

Almost a Miracle

Vivien Thomas and Alfred Blalock: Their story has made physicians weep and teenagers cheer, and this month it comes to television.

class in 1989, Andrea Kalin became so engrossed by a Washingtonian magazine article that she not only missed her class, she left the gym outraged. How could what she'd just read not be common knowledge? How could the whole world not have heard of the black man with only a high school diploma who helped a white Johns Hopkins surgeon launch the modern era of heart surgery?

In 1944, the news spread like wildfire that Hopkins' 45-year-old surgery chief, Alfred Blalock, had successfully operated on the heart of a 9-pound child—a "blue baby" born with a complicated and invariably fatal defect that was starving her blood of oxygen. Blalock was not the first to try repairing the human heart. But his feat made worldwide headlines. It wasn't just that medical experts considered cardiac surgery taboo. They'd believed it was impossible. Now, desperate parents flocked to Baltimore. Almost overnight, Hopkins became the center of the surgical universe.

What wasn't reported, though, was the name Vivien T. Thomas. Indeed, only a handful of Hopkins people themselves understood why, as Blalock prepared to make his historic incision, he looked around the operating room and asked, "Where's Vivien?" Blalock would not begin until Thomas, scrubbed, gowned and masked, was stationed on a stool be-

Watch "Partners of the Heart" Monday, Feb. 10, at 9 p.m. on MPT in the Baltimore metropolitan area or WETA in Washington, D.C. The production also will be available on DVD and VHS. For details and other highlights, go to www.partnersoftheheart.com.

hind his right shoulder. At a time when racial segregation was an immutable fact of life, the two men stood together, Blalock wielding the scalpel and placing the sutures, Thomas watching every move and quietly answering the surgeon's questions. For it was Thomas whom Blalock had relied on to work out the details of the procedure in dogs. As Blalock's surgical laboratory technician, it was Thomas who'd performed the surgery dozens of times. Blalock had been through the steps only

The enormity of that day alone was enough to rivet Andrea Kalin's attention. But it was the rest of the story—of a seemingly impossible scientific partnership spanning nearly 35 years—that gripped her heart.

A broadcast journalist who'd begun to feel boxed in, Kalin had just launched her own production company, Spark Media. She wanted independence, the freedom to use all her talents, and, most of all, the chance to challenge the way people think. With the Washingtonian a ticle ("Like Something the Lord Made," which garnered its author, Katie Mc-Cabe, the 1990 National Magazine Feature Writing Award), Kalin knew she'd

"You just don't come across stories like this every day," she says. "What grabbed me was the universality—the fighting against all odds. I was very moved by Vivien Thomas's dignity. Despite everything, he rose above it all."

Thomas had wanted to be a doctor. The son of a master carpenter in Nashville, Tenn., he'd saved for years to go to college. Then came the Great Depression. In 1930, his money gone, carpentry work scarce, the 19-year-old applied for a laboratory job at Vanderbilt University. His boss would be Alfred Blalock, an up-and-coming surgeon with a medical degree from Johns Hopkins and a devilish research project on his

mind. In hiring Thomas, Blalock said he wanted someone he could teach to do anything he could do, and maybe some things he couldn't. Within weeks, the young man who'd never before seen the inside of a lab was giving anesthesia, setting up experiments and keeping detailed notes. He began mastering anatomy and physiology. And, as Blalock's experimental work on shock progressed, Thomas learned surgery.

In 1941, Hopkins asked Blalock to return as head of surgery. One reason was his groundbreaking finding. With

Blalock looked around the operating room and asked, "Where's Vivien?" He wouldn't begin until Thomas, scrubbed, gowned and masked, was stationed on a stool behind his right shoulder.

Thomas carrying out his experiments, Blalock had demonstrated that shock is caused by blood loss—a discovery that would save thousands of lives in World

Blalock accepted Hopkins' offer, asked Thomas to accompany him, and told Hopkins they were a package deal. Yet even with the pay increases Blalock had wangled for Thomas at Vanderbilt, his official job category there had always remained the same: janitor.

In Baltimore, Thomas set up and ran Blalock's research lab. When instru-

ments weren't available to accomplish what Blalock wanted, Thomas invented them—including the tiny needle the surgeon used in the blue baby operation. And as Blalock was thrust into the limelight, Thomas took on even more responsibility. Students and interns studying under Hopkins' worldrenowned surgery chief were also learning their surgical techniques from a former carpenter's apprentice—a man who had yet to relinquish his dream of someday going to medical school.

Cardiac surgery pioneers Alfred Blalock

and Vivien Thomas.

Outside the lab, the Jim Crow world remained. Baltimore, like the South where Blalock and Thomas were born and raised, was segregated. The very sight of Thomas in his long white lab coat was enough to stop traffic. Almost until the year of Blalock's death in 1964, Hopkins had separate treatment wards, blood banks, dining facilities, water fountains and restrooms. The intellectual plane where Blalock and Thomas met could not become a social friendship. Neither ever spoke publicly on race relations. In many ways, they played by the rules. Yet from the beginning, they'd also made their own.

Blalock often threw cocktail parties, and Thomas frequently attended them—as the bartender. He needed the extra income. And he liked going, even if it meant he was serving drinks in the evening to some of the very people he was teaching during the day. That's where he'd get to hear and be part of the stories the doctors (he called them his "wheels") would tell. Such was not the case, however, at Blalock's 60th birthday party. Some 500 guests were invited, but Thomas, who would have been barred from walking in the front door of the hotel, had to watch the festivities from the sidelines.

Thomas never sought acclaim (though it did find him). In his autobiography, begun after he retired from Hopkins in 1979 and published two days before his death in 1985, he wrote, "I had always taken my activity in life as a purely personal matter, yet now I began asking myself questions: Was my story worth the effort? Would others really be interested?"

f Andrea Kalin's answer to Vivien Thomas was instinctive, her determination to shine a nationwide spotlight on him has been relentless. Now, a dozen years after she first discovered the story, her production, "Partners of the Heart," is airing across the country Feb.10 at 9 p.m. on PBS.

Having worked in the 1980s as an archivist on filmmaker Ken Burns' meticulously researched documentary "The Civil War," Kalin knew "Partners" had to be both vivid and historically accurate.

"There is no comprehensive piece on either Thomas or Blalock," she says. "I didn't want to fall into the mythology surrounding either one, or tell the story in a revisionist way. They were both highly complex men, not easily understood on the surface. Their opiate was their passion for their work. They kind of blocked out the rest of the world.

"I could see Vivien over Blalock's shoulder, the two in a rhythm no one else could follow, in sync with an almost unwritten code. I wanted to describe and show this partnership-without dictating it. Still, the irony of the day just slaps you in the face. Vivien knew he played a valuable role. Was he bitter? No. Was there pain, was there disappointment? Yes. He understood there were circumstances beyond his control. I think the strongest line in the film is, 'The two men stood elbow to elbow with a single focus on the operating table two men who could not share the same

lunch table in the Hopkins cafeteria.' Kalin admits that getting the produc-

tion started, and finished, was tough. The first grant she applied for was rejected ("Partners" is funded by the National Endowment for the Humanities and the Corporation for Public Broadcasting). Family members on both sides initially greeted her with skepticism. Funding would appear, evaporate, reappear; crew members came and went. "In telling this story," she says, "I felt tested in some way. There were times it would have been easier to quit. A lot of people had died, and as the production dragged on, I felt like I was losing my liv- Kalin and her crew stitched their own, ing storytellers. That saddened me. I felt like I got to the story too late."

But among those who kept Kalin going were people all over the country willing to drop whatever they were doing to talk about Thomas and Blalock. "We could have made a film called 'Crying Doctors', she says. "Years after both men died, people still had such strong memories and would become so emotional in talking about them."

Also rooting for Kalin were the project's medical and historical experts, including Hopkins professor of pediatric surgery emeritus Alex Haller, who trained under Blalock and Thomas, and Hopkins cardiac surgeon Levi Watkins, the first African-American medical student at Vanderbilt and the first African-American cardiac surgery resident at Hopkins. All the advisors, Kalin says, helped her understand context. "For example, everyone talked about how



"Partners of the Heart" producer and director Andrea Kalin.

Thomas and Blalock followed a very Southern script, how significant it was that they would share an after-hours drink together in the lab, which they couldn't do in public. That wasn't in the first cut of the film."

Kalin's attention to such nuances is evident in every scene. Untutored eyes, for instance, may register the re-creation of the blue baby operation as simply taking place in an old operating room. But surgeons who remember those days are bowled over by set details like ether cups. Even the surgical gowns look authentic: Unable to find vintage ones, copying from period photographs. "We who worked on this story," she says, "lived and breathed it. It became an extension of us."

Even the delays turned out to be positive, allowing producers to take full advantage of improving technologies. A Web site (www.partnersoftheheart.com), for example, explores issues raised in the film: the history of heart surgery, segregation laws, black Nashville in the 1930s and more. Furthermore, a DVD, available through PBS, includes minidocumentaries, a director's audio commentary and a behind-the-scenes look at the entire project.

"I think what I'm most proud of," says Kalin, "is that GlaxoSmithKline is funding a scholarship in recognition of Vivien Thomas's historic achievements. The new scholarship will be administered by the Congressional Black Caucus Foundation. That's how he should be remembered."

Still, the most potent measure of Kalin's personal satisfaction has come in the reactions of two very different audiences. "High school students who've seen the whole film applauded when Thomas gets his honorary degree from Hopkins," she says. "In festival screenings, we've been deluged by African Americans who don't know this story."

And from the scariest critics of all?

"I watched the film with Blalock's and Thomas's families," says Kalin. "Both were very appreciative of the way I portrayed their parents. "Dandy Blalock said, 'I learned things about Dad I didn't know.' And Clara, Vivien's wife, jumped up and gave me a hug. 'My God!' she said. 'Now I know what you've been doing all these years." -Mary Ann Ayd



Two Lives Changed by Vivien Thomas

It wasn't only surgeons with whom Vivien Thomas shared his skills. In the early 1960s, he began recruiting employees from other parts of Hopkins Hospital to work in the Surgical Training Laboratory, helping residents, fellows and physicians carry out their research projects. Among his finds were Jerry Harris and Jean Queen.

Thinking he might want to become a nurse, Harris had signed on with the Hopkins Emergency Department in 1965. His duties included moving patients, taking blood samples to the laboratory, and cleaning. It didn't take him long to conclude that nursing wouldn't be for him.

He was about to move on when his friend Raymond Lee—a former hospital elevator operator and Thomas's first protègè—told him about an opening in the Surgical Training Lab. Under Thomas's tutelage, Harris soon found himself intubating animals, administering anesthesia and learning experimental surgery. One of the most important lessons Thomas taught was how to care for the animals. "He impressed on us that they are our patients," says Harris, "and to treat them accordingly. He'd say, Just like doctors, you make rounds every day. You make sure the animals aren't in pain."

In 1969, Vivien Thomas brought Jean Queen into the lab to keep track of supplies. At the time, she was a 10-year Hopkins veteran who'd started in the hospital laundry, then switched to Central Supply. "When I came up here," she says, "there were so many things I wanted to learn, and Mr. Thomas was willing to teach me. There wasn't someone saying, You can't do that." Queen, too, became one of Thomas's cadre of surgical techs.

What both Harris and Queen remember most about Thomas was his constant encouragement. "When I met him," says Harris, who today is supervisor of animal services in the Department of Comparative Medicine, "I was surprised—not so much that he was black, but by what he knew. No matter what you wanted to do, he was always urging you to keep learning. He'd say, I did these things, and you can too; all you have to do is apply yourself."

"As long as you were learning, he was happy," agrees Queen, now the purchasing agent for Hopkins' Minimally Invasive Surgery Training Center. "Just being around him made you strive that much more."

Not To Be Missed

Feb. 3: Fourth Biennial L. Stephan Levin, M.D., Lecture. East Baltimore campus, Hurd Hall, 5:30 p.m. Michael Cohen Jr., professor of oral and maxillofacial pathology, pediatrics, health services administration, and sociolog and social anthropology at the University of Dalhousise in Halifax, Nova Scotia, on "Craniofacial Anomalies: Clinical and Molecular Perspectives." The lecture is sponsored by Hopkins' Department of Otolaryngology-Head and Neck Surgery.

Feb. 5: HIPAA and Research. East Baltimore campus, Hurd Hall, 4 p.m. to 6 p.m. Joanne Pollak, Hopkins Medicine vice president and general counsel, and Carol Richardson, the HIPAA privacy officer, discuss the impact of the Health Insurance Portability and Accountability Act on research at Hopkins. Learn what you need to do before April 14 to prepare for the new regulations. There will be time for questions and answers. All are wel-

Feb. 10: Dean's Lecture. East Baltimore campus, Hurd Hall, 5 p.m. Cynthia Wolberger, professor of biophysics and biophysical chemistry, on "Molecular Mechanisms of Eukaryotic Gene Regulation." A reception follows in the Doctors Dining Room.

Feb. 11: Town Meeting. East Baltimore campus, Hurd Hall, noon to 1 p.m. Dean/CEO Edward Miller and Hopkins Hospital and Health System President Ronald Peterson discuss what's going on throughout Johns

Hopkins Medicine. To submit questions, email jhmedicine@jhml.edu or fax to 410-955-8255.

Feb. 12-13: Hopkins Hospital Blood Drive. East Baltimore campus, Turner Concourse, a.m. to 7 p.m. Donors receive a free T-shirt and snacks. To sign up: 410-614-0913.

Feb. 14: Child Safety Seat Checks. East

Baltimore campus, Caroline Street Garage, lower level, 11 a.m. to 3 p.m. In observation of National Child Passenger Safety Week, the Children's Center Child Passenger Safety Team is hosting a child safety seat check. Details: 410-614-5587. Feb. 19: Heart Matters. Howard County

General Hospital, Wellness Center, 8:30 a.m. to 6 p.m. Find out what shape your cardiovascular system is in. Evaluations include a blood pressure screening, height and weight measurements, and a cholesterol test with specifics on HDL, LDL and triglyceride levels. Cost is \$25. Details: 410-740-7601.

Feb.19: Recent Advances in Cardiology: Prevention, Diagnosis and Treatment. Sheraton Columbia Hotel, 10207 Wincopin Circle, Columbia, Md., 7 p.m. to 9 p.m. Free educational program about heart disease, presented by physicians from Howard County General Hospital and Johns Hopkins Medicine. Details: 410-740-7601.

Feb. 20-21: Nuts and Bolts of Community-Based Participatory Research. East

Baltimore campus, School of Nursing, 9 a.m. to 5 p.m. and 9 a.m. to 3 p.m. Workshop sponsored by the Johns Hopkins Urban Health Institute, featuring presentations by faculty from the schools of Medicine, Nursing and Public Health, and small-group discussions with faculty and students. Details: Lee Bone, 410-955-6887 or lbone@jhsph.edu.

Feb. 22: JHU Alumni Association 10th Annual Mid-Winter Ball, "Casino Royale." Homewood campus, Ralph S. O'Connor Recreation Center, 8 p.m. to midnight. Enjoy a sumptuous repast, dance to the sounds of "Mood Swings," a 21-piece dance orchestra, and try your luck in the casino. Black tie preferred. Directions and parking information will be sent with your reservation confirmation. Dues payers and guests, \$70 per person; others, \$75 per person. RSVP: Office of Alumni Relations, 3211 North Charles Street, Baltimore, Md. 21218. Phone: 410-516-0363; fax: 410-516-6858; e-mail: irubin@jhu.edu.

March 10-14: Type for Life. East Baltimore campus. Fourth annual student-organized drive provides free registration with the National Marrow Donor Program. Requires a short health questionnaire and small blood sample to determine your tissue type, which is then entered into the NMDP's database and searched daily by patients needing marrow transplants. Locations: March 10, 113 Preclinical Teaching Building, 8 a.m. to 5 p.m.; March 11, JHH Broadway Corridor, 8



Celebrating with Pediatrics Chairman George Dover and friends.

Feb. 27-March 2: Radiothon 2003. Fourteenth annual Mix 106.5 fund-raiser to benefit patient care at the Children's Center, hosted by the radio station's morning team, Jo Jo Girard and Kenny Campbell. Last year's event generated more than \$1 million. To volunteer, call Paula Shell at 410-516-4517 or e-mail pshell@jhmi.edu. To submit a patient story, call Holly Hamilton, 410-516-4934 or e-mail hhamilto@jhmi.edu.

a.m. to 6 p.m.; March 12, School of Nursing, Carpenter Room, 8 a.m. to 5 p.m.; March 13, School of Public Health, Anna Baetjer Room, 8 a.m. to 5 p.m.; March 14, JHH Broadway Corridor, 8 a.m. to 6 p.m. Details: www.typeforlife.org.