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Vice President for Medical Affairs
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Alma, fourth from left, and other Class of 1979 students at The University of Texas Medical School at Houston are shown with Professor Henry Strobel.

Two friends joined Alma, at right, in their imitation of painter Frida Kahlo, whose famous eyebrows intrigued the trio.

Alma, standing right, celebrated Christmas 1996 in San Antonio with her sister Oliva and their parents Ricardo and Oliva Rodriguez.

Alma and her partner Robert Trevino were happy to smile for the camera during dinner at a favorite restaurant in 2005.

I am often asked how I chose medicine as a career and at what point I knew that I would become a physician. The most succinct answer is that it was a series of serendipitous events that led me to where I am today. I was born in Robstown, Texas, and raised in Roma, a small town on the U.S.-Mexico border in one of the poorest counties in Texas. My parents were migrant farm workers. Thus, the family was home (more or less) during the school year, but during the summer and early fall, we moved around doing seasonal farm work. I'd be willing to bet that the way my life has turned out definitely contrasts with most sociological predictive models!

It was in high school that I first discovered that I liked science. My best "aha!" moment occurred the day we learned about the Table of Elements, and I saw in a flash how Mandeleev's arrangement was brilliant and simple at the same time. I liked the order, simplicity and beauty of the elements and their atoms, and I hoped that one day I would become a chemist. However, in my family's history, no one had ever attended college, and although I was encouraged by my teachers to aspire to get a higher education, my family did not have the financial resources. There was no way I could get a higher education without scholarship support, and I had no clue of how to go about applying for it.

Fortunately, in my senior year of high school I was offered a full-tuition scholarship to Our Lady of the Lake University (OLLU), a small Catholic liberal arts college in San Antonio to which I had applied only because of encouragement from a neighbor whose daughter had attended the school. I accepted the scholarship, and, in the end, this chance event provided me with a wonderful opportunity. Classes were small, the professors knew each student by name, and every student was assigned a mentor, usually in their field of interest. Furthermore, most of the professors were women, who served as role models and inspired confidence that women could achieve academic success. This was a distinctly different experience, I learned later, from the experiences of my friends who attended larger state universities.

My initial mentor was Dr. Antonio Rigual, a Spanish literature professor who was passionate about Hispanics becoming more represented in all fields of academia, and I credit him for inspiring in me a sense of responsibility to lead and to open paths for future generations of students. In my freshman year, I took many science courses and did well, so Dr. Rigual encouraged me to declare a science major and to consider a career in the health professions. However, Mandeleev's esthetically ordered vision of matter — ranging from the subatomic to the molecular to the galactic — was very appealing to me, and so chemistry became my favorite discipline of study. Sisters Jane Slater and Isabel Ball were my mentors in the science majors program, and they encouraged me to pursue a graduate education.

Through an unexpected route, my study of chemistry actually led me to medicine. In my junior year, while I was contemplating applying to a graduate chemistry program, a second serendipitous event occurred. Two medical students from Baylor University came to the OLLU campus to recruit students of ethnic minorities for a special summer program. I applied to the program because it required a laboratory preceptorship in any one of several disciplines, including biochemistry, and I wanted to get biochemistry laboratory project experience on my resume to strengthen my application for graduate school. The catch was that we also had to attend classes and symposia aimed at preparing us to apply to medical school, but I figured that the laboratory experience I gained would offset the inconvenience of the classes.

My co-participants and I were grilled and drilled daily on academic questions and subjects that apparently were important to passing the MCAT, the medical school entrance exam, which I'd never heard of. The program also integrated exposure to clinical activities, including visits to an ER, where we saw gunshot victims wheeled straight into the OR; to an anatomy class, where we observed medical students performing dissections; to the observation galleries over the surgery suites at prominent hospitals, where we saw heart bypass procedures; and to labor and delivery, where we saw babies born. My lab project of isolating isoenzymes of a kinase from the regenerating limbs of salamanders was very interesting, but having seen all these aspects of medicine in real time convinced me, by the end of that summer, that I should apply to medical school.

That was 30 years ago, and since then it's been a most interesting adventure. I am not sure exactly when oncology became my destined discipline, but it probably started (at least subconsciously) with the first patient I ever examined as a medical student at The University of Texas Medical School on physical examination rotation at M. D. Anderson Cancer Center. The patient, a young man with congenital defects that included learning disabilities, had a malignancy that had brought him to M. D. Anderson. His mother agreed to my examining him on the conditions that she be present and that I not bring up the subject of his cancer, as she was trying to shelter him from this knowledge. I started with the usual textbook question, "What brought you to the hospital?" and he answered, clearly and distinctly, "I have cancer." That day, I learned a very important lesson, one that is almost universally true: if we ask the right questions and then listen, patients tell us what is wrong. This was a landmark day not only for me but also for the patient's mother. I still remember that young man's name, and it turned out that he had lymphoma. That was perhaps a prophetic encounter, since the treatment of cancer — and specifically lymphoma — ultimately became the focus of my career.

When I finished medical school, however, I thought that my path was to become a general internist and work within the Hispanic community where, unfortunately, diabetes, hypertension, and cardiac illnesses are rampant. Thus, I applied for a residency at The University of Texas Medical School affiliated hospitals in San Antonio so I could get good experience in treating these conditions. However, it turned out that the most engaging and interesting teachers and patients were in the Oncology Service. The attending physician, who became my mentor, was Dr. Daniel Von Hoff, a young and enthusiastic oncologist who was a tireless dynamo and advocate of new drug development. He also advocated personalized drug treatment based on each individual patient's tumor-sensitivity assays. Dan's dream of individualized treatment directed by personalized assays has finally reached the mainstream of oncology research, and it may in the near future come to fruition in the clinical setting. Through Dan, I learned of the drug development program at the University of Arizona's Cancer Center, which led to my fellowship training there. Again through serendipity, upon finishing my fellowship, I found that one of the oncologists in Arizona knew of an open position in the Lymphoma section of the Hematology department at M. D. Anderson. It was thus that I came full circle 20 years ago, returning to the hospital where I had had my first patient encounter.

I started my career at M. D. Anderson as a laboratory researcher and a clinician. During my fellowship, I had spent two years in the laboratory of Dr. Brian Durie working with lymphoid and myeloma cell lines, and I thought I would continue this path in laboratory investigation. Over the span of my first six years at M. D. Anderson, however, I lived like a nomad, frequently moving my projects from one lab to another as my bench space changed locations. It was also a difficult time of leadership transition in the Department of Hematology. During this time, the department had at least three chairpersons and, ultimately, it was restructured into three separate departments. I realized one day, after yet another failed grant application and while packing my bench in anticipation of yet another pending laboratory space change, that to succeed as a serious basic science investigator would require far more focus, direction, time and concrete infrastructure support than I had. This was a point of identity crisis for me, and I felt that I had to choose — the bench or the bedside. After all the years I'd spent honing my skills as a clinician, I knew that the clinical aspect of my work was very precious to me, and I did not want to give it up. So, I chose to focus my career on clinical work and said goodbye to the laboratory. Several of my colleagues declared that my choice was foolish, as I'd already devoted so much time to laboratory investigation. I, however, thereafter gained a greater sense of stability in my life and decided to focus on and make the best of the path I'd chosen.

In a recent interview, I was asked if I had a favorite or inspiring quote that I treasured, and indeed I do. It's a statement I read long ago, wrote down in one of my journals, and have made one of my life's guiding principles: "Don't let what you can't do keep you from doing what you can." That is my pragmatic approach to adversity and change: if life or circumstances block a path in your life, simply look in another direction. There are 360 degrees of spatial rotation around us, and somewhere in that circumference, there'll be a new way to go.

In my career at M. D. Anderson, I have been most fortunate to have the support of excellent mentors. Dr. Lillian Fuller was a very important mentor in my development as a clinical investigator. She was a professor of radiation oncology, with a focus on the treatment of lymphomas. She had joined the faculty of M. D. Anderson when Dr. R. Lee Clark was the president and leader of the institution, and she had worked side by side with the visionaries who founded M. D. Anderson. Thus, her historical perspective was wise and inspiring. She encouraged me and invited me to develop projects with her. She was a very disciplined writer, and when I worked with her, she required that we devote hours to writing and revising papers. She had a very significant influence on my career. Dr. Fernando Cabanillas, chief of the Lymphoma section and later chair of the Lymphoma-Myeloma department, was also a supportive advocate. He provided research protocol opportunities for me to lead, encouraged me to travel and present at international meetings and conferences, and introduced me to leaders in the field of lymphoma therapy. Having his support and advocacy was critical for my professional development. The culture of the Lymphoma section when I joined it was one of collegial and respectful behavior, and I never felt left out or had my opinions disregarded in discussions or planning. I have been fortunate and have had wonderful colleagues in the Lymphoma department who have been and continue to be my collaborators and who have valued my collaboration in protocols; together we've done creative and productive work.

The 1990s witnessed development of the institution's multidisciplinary clinic concept, and clinics were reorganized with new clinical leadership and a restructured administration. During that period of transition and clinic reorganization, Dr. Cabanillas assigned me to be medical director of the Lymphoma Center. Again, I was fortunate, as I discovered that I could apply the same processes of project organization, planning and data analysis that I had applied in the laboratory to the analysis and planning of clinical operations, and, as a result, a new direction for my life emerged. I learned a whole different perspective of medicine: the perspective of the complex economics that fuel the engine of the institution, the perspective of medicine driven by external forces — from the patients' point of view, from regulatory agencies, from government and from the law. Because of my role as a

medical director, I got to know the hospital's operations leaders, and that eventually led to my current role as Vice President for Medical Affairs. When Dr. Thomas Burke was asked to fill the role of CEO of the institution in an interim capacity, he asked me if I, in turn, would fill in for him in his previous charge of Medical Affairs. That unexpected but fortuitous request has taken me on yet another journey.

In my current role, I am learning that the profession of medicine is poised for a historic paradigm shift that I believe is as significant as the change that occurred at the turn of the 20th century, when the training of physicians changed from individual apprenticeships to a more scientific, academic and hospital-based environment. The application of scientific principles and discoveries to categorize and understand the biologic basis of illnesses became the bedrock of medical education, and research and medicine became inseparable partners. The emerging new paradigms are of a different scale but are equally significant.

The new world of the future of medicine scrutinizes the decision making of physicians under the criteria of competence, guidelines, outcomes, cost-effectiveness, quality and safety, in addition to confirmed or supportive scientific data. While it is still critical that we understand the biology and scientific explanations of illnesses, an equally important element of medical practice now is how we apply concepts, knowledge, and new technology and pharmacology. The method of practice itself is a critical factor for successful outcome. The emergence of antibiotic-resistant microorganisms, for example, brings this principle to mind. The outcomes of infections and the prevention of resistance depend on multiple events: the processes of antibiotic choice (guidelines for appropriate use), timing and duration of delivery (efficient and proficient pharmacy and nursing support), and routes of administration (pharmacology and technology). These factors have as much importance and influence on the outcome of the patient's illness as understanding the basic cell biology or biochemistry of the microorganisms has.

As new technologies are developed in response to new scientific findings, innovations relevant to specific diseases, issues of cost, justice in access, safety and competence must be considered, but now the appropriate *application* of these innovations is emerging as an issue as important as are the innovations themselves. In the practice of oncology, these concerns are paramount, as, for example, when new drugs are developed. The extraordinary costs of recent new pharmacologic agents limit their access by some patients, and indiscriminate use of these drugs for unproven indications increases the cost of coverage for all patients. These situations create not only major socioeconomic health care issues but also ethical and, in some cases, legal concerns.

Thus, I continue to find new paths, and my journey is far from over. I think I am learning as much now as I did in medical school, but I'm absorbing totally different content. As my knowledge continues to broaden, I feel that I am still in the process of becoming a physician.