

The Baylor Jack and Jane Hamilton Heart and Vascular Hospital: conversations with the editor



Artist's rendering of the Baylor Jack and Jane Hamilton Heart and Vascular Hospital, scheduled to open in April 2002.



Mark Timothy Parris

MARK TIMOTHY PARRIS

Tim Parris, president of Baylor University Medical Center (BUMC), graduated from the University of Southern Mississippi in Hattiesburg in 1978 and received a master of science degree in hospital and health administration from the University of Alabama at Birmingham in 1981. After completing a hospital administrative residency at BUMC, he remained on the staff and soon became executive

director of the Baylor Institute for Rehabilitation. In 1985, he was awarded a White House fellowship. He then served as chief operating officer of Le Bonheur Children's Medical Center in Memphis, Tennessee, before returning to Baylor as vice president. He rapidly rose to senior vice president, executive vice president, and, in January 2000, to his present position.

William Clifford Roberts, MD (hereafter, WCR): *Mr. Parris, it is my understanding that you were the man behind this hospital from the beginning. Could you discuss some of your early considerations on why this hospital was necessary, how it came about, and the major problems you encountered before getting it off the ground?*

Mark Timothy Parris (hereafter, MTP): To start, I was one of many. We started this project in 1992. Initially it was configured a bit differently, but the concept was to bring together all the cardiovascular components of medicine in a focused delivery model for heart care. Despite a number of planning sessions, the project stumbled early on because the various political interests relating to clinical privileging prevented us from reaching a common objective.

WCR: *What were some of the early problems?*

MTP: One criticism was that the new hospital was an attempt to remove cardiology from the Department of Internal Medicine. That was never the intent of management. Because of that worry, we lost some needed support. The project began to falter.

What occurred in the marketplace shortly thereafter was the emergence of the MedCath specialty cardiovascular hospital model. MedCath's first facilities were in Harlingen and Austin, Texas. It created a business strategy around stand-alone cardio-

From Baylor University Medical Center (Parris) and the Baylor Jack and Jane Hamilton Heart and Vascular Hospital (Thomas, Wheelan, Pearl, Roberts), Dallas, Texas.

Corresponding author: William C. Roberts, MD, Baylor Jack and Jane Hamilton Heart and Vascular Hospital, 3500 Gaston Avenue, Dallas, Texas 75246.

vascular hospitals, with a business model of partnerships with the cardiovascular physicians, no different from Baylor's vision several years earlier. It was obvious from the impact of these facilities on the local markets and medical staffs that this concept could be both very successful and very devastating. With the market changing and with the viability of the heart hospital demonstrated, both in a patient care model and in a business model, these outside influences stimulated us to reexamine the project. At that point we streamlined the project to focus mainly on cardiology. Later, we brought the vascular surgical component into it. We believed that open-heart surgery was a very significant part of the present hospital operation and that it required a significant infrastructure—operating rooms and intensive care units—that we didn't want to duplicate. At the same time, we needed to expand the cardiology services because of increasing numbers of patients being referred to our campus. Our concept, therefore, was very different from the one created by MedCath.

The new heart and vascular hospital is focused on high-quality, easy-access care as much from a patient care perspective as from a business perspective. A strength of our model is that it is focused entirely on cardiovascular care. A weakness with the stand-alone MedCath model is that it is focused solely on cardiovascular care. Oftentimes, of course, a patient with cardiovascular disease has other noncardiovascular conditions. Here at Baylor, by attaching the new hospital to the tertiary medical and surgical hospital (BUMC), the comorbidities occurring in the cardiovascular patients in the new hospital can be easily managed by consultants from the larger support system. Our new heart and vascular hospital is the only model in the country that has been designed in this manner. It's a boutique facility. It focuses on patients staying in the hospital up to 72 hours for both cardiological and vascular surgical studies and procedures. It's a superior model to the competitive MedCath models that have been created around the country. Because our model was designed without duplicating present resources (catheterization laboratories), it will be very efficient.

In the Dallas metroplex, there is not a competitive heart hospital. Would there have been one if we had not developed the Baylor Heart and Vascular Hospital? In my opinion, yes. Will there be a competing heart and vascular hospital in the Dallas-Fort Worth metroplex at some point in the future? Probably so, because it is a good model for delivering good patient care. It's what people want—a high degree of specialization. The general hospital concept is now being challenged not only in the heart and vascular arena but also in the cancer, neurological, gastrointestinal, and other arenas of medicine. Patients seek out those hospitals with the best reputations and the best physicians and those hospitals that participate in clinical trials, which demonstrate that they are on the cutting edge of medical delivery. A specialty heart and vascular hospital connected to a major tertiary center like Baylor is the best of all worlds.

WCR: *Do you think that this will be the first of various specialty hospitals to be built on this campus? Do you envision an orthopaedics specialty hospital, for example, attached to the main Baylor hospital?*

MTP: To a large degree, we already have a specialty orthopaedic hospital because of the way we've organized orthopaedics in the institution. In many ways we've created a very specialized gastrointestinal model as well. Creating delivery models around

a disease process will continue in the future. We have surgery centers on this campus that are specially designed for outpatient surgery procedures. The heart and vascular hospital is not Baylor's first specialty hospital. It represents a continuation of what Baylor has been focused on for a long time, and that is bringing together the best medical resources within a medical center for care of patients with specific conditions. The Sammons Cancer Center is another good example.

WCR: *Let me go back to the point you made that the Baylor Heart and Vascular Hospital has not been duplicated in any other medical center in this country. What are the features of this new Baylor hospital that make it unique?*

MTP: Several hospitals around the country have looked at our model and wanted to duplicate what we've created. There are several reasons, however, that this model works on this campus and will not work on other campuses. We didn't move heart surgery into this new facility because heart surgery requires a 6- or 7-day length of stay and tremendous resources. Early on, we chose not to duplicate those resources in the new hospital. The location of the new hospital allowed us to "condominium" the current heart center into the new hospital so that we would not have to duplicate the very costly catheterization laboratories that already exist here. Could another organization do exactly what we did? Probably not. We looked at many other models, including outpatient catheterization laboratories and stand-alone, full-service heart and vascular centers. Ours made sense on this campus based on the existing infrastructure and the desire to coordinate and consolidate an entry point for cardiovascular care at this medical center.

WCR: *Why did you develop a partnership with the physicians?*

MTP: Baylor has a history of creating successful partnerships with physicians. That is one of our strategies and strengths. We have done this in our outpatient surgery centers. We have a significant partnership with Texas Oncology as well as with both pathology and radiology because of exclusive contractual relationships. Our new partnership will drive efficiency into the operation and will ensure its long-term success. It's one of the few centers where we've been able to incorporate the physician offices into the physical structure of the building. A patient coming to see a HeartPlace physician, for example, enters into that facility and can receive essentially all the services that he or she needs within that building. Not all of our physician partners will office there, although all were given that option. As of today, we have the Texas Vascular group and HeartPlace as 2 of the major tenants. The new building also will house a major teaching, education, and research center that will rival any in the country. We'll have offices for the coordination of clinical trials, for the fellows in training, and for others involved in the teaching program. If the partnership concept went away tomorrow, we will still have created the best-quality patient care model. The partnership is secondary to that delivery model. This creation will stand the test of time.

WCR: *Tim, could you discuss how you came to the partnership model for this new hospital?*

MTP: When you create economic partnerships, you create taxable entities. Baylor is a 51% partner, and 51% of the operating margin that is generated comes back into the not-for-profit or nontaxable entity of Baylor. It's taxable income for the phy-

sician partners. The heart and vascular hospital partnership structure is very similar to that of our ambulatory surgery center model. The intention is to align the incentives of both the physicians and the institution to make good informed business decisions and at the same time provide the highest quality of patient care. If and when a positive bottom line is achieved, Baylor's part comes back to the Baylor Health Care System (BHCS) to be used for teaching, community service, and education—our mission.

WCR: *As far as you're concerned, a partnership improves patient care?*

MTP: How could it not? Every patient hospitalized is there because of a physician. A hospital creates tremendous costs and infrastructures, and historically, physicians have not been a part of decision making on what supplies are purchased or how staffing ratios are created. The traditional hospital model in many ways is not optimal because the physicians who manage the patients are disconnected from the processes those patients go through when receiving their care.

WCR: *The new hospital is going to open in April 2002. Is everything on schedule?*

MTP: Everything is on budget and on schedule. We're looking forward to a very successful opening.

WCR: *How are you going to pay for this new hospital?*

MTP: We'll pay for it the same way we pay for any asset. The building was built by BHCS, and all the occupants of that building pay rent. We've had some major gifts related to the research and education center that's been created to serve the entire Baylor campus. Jack and Jane Hamilton, Dick and Martha Brook, Bo and Patty Pilgrim, Bob and Lola Sanford, Marnell Bell, and many others have given generous support to this endeavor.



Michael Layne Taylor

MICHAEL LAYNE TAYLOR

Michael Layne Taylor was appointed president of the new Baylor Jack and Jane Hamilton Heart and Vascular Hospital in May 2001. He received his bachelor's degree in health care management from the Medical College of Virginia in 1978 and spent much of his early career managing, expanding, and improving nursing homes. He then developed successful for-profit arms for 2 not-for-profit hos-

pitals. This work involved working closely with physicians in employment and joint venture arrangements, managing major construction projects, and streamlining operations. Before coming to Baylor, he worked for MedCath, assisting with numerous locations and ultimately serving as president of the MedCath hospital in Tucson, Arizona.

William Clifford Roberts, MD (hereafter, WCR): *What struck you about the Baylor Jack and Jane Hamilton Heart and Vascular Hospital that may have been similar to or different from what you had experienced with MedCath?*

Michael Layne Taylor (hereafter, MLT): One thing that excited me was the opportunity to continue to focus in the cardiovascular service line. The thing that attracted me the most was the extremely progressive alignment of physicians with the hospital system. To the credit of Baylor and its physicians, I think

they spent considerable time determining that they could work together. I've found that to be an accurate assessment in the 9 months that I've been here.

WCR: *What have you been doing at Baylor since your arrival in May 2001?*

MLT: I've been monitoring the progress of the construction of the new hospital. It really has 3 functional uses: a hospital, physician offices, and a research and education center. Three floors of the 6-floor building or about 50% will be the hospital. The second thing I've been doing is renovating our existing cardiac catheterization and electrophysiology laboratories and our noninvasive cardiac laboratories in the Roberts Hospital to prepare for their connection to the new building. These present laboratories will be connected to the new building by a 2-story attachment above the street, and they will become part of the heart and vascular hospital. I am working with the state, the Joint Commission, and Medicare/Medicaid to prepare for certification and accreditation for our hospital's opening. Additionally, I am recruiting staff and developing policies and processes to provide the best service possible to the patients and their families. We'll have 250 to 270 employees when we open the new hospital. We'll have 4 on the administrative team who will work closely with about 29 team leaders. Our relatively small size and our focus on 2 product lines (heart and vascular system) will allow us to be extremely efficient.

WCR: *Those 270 people you mentioned include those who are presently in the catheterization and noninvasive laboratories?*

MLT: Yes. They also include the staff in the cardiac rehabilitation center, which will remain in the Landry Center. The 90 to 100 persons now in the invasive and noninvasive laboratories of Roberts Hospital and in the cardiac rehabilitation center will be part of the heart and vascular hospital.

WCR: *What did you have to do to make the second and third floors of Roberts Hospital—where the catheterization, echocardiography, and electrophysiologic laboratories are located—a part of the heart and vascular hospital?*

MLT: We had to physically separate them by a firewall so essentially any observer could see where one stopped and the other started. Second, as the assets of the present Roberts Hospital transfer to the new hospital, they have to be purchased at fair market value by the new hospital. Third, once we have incorporated the Roberts Hospital wings into the new hospital, both physically and financially, we must make sure that the new hospital conforms to state and federal safety codes. Finally, we need to make sure that cardiovascular care is integrated between both the "old" hospital and the new one. The new hospital leases the space in Roberts Hospital from BUMC through a long-term lease. In addition, BUMC owns 51% of the new hospital.

WCR: *The physicians involved in the heart and vascular hospital are the cardiologists and the vascular surgeons?*

MLT: That's correct.

WCR: *The cardiovascular surgeons are not involved in this new venture.*

MLT: That's correct.

WCR: *When you say owner, you're talking about physician partners. They had to pay something to come into this relationship.*

MLT: That's true. Some physicians have chosen not to become partners (but only a few).

WCR: *When the heart and vascular hospital opens, will partner and nonpartner physicians be treated the same way in their ability to use the hospital's equipment and space?*

MLT: Yes, they will have identical privileges.

WCR: *Today, if a cardiologist is doing a cardiac catheterization, he or she may choose, for example, to use 7 different catheters during the procedure, but if that cardiologist is sharing the expenses of the new hospital with the administration, it is not to his benefit to use 7 catheters if he or she could effectively use only 3 catheters.*

MLT: The new hospital presumably will make physicians as partners more appreciative of the costs of some of the supplies they use. Physicians may make better value decisions for their patients under this arrangement.

WCR: *Let's say you have one interventional cardiologist who happens to use 13 coronary stents in a single patient during a single procedure. If that is excessive, the cardiologist is going to be criticized not only by you, the administration, but also by his fellow cardiologists for wasting equipment and therefore money. That's a positive for this new set up.*

MLT: Yes, indeed. Behavior patterns of physicians may change a bit. My experience has been that physicians do the right thing clinically for their patients, regardless of ownership. Physicians get more knowledgeable about costs when they are partners. Even in the same clinical organization, we see significant variation in practice behavior on similar types of patients. Studying practice variations among practitioners brings sharper learning and more focus for all of them. Outlying behavior patterns change.

WCR: *A study here of costs of postoperative care among coronary bypass patients showed considerable variation among the various cardiovascular surgeons. The postoperative expenses of some surgeons were high and of others, low. Nevertheless, patient outcomes were similar. Expenses will be shared between the physicians in the new hospital and the administration.*

MLT: Yes. BUMC will control a minimum of 51% of the shares; the cardiologists and vascular surgeons, up to 49% of the shares. There are 200 shares of ownership currently available in the venture. BUMC will always hold at least 102 of those shares (51%), and the minority partners, i.e., physicians, have the opportunity to buy 0 to 2 units each. Currently, of the 98 units available to physician partners, 95 have been purchased as of the end of 2001.

WCR: *A "unit" costs how much?*

MLT: Units vary in price based on when they were purchased. They were at their lowest price when the venture was originally consummated in 1999 to 2000. The price for each unit went up in January 2001 and again in January 2002.

WCR: *Not only are the expenses going to be shared, but also the revenue from the hospital will be shared in a similar arrangement.*

MLT: That's correct. The owners have the responsibility to purchase equipment, supplies, and technology as needed to provide excellent patient care. When and if a bottom line appears from the new hospital, a dividend will be paid to the owners so that they get a return on their investment, similar to that of an outpatient surgery center model.

WCR: *Mike, why would one physician (cardiologist or vascular surgeon) buy a piece of the action and another not? What would be the advantage of each?*

MLT: Some individuals, physicians included, are risk tolerant and others, risk averse. Depending on when the physician considered the opportunity, he or she may have seen this opportunity as a high risk, moderate risk, or low risk. A start-up business typically is pretty high risk. The offering is limited. Shares are not being offered to the general public.

WCR: *Let's say I bought a share, a unit, in the new hospital, and then 5 years from now I retire. Does somebody else buy that share from me or does it stay with me?*

MLT: To be a partner, all physicians have to be in good standing as practitioners at both the heart and vascular hospital and BUMC. Once a physician retires from practice or discontinues his or her practice at the heart and vascular hospital and BUMC, he or she will no longer be able to hold a share and would be required to sell it back to the partnership at whatever the assessed value of that share was at the time.

WCR: *If another physician didn't want to buy that unit (share), the hospital would then buy the unit.*

MLT: That's correct.

WCR: *So it's possible that the 51%/49% ratio will vary as time goes along?*

MLT: Yes. In fact, the original commitment that Baylor made to the partnership was that Baylor would never have less than 51% or 102 shares, unless all partners agreed to modify the subscription agreement. Short of doing that, Baylor would always hold at least 102 shares or 51% and could own up to all 200 shares if the minority partners didn't want to own them anymore.

WCR: *Mike, could you describe how each of the 6 floors of the heart and vascular hospital will be used?*

MLT: The top floor, the sixth floor, will provide office space for HeartPlace physicians, who currently practice here at Baylor. The fifth floor will not be completed immediately but will be reserved most likely for additional clinical space. The fourth floor is a 34-bed private-room, private-bath nursing unit that will connect across the street to the third floor of Roberts Hospital, where all invasive and noninvasive cardiovascular laboratories are located. The third floor of the new hospital will have 16 beds and 4 operating theaters, plus central sterile supply and other services for the operating rooms. The 34 beds on the fourth floor and the 16 beds on the third floor give us 50 licensed inpatient hospital beds. The second floor will house the administration and accounting of the hospital, small radiology and laboratory service facilities, and the vascular surgeons' offices (Texas Vascular Associates), and there is some unused space for future physician offices. The first floor (ground floor) will house an attractive research and education center (including a very nice auditorium with state-of-the-art communication facilities) and space for patient admissions, a business office, medical records, the material services/loading dock, a small warehouse, and the food service.

WCR: *The medical records of the patients coming into the heart and vascular hospital will be housed in the new hospital? They will not be put in the present medical record room?*

MLT: Correct.

WCR: *How will you determine whether a patient with cardiovascular disease is admitted to the heart and vascular hospital or to BUMC?*

MLT: If a patient's heart and vascular needs are going to require more than a 3-day hospital stay, the patient would be ad-

mitted directly to BUMC. If, however, the patient is being admitted electively for a procedure and will likely be hospitalized for no more than 72 hours, then he or she would be admitted to the heart and vascular hospital and return home from there.

WCR: *If you had your druthers, I assume that you would like to see all of the cardiologists and vascular surgeons connected to this medical center housed in the new heart and vascular hospital for their offices.*

MLT: Yes. I would like to see all of our cardiologists and vascular surgeons housed in the new hospital and all be partners in this new venture.



Kevin Robert Wheelan, MD

KEVIN ROBERT WHEELAN, MD

Since 1994, Kevin Wheelan has been cochief (with Dr. John Schumacher) of cardiology at BUMC. He was born on March 23, 1956, in Cleveland, Ohio. He attended The University of Texas in Austin from 1974 to 1976 and graduated from Washington University School of Medicine in St. Louis in 1980. His internship and residency in internal medicine were at BUMC, and his fellowship in cardiol-

ogy was at The University of Texas Southwestern Medical Center at Dallas. After finishing that fellowship in 1986, he entered the private practice of cardiology at BUMC.

William Clifford Roberts, MD (hereafter, WCR): *I would like to get your perspective on the new heart and vascular hospital. I know that you were involved early on and had input into how it was developed during these past 10 years. Could you comment on how it ended up compared with the initial concepts of how it was going to be?*

Kevin Robert Wheelan, MD (hereafter, KRW): Bill, this is a topic that I have a lot of interest in and have spent a number of years working on with Baylor and other physicians here. It's very exciting to see it come to fruition. The answer to your question requires some understanding of the evolution of the practice of medicine in this country over the past 100 years. When medical institutions first evolved, many were physician-owned or -partnered entities that developed around the practice of well-known individuals who made substantial advances in the development of medicine in this country. Some of those clinics have persisted and have become the foremost institutions in this country, the Mayo Clinic being perhaps the best-known example. The Mayo brothers were physicians who developed that entity. As health care evolved and changed and the insurance industry emerged, the government took a very active role in facilitating the building of hospitals in most communities. Medical care infrastructure required a significant amount of capital, and an industry developed that didn't directly involve physicians in management and ownership anymore. This model served our country well for decades.

As a variety of factors converged in the 1980s, the health care industry underwent gut-wrenching changes, culminating in the intrusion of the health maintenance organizations into the physician/patient relationship. A lot of these changes were caused by the increasing price of health care, which was escalating at a

rate that threatened the country's ability to provide proper care for all Americans. We went from an era of prolonged hospital stays to outpatient services facilitated by changing technologic and disease management strategies. The most important has been the increase in our ability to provide more outpatient care and offer greater efficiencies in the delivery of care with better outcomes and quality.

With this changing milieu, about 10 years ago a group of us met to brainstorm about future directions for Baylor. My idea was the creation of a specialty facility targeted for the management of cardiovascular disease, the largest killer in the USA. Initially, a multidisciplinary cardiovascular institute was proposed and failed to evolve, probably because too many different physician groups came to the table and our focus was not as clear as it needed to be. The concept was laid to rest for about 5 years, and it resurfaced with new vigor around the same time that MedCath, a publicly traded company, began to build and operate stand-alone cardiovascular hospitals. We looked at the MedCath concept, realizing that certain efficiencies could be obtained from a purely heart and vascular facility, and rejected that concept because patients with cardiovascular disease often have other non-cardiovascular conditions.

The idea of attaching a specialized cardiovascular hospital to the main Baylor hospital then took hold. We focused on how to make this present facility more consumer friendly and disease specific without diluting the tremendous facilities and resources of Baylor hospitals. Our working group sketched out the idea of a specialty heart and vascular hospital as an appendage to the main hospital but with a unique recognized entry point for cardiovascular patients and a location for consolidation of cardiovascular educational and research activities. We envisioned that this specialized hospital would provide beds for patients having short hospital stays and use state-of-the-art technology. A high-powered team of physicians, administrative staff, and external legal and accounting counsel created the model of this new partnership. It is a cohesive, sustainable partnership in which physicians will be involved in decisions on capital allocation, management, employee relations, and all aspects of running the business that impact the physician's ability to provide the best care possible. Thus, physicians are moving back toward a role of ownership and sharing in management responsibility with the hospital. I believe that the result will be a better health care delivery system that maintains its focus on the patient as the primary endpoint of judging its success.

WCR: *As I understand it, your cardiology group will occupy one floor of the new hospital. Your cardiology group is not the only group of cardiologists here on the Baylor campus. Why have the other groups selected not to move into the new heart and vascular hospital at this time?*

KRW: I'll give you my understanding of those reasons. Principally, it relates to either present long-term rent contracts or the costs of moving into more premium real estate. The new hospital is a more expensive building than other physical locations on this campus. Some groups are not ready or financially able to make the commitment to rebuilding a new office for a variety of different reasons.

WCR: *It would be nice if all of the cardiology groups were in the new hospital. Would you agree with that?*

KRW: Yes.

WCR: *Do you see your practice changing much as a consequence of this new heart and vascular hospital?*

KRW: For HeartPlace physicians and myself, I see some changes. Our office has been located in the Landry Building for a number of years. That's been wonderful in terms of its convenience for patients getting in and out of the facility. The cardiac rehabilitation programs are located there. Although great for patients, the Landry location is inefficient for HeartPlace physicians. The hospital is a 10-minute walk from the Landry building, and most of the HeartPlace cardiologists have organized their hospital schedules and their office schedules on different days of the week. If a doctor is committed to be in the hospital, he or she has a partner covering the office. When we are in the new heart and vascular hospital, where our offices are only a couple of floors above the patient care area, it will be easier for us to see our own patients when they come in for an urgent visit.

In terms of the type of practice and the services that we offer, I don't envision any changes. The heart and vascular hospital will always evaluate the role of new technologies such as ultrafast computed tomography scanning and magnetic resonance imaging. I anticipate that these will become integral components in our armamentarium of diagnosing and managing cardiovascular disease.

WCR: *Some cardiologists and vascular surgeons have elected to buy shares in this new facility, and others have not elected to do so. If you did not buy 1 or 2 shares in the heart and vascular hospital, does that mean you don't get a say on whether a magnetic resonance imaging apparatus is purchased or not?*

KRW: The structure of the heart and vascular hospital is like that of any business organization. There's a board of managers, and a variety of different committees provide input on specific areas, such as patient care services, pharmacy, supplies, or quality assurance. Participation in those activities does not depend on ownership. Recommendations are made through that management structure, and they take into account input from all of the physicians who practice at the facility. Ultimately, the decision to make major capital expenditures rests with the board of directors, which is constituted by members appointed by Baylor and members elected from among the physician-owners of the hospital.

WCR: *I've been told by several people that this partnership between cardiologists, vascular surgeons, and the administration of BUMC will make cardiovascular care more efficient. What does that mean?*

KRW: Reimbursement has been cut substantially by Medicare. Again this year, reimbursement of cardiovascular services has been cut almost 10%. Malpractice insurance and office expenses continue to go up. Physicians are under a significant amount of pressure to look at how they are managing their offices, and at the same time, there is pressure to be efficient in the hospital. Efficiency in the hospital oftentimes translates into how quickly you deal with administrative tasks (getting patients admitted, having the records in order) so that there are fewer bottlenecks at entrance and exit points. For example, when patients are ready to be discharged, physicians can be placed in a conflict of interest in that they need to get to their offices, which is a point of revenue generation, and at the same time they need

to get patients out of the hospital. When you are not vested in the success of the facility, it's harder to go to the 6:00 and 7:00 AM meetings to figure out solutions to these bottlenecks when the benefits of those solutions accrue to someone else. Ultimately, our ability to be successful, both as a business and as a medical center, is to be competitive with other institutions around the city. If both the physicians and the institution move together to eliminate barriers to providing the best care possible, there is an added incentive to spend the time necessary to be the best. It is alignment of all the incentives. Purchasing supplies is an easy example. It has been difficult in the past to get physicians to move beyond their personal preferences and to become familiar with a new product that is equally or more efficacious and less expensive. Alignment of financial interests breaks down these barriers.

WCR: *There will be more of an incentive to you and your colleagues, for example, to use 3 catheters during a procedure rather than 10 catheters.*

KRW: My hope is that the primary incentive is for us to be recognized as a leader nationally in providing the safest and most effective state-of-the-art medical care. As a result, we remain the provider of choice and grow our business. We want the new hospital to be patient and physician friendly and highly efficient, and we want to offer our services at a competitive rate that does not translate into simply using fewer products but using the appropriate products as cost-effectively as possible.

WCR: *Kevin, why do you think the hospital was so anxious to develop this facility on a partnership basis with the cardiologists and vascular surgeons?*

KRW: There are 2 reasons. One is recognition on the part of hospital administration and the board of trustees that the health care environment has changed. What's the operational structure that's going to allow Baylor to be the most competitive institution in this region and to define itself as a national center of excellence? The answer required a different business model. The emergence of stand-alone specialty hospitals and their partnership business model makes it more attractive for the brightest and the best physicians to matriculate to those campuses. We here at Baylor want to position ourselves to be a place that continues to attract the best physicians and nurses.

WCR: *Cardiology is a very large part of internal medicine. Many patients with cardiovascular disease occupy the hospital beds allocated to internal medicine. Do you think there is going to be resentment of cardiologists by the rheumatologists, nephrologists, or some of the other specialists in internal medicine?*

KRW: I hope not. Historically, some specialties have been more economically remunerative than others. Rightly or wrongly, there remain significant discrepancies between what Medicare values for performing open-heart surgery compared with an outpatient cataract operation. Some subspecialties of internal medicine afford themselves more opportunity to be involved in the business side than do others. Whether that leads to resentment or not really is up to the individuals involved. I hope that the success of the new hospital enhances the overall local and national success of Baylor. Cardiology patients, of course, don't just have cardiac disease, they often also have noncardiovascular problems, and all physicians will benefit from the increase in patients to this campus.

WCR: Kevin, do you think there is any possibility in the next decade that all of the cardiologists at Baylor will come together in a single group? Your group is staying together quite well. If there was only one cardiology group at Baylor, would not that be ideal from an efficiency standpoint?

KRW: Bill, it's ironic that you asked that question. Over the years, the various groups or members of those groups have had discussions about combining into a single group. A lot of the pressures on the practice of medicine, principally by the development of the health maintenance organization and insurance company tactics, have caused physicians to look at different strategies to protect their ability to continue to practice medicine the way they want to and survive economically. Physicians are very independent-minded individuals, and they work in an environment in which there is a lot of instability. Some physicians believe that one pathway is the only pathway to achieve their goals. That rigidity can prevent the coalescence around a unified business model. What the heart and vascular hospital is doing is causing us to want to come to the table and deal with different business issues and strategies as a unified business entity and yet go home and continue to practice in competitive patient recruitment groups. A single integrated group would be positive for our patients, for the community, and for the medical center as a whole. Any time the arrows align in the same direction, you're able to attain added synergies. It will take time for that to happen, but anything is possible when people work together and share similar goals and objectives. Physicians practicing at Baylor do share one common goal—to be the best that they can be in their respective fields.

WCR: Your cardiology group here at Baylor has cardiovascular surgeons within the group; other groups have tried that relationship and failed. Do you think it's a good idea for cardiovascular surgeons to be a part of a cardiology group?

KRW: Yes. Our group has maintained that relationship very successfully. Is that the only model that works? No. It can work either way. There are many advantages to having cardiovascular surgeons integrated with cardiologists. When patients come back to our office, they have one chart, and the same chart is used by both the cardiologist and the surgeon, each of whom can see the same patient during the same office visit. Being in a cardiology group provides a sense of stability for cardiovascular surgeons in that their focus can be on operating, knowing that they have a group of cardiologists providing appropriate referrals of patients. They are less worried perhaps about marketing strategies or making referring physicians happy. It's easier telling one of your partners, "I don't think this patient needs bypass surgery" than it is to tell a referring physician that you think his or her patient does not need a cardiac operation.

WCR: I guess the downside would be if you didn't attract the very best surgeons, you'd still be locked into referring to them because they were in your group.

KRW: No one is locked into referring to a surgeon in our own group. That decision rests with the patient, his or her primary care physician (if applicable), and the cardiologist taking care of that patient. Some cardiology patients are referred to a cardiovascular surgeon in another group just because of that decision matrix. A positive here at Baylor is that we have a lot of good cardiovascular surgeons to choose from. HeartPlace believes

that we recruit the best and that we have a competitive advantage in that regard.

WCR: When I came to Baylor 9 years ago, there was a lot of discussion at the time that we had too many cardiologists in this country. Now, it looks like that swing has reversed itself—that maybe we don't have enough. What is your view?

KRW: Right now we probably have the right number of cardiologists, but in 5 to 10 years we will have a shortage. The financial changes in health care reimbursement and misguided government policies tried to reduce the number of specialists as a way to control health care costs. The mistake was the assumption that specialists increased health care costs. Now we know that waste, inefficiency, and poor-quality physicians and institutions cause increased health care costs. The best way to have cost-effective medicine is to do an appropriately indicated procedure right the first time. There is and will continue to be a burgeoning elderly population with cardiovascular disease. That was swept under the carpet by governmental policy seeking short-term budgetary gains. The result will be long-term shortages in different specialties. Shortages of cardiologists already exist in some areas of the country; rarely are there areas with too many.

WCR: Is there a shortage of electrophysiologists, like yourself, now?

KRW: Yes. Our professional organization has tried to counter that. A number of different factors are causing the shortage. The technological advances in electrophysiology are stunning. Improving the quality of life of patients with congestive heart failure by using biventricular pacing and prolonging life by using implantable defibrillators were difficult to predict 3 to 5 years ago when we needed to encourage more cardiologists to go into this subspecialty. There is another factor. To become a clinical electrophysiologist, you need 3 years of internal medicine, 3 years of general cardiology, and 2 additional years of electrophysiology. The reimbursement rates in electrophysiology are lower than those in many other procedural areas because of Medicare reductions during the past 10 years, and it's difficult to make the decision to train for an additional 2 years. Electrophysiology is also very different from other areas in cardiology, and it takes someone with the right aptitude to pursue it. For me, it's been a tremendously exciting field and very rewarding professionally.

WCR: How much does an electrophysiologist pay for malpractice insurance?

KRW: Around \$25,000 a year. Our malpractice premiums went up 30% last year. Fortunately, we have been blessed with a low incidence of lawsuits.

WCR: Kevin, is there anything you'd like to discuss that we haven't touched on?

KRW: Yes, I greatly appreciate the opportunity to share my thoughts today. This new hospital is something that BHCS and the whole metroplex can be very proud of. It will be a national leading-edge institution and a vehicle for providing cardiovascular care. It is another crown jewel in Baylor's cap. When I finish my professional career, I'm going to look back on this new hospital with a tremendous degree of satisfaction.

We've focused on the physician role in the new hospital, but equally important to our success is the recruitment of excellent nursing, technical, and administrative staff. We've got the best team possible.



Gregory John Pearl, MD

GREGORY JOHN PEARL, MD

Since 1996, Greg Pearl has been chief of the vascular surgery division at BUMC. He was born in Peoria, Illinois, on June 23, 1954. He graduated from the University of Notre Dame in 1976 and from Tulane University Medical School in 1980. His 5-year residency in general surgery was at Northwestern University Memorial Hospital in Chicago. He spent an additional year there as a research fellow.

From July 1986 through June 1987, he was a fellow in the peripheral vascular surgery division under Dr. Jesse E. Thompson at BUMC. After completion of his fellowship, he entered private practice.

William Clifford Roberts, MD (hereafter, WCR): *Greg, could you speak a bit on the role vascular surgery will have in the new Baylor Jack and Jane Hamilton Heart and Vascular Hospital?*

Gregory John Pearl, MD (hereafter, GJP): Cardiologists, cardiac surgeons, vascular surgeons, and interventional radiologists all treat essentially the same disease, namely atherosclerosis, which is a systemic disease. The whole idea of this new hospital is to have a facility where patients can have one-stop comprehensive cardiovascular care. Vascular surgery will be a big part of this new hospital.

WCR: *What common operations do you envision being done in this new hospital?*

GJP: We are going to be performing any open or closed procedure for which we think the hospital stay will be <72 hours. That is somewhat of an artificial designation, but the hallmark of this center is going to be a quick patient turnover. The open abdominal procedures and complex lower-extremity revascularizations will not be done in the new hospital because the patient's stay is typically >72 hours. Carotid endarterectomy, endovascular procedures, cerebral vascular reconstructions, venous procedures, straightforward lower-extremity revascularization procedures, and straightforward access procedures will be done in the new hospital.

WCR: *How many operating rooms will the new hospital have?*

GJP: It will have 4 operating rooms, one of which will be designated as a vascular suite for our endovascular procedures. At least 2 of the other 3 rooms will be devoted to vascular surgical procedures.

WCR: *How many vascular surgeons are in your group?*

GJP: Six.

WCR: *You have 2 vascular surgery fellows at any one time?*

GJP: Yes, 2 per year.

WCR: *Of the various operations done by vascular surgeons, which ones are most frequent?*

GJP: Carotid endarterectomy is the most common procedure we do. Currently, roughly 400 of these procedures are performed per year at BUMC. The next most frequent procedure is lower-extremity revascularization, either through intra-abdominal entry or through lower-extremity entry. The third most common procedure is abdominal aortic aneurysm repair.

WCR: *How many abdominal aortic aneurysm resections do you do a year here?*

GJP: About 150 per year.

WCR: *I think it is wonderful to have your vascular surgical group office in the new hospital.*

GJP: We'll be on the first floor, which is actually one floor above the ground floor.

WCR: *The 2 vascular surgery fellows will be in the same area that the cardiology fellows are in?*

GJP: Correct. They will be on the ground floor, the true first floor of the building, in the research and education area.

WCR: *That's nice for the vascular surgery fellows to be with the cardiology fellows. Each will learn from the other. In general, cardiologists are a bit deficient in their knowledge of peripheral arterial disease.*

GJP: I agree with you. It's a big plus that they are going to be geographically linked. That will facilitate more interaction and better exposure to one another. Now the cardiology fellows spend a month on our service during their 36 months of cardiological training. They work primarily with me, seeing a few patients in the office and going to the operating room with me; they also go to the peripheral vascular noninvasive diagnostic laboratory and do noninvasive vascular studies. During that month, the cardiology fellows interact closely with the vascular surgical fellows.

WCR: *Having your vascular surgery group in the same hospital as the cardiologists will allow immediate and easy referral from the cardiologists to the vascular surgeons and vice versa. Potentially, you could see a patient the same day that the cardiologist does and vice versa.*

GJP: That's correct. We will be a short elevator ride away from one another.

WCR: *Do you think the number of carotid endarterectomies is ever going to be diminished by percutaneous catheter intervention?*

GJP: Yes, probably eventually. We will ultimately find a subgroup of patients, based on their plaque morphology, who can be safely treated by a percutaneous interventional procedure rather than an open endarterectomy. The gold standard, however, will continue to be carotid endarterectomy, which is extremely safe, durable, and effective and has been confirmed through several large prospective trials during the past 20 years. These prospective trials simply confirmed what the founder of the vascular surgery division at BUMC, Jesse Thompson, learned 40 years ago from his retrospective analysis of carotid endarterectomy for the treatment and prevention of stroke not only in symptomatic patients with extracranial carotid narrowing but also in asymptomatic patients with severe carotid artery narrowing. Jesse Thompson was the first to propose doing endarterectomy prophylactically in asymptomatic patients. His analysis showed clearly the safety and efficacy of carotid endarterectomy in asymptomatic patients for the prevention of stroke.

WCR: *I've looked at a number of these carotid endarterectomies that you've excised. I think there is a lot more pultaceous debris in the carotid plaques than in the coronary plaques. If I had a very narrowed internal carotid artery, I would go the endarterectomy route rather than the angioplasty route. The small incision in the neck is not equivalent to a median sternotomy. You send these patients home the next day, right?*

GJP: Correct. Patients come in the morning of surgery, have the operative procedure, are monitored in the recovery room for

3 to 4 hours, and then are sent to a private room for the night. They go home the next morning. The hospital course in patients having carotid endarterectomy and percutaneous carotid angioplasty with or without stenting is similar. It is not comparable to percutaneous coronary intervention vs median sternotomy for coronary bypass. The neck incisions tend to heal quickly. Percutaneous carotid angioplasty is driven by cardiologists because they are guide-wire catheter-based proceduralists, not by patients as is endovascular repair of an abdominal aortic aneurysm.

WCR: *Greg, when was it brought to your attention that vascular surgery was going to play such a big role in the new heart and vascular hospital? When did you start talking with the administration about that?*

GJP: We had some peripheral discussions when you first came to Baylor, about 9 years ago. Initially, it was going to be a “new hospital” *without walls*—a more comprehensive hospital for treatment of all patients with cardiovascular disease. Discussions about a heart and vascular hospital *with walls* began about 5 years ago. It began moving quickly when everybody got on board about 3 years ago. Vascular surgery was brought in as a piece of the new hospital about 4 years ago.

WCR: *Does the idea of partnership with the hospital appeal to you?*

GJP: Yes, very much. The partnership ensures that all parties have aligned incentives. United aligned incentives are a guarantee for success.

WCR: *What do you mean when you say aligned incentives?*

GJP: Providing state-of-the-art best and safest care for patients at the best cost.

WCR: *Those are your goals whether you are in a partnership arrangement or not, isn't that correct? So what is unique about the partnership? How can it improve patient care?*

GJP: Unfortunately, finances are a piece of any discussion today regarding the provision of health care. A partnership of the physicians and the administration involves seeking the best care at the most reasonable price. A physician via the partnership has an incentive not to use the most expensive equipment (catheters, grafts, guide wires, stents, etc.) when less expensive equipment will do just as good a job. The partnership will help to ensure the financial viability of the new hospital.

WCR: *I presume that you will have more say in what equipment is ordered for you to use than you possibly do now. Isn't that correct?*

GJP: We'll have a lot of say in the purchasing of supplies, but that's always been one of the great things about Baylor. We've always had a lot of input into what products are used at the hospital. The administration has been very open in that regard with physicians. Physicians play an important role in the selection of equipment and devices used at Baylor.

WCR: *One of the exciting things about vascular surgery is that you operate on so many different arteries: carotid, celiac, mesenteric, renal, femoral, popliteal, aorta, etc.*

GJP: Right. That's exactly why I went into vascular surgery. I did my general surgery training at Northwestern Hospital in Chicago. From 1980 to 1986 when I trained, there was no matching process through the Accreditation Council for Graduate Medical Education for cardiac or vascular postgraduate training. You applied as early as you could to assure yourself a spot. In my third year of surgical residency (when I still didn't know for sure

what type of surgeon I wanted to be), I applied and was accepted to stay at Northwestern in its cardiac surgery program. I was not even halfway through with my general surgery training at the time. I thought I liked cardiac surgery and wanted to be sure I had a spot lined up for myself. As I went further into the surgical residency program, vascular surgery became much more appealing to me for all the reasons you just elucidated. The problems are more diverse than in cardiac surgery. In addition to being a proceduralist, vascular surgeons tend to be diagnosticians, and I like that. In most medical centers, the vascular surgeons are also the vascular medicine doctors. The exceptions are some very large centers like the Mayo Clinic and the Cleveland Clinic.

WCR: *How much time do you spend in your office a week seeing patients?*

GJP: I spend 2 full days a week in my office.

WCR: *And you operate 3 days a week? Do you ever operate on Saturday except in emergencies?*

GJP: Every weekend I'm on call, I operate on Saturday.

WCR: *Is that elective or nonelective?*

GJP: Those are all urgent cases when on call.

WCR: *What percentage of your operations are nonelective?*

GJP: I guess it depends on what your definition of “elective” is. Purely elective cases where operations are scheduled 2 or 3 months in advance are very unusual in vascular surgery. I tend to break cases down into emergent vs urgent procedures. The true emergent procedures are symptomatic high-grade carotid stenosis, symptomatic aortic aneurysm, and severe ischemic symptoms in an extremity. That's probably about 20% of our practice. The other 80% would be the urgent cases that need to be done within 2 to 3 weeks. Vascular surgeons have few cases scheduled beyond 3 weeks. Unfortunately, the emergent and urgent cases make for a pretty unpredictable schedule. Often our schedules are laid out for a day, but then an emergent case comes up and the day becomes entirely different than the one initially planned.

WCR: *It seems to me that cardiology, cardiac surgery, and vascular surgery are becoming geriatric medicine and geriatric surgery. You don't operate on a lot of patients under age 65, do you?*

GJP: No, about 80% of our patients are in the Medicare age group (≥ 65 years). The others have premature atherosclerotic disease, or they are on dialysis and need access-type procedures. Venous-related problems are more common in the younger patients.

WCR: *Your group is continuing to expand. There are 6 of you now. The number of operations your group does annually continues to increase.*

GJP: That's correct.

WCR: *And you expect that increase to continue? The new hospital will make Baylor even more attractive for cardiovascular patients.*

GJP: That's the plan.

WCR: *So your group may be 10 or 12 in 10 years or maybe sooner.*

GJP: Ken Hempel's group also does vascular surgery. The most active member of that group is Rizwan Bukhari. They are also planning on expanding their group. Between the 2 groups, there easily could be 10 to 12 vascular surgeons at Baylor in the foreseeable future.

WCR: *It would be nice if all of you were in the same group, wouldn't it?*

GJP: Yes.

WCR: *You work very closely with the vascular interventionalists in the radiology department.*

GJP: We do. We've always worked very closely with them. Unlike at some centers, we have a very collegial relationship with them. They participate in our weekly vascular conference, and their fellows interact with our fellows.

WCR: *Is there anything you'd like to talk about that we haven't covered?*

GJP: One can never talk about vascular surgery at BUMC or in Dallas, Texas, or in the USA, without thinking of Jesse Thompson. Jesse Thompson is an example of someone who was a lot more famous outside of his home environs than he was at home. Jesse is incredibly revered and internationally renowned for his work and contributions to vascular surgery. Anything we vascular surgeons do here at Baylor is built on the foundation he started here 50 years ago.