# My Life as a Surgeon: Juan C. Puyana, MD July 2021

## **Growing Up and Becoming a Doctor**

I was born in Bogota, the capital of Colombia. My father was a diplomat and an officer of the National Army of Colombia. Because of his work, I had the opportunity to live in many regions around the world, starting from a very young age. I had a very happy childhood, living in places including Fort Knox and Fort Leavenworth, while my father was the recipient of scholarships awarded by the U.S. Army. Our travels allowed me to grow up with an open, liberal mind; we were fortunate to see the world from diverse perspectives, meeting people from many places and backgrounds. As a cavalry officer, my father ensured that we grew up around horses and learned to ride and care for them. Anticipating that I would follow my father's trajectory, I entered the military academy in Colombia at age 16. Soon after that, for political reasons, the president of Colombia fired my father, who was an Army General at that time. This event made me realize that I needed to choose a liberal profession and one that I could practice anywhere. My decision to become a

physician, like many other decisions that followed, resulted not from epiphanies but rather from the need to find the most practical career options.

During medical school, I became painfully aware that the poverty of Colombia's inner-city hospitals, together with the limited resources of our medical schools, would prevent me from enacting the practice of medicine that my





Receiving the ceremonial dagger at military school from my father



Riding along with my family

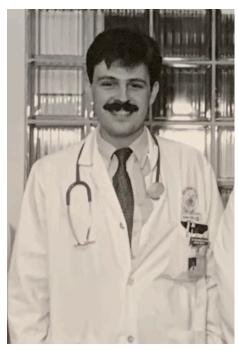
classmates and I were learning from the textbooks. Our instructors taught us how we could treat medical issues if we had more resources available to us, but often, they also had to emphasize how we could manage these issues using the limited resources that we actually had at hand. Seeking exposure to a less constrained medical practice, I decided to apply for a residency program abroad. I was preparing to write the Visa Qualifying Examination—better known now as Step One of the USMLE—when a Canadian surgeon, Dr. Jonathan Meakins, came to Colombia for a surgical congress, and his visit coincided with my elective surgical rotation under the mentorship of Dr. Jose Felix Patiño (an internationally renowned, U.S.-trained Colombian surgeon). Although I was not yet sure if a wanted to be a surgeon, fortunately, Dr. Patiño introduced me to Dr. Meakins and suggested that I inquire about the possibility of a research position in his surgical research lab in Montreal.

#### **Becoming a Surgeon**

When I met Dr. Meakins, despite my nearly forgotten and broken English, I was able to impress him enough that he offered me a one-year research position at McGill University. I left Colombia for Canada as soon as I graduated from medical school, taking a job as a research assistant with a salary of \$740 Canadian per month.

During my early years of training, I was never able to develop a clear vision for my surgical career. Without a great deal of certainty, I continued to make practical decisions, not always knowing how far they would take me. I was determined not to return to Colombia without first completing my training. As a foreign medical school graduate, my steps forward would come often as sudden, unexpected opportunities.

I worked in the lab at McGill, creating models of acute peritonitis in rats and searching for a magic bullet cure for surgical sepsis. Later, it would become very clear to me that my future work would best relate to humans, rather than working in the basic sciences laboratories. Luckily, I received an offer to stay in Montreal to finish my



Me, as a PGY-5 Chief Resident in 1989 at St. Mary's Hospital, Montreal

general surgical residency. Dr. Meakins expected me to return to Colombia upon finishing this residency training. However, unfortunately, I had only seen two gunshot wounds during my training in Canada! Thus, I worried that I did not yet have the proper training in trauma to return to my home country. In the early 1990s, when Colombia was going through one of the most violent episodes in an already violent history, every general surgeon needed to be most proficient in the care of penetrating trauma, as victims of an unprecedented, bloody narco-terrorist drug and guerrilla war frequently overwhelmed many hospitals.

Again, out of necessity and recognizing that I was not prepared for the challenges ahead of me if I were to return to Colombia, I made another pragmatic decision. I hastily looked for a fellowship in trauma and surgical critical care. Dr. Meakins saw the future and predicted, with disappointment, that if I were to enroll in a trauma training in the U.S., I would probably not return to Colombia. Understanding that he was not keen about my most recent practical decision, I did not keep him apprised of my application process, nor did I ask him for guidance in applying to a well-established U.S. trauma training program. Instead, I went traveling around the U.S. to look for a program on my own. I even applied to the University of Pittsburgh and received an interview offer from Andy Peitzman, but I was not able to travel to Pittsburgh for an interview due to my lack of funds. My final decision was between Miami, under Dr. Civetta's famous surgical ICU program at what is known now as the Ryder Trauma Center, and the State University of New York (SUNY) in Long Island, where Dr. David Kreiss, a partner and previous trainee of Dr. Civetta, had recently been hired to create a new trauma training and research center outside New York City.

## **Expectations, Challenges, and Low Points...**

Enticed by a very attractive offer from Dr. Kreiss, I committed to adventure with him at SUNY. He offered me seed money to start a research laboratory and a salary at the PGY-6 level, which was very appealing to me, since not being a Canadian citizen, as a full-time surgical resident at McGill, I had continued to be paid as a research assistant trough out my residency.

The most difficult time during my fellowship came while being on call on my first night as the ICU fellow at SUNY, when I had to admit Dr. Kreiss (my new mentor) to the ICU with severe mediastinitis. His recently diagnosed esophageal cancer reconstructive surgery failed, with a serious anastomotic leak. He died a few weeks

later. What I thought could have been a promising beginning of my career came to an abrupt stop. Shortly after that, the program director at SUNY told me that my salary offer as a PGY-6 had been a mistake. My first check came with an unexpected salary reduction to that of an intern level. Discouraged, I reached out to Dr. Patiño, who spoke on my behalf to the chairperson of the Department of Surgery at Yale University, his alma mater. I moved north across the Long Island Sound and joined the Yale Department of Surgery at New Haven as an instructor in a new trauma program. While at Yale, I met my wife and married. Dr. Meakins's prophecy turned out to be right—I never returned to Colombia.

## **Rewards: Expected and Unexpected**

My following five years working as a junior faculty member and starting a beautiful family were filled with personal satisfactions. My children were born in Worcester, MA, and I had an exciting and rewarding job as an assistant professor at University of Massachusetts under the support and guidance of a true gentleman, Dr. Wayne Silva. I was also given a combined appointment at the Harvard West Roxbury VA in a dual position offered to me by Dr. Shukri Khuri. I will be forever indebted to both Dr. Khuri and Dr. Brownie Wheeler, Chair of Surgery at University of Massachusetts, for their support and trust. With their collaboration, they created the opportunity to facilitate my transition to a working Visa under the waiver program available through VA jobs at that time.

A new and very tempting opportunity came along when Dr. Michael Zinner from Boston actively recruited me to become the first director of a new integrated surgical ICU program at the Harvard Medical School-affiliated Brigham and Women's Hospital (BWH). This was a challenging job, as the BWH had never previously had a true surgical ICU service. A new perspective and an innovative context needed to be created in order to gain the acceptance of the surgical residents and faculty, who were used to running an open ICU without any centralized critical care service coordination. At times, within this new and challenging environment, this job felt as if I was the person standing behind the ramp in a debarkation vessel of an infantry landing craft during the Normandy invasion. I felt that no matter what I did, I would get shot upon jumping on the beach. Despite many difficulties, I founded the surgical critical care fellowship program at the BWH. My team and I designed the educational curriculum and the financial structure for a new combined anesthesia and surgical critical care service. We began to gain acceptance for the shared responsibilities of caring for critically

ill patients. However, this turned out to be an exhausting job that left me with little time to be in the operating room. I spent many weeks running the ICU services. Concerned that I would continue to have difficulties developing and engaging in a busy and rewarding surgical practice should I remain in Boston, I decided to search for better options. It was at this time that I ran into Dr. Peitzman at an international meeting of the Pan-American Trauma Society and jokingly asked him if he had "a real surgeon's job" for me at the University of Pittsburgh.

Coming to Pittsburgh was another practical decision. Trusting in Dr. Peitzman's support and without knowing much about the institution, I began my work mostly as a member of the University of Pittsburgh Critical Care group. Slowly, my participation within trauma and emergency surgery began to grow, while simultaneously, countless opportunities lined up in the form of new and exciting collaborations. Being appointed initially as a visiting associate professor, it perhaps would have appeared strange to search for new mentors. Instead, rather than mentorships, I found myself creating new partnerships. Research opportunities in the areas of shock and hemodynamic monitoring emerged, working in collaboration with tremendously bright and productive individuals of all ages, such as Dr. Michael Pinsky and Dr. Yoram Vodovotz. I was lucky to apply successfully for an NIH Research Project Grant (RO1) on my first attempt. This grant work was satisfying and provided bases for newer and more diverse research funding possibilities in the future.

## **Key Accomplishments in My Career**

In an unexpected manner, while not necessarily searching actively for it, I found myself involved in two new and promising academic/educational endeavors. These activities would result in the most significant, long-lasting, and gratifying accomplishments of my career. These activities helped me shape my international academic stance far beyond what I had ever expected. The first one came when I suggested to Dr. Peitzman that we host the headquarters of the Pan-American Trauma Society here at the University of Pittsburgh. Thanks to his commitment and partnership (and the support of the Department of Surgery at the University of Pittsburgh), we formed a team that for 10 years engaged in a multitude of international academic endeavors, expanding across the Americas. During this time, I participated in many international projects, ranging from organizing the annual international congress of the Pan-American Trauma Society to countless educational events from Canada to Argentina. I met numerous young and

incredible keen collaborators, and we designed trauma ultrasound, disaster, emergency response, and trauma care courses in many cities across Latin America. I was able to create long-term collaborations, and we were able to offer rich observership experiences to trauma surgeons and surgical residents from many countries who visited Pittsburgh and witnessed the daily operations of our own mature, state-of-the-art trauma center and trauma system. Unquestionably, all of the activities that originated from working with the Pan-American Trauma Society had a definite impact on establishing robust international collaborations, particularly in Colombia. This is when a second international academic opportunity came along. Working with old classmates from my medical school in Colombia, we wrote and submitted our first Fogarty International Center - NIH-sponsored training grant. Our combined efforts allowed us to train Colombian Master's and PhD students in clinical translational sciences here at the University of Pittsburgh. We built injury research capacity in Colombia, and I am extremely proud that today, these University of Pittsburgh trainees have created the most prosperous and productive clinical trauma research institution in Latin America. They have now become independent investigators. Furthermore, since 2006, I have been uninterruptedly funded by the NIH in Global Health Research, and our research and educational teams have expanded collaborations to Guatemala, Kenya, Chile, Ecuador, and Paraguay.

The impact of these grants is not measured by the number of papers published under my name; rather, as intended by the objectives of these capacity-building research training grants, the impact is evident in our successful work to create independent investigators. Colombian trainees now publish their own work and are truly independent investigators. For many years, contributions to the American Association for the Surgery of Trauma (AAST) from Colombian authors have increased on several occasion, fourth in number only after contributions from Canada and Japan. This, for me, will be a legacy that will have a lasting impact. Now, after having obtained seven NIH grants, five of which are sponsored by the Fogarty International Center and having mentored and trained clinical investigators from many countries, I can look back and see their work and contributions in their own fields, from their own countries, as comprising one of the most gratifying rewards of my international academic career.

In the end, I was able to honor my word to Dr. Meakins—although I did not return physically to Colombia, I am convinced that what I accomplished here has been just as valuable.

## Reflections and Advice to Those Entering a Career in Surgery

As surgeons and especially as trauma surgeons, we see tremendous suffering. Whole families' lives can suddenly turn upside down due to traumatic injury, and it is always extremely wearing to tell a family member that despite our best efforts, their loved one has died in the operating room, particularly after preposterous acts of violence. Therefore, we should seek refuge in

spaces and activities that allow our souls to restore. The things that you do to find such peace should not be tied to your job; they should allow you to bring a brand-new sense of energy, a fresh smile and joy to work the next time you are on call. I continue to find such refuge with my horses - thank you, dad!

My journey has followed a convoluted and winding road. The advice I always give is to follow your instincts - do not be afraid of failings, and always, <u>always</u>, aim for something bigger than yourself. Remain authentic to your roots and your values; your impact will come not from earning and wearing accolades, but from maintaining and strengthening your personal conviction, fulfilling the dream that you may not otherwise have dared to share with the rest of the world.



violence. Visiting lake Atitlan in Guatemala with my family - 2009



Getting ready for next season



2019 at my friend's farm in Spain