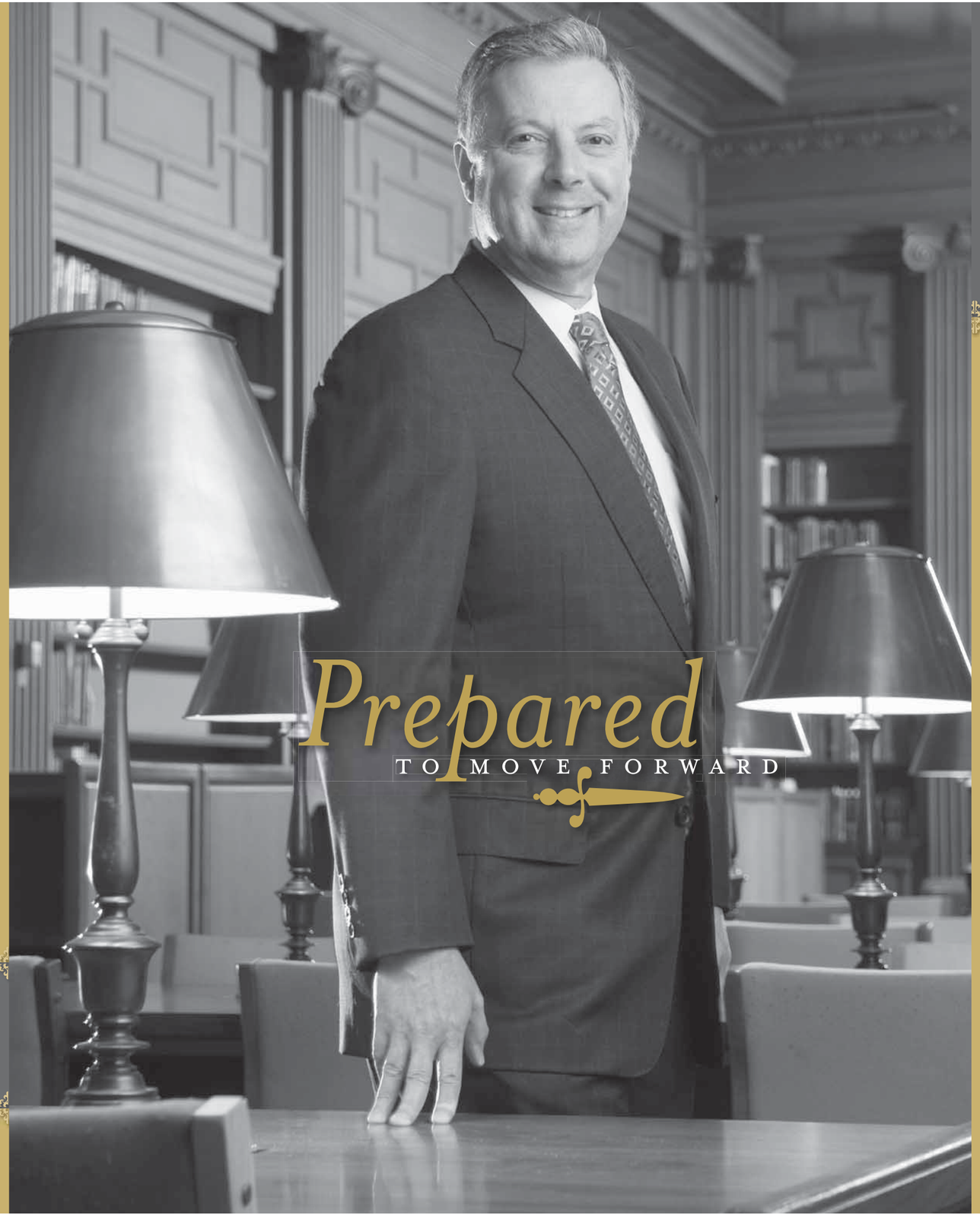

Prepared TO MOVE FORWARD

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Michael E. Cain, MD, steps in as dean

When you first meet and talk with Michael Cain, MD, the new dean of the School of Medicine and Biomedical Sciences, you have the distinct impression that his idea of "being in the right place at the right time" has more to do with preparation than luck—*lots* of preparation.

The 56-year-old Cain, whose tenure began on November 1, 2006, is a physician-scientist who has spent his career patiently challenging himself to master all the small steps necessary in order to move decisively and competently when big opportunities arise.

And he makes it clear that coming to Buffalo to lead the UB School of Medicine and Biomedical Sciences is one such opportunity.

"All the elements are here," he says, ticking off components of the school that clearly he has weighed as much for their latent potential as for their proven track records. "We have a large and engaged clinical faculty, strong basic-science core groups, and productive affiliations with UB's [New York State] Center of Excellence in Bioinformatics and Life Sciences."

These strengths, he notes, are further bolstered by university-wide strengths that include four other health-science schools, "a strong fundamental physical sciences group on the North Campus," and the School of Engineering and Applied Sciences, to name a few.

While Cain acknowledges that "all the elements are here," it's evident that his statement prefaces a larger vision that will unfold in the months and years ahead.

A big challenge for academic medicine, he says, is to integrate all the disparate phases in the "continuum of discovery"—from basic-science hypothesis testing, to proof-of-concept clinical trials, to large-scale multicenter trials—so that, ultimately, those discoveries can move along the continuum into the community where they can positively impact public health.

Key to making this happen at UB, Cain says, is for *all* faculty—basic and clinical alike—"to have a sense that they are participating in an effort that they recognize and buy into as being much bigger than their individual parts."

To do this, he adds, "It will be important to raise the level of consciousness among the faculty that the process of discovery, in the end, requires a multidisciplinary team. Everybody has a critical role to play if we are going to achieve our goal of making advances in health-care management."

Integral to this, he says, is ensuring that the school educates and trains highly qualified students who reflect the diversity of the communities they will serve and who will work to ensure that clinical treatments—both new and standard—impact as large a portion of these populations as possible.

Cain, who formerly served as Tobias and Hortense Lewin Professor of Medicine, professor of biomedical engineering, and director of the Cardiovascular Division at Washington University in St. Louis, says his vision of "what the UB School of Medicine and Biomedical Sciences is capable of achieving" is predicated on his "having had the opportunity to experience firsthand this continuum of discovery"—a process he at times refers to as "fun."

So, where does the fun part come in?

Again, for Cain, it appears that this aspect of the process is closely allied with the concept of preparation—in particular, being prepared to make the most of opportunities when they arise, a theme that recurs when he describes his career path.

Building Blocks

Cain grew up in the suburbs of Philadelphia, the only child of a father who worked as a salesman and a mother who was a homemaker.

He says that by the time he was in high school, he had set his sights on being a physician, a goal that figured carefully in his choice of colleges.

"When it came time to look at colleges," he recalls, "two things drove that decision. One was that I wanted a small liberal arts college and, second, I wanted a college that had a strong scientific background and an excellent track record for graduates to gain entrance into medical school."

A third factor, he adds, "though not as important," was the fact that he was a competitive swimmer who specialized in freestyle, both sprints and distance. "So, I wanted to go to a college where I could compete in swimming and have a reasonable chance to fare well at that particular level of competition."

All three criteria led him to Gettysburg College, where he graduated cum laude with a degree in biology in 1971.

As he prepared to apply to medical school, both academics and family factored into his decision process.

"In part, because I am an only child, I felt it important to be within a few hours' commute of my parents," Cain says. "Also, up until that time in my life, 'everyone' lived somewhere between Boston and Washington, DC, so I wanted to remain on the East Coast for medical school and ended up selecting George Washington University.

"At the time I was in medical school, it was the height of the Nixon-Watergate Era and the Vietnam War," he notes, and with a smile, adds: "Washington is always an exciting place to live, but this time was particularly exciting."

While in medical school, Cain met his future wife, Peggy, who had graduated with a degree in chemistry and was working in a biomedical research laboratory next to the one in which he was working.

"We started to date and the dating became more serious, and we were engaged," he recalls. "She wanted to be married in her hometown, and that was St. Louis, although she had left St. Louis '*never* to return'," he says, chuckling.

The couple set the wedding date for the first weekend in October during Cain's fourth year of medical school. To make planning easier, they decided it made sense for him to try to arrange for an elective at Washington University in September—just long enough for them to be in St. Louis to attend pre-wedding events and marry before returning to the East Coast.

All went according to plan. Cain was successful in arranging an elective at the university's Barnes Hospital (now Barnes-Jewish Hospital), and the couple was married the last weekend of his four-week rotation.

By that time, Cain had decided that he wanted to pursue a career in internal medicine and had begun interviewing for internship and residency slots. He was competitive for top programs in the nation, and he and Peggy were planning to live "somewhere between Boston and Washington, DC."

In the meantime, however, things took an unexpected turn.

"I had become very impressed with Washington University and Barnes Hospital," Cain recalls, "and so, to my wife's dismay, I ended up applying there and interviewing."

Although he was interested in Washington University, Cain listed it as his second choice in the match process, with his first choice being "a place in Boston."

Match Day rolled around and the envelopes were handed out. "Again, much to my wife's dismay, I placed at Washington University," Cain says—"and it was probably the best second-place finish I ever had."

That summer, the couple packed up and moved to St. Louis.

New Fields to Explore

While in medical school, Cain had discovered that he was "fascinated by cardiovascular disease," an interest that was "reinforced and affirmed" once he entered residency training.

"At the time there were a lot of advances in understanding how the heart and our vascular system work and the mechanisms of disease," he explains. "With this understanding, I saw that one could then have a greater opportunity to find interventions that actually have a favorable impact in that disease process.

"Unfortunately," he adds, "heart disease was, and remains, the number-one killer in our country—as it now is in many other countries worldwide."

On a more personal level, Cain says he was drawn to medicine and cardiology because he enjoys working with both his head and his hands. "I'm a hybrid of sorts," he says, "and the field of medicine, overall, has great flexibility. I wanted to find something to do that I not only was good at but, as importantly, enjoyed."

While completing his internal medicine residency and his cardiology fellowship, the latter of which included both a research and clinical component, Cain became interested in the heart's electrical system.

"This was a new area of medicine, birthed in the mid-1970s and early 80s, that studies the heart's rhythm," he explains. "Our heart generates electricity that drives and activates the heart's pumping mechanism. It is a beautiful system when it works. But it's prone to abnormalities that result in the heart's rhythm going either too slow or too fast. The ultimate abnormal heart rhythm is called sudden cardiac death, a condition where an individual suddenly develops a lethal abnormal heart rhythm and literally drops dead."

This study of the heart's electrical system—which has since evolved into the subspecialty of cardiac electrophysiology—involves the use of heart catheters specially equipped with electrodes that allow doctors to explore the intricate components of the heart's electrical system to a much greater degree than is possible through standard cardiac catheterization or noninvasive EKG.

"With these catheters," Cain explains, "you can stress the individual components of the heart's electrical system and determine whether they respond normally. You can also identify where there are problems in the heart's electrical system. Once you understand the problem, [the catheters] can be utilized to actually cure most abnormal heart rhythms through an approach called radiofrequency ablation. During this procedure small but destructive pulses of electrical energy are delivered with precision that destroy the tissue that is causing the abnormal rhythm."

At the time Cain completed his research and clinical cardiology fellowships in 1980, the study of electrocardiophysiology was so new, training was available at only three or four places in the country, and Washington University was not one of them; however, the University of Pennsylvania was.

"I was able to arrange an additional 19 months training there, recalls Cain, "so Peggy and I went back to the East Coast.

On a more personal level, Cain says he was drawn to medicine and cardiology because he enjoys working with *both his head and his hands.* "I'm a hybrid of sorts," he says, "and the field of medicine, overall, has *great flexibility.* I wanted to find something to do that I not only was good at but, as importantly, enjoyed."

"And then, to her dismay," he says with a wide smile, "we went back to Washington University, where I was asked to establish a cardiac electrophysiology program in St. Louis."

Upon their return, in July 1981, Cain joined the faculty in cardiology at Washington University and was named director of the Clinical Cardiac Electrophysiology Laboratory.

"I then had the fun of establishing a clinical cardiac and clinical investigative cardiac rhythms service," he recalls.

Cain served as director of the laboratory for 12 years, during which time he guided it to international prominence. In 1993 he was asked to lead the university's Cardiovascular Division, which, at the time he left Washington University to come to UB, was comprised of 200 members, including 72 full-time faculty.

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Daniel P. Kelly, MD, current director of the division, has known and worked with Cain for approximately 20 years, first as a cardiology fellow in training and then as a colleague.

"Michael has been a leader in cardiovascular medicine as well as in the subspecialty of cardiac electrophysiology," says Kelly. "He was a pioneer in developing clinical electrophysiology at Washington University in the 1980s. During this period, he pioneered a research program focused on developing novel methods of identifying patients at risk for sudden death using sophisticated ECG approaches in collaboration with [the university's] Electrical Engineering Department. He also helped pioneer innovative cardiac surgery approaches to heart rhythm disorders in collaboration with the renowned surgeon Dr. James Cox.

"In addition to Michael's extraordinary contributions to cardiovascular medicine and his leadership qualities that steered the Cardiology Division to great heights at Washington University, he is a wonderful person," Kelly adds. "He is a patient, insightful and caring individual who truly cares about the education and career development of physicians and physician-scientists. Lastly, he has an extraordinary sense of humor that shines through, even in the hardest of times."

Jeffrey E. Saffitz, MD, PhD, who is Mallinckrodt Professor of Pathology at Harvard Medical School and chief of the Department of Pathology at Beth Israel Deaconess Medical Center in Boston, says he has known Cain for 30 years and "had the good fortune to 'grow up' with him at Washington University.

"Michael is a superb physician, an insightful investigator and a consummate administrator," says Saffitz. "He espouses the traditional ideals and the core values of academic medicine but, just as importantly, he has also developed managerial and leadership skills to support and nurture these goals in the complex and sometimes treacherous environment in which academic medical centers currently exist."

Kenneth Polonsky, MD, Adolphus Busch Professor and Chair of the Department of Medicine at Washington University, says that the 13-year period in which Cain led the Division of Cardiology "was one of impressive growth for our cardiology program.

"A number of outstanding investigators were recruited with interests in molecular cardiology, cardiac imaging, as well as clinical investigation," says Polonsky. "The clinical programs flourished and expanded at Barnes-Jewish Hospital and in the surrounding community. The teaching programs have also done extremely well, and the cardiology fellowship is one of the most sought-after programs in the country. Michael left our Cardiology Division much stronger than when he assumed a leadership role."

Good First Impressions

While the challenge of leading a medical school is what brought Cain to Buffalo, he's candid about the fact that the city and surrounding region have many attributes that he and Peggy find attractive, as do their two children, Meredith, age 29, and Michael, age 20.

For starters, all are avid boaters and downhill skiers who look forward to exploring the Great Lakes and the snow country in the Southern Tier.

"It's when I'm talking about boating or skiing that I hear, *'That's a good idea, Dad',*" says a bemused Cain.

"Growing up in Philadelphia," he continues, "I was fortunate that my parents were able to maintain a summer home in southern New Jersey, so I've been around water and boats all my life.

"We had a boat on the Mississippi River when we lived in St. Louis," he adds. "It's a great river, but when I look at Lake Ontario and Lake Erie, it's almost like looking at the Atlantic Ocean again."

Planning and logistics for family excursions have become more complex in recent years, however, since the Cain children no longer live at home.

Meredith, who has a degree in biology from Bucknell University, lives in Chicago and works as a clinical project manager at a pharmaceutical company that specializes in drug development for neurological diseases; and Michael is a sophomore at Miami University in Ohio.

Both made their first visit to Buffalo after their father accepted the position at UB, and Meredith even found time to accompany her parents on a house-hunting excursion.

Cain says he and Peggy were intrigued by the variety of housing options they could consider in the Buffalo area and thoroughly enjoyed the process and the people they encountered along the way.

"We had the fun of looking at the world as empty nesters and being able to come to a new city and to reassess where and how we wanted to live," he says.

The couple was in complete agreement that a house in Orchard Park best fit what they were looking for, and in October they moved into their new home.

"All along the way—throughout the entire recruitment and relocation process, the interactions we had with the Buffalo community were superb—warm and gracious and welcoming," says Cain, "and, ultimately, this 'first impression' figured largely in the equation and helped us know that I should accept this position.

"And," he adds, already sounding like a true Buffalonian, "the restaurants here are exceptional; we haven't had a bad meal yet." BP

"In addition to Michael's extraordinary contributions to cardiovascular medicine and his *leadership qualities* that steered the Cardiology Division to great heights at Washington University, he is a wonderful person," Kelly adds. "He is a patient, insightful and caring individual who truly cares about the *education and career development* of physicians and physician-scientists."

The process of discovery requires a multidisciplinary approach, emphasizes Cain, pictured here at UB's Toshiba Stroke Research Center.