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A First at Hopkins Saves a Woman's Life

Suddenly, on July 7, Henrietta Bartecki felt a piercing pain on the right side of her abdomen that was the worst she had ever experienced in her life. "It was worse than appendicitis," she says. "I wouldn't wish it on a dog."

All alone, the 84-year-old widow had the presence of mind to dial 911. She remembers asking to go to Mercy Hospital, where her regular doctor practices, but was taken instead to Johns Hopkins, the medical facility closest to her tiny row-house on narrow South Madeira Street. By the time she reached the emergency department, "Man, I was screamin' and hollerin'." She recalls being whisked to the operating room, but then remembers nothing until she woke up in a regular room, after



Born on South Port Street, Henrietta Bartecki worked in a factory making burlap bags most of her life. Today she likes to watch figure skating and wrestling on TV. A new procedure performed at Hopkins saved her life.

several days in intensive care, unaware of what day it was.

Bartecki had suffered a ruptured abdominal aortic aneurysm, a condition so lethal that half of

patients never make it to the hospital alive. An aneurysm, or weak spot in a blood vessel, is most common in the arteries of the brain and in the aorta, and upon rupture, causes severe internal bleeding. Those who survive do so when the leaking blood forms a clot and seals the hole, giving surgeons minutes to

a few hours to intervene.

When Bruce Perler, director of vascular surgery, set eyes on Bartecki in the emergency department, he estimated her chances of surviving an open operation were less than 30 percent. Like most AAA patients, her age and underlying health problems—in her case, hypertension and heart disease—already put her behind the eight ball. Her body had sustained a tremendous shock. If Perler performed traditional surgery, releasing the clot to sew in a graft and repair the aneurysm, she would lose more blood. "It's about as difficult a surgical procedure as we do," he says.

But then Bartecki, whose luck had gotten her to the OR, hit the lottery. Perler realized the woman might be a candidate for a new technology whereby a graft is advanced up to the aneurysm through a small incision in the groin. Meshlike stents are then expanded to hold the graft in place. Although Perler has been using stent grafts for years to repair aneurysms diagnosed in advance, the technique had never been performed emergently at Hopkins to fix a ruptured one. There have been a few hundred cases around the world.

"You have to have the right patient with the right anatomy," he explains. Bartecki needed to

remain stable long enough for Perler to get a CT scan, measure the size of her aneurysm, and make sure he had the right graft available. "Turns out, we had one stent graft in house that was just the right size for her."

Even after the minimally invasive surgery, Bartecki spent two weeks in the hospital recovering, convincing Perler that she very likely would not have survived a traditional open operation.

Today, she is retaining her independence, going out for walks, taking the bus to Highlandtown or the Inner Harbor, and playing bingo with her "lady friends."

"Oh, no, I don't stay home!" ■

The Surgeon Speaks

"It wouldn't have happened unless everything came into place."



Like probably two-thirds of patients who present with a ruptured abdominal aortic aneurysm, Mrs. Bartecki

didn't know she had one until it ruptured. That's why it's called the silent killer. In fact, there's a bill pending in Congress now, promoted by the Society for Vascular Surgery, to get screening for AAA covered by Medicare. A simple ultrasound test can diagnose an aneurysm, and then if it's large and at risk of rupture, you can fix it.

Her case was a beautiful illustration of Johns Hopkins Medicine being as good as we can be. Nursing was tremendous at getting the device and getting an OR ready quickly, interventional radiology, anesthesia, the entire team—everybody came together to help this patient, and it wouldn't have happened unless everything came into place just right.

I think this new stent graft technology represents an enormous opportunity to reduce the mortality of a lethal disease. Despite improvements in intensive care, better anesthesia and better-trained surgeons over the last 30 years, operative mortality for ruptured AAAs has remained at 50 percent; for those over 80 in the state of Maryland, it's 67 percent. So especially for the elderly patient who's too infirm to undergo an open operation, this technology in the elective setting is a major advance. I think using it for ruptures is pushing the envelope, but this is the kind of center that can make it happen.

—Bruce Perler

"It's about as difficult a surgical procedure as we do."

BRUCE PERLER



From Julie Freischlag
Director of Surgery

Leading from the Inside

In today's rapidly changing world, it has become nearly impossible for one all-seeing, all-knowing person to lead an organization alone. It takes a whole group of leaders to come up with solutions to complex problems, particularly in the turbulent environment of academic medicine.

In October, more than 50 nurses, administrators, faculty and residents attended a seminar on this new style of leadership, in which many people lead in their own areas. Surgeons make good leaders because we make decisions quickly, and we can make unpopular decisions when they're called for. Things need to work that way in the operating room. But being autocratic doesn't work when you're trying to build consensus or solve a problem. Then it becomes more important to listen and to take other people's opinions and feelings into account.

How do we make this kind of leadership happen? I believe that, given the right tools, everyone can learn to be a leader. Good communication skills, the capacity for change, and the ability to help others succeed are key. But first we need a set of core values to guide our department. We will be voting on our core values—things, like excellence or teamwork, so essential that you wouldn't belong to an organization without them—at the annual holiday party on Dec. 17.

The message from the conference that resonated most for me is that leadership begins on the inside. No external force can turn you into a leader and defining your core values will determine what kind of leader you are. It's what's inside that inspires people to make things happen, not being told what to do.

My very best wishes for a happy holiday season.

A Radical Operation with Big Benefits

For the severely obese, a way to cure disease, lengthen life.

The Project: Forget Richard Simmons. Since staying thin is his livelihood, he hardly represents the majority of people who struggle with their weight, suggests gastric surgeon Thomas Magnuson. By the time Magnuson's patients reach him at the Johns Hopkins Obesity Surgery Service, they have failed at any number of diets and behavior modification techniques. "Non-operative means of weight loss works maybe 5 percent of the time, long term," he says. "And that's been proven in almost every study ever done."

Although reducing the size of patients' stomachs to help them lose weight seems "kind of archaic," admits Magnuson, gastric bypass surgery offers stunning benefits to the morbidly obese—people at least 100 pounds overweight with significant health concerns. "We don't do the surgery for cosmetic reasons," says Magnuson. Rather, it's done to reverse or prevent obesity-related medical problems, such as diabetes and hypertension. In fact, 80 percent of patients with diabetes, 75 percent with hypertension and 90 percent with sleep apnea are cured with the surgery. "Which is a pretty big deal."

The Players: When Magnuson was a resident at Hopkins during the mid-to-late 1980s, he had never even observed bariatric surgery. Rife with complications and not effective over time, the early procedures fell from favor. But after the National Institutes of Health approved a new surgical technique and created guidelines to identify potential candidates, Magnuson was asked to start a program at Bayview Medical Center. In 1997, he performed the operation—during which a small stomach pouch is created with a surgical stapler and the connecting intestine is reconfigured—in 20 patients. Last year, nearly 300 procedures were done here, and it is now the most common gastric operation at Hopkins.

Since its inception, the Bayview service, which recently applied to the American Society for Bariatric Surgery to become a Center of Excellence, has used the multidisciplinary approach recommended by the NIH. A core group of surgeons, dietitians, nurses, psychologists and anesthesiologists work with patients, but pulmonologists, gas-



Left to right: Dietitian Christine McKinney; surgeon Anne Lidor; Patricia Jordan, NP; Katherine DeRuggiero, patient care manager; surgeons Thomas Magnuson and Michael Schweitzer; psychiatrist Varsha Vaidya; plastic surgeon Michele Shermak.

troenterologists, cardiologists and radiologists are called upon as needed. Obese patients also require special equipment—larger beds, OR tables, patient gowns and wheelchairs.

Recently, surgeons Michael Schweitzer and Anne Lidor have joined the group to do laparoscopic bariatric surgery, one of the most technically demanding laparoscopic procedures. Plastic surgeon Michele Shermak performs body contouring procedures to remove excess skin if patients need it.

One of patients' most important contacts is dietitian Ashli Greenwald, who guides them to healthy food choices and makes sure they keep to the vitamin regimen they must follow for life. The typical patient—a 42-year-old working mother who skips breakfast, snacks at her desk, serves convenience foods to her family for dinner and doesn't exercise—needs lots of support to prevent falling back into old habits, says Greenwald. "Unfortunately, it's the American way."

The Results: Five years after surgery, the average weight loss among the center's patients is 60 percent of excess body weight, "enough to get rid of medical problems," says Magnuson. Fewer than 5 percent of patients regain weight. As with all surgery, there are risks. The center's mortality rate is 0.5 percent, which is the national average, but "reasonably low compared to other abdominal surgeries we do." Complications, such as pulmonary emboli and leakage from where the bowel is sewn together, occur in 1 percent of patients. The center's re-operation rate is less than 0.5 percent.

Magnuson, who follows this set of patients for the rest of their lives, says gastric bypass is the most rewarding operation he does as a general surgeon. "I don't know many other things we can do in general surgery where you actually lengthen someone's life 15 to 20 years, and impact people's quality of life so dramatically." ■

Let's Meet: Breast Surgeon Lisa Jacobs



Curiosity has repeatedly taken Lisa Jacobs to unexpected places. As a child growing up in a two-bedroom trailer on a remote pig farm in the middle of Missouri, she remembers her mother would cut up animal hearts for her 6-year-old daughter to inspect. It incited a lasting desire to study medicine. Jacobs first became a physical therapist, then entered medical school, intending to specialize in rehabilitation medicine. Instead, surgery drew her interest, and she decided to go into private practice. Then came her research year during residency, and she was sidelined yet again, accidentally lighting upon some basic science research into breast cancer. Only then did a career in academic medicine seem evident.

In March, Jacobs joined the surgery faculty at Hopkins, where she is operating on breast cancer patients, setting up clinical research projects, including a study of patients with positive sentinel lymph nodes, and trying to establish a breast cancer database.

"When you do breast surgery, a lot of it is talking to women," she says. "It's an hour-long discussion about treatment choices—and answering more questions than you can imagine."

Jacobs, who has two daughters, 4 and 1, has carved out a lifestyle that she hopes can serve as an example to women—and men—interested in pursuing surgery. "I can operate, but still go home to be with my daughters. There are very few oncologic emergencies." ■

The Ebb and Flow of Translational Research

When the time came to find a faculty position, Malcolm Brock hearkened back to the two years during his training spent out of scrubs in the laboratory. His zeal for research was such that he put off developing a full-time practice in thoracic surgery to investigate how basic science innovations taking place at Hopkins might move from the lab to the clinic. It meant taking a detour into thoracic oncology, but within months of joining medical oncologists Jim Herman and Stephen Baylin in the lab, Brock landed a developmental grant from the NIH protecting 75 percent of his time for four years to hone his research skills.

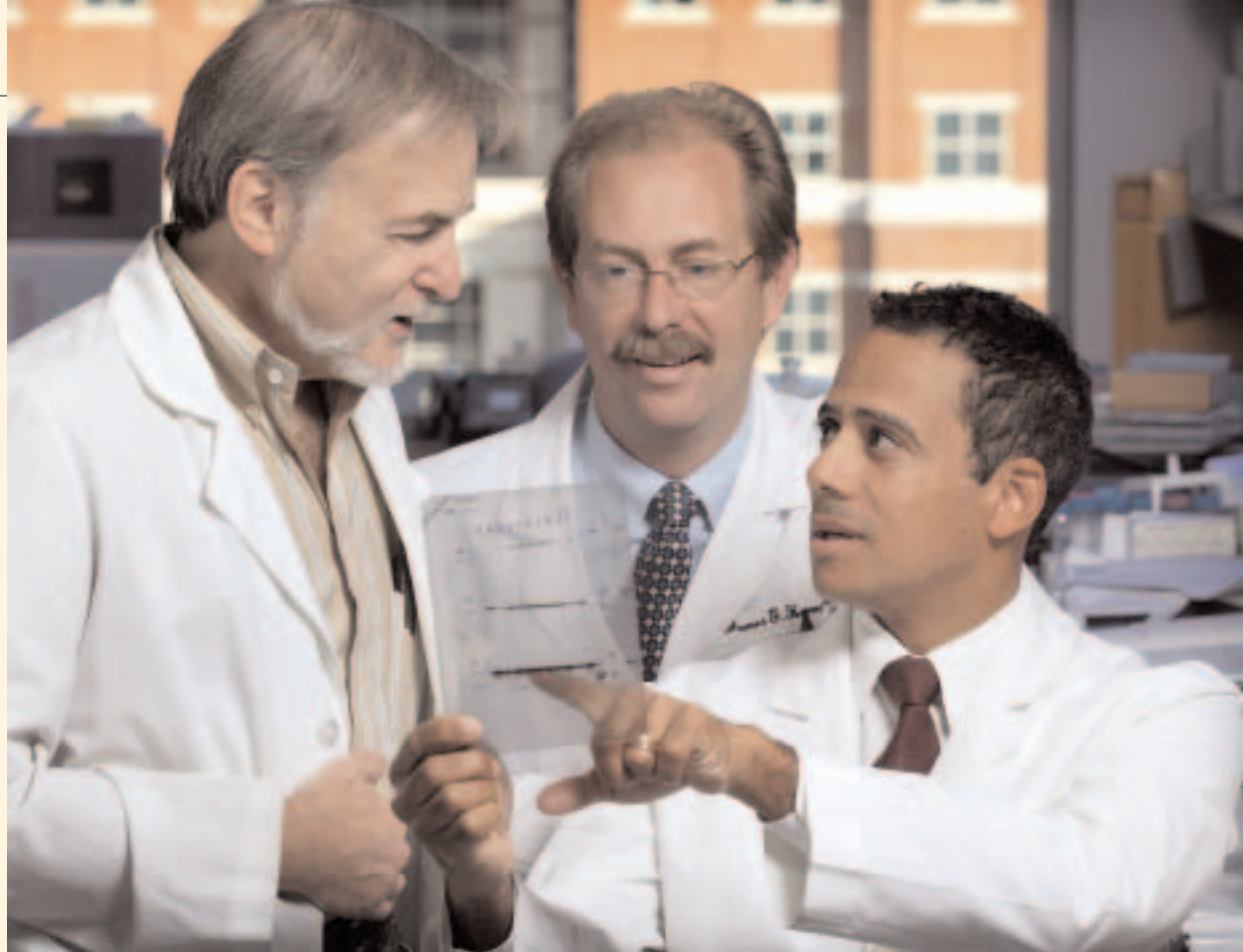
The assistant professor is studying something called DNA methylation to develop early—and easy—tests to detect lung and esophageal cancers. Methylation is con-

sidered to be an early event in cancer development and can be found not just in tumors but in anything containing DNA. “For a thoracic surgeon, it’s useful because it can be found in sputum, in the fluid that bathes the lung, in the blood,” says Brock. “We quickly realized that this assay could be used not only in early detection, but also had the potential of being prognostic.”

Building on the work of Herman, who developed an assay to detect whether DNA has undergone methylation, Brock is using these biomarkers to see whether cancer has spread to adjoining lymph nodes or into the fluid around the lungs—even when under the microscope these tissues show no signs of cancer. “This might be a more efficient way of detecting whether or not you’re going to have a recurrent cancer,” he says.

None of Brock’s many projects, he points out, could

“We quickly realized that this assay could be used not only in early detection, but also had the potential of being prognostic.”



Left to right: Medical oncologists Steve Baylin and Jim Herman collaborate with thoracic surgeon Malcolm Brock.

succeed without the synergy created with fellow surgeons, oncologists and pure Ph.D. scientists alike (“One plus one equals three!”). And perhaps nothing illustrates how elastic the borders are better than the path that led from DNA methylation to HIV patients.

As patients began living longer with new retroviral medications, oncologists in Hopkins’ Moore Clinic noticed more and more lung cancer among HIV patients. Not only were cases more frequent, but they were also quite

deadly—the median survival was only six months. The oncologists paired their observations with the database Brock developed for his methylation work, where he had painstakingly entered every patient’s HIV status. “We hit a button and came up with a bunch of hits,” says Brock.

Although there have been similar reports in the literature, none come close to having the numbers of patients Brock and his team unearthed. “It’s higher than anything else reported,” says Brock, “so there’s probably

some co-factor that’s causing this increased risk in these patients.” After characterizing the epidemiology and biology, Brock plans to conduct a screening study using his biomarkers and CT scans to see if the cancer can be caught earlier.

The work exemplifies how translational research is a two-way street. “We’re starting with methylation and moving into the clinic for our prognostic studies, and starting in the clinic [with HIV and lung cancer] and moving back to the lab.” ■

On the Job

Catherine Casey: Manager of Clinical Operations

“I see myself as their voice at higher-level meetings.”

Catherine Casey’s parents immigrated in 1963 from Ireland to Annandale, Va., where her father set up a practice in internal medicine. The seven Casey children all worked in their father’s office, filing, stuffing envelopes, cleaning in the evenings, and sitting in for the receptionist during summer breaks. The work made for an unexpected introduction to Catherine Casey’s career.

What will you tackle first?

While we’re planning for a surgery consultation suite, I’m spending time helping the

medical office coordinators write uniform policies and procedures for their divisions. I see myself as their voice at higher-level meetings to help them resolve issues.

And after that?

I’ll also be meeting with the other services that interact with our department, like admitting, radiology, the staff of the operating rooms, and the Department of Medicine, which refers patients to us. The point is to open the lines of communication so we have a

better understanding of each other’s jobs.

How many people will you oversee?

Directly and indirectly, about 55. I’ve been introducing myself, and letting people know if they have ideas, my door is open. I can help them get things done, because I was one of them at one point. Recently, for example, in response to complaints about filing getting backed up, the problem was actually that the cabinets were crammed with



Were you always interested in health care?

Actually, I majored in criminology and worked for the Department of Corrections in Virginia. My eyes were wide open when I left. I moved to California without a job, but I knew I wanted to work in medicine. I was hired as an office manager at UCLA, then became a supervisor for the Breast Cancer Center, the billing liaison for surgery, and finally was the manager of patient registration and financial services when I left.

A Gift of Education

In the spring of 2002, Ermaleen Etter had surgery for diverticulitis, a condition that occurs when small pouches bulge through weak spots in the colon and become infected. But the procedure went awry, and she had a second surgery within eight days in which an ileostomy was put in. After almost two months in the hospital, including 22 days in intensive care, she had ballooned to 232 lbs., and developed so many hernias that she measured 53 inches around and was confined to a wheelchair. "She looked like the Michelin tire," says her husband, Owen Etter.

The couple, who live in Leola, Pa., came to Johns Hopkins looking for a better quality of life for Ermaleen, 72. After two more operations performed by surgeons Anthony Tufaro and Kurt Campbell to resect her colon and take down her ileostomy, "she's a walking miracle," says Owen. "They

"She's a walking miracle. They have given my wife back to me."

OWEN ETTER

have given my wife back to me."

Feeling as grateful for the technical skill as for the warmth shown by doctors and nurses, the Etters decided to

establish a scholarship for Hopkins employees who want to become nurses. The first two recipients are Kattie Davis, a clinical technician in the Weinberg and general operating rooms and nursing student at Copin State University, and William Sweet, a surgical equipment specialist attending the University of Maryland.

"We realize what the hospital and the nursing profession

is up against," says Owen, 73, who is now retired from the dairy industry. "We value education." Ermaleen, who taught in a one-room school house in her native Iowa, earned a Ph.D. in early childhood human growth and development while raising four children born five years apart. "We want to give a lift to people who need it." ■

If you'd like to make a gift to the Department of Surgery, contact Boi Carpenter-Mellady, director of development, at 410-516-5483 or bmellady@jhmi.edu. To no longer receive information about supporting Hopkins' Department of Surgery, write to her at One Charles Center, Suite 421, 100 N. Charles St., Baltimore, MD 21201.



Left to right: A recovered Ermaleen Etter with nursing student Kattie Davis, husband Owen Etter, and nursing student William Sweet.

PARTY! PARTY!

Get out your jingle bells for the Department of Surgery's second annual holiday party, Dec. 17 at 7 p.m. at the Museum of Industry. Entertainment will be by the Limited Edition. We expect about 1,000 people to attend this year!

FACULTY NEWS

Department chair **Julie Freischlag** has been named the new editor of the American College of Surgeons' *Archives of Surgery*, and surgeons **Richard Schulick** and **Edward Cornwell** are two new associate editors. Also, **Anthony Tufaro** is now on the editorial board of *Annals of Surgical Oncology* in the section of Head and Neck Oncology ■ Surgical oncologist **Nita Ahuja** won the American Surgical Association Foundation Fellowship Award for two years for her research proposal, "Methylation Profiles in Colorectal Cancer: Utility in Prognosis and Diagnosis." The competitive award is designed to mentor outstanding young surgical faculty investigators ■ Department chair **Julie Freischlag** has been named one of the recipients of Johns Hopkins' ACT (Achieving Competence Today) project. Sponsored by the American Association of Critical Care Nurses, the Association of American Medical Colleges and the Partnerships for Quality Education, the program pairs graduate student nurses and surgical residents. Each team will identify a patient problem in intensive care, investigate it, and come up with a performance improvement plan. Surgery residents **Meghan Arnold**, **Michael Awad** and **Jordan Winter** will participate.

SURGEON GENERAL TO SPEAK

Vice Admiral Richard H. Carmona, United States Surgeon General, will deliver the annual Gardner Smith Lecture on Jan. 6, 2005, at 7 a.m. in the Tilghman Room of Turner Auditorium. He will discuss what he considers to be the nation's top priority health issues, including tort reform. A native New Yorker, Carmona dropped out of high school to join the U.S. Army in 1967, where he earned his GED, joined the Special Forces, and returned a combat-decorated Vietnam veteran. He attended Bronx Community College, and later earned his undergraduate and medical degrees from the University of California, San Francisco, and was the top graduate of his medical school class. He has also worked as a paramedic and registered nurse. Prior to being named Surgeon General, Carmona, a trauma surgeon, was chairman of the State of Arizona Southern Regional Emergency Medical System.

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