

## Robert Michler, M.D., '81: Captain of the ship

By Jennifer Durgin

Dr. Robert Michler's headlamp keeps slipping out of place. It may seem a tiny matter in this high-tech operating room, but the light needs to be at exactly the right angle to illuminate the area of the heart he's operating on. Each time the lamp shifts, he carefully adjusts it again with a surgical tool he keeps nearby just for that purpose.

So when the cardiothoracic surgery fellow assisting him leans a little too close and bumps Michler's lamp with his head, Michler scolds, "Come on. You've got to be careful about hitting my light. . . . Look at the monitor."

Everything that Michler sees is being filmed by a small camera on his headlamp and projected on a monitor above the operating table.

There's not enough room for two people to peer into the body cavity itself at the same time, but the monitor provides a magnified view of the fine, delicate movements of Michler's scalpel as he cuts away thickened muscle from the interior of the patient's aorta.

The patient, a man in his mid-fifties, has multi-vessel coronary artery disease (a condition that reduces the flow of blood to the heart muscle), a thickening of the heart wall (a condition called idiopathic hypertrophic subaortic stenosis), and several blockages in the heart itself. After Michler carves away excess muscle tissue from inside the man's heart and aorta, he and the surgical fellow will perform a quadruple bypass. A vein taken from the man's leg will be used to create four alternate routes for blood to bypass the clogged portions of the coronary arteries and flow into the heart tissue. It's a complex case but a typical one for Michler, who is chair of cardiothoracic surgery at Montefiore Medical Center in the Bronx.

"There is nothing in the field of heart disease and heart surgery that I haven't seen or dealt with," he states matter-of-factly. "That is a wonderful place to be in one's career. There is nothing that I can see today that would surprise me or throw me for a loop. That's great for patients. [And] great for my team, because they learn."

Nearly all of the cardiothoracic (CT) surgeons currently at Montefiore trained under Michler at some point during their careers and have come to the institution since Michler arrived there in 2005. Knowing the capabilities of his team so well is "huge," he says. "I know what will happen at 2:00 or 3:00 in the morning . . . when all hell

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**Grew up:** San Diego, Calif.

**Education:** Harvard University '78 and Dartmouth Medical School '81

**Training:** Columbia-Presbyterian Medical Center and Boston Children's Hospital

**Estimated number of heart operations he's done:** Over 5,000

**Most unusual award he's received:** The Order of Christopher Columbus, presented to him in 2003 by the president of the Dominican Republic for his humanitarian work

**Media coverage of his work (besides this profile):** *Life*, *Time*, *New York Times*, *New York Times Magazine*, and *ABC World News Tonight*

**The monitor displays the delicate movements of Michler's scalpel as he cuts away thickened muscle.**

breaks loose." When asked whether his superiors are concerned about the almost complete turnover of CT surgeons since his arrival, he gives a coy smile and quips, "The good news is I am my superior," as if to say he takes a buck-stops-here, captain-of-the-ship responsibility for his work. But Michler actually has two superiors: the CEO of the medical center and the dean of Albert Einstein College of Medicine, the primary medical school affiliated with Montefiore.

Although direct and brusque in the operating room, Michler is warm and engaging when he's talking with colleagues, leading a meeting, advising a patient, or chatting with a potential trustee of the medical center. His boyish face, friend-

ly manner, and broad smile temper his take-charge personality and towering six-foot-four frame. (He usually operates barefoot; otherwise, he explains, it's hard to get the table high enough.) He can be humble, too. "I have been given a gift," he says, while scrubbing his hands and forearms outside of the operating room. "I love what I do." Being a surgeon gives "me an incredible sense of being able to make a difference every single day."

By any measure, Michler does make a difference in the world—a huge difference—in the lives of the 300 to 400 patients a year on whom he operates, in the research projects that he leads, and in a nonprofit called Heart Care International that he founded with his wife, Sally, in 1995. Each year, Heart Care International sends 150 heart surgeons, nurses, perfusionists, and other specialists—along with 15,000 pounds of equipment—to impoverished countries to perform cardiac surgery on children.

Humanitarian work is not usually associated with "the high-powered field of heart surgery," Michler notes. "Yet what I've found is that there are many, many people who are interested in this sort of work at all levels and are committed to doing it. They just need a vehicle to do it." Thanks mostly to private funds, Heart Care International provides that vehicle. The organization has directly helped close to 700 children in Guatemala, the Dominican Republic, and El Salvador. And many hundreds or even thousands more have benefited indirectly, because the visiting specialists also train local medical staff in how to better diagnose and treat heart disease.

"There's no shortage of intellect anywhere in the world, whether

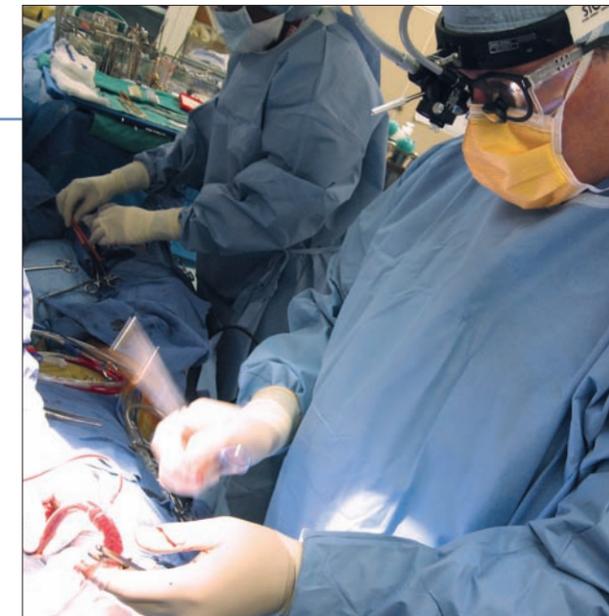
it's a developed country or a developing country," says Michler. "There are talented, smart, engaging, and gifted people [everywhere]. Our role is to really give those people the confidence to do [themselves] what we do on an everyday basis."

Many of the children helped by Heart Care International have told Michler they want to be a nurse or a doctor. Michler himself was only 10 when he first dreamed of being a heart surgeon. It was 1967—the year of the world's first heart transplant, performed by Christiaan Barnard in South Africa. "From that year forward," he recalls, "I knew I wanted to be a heart surgeon."

Perhaps that early commitment to the field is why his education, training, and career have followed such a smooth trajectory. After earning his undergraduate degree at Harvard in 1978, Michler came straight to Dartmouth and received his M.D. in 1981. He trained for nine years in general and cardiothoracic surgery at Columbia-Presbyterian Medical Center in New York. He then served as chief resident in cardiothoracic surgery there, and as chief resident in pediatric cardiothoracic surgery at Boston Children's Hospital.

From 1990 to 1997, he was on the faculty at Columbia and directed both the cardiac transplantation program and the cardiac transplantation research laboratory. In 1997, he became the chief of cardiothoracic surgery and thoracic transplantation at Ohio State University Medical Center, and in 2000 the executive director of Ohio's new heart hospital. With the same intensity that "I learned the field of heart surgery," explains Michler, "I learned the business of running a hospital, the life of philanthropy, the importance of development, the importance of seeing medicine in a big picture, how it impacts society as a whole, what our responsibilities are—not just as physicians but as institutions, how we translate health care to make it effective and to make it available to everyone."

Then in 2005, Michler returned to New York and assumed his current position. At Montefiore, he chairs cardiothoracic surgery and codirects the Montefiore-Einstein Heart Center (which unites his department with the cardiology department). He also leads several research projects, chairs the surgical therapy committee, and serves as a local principal investigator for a trial called Surgical Treatments for Ischemic Heart Failure (STICH), which includes 90 medical centers in more than 15 countries. The STICH trial is trying to determine the best treatment for patients with heart failure and coronary heart disease. "Is it just maximum medical drugs? Is it bypass surgery? And if



DMS graduate Robert Michler, chair of cardiothoracic surgery at New York's Montefiore Medical Center, is all business in the OR but all heart underneath.

the heart is dilated, should it be reshaped?" Michler says those are among the questions being asked by STICH. The answers may "change the way we treat patients with heart disease in this country and around the world."

Michler is also excited about stem cell research as it relates to heart disease. For example, throughout the U.S., numerous early clinical trials are under way using stem cells from bone marrow and other parts of the body to try to regenerate coronary vessels and muscle tissue. He and his colleagues at Montefiore are contributing to this field, too, as well as pursuing a different

avenue. They're studying whether stem cells that naturally exist in the heart can boost immune tolerance for heart transplant patients. This past fall, Michler's team extracted and grew stem cells from a dog's heart. After performing a heart transplant on the dog, they injected the stem cells into the new heart. The hope is that they will make the dog's immune system see the new heart as more "self-like" and prevent rejection. If the treatment proves safe and effective in animal models, Michler hopes to be able to test it in humans in a few years.

Surgeon. Administrator. Researcher. Nonprofit founder. Not to mention husband and father. Michler and his wife have three daughters—ages 19, 16, and 12. Balancing all these roles can be a challenge. "What I have learned over the years is that I have to schedule the time" for family, he admits. "If the kids have something going on, I block it off my schedule."

He has also engaged his family in his nonprofit work. His 16-year-old daughter, who dreams of being a pediatric cardiologist, has gone on three Heart Care International missions. She is even forming an organization herself to bring high school students to Latin America to help out in orphanages and hospitals.

Michler has inspired many other people, in addition to his daughter. In fact, several of his former trainees eagerly joined him at Montefiore, suggesting he's an effective and admired mentor, too.

During the operation on the man with heart disease and idiopathic hypertrophic subaortic stenosis, another surgeon stops by to observe a particularly tricky part of the procedure. He and the surgical fellow look on with intense concentration, asking Michler occasional questions about his techniques. "You do whatever works," Michler says at one point. "There's no magic." Beneath the operating table, his large, bare feet rest on a towel. It's what works. ■