also performs the new procedure.

The surgery is not for everyone. People who are significantly obese or have osteoporosis, kidney disease, or brittle or dead bone are not good candidates for the procedure. It works best for young, active patients who have significant arthritis of the hip but still retain good bone quality with little hip deformity. —Tia McCollers

WEB CONNECTION For more information or to schedule an appointment, visit emoryhealthcare.org or call 404-778-7777.

Expanding our vision

The **Emory Eye Center** welcomes these new doctors:



April Maa
comprehensive
services



Chris Bergstrom
retina



Beau Bruce
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ophthalmology



Annette Giangiacomo
glaucoma



Emily Graubart
comprehensive
services



Brent Hayek
oculoplastics

WEB CONNECTION For more information or to schedule an appointment, visit eyecenter.emory.edu or call 404-778-7777.

A hospital realignment

Emory Healthcare has positioned itself to be the backbone of orthopaedic and spine care in Georgia. This fall, the Emory University Orthopaedics & Spine Hospital became the first university-affiliated surgical facility of its kind in the state, fusing advanced technology with a patient- and family-centered environment.

The next decade is projected to bring a 25% increase in demand for inpatient orthopaedic services. As the baby boomer population peaks, so will the need for knee and hip replacements and spinal surgeries. Seeing the forecasted demand for orthopaedic care, Emory has invested nearly \$16 million to renovate the former Northlake Medical Center.

But the overhaul didn't stop with the building's structure. Emory also is building a culture of patient care, in which caregivers collaborate with patients and families on decisions. From the early planning phases, hospital administrators got patient input on the physical design and culture of the new hospital.

"We wanted an environment where families can feel empowered to speak up and share information that is needed in the patient's care plan," says Susan Grant, chief nursing officer for Emory Healthcare. The new approach equips patients and families to fully participate in their care. "Patients have relied on caregivers as the all-knowing source, instead of the caregivers soliciting information from the families that could be critical to their case. It's a different approach to what we've done traditionally in health care."

The concentration of orthopaedic and spine surgical services

at one location—at the intersection of Lawrenceville Highway and I-285—maximizes the experience, research, and surgical procedures of full-time Emory physicians. It also offers the opportunity to

combine the efficiency of a dedicated hospital with the expertise and sophistication of a university hospital system. As a result, patients are linked to research, technology, and subspecialties at other Emory hospitals.

"There are very few focused orthopaedic hospitals in the country," says James Roberson, who chairs Emory's orthopaedics department. "When you look at outcomes data of specialized facilities, it's clear that outcomes are better and patients have fewer complications, such as infections."

The new hospital is integrated with Emory's orthopaedics and spine center at Executive Park, Atlanta's largest outpatient facility. Executive Park continues to provide outpatient orthopaedic surgeries, while Emory Orthopaedics & Spine Hospital is the site for inpatient procedures. The new facility also houses general medical beds for patients with acute medical conditions. The change relieves operating space and reduces issues with overcrowding at Emory University Hospital on Clifton Road. —Tia McCollers



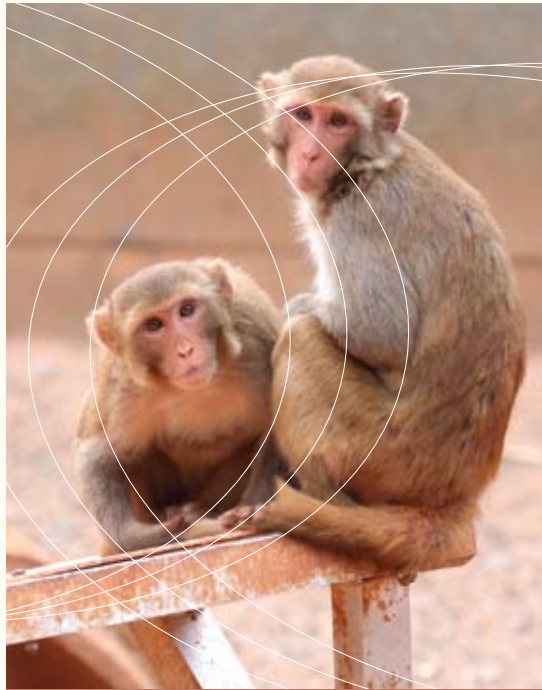
WHAT PATIENTS THINK COUNTS AT THE NEW EMORY UNIVERSITY ORTHOPAEDICS & SPINE HOSPITAL, WHERE A CULTURE OF PATIENT CARE ENCOURAGES COLLABORATION BETWEEN CAREGIVERS, PATIENTS, AND FAMILIES.

WEB CONNECTION Emory University Orthopaedics & Spine Hospital is located at 1455 Montreal Road, Tucker, GA 30084, 404-251-3000. For a full description of the facility, visit emoryhealthcare.org/hospitals/euosh/index.html.

Amenities at Emory's Orthopaedics & Spine Hospital

- Private patient suites with unrestricted, 24-hour visitation for family and friends
- Customized furniture designed for joint and spine patients
- Full range of services, including radiology, physical therapy, and respiratory therapy
- General medicine floor with Emory hospitalists available 24/7
- Restaurant and room service dining
- Wireless Internet access

A first in monkey models



YERKES RESEARCHERS HOPE THE FIRST MODEL OF HUNTINGTON'S IN MONKEYS WILL PROVIDE INSIGHTS INTO THE DISEASE THAT CAUSES LOSS OF SPEECH, MOVEMENT, AND SWALLOWING.

single gene carries a mutation that lengthens one section of the genetic code, so that three letters (CAG) are repeated dozens of times. Mutant proteins produced as a result of this coding error clump together inside brain cells. Huntington's patients gradually lose control of their speech, movements, and even swallowing. The longer the repeated region, the fiercer the disease, scientists have found.

In an early round of developing a Huntington's model in monkeys, the Yerkes researchers introduced genes with 84 CAGs. Some of the animals survived for less than a day because of respiratory difficulties. One monkey with a milder form of the disease displayed involuntary movements sporadically at one week of age, but eventually the symptoms grew much worse.

Chan hypothesizes that because monkeys take longer to mature than mice—three years until puberty versus six weeks—the toxic protein has more time to build up in cells. Accordingly, in the next group of monkeys, the researchers will use shorter CAG repeats (73) and introduce other differences in hopes of simulating a gradual onset of Huntington's, like that in humans.

The goal, Chan says, is to monitor the animals through brain scans and regular samples of blood and cerebrospinal fluid, with an eye out for genes or proteins that look like early warning signs of damage to the brain. "With a suitable marker, we may be able to test treatments for safety and confirm efficacy as a critical step on the path between other animal models and people," he says.

Transgenic primate models with other human diseases such as Alzheimer's or fragile X syndrome, the most common form of inherited mental retardation, are likely to come next. Chan's colleague at Yerkes and Alzheimer's expert Lary Walker says that a primate model could illuminate areas of research that continue to puzzle his field, such as why monkeys don't seem to be harmed by the protein plaques that develop in their brains and are characteristic of Alzheimer's. "Essentially, we've hit the wall as far as progress with the mouse model," Walker says. —Quinn Eastman

AFTER CREATING THE FIRST MODEL OF A HUMAN NEURODEGENERATIVE DISEASE IN RHESUS MONKEYS, ANTHONY CHAN AND HIS COLLEAGUES AT THE YERKES NATIONAL PRIMATE RESEARCH CENTER AND EMORY'S DEPARTMENT OF HUMAN GENETICS ARE THINKING HARD ABOUT WHERE TO GO NEXT WITH THEIR POWERFUL TRANSGENIC TECHNOLOGY.

Last spring, *Nature* published their research on rhesus monkeys engineered to develop an aggressive form of Huntington's disease. Chan reports that his team is already at work developing a more subtle simulation of Huntington's. In addition, he is starting to think about adding other genes to monkeys, which could provide insights into diseases ranging from diabetes to cancer.

But Chan says caution is in order because monkeys take longer to mature than laboratory mice. "We have to think strategically, because there's a huge commitment involved in caring for and monitoring the animals," he says.

Researchers routinely insert human genes into mice to simulate human diseases. However, successfully performing the same feat in monkeys required technology that Chan has been refining since his graduate school days in the 1990s.

With mice, scientists inject foreign DNA directly into a just-fertilized egg using a fine needle, a dependable enough approach in small animals. However, the reliability of this approach drops off with monkeys and large animals such as cows and pigs, Chan says.

His alternative combines a viral vehicle for the DNA and a technique used by infertility specialists. First, the scientists usher the foreign DNA into a monkey egg cell by cloaking it with a lentivirus. In this case, the best results come when the target egg is reached before fertilization. Then the investigators perform in vitro fertilization—injecting sperm directly into the egg—and transfer the early embryos into surrogate mothers. The longer life spans of monkeys make translating the transgenic model of Huntington's disease from mice a multistep process.

In people with Huntington's, a

In people with Huntington's, a single gene carries a mutation that lengthens one section of the genetic code, so that three letters (CAG) are repeated dozens of times.

Pushing up public awareness



or not filled prescriptions due to cost, 46% have used up all or most of their savings, 41% have been unable to pay for basic necessities (food, heat, housing), and 35% have sought charity aid or public assistance. Furthermore, in a 1999–2000 study of colorectal cancer survival, those with private health insurance fared substantially better than the uninsured or people on Medicaid.

The Access to Care campaign launched by the ACS sought to frame the issue of health insurance coverage and educate the public. It encouraged people to take action on the issue and propelled cancer issues to the forefront of the national discussion about reform. One ad featuring a bright red push-up bra drew attention to fierce opposition to a small business health insurance bill in the U.S. Senate that would have endangered coverage for mammograms. Another series of videos and ads focused on the stories of people with cancer. Their theme: "No one deserves to get cancer. But everyone deserves the right to fight it."

An editorialist in the *New York Times* wrote in September 2007 that the campaign was bringing "home in gripping terms what happens to people without health insurance. When it comes to dealing with cancer, any delay in detection or treatment, as is common among the uninsured or poorly insured, can be fatal."

The ACS was heartened by response from the public and lawmakers to its campaign, Seffrin told his audience. "Our case is ever more compelling," he said. "The disposition of the health care community has changed. We have strong allies in Congress. Public awareness and concern is growing." —Rhonda Mullen

IN 2007, THE AMERICAN CANCER SOCIETY (ACS) TOOK A BOLD STEP. IT DECIDED TO USE THE BULK OF ITS \$1 BILLION ANNUAL BUDGET FOR AN ADVERTISING CAMPAIGN.

Why? CEO John Seffrin explained at a recent Future Makers lecture at Emory's Woodruff Health Sciences Center. ACS leaders realized that one thing in particular was keeping them from reaching their goals to decrease cancer mortality by 50%, reduce cancer incidence rates by 25%, and measurably improve the quality of life for people with cancer. That one thing was access to quality health care for all people.

Why is access so important? The numbers are revealing. According to research quoted by Seffrin, 40% of cancer patients have skipped treatment, cut pills,

or not filled prescriptions due to cost, 46% have used up all or most of their savings, 41% have been unable to pay for basic necessities (food, heat, housing), and 35% have sought charity aid or public assistance. Furthermore, in a 1999–2000 study of colorectal cancer survival, those with private health insurance fared substantially better than the uninsured or people on Medicaid.

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My WHSC space

Would you like to follow the progress of Emory researchers developing an Alzheimer's vaccine? Are you interested in new research that explains why most heart attacks occur in the morning?

You can explore those stories, along with breaking scientific news, recent publications, and interviews with academic health experts at a newly launched website for Emory's Woodruff Health Sciences Center. Visitors can explore health care topics in recent press releases, download photos from an extensive database, watch slideshows on medical discoveries, dive into a video vault, or find an Emory doctor.

Where do you begin searching the new Emory space?

www.emoryhealthsciences.org





The epilepsy monitoring unit at Emory Hospital relies on a little help from man’s best friend. Trained assistance dogs visit regularly with patients, making a stay in the unit reminiscent of home. “Some of the animals are bred as seizure response dogs, which can be trained to remain next to a person during the course of a seizure, locate help if others are nearby, or even retrieve a phone if a patient is in the process of experiencing a seizure,” says George Fraser, the unit director. “Having these visits truly helps us brighten a patient’s stay.”

When seizures are desired

Brenda Free has suffered from epilepsy for more than 25 years, since the birth of her first child. Her condition has caused lapses of memory and a repeatedly dislocated shoulder from seizures. She even lost her job as a materials planner when she was unable to manage the disease.

“For years, I took medication, which helped some,” says Free. “But I never really wanted to believe or face the reality that the seizures I was experiencing were really epilepsy. I did my best to ignore and hide it.”

But on a summer night in 2007, Free got a wake-up call she couldn’t ignore. When she started to seize, a friend called 9-1-1. The first responder on the scene was a police officer who arrived in advance of the ambulance. The officer, unaware Free’s violent convulsions were due to epilepsy, used a taser gun to subdue her.

“After that, I just knew it was time to take control of my condition and not ignore it or sleep it away,” Free says. “I’m thankful for that night because it was a turning point.”

After Free consulted with her physician in Savannah and did

extensive research about epilepsy on the web, she wound up at Emory. Recently admitted to an epilepsy monitoring unit in Emory University Hospital, she hopes to pinpoint the cause of her seizures.

The unit, which opened in April, helps physicians better identify the source of epileptic seizures. That, in turn, can lead to more effective outcomes and treatments.

More than 40 million people currently suffer from epilepsy, a neurologic disorder that causes abnormal electrical activity in the brain resulting in recurrent seizures. The condition affects children, adults, and seniors, and it can be present at birth or brought on later by a head injury, brain tumor, or stroke. In many cases, the cause cannot be discovered.

The epilepsy monitoring unit at Emory allows for continuous video and EEG monitoring of electrical activity in the brain. While a standard EEG test typically lasts 30 minutes and offers only a brief snapshot of a brain’s activity within a limited time frame, continuous monitoring can improve diagnostic accuracy. Continuous monitoring is particularly helpful when routine EEG recordings fail to indicate a diagnosis, particular seizure type, or location of onset.

According to Emory neurophysiologist Suzette LaRoche, a patient with epilepsy may experience many different types of seizures. The ability to accurately diagnose those types aids in selecting effective treatment options including medication and surgery.

“For many epilepsy patients, the only way to offer better treatment is to monitor them and study what occurs during an actual seizure,” LaRoche says. “The more we can learn about an individual patient’s seizures, the better our chances of being able to offer better seizure control and maybe even reduce or eliminate certain medications that cause severe drowsiness, impaired thinking, or other adverse physical effects. This is probably the only place that patients actually hope for and want to have a seizure.”

That’s true for Brenda Free. “Now I am like many other epilepsy patients who come to Emory just hoping to have a seizure,” Free says, “because that is the only way to unlock what has to this day been a mystery.” —By Lance Skelly

Growing up and older with cystic fibrosis

WHEN MICHAEL SCHECHTER WAS A RESIDENT IN TRAINING IN THE 1970S, HE HAD ONLY ONE CYSTIC FIBROSIS PATIENT WHO MADE IT TO 20. “At the time, that was considered remarkable,” says Schechter, who today directs Emory’s Cystic Fibrosis Center.

Now the average life span of people with cystic fibrosis (CF) is edging toward 40. Emory’s center, for example, is treating patients like David Adkins, 53, who started jogging as a form of respiratory therapy and eventually completed four marathons.

“Eventually children have to take responsibility for their own schedules and their own medications,” says Lindy Wolfenden, director of the Adult CF program. “This sometimes is an adjustment for both parents and children. It’s not that long ago that parents were told not to expect their child to live past the age of 18.”

Gradual advances in patient care have transformed CF from a condition that cut short the lives of children to one in which adults are planning for their futures. Recently Emory’s adult program has expanded so dramatically that it has moved to a new location in the Emory Clinic.

Because of mutations in a gene that disable the cells’ ability to transport salt, people with CF produce unusually thick, sticky mucus. The mucus clogs their airways and often leads to life-threatening lung infections. It also obstructs the pancreas, preventing digestive enzymes from breaking down and absorbing food.

CF causes a gradual loss of lung function, exacerbated by infections and bronchial obstruction, says Wolfenden. Advances in treatment over the past few decades include refinements in airway clearance techniques and infection control as well as improved inhalable antibiotics and medications that thin mucus.

The Emory CF center also is bolstering research to support clinical care in areas such as CF-related diabetes and vitamin D deficiency. Pulmonologist Arlene Stecenko is looking at how diabetes develops in CF patients and the mechanism by which diabetes aggravates lung disease. In another area, membrane physiologist Nael McCarty is bolstering basic research on proteins that mutate in CF. Schechter is looking at the impact of patient and parental anxiety and depression on the course of disease. And the center’s clinical researchers are gearing up to participate in large-scale, mul-

ticenter studies of medications that may enhance the functioning of mutant proteins.

At Emory, CF patients typically visit their doctors at least every three months for a checkup and test of lung function. They use a variety of methods to clear mucus from their lungs, such as vibrating vests, inhalation of several nebulized medications, and regimens of breathing exercises and coughing. They often have diets whose caloric intake rivals that of Olympic swimmer Michael



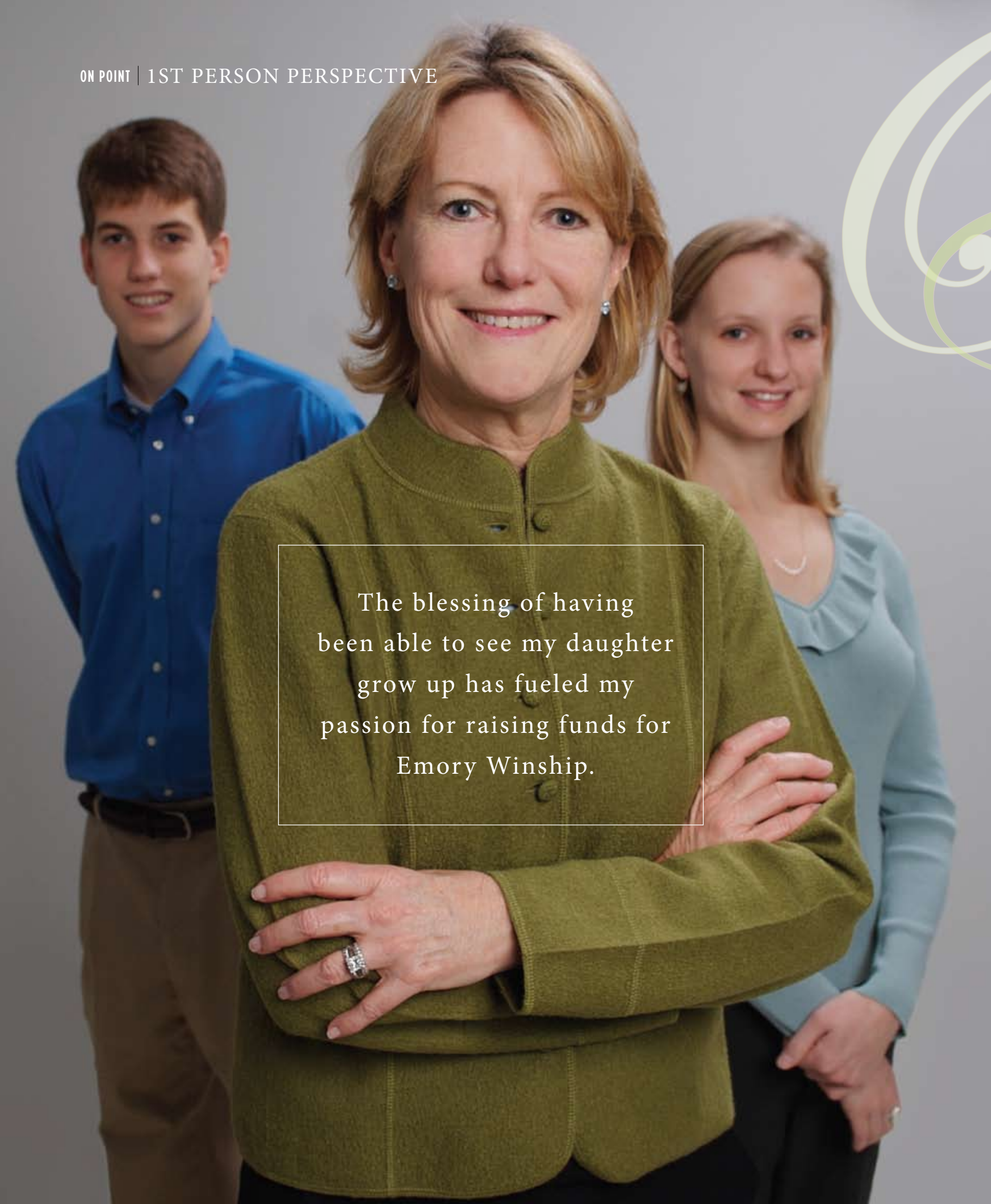
PATIENT CARE ADVANCES HAVE ALLOWED CYSTIC FIBROSIS PATIENTS TO GROW PAST CHILDHOOD, SAYS LINDY WOLFENDEN, CENTER, DIRECTOR OF EMORY’S ADULT CF PROGRAM, WHICH RECENTLY EXPANDED.

Phelps, and they take enzyme supplements with each meal to aid digestion.

Adults with CF have concerns ranging from having families to managing CF-related diabetes, which becomes more common as patients age. One-third of adults with CF between 20 and 29 and close to half of those over 30 develop diabetes.

Emory’s CF center is one of the five largest in the country and cares for approximately 600 people through its adult program and an affiliated program at Children’s Healthcare of Atlanta, Schechter says. To tailor care to the growing adult population of close to 200, Emory has brought in several specialists, including an endocrinologist, a social worker, a dietician, nurses, and nurse practitioners.

One of the adult patients, Craig Pubanz, 35, is happy to share advice with young people with CF: “If you take care of yourself, you can go to college, have a family, and live life to its fullest.” —Quinn Eastman



The blessing of having
been able to see my daughter
grow up has fueled my
passion for raising funds for
Emory Winship.

Overturning to a Cure

By VICKI RIEDEL

At 10 months, my daughter Ansley was diagnosed with acute myelogenous leukemia (AML). That's a form of leukemia you don't want to have at any age.

MY HUSBAND, JOE, AND I WENT STRAIGHT FROM THE PEDIATRICIAN'S OFFICE TO EGLESTON CHILDREN'S HOSPITAL TO MEET WITH GEORGE BRUMLEY, THEN CHAIR OF PEDIATRICS AT EMORY AND CHIEF MEDICAL OFFICER AT EGLESTON (now part of Children's Healthcare of Atlanta). Brumley was a dear friend, and I knew him well from my development work for the Atlanta Symphony Orchestra. We trusted him. We knew he would tell us the right thing to do.

We asked him straight out, "If this was your daughter, your child, would you stay here for treatment, or would you go elsewhere?" He examined the options with us, and he felt we were safe in starting treatment

for Ansley at Egleston. But Brumley acknowledged that we might have to go to a hospital elsewhere if things took a turn for the worse.

That marked the beginning of an amazing treatment journey for our family that was to stretch over several years. AML is a tough disease that tends not to stay in remission. Bone marrow transplants were still relatively rare in the late 1980s as a curative treatment for AML. Ansley was able to join a clinical trial at Egleston that randomized patients either to chemotherapy or an autologous bone marrow transplant, in which a patient's own marrow is treated with high-dose chemotherapy to kill the cancer cells and then is reinfused.

She received her transplant during the Christmas season of 1988, but it failed. She relapsed within a month.

Next she started an aggressive course of chemotherapy, and with this approach, she did really well. So well, in fact, that Joe and I started talking about having another child. We saw genetic counselors, who after discussing our situation, encouraged us to go ahead. I got pregnant right away, and the timing turned out to be critical.

Ansley went off treatment in November of 1990. Our son, Joseph, was born in February of 1991. Ansley relapsed in March. We immediately had Joseph tested for bone marrow compatibility with Ansley, and he was a perfect match. That gave us a much, much more viable option for treatment. But we decided to leave Atlanta for the next phase.

The reasons for our decision were multiple. Our son, at 4 months old, would be the youngest ever bone marrow donor. Ansley too was so young, only 3-1/2, and had already been through so much therapy. We chose to go to the Fred Hutchinson Cancer Research Center in Seattle, then the largest center in the world performing bone marrow transplants for both adults and children. Even Brumley said, “You’ve got to go.”

My husband and I had amazing employers, who allowed us to move to Seattle for four months to take care of Ansley. The symphony let me continue to work part-time from the remote location so we could keep our health insurance. My mom went with us. And it turned out so well. Joseph had really rich bone marrow. He was our little hero, and Ansley remained our little star. We got to keep her.

Expanding a fund-raising repertoire

Coming back to Atlanta was such a profound experience. I loved the orchestra more than ever for what it had done for us.



Seeking treatment for Ansley had changed me. I felt that any talents I had around fund-raising should be redirected to cancer care.

I had come up through music, with my dad being a high school band director and playing clarinet myself with the Florida West Coast Youth Symphony and other professional ensembles during and after college. At one point, I even thought I’d pursue a performance career. Then my practical side led me to a career in working in development for music. I first met my husband, an electrical engineer who has a master’s degree in music, at a chamber music festival. So the members of the Atlanta Symphony had known me when I was single, with a boyfriend, engaged, married, pregnant, with children. I went back to the orchestra for a full two years after we came back from Seattle. They were like family to me. I owed them.

Still I knew in the back of my mind that our experience in seeking treatment for Ansley had changed me. I felt that any talents I had around fund-raising should be redirected to cancer care. In 1994, I joined the development team at Egleston and was there during the hospital’s merger with Scottish Rite to form Children’s Healthcare of Atlanta. My focus was cancer and organ transplant, areas about which I am passionate. It was a professional and personal joy to work with the generous and caring folks at Aflac to play a small, early role in building what is now a top five pediatric cancer program in the country, a cancer center where today a family like ours could make the choice to stay home in Georgia for treatment.

I stayed at Egleston and Children’s for six years until corporate demands from my husband’s job and the needs of my growing children told me it was time to leave. During my absence, I coincidentally gained more leadership experience by volunteering to run campaigns for the Paideia School and Camp Sunshine, an incredible organization that supports children with cancer and their families.

When my children got older, I decided to come back to full-

time work as a fund-raiser for Emory Winship Cancer Institute. Winship’s vision is to become Georgia’s first National Cancer Institute-designated Comprehensive Cancer Center, and I thought my contribution could be in developing the fund-raising program and raising awareness of Emory’s cancer program in the community.

I felt so strongly that a state-of-the-art cancer center was critically important for Georgia. My family was so fortunate to have had the financial and emotional wherewithal to go thousands of miles away for the absolute best care for our daughter, but far too many families that I knew could never consider that possibility.

The blessing of having been able to see my daughter grow up has fueled my passion for raising funds for Winship. Ansley, now 21, is a junior at Sewanee, majoring in psychology with plans to study to be an oncology nurse. She volunteers at Camp Sunshine and mentors other children with cancer. She’s here today because of research advances.

Finding the right key

In making the case for Emory Winship, I often go back to Robert Woodruff’s story. The former president and chairman of the Coca-Cola Company, Woodruff made his first gift to Emory in 1937 to provide a place dedicated solely to treating and curing cancer. The name was chosen in honor of Robert Winship Woodruff’s mother and grandfather, who both died of cancer.

Today, we’ve got a cancer center that would make Woodruff proud. We treat more than 12,000 cancer patients each year, and our physicians and scientists are contributing major research discoveries to advance prevention, early detection, and cures. We draw on the talents of people throughout Emory’s School of Medicine, the Rollins School of Public Health, and the Nell Hodgson Woodruff School of Nursing. The Woodruff Foundation, the Georgia Research Alliance, and the Georgia Cancer Coalition are tremendous partners, providing generous support for buildings, labs, and equipment and making it possible to recruit more than 50 premier physician-scientists to Winship.

Now our responsibility is to retain those stars. It is important for us to have the best research and clinical trial programs as well as provide the support families need as they go through their cancer journey. We’ve got a responsibility to continue making Winship the best place it can be for cancer care and research for Georgians. That’s the reason I raise money for Emory Winship Cancer Institute. 🎵



Riedel’s wish list

Now that you know my story, you’ll know why I’m coming to talk to you. Here are some of the priorities of Emory Winship Cancer Institute that you can help make happen.

1. endowed chairs
2. research funds, professorships, fellowships
3. naming opportunities for breast imaging center, cancer research labs, and the infusion center
4. program support for the core facilities, including bioinformatics, clinical trials, microscopy, the cancer survivorship program, and cancer control for prevention and early detection
5. operational support for patient-focused care, including patient and family services and the patient-assistance fund.

For more information about Emory Winship Cancer Institute, contact Vicki Riedel at 404-727-5939, vriedel@emory.edu.

WEB CONNECTION To hear a podcast of Riedel’s story, visit whsc.emory.edu/r_riedel.html.

Touched by the sparrows

In Peru at the Casa Hogar Los Gorrriones, the “home of the sparrows,” Amanda Paniagua found a life’s calling.

Just out of high school, Paniagua traveled to South America to volunteer, immerse herself in another culture, and learn Spanish. Mornings found her helping out at a day care unit within the Yanamilla Maximum Security Prison for the young children of female inmates. In the afternoons, she read stories, sang songs, and led art projects for children at Casa Hogar. The “sparrows” there included homeless children who were living on the streets, some from abusive families, others with parents in prison, and still others who were so severely disabled that their families were unable to afford to attend to their many special needs.

When she returned home to Georgia, Paniagua didn’t forget her young charges. At Emory’s Oxford College, she helped create the Peruvian Orphanage Project through Volunteer Oxford. By the time she transferred to Emory’s Atlanta campus,

the fund had raised thousands of dollars for los gorrriones. And her efforts earned her Emory University’s 2006 Humanitarian Award.

Still passionate about community health, Paniagua continued her studies in Emory’s Nell Hodgson Woodruff School of Nursing. There, she focused on labor and delivery nursing and also co-founded the Atlanta Doula Cooperative. A “doula” is a birth attendant and labor coach, and the cooperative is a volunteer organization that helps women through childbirth. “Most doulas in Atlanta are expensive, and we wanted to reach out to immigrants, teenage and single moms, and low-income women, who might not be able to afford such support,” Paniagua says.

One of the goals of the nursing school and Emory at large is to prepare engaged scholars like Paniagua who devote their lives to leadership and service. Scholarships are one way the university enables students to base career choices on what is in their hearts rather than just their bank accounts, and scholarship support is a priority for both the nursing school and the recently launched Campaign Emory. —Rhonda Mullen





To read more stories of the campaign, see pp. 8-13 of this issue, or visit campaign.emory.edu. To learn more about Casa Hogar Los Gorrriones, see casahogarlosgorrriones.org/english/.



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