Marco G. Patti
P. Marco Fisichella *Editors*

The American Health Care System

A Practical Guide for Foreign Medical Graduates Who Want to Enter the System

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To our parents who supported our quest for a better education.

Foreword

In 1910 Abraham Flexner published an in-depth report critiquing the US medical education process at that time. He found a flawed system with inconsistencies in teaching and a lack of uniform educational objectives. The by-product of Flexner's report was a major overhaul in the US medical education system with a transformative improvement in the quality of education and training for its graduates. Since that time healthcare has witnessed numerous breakthroughs and medical innovations. The individuals driving these activities came from various backgrounds and the majority of them were graduates of the US medical education system. What has been potentially overlooked during the last century is that medical graduates from educational systems outside the United States have worked collaboratively with US graduates on some of these innovations and developments.

This unique and informative book is championed by its lead authors who are internationally accomplished professionals. Drs. Patti and Fisichella address the interface of American healthcare and the role of those professionals who received their medical education from academic systems outside the United States. The authors provocatively address an often misunderstood topic. Without graduates of international medical programs, the United States would be lacking a critical group of scientists and there would be an even greater shortage of healthcare providers in numerous regions throughout the country. Any increase in this disparity will result in a further decrease in access to care for patients who are unable to travel for their healthcare needs.

The authors have approached this book by dividing it into two sections. The first section addresses the many paths and opportunities for foreign medical graduates with respect to the US healthcare environment. This section also addresses the numerous steps that an individual may face as they embark on this journey. In the second half of the book, there is a pivot to the personal stories from individuals who have successfully integrated into the American healthcare system.

This well-timed and unique book serves as a primer for individuals who may be interested in coming to the United States. It also furthers a critical discussion focusing on the variable educational background of the valuable healthcare professionals practicing in the United States.

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Preface

In 1994, for the first time in the history of the American College of Surgeons (ACS), an individual who was not born and had not trained in the United States was elected president. In his presidential address delivered during the 78th Convocation of the ACS on October 13, 1994, Dr. Alexander J. Walt stated: "I stand here as the first foreign medical graduate (FMG) to be President of this College…. The election of a FMG testifies to the great generosity of our American Society, to its warmth, tolerance, acceptance of strangers, willingness to experiment, and its disdain for artificial barriers…." Nineteen years later, on October 6, 2013, another FMG, Dr. Carlos A. Pellegrini, gave his presidential address in front of 1622 new fellows of the American College of Surgeons as the 94th president. Of the 1622 initiates, 346 (21.3%) were from 55 countries around the world.

Even though Dr. Walt and Dr. Pellegrini are examples that are difficult to follow, their stories show that in the United States, foreign-born individuals are not discriminated and they can achieve leadership roles at the highest level. The United States is a country of opportunities, where meritocracy is the rule rather than the exception. Today, about 25% of all the residency positions are filled by foreign medical graduates, and without them the system could not function. The majority eventually decide to remain in the United States after completion of their training, as often they cannot find proper employment in their country of origin.

We left Italy many years ago, in the quest of a better education that we felt was not available in Italy. It was not an easy decision, as it meant leaving our families, our friends, and our culture and moving to another country, facing a completely different system. But many years later, we feel that it was the correct choice. We enjoyed every moment of our training, the guidance of our mentors, and the satisfaction of becoming competent surgeons and being able to teach the younger generations.

This book is dedicated to those who share the same dreams that we had, in the hope that their journey will be simpler and fulfilled with satisfaction.

Chapel Hill, NC, USA — Marco G. Patti
Boston, MA, USA — P. Marco Fisichella

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Part I

The Journey

International Medical Graduates and the American Health Care System

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Marco G. Patti and Francisco Schlottmann

In 1994, for the first time in the history of the American College of Surgeons (ACS), an individual who was not born in the USA and had not trained in the USA was elected President. In his Presidential address delivered during the seventy-eighth convocation of the ACS on October 13, 1994, Dr. Alexander J. Walt stated: *"I stand here as the first foreign medical graduate (FMG) to be President of this College……. The election of a FMG testifies to the great generosity of our American Society, to its warmth, tolerance, acceptance of strangers, willingness to experiment, and its disdain for artificial barriers….."* Nineteen years later, on October 6, 2013, another FMG, Dr. Carlos A. Pellegrini, gave his Presidential address in front of 1622 new fellows as the ninety-fourth President of the American College of Surgeons. Of the 1622 initiates, 346 (21.3%) were from 55 countries around the world. Even though Dr. Walt and Dr. Pellegrini are examples that are difficult to follow, their stories have a lot in common and show that foreign-born individuals can and do serve in leadership roles at the highest level in the American Health Care System.

Dr. Walt and Dr. Pellegrini are not isolated examples of FMG who have been able to work and succeed in the USA. The reality today is that about 26% of physicians in practice and 24% of residents in specialty training did not attend medical school in the USA: they are referred as international medical graduates (IMG). Some of them were born in the USA and then attended medical school in another country, mostly because they were not accepted in an American medical school (US-IMG); the vast majority were not born and raised in the USA, and they attended medical

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school in other countries and eventually moved to the USA for postgraduate training. They are usually referred as foreign medical graduate (FMG). The reason for this very high number of IMG in the USA work force is that the number of physicians trained in US medical schools has been lagging behind demand for physicians over the past several decades, and a shortage of 125,000 physicians is predicted by 2025. Today, as one in four physicians practicing in the USA trained at a medical school outside the USA, it is clear that IMG play a crucial role in our health care system. However, this reality—that the system could not function without IMG—is seldom discussed openly, and few people are aware of it.

Very few people know that the journey of a foreign medical graduate to a US residency program is very long, expensive, and fraught with prejudice and biases and requires many sacrifices: (1) leaving their own country, their family, and their friends, (2) facing expenses for the multiple examinations that are often equivalent to a 1 year salary in many underdeveloped countries, and (3) being immersed in a social and professional environment that is often radically different from their own. Language, beliefs, and family structure are unique to the American culture. For instance, in many other countries, the role of the doctor is completely different, more "godlike." Similarly, the role of nurses and other health care professionals the concepts of informed consent, confidentiality, and documentation are unique to the American health care system.

So why are so many individuals willing to undergo this long process and make considerable sacrifices? There are indeed some very strong personal and professional reasons. The USA is still seen as a land of opportunity. It is seen as a unique place in the world where an immigrant can become educated and wealthy and where meritocracy is still the norm rather than the exception. Thus, there is a strong desire for many to try to get a superb medical training and to achieve a comfortable economic situation, guaranteeing an education and a better future for their own children. In addition, there are some characteristics of the education in the USA that are absolutely distinctive: it is a system that is open-minded and flexible, grants graded responsibility, and practices a hands-on approach. In contrast to many other countries where training periods extend to 10–15 years before a physician is considered ready for independent practice, in the USA an internist is produced in 3 years, a pediatrician in 3 years, a general surgeon in 5 years, a neurosurgeon in 7 years, and a cardiothoracic surgeon in 7–8 years. And contrary to many other countries, employment is a certainty after completion of training.

The journey of a FMG starts with the information and documentation that the medical school where he/she graduated must send directly to the Educational Commission for Foreign Medical Graduates (ECFMG). This is the first step in order to apply for the required tests. The International Medical Education Directory lists all the medical schools recognized by the government of the country of origin of the FMG. Usually, the required documents include the medical school diploma and medical school transcripts, with certification of all the requirements.

Once all the proper documents have been provided and verified, the FMG can apply for the USLME step 1 and 2 tests. Step 2 includes a component that assesses the proficiency of spoken English.

The entire process, step by step, is very expensive. The documents must be translated in English and then notarized by a US-recognized notary. The local US embassy offers these services but at a steep prize; the study material is available on the web, but it is expensive; many courses are available for preparation for the tests, most immersion style, but the cost is often prohibitive. Similarly, the fee for USLME part 1 and 2 is expensive, and the clinical skill assessment can only be taken in the USA, which implies the difficulty in obtaining a tourist visa, the cost of the airfare, and the room and board in a US city. Overall, these expenses are often above the yearly income in many countries. After the tests are successfully completed and certification is obtained, the candidate must then apply for a residency position. This is mostly done through the Electronic Residency Application Service (ERAS), developed by the Association of American Medical Colleges (AAMC), to send documents by e-mail to residency programs. ERAS charges a fee, and the amount depends on the number of programs selected. The ECFMG also charges for preparation and transmission of the ECFMG status to all programs.

It usually takes a couple of months to know if an interview has been granted. Sadly, in many cases this does not happen, as many programs do not even consider IMG for a position, as it is felt that their training in a medical school outside the USA was of inferior quality. This is a very strong bias that unfortunately is widespread. Even though a fair comparison between US graduates and IMG is not possible, there is some evidence today the IMG can and do provide patient's care comparable to US graduates. For instance, Tsugawa et al. compared the quality of care delivered in US hospitals by general internists graduated in foreign versus US medical schools. Their study showed that among Medicare patients admitted to hospitals in the USA, the mortality rate was lower when they were cared by international graduates. The readmission rate was similar among patient treated by international and US graduates. Similarly, Norcini et al. evaluated the quality of care provided by doctors educated abroad and by doctors who graduated in US medical schools. They analyzed 244,153 hospitalizations in Pennsylvania for congestive heart failure and acute myocardial infarction and found no difference in mortality when comparing all international medical graduates with all US medical school graduates. These studies suggest that the current approach to licensing international medical graduates in the USA is sufficiently rigorous to ensure high-quality care. Regardless of these data, there are programs that have imposed further obstacles for the IMG to obtain a residency position. For instance, the Department of Surgery of the University of Washington in Seattle requires that potential applicants for a residency position, after they have fulfilled all the ECFMG requirements, spend 8 weeks working in Seattle at the level of a senior medical student in a subintern role. Clearly, this adds additional stress and costs to the IMG. And even when they have performed very well, they are only offered a preliminary position for 1 or 2 years, without any guarantee that they will eventually move to a categorical position and complete their training. Interestingly, when this program was established, the Chairman of the Department of Surgery of the University of Washington in Seattle was a foreign medical graduate from Argentina who had not endured any of these restrictions.

In addition to the bias concerning the quality of training, other members of the medical establishment in the USA quote the so-called "brain drain," the concern that the best and brightest from other country will eventually remain in the USA after training. The 2-year requirement after completion of training imposed to IMG sponsored with a J1 visa is considered a way to limit this phenomenon. Many, however, feel that this additional restriction is not fair. The USA is a country of immigrants, people who have left their own country in search of a better education and a better life for them and their families. And in other fields, such as technology, the USA has had no problems for creating a special visa program, the H1, to recruit experts particularly from India who bring their expertise to American companies at a low cost.

Overall, it is clear that the US health care system could not function without the participation of individuals who did not attend medical school in the USA, regardless of their nationality (US versus foreign born). The screening process currently in place seems to be very effective in selecting individuals who can eventually function well at a level similar of that of US graduates. It would be very important to have an open discussion about their contribution, educating the program directors who eventually will select the applicants for interviews, and making the visa process more friendly and practical.

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Research Experience in the USA

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Francisco Schlottmann

How to Get a Research Experience in the USA?

I am from Buenos Aires, Argentina. I received my medical degree at the University of Buenos Aires Medical School and completed my general surgery training at the Hospital Alemán of Buenos Aires. During my training, I realized that being a good surgeon was much more than knowing how to operate and understood that research was the key to broaden my mind. In the course of my last year of residency, I spent 3 months in the USA doing surgical observerships (2 months at the Center for the future of Surgery at UCSD, California, and 1 month at Memorial Sloan Kettering Cancer Center (MSKCC), New York). Those 3 months were an eye-opening experience for me, since I understood that a longer time spent doing research in the USA was warranted in order to fulfill my personal aspirations.

The first step was to analyze the different opportunities available to do research training in the USA. Since I had spent 1 month at MSKCC and I was impressed by the academic level of all the surgeons I met, I applied for an international scholarship to do research there. Sometimes it is hard to obtain a successful response for these applications when they come from a small country with a poor research background. I am convinced that the recommendation letters from the surgeons of MSKCC (whom I worked with during my observership) were the key to be selected as a scholar. This is an example of how important is to start doing at least an observership abroad. Once you interact personally with surgeons in the USA, and they notice your enthusiasm and willingness to work hard, the doors will start to open.

Surgical meetings are also important for networking and creating opportunities. They are unique opportunities where the best academic surgeons are gathered together. The economic situation of low- and middle-income countries makes it

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hard to afford the expenses to travel abroad for meetings. However, the most important meetings usually offer international scholarships, which are worth trying every year. In addition, during the surgical meeting of your own country, there are usually recognized surgeons invited from abroad. It is of paramount importance to approach them, introduce yourself, and express your deep interest in having a research experience abroad. In fact, during the Annual Argentinian Surgical Meeting in 2015, I met who was going to be my mentor in the USA 2 years later.

Research Experience in the USA

First, I completed the Soudavar Fellowship at Memorial Sloan Kettering Cancer Center, with main interest in esophageal cancer. My mentor was Dr. Daniela Molena. I was involved in interesting projects such as the role of esophagectomy in early-stage esophageal cancer patients, predictors of nodal metastases in esophageal adenocarcinoma, and the identification of the lymphatic drainage pattern using indocyanine green fluorescence imaging in patients with distal esophageal cancer.

Afterward, I did a gastrointestinal surgery fellowship at the University of North Carolina. My mentor was Dr. Marco G. Patti. My research focused on benign esophageal disorders (esophageal motility disorders, paraesophageal hernias, and gastroesophageal reflux disease) and esophageal cancer. In addition, during my fellowship at UNC, I developed a deep interest in surgical education. I participated in multiple courses for both medical students and residents (suture training, central line placement, laparoscopic skills training, and robotic skills training). We developed a unique simulation model which is based on tissue blocks and is incredibly realistic, offering a practical alternative to live animals and virtual simulators. The simulator is currently used to train senior residents in advanced laparoscopic and robotic surgery.

How Does Research Help if You Go Back to Your Country?

"A good surgeon knows how to operate, a better surgeon knows when to operate, and the best surgeon knows when not to operate."

A proper surgical technique, which is learned during residency and enhanced during the whole life of a surgeon, is extremely important. However, understanding the disease and knowing all the highly relevant literature is vital and hard to achieve during residency. A research experience not only makes surgeons more competitive for future fellowships and careers but also builds a foundation of evidence-based medicine that facilitates the ability to critically appraise current scientific literature. During my research fellowship, I studied all the relevant literature regarding esophageal diseases. There is no doubt that I feel much more confident taking decisions with my patients, and even more important, I am practicing real evidence-based medicine.

Research in the USA will also give you the opportunity to have a lifelong mentor, which is critically important in both academia and practice. Over time, the

mentor-mentee has become characterized by mobility and flexibility, where the concept of mentorship has broadened beyond distance and institutions. The newer technology available and methods of communication have the potential to improve the nature of distance mentor-mentee relationships. As a result, distance-mentoring practices are feasible and extremely helpful regarding difficult decision-makings of patients care.

How Does Research Help to Stay in the USA?

Research is one of the gates through which international medical graduates (IMG) cross into residency programs. The examination requirements for certification include passing a three-step United States Medical Licensing Examination (USMLE). The process is exhausting and expensive. However, passing the exams is just the beginning. Securing residency is the ultimate challenge. Some have waited for years without acceptance into a residency program. Getting a residency position, especially a categorical position, is challenging for an IMG, and even harder for those with low scores at the USMLE exams, without research background, or without US letter of recommendations. Research mentors, in addition to providing letters of recommendation, will go through their wide connections to help you get a residency position. Having publications in peer-reviewed journals and abstracts presented during meetings will also enhance dramatically your resume.

The transition to life in the USA can be hard with unexpected challenges for doctors who have trained abroad. Professional and doctor-patient relationships can be distinctly different from your native country. As a research fellow in the USA, you are exposed to the American medical system and practice, which is very helpful before getting into a surgical residency. In addition, as language barriers are frustrating, developing English skills during research training is also important.

Overall, research training in the USA will be a key element for success in your career, either you plan to go back to your country or you plan to stay in the USA.

Conflict of Interest The authors have no conflict of interest to declare.

What After Training? Returning to Your Own Country

3

María Verónica Gorodner

There is no question: it was not easy, but it was worth it.

I was asked to share my own story, and I think this might help many students that are thinking about the possibility of embarking in this marvelous experience. But before I begin, I would like to put you in perspective of how does training work in my country, Argentina, so it will be simpler for the reader to understand a little bit more about the situation. I am sure this will sound familiar to many people who are trying to initiate this journey.

After applying for general surgery residency, either you take an exam or you have an interview, or both. The modality depends on the place where you apply. It can be a Public Hospital or Private Practice. Usually residency starts immediately after Medical School is finished, and it lasts 4 or 5 years, depending if you become Chief or not. Anyway, once you start in one place, you finish in the same place. You can choose to perform a 3 months' rotation during your last year. This rotation can be anywhere, even outside the country. This depends on the resident's ambition, desire, goals, and of course economic possibilities.

As always, there are advantages and disadvantages of this system, which is very different from the one in the USA. Among the advantages, I can enumerate many, but the most important ones were having well-trained surgeons teaching the residents how to operate, variety of operations performed, and high volume of patients. However, the academic aspect was definitely weak, at least in a Public Hospital, like the one I trained in. Another frail aspect of my training was laparoscopy. Supplies were limited as well as time, since surgeons working in Public Hospitals needed to increase their incomes by working in Private Practice in the afternoon. Economics have never been a strong aspect of this country.

Given this scenario, I finished my general surgery residency back in 2002, and I decided to continue my training abroad. In my mind, there was no doubt that the

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USA was the place where I should go. However, before commencing the journey, several topics needed to be addressed: I needed to find a place where to train, I did not have the United States Medical Licensing Examination (USMLE) (therefore, research was the only option to start with), English was not my first language, the US medical system was completely different from mine, and I had to be away from my family and friends; not to mention the endless paperwork process I needed to take care of. In spite of all that, I knew it would be a unique experience.

I contacted then an Argentinian surgeon, Dr. Santiago Horgan, who had been working in the USA for a long time, and he connected me with the person who would be my future mentor, Dr. Marco Patti. I was interested in gastrointestinal surgery, and he was one of the best esophageal surgeons in the USA. I traveled to San Francisco, and after a couple of interviews, he gave me a position as research fellow in gastrointestinal surgery and gastrointestinal motility at the University of California, San Francisco (UCSF). I was extremely excited, but scared to death. I had no research experience whatsoever. I went back home, finished residency, packed everything, and landed in San Francisco 4 months later. I applied for a temporary California License under Section 2111 exemption. The intent of the Section 2111 program is to provide a clinical experience for an internationally trained physician who will then return to his/her country of origin to provide improved medical care. This meant I would be able to have patient contact always under supervision. During the following 2 years, I would spend 1 month in the lab, performing esophageal function tests, and the following month in the operating room (OR). I could not be happier. Every day was a challenge. I learned how to perform an esophageal manometry and a 24 hs pH monitoring. Truly, I had only read in Medical School about these types of tests, but I had never seen one before. I found this topic actually very interesting. I learned not only to perform these studies but also to deal with patients from different places, since San Francisco is a cosmopolitan city. At the beginning, I used to look at the list of patients every morning, hoping that at least one of them would speak Spanish. After a while, the language was not a barrier anymore.

Then it was time to go to the OR. I felt I had arrived to another planet. Technology and infrastructure had no comparison to anything I could have seen during my residency training. It is difficult to put in words how I felt. I was astonished. People talked to me, but they were wearing masks, so I could not read their lips. Another challenge to face. I have countless anecdotes, but I will just share a few of them, so you can have a sense of how difficult can result to do simple things during the adjustment period. Now, I can look back and laugh at myself. One day one of the scrub nurses asked if I was so skinny because of the economic issues in Argentina. Another day apparently, I did not know how to put my gloves on, and I had to scrub all over again. Some other day, I was supposed to insert the Foley catheter in a patient. They passed it to me, and I could not believe what I was seeing: a complete kit, in which nothing was missing. I did not know where to start. Later on in clinic, I had to ask Dr. Patti how to remove the skin staples! I felt so embarrassed. Soon I started to feel more comfortable. Surprisingly enough, Dr. Patti was asked at that time to start the Bariatric Surgery Program. I am sure he was not very happy with

that idea. In spite of that, the program was started. Honestly, I was not interested in that area, mainly because I was planning to go back to my country, and obesity was not recognized as a health issue there. Still, everything counts in terms of knowledge, so I tried to take the most out of it. Roux-en-Y gastric bypass (RYGB) was the operation of choice at that time. I was impressed the first time I assisted one of those operations. I thought that cutting and stapling the stomach and the bowel in order to change the patient's eating habits was an extreme measure.

Time went by, and I learned almost everything from scratch. In terms of research, I learned from how to search for publications in the library to how to write a manuscript. At that time, downloading a paper from the Internet was not an option. I learned how to manage a database and how to obtain, analyze, and present data. I learned how to prepare a presentation and how to give oral presentations in surgical meetings. Dr. Patti used to spend a significant amount of his time teaching me how to do this. He used to listen to my presentations over and over again, correcting me every single mistake. Then he used to ask potential questions that would come from the audience. Yes, it was extremely stressful, but I do not have enough words to thank him for this.

In the meantime, I was studying for my USMLE exams. I took Step 1 and I failed. No excuses, I did not know how to study for this. I did not have the proper literature, and I was not familiar with that type of evaluation.

Two years went by, and it was time to move on. I wanted to do a clinical fellowship, but again, I needed to have my USMLE completed in order to apply for it. I contacted again the Argentinian surgeon, Dr. Horgan, who was in Chicago. I left San Francisco, a beautiful city, full of memories, and went to Chicago, another amazing city, which was soon filled with more memories. I continued my research over there under his supervision. I started a Research Fellowship in Laparoscopic and Robotic Surgery at the University of Illinois at Chicago (UIC). Finally, I was able to pass Steps 1, 2, and 3 all in a row. I had learned how to study within the American system at that time. This allowed me to start a Clinical Fellowship in Minimally Invasive and Robotic Surgery some years later. Again, that fellowship included bariatric surgery, but luckily enough, I was already familiar with it. There, a new world of opportunities opened up. I trained in minimally invasive surgery, including robotic and transplant surgery. That was a dream coming through. I felt that all my efforts paid off. Meanwhile, my research kept going on. It was time to enjoy it, since I had learned how to do it. By the time I was finishing my fellowship, I was offered multiple jobs, and that was extremely rewarding to me. The offers varied from performing bariatric surgery in adolescents under the Pediatric Surgery Department to performing bariatric surgery in transplant patients under the Transplant Surgery Department.

However, it was time to go home. My goals had been achieved, and I was homesick. I missed my family, my friends, and my country a lot. I am not sure I can express enough how hard it was for me from the emotional standpoint.

It was time then to look for a job in Argentina. As everyone can deduct from my introduction, working in my country is not an easy task. Not to mention that women are not very popular in surgery down here. Regardless of the obstacles I knew I

would find in my way, in my mind there was no question that I would keep the US standards that I learned during my US experience, while practicing in my own country. But again, the fear came back. What if I did not find a job? What if I needed to be on call several days a week in order to survive? What if I could not put in practice what I had learned? I calmed down, and I thought that if I had been able to reach that point, I would be able to keep going.

I spoke with my best friend, another surgeon who had come back home after he completed his fellowship at UIC. He connected me with a Bariatric Surgery group in Buenos Aires, exactly where I am from. I packed everything again and landed in Argentina almost 8 years after the beginning of this story. I became part of this group of bariatric surgeons. Apparently, bariatric surgery was meant to be part of my professional life. After a while, I came across a better job opportunity, again… another bariatric surgery group in Private Practice. This was one of the most prestigious groups in Argentina, with high volume and wide expertise, where the standards I had in my mind were accomplished. I joined that group where I have been working hard for the last 6 years. I am actually very happy, since my expectations were fulfilled. I was able to get the perfect balance between having an excellent job, sharing my life with family and friends, and the most important thing: rising my kid in my own country. There is no doubt that given the conditions in Argentina mentioned before, I would not otherwise have had the opportunity of getting such a job without my training in the USA. I consider myself a lucky person, since I was able to train myself in an area that I finally ended up loving, and I can make a living out of it. Even though I am in Private Practice, our group has placed special emphasis on continuous research, with the aim of being in the vanguard of the minimally invasive bariatric surgery. I believe that sharing our group's experience with our colleagues and attending National and International Surgical Meetings is the key for continuing educating young surgeons and to keep or even improve our standards.

Now it is time for me to be the connection between people willing to expand their knowledge abroad and my mentors. Last year, one of our best residents started his fellowship with Dr. Patti. I am sure he will agree with my thoughts.

Faraway from giving an inspirational speech, I would like to share with the readers some thoughts based on my personal experience:

- Do not miss any opportunity, even if you are not sure it will work.
- There are no barriers if you want to do it.
- Open your mind, you might like something you do not even think about.
- Talk to people, there is always somebody willing to help.
- Study and work hard. People will notice who is the one making the effort and who is willing to learn and work hard. That will open the doors to the world.
- Travel abroad; this will change your career's perspective, and also your life's perspective.

Once again, as I stated at the beginning: it was not easy, but it was worth it, and looking at the results, I would do it all over again without hesitating.

United States Medical Licensing Examination

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Amy Holmstrom

The United States Medical Licensing Examination (USMLE) is a three-step examination that all physicians must complete in order to obtain medical licensure in the United States. The first two steps, Step 1 and Step 2 Clinical Skills (CS) and Clinical Knowledge (CK), are typically taken by US medical students during medical school. For international students or graduates, to be eligible you must be officially enrolled in, or a graduate of, a medical school listed in the World Directory of Medical Schools as meeting Educational Commission for Foreign Medical Graduates (ECFMG) eligibility requirements. In order to be eligible to take Step 3, one must have taken and passed Step 1 and Step 2 CS and CK, in addition to obtaining an MD degree (or its equivalent) or the DO degree from an accredited medical school. This chapter will discuss the first two steps of the USMLE and how to prepare to succeed on test day.

Step 1

The first step of the medical licensing examinations is classically taken at the end of the US medical students' second year of medical school. Most students dedicate 4–8 weeks to study for this exam. The resulting score on this exam has a profound impact on one's ability to get interviews for residency. This score is especially important for international graduates to be considered for a residency position in the United States. As of May 9, 2016, the exam is 8 hours in length, split into seven 60-minute sections during which a varying number of multiple-choice questions, not to exceed 40, will be given per section. The number of questions will be displayed at the start of each section. The total number of questions will not exceed 280

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for the entire exam. Material covered on this exam includes anatomy, behavioral sciences, biochemistry, biostatistics and epidemiology, microbiology, pharmacology, physiology, pathology, immunology, molecular and cellular biology, nutrition, genetics, and aging. Most questions begin with a clinical vignette of varying length. Occasionally, exam findings accompany the question in the form of audio (e.g., heart or lung sounds). During the course of your preparation, you will do many practice questions involving clinical vignettes. Over this time you should develop a strategy to approach these questions. Some suggestions include reading the last sentence of the vignette, especially large paragraphs, before reading the entirety of the question. Another suggestion is to think of an answer before you look at the options. Whenever uncertain, always start by eliminating options you know to be incorrect. In the end, choose the answer that is the most correct (some may be partially correct). Answer every question even if unsure about the answer, because unanswered questions are automatically counted as incorrect. As you complete more and more questions, you should become familiar with the normal laboratory ranges, so that it becomes faster to recognize when presented values fall out of the normal range.

Step 2 CK

This is a very similar test to Step 1, except it is more clinically oriented. US medical students typically take this test after completion of their third year. The resulting score on this exam is reported to residency programs as part of the electronic residency application. Historically, it has not been as important for obtaining residency interviews as the score on Step 1. However, for some applicants who score poorly on Step 1, a markedly improved score on Step 2 CK is looked on favorably by some programs. Material is drawn from topics including the immune system, blood and lymphoreticular systems, behavioral health, nervous system and special sense, skin and subcutaneous tissue, musculoskeletal system, cardiovascular system, respiratory system, gastrointestinal system, renal and urinary systems, obstetrics and gynecology, male reproductive system, endocrine system, and multisystem processes and disorders. At this point, you should be familiar with the computer-based exam software, the question format, and typical lab values, which allows you to focus solely on the material covered on the CK exam.

Test Day

Being prepared for test day includes knowing what to expect from the environment in order to avoid any surprises on the day of your exam. This information is meant to prepare you for exam day so you know what to expect. Do not let this information intimidate you or increase your anxiety. For more information, refer to your specific testing center for their policies. You may want to visit your testing center in advance so you may familiarize yourself with the facilities and layout of the center. Do not

forget to bring your testing permit and an ID. It is very important that you bring plenty of food and drink. If you normally drink coffee or caffeinated beverages while studying and taking practice exams, be sure to bring some along on your test date. Eating a meal before your test is also important. The exam takes up most of a day, so you will need to refuel in order to continue performing at your best.

Typical Procedures

You will be fingerprinted upon entering the exam room for the first time and any subsequent reentries into the examination room (i.e., returning from breaks). Hats are prohibited in the examination room, so do not attempt to wear one. You will also be required to turn your pockets inside out and pull your sleeves up to ensure you are not carrying any materials into the room with you. They will repeat this procedure any time you wish to reenter the exam room. When seated at your testing station, you may not remove articles of clothing, such as a sweatshirt. If you do, you will be approached by testing center staff and told to put the article of clothing back on. What you wear on your exam day is up to you, but consider choosing something with few or no pockets that is temperature controlled, and wear something you are comfortable in for hours.

You will be given two sets of headphones: one is for noise-cancelling purposes, and the other is for listening to audio associated with a test question such as heart sounds. For those who wear glasses, these headphones do not sit comfortably over your glasses, so having your own earplugs may be a better choice. If you would prefer to bring your own earplugs, you may do so, but be prepared to show them to the test center staff for approval. The testing room is set up like a computer room with each computer in its own cubicle. Other test takers will be coming and going at different times due to the fingerprinting and other screening processes, personal nature of break time structuring (*see section*: "Using your breaks"), and the fact that many different exams are administered on any given day at Prometric testing centers. Therefore, it is imperative that you pay no mind to people around you. Once you are seated, focus on your computer and cubicle, and execute your test day plan. Nothing else, and no one else around you matter.

Using Breaks

For Step 1, you will have six optional break periods—one between each of the seven sections. Step 2 CK will have seven optional breaks—one between each of the eight sections.

There are 45 minutes designated toward break time, with 15 minutes for an optional tutorial. The tutorial is available online prior to your test date, and the NBME practice tests will also allow you to become familiar with the tutorial and all of the test functions (highlight, strike out, marking questions, etc.). If you choose to skip the tutorial, you will have the 15 minutes added to your total break

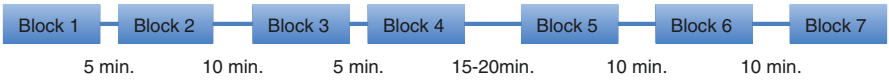

Fig. 4.1 This strategy involves taking the first two blocks with no more than a 5-min break in between, while remaining seated at your test station. After two blocks, take a longer (approximately 10 minute) break to use the restroom and eat a snack. Repeat this procedure, but following your fourth block, take a longer (15–20 minute) break, during which you should eat about half a meal. The last two breaks will be 10 minutes each

time. *There is no reason to spend 15 minutes on the tutorial on your exam day. Increase your break time to 60 minutes by skipping the tutorial.* You are able to split up your break time however you would like. How you choose to use your break time is a personal decision and may change based on how you are feeling the day of the exam (e.g., restroom urgency); however it is best to plan ahead. When you practice at home, try and implement a break schedule that works for you. One strategy is illustrated in Fig. 4.1 below. Keep in mind that reentering the examination room can be a time-consuming process, so it is not wise to leave the room after every block. Take a couple of your shorter breaks seated at your testing station. While seated, close your eyes, do some stretches and/or relaxation techniques, and begin the next section when ready. Do not eat or drink too much on breaks when you leave the room, but make sure you are eating and hydrating, because it is a long exam and your brain needs fuel to perform at its best.

Practice Exams/Test Simulation

Practice examinations are essential for building stamina for test day. These tests are also a marker of your performance. These tests are typically half the length of the full exam. It is useful to take one at the beginning of your study period in order to determine weak subject areas and help you develop an approach to your study plan. During your study period, you should take at least two more practice exams: one at the halfway mark and one closer to your test date after you have thoroughly reviewed and studied. There are several options for practice examinations. You can purchase them online through the NBME as the "Comprehensive Basic Science" form with the option for "Expanded Feedback" which gives you your results by section and allows you to review your incorrect questions. The NBME exams are very similar to the USMLE, including the tutorial and the test-taking functions (labs, highlight, mark, etc.). To obtain the most realistic testing conditions, you can pay to take a practice test at a Prometric center. This will allow you to get used to facilities at the center and use the real testing software. Lastly, you may create your own test, by using your computer-based question source. You may do any combination of these options. No matter what you choose, when you take a practice test, try and simulate testing conditions as much as possible. Do not allow yourself to take excessive breaks or become distracted by friends or roommates. Plan your snacks in advance, just as if you were going to the testing center. If your test is scheduled for 8:00 a.m.,

get up early and start your practice test at that time. The more experience you have, the more prepared you will be on the big day.

Resources

There are an abundance of printed and online resources for exam preparation. Several are very popular among US medical students. What resources you choose to use should be based on your learning style and preferences. Keep in mind that it is easy to overwhelm yourself by choosing too many resources and subsequently never fully utilizing them. To avoid this common mistake, the best approach is to choose a select few, after careful consideration, and stick to those resources. It is recommended to have at least one question source—computer based is better than print versions because they are more similar to the computer-based examination. Some of the resources that have online or printed question materials include UWorld, First Aid, Lange, Kaplan, Firecracker, and many more. UWorld and Kaplan offer question banks with over 2000 questions, answer explanations, progress reports, and a similar interface as the real testing software. Whichever you choose, make sure you complete your question bank and read the explanations to questions, especially those that you get wrong. In addition to a question resource, you should have a comprehensive text for material reference and review. First Aid makes an excellent text with color imaging that serves as a framework for your studying. Many students annotate their text as they learn from their classes, independent studying, and practice questions. You are most familiar with your study habits, so make sure to choose resources that best fit your individual needs.

Step 2 CS

Step 2 CS is the most unique step of the USMLE. This exam is designed to test a student's clinical abilities and is scored based on three categories: Communication and Interpersonal Skills (CIS), Spoken English Proficiency (SEP), and Integrated Clinical Encounter (ICE). It is graded as purely pass/fail, and all three categories must be passed in order to receive an overall passing score. The exam is set up to simulate an outpatient care center, where you are seeing patients (real actors who are trained to play the role of a patient) and performing a history and physical exam. At the beginning of the visit, you are provided with some basic information including the patient's name, age, and a chief complaint. It is your job to then gather a history, perform a focused physical exam, explain what you think might be going on, and outline your plan for moving forward. Once you leave the patient room, you are tasked with writing up a note with your findings. This is a typical patient encounter note starting with a History of Present Illness (HPI), followed by your physical exam findings, and finally you will fill out your differential diagnosis with supporting evidence. You can choose to write in complete sentences or in a list format. Visit www.usmle.org/practice-materials for sample patient notes and to watch the

orientation video that will be shown on your examination day. It is best to practice with a friend or peer, so that you develop an organization to your data gathering, and practice transition sentences and empathy phrases. Students that excel in the Step 2 CS exam are those that make the standardized patients feel comfortable, communicate their thoughts and plan, make sure the patient understands, and allow for time to answer questions.

TIPS:

- Before you enter the room, look at the chief complaint and quickly jot down about three diagnoses that come to mind. You will focus your differential as you take a history from the patient, but this quick trick will allow you to have a starting point that may come in handy if you find yourself stuck during the interview.
  - Example: "15-year-old female presenting with abdominal pain"
    DDx: Dysmenorrhea, appendicitis, gastroenteritis
  - Example: "60-year-old male presenting with abdominal pain"
    DDx: Diverticulitis, pancreatitis, colon cancer, hepatitis
- Introduce yourself as "Doctor"—this will remind you to introduce yourself and to treat the patient as if you were their physician.
- Start open-ended. Examples:
  - "What brought you in today?"
  - "Tell me more about that."
- Remember to show empathy. Examples:
  - "I'm sorry to hear that."
  - "That must be hard for you."
- Use the summarize technique to show that you were listening, but also to allow yourself time to think of things you may have missed.
  - Suggested phrase, "I would like to summarize what I've heard from you so far, and you can let me know if I've missed anything."
- Always wash your hands or put on gloves before beginning your physical exam.
- Ask permission to do the physical exam and then dictate everything you are doing—this lets the patient know what you are doing next and what body part you may need to expose.
- Respect patient's modesty—use the gown and drape appropriately to keep the patient covered whenever possible.
- Organize your differential diagnosis based on what is most likely.

Resources

First Aid and Kaplan each offer a Step 2 CS book with cases. The First Aid book is the most comprehensive review book for this exam. The Kaplan book can be used if you desire additional cases to practice.

National Resident Matching Program (NRMP)

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Amy Holmstrom

The National Resident Matching Program, also known as the Main Residency Match, or simply "The Match," is a program that matches applicants to a US residency program of any specialty with the exception of urology and ophthalmology, which have their own matching programs. The residency matching process is one that is almost a year long and involves an online application including letters of recommendation, a personal statement, medical school performance evaluation (MSPE, often referred to as the "Dean's letter"), and transcript. The earliest date you can begin this online application is during the month of May for US seniors/graduates or Canadian medical graduates. For international medical graduates (IMG), you must wait until June when the ECFMG releases your ERAS token, a one-time access code used to register for the online application—ERAS (see below for more information). The earliest you can submit your application is a date in mid-September. Most programs extend interview offers between September and December. Many programs wait until the submission of your MSPE, which historically has occurred on October 1st. Applicants receive the bulk of their interview offers during the months of October and November. By the end of February, applicants must submit a rank list of programs at which they interviewed. In mid-March, applicants find out whether or not they matched and where. The purpose of this chapter is to outline the details of this process and supply tips for a successful match.

Electronic Residency Application Service (ERAS)

The Electronic Residency Application Service (ERAS) is the online application that all medical students hoping to match into a residency in the USA must complete. The application is essentially a standardized curriculum vitae (CV). The application begins

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with a demographics section including educational history where you will input your medical school information as well as any undergraduate and graduate schools you may have attended and degrees achieved. There is a section for membership in honor/professional societies, such as Alpha Omega Alpha (AOA). Subsequent sections include volunteer experience, work experience, current/prior training (applicable only for applicants that have already graduated), research experience, publications and presentations, hobbies and activities, and language fluency.

There are specific locations (drop-down menus) to indicate AOA membership or Gold Humanism award. Other awards may be typed into a free text box. You should include awards from undergraduate school and/or any previous career or work experience that you feel were meaningful. When deciding whether or not to put an experience on your application, consider what you would talk about in an interview if your interviewer were to ask you about that experience. Do not include experiences where your involvement was limited or where you did not take away something valuable and worth discussing during an interview.

Some extracurricular activities may not seem to fall neatly under one of the aforementioned categories. Most of these will end up under the "volunteer experience" category. The key is to explain your role in the activity, just like you would on a resume or CV. For surgery, it is important to be concise. Know your audience, and in this case, your audience is made up of surgeons. Time is not plentiful, so keep your application to a manageable length by keeping explanations brief and to the point.

The hobbies section is a free text area that can be completed multiple ways: listed simply, bullet pointed with explanations, or paragraph form. Do not underestimate the importance of hobbies, as they may be discussed at length by interviewers who take interest. It also gives the programs insight into who you are outside of medicine.

Examples:

1. *Simple List*: Hiking, running, drawing
2. *Bulleted with explanations*:
   - Hiking: I have hiked Mt. Kilimanjaro, and 26 out of the 48 of the White Mountain peaks over 4000 ft.
   - Running: I compete in local 5K runs for charities and have run several half marathons.
   - Drawing: I took several art classes in college. My forte is freehand sketching using pencil and charcoal. Several of my pieces were featured in my annual college Art Fair as well as my medical school's Art Day.
3. *Paragraph*: I enjoy hiking and am currently striving toward hiking all of the 48 4,000 ft. peaks of the White Mountains. So far I have hiked 26 of them. I also run for exercise and compete in local 5Ks and half marathons that raise money for charities. In college I took several art classes and am particularly fond of drawing. My forte is freehand sketching using pencil and charcoal. Several of my pieces have been featured in my college Art Fair and my medical school's Art Day.

Table 5.1 Application fees based on number of programs per specialty

# Programs per specialty	Application fee
1–10	$97 total
11–20	$11 each
21–30	$16 each
31 or more	$26 each

Example: Applicant John Smith applies to 34 General Surgery programs and 7 Internal Medicine programs. It will cost him $471 ($97 + $11 × 10 + $16 × 10 + 4 × $26) for general surgery and $97 for internal medicine, for a total of $568, not including the USMLE Transcript fee

Aside from the CV portion of ERAS, there are a number of "Documents" that must be uploaded. One of them is your Personal Statement (see "Personal Statement" for more information). You can upload multiple statements, if you choose to write different ones for different programs, or if you are dual applying. Be sure to label them so that you know which is which. Other documents include your letters of recommendation (see "Letters of Recommendation" for more information). This is where you add a letter writer and create the form that they require in order to upload your letter. Other documents include your USMLE transcript, which supplies your USMLE Step 1, Step 2 CK, and Step 2 CS scores, your MSPE, your medical school transcript, and a photo of yourself.

After the documents section, there is a "Programs" menu where you can find all of the programs where you intend to apply (see "Program List" for more information). The amount of money you pay upon submission of your application varies based on the number of programs to which you apply and the number of specialties to which you apply. There is also a USMLE Transcript fee of $80 (amount subject to change). The most recent fees are outlined in Table 5.1:

ERAS is quite user-friendly and is very responsive to questions. For more information regarding the specific steps to set up and complete your ERAS application, visit https://students-residents.aamc.org/attending-medical-school/faq/faq-eras-residency-applicants/.

Letters of Recommendation

Ideally, you will get letters from people who know you well. It is more important to have a strong letter from someone who knows you and can speak to not only your clinical strengths but also interpersonal, professional, and research abilities. That being said, many medical schools will have the department chair write a letter for each student applying into surgery. In this case, schedule a meeting (or multiple) with this person to go over important parts of your CV and so they get to know you and your professional aspirations. If you can schedule time to work with this person in clinic or in the operating room, it could also help them speak to your clinical abilities.

For all letter writers, meet with them to discuss what you would like them to focus on in your letter. You can have different letter writers highlight different aspects of your CV and your strengths. For example, one writer may focus on your research strengths and leadership abilities, while another could focus on clinical strengths and interpersonal skills. Overlap is not a problem—the more people saying you have strong interpersonal skills, the better—but it is helpful to have each letter writer focus on different parts of your CV. After your meetings with letter writers, send them an email with the parts of your CV highlighted that you would like them to focus on in their letter and provide them with some action words to use.

Personal Statement

This is typically the hardest part of the application. The best part about the personal statement is that it is an opportunity for you to bring up new information about yourself that is nowhere else on your application. Think of the personal statement as your story. It should be clear to the reader at the end of your statement why you chose to go into surgery. Many choose to tell a story about an interesting patient or case they were involved in and use it to illustrate how surgery captured their interest. It is helpful to start by thinking about several characteristics about yourself that you wish to convey. For example, one might want to get across that they are dependable, resilient, and driven. From there you can write your story and weave these traits into the main themes. Some choose to write about an experience outside of medicine altogether. As long as your characteristics come across in your story and the parallel to surgery is clear, you can write whatever you would like. Being creative is encouraged; however, it is best not to be memorable for being odd. Writing a very unique personal statement is a risk that will often put you at one of two extremes—the reader may really enjoy it, or the reader may find it off-putting. Just keep in mind that you never know how any given reader may react to your statement if you choose to be far out of the norm. Writing is a process that takes time, and you will likely have many drafts before you settle on your final draft for submission. It is important to have multiple people read your personal statement during this process. Many eyes will ensure that no spelling or grammatical errors are missed. It will also give you several opinions on what comes across as your main themes. See if people can tell which characteristics you are trying to highlight. Be sure to have at least one surgeon read your statement. Often they will request it, but you should send your personal statement to each of your letter writers as well.

Program List

Once you've finished your application, you need to send it out to programs. ERAS has a section titled "Programs" where you can look up programs using various filters (specialty, location, position type, etc.) and save them to your list. Make sure when you are searching for programs that you pay attention to the various names that come

Table 5.2 USMLE Step 1 scores by range and their general implications in the Match. Bear in mind the national average typically increases over time and therefore these ranges are subject to change

USMLE Step 1 score	Implication
≤219	It is difficult to match with scores in this range. The rest of your application needs to be very strong
220–229	Some programs may view these scores negatively, but many applicants are able to match somewhere
230–239	Good score; however if you are hoping for top-tier programs, this should not be the strongest part of your application
240-249	Excellent score; you are in good shape
≥250	This score will stand out

up. Some names look very similar but are actually different tracks within the same program or are based out of a different hospital. For general surgery applicants, make sure you are choosing the "Categorical" option, not "Preliminary." Categorical positions are for the full 5–7 years, while preliminary positions are only for the first year with no guarantee of a position past 1 year (see "SOAP" for more information). There are many factors that go into deciding which programs to add to the list. It is very helpful to start by narrowing your search based on geographical preferences, if you have them. Where your family and friends live is an important factor that should not be undervalued. Another useful, if not crucial part of putting together your list is an honest understanding of your competitiveness as an applicant. You should find a mentor in surgery that is willing to look at your CV and give you a realistic opinion on your chances of matching in surgery. Regardless of your competitiveness, you should always include on your list a range of programs—from "safety" to "reach" in terms of your perceived ability to get an interview. That being said, you can never be certain that you will get an interview at any given program. There are sometimes very specific things programs are looking for or are using as exclusion criteria. Some programs may find you overqualified for their program and would therefore prefer to offer interviews to applicants they feel would actually rank their program highly. Many programs use some combination of filters, typically using your USMLE Step 1 score (see Table 5.2). These vary from program to program and may or may not be advertised on their website. Look at each programs' website to get an idea of what is emphasized. Determine if you are interested in a mandatory 7-year (2 research years) program, or if you would prefer the option to take research years, or if you absolutely do not want to do research years. At programs where research is not mandatory, but encouraged, you should find out how they determine who does research years and how those residents typically acquire funding.

Programs are often classified as either "Academic" or "Community," but there are also hybrid programs, which incorporate qualities of both types of programs. Academic programs are usually based out of a hospital associated with a medical school or university, and they emphasize research and evidence-based medicine. Community programs are typically based out of hospitals in the suburban or rural regions where a medical school is not directly related to the hospital. These programs put more emphasis on the clinical teaching during residency, and many are

strictly 5-year programs. The hybrid programs emphasize clinical skills but also allow for research and may have more resources dedicated to resident research than the average community program. Academic programs are for students who aspire to become a surgeon at an academic hospital and who wish to pursue research during residency and during their career. These programs are usually more competitive than the hybrid or community programs.

The number of programs that you apply to varies depending on your competitiveness and on your willingness to apply to programs that you feel are less desirable. For instance, if you absolutely want to do research, but are not as competitive of an applicant, you need to decide if you would rather end up at a community program or not match in surgery. It is better to apply to too many programs than too few—the only downside of this approach is financial in nature. In surgery, you do not want to add programs later. If programs receive your application later than the earliest submission date, it sends a message that either you weren't organized enough to submit your application on time, or that you chose to apply to their program in a delayed fashion, i.e. your level of interest in their program is low.

USMLE Board Scores

Your Step 1 score is very influential on your ability to get an interview. Refer to the USMLE chapter for specifics on the exam and how to do well. As previously mentioned, many programs use Step 1 scores to filter candidates, as it a simple objective means of comparison (Refer to Table 5.2). Step 2 CK scores are becoming more influential, and some programs even require this score before they will rank you. A strong Step 2 CK score can help applicants with marginal Step 1 scores. For applicants with high Step 1 scores, performing poorly on Step 2 can hurt your application. Do not underestimate the influence of Step 2 CK on your prospects.

Interviews

Congratulations! You have submitted your ERAS application. Be sure to take a moment to celebrate getting to this point in the process. Now is the time where you must be patient and wait. Occasionally, applicants will receive interview offers during the day or week following application submission. More often, programs wait to extend offers until after the MSPE has been uploaded, which has historically happened on October 1st. The bulk of your interview offers should come during the months of October and November. Surgery programs typically range from 3–12 categorical residency positions available each year. Most programs interview 70–120 applicants for one of these coveted positions. Data made available by the NRMP showed that in 2016, there were 260 surgery programs, totaling 1241 categorical surgery positions offered. There were 2345 applicants for these positions. These numbers make clear the competitive nature of surgery and US residency positions.

Based on 2013 data presented by the NRMP and the ECFMG, US-citizen IMGs approach >90% chance of matching once 12 programs are ranked. For non-US-citizen IMGs, this percentage is approached once 15 programs are ranked. This data confirms the fact that the more programs you rank, the higher the probability of matching. In order to rank this many programs, you need to be offered and attend an interview at 12–15 programs to make your chances of matching very favorable. Of course, the more interviews you're offered, the better. However, at a certain point, interviewing at too many places can negatively impact your performance. The interview process is exhausting, so fitting in too many in a short period will wear on your ability to remain enthusiastic and engaged at all times. Keep in mind that interviewing is also quite expensive. You must consider the costs of travel, lodging, and food during your travels.

If you end up being offered 20+ interviews, you will start running into scheduling issues, and it will become overwhelming to interview at every program. If you have this *problem* (congratulate yourself—this is an excellent problem to have), you must start prioritizing programs. Revisit whatever criteria you initially came up with when you decided to apply to those programs and start canceling some interviews.

Typical Interview Day

Your interview will usually start the night before at a "Pre-Interview" dinner or social event at a local restaurant or pub. These are usually not mandatory for applicants. Current residents and, infrequently, faculty will be in attendance. Food and drink is typically available at no cost to you, but varies from program to program. Dress may or may not be indicated, but when in doubt, dress business casual. This is an opportunity for you to get to know current residents and ask them questions about the program. Be sure to have resident-specific questions to ask and also ask about the location of the program, especially if it is somewhere with which you are not familiar. This information can be useful when it comes time to rank the programs. At these events, residents are also able to get to know you in a less formal setting. Mostly they want to determine if you are someone they wouldn't mind working with. Be yourself, because ultimately, you want to find your *match* in a program with people with whom you get along. Do not drink too much, and do not speak negatively about your own program or any programs at which you have interviewed. Avoid negative conversations altogether—politely excuse yourself. That goes for the entirety of your interview experience. No matter who you interact with on your interview day—parking attendant, secretary, residents, faculty, and janitor in the hallway—treat everyone with the utmost respect as if they were weighing in on whether or not you would match at that program. You have only one day to shine, so make it count and shine bright at all times.

The actual interview day begins in the early morning, often between the hours of 6:00–8:00 am. BE ON TIME. Allow plenty of time for navigating to the correct location. Often directions are not very clear, or the hospital is confusing, so be prepared to have a difficult time finding your way. You will be given a folder or itinerary for

the day as well as a nametag. The first hour or two is traditionally spent discussing details of the program and its associated hospitals. Some programs have you attend Grand Rounds and/or morning report before delving into the program description. The interviews start following completion of the informational session. Depending on the number of applicants interviewing that day, programs may choose to split the group up. Regardless of the order of events, a tour is offered at some point, and lunch is included as well. At each program, you will have anywhere from three–seven interviews, including one with the chair of surgery and/or the program director. Occasionally there are panel interviews, and less frequently programs will even test basic surgical skills or have you perform a team-based exercise. Just like classic interviews, these more unique approaches are a different way of learning more about you and how you respond or act in various situations. Always be receptive to feedback, work well with others, and be engaged and positive throughout the process. As you can probably tell by now, you will start to experience fatigue after going through 5–10 interview days. Try to space out your interviews by at least a day. Do not underestimate how tiring traveling, interviewing, and constant small talk can be.

Attire

Interview attire is always business formal. For men that means suits, preferably black, dark blue, or dark gray. For women, that means a pantsuit or skirt suit. Some women choose to wear a dress suit, which is also an appropriate option. For dresses or skirts—be sure that then length is conservative. When seated, your skirt should fall just above the knee. Blouses should be conservative as well. Avoid showing too much skin and do not wear too much jewelry. You want to be memorable for your conversation and personality, not your attire.

Responding to the Interview Offer

Consider the initiation of your interview as your first communication with the program. For most people that begins with their response to the interview offer. In case you still need convincing that surgical residency positions are extremely competitive, here is another reminder: *programs can extend offers to more people than they have capacity to interview*. This means that you need to respond as quickly as possible stating that you would indeed like to accept the interview and provide your preferences for dates (if they give you the option). Interview dates fill up quickly and occasionally you will be placed on a waitlist. Programs send communication through the ERAS message center, which will send you an email notification. Some programs will also send you an email directly. You may need to log in to ERAS and respond via the message center. Alternatively, the message may indicate an email address to which you should direct your response. Pay attention to the directions in the email and draft your response so that it reads professionally and is free of spelling and/or grammatical errors.

Tips for getting the interview date of your choice/securing an interview date:

- Keep your smartphone or handheld device on your person at all times during October, November, and December.
- Create a separate email account for your ERAS application (this is the email address programs will use to contact you).
- Set a specific tone for your email notification.
- Only allow notifications from your ERAS email address.
- Have a preformatted response with a professional signature where you need only enter the program name and the specific dates.
- Keep a printed or electronic calendar up to date as you book interview dates to avoid inadvertently double-booking dates.
- Always give first, second, and even third (if available) choice options for interview dates.

No Response From Program

If you have not heard from a program by late November/early December and you remain interested, or you have yet to receive an adequate number of interview offers, consider reaching out to the program(s). This is not something you should do too early in the interview season, as programs take varying amounts of time going through the many applications they receive. Talk to your mentor before reaching out and consider showing them a draft of your message. In your correspondence, state your continued interest in their program and give specific reasons, but keep it brief. Another option is to ask a mentor or faculty member at your school who has connections to the specific program (trained there, trained with someone who is faculty there, etc.) to reach out on your behalf. If you choose to do this, make sure to go to that interview if it is offered.

For applicants who have few interviews, or who find themselves on several waitlists, be attentive in January. Many applicants accept most of their interview offers in the early interview season. As the busy interview months of November and December pass, applicants fatigue and may start to cancel some of their January interviews. This is where it is especially useful to follow up with programs that you're still interested in as they may have new openings in their later interview dates.

Rank List

Most programs have completed their interview season by the end of January, though some offer dates as late as the beginning of February. After interviews end, you will have until a designated date at the end of February to rank programs based on your preferences. To do this, you will log on to the NRMP website. You will have to manually select each program you wish to add to your list. Only rank the programs

at which you interviewed since any other program will not be ranking you. You should rank all of the programs at which you interviewed. Only consider not ranking a program if you would rather go unmatched than end up a resident in that program. This is a very serious consideration as it is difficult to match in surgery, so excluding programs from your rank list decreases the likelihood that you match.

Ranking too few programs is an issue for one of two types of applicants—the first ranks too few programs because they are too selective in programs they choose to rank, or they were too selective in where they chose to interview (which may be due to financial, time, or other constraints). The second ranks too few programs because they only received a small number of interview offers. Do not be the first type of applicant—do not be too picky in where you interview. If you find you have financial difficulties, talk with your financial aid office (if you are still in school) about increasing your loans, choose to pay the minimum on your credit card(s), and take a loan from family members—do your best to acquire the funds to go on more interviews. The second type of applicant—one who receives too few interview offers—is not as easy to avoid. This is where an honest mentor is crucial. Before submitting your ERAS application to surgery programs, you must have an understanding of your competitiveness. If you are not a competitive applicant, you should consider dual applying. That means you complete another application geared toward a different medical specialty. This is less than ideal for anyone that is set on becoming a surgeon, but the truth is that it is very difficult to match in a US surgical residency program.

Before rank lists are due, program directors or representatives may contact you by email or even by phone to state that you are "being ranked highly" by their program. This should not influence your rank list as this does NOT mean that you are actually ranked to match by that program. Make your rank list irrespective of these messages. However, it is unlikely that programs reach out to applicants that they do not like, so you can allow yourself a pat on the back when they reach out.

When configuring the order of the programs on your list, important aspects to consider are typically geographic location, program strength, and fit of the program with your career aspirations and personality. You MUST certify your rank list in order to match. You are able to make changes to your rank list after you certify it, so you should certify it as soon as you have a list entered and recertify any time that you make edits. Once rank lists have been submitted, the Match is performed by a computer algorithm, which takes all applicant rank data and all program rank data and preferentially gives every applicant their highest rank possible. This mathematical algorithm used by the NRMP won the 2012 Nobel Prize in Economic Sciences.

For more details about the matching algorithm and a video tutorial, please visit http://www.nrmp.org/match-a-to-z/video-tutorials/about-the-matching-algorithm-tutorial/.

Match Week

The Match occurs on a Friday in mid-March. The Friday before Match Week, you will receive an email stating that you are eligible to register for the Supplemental Offer and Acceptance Program (SOAP—see below). This does not mean you did not match—everyone receives this email. On Monday of Match Week, you will

receive an email from the NRMP titled "Did I match?" and this will inform you of the binary information—you did or did not match. If you did not match, you can enter the SOAP to try to fill an unfilled position. If you did match—CONGRATULATIONS! All of your hard work has paid off! Now you must take a deep breath and wait until Friday to find out where you matched.

Supplemental Offer and Acceptance Program (SOAP)

Hopefully this section is irrelevant to you because you have successfully matched into a categorical position. If you find out on the Monday of Match Week, that you did not match, the Supplemental Offer and Acceptance Program is an opportunity for you to try and acquire an unfilled position. Unfortunately, from the year 2012 to 2016, very few categorical surgery positions have gone unfilled—a range of two–seven during that period. Most unfilled positions are preliminary, i.e., for the PGY1 year only. The SOAP occurs only during Match Week—from Monday at 11:00 am until Thursday at 5:00 pm. This program replaced what was previously known as "the Scramble," a chaotic process by which unmatched applicants and programs with unfilled positions could contact one another by various means—ERAS, email, fax, and phone calls. The SOAP is an organized process by which contact is limited and offers, if accepted, are binding. Similar to the Match, you submit your ERAS application for any unfilled residency positions in the country for which you are eligible. Unlike the Match, you do not need to interview to get a position through the SOAP; programs make offers purely based on your application.

For more information about SOAP and a video tutorial visit http://www.nrmp.org/residency/soap/soap-for-applicants-and-schools/.

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U.S. Immigration Law: Legal Pathways for Physician Immigration

6

Matthew A. Streff

Introduction: Policy Rationale for Physician Immigration

The United States (US) legal system for immigration has specific treatment for physicians, including both programs geared specifically toward international medical graduates and special requirements for certain immigration benefits. Before addressing some of the main features of the legal schema for "foreign" physicians, it is helpful to briefly touch on some of the policy reasoning that has led to the current immigration laws and regulations.

There are two central policy concepts that underlie the legal regime for physician immigration. One is the attempt to direct medical service providers to areas with the greatest need. The other is for the United States to retain the highest-level talent in the advancement of the national interest, particularly as related to national health concerns. These trends interrelate and serve as the building blocks for the legal framework of immigration options for foreign physicians.

The US and foreign governments all have an interest in moving physicians to areas where they are most greatly needed, or, as is sometimes the case, preventing physicians from leaving. Countries are regularly engaged in dealing with each other to both support citizen interchanges and to staunch the "brain drain" of talented workers moving to high-profit areas. No better example exists of this than the US J-1 exchange visitor program. The J-1 program requires that foreign nationals who come to the United States for educational purposes return to their home country for 2 years. The hope is that US skills are transferred to the home country, and after two years, the "exchange visitor" has now reestablished roots in the home country and has become distant from many of the opportunities for permanent migration that are available after spending a long period of time in the United States.

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The other sometimes competing interest is for the United States to retain talented individuals who can contribute to the national interest. So the United States provides specific immigration benefits for those who can demonstrate that they are at the top of their field, or that they are working on efforts that are unique and have significant impact in, say, the advancement of important health initiatives.

Success in these types of cases typically involves showing the uniqueness of the physician's skillset or area of research. Keeping the focus on uniqueness helps prevent the general "brain-drain" effect by requiring something more than simply demonstrating one is skilled in US techniques. Those who make no claim of unique advancement are then directed toward areas where the skills they learned in the United States can be more broadly spread to areas of need.

This chapter will address primarily those legal avenues that are directed specifically toward physicians or that are common routes related to medical research or practice. It is fair to note that other avenues may be available for foreign national physicians and researchers. For instance, some physicians may bypass many of the common routes through family sponsorship, often through marriage to a US citizen. Other forms of immigration relief may be available to, for instance, foreign physicians who seek asylum due to possible persecution in their home country.

By and large, however, foreign national physicians will often avail themselves of one of the routes that are geared toward professional expertise as a basis for immigration benefits.

The reader should bear in mind one important consideration if considering pursuing any of the routes: immigration law is complex. This chapter attempts to summarize some of the salient features of physician immigration. However, every case can be different. What worked for your friend or colleague, even though your situations might seem similar, may not be available or a good fit for you.

The best piece of advice in this chapter is this: find a seasoned and trustworthy immigration attorney to guide you through the process. Also, different immigration attorneys have different methods, and immigration attorneys tend to keep with the methods that have worked for them in the past. Some immigration attorneys are better at different approaches.

So, while this chapter may harbor some discussion of successful strategies, please trust your attorney to select the best strategy for you based on his or her understanding of the constantly changing trends in physician immigration. That is why it is important to select an attorney with significant experience in the physician immigration field, as well as an attorney who has a quality record including bar association involvement, CLE presentations, publications, etc.

Stakeholders in Physician Immigration

Before venturing into the specific types of physician immigration benefits, it may be helpful to review the dramatis personae: the entities who are stakeholders in the immigration world. The US government has several entities that are involved in the immigration process, and having a passing understanding of their various roles can

shed significant light on the rationale behind immigration decisions and the process involved.

One of the major stakeholders, and often one of the first entities a person will encounter in coming to the United States, is the Department of State. The State Department oversees all the US consulates, which oversee the issuance of visas. Keep in mind one important distinction: a visa is not status in the United States. A visa is simply a travel document. It allows a person to board a plane, boat, or other vehicle to apply for entry to the United States. Many visitors from counties like the United Kingdom, France, Germany, Australia, Japan, and many other European countries can skip the Department of State by engaging in the visa waiver program. However, for employment or medical education in the United States, the visa waiver program does not apply, so a visa is generally required.

The Department of State is important as the primary negotiator with other countries. Immigration laws are often matched so that countries have parity with each other in how they treat each others' citizens. This is referred to as "reciprocity." Under reciprocity, fees and visa requirements are determined by the same fees and visa requirements for the other country. For instance, citizens of "visa waiver" countries are granted that privilege when coming to the United States because their countries have waived visa requirements for US citizens.

Reciprocity is key in understanding why and how countries agree to help each other in preventing "brain drain." For instance, India has one of the highest immigration rates to the United States in the world by numbers. (See, e.g., the Department of State Immigrant Visa Bulletin, which regulates visa issuance by country.) India also has a high instance of physician immigration. In order to prevent the "brain drain," India uses some of the strongest protections offered by the Department of State in enforcing return to India, as an example, for J-1 exchange visitors. The Department of State enforces these requirements in order to maintain good diplomatic standing.

One other item to understand about the State is that it regularly takes advantage of the doctrine of "consular non-reviewability." Basically, that means that the United States, as a sovereign nation, has great discretion in determining who enters its borders. Once a person enters the United States, that person has certain legal rights, such as the right to counsel. That is why the State is often one of the most onerous and challenging gatekeepers to the United States. This is also why sometimes immigration strategies involve leaving the United States, reapplying for a visa, and returning: the law allows some increased immigration options if those in the United States give up their rights by leaving the country and then submit themselves to State's discretion.

Once you have your visa, you must still apply for admission. This process is managed by the US Customs and Border Protection, or CBP. The CBP officer will make the final decision about whether and for how long you are admitted to the United States. This is typically done at the airport on arrival to the United States.

Once entering the United States, decisions are then generally moved to the US Citizenship and Immigration Services (USCIS). USCIS has jurisdiction over those who are present in the United States. Particularly for physician immigration

purposes, USCIS often consults or works in tandem with the State to ensure that its decisions don't upset diplomatic policies. USCIS also has the final say in whether to approve status based on most employment-based immigration classifications. So, USCIS decides, for instance, whether you qualify as an "alien of extraordinary ability." USCIS will also involve the Department of Labor for certain cases regarding wage rates or employment market conditions.

The final two agencies of note are the Department of Justice, which oversees the immigration courts, and Immigration and Customs Enforcement (ICE), which, among other things, makes arrests for removal (deportation) proceedings. For the most part, we would hope that physician and researcher immigrants will not encounter these agencies. However, it is worth noting that ICE oversees parts of the J-1 exchange visitor program, as well as other student programs.

The Immigration Process: Immigrant vs. Non-Immigrant Status

While physician immigration involves some unique routes, as well as some added complications at times, many physicians will still utilize some of the traditional benefits for professional workers. These include the H-1B non-immigrant visa program and the PERM Labor Certification program for obtaining permanent residence.

When looking at these two common programs, it is important to note the distinction between "immigrant" and "non-immigrant." Immigrants are people coming to the United States to immigrate permanently. An immigrant's goal is to become a lawful permanent resident, which is the same thing as a "green card" holder and often called "LPR" among immigration practitioners. A permanent resident can remain in the United States indefinitely and undertake employment with very few restrictions. A permanent resident can also become a US citizen after meeting certain qualifications, including living in the United States for over half of 5 years after becoming a permanent resident (or only 3 years if married to a US citizen, in many cases).

A non-immigrant, on the other hand, enters the United States for a temporary visit. Generally, non-immigrants are ineligible for entry as a non-immigrant if they have "immigrant intent." That is, if the intent is to become permanent resident, a person is not eligible as a "non-immigrant," with some exceptions. So students and visitors, including J-1 exchange visitors, who are typically non-immigrants, must sometimes demonstrate their intent to return to their home country so that they are not seen as having "immigrant intent."

H-1B Non-immigrant Status

H-1B status is a type of "non-immigrant" status utilized by many professionals. It is a "dual intent" status, meaning that it is not strictly "non-immigrant." Even though the expectation is that an H-1B worker is here temporarily, that H-1B worker may lawfully pursue permanent residence without adverse effect from "immigrant

intent." For this reason, it is a common route for professionals, including physicians, to transition to permanent residence.

Employers may sponsor employees for H-1B immigration status and work authorization provided they meet two major criteria: (1) the work involved is professional, which generally means that it requires the skills from a bachelor's degree or higher in a specific program, and (2) that the employee be paid a salary or wage at or above that of other workers who are doing similar work in the same geographical area. So a computer programmer must have a bachelor's degree or higher in a computer-related field and must be paid at the rate at or above other computer programmers with a similar level of experience in the same metro area. There are some additional requirements, but those two represent some of the most frequent challenges in obtaining H-1B status.

Physicians typically do not have any issue with the first professionalism prong. However, H-1B regulations specifically require that a physician be licensed, which includes completing residency training, passing all three steps of the US Medical Licensing Exam (USMLE), and obtaining licensure in the state of employ. In the United States, each individual state regulates physician licensure, and some states require immigration status for licensure. So the USCIS will accept H-1B petitions provided the physician can show that licensure will be approved once immigration status is approved.

Advanced specialties such as most surgical positions can require proof of fellowship completion and board eligibility, but that is generally dependent on the requirements of the H-1B position and therefore the needs of the employer. Typically, board eligibility is sufficient, and board certification is not required.

The salary element can also cause some challenges for employers and physician employees. For instance, all H-1B fees, including attorney's fees, must be paid by the employer. If an employer requires an employee to pay, even if the employee volunteers, it is considered a reduction in pay. So physician employees seeking employers will need to be sure this is clear from the outset. Most institutional employers will have a policy relating to H-1B and will typically understand the payment requirements. This can be a particular concern, however, when dealing with small owner-practitioners, small clinics, and rural hospitals.

The other concern with wages is that employers must use wage data from specified sources and may be required to limit their prevailing wage sources to the Department of Labor or, for institutions of higher education, from wage data collection according to the American Competitiveness and Workforce Improvement Act of 1998 (ACWIA). Those wage rates do not always line up and can be skewed by data irregularities. For instance, a trauma surgeon at a public hospital in an underserved area may make significantly less than a highly specialized surgeon at a major research university, and both of those might be in the same area and fall under the same job classification. This can be a problem for the trauma surgeon's salary to meet the wage requirements, particularly in the major metropolitan areas. (Fortunately, oral and maxillofacial surgeons have their own wage category.)

One other major concern for H-1B petitions is the annual cap. As of 2017, the federal government only allots 85,000 H-1B petitions to be granted on a yearly

basis. For the past few fiscal years, the number of applications received by USCIS for a given year has greatly exceeded that cap number, nearly tripling it in the last few years. Applications are then selected in a lottery system. Foreign physicians who have obtained a J-1 waiver based on an interested government agency, however, are specifically exempt from this cap. Employers who are nonprofit and affiliated with a government entity or institution of higher education are also typically exempt from the cap. So most hospitals are exempt, and most physicians will not have to be concerned with the cap. The cap, however, can be an issue for physicians who did not go through the J-1 waiver process and who are working, usually, at smaller practices or rural hospitals.

H-1B is granted for 3-year periods, is employer and location specific, and can be extended up to 6 years. Extensions beyond the six-year limit are available for certain foreign nationals who have made progress in pursuing permanent residence.

PERM Labor Certification

One of the most common routes for professionals of all sorts looking for permanent residence is the PERM Labor Certification process. (PERM stands for the rather unhelpful "Program Electronic Review Management" and refers to the audit-based electronic application process for Labor Certification brought into full use in 2005.) Labor Certification involves demonstrating that no US workers are willing, available, and qualified to undertake a certain position.

The process for Labor Certification involves posting advertisements in various publications and evaluating the results. Labor Certification is granted, forming the basis for permanent residence, by showing that no US worker will fill the position. This can be challenging for many professions but, given the general shortage of physicians, tends to be manageable in the health care field. For many medical employers, either physicians are in short supply or an employer is looking for a specific specialization or skill set possessed by few. Research often requires very specific skills that a certain researcher alone possesses, so research positions are typically readily adaptable to the PERM process.

While this is a common solution to permanent residence for many physicians and researchers, it is a rigorous and exacting process that right now is for all practical purposes taking at least a year. Sometimes the process can stretch to much more than a year, particularly in the case of an audit. So it is best to plan early and engage the services of a competent attorney who can navigate the highly technical PERM process and who is keeping updated on the ever-evolving changes in the PERM program.

Professors and teachers at qualifying educational institutions may be eligible for "special handling." Special handling simplifies the PERM process and reduces the advertising requirements. Special handling also allows for an employer to hire the "most qualified" as opposed to the only qualified, able, and willing worker. However, special handling applications must be filed within 18 months of a job offer, so it is important to evaluate eligibility for special handling early on. In order to utilize special handling, a significant portion of the foreign national's time must be devoted to teaching.

The long period of time from commencement to completion of the PERM process also raises another concern: PERM costs must also be paid almost entirely by the employer; the employer must exert significant efforts, including time for HR or managerial employees; and the drawn-out timeframe for PERM raises concerns about the longevity of employment. Employers are not typically willing to begin the PERM process until two or three years into employment, although physicians often have some leverage to begin the PERM process early.

Given the length of time to complete the PERM process, employees must typically spend several years with an employer. During that time, an employee may have limited options for movement to a different employer. The PERM Labor Certification is employer-specific. Employees do have the ability to "port" to a same or similar position, but not until 6 months after the final application in the process is filed, the I-485 Application for Adjustment of Status to permanent residence.

Unfortunately, in order to file the I-485, an immigrant visa number must be available. Immigrant visa numbers are distributed by the Department of State according to a complex formula, which regulates visas issuance by category and by country according to an annual quota system. When a foreign national is seeking permanent residence, they obtain a "priority date." That priority date is compared against a monthly publication by the State called the "immigrant visa bulletin." An applicant's priority date must be on or before the date listed for the applicant's category on the bulletin before the foreign national can file an I-485 application and before a person can be approved for permanent residence.

Countries that use large numbers of employment-based visas may see years-long backlogs in priority dates. Physicians under the PERM system would typically be in the second-preference, EB-2 category. As of the time of this writing, the EB-2 category for China had a backlog of almost 4 years, and the Indian EB-2 category has a backlog of over 8 years. And those are only to be able to *file* the I-485. So, under the PERM Labor Certification process, some physicians and researchers may have to spend many years with the same employer in H-1B status. For this reason, many physicians and researchers pursue the EB-1 Extraordinary Ability or Outstanding Researcher categories, which traditionally have little or no backlog (although even these categories have seen some occasional backlogs lately).

The J-1 Program, Home Residency Requirements, and Waivers

Before moving on to extraordinary ability, though, this chapter addresses the J-1 exchange visitor program, as a significant proportion of foreign medical graduates will go through this program. Going through the J-1 program implicates very substantial immigration complications for foreign medical graduates.

Under the J-1 program, workers and visitors may come to the United States to engage in the exchange of knowledge and culture. J-1 programs range from high school students, to au pair nurses and domestic workers, to, yes, foreign medical graduates seeking US medical training. ("Foreign medical graduates" refer to non-US citizens who have obtained a medical degree outside the United States. Foreign

graduates of US medical schools have other options, including utilizing post-completion work authorization available after finishing most US degree programs.)

Most foreign medical graduates go through the J-1 program, because the alternative is to obtain H-1B status. Those are effectively the only options for obtaining residency in the United States. (While possible to obtain O-1 Extraordinary Ability status, most recent foreign medical graduates at the residency stage will not qualify, simply by virtue of being too early on in career.)

H-1B status is disfavored for many employers and employees for two main reasons: (1) most employers do not want to go through the cost and expense of sponsoring for H-1B when the J-1 alternative is available, and (2) employees often don't want to waste part of their 6-year H-1B period on a residency. For the latter, using 3 out of 6 years of H-1B in a residency program may make it difficult to find an employer willing to move on to PERM Labor Certification in time to ensure ongoing immigration status. The onerous requirements of the J-1 program, however, may make H-1B a serious consideration for employees with employers willing to provide sponsorship. This decision depends largely on individual circumstances, including career goals and the relationship with the employer.

J-1 waivers for foreign medical graduates are administered by the Educational Commission on Foreign Medical Graduates (ECFMG). ECFMG must provide certification that the person's foreign education is sufficient to meet US standards and the ECFMG certificate is typically required for licensure. ECFMG can also issue J-1 for periods applicants need to study for boards. Extensions for board study can sometimes be used to help fill the gaps in the immigration process. That is, of course, in addition to allowing valuable time to study.

The major drawback of the J-1 program is that foreign medical graduates are automatically subject to the 2-year home residency requirement. Most health-based research occupations will also be subject. This requirement again goes back to the policy aimed at directing medical services providers to needed areas. Physicians who complete their residency and any subsequent fellowship must return home for 2 years. This is meant to reduce the "brain drain," particularly in countries where there is great need for medical services. The idea is that after 2 years, a physician will become established in the local area and stay there.

However, a J-1 exchange visitor can also obtain a waiver of the home residency requirement. There are four types of J-1 waivers: (1) no objection, (2) hardship, (3) persecution, and (4) interested government agency. No-objection waivers are obtained by asking a person's home country to waive the home residency requirement. Foreign medical graduates are prohibited by law from using a no-objection waiver. Researchers in most health-related fields are unlikely to obtain such waivers. India, for instance, at the time of this writing, retained a blanket policy against no-objection waivers for health-based researchers.

This leaves most foreign medical graduates, and many other health researchers, in a position of either obtaining a waiver through demonstrating hardship or persecution if that person must return to their home country or by sponsorship by an interested government agency (IGA). Sponsorship may technically be by any

government agency; however, most government agencies willing to sponsor will have an established J-1 waiver program with specific requirements. The most common IGAs include US Health and Human Services (HHS), the Department of Veterans Affairs (VA), Regional Authorities, and state health departments. Only one type of J-1 waiver may be pursued at a time.

Hardship/Persecution Waiver

Hardship and persecution waivers are available to those foreign nationals who have a reasonable basis for fearing return to their home country, and this typically involves countries with hostile conditions for medical professionals or regular human rights abuses. The hardship waiver standard is the more liberally granted of the two and requires a showing that returning to one's home country would cause an "exceptional hardship" to a spouse or child who is a US citizen or permanent resident.

Hardship to a spouse or child must be "exceptional," so it must rise above the normal hardship of separation between family members. This requires showing that a specific circumstance exists that applies to the family of the applicant.

Exceptional hardship need not rise to the level of a showing that a person would be killed on return, although that certainly helps. Grounds for hardship can be compounded, so that many specific things can add up to exceptional hardship. For instance, financial hardship is not alone sufficient, but the fact that some countries have abysmal pay rates for physicians can contribute to the hardship waiver. Additionally, some countries have had problems with physicians being targeted for kidnapping in order to extort money from their families. It is acceptable to claim that the hardship to a spouse or child would result in substantial and impactful worry over the safety of the foreign national.

When looking at possible grounds for hardship, both the applicant's family's particular situation should be considered, as well as overall country conditions. Special health concerns, learning disabilities, mental illness, and other factors can contribute to a family's individual hardship. The hardship to a spouse's parent can be considered hardship directly to the spouse if one can show the effect. For instance, caring for an elderly, ailing parent while losing the support from a spouse can contribute to a good showing of hardship.

Safety conditions for the applicant and the applicant's family should be considered. Besides the foreign physician, is there an incidence of trafficking of small children in the person's home country? Problems with land mines? Gang recruitment? All of these possible international country conditions should be considered.

The persecution waiver is more difficult and is granted in extremely rare circumstances. It requires a showing that the waiver recipient would be subject to persecution because of "race, religion, or political opinion." So the grounds for a persecution waiver are limited, and hardship to family is less impactful. Persecution waivers typically require some extreme showing, such as past attacks against the applicant or the applicant's family. Persecution waivers typically include a showing that the

government of the foreign country is part of the persecution or is at least unable or unwilling to stop the persecution.

State Departments of Health as IGAs: The Conrad Waiver

Perhaps one of the more widely used J-1 waiver solutions is the Conrad State 30 program. Under the Conrad program, named for Senator Kent Conrad of North Dakota, a state health departments may serve as an interested government agency (IGA) to sponsor up to 30 foreign medical graduates every year. Sponsorship requires that the foreign national provide services located in a designated Medically Underserved Area (MUA) or Health Professional Shortage Area (HPSA). Presently, each state may use up to 10 "flex" slots, which allow them to approve waivers for physicians not in an MUA or HPSA, but who draw a significant portion of the employer's patient mix from medically underserved populations. Waiver applicants who received funding from their home country must also obtain a "no-objection" letter from their home country. (This is different from the "no-objection" letter previously mentioned.)

Most states give preference to primary care for the Conrad 30 program, but specialists can apply. Specialists must show that their specialty is in short supply. It is also helpful to demonstrate to the state health department that the specialty has a particular impact on underserved populations. Diabetes, for instance, tends to disproportionately affect minority populations and is a rising national health crisis. So endocrinologists would have a particularly good case for a specialty Conrad waiver.

Conrad waivers require that a physician serve for 3 years in at the approved location with the approved employer and that service must be full time in clinical service. Extensive time in teaching or administration is prohibited unless it is over and above the full-time direct care requirement. Physicians will be required to show the state the terms of employment by presenting a signed a contract with the employer. So Conrad waivers can require some careful negotiation on terms of employment.

Each state has distinct differences in their requirements for the Conrad program, which are allowed as long as they meet the general federal guidelines. Differences in states may include different preference policies for primary care over specialty care, the employer's advertising and recruitment requirements, and whether employers are subject to certain terms, such as a prohibition on noncompete clauses. (The latter prohibition generally serves to protect physicians, as the government is already imposing the requirement physicians stay in the same area. A noncompete clause also goes against the goals of the program by possibly encouraging the physician to leave the underserved area in the event of separation with the employer. This point is currently in contention and is included in currently pending legislation related to the program.)

Most states have a thorough vetting process requiring substantial documentation of the physician's qualifications, often including strict licensure requirements and recommendation letters. States typically require extensive demonstration that the employer caters to underserved populations. This includes the maintenance of a sliding fee policy with notice requirements for advertising the policy to patients.

The 30 positions open with the beginning of the government fiscal year on October 1, and most states begin accepting applications for that fiscal year on or around that time. States handle applications differently, with some states accepting applications on a rolling basis and others having strict deadlines. Some states provide tiered applications processes where a number of applications are reserved, typically for early in the following calendar year.

The key for any physician seeking a Conrad waiver is to begin early. Applicants should identify states they are interested in early on and consult with potential employers about sponsorship for the Conrad program. High-volume states such as Florida, Texas, and Illinois may fill up quickly or have a strict deadline. Some states operate on a first-come first-serve basis, while others compare the merits of the applications in terms of the best service provision to the most in-need areas.

Many, and likely most employees, will complete the 3-year service obligation with the same employer. It is possible to change employers in "extenuating circumstances." Employees can find a new employer if the business shuts down. Employees can also change employment by showing that they are experiencing hardship in working with the present employer. Hardship can include an untenable relationship with employer and employee; however, the employee must be able to demonstrate and document the specifics of the hardship. Ideally, it is better to vet the employer/employee relationship well both before and during the waiver application process.

States differ in processing time for waivers, but most will need at least a couple of months for a decision. The state then passes the decision on to the Department of State, which evaluates the application for compliance with the J-1 program nationally. The state typically takes 6–8 weeks for processing. The case is finally moved to USCIS, which has the final decision on the waiver. USCIS processing can be expedited by filing an H-1B petition via premium processing, a service that guarantees fast processing in exchange for an added fee.

Employers must timely submit their petition for H-1B status after the waiver approval, and the employee must timely begin work. So, again, careful consideration should be given to the timing of the application.

Health and Human Services IGA Clinical Waiver

The timing of the Conrad waiver and the availability of positions in high-volume states can sometimes make the Conrad program a complicated proposition. The US Department of Health and Human Services (HHS) provides two waivers as an IGA: the clinical and the research waivers. Each has a completely different goal.

The HHS clinical waiver is similar to the Conrad program in that it provides for waivers for those willing to work in underserved areas. HHS clinical waivers are more restrictive in their requirements for underserved areas, with employment being restricted to locations in areas with a high-level federal score as an underserved area (a HPSA score of 07 or higher at the time of this writing). To be eligible, employers must be receiving federal funding, be classified as a rural health clinic, or be a Native American tribal facility.

HHS waivers are for 3 years of service strictly in primary care, which can include family medicine, general internal medicine, general pediatrics, obstetrics, gynecology, or general psychiatry. The physician's primary care residency training program must be completed within 12 months of the commencement of employment, and regulations specifically prohibit subspecialty training. So this is not a good option for those seeking advanced fellowships or specialized practice.

Veterans Affairs and Regional Authorities IGA Waiver

Another available IGA is the Department of Veterans Affairs (VA). These positions can be somewhat elusive, as the VA has strong policies that disfavor the hiring of foreign nationals, in favor of hiring US workers. This manifests in the VA's increased recruitment requirements over most other IGAs. The term is also 3 years and holds similar requirements to the Conrad program.

Regional Authorities also have J-1 IGA waiver programs, including the Appalachian Regional Commission, covering inland counties ranging along the Appalachian Mountains from North Mississippi to lower upstate New York and the Delta Regional Authority covering the Mississippi valley and surrounding areas from south Illinois and Missouri to Louisiana. These J-1 waiver sponsors can be good opportunities where their service areas intersect with high-volume Conrad states. These entities act like states and administer similar programs to the Conrad 30 program, but without the 30-waiver cap.

Health and Human Services IGA Research Waiver

Health and Human Services (HHS) also offers a research waiver for those doing research in the national interest. HHS research waivers have varied significantly over the years in the difficulty in obtaining a waiver, generally coinciding with changes in administration staff with HHS. The requirements for an HHS waiver include that (1) a particular research project is high priority in its national or international significance, or interest to the department, (2) that the exchange visitor applying for the waiver is an essential part of the program such that the program would have difficulty proceeding without the waiver, and that (3) the waiver applicant has outstanding qualifications that uniquely qualify the applicant to serve a major role in the project.

There is no specific timeframe for completion of the program; however, the application must demonstrate the project's long-term goals and a history of developing specialized knowledge by the applicant. Projects having National Institutes of Health or other government funding will typically have a strong chance of success. Applicants should emphasize how the program addresses rising national or international health concerns. This waiver will contain elements of proving extraordinary ability.

Exceptional, Outstanding, and Extraordinary Abilities

Immigration has several routes for individuals who have demonstrated high-level achievement in their field of practice or research. This aligns with the policy of retaining the top-quality talent and providing immigration benefits that allow flexibility for those high-functioning individuals. Individuals who can demonstrate their ability to immigration authorities move to the "front of the line" in the immigrant visa bulletin by qualifying in the EB-1 first-preference employment immigrant category. Immigrant visas are often immediately available for those who qualify for EB-1 visas, making the EB-1 category a highly valuable classification for talented individuals from high-volume countries like China and India with long wait times for immigrant visas.

Proving one's high-level abilities in addition to national interest can also simplify the immigration process. In addition to HHS waivers, national interest waivers can alleviate high-level professionals from going through the onerous PERM Labor Certification process.

These types of high-performance options are well suited to physicians and researchers in the medical field. However, they are also available for high-performing individuals in other scientific fields, business, engineering, and entertainment, to name a few.

Extraordinary Ability

Extraordinary ability petitions for the EB-1-1 category (sometimes referred to as EB-1A) represent immigration benefits for the very highest level of professional. EB-1-1 petitions are approvable for "aliens of extraordinary ability." Generally, USICS defines "extraordinary ability" through a list of ten criteria. These criteria include authorship of scholarly publications, invitations for presentations or to review the work of others, receipt of high-level awards, participation in associations or organizations of high repute and exclusivity, and other similar forms of recognition. USCIS will review these criteria to ensure at least three are met and then will engage in an "overall review" to evaluate the general strength of the petition with all criteria combined.

The ideal EB-1-1 candidate would be a Nobel Prize recipient. Recognizing that these are in relatively short supply, most EB-1-1 seekers, particularly in the physician and medical research areas, will rely on a solid publication record with additional industry recognition in order to prove extraordinary ability. EB-1-1 can be possible relatively early in a career, though most physicians will have completed their residency and a fellowship. Physicians seeking EB-1-1 are typically looking at positions in research universities or well-known major hospitals. Nonphysician medical researchers will be typically at the end of postdoctoral research and looking to move to more established and independent positions. A general rule of thumb is that a EB-1-1 petitioner with a high chance of success will have a publication record

containing at least 10 publications with 100 citations to those publications. This is not, however, an official or bright-line rule.

For a researcher or physician, a publication record is important, though it is not always the sole means of proving extraordinary ability. Particularly, some fields lend themselves to publication better than others, and in cases with a lighter publication record, the emphasis lies on proving involvement with highly important research. For instance, in-house researchers at for-profit biomedical companies may serve in a high-level role in a project of great importance to the company. These individuals may have had articles written about them or their direct supervisor, but likely will not have published themselves due to restrictions on proprietary technologies. Other examples of proof of extraordinary ability include invitations to serve as a peer reviewer, invitations to present at conferences, etc.

In evaluating chances for success in an EB-1-1 petition, it is important to note that accomplishments achieved while earning a degree are not helpful and can sometimes hurt a position. The same can apply to residency or postdoc work. Some early awards such as "best student" awards can actually damage an application. Appointment as Chief Resident, as another example, may contribute to a case but only when supplemented by significant other achievements. On the other hand, co-authorship with a widely recognized mentor will substantially add to an application, even if it is done during postdoc or fellowship work.

The process of developing a quality EB-1-1 application involves developing a detailed lay-person description of your work, along with supporting letters from a good cross section of well-respected figures your field. Documentary evidence should be gathered to prove on paper all of the recognition a petitioner has received.

Succeeding on an EB-1-1 petition requires meeting a very high bar. Fortunately, much of the work done in generating the EB-1-1 petition can be replicated for lower-level classifications, and some immigration strategies involve multiple submissions. Unlike the J-1 waiver, multiple EB permanent residence filings may be pending at the same time.

EB-1-1 for permanent residence does not require employer sponsorship, so it is a very versatile category. EB-1-1 recipients have substantial flexibility in employment; however, career moves that represent a major shift in focus can compromise an EB-1-1 petition, even an approved petition.

O-1 Non-immigrant Extraordinary Ability

O-1 non-immigrant status is also available for individuals who qualify as possessing "extraordinary ability." The O-1 petition is almost identical to the EB-1-1 petition in the basic types of evidence required. There is a slight difference, with the O-1 having eight criteria instead of ten for evaluation. However, again, any evidence that will support an EB-1-1 petition will typically also support an O-1 petition. The O-1 petition does require a "consultation," which can be satisfied by carefully wording one of the support letters. Because O-1 is a non-immigrant category, USCIS's stated policy is that the standard of review for EB-1-1 is higher. In other words, approval

for an O-1 petition does not guarantee approval of an EB-1-1 petition, as requirements for permanent residence are more stringent.

The O-1 petition, unlike the EB-1-1, does require an employer for sponsorship. However, multiple employers can sponsor an O-1 provided that the petition provides an explanation of how the foreign national's time will be divided between employers. O-1s are granted for 3 years initially and can be extended in 1-year increments indefinitely.

Outstanding Professors and Researchers

Just below the EB-1-1 in level of difficulty for approval is the outstanding professors and researchers, or EB-1-2 (or EB-1B), category. EB-1-2 requires employer sponsorship by an institution of higher education for a tenure track or "permanent" teaching position or a similar research position. A private company can also sponsor EB-1-2 petitions provided that it shows that it employs at least three full-time qualified researchers and has achieved documented accomplishment in an academic field.

The EB-1-2 requires 3 years of teaching or research experience. That experience may be in pursuit of a degree if the foreign national had significant responsibility in teaching or the research was of outstanding quality in the academic field. There are six criteria for evaluation, but like the O-1, any evidence that would support an EB-1-1 claim should also be effective in support of an EB-1-2 claim.

NYSDOT/ Dhanasar National Interest Waiver

The third, and often overlooked, avenue for permanent residence based on ability is the National Interest Waiver under the NYSDOT/Dhanasar standard. (NYSDOT and Dhanasar refer to two cases that define the requirements for a National Interest Waiver.) This National Interest Waiver, or NIW, qualifies a foreign national in the EB-2 category. Its major advantage is that it sidesteps the onerous recruitment requirements of the PERM Labor Certification process, and it also is not employer specific. This NIW can be self-sponsored, or an employer can lend its weight through sponsorship.

One advantage of this petition is that it does not require that the employer pay costs. So, unlike the PERM Labor Certification, this can be an effective route for an employer with less buy-in to the immigration process. Because an individual can self-sponsor, it also leaves more flexibility in employment. As with the EB-1-1, however, a researcher or physician under the NIW category should carefully discuss major career changes with an immigration attorney.

Under the NIW, a foreign national must demonstrate "exceptional" ability. Exceptional ability is recognized as substantially lower than "extraordinary" ability, so this category provides a better chance of success, particularly for those who are, say, earlier on in their career. The NIW requires a showing that the endeavor the foreign national will undertake is of substantial merit and national importance. The

"exceptional" ability prong will also demonstrate that the foreign national is "well positioned" to advance the endeavor. The NIW must also demonstrate to USCIS that it is beneficial to the United States to waive the PERM Labor Certification requirements.

Assembling a petition for the NIW will involve similar gathering evidence to the EB-1-1 and other ability-based petitions. The evidence for the NIW should focus more on the national interest of the endeavor, as the requirements for showing ability are lessened. This petition is well suited to research physicians and biomedical researchers, but it also can serve for economic and business endeavors, infrastructure, climate, and other areas of national concern. The NIW often serves as a ready back-up in case an EB-1 petition is denied.

Conclusion

The immigration scheme for physicians and researchers readily demonstrates the two policy trends of retaining the highest-level talent and directing high-value professional services to areas of greatest need. Keeping these policy goals in mind can inform a better understanding of the various immigration benefits available to physicians and researchers.

This chapter has summarized some of the most relevant immigration options for physicians and researchers with an eye to providing a useful understanding of the overall immigration regime. Hopefully this will provide relevant understanding for those interested in the immigration process and also a broad-strokes guide for those seeking a path to immigration status in the United States.

For those in the latter category hoping to find a new life in the United States, you may face no more important choice than finding a qualified immigration attorney. Immigration law is complex, and this chapter has only touched the surface. A good immigration attorney can help you identify your best route given your particular circumstances. The immigration application process can be long and frustrating, so find an attorney who you can connect with and who makes you feel comfortable with the process. You will be spending a lot of time together and relying on each other to handle important life decisions for you. So don't just find someone competent. Find someone you like and trust. Good luck!!

Applying from Abroad Versus Applying from the USA: Importance of a Research Fellowship

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Marco G. Patti and Francisco Schlottmann

I was born and raised in Catania, a town on the west coast of Sicily. After completing high school (there is no college in Italy), at age 18, I enrolled in medical school, one of 1500 new students who aspired to become physicians. At that time, there was no limit on the number of students who could enter medical school, and there were no admission exams.

I completed medical school at the top of my class, and I was accepted in the general surgery program at the Vittorio Emanuele II Hospital in Catania, a 2000 bed government hospital. Needless to say, I was enthusiastic about this choice. I was motivated by the desire to become a competent surgeon and by the ability of making a difference in other people's lives. The enthusiasm and the dreams, however, were short-lived as I soon realized that the system was not designed to prepare me for an independent practice before age 45–50. The Chairman of the Department of Surgery performed all the difficult cases, leaving very little to other faculty members and residents. Interestingly, he had trained in the United States where he had enjoyed very much the educational system. Back in Sicily, however, he felt he could not change the culture of the place and went back to the dictatorial and autocratic system that he had left (please note that I always refer to male persons, as there were no female faculty or female residents). There was no formal mentoring or teaching, and we mostly learned by observing, reading, and performing simple cases. I soon

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became disillusioned, and I looked for a way to escape this reality. This presented in the form of a fellowship of a private organization that supported research abroad. With the blessing of my Chairman, I applied and was accepted for a one-year research position at the University of California San Francisco (UCSF). There I worked under the guidance of Lawrence W. Way and Carlos A. Pellegrini. I have to confess that the cultural shock was tremendous, and I am not only talking about the different language. Professionally, I soon realized I was in another world. Even though both Drs. Way and Pellegrini were very busy surgeons, they were always available for meetings during which they took the time to teach the intricacies of research, from formulating a hypothesis to designing an experiment to test it. But what struck me even more was the way resident education was structured. Interns and junior residents were taken through simple cases, while senior and chief residents were performing complex procedures. Residents were given progressive responsibility for patient care and chief residents managed their services and were treated as junior colleagues by the faculty. This world was present and close but yet incredibly far away for me, a foreigner. After the first year, I decided to try to get into the American system and train in a good program. The first step was to pass the required tests—at that time, it was the ECFMG part I and II and the FLEX. One year of research became 3 years during which I continued my research and studied at the same time. I eventually completed successfully the required examinations by August of 1985, and in September of that year, I applied through the National Residency Matching Program. I interviewed in six centers on the East and West Coast of the United States, and on March 18, 1993, I knew that I had matched in a categorical position. On June 20, 1986, I started as an intern in General Surgery at UCSF.

If I look back at my career, I consider myself very lucky, as I was able to train in a wonderful residency program, learning from fantastic surgeons and educators. During my 3 years of research and preparation for the tests, I got to know about 20 foreign medical graduates from Italy, India, and Mexico who were studying in San Francisco in a school that prepares for the tests. They were paying a lot of money to attend special courses and were spending between 8 and 10 h every day, 7 days/week studying in a classroom. After school, they were going back to their family with whom they interacted in their original language. Clearly, it was not a full immersion in the American culture, as they could have taken the same class in their own country, saving money and time. Overall, 15 (75%) of the people I met passed the ECFMG and the FLEX, but only three of them were accepted in a residency program (one family practice, one preliminary surgery, one ophthalmology). The other 12 eventually left the United States and went back to their countries. I was initially surprised because they were very capable individuals who had passed both the ECFMG and the FLEX with good grades. Comparing their experience to mine, I think that what made a huge difference is that I had been fully immersed professionally and personally in the American world. I had worked very hard doing research at UCSF and wrote manuscripts accepted in peer review journals and chapters for books. My language skills had improved over time, and slowly I had

integrated very well in the system. I spent time not only in the laboratory, but I tried to attend as many conferences as possible, and sometimes I followed my mentors during ward rounds or in clinics. This experience helped me understanding the educational system, from presenting a case during rounds to the diagnostic process. By the time I applied for a residency position, I was a known entity who had worked well; I got strong letters of recommendation and eventually a categorical position in the general surgery residency program at UCSF. In retrospect I think that this is what made a difference—some of the people I met were very knowledgeable, had a great background, and had passed the tests with good grades. But they had isolated themselves while studying, had very little understanding of the healthcare system in the United States, and had only a limited command of the English language. In addition, very few interviews had been granted, and they had found the process quite unusual and unfamiliar.

Based on my personal experience, I feel that a research fellowship in the United States makes the process much easier as it allows a full immersion in a very different system, improvement of the language, and some publications. As a result, the international medical graduate is not an unknown entity any longer, and it becomes easier to have support where the research has been done or elsewhere. Overall, they are years spent in a productive way that are very helpful. In fact, looking at the residency program perspective, the major concern that program directors have is: can this person work at the same level of a US trained medical student? Even though the ECFMG has raised the standards by adding the Clinical Skill Assessment (CSA) to the USLME part I and II, improving applicant quality, some are still present regarding the command of the English language, prior performance and experience in the medical school of the country of origin, cultural differences, attitude problems, and lack of technology and procedures typical of the US health care. To avoid these issues, some programs require for an IMG, after successful completion of all the required tests, to spend a period of time as a senior medical student under direct supervision of residents and attendings. However, even if very useful, this process is very expensive, and few people only can afford the travel and the living expenses.

On the other hand, there are many research opportunities, which are frequently advertised by foundations and medical centers, offering one-year positions that can be renewed and sponsoring a J-1 visa.

In summary, it is a long, difficult but very rewarding process. Time spent doing a research fellowship can make it simpler if not faster.

International Medical Graduates: Role of Mentoring

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Marco G. Patti and Francisco Schlottmann

A mentor is someone who imparts wisdom to and shares knowledge with a less experienced person. Traditionally, the mentorship relationship has been seen as both dyadic and hierarchical. It is dyadic because it is a relationship between two people, the mentor and mentee, without the inclusion of other people. It is hierarchical because the mentor is usually several years older and serves as a role model, teacher, advisor, and sponsor for the younger mentee.

In 1890, Dr. William Halsted became the first Chief of Surgery at Johns Hopkins Hospital and transformed surgical education by creating the residency program. This was a major departure from the traditional European training in which the professor was the center of the attention. In Halsted's program, the focus was on the trainee rather than on the teacher, and his model of "see one, do one, teach one" had the goal of giving increased amounts of responsibility to the resident that culminated with independence at the end of the training period. Halsted also understood the importance of mentoring young surgeons with the goal of creating the teachers of the future. One mentor-mentee relationship that developed at Johns Hopkins Hospital during Halsted's tenure was between William Osler and Harvey Cushing. This wonderful model serves as an example of a classic dyadic mentorship that lasted a lifetime.

Even though many changes in the training model occurred during the twentieth century (e.g., residents were allowed to live outside the hospital, they were provided with a stipend, etc.), the residency program created by William Halsted remained

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almost unchanged until the beginning of the twenty-first century. In 2003, the Accreditation Council for Graduate Medical Education established that residents could not engage in hospital activities more than 80 work hours per week in an effort to decrease mistakes caused by fatigue, improve safe patient care, and provide a more meaningful lifestyle for the trainees. However, the change in work hours is just one—albeit very important—change that has occurred in the educational system, in the work force, and in society in general. And it is very important for an international medical graduate (IMG) to understand aspects of the American work force in particular, and the society in general, to be able to function well and be accepted in a world so different from their own.

Generation

Members of different generations are part of the work force today. IMG are mostly part of the generation Y, and they will work mostly under the supervision of the baby boomers or of members of generation X.

Baby Boomers (1944–1959)

Their parents had secure jobs and were optimistic about the future. They thought of themselves as a special generation, goal oriented, hardworking, and driven to succeed. They valued work, power, and leadership. They believed in a hierarchical system.

Generation X (1960–1980)

Members of this generation were raised during a period of rapid social change. They experienced a significant shift in the family structure as often both parents worked, and divorce was common. As compared to the baby boomers, they are a very heterogeneous generation (race, religion, and ethnicity). They had fast access to information through desktop technology. They are more self-reliant and independent, respecting talent more than academic rank and authority, and they appreciate the role of multiple mentors. They view education as something they need to endure in order to have a job that gives them financial security and the ability to enjoy leisure time. Work-life balance is a priority for this generation.

Generation Y (1981–2000)

Their parents embraced family values, safety, and doing the right thing. The "millennials" grew up with computers, the Internet, and a tremendous amount of easily obtainable information. They have a sense of entitlement, expect to express individual views without repercussions, and demand approachable and accessible mentors. They expect work-life balance and job flexibility and will switch jobs more frequently than members of generation X.

Overall, generational changes have brought a different set of expectations, including more formalized education and training and more stress on performance expectations, compensation, and quality of life.

Gender

In 2010, approximately 50% of all medical students were women. Data show that even though women are more likely to pursue an academic career than men, they might also be more prone to leave academic medicine. Lack of role models, frustration with research, inability to reach a satisfying work-life balance, and lack of effective mentoring have been identified as possible factors. In 1980, 9% of female faculties were at the rank of full professor. Thirty years later, the percentage has only increased to 12.5%.

Race

Today more ethnic underrepresented minorities have joined the work force even though they are still represented in dismal numbers among medical school faculty (8, 9). In the decade between 1990 and 2000, only 5% of the 1000 surgeons who completed a surgical training program were self-declared members of ethnic underrepresented minorities.

Culture

Due to the shortage of American-born applicants to general surgery programs, the number of foreign medical graduate has been increasing over time. It is, therefore, important for American physicians to understand and respect the cultural differences that exist. For some foreign-born surgeons, a process of assimilation into the American culture eventually occurs with complete acceptance of new values. For others, it is only a process of acculturation whereby the individual adapts to the cultural context in which he/she lives but preserves the values and ethics of the country of origin. Unfortunately, IMG often face individuals who are resentful of their presence and who think that they are not at the same level of a US graduate. In my own experience, it took me 2 years to be accepted as an equal and respected accordingly in the program where I trained in general surgery. For the first 2 years, I had to work harder than anybody else to show that I could do it.

Specialization

Contrary to what happens in many of the countries of origin of IMG, in the USA many physicians (particularly in academic centers) tend to specialize more and more.

Work-Life Balance

This is a priority of the members of generation Y, the millennials. The desire is to reach a balance between training and other activities and family. Sometimes this aspect can seem very strange to an IMG, particularly if coming from countries where the structure of the society and the family is very different. It might actually become an advantage for the IMG, as they have gone a long way to enter training in the USA and consider work the priority in their life.

Mentors

For an IMG who plans to train in the USA, it is important to find a mentor in his/her own country who has personal experience with the training and way of living in the USA. It is even more useful if the mentor has connections, because of meetings or because of time spent in the USA. In this case, a phone call or better a letter accompanying the application can make a difference.

If the IMG decides to spend some time doing research in the USA, it will be important to identify a mentor with the institution. Usually, that is the person who is in charge of the laboratory where the IMG works.

Mentors are usually midcareer or senior faculty, at the rank of associate professor or professor. They are considered successful in their career and ready to guide younger individuals. Mentors can be described according to the following different categories:

- *The parent*. The parent mentor serves as a role model. The parent mentor is trustworthy, open, honest, and committed to the mentee's best interest. He/she has connections, power, and resources. In today's academic environment, the parent mentor most likely was part of a classic dyadic mentor-mentee relationship when younger.
- *The godfather*. He/she gives very clear directions. The godfather mentor is powerful and well connected. He/she caters to the mentee's needs, but it can be at a cost, because the godfather's interests come first.
- *The big brother/sister*. This mentor is a helpful person of the same age or slightly more senior than the mentee. He/she can be another person who works in the same laboratory and has a better understanding of the process. This relationship is also known as peer mentoring. The big brother/sister is a trusted person who the mentee can turn for advice. However, this person may not have the best answers, may not have resources or power, and might experience the same struggles as the mentee.
- *The patron*. The patron mentor is a distant supporter from whom the mentee can seek advice. The patron mentor is successful and well connected and is willing to help and receive little, or nothing, in return.

Mentors are often individuals who have the desire to leave a legacy that gives an additional meaning to their professional and personal life. They acknowledge the benefits of this activity in terms of personal satisfaction, pride in developing the next generation, greater research productivity, increased professional recognition when working with well-performing mentees, and improved technical expertise.

The Mentee

The role of the mentee in a successful mentoring relationship is as important as the role of the mentor. Mentees must have a clear understanding of their needs and goals before entering such a relationship.

They must make their goals clear, communicating in a straightforward way, and addressing potential conflicts. A good mentor-mentee relationship will have constant contact and a myriad of activities and good exchange of information between the mentor and the mentee. These activities go beyond the regular research meetings and include attending certain events together, such as lectures, seminars, and courses. The mentor may also attend national meetings with the mentee and introduce the mentee to other faculties, broadening the mentee's network.

I spent 3 years in a laboratory at the University of California San Francisco where I studied mostly gastrointestinal motility in prairie dogs. I worked with another fellow who had just finished college and was planning to get some exposure to research and improve his curriculum vitae before applying to medical school. This relationship was very important for many reasons: I was forced to communicate in English, and slowly my command of the language improved. I was able to ask questions about college and medical school, and I was exposed to a completely different way of life. I had left Italy when I was 27 years old, and until that time I had lived at home with my parents, and I had gone to medical school in the same city where I was born and raised. On the other hand, my co-worker had left home when he was 18 years old, had gone to college very far from his parents, and was living in his own apartment. The initial impact with this reality was very hard, but I slowly learned to appreciate many things:

- The rigor with which research was conducted. There was always a hypothesis built on a solid background. The experiments were well planned and designed. The data were regularly entered in a database and examined during the weekly meetings. We were urged to be critical and to speak up without fear of retribution. This aspect in particular was very interesting for me, as the system where I grew up did not reward individuality, as it was rather based on a very hierarchical structure where the opinion of the leader was never questioned.
- Participation at meetings was planned in advance. Abstracts of our work were accepted at national meetings, and we were able to present the results ourselves.
- What made a tremendous impact was to attend the clinical weekly meetings of the department where the complications were discussed in an open and

constructive way—morbidity and mortality conference. This was completely different from Italy. Because the Chief performed most of the operations, he was also responsible for the complications, but these could not be analyzed and discussed openly and honestly. It was always somebody else's fault, or even the patient's fault. I was also impressed by the skill and knowledge of the residents and their command of the literature. Mostly, it was an evidence-based approach rather than opinion based.

- Residents were paid during their training based on the postgraduate year. In contrast, at the time I trained in Italy, residents were not paid, but we had to moonlight on our free nights to make a living.
- During my first year of research, I decided that I want to train in the USA. I spoke with my mentors explaining my desire to try to pass all the required tests and eventually apply through the National Resident Matching Program. I asked to extend my research time after the completion of the first year as I realized that to apply from the USA and have the support of professor at UCSF were going to make a great difference.

As described before, the following 2 years were very hard as I continued with my research duties, but I also studied for the ECSFMG and the FLEX, which I eventually passed successfully. In August of 1985, I applied for a position in General Surgery, and I was eventually accepted as a categorical resident at UCSF. After I completed my residency, I was sent to Hong Kong where I trained in esophageal surgery at the Queen Mary Hospital under the guidance of Professor John Wong.

When asked about the key factors that made it possible for a young and inexperienced student from Italy to train in one of the best programs in the USA, the answer is very simple: mentors. I met Dr. Carlos A. Pellegrini on June 23, 1983, and I worked under his guidance during the lab years. I also worked under the guidance of Dr. Lawrence W. Way, without questions one of the most brilliant persons I have ever met. There I have no question that they believed in me and that they helped me securing a position at UCSF. After completing my fellowship in Hong Kong, I went back to UCSF and became Dr. Way's partner, a relationship that eventually lasted for 14 years, until I moved to the University of Chicago. And he was, for me, a fantastic mentor helping me navigating the treacherous waters of academic medicine and a patient coach teaching me how to become a better and safer surgeon. May be he was a "father" mentor, may be a "godfather" mentor, but to him my eternal gratitude. I also owe to Professor Wong, my boss in Hong Kong, for what I learned during the time spent with him but also for being a real "patron" and helping me particularly for my international exposure.

In conclusions, it is clear in my mind that mentors have had a key role in my career. I feel that now it is time for me to be a mentor myself and help others fulfill their dreams.

Our Journey

9

Marco G. Patti and P. Marco Fisichella

Marco G. Patti

I moved to the USA 34 years ago. I remember as it was today my first day at the VA Medical Center in San Francisco, the difficulty in understanding people, the anxiety, but at the same time the excitement. For the first week in San Francisco, I stayed at the home of friends, but eventually they helped me in finding a one-bedroom studio and gave me some basic furniture: a bed, a bedside table, a table, and two chairs. I arranged in the only closet the clothes I brought with me and on the table a couple of books in English that I had used to familiarize myself with the medical terminology. Very humble place but it felt good, as it was the first time that I lived by myself and could do whatever I wanted. The studio was on Ocean Beach, and the VA Medical Center was at the top of a hill. I did not have money to buy a car, and there were no busses that followed that route, so that I walked every morning and every night, regardless of the weather. The fellowship I had was very limited, and after paying for rent, light, water, and phone, it left me with 3 dollars a day for everything. But I managed and I enjoyed every day.

Three years of research, 7 years of residency, and 1 year of fellowship prepared me well, and after Hong Kong, I was hired as an Assistant Professor of Surgery at UCSF. I remained at UCSF for 14 years raising through the ranks to full professor with tenure. Those were probably the most formative years as I was an independent surgeon, but I enjoyed the mentorship of Dr. Lawrence Way. Along with building a

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solid practice in foregut surgery, I did clinical outcome research. It was a unique time as minimally invasive surgery was slowly replacing the more conventional surgery, avoiding large and painful incisions and allowing a faster return to regular life. It was at UCSF that I started having fellows from all over the world, particularly from Italy. Remembering my personal economic struggle to make it to the end of the month, I provided them with a salary that allowed them to live without too many concerns. I covered their travel expenses when they had abstracts accepted and let them present the results of our research.

In 2008, after a total of 25 years at UCSF, I moved to the University of Chicago as a Professor of Surgery and Director of the Center for Esophageal Diseases. This was an institution which had a great tradition for esophageal surgery, but the key surgeons had moved away and what was left was just the reputation. Even though I was experienced, it was a difficult move. I was leaving UCSF where I had spent the most formative years and where everybody knew me, and I was moving to a completely new place, in a different system, having to prove myself and build a practice. Eventually things worked out in the proper way, and after a couple of years, I was back where I had left in San Francisco. I enjoyed the collaboration of great colleagues, and I started having fellows again and being very productive. During those years, I became President of the International Society of Surgery, and I enjoyed very much the interaction with brilliant surgeons from all over the world. It was also my first experience in a leadership position, but my background allowed me to understand the cultural aspects of people from so many countries and cultural clusters. The experience thought me to seek consensus whenever possible, but to make decisions when consensus cannot be reached. I realized that leadership is not a popularity contest.

As much as I enjoyed Chicago, I got tired of the very cold weather and long winters. In addition, over the 8 years I was at the University of Chicago, I witnessed a change of leadership and focus: eventually I had the feeling I was in private practice where the economic aspect was the most important, and other aspects such as education, research, and scholarship were slowly disappearing. In July of 2016, I moved to the University of North Carolina in Chapel Hill where I just completed my first year.

This is my journey, now 34 years long. Looking back, I realize that it has been a very difficult but a very rewarding journey. When I left Italy to do "just 1 year of research in San Francisco," I never thought that it was going to change my life forever. I never thought to leave my family, my friends, and my country. But this is what happened. I do not have regrets; I feel that I have fulfilled my childhood dream, giving a meaning to my life. And now that I am close to retirement, "the light at the end of the tunnel" which seemed so far away when I started, I would love to leave a legacy. I realize that the publications, the books, and the leadership positions in academic societies, which seemed so important in the past, are indeed meaningless once I retire. I am particularly proud of two achievements: (1) I helped many patients sometimes with my surgical skills, sometimes with words, or by just holding their hands when the end was close; and (2) I mentored many fellows over the years. Some went back to their country of origin; others eventually decided to remain in

the USA. Some preserve a sense of gratitude for what was given to them; others have moved on with their life and have forgotten when they were weak and needy. Regardless of their gratitude, most of them have been very successful, and I hope to have contributed even a little bit to their career.

In October 2011, I was awarded in Italy the Carlo Urbani Award as recognition of the mentoring of so many Italian surgeons. It was incredibly meaningful because the prize was named after one of the most famous physicians in the history of Italy. Carlo Urbani had received the Nobel peace prize in 1999 for his activity with Doctors without Borders. In 2003 while working in Vietnam, he discovered the severe acute respiratory syndrome (SARS). Unfortunately, he became infected while taking care of patients in a hospital in Hanoi and died few weeks later, when he was 47-year old, leaving a wife and 3 children. His words when he received the Nobel Prize were incredibly powerful and inspirational: *I grew up pursuing the mirage of making my dreams come true. I have made my dreams, my life, and my work.*

In August of 2017, the World Congress of Surgery took place in Basel, Switzerland. As President of the Congress and of the International Society of Surgery, I delivered a talk in front of a very large audience, with surgeons coming from more than 100 different countries. The talk was focused on the joy of being a surgeon and of helping young people realize their dreams. The message was simple: *it is not about the destination; it is about the journey.*

P. Marco Fisichella

America: the land of opportunity. It sounds like a cliché, but for foreigners, America—with its own imperfections—still remains the only country where—if you work hard, do the right thing, and if you are able to take advantage or build yourself an opportunity—you can realize yourself. This is what happened to me during the past 17 years. I realized I could better myself if I had expanded my cultural and professional horizons if I had experienced a different environment. So I moved to San Francisco on July 10, 2000, and spent two years at UCSF, sponsored by my professor in Italy, whose best friend was Marco Patti's cousin (yes, Marco Patti and I both come from the same town, and we both speak the same dialect). That event was the culmination of an effort that started several years prior when I decided to take the USMLE examinations, with the goal to gain a deeper knowledge about medicine. I was just trying to improve my foundations as a physician and get ready with my own ticket if the opportunity train had stopped at my door. It did. And I was ready. At the end of the 2 fellowship years—where I lived in a room with a bed only and shared bathroom with several other students—I got into a surgical residency in Chicago. I had applied to 225 programs in general surgery (I have saved the bill to date: $5750) and received 14 interviews and was able to go to 9. Eventually I matched and moved to Chicago at the University of Illinois where I spent the most wonderful years of my life. Finally I had become a real surgeon, capable to deliver world-class care, and giving a meaning to my professional life.

Marco Patti provided me with the opportunity to become like what I have always wanted to be: great. Hard work (working during weekends with Marco with lunch intervals at Pasta Pomodoro with lots of red wine was a normal occurrence) and luck (I changed my flight to San Francisco to come back to UCSF earlier to take care of patients in the Motility Lab at UCSF, avoiding to board on American flight 53 on 9/11) did the rest.

Those 2 years shaped my professional life. Those years were fundamental to learn from the environment at UCSF the pleasure to gain intellectual fulfillment from seeking knowledge, a timeless value. Working with Marco Patti, Dr. Lawrence Way, and Dr. Quan Duh made me feel at the top of the world. And I have carried that feeling since. I can't find any words that could express my gratitude for these three individuals who have shaped me like I am today. Still today I can hear Dr. Way's voice in the operating room…. My success has been the success of these giants of surgery.

After completing my residency at the University of Illinois at Chicago, I decided to return to UCSF to do one more fellowship year in Minimally Invasive Surgery and Bariatrics. Here, I refined my surgical skills and strengthen my academic productivity.

After my fellowship at UCSF, I joined Loyola, in 2008, where I established the Loyola's Swallowing Center, a dedicated multidisciplinary center for the diagnosis and treatment of esophageal diseases. This program grew in a very short time to become a leading specialized center in the greater Chicago area and regionally. This center evaluated more than 700 patients per year and served as a core training experience for residents and students. This effort could not have been possible without the support of the key people at Loyola, particularly Dr. Gamelli, Chairman of the Department of Surgery and Dr. Liz Kovacs, Vice Chair for Research of the Department of Surgery. A great idea (my opportunity—alas, the research in the GERD-mediated aspiration in lung transplant patients and in those with end-stage lung diseases) coupled with infectious enthusiasm (and enthusiasm for academics that I had learned from my time at UCSF), hard work, self-motivation, and the help of my fantastic and super smart residents and students were essential in putting Loyola at the forefront of treatment of lung transplant patients and research on the association of GERD and rejection after lung transplantation. This research has received intra- and extramural funding, has influenced nationally and internationally the management of patients, and has brought hope for better outcomes. Research that my teams and I have conducted has been used to craft patient care guidelines by national and international societies and has allowed me to travel the world to meet colleagues with whom I have shared ideas and collaborations. Most of these individuals have now become some of my best friends, and the academic exchange of ideas during my interactions with them has enriched me professionally and personally and improved the care for my patients! My efforts to promote the dissemination of research also led me to be appointed in the Editorial Board of several international peer-reviewed journals. These efforts have underpinned my national and international recognition; the latter reflected by my appointment as International Honorary Fellow of the Brazilian College of Surgery and as Deputy Secretary of the

International Society of Digestive Surgery and Editor in Chief of the internationally renowned Journal of Laparoendoscopic and Advanced Surgical Techniques.

In 2011, I decided to go back to school, and I earned my MBA at Kellogg, Northwestern University, in 2013, driven by the desire to receive a strong, broad foundation in strategic business planning, economics, and marketing from a business school that has made collaborative learning and teamwork the distinguishing core of its MBA experience. I once heard that "*Healing is an art, medicine is a profession, and healthcare is a business.*" Most physicians have not received training in business, and this lack of understanding of the medical-business relationship undermines the ability of health-care systems to survive and thrive. Physicians need to play a primary role in directing the changes occurring in health management. So, after I completed the MBA program, I sought to put in actions what I had learned. And that's how I ended up in Boston.

In 2014 I moved to Boston where I became Associate Professor at Harvard with Brigham and Women's Hospital and Associate Chief of Surgery at the VA Boston. In 2016 I became the Senior Executive Fellowship at the John F. Kennedy School of Government at Harvard University. My administrative responsibilities at the Boston VA concentrate on the operations of the Jamaica Plain Campus as Deputy Chief of Surgery. In this role, I have provided leadership, strategic planning, resource allocation, and regulatory compliance, committee participation, and clinical and operational oversight for nine surgical outpatient clinics of the Jamaica Plain Campus. Furthermore, the core values reflected in the mission of the VA, to provide ICARE (Integrity, Commitment, Advocacy, Respect, and Excellence), draw me to this institution and position. I had shared this vision and have prized living these values at Loyola, a Catholic institution committed "*to also treat the human spirit*." Since 2014, I have appreciated the profound responsibility this position entails and the opportunity it presents to lead and collaborate with an extraordinary group of providers who believe that every Veteran deserves the best health care. Since my appointment at VA Boston, I have endeavored to deliver high-quality care, education, and research, and I have sought to improve the outcomes of Veterans thus providing meaningful contributions to VA Boston and the society.

During my career, I have been equally and actively involved in teaching and mentoring residents and students. I have helped them succeed in their careers and as leaders like many of my former residents have done with me during my training and my time as a young attending. Yet, the most important recognition to me is keeping in contact with my former residents reaching out for professional support and personal inspiration. I firmly believe that teaching, to me, is not only essential; it is renewing.

Finally, Churchill once said: "*We make a living by what we get. We make a life by what we give*." I have given the best years of my life to fulfill my dream, to be able to care for the sick, and to mentor my students and residents as best as I could. What keeps me going are small things, like a card from one of my patients—a card that I still read in those moments where things don't go as planned—that reads: "*God has given you the gift of healing*." This is the best gift of all, something that makes all setbacks irrelevant all of a sudden. And when I am asked: "*What's your leadership*

style"? I chuckle and reply: "*Mainly inspirational*." Leadership to me comes down to inspiring people to believe they can do things they never thought they could. Hence, my greatest wish to you reading this textbook is that you would come to believe that there is nothing you can't do, there is no dream that won't come to pass, and that you would learn to have absolute faith in yourself and in the people who love you and believe in you.

Part II

The Testimonials

My Story

10

Marco E. Allaix

I completed my residency program in General Surgery at the University of Torino in December 2008. During the following 4 years, I got two scholarships in Torino. Then, I realized that an experience abroad was mandatory to improve my knowledge; therefore, I decided to spend at least 1 year as Research Fellow in General Surgery in a foreign academic institution: the Department of Surgery, University of Chicago Medical Center was the destination. Initially, I was supposed to spend 12 months from January 2012 to December 2012, but then the enthusiasm of working in a center of excellence pushed me to extend my stay for 6 more months, until the end of June 2013.

This experience helped me tremendously at clinical, educational, and academic level.

Clinical Experience

During my stay at the General Surgery Section of the University of Chicago, I had the unique opportunity to share clinical experiences with the faculty, residents, students, and nurses during their daily hospital practice in the surgical ward, in intensive care unit, and in clinics. This full immersion starting early in the morning and finishing late in the afternoon let me improve a lot my language skills, my ability to have relationships with people coming from all around the world, and my knowledge about different approaches for the diagnosis and management of patients with different socioeconomic and cultural backgrounds. In addition, I have observed in the operating room hundreds of minimally invasive surgeries performed for the treatment of both benign and malignant esophageal and colorectal diseases. This was very useful since I had the opportunity to compare different surgical techniques

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and to revise some protocols related to the perioperative patient's management, such as the prevention of infections, the use of nasogastric tube, deep venous thrombosis prophylaxis, etc.

Education

During my fellowship, I also had the great opportunity to participate in weekly morbidity and mortality (M and M) conferences and grand rounds.

While M and M conferences occur with a regular frequency in most academic and private medical centers in the United States aiming at improving patient care by identifying possible errors in patients who experienced postoperative complications, they are uncommon in Italy. Attending M and M conferences helped me a lot change my way of facing complications shifting toward a non-punitive approach based on a critical review of my cases with complications.

Lastly, I had the chance to attend several grand rounds and lectures given by experts invited from the United States and abroad to provide the last updates in the most debated topics of surgical interest, focusing in most cases on both basic sciences and clinical practice. From the rigorous method of reporting the research from bench to bedside, I have learned the correct scientific method to conduct research in my country.

Academy

The stay in the United States was very successful also from the academic point of view, with the opportunity to be involved in many projects and to attend the most important surgical meetings held in the country, such as DDW and the Congress of the American College of Surgeons.

Before leaving Italy, I published ten papers in peer-reviewed papers indexed in PubMed. During the 18-month fellowship, my productivity increased significantly with 20 papers published or in press and more than 10 book chapters co-authored. This was possible since one day of the week (Tuesday) was entirely devoted to research and literature search, with clinics and surgeries that were scheduled during the other 4 days. This way I was able to plan my clinical research projects starting from the database query, moving to the literature search on the selected topic, and ending with the draft of the manuscript.

Paper after paper, the Editors of several peer-reviewed journals started inviting me to serve as a Reviewer for their journals, thus progressively increasing my experience in critically handling with papers submitted by peers. This process has been very useful since it let me become part of some Editorial Boards of surgical journals.

The attendance at both DDW and the Congress of the American College of Surgeons represented a great opportunity to learn from lectures given by the most

qualified experts in upper GI and colorectal surgery. In addition, it has been the opportunity to create a networking with several leaders in General Surgery.

At the end of June 2013, after a long talk about balance between life and career with my Mentor Dr. Marco Patti, I decided to go back to Italy, thus joining my wife and my little kid, "hoping" in something that at that time was a dream: a position at my University in Torino. I knew that I missed the great opportunity to enter a residency program in the United States after completion of USMLE Step 1 and 2 and acquisition of the ECFMG certification, but at the same time I felt that I had done all was necessary to start an academic career: it was only question of time….

When I came back to Italy, keeping all the "connections" previously established allowed me to invite several Experts coming from the United States to Congresses organized in Italy, as happened, for example, in 2013 when a Career Advancement Course was held by surgeons of the Association for Academic Surgery during the 115th National Congress of the Italian Society of Surgery. This collaboration with surgeons (and friends) overseas revealed to be very successful, since we are still publishing manuscripts and co-authoring book chapters together, and I am invited to take part in International Meetings, such as the World Congress of Surgery (Congress of the International Society of Surgery), even 4 years after the end of my experience in Chicago.

This tremendous "academic" work done during these 18 months and afterward allowed me to obtain the national scientific qualification to function as Associate Professor in General Surgery in December 2014 and to get started with the academic career, joining the faculty at the Department of Surgical Sciences, University of Torino, on November 1, 2016, as Assistant Professor.

Conclusions

I recommend to all residents in General Surgery that I meet every year to spend at least 12 months abroad and, if possible in the United States, since such experience really opens the mind of all young doctors who aim to reach high levels in their professional and academic career.

Anthony Charles

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Anthony Charles

I was born in Germany to Nigerian parents. My father had just completed his medical training at the University of Heidelberg. I grew up in Nigeria till age 9 years when I was sent to boarding school in Dublin, Ireland, till age 18 years. Upon completion of high school, I returned to the University of Lagos, Nigeria, after gaining admission to the College of Medicine. This was a highly competitive environment, and most of my classmates were phenomenally brilliant and destined to achieve greatness if given the opportunity.

Upon completion of Medical School, as is the norm, I completed a 1-year rotating internship in Surgery, Pediatrics, OB-GYN, and Medicine and then was called for National Service, which I spent in the general surgery department at General Hospital, Lagos.

At the time I completed my National Service, most of my medical school graduates had either emigrated to the UK or the USA, and as the UK system was more familiar to me, I left for the UK in 1995. I had to take the UK Professional and Linguistic Assessments Board (PLAB) test, which would allow me to practice and train in the UK. I was fortunate to pass this exam at the first attempt in September 1995. I started my basic surgical training in Portsmouth, England, and sat my primary Royal College of Surgeons examinations and over the next 3 years completed rotations in orthopedics, urology, and general surgery. This allowed me to sit for the fellowship examination of Royal College of Surgeons in June 1998, which I obtained at the Royal College of Surgeons, Ireland.

My attempts to secure a position for higher surgical training were unsuccessful as was the norm for foreign medical graduates in the UK, particularly in Surgery. My fiancée at the time lived in California, so I decided to relocate to the USA. I remember my surgery consultant in the UK telling me "it is easier for a camel to

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enter the eye of a needle than for a black man to match into surgery in the US." I was undeterred. I went ahead to sit my Step 1 USMLE, and I passed it in December 1998.

I arrived in sunny Los Angeles in January 1999, newly married and unemployed. I started looking for research-associate positions at every academic Medical Center in Southern California. While I was waiting, I sat the USMLE Part 2. I had missed the match, so I knew I had to find a job for a year prior to residency. I sent a lot of cold call emails to researchers in basic science labs including Myles Cabot PhD, at the John Wayne Cancer Institute. He responded, and I told him I only wanted a 1-year position, and he said he only had a 1-year funding. He had received a grant from Barbara Streisand, and I was appointed as the Barbara Streisand Breast Cancer Research fellow in 1999.

During my research fellowship, I worked hard and I did not have any prior basic science experience but learnt on the job. My research focused on the molecular mechanism for Taxol-induced apoptosis in breast cancer cell lines. I successfully published 2 manuscripts during that year. I applied to over 50 general surgery categorical programs and family practice programs. I got numerous rejection letters, but I received interview from Los Angeles County for general surgery and family practice. I ended up matching at Los Angeles County King Drew Medical Center in Preliminary general surgery position in 2000.

Having had general surgery training in the UK, my fund of knowledge was superior to most of my peers and in indeed some of the senior and chief residents, but internship was painful. To survive, I had to pretend I did not know as much as I did, but my goals were clear. I needed a categorical position. Luckily, halfway through the internship year, one of the categorical surgical interns decided that anesthesiology was a more compatible specialty, thus leaving a categorical spot open. I scored 99% percentile in the ABSITE, and I was offered the spot, which I promptly accepted.

I completed three clinical years at King Drew Medical Center when its accreditation was revoked by the ACGME. I transferred to St. Joseph's Medical Center in Ann Arbor, where I completed my residency in 2005 and then proceeded to the University of Michigan for a Trauma/Critical Care and ECMO fellowship.

I was successfully recruited to the University of North Carolina at Chapel Hill in 2006 where I joined the faculty in the Division of Acute Care Surgery. I have thrived at Carolina and had the opportunity to develop programs and follow my passion, surgical outcomes research, ECMO, and Global Surgery. I am currently a tenured Associate Professor.

As I reflect back on my journey, it has been one of resilience, perseverance, hard work, and seizing opportunities. This has been a long journey, and I am happy with the path I took. The USA is the only country in the world that embraces individual excellence regardless of geographic location of medical training and has done so in a transparent way based on the principles of equanimity. It is because of this American exceptionalism in medicine that the USA will continue to be at the cutting edge and the best place to practice medicine in the world.

Chirag Desai

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Chirag S. Desai

I am a foreign medical graduate (FMG), born and raised in India, writing this testimonial to share my experience about my journey in the medical world of the United States (USA). Before coming to the USA in January 2006, I had been a lecturer (equivalent to assistant professor) in surgery at the King Edward Memorial Hospital, which has a capacity of 1800 beds and is one of the largest public hospitals in the city of Mumbai, India. My aim was to obtain the highest level of training in complex hepatobiliary-pancreatic (HPB) surgery and be able to do any and everything on these organs, including transplants. I wanted to get good higher-level training and go back to India. I had decided to do this right away after my surgery residency and senior residency in India, which I finished in January 2002 at the same place where eventually I was a lecturer. However, due to financial constraints, it took me another year to arrange for the expensive examination fees for USMLE. I took the examinations a year after with great help from my sister, who has been my hero all my life. After that, I wanted to come and give my step 2 CS and to explore the options, one of them also being to start as an intern in a general surgery residency. I had applied for a visitor visa to come to the USA because India is not the part of the "visitor visa waiver" program which applies to many western and developed countries, allowing them to visit here for 90 days. However, my visitor's visa application was rejected because I was a single, unmarried, and a poor doctor! I applied again and was rejected once more. Those days, there was a rule that if your visitor's visa was rejected twice in a year, you could not apply for another 2 years. I could not come to the USA to take the step 2 CS exam. I was very dejected. I got a job as lecturer then, and because KEM was a very busy center, I obtained a very rich experience in surgery. However, I used to be very bothered as I was not progressing toward my

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goal; I had the feeling that I was stuck and stagnating, that nothing would work as I had imagined, and that this was it. However, in retrospect, I feel that this was one of the richest experiences and that these were very formative years of my life. The time I should have enjoyed learning and growing, I wasted in emotions of regret, waiting for the next step rather than enjoying where I was and what I had!

Finally in 2005, I got married and my wife got a H1B visa which allowed her to work at a company in New York. I got the H4 dependent visa and came here in January 2006. I was 31 years old. Before coming here, I wrote to Mount Sinai, New York, for the observer's position in one of the very well-known HPB surgery units. They graciously granted me the position for 1 month. During that time, I took and passed step 2 CS. It is perhaps noteworthy that I didn't have much of an idea how to go about the process of application for higher training other than writing emails to the heads of various programs, and I did this day after day. I received some good guidance at Sinai, and I started applying for a transplant surgery fellowship. During the observer's post, after talking to a few people, I was interviewed and offered a unique position at Sinai, whereby I could participate on all organ procurement surgeries and be second assistant on recipients. This indeed gave me a very good experience. This was supposed to start in September 2006, and during that time, I qualified for the transplant surgery fellowship at Georgetown University Hospital. It was an upcoming center at that time, the volume of cases was expanding, and the new pediatric and intestinal transplant program was growing. I started my fellowship in May 2007, and as expected, it was a very demanding fellowship, but I learned a lot. It lasted 2 years, until 2009. When I was about to finish, I was faced with a barrage of new challenges, the most pressing one being "what next?" The options were (1) going back home and starting a new program; (2) repeating my surgical residency to get ACGME accredited training (since transplant surgery is only ASTS accredited and not ACGME); or (3) continuing on the fellowship for another year so that I would have 3 years American training experience which would qualify me for medical license (may be limited one), in many states. The first option meant taking into account the transplant surgery scenario in India at that time. The second one was discouraging because it was too much to go backward. The third appeared very reasonable at the time and my program director/mentor convincingly guided me toward it. Therefore, I signed up for an extra year, and like the lecturer's post at KEM, this too was very rewarding. However, every moment was filled with anxiety of the future and also I found myself in a situation where I was often exploited and overworked. In May 2010, I was about to finish my third year of fellowship. I was offered the position of clinical instructor at my program, but I was not very thrilled about that position for various reasons, the most important being personal or family reason. I was looking for jobs, and my wife assisted me in the search. From an obscure website, she spotted an available position in the University of Arizona (UA), Tucson, for which I applied. The transplant program was growing at that time; because of my pediatric and bowel transplant experience and because of a strong recommendation from the head of my program, I ended up getting that job. Eventually, I became an assistant professor. This was a huge transition, a great opportunity, and redemption from the burnt-out stage of my busy

fellowship. My chairman, who happened to be the chief of transplant surgery as well at the University of Arizona, opened my eyes to a whole new academic world. His wife was the best transplant statistician you can get in the USA, and she helped me tremendously. I wrote many manuscripts in those 2 years. Apart from doing bowel and pediatric transplants, I started doing total pancreatectomy and autologous islet cell transplants. Within a few months, I realized the tremendous clinical research potential in this field and I started exploring this. I wrote a few good impact manuscripts around the subject. In all these, there was one issue. As mentioned earlier, since transplant was not ACGME accredited, I had only a teaching license in the state of Arizona, and due to that, the institution and some colleague had given me significant grief, but my chief was great. After 2 years, I was offered, once again, a job at the Georgetown University Hospital with the opportunity to start new autologous islet cell transplant program. I thought that would be a great challenge, but gains would be proportional to the risk I take! Also, I now qualified for the full medical license in DC. I moved there. I started working toward establishing a new program in addition to the daily chores of liver and intestinal transplant in this high-volume center. Within two and a half years, I was able to perform auto islet cases surpassing tremendous challenges and managed to establish the new program. I received a grant from the National Pancreatic Foundation for a research project related to autologous islet cell transplant and was also promoted to the post of associate professor. In 2016, a good opportunity knocked on my door and I was offered a position at the University of North Carolina as the surgical director of liver transplantation and had the opportunity to start a new chronic pancreatitis and autologous islet cell transplant program; and needless to say, I took it.

My journey in the medical field of the USA is a little bit different from that of many foreign medical graduates, who come right away after medical school to get into system. However, it is not very unusual for the transplant surgery community to have examples like mine. Many transplant surgeons, whom I converse with, took a similar path. Of course, it helps for the sense of personal security to come here at younger age and start at the beginning and enter the system. I am not entirely sure, though, but it may alleviate the pressure arising from the constant need to prove oneself and the constant need to differentiate oneself. It keeps you very free in terms of seizing opportunities to move to different states for license, etc. Getting the visa had been tremendous hard work for me, and it was a challenge to get all the tedious paper work done in time. The lessons I have learned through these years are that it does confirm the promise often heard that the "USA is the land of opportunity," and I wouldn't argue with that at all. What I have not yet learned is that I still plan for the next step and worry about the future rather than being only in the present. If I have to do it all over again, will I do it? Yes, for sure. And anything different? If I had resources, financial capacity, and opportunity to come earlier than the time I arrived here, I would definitely do that.

Fernando Elli

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Enrique Fernando Elli

I grew up in Temperley, a small suburb, south of Buenos Aires. My father was a general surgeon and early on, I lived and experienced surgery from a close perspective. Since my early adolescence, I had no doubt that I wanted to become a surgeon like my father. For me, surgery was a career goal.

After finishing high school, I enrolled in medical school at the University of Salvador in Buenos Aires, Argentina. During my medical school, I started to consider training in the United States. Many senior students had been rotating in different hospitals in the United States and Europe. It was an open-minded and also a prospective life-changing experience.

During the mid-1990s, it was difficult in Argentina to get an accurate projection of job and financial stability. Buenos Aires is a very competitive city in regard to surgery, and things are very difficult for a new graduate. I wanted to be well prepared for a challenging situation.

During my last year of medical school, I had applied and received a grant to spend 3 months at Baylor College of Medicine in Houston, Texas. The grant was to participate as a medical student in the department of medicine, even though my plans were to apply for general surgery residency; I was happy to see how medicine was practiced in a first-world country.

The medicine rotation started on January 1995 at the Department of Gastrointestinal Medicine at Baylor College of Medicine. My first experience was quite shocking. I had studied English all my life, but now it was for real. Conversations, discussions, and rounding on patients were very difficult for me. Where was all the English I learned! My first week was quite frustrating. I was lucky since Houston has a large Spanish-speaking population, and some of the staff and physicians spoke Spanish; at the end it was really helpful.

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One piece of advice, learn the language! Real-life conversation in a hospital environment is quite different from the English that we can learn at home. If you have a hard time communicating, it will be difficult to take advantage of the experience and also creates frustration in the rest of the team.

After few difficult weeks, everything started to become much easier, and I was comfortable interacting with residents, physicians, and patients during rounds, conferences, etc. During rounds I met a cardiovascular surgeon, Dr. Rafael Espada, one of the busiest surgeons at that time. Later on he became the vice president of Guatemala, his native country. I introduced myself and we had a brief conversation. During my medicine rotation, I would meet him occasionally. After 2 months on medicine, I was desperate to see an operating room in the United States.

I took the initiative to go to his office and wait for him. In a very polity and humble way, I asked him if I was able to shadow him for some time. He accepted right away. I was able to shorten my medicine rotation to spend the last month doing surgery.

I was fascinated with the hospital facilities, technology, resources available, and the way of working of American physicians. My real adventure started during this surgical rotation. I enjoyed every second of the rotation, and I was amazed with all the different cardiovascular procedures, coronary bypass, triple AAA repair, valve repairs and replacements, etc.

As a medical student, I was able to scrub and assist during the operations; I even received a pager so they can call me if there was an emergency procedure. It was an incredible experience that I recall vividly to these days.

It is important to realize that self-motivation, enthusiasm, and being proactive are important to navigate and succeed in a system that is often adverse. You have to show what you can do and what you can achieve. You have to excel in everything you do; that is the way to differentiate yourself from the rest.

I quickly found out the requirements to apply for residency in the United States. I still had one more year to complete medical school back in Argentina and I wanted to be prepared. It was here when I learned about the famous *STEPS*. Basically I had to restudy the entire medical school curriculum in few months in order to apply for a position—difficult, but not impossible.

Before returning back home, I got all the books, some used, some new, some borrowed. I quickly realized that I would be paying for an extra piece of luggage.

Before going back home, Dr. Espada got me an interview with the general surgery program director of Baylor College of Medicine.

He was polite but blunt; he said: "You have to be the best in order to get a preliminary position in our residency. Pass the steps with the highest scores possible, and then we'll talk."

I returned to Argentina to finish my medical school. I knew that I wanted to train in the United States to be able to develop my potential to the fullest. I studied really hard, and in 6 months, I passed steps I and II with very decent scores. I was excited but at the same time really scared. I had to make a decision that may change the rest of my life. Was I prepared? I was 23 years old at that time, still living at home with

my parents. I really enjoyed the social aspect of Argentina, friends, and family. I was happy but also concerned about my future.

When the time came to apply for residency in the United States, I started having second thoughts. It was hard to project your entire future life based on a single decision made at 23 years old.

My family and friends were extremely important; I knew if I moved to the United States, I had to leave them behind. Social media and Internet were in its infancy and communications were not easily available and they were also very expensive.

Long story short, I got cold feet. I decided to stay in Argentina and tried to get the best training possible. Studying for the steps helped me with the preparation of the qualifying exams for surgical residency in Argentina.

I got a position in one of the best training programs in Buenos Aires, the "Hospital de Clinicas Jose de San Martin," the main teaching hospital of the University of Buenos Aires.

The chairman of surgery was Dr. Professor Pablo Curutchet; he interviewed me during the application process and was impressed with my experience at Baylor and the fact that I already passed my USMLE boards. He trained and worked in surgical oncology in the United States. He was a pioneer that brought multiple operations and procedures to Argentina. He was very instrumental during my residency and always advised me not to give up and to look for surgical training in the United States.

During my third year of residency, I chose to go back to Houston for my elective surgical rotations. I spent 2 months with Dr. Espada in cardiovascular surgery at the Methodist Hospital, and I also did a month rotation with Dr. Raphael Pollok in surgical oncology at the MD Anderson Center. These were great rotations that reinforced my unfilled desire to train in the United States.

It was now the year 2000, my last year of residency. Argentina was going through a major political, social, and economic crisis. It was time to decide my next steps. Now at 29 years old, I had a much clear idea of my present and future options. I really wanted to do a fellowship in minimally invasive surgery, a field in expansion.

Through Dr. Curutchet and Dr. Hipolito Waisman, I met Dr. Santiago Horgan. Dr. Horgan was a graduate from the same surgical program in Buenos Aires and now was the chief of minimally invasive surgery at the University of Illinois in Chicago. There was an opening for a fellowship position in his service. It was perfect timing for me.

It is important to note that mentors and advisors are very important in your career. I was very lucky to have great mentors during my residency. A good mentor will guide you through difficult decisions. I will always be grateful to Dr. Pablo Curutchet and to Dr. Pedro Ferraina for their advice and support.

Having good mentors and being lucky to be in the right place at the right time were critical for me. I got the position as a fellow, and a month after finishing my residency in Buenos Aires, I was starting my fellowship in Chicago.

I was single at that time; my family and friends were extremely supportive of the idea of moving to Chicago. So the decision was a done deal.

I was a fellow of minimally invasive surgery at the Division of General Surgery at UIC from August 2001 to September 2003. I worked closely with Dr. Santiago Horgan. It was one of the best experiences of my life. I realize that my surgical training in Argentina was to par to the United States except that we did not have all the resources and technology and infrastructure available.

It was during my fellowship that I realized that in the proper environment, personal growth and development had no limitations. The American system is based on that concept. If you are honest and work hard and dedicate time and effort to your career, the sky is the limit!

I met extraordinary surgeons during my training in Chicago; Dr. Santiago Horgan accepted me as a fellow in his program. I also worked with Dr. Scott Helton who was the division chief of general surgery, Dr. Herald Acarian who was the chairman of the Department of Surgery, Dr. Enrico Benedetti who was the chief of transplantation, and Dr. Jose Cintron who was the program director of the general surgery residency at the University of Illinois.

Once again, having the right mentors will make a big difference in the direction of your career. And I have to say that I had many great mentors during my training.

But not everything is that easy; after I finished my 2 years of fellowship in minimally invasive bariatric and robotic surgery, I was not able to extend my stay due to my visa restrictions. I got a J1 visa and it was mandatory for me to return to my country for at least 2 years. I was initially sad but also enthusiastic to return to Argentina with hope and with all the experience I obtained during my fellowship.

Argentina was still navigating through difficult times, but I was very excited to return and give it a chance. Dr. Pedro Ferraina offered me a position as a staff surgeon at the Division of GI surgery in the Hospital de Clinicas of the University of Buenos Aires. I was also named coordinator of bariatric surgery. After a few months in the position, we performed the first laparoscopic gastric bypass in our hospital. It was a great experience. But as a young surgeon, trying to find a role in a highly competitive arena was not easy; in fact it was very difficult. Even though I was getting busy and developing a good practice, I was missing working in the United States.

I have a deep feeling based on my previous experiences and opportunities that the United States was the best place for me. But moving again and leaving Argentina behind was not an easy decision either.

One day I received a call from Garth Jacobsen, chief resident of general surgery at the University of Illinois. He was offering me a position as third year surgical resident. There was an opening and Dr. Cintron, program director, thought that I will be a good candidate. What to do next? Going back to the United States meant most probably a definitive move. At 34 years old, I didn't want to be going back and forward indefinitely. It was now the time for a big and definitive decision.

After deliberating for many days, I made my decision at the last minute, not being 100% sure if it was the right one. But I couldn't let this opportunity pass.

I knew that in order to achieve independency and comply with the standards of surgery in the United States, I needed to be board certified, and it can only be

achieved through residency. There was no other way or shortcut for me. One more time I was very lucky to have great surgeons that help me in the process, mostly Dr. Abcarian, Dr. Cintron, and Dr. Benedetti.

From one day to the other, I went from being a staff surgeon in an academic hospital in Argentina to be a third year surgical resident in a large academic hospital in Chicago. What a drastic change! It is important to be psychologically prepared for such a change.

It was not easy—long nights on call, trauma, difficult patients, new system, etc. My previous training and perseverance definitely helped me overcoming all these adversities. But now my goal was clearer than ever. This was the last stretch; with the motivation, perseverance, and hard work, everything is possible!

Three years of residency went by pretty fast, especially the last year. I really enjoyed operating as a chief resident where most of the attending surgeons, knowing my previous background, treated me more as a peer than a resident.

I completed my residency in November 2008; I was now 36 years old. It was a great satisfaction for me; I had achieved an important goal. I was finally a board-certified general surgeon in the United States.

It took me time, effort, long days, and long nights, being away from my family and friends, but it was all worth it!

Once I finished my residency, Dr. Enrico Benedetti, now the chairman of the Department of Surgery, offered me to stay in the Division of General Surgery as an assistant professor of surgery. It was a perfect match. UIC was now my home and I was very comfortable working there. Dr. Pier Cristoforo Giulianotti was just arriving from Italy to be the new chief of general surgery. The division was going through major renovations. Dr. Fabio Sbrana also joined him from Italy. It was a great team.

During my time as an attending surgeon, I was able to get exposure to major operations performed in a minimally invasive and robotic fashion. This was my major field of interest.

In 2009, I got married with Cintia, an Argentinian lawyer that I met while visiting family in Argentina; I was now almost complete! Having a balanced personal life is so important in achieving your professional goals!

In 2011 I became the director of the bariatric program; it was a great time for me.

But after being an attending for almost 9 years at UIC, I felt that a change was needed. Chicago winters were fun, but now being married, with two kids, we were all ready for warmer weather.

In February 2016, I decided to leave UIC. A great opportunity presented at Mayo Clinic Florida. There was a position open for director of bariatric surgery in the prestigious institution under the leadership of Dr. Horacio Asbun. The position also involved expertise in foregut surgery, one of my favorite subspecialties.

Moving the family was not easy especially after so many years in Chicago, but changes are necessary. Without hesitation, I took the position and started the new job on February 2016.

Looking back, I do not regret any decision I made. Freedom and independency to decide are extremely important. I consider myself extremely lucky to be in my current position after all these years of effort. Determination, motivation, passion, extreme

hard work, patience, perseverance, clear goals, support from family and friends, and having good mentors are all important factors to achieve success and of course a good amount of luck!

I will be always grateful to my family, friends, mentors, colleagues, and patients that helped me in this long but rewarding process.

Alessandro Fichera

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Alessandro Fichera

Imagine a very motivated, bright, and enthusiastic young man totally dedicated to learning the art of surgery facing a very intricate European training system in the early 1990s. That was me back home in Rome, once considered the cradle of western civilization, then and even more now paralyzed by bureaucracy and plagued by corruption and poor management. Despite having graduated from a very prestigious medical school *summa cum laude*, I had limited options for my training and long-term career advancement. The unspoken element, the magic key to a bright future, missing on my *curriculum vitae* was *connections*.

During my time in medical school, I had witnessed very talented young surgeons languishing in dead-end positions because they did not have the magic key as well. I had also experienced first-hand less talented individuals, sons, and daughters of chairmen and deans jumping in front of the line for no other reason other than their birthright.

Setting aside self-pity and frustration for the lack of options, I started looking at opportunities outside of my native country. Back then, Europe was not united and my medical degree had the same limited value in any other European country, the USA, or Asia. I started looking at different training models and it was clear to me very quickly that the magic key I was missing was needed pretty much across Europe. Furthermore, I did not speak Spanish, French, or German and my English was limited to what I had learned in the classroom. The only option was basically a dream—training in the US system.

I formulated a plan with a group of friends all in the same situation, young doctors chasing a dream of training in the USA.

We set off to learn the intricacies of the matching program, study for and pass the Educational Commission for Foreign Medical Graduates (ECFMG) and the Test of

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English as a Foreign Language (TOEFL) exams, and send application for interviews to every single program in the USA. We passed the exams, but it was not surprising that no one received a single interview invitation. This initial setback curbed the enthusiasm of several of my friends and colleagues. They all are still in Italy and very few have been able to achieve their goals despite being very bright and motivated. I was determined to find another way to have the opportunity to train in the US system. I was only looking for a surgery program; I wanted to be a surgeon. I would not have left home for anything else. It was clear I needed an alternative plan.

Unexpectedly I received a letter from the University of Chicago. The envelope stated that it was from George E. Block, MD, FACS (I asked myself "what is FACS?"). I still have that letter. I later realized that Dr. Block was one of the giants of American surgery and the only one that replied out of all the training programs in the USA and most of Canada. I will be deeply in debt to Dr. Block forever.

Dr. Block (to this day, I do not refer to him as George) was offering me the opportunity to spend some time at the university as a visiting physician for 3 months, no promises, no strings attached. I could not believe it. I had to get my visa, save and collect money, and tell my "mentor" in Rome that I was going to be spending 3 months in the USA. I started working on those tasks right away. The most challenging was to obtain a visa. What type of visa did I need? I wanted something that would also allow me to train if I ever had the opportunity. The University of Chicago only sponsored J-1 visas. I quickly learned that I could only apply for a research J-1 until I had a residency position, then I could switch to a clinical J-1. This type of visa allowed you to renew and extend for a total of 7 years, making it possible for me to take time off for research during training. After those 7 years, it was all up in the air.

By early 1992, I was ready to go. I arrived in Chicago from Rome via Amsterdam on April 7, 1992. I got situated in the dorm on campus, the International House. It was one of the smallest rooms I had ever seen with no air conditioning and the bathroom was in the main hallway, but I was finally here. I could not have been happier. I walked in the hospital and made my way to Dr. Block's office. His administrative assistant Ms. Betty Gramhoffer greeted me in a very warm way (we subsequently became good friends). She directed me to human resources to get my ID and my password to access the hospital intranet. After that, I was allowed in Dr. Block's office. He was sitting at his desk wearing cowboy boots and scrubs. He spoke very fast and I did not understand much. One thing I clearly remember is that he called me "son." I did not know what to make of it. He then marched me down the hallway to Dr. Fabrizio Michelassi's office. I was greeted by his administrative assistant Ms. Roberta Carden (we subsequently became very good friends). Dr. Michelassi, back then an assistant professor, who later became my long-time academic advisor and mentor, was also very friendly and after a short meeting (he was going back to the operating room) told me to meet him the following day at 6:00 AM (why so early?) on 4 North East (where is 4NE?). I left the hospital and started walking back to the International House approximately three blocks east of the hospital.

I had a very eventful day. I had a brand new ID and I was going to start my adventure in 12 h. I had no idea what to expect and was I up for an interesting ride! That night I could not sleep and I got up very early. I could not afford to be late on my first day.

I was able to find 4NE and I was at the nursing station by 5:40 AM. I had an official ID, so even though I looked "different" (I was the only one wearing a shirt and a tie; everyone else was in scrubs), nobody asked me any questions. There was a flurry of activities. The intercom was constantly barking. It felt like we were under enemy attach. How am I going to learn the system? How will I be able to fit in? This was before the limited 80 h workweek and some of the "doctors" (I did not know any better who they actually were) looked more dead than alive. Will I be able to keep the pace? Dr. Michelassi came sharp at 6:00 AM and I was quickly introduced to the team. Ward rounds were very intense. There was no room for error. The residents knew every single detail about their patients and everybody played a specific role within the team. The sense of hierarchy was palpable, but it felt like a necessary and constructive structure, not based on connections, but purely seniority and skill level, a breath of fresh air for me. We then went to the operating room. Dr. Michelassi was doing a Whipple procedure, and starting the case and assisting was Dr. Elisabeth Clark, the chief resident on service at the time, and I watched her do the pancreatic anastomosis with minimal assistance from Dr. Michelassi. I was amazed. At the end of my first day, I already knew: This is what I want; I must find a way to train in this system.

The first 3 months went by very quickly and I learned a lot. I asked if I could extend my stay and eventually went through the match with letters from US surgeon, some very well known and respected. I ended up matching at the University of Chicago, categorical general surgery, the place where I spent my 7-month-long "sub-internship," they must have liked me, but I was also invited to interview at other major medical centers around the country, a unique opportunity to learn more about the training system. The matching program, scary at first, is the ultimate fair and equal system. Both the training programs and the applicants rank each other after the interviews are completed. The two parties are forbidden from communicating other than at a very general and superficial level during the process. The match is then carried out at the national level for all core specialties on the same day. The results are communicated to the entire applicant pool at the same time and the people that did not match and the programs that did not fill all their positions are at this point allowed to communicate and work together.

I did not have to do that. I had my position; I had achieved my goal. Now I had to get to work. Just to attest to the fairness of the system in my class of July 1993, the University of Chicago matched six outstanding candidates, one being a foreign medical graduate (myself). I did not know anybody there and nobody knew me. I had made it without *connections*!

Granted there have been major changes in the US training system in the last 25 years, mostly for the better, when I matched, I was fascinated by the opportunity I had been given to train in the US system.

At the time the residents were under a lot of pressure, but the camaraderie and friendship that were fostered by the competitive and fast-paced environment lasted a lifetime, something I personally experienced during the different phases of my training. Amir, Charlie, John, Nicole, Suzanne, and Rohan are friends for life even though we now live at the opposite corners of the country. We knew we were in this together, and only by working as a team would we learn and master the management

of our patients and survive the grueling schedule while providing excellent patient care. We knew that we were going to be evaluated by our peers, the faculty, and ancillary staff in a fair and transparent fashion and that our mentors had our growth and future career at heart; they had our back, something I have definitely experienced first hand and that I keep front and center when dealing with my trainees. Our mentors took it upon themselves to make the phone calls necessary to support our application to prestigious fellowship programs or for job offers. They proudly announced to the rest of the faculty when one of their mentees achieved his/her professional goals. In return they expected our complete and total dedication to the patients we were managing together, 24/7, 365 days (minus a generous month of vacation and 5 days for the Christmas holidays). Our pager was always on and glued to our belt. We were expected to answer it day and night and the same was true for the faculty. In my training, I have never paged a faculty member that did not return the call, unless they were out of the country, irrespective of their rank or seniority. Things are quite different now. I clearly remember how proud I was when I was allowed to carry a pager as an intern. I wore the maroon box with the University of Chicago logo on it with pride. I never lost it or dropped in the water (which is an excuse I have heard in more recent years).

As junior general surgery residents, we rotated on a variety of services from plastics to vascular, from pediatric surgery to urology, from orthopedic to transplantation. On every service, we were treated as full members of the team and the learning experience was tremendous. I never heard anybody say: "I am going into cardiac surgery, why do I need to do orthopedic?" We were all starving for knowledge and this was a Vegas style "all you can eat" buffet of surgical training.

However it was not all sunshine and rainbows. The pace was very intense and not everybody was cut out for it. Especially during the junior years, it was not unusual to see one or two friends make a different career choice. Unless your heart was completely in it, it was not possible to excel or even make it through the most intense rotations. Also not everybody performed at the level expected. The faculty put a lot of effort into training us; we were expected to perform at the level of excellence the University of Chicago demanded and rightfully so. The teams and services were only as excellent and efficient as their weakest link, and if that link brought everybody down to a level not acceptable, that link needed to be replaced. It was hard to see friends being asked to leave the program or repeat the year; it was difficult to understand at the time, but now it all make sense. After all, we were there to take care of people, not to play. It was real, very real.

I spent two years in the lab after my second clinical year. I needed the break and I wanted to test myself in the field of basic science research. I was very lucky to be accepted in the laboratory of one of the most honest and caring individuals I have ever met, Dr. Richard Arenas. I had absolutely no knowledge of basic science and he took me under his wing and pushed my academic potential to a different level. I also made some lifelong friends during those years: Marc, Yuee, Mark, and of course Rick. My salary at the time was covered by a training grant and I was not expected to do anything but to work hard in the lab, learn, and publish. It was an amazing time.

I then went back to my clinical training and the last 3 years went very fast. My chief year was the climax of an overall amazing journey. Giants of American surgery would guide me through the critical portions of very difficult operations and would trust my judgment at night when I called them about a sick patient in the intensive care unit or even asked my opinion when facing unusual clinical problems. Unbelievable! Junior residents would look up to me as I did when I was an intern and I gave them all I could to make sure they would be successful. Cori, Kathy, John, and many others are now successful academic surgeons. With the time in the lab, my training took 7 years. I graduated in June 2000. The graduation ceremony was a celebration but also somewhat of a somber occasion. These people had been my family, my friends, my support system during the most formative years of my life and, we were going to spread our wings and fly to the next chapter in all different directions.

During my training, I had developed an interest in colorectal surgery and I was able to secure, with the support of my mentors, a fellowship position at the Mount Sinai School of Medicine in New York City. Mount Sinai was the place Dr. Burrill Bernard Crohn practiced and in 1932 described regional ileitis, now known as Crohn's disease. I had an interest in inflammatory bowel disease. This was a match made in heaven, also because I spent one of the 2 years with one of the most talented surgeons and caring individuals, Dr. Jeffrey Milsom, at the time the chief of Colorectal Surgery at Mount Sinai Hospital and program director of the training program. With my co-fellow Marty Weiser (one of my best personal and professional friends), we worked very long hours, we challenged, and we pulled pranks on each other, but definitely and more importantly, we learned to be compassionate and caring doctors always trying to advance the field of surgery and we learned it from one of the best in the field, Dr. Jeff Milsom.

In order to start at Mount Sinai, I needed a new visa; I had used the allowed 7 years on the J-1 visa. I quickly hired an immigration lawyer and started working on an O-1 visa. Several years and visas (O-1, H-1, green card) later in February 2016, I became a US citizen. Navigating the legal immigration process has been long and at times stressful. There is not a system in place for institutions to retain valuable foreign medical graduates by guiding and supporting them through the legal course. The individual physician is on his/her own to find legal assistance and to go through the time-consuming process. Please do not get me wrong; becoming a US citizen was well worth the time and aggravation. The Oath Ceremony was one of the most moving and meaningful moments in my life. This country has given me so much with no strings attached, the true meaning of the "land of opportunity."

I often look back at my journey as I very often receive inquiries from young medical students or doctors from all over the word. First and foremost, I try my hardest to reply to every single one as Dr. Block did 26 years ago, even if I do not have anything to offer them. In sharing my experience, I truly appreciate how fortunate I am to be where I am, to be who I am, and to have had the strength to pursue my dream. If asked, I would do it over again a million times. I am a better human being because of this experience and have been enriched by the friendships I have developed over the years. Have I had the opportunity to read a testimonial like, this one I would have looked for ways to transfer my training to the USA sooner in my medical school journey.

Roberto Hodara

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Roberto Hodara

I attended medical school at the University of the Republic, in Uruguay. I graduated in July 2012 and by September I was on a plane to Philadelphia. During medical school, I became interested in biochemistry, and I joined Dr. Rafael Radi's laboratory, investigating the biology of oxygen and nitrogen free radicals. It was a great learning experience and led to the opportunity to do a postdoctoral research fellowship in Dr. Harry Ischiropoulos' lab at the University of Pennsylvania, in Philadelphia. This was strictly a bench research fellowship. However, before leaving Uruguay, I knew I would eventually want to combine research with clinical work, and I was already looking at options to do residency in Internal Medicine in the USA.

I came to the USA with a J1 visa. There was a bit of stress at the US embassy in Uruguay when the visa was issued. Technically my position was in the Department of Pediatrics, even though Dr. Ischiropoulos' research had nothing to do with pediatrics, and I would not be doing clinical work. However, the staff at the embassy insisted that since my position was in a clinical specialty (as opposed to a non-clinical specialty such as biochemistry), the visa had to include the regulation where the applicant must return to their country of origin for 2 years at the completion of training. I knew this would complicate my plans to do clinical residency at some point. I argued that my position was in the Division of Neonatology, within the Department of Pediatrics, which was apparently not a subspecialty subject to the 2-year regulation. Fortunately, for whatever reason, my J1 visa was finally exempted of the 2-year regulation.

During my fellowship at PENN, I studied the role of oxidative stress in the pathogenesis of Parkinson's disease. I was able to publish several papers in peer-reviewed journals. At the same time, I took all the USMLE exams and got my ECFMG certificate. In a way, I was fortunate to have sufficient time to study hard

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for these exams. While American students take these exams during training, with specific deadlines, I had plenty of time to master them. I did very well, scoring in the 99 percentile in all of them. I believed it was very important to score high, as I was otherwise unknown in the US system, coming from a small and mostly unknown medical school in a small and mostly unknown country. To gather letters of recommendations from clinical specialties, I used my vacation time to do observerships in clinical rotations. One of the observerships was at Thomas Jefferson University and the other one at Albert Einstein Medical Center, both in Philadelphia.

My sources of studying material for the USMLE steps were varied. For Step 1 in particular I used the NMS review books. These were more detailed than other books but took longer to study. I also found Kaplan's online Qbank extremely useful to get familiar with the exam format and time constraints.

I applied for a position for internship and residency in Internal Medicine starting July 2005. By that time I had met my future wife and we became engaged. My then fiancée worked for the University of Pennsylvania as well, and she was not keen on leaving Philadelphia.

While going through the application for the Residency Match Program, Albert Einstein Medical Center offered me a pre-match position. I struggled with what to do with this offer. The pros were many: a secured position in Philadelphia, where we wanted to live; saving substantial amount of money in application fees and travel for interviews; and the program also promised sponsoring the H1B visa and a path to permanent residency (green card), which many academic programs refused to do. But by accepting this position, I would be giving up the opportunity to match in a more prestigious, academic center.

Ultimately, I took Einstein's offer, a decision I do not regret. This was a very interesting place. It is an inner city, community hospital. Its Internal Medicine Program had a reputation for being friendly to foreign medical graduates, and its path to green card made it very appealing to FMGs. This meant that the program could be very selective to pick only the best foreign applicants. I got to work side by side with extremely smart people from all over the world. Some of them had already finished residency or even a subspecialty in their native countries. Having a gastroenterologist as my intern was both very helpful and very intimidating.

I stayed at Albert Einstein as Chief Resident. By this time I was already married and had a newborn daughter. In the end, my application for permanent residency was done through marriage, not through work.

During residency I applied for fellowship in Cardiology and took a position at Emory University in Atlanta. This was a combined research/clinical fellowship position. It was of particular interest to me since one of the lines of research at Emory studied the role of oxidative stress in angiogenesis. My experience at Emory was extremely gratifying. I was able to apply my previous knowledge on the biochemistry of free radical species to a new line of research. I secured a research grant from the American Heart Association and published in peer-reviewed scientific journals. At the same time, I received very good training in clinical cardiology, exposed to the complex, difficult cases typically referred to academic centers.

As I neared graduation from fellowship, I found myself at another crossroads. I was offered a position as an Assistant Professor at Emory, in which I would dedicate 80% of time to research and 20% to clinical work. For many different reasons, personal and external, I grew more disillusioned with a career in research. There was also family pressure to return to the northeast, closer to relatives.

In the end, I chose to join a hospital-associated cardiology practice in Pennsylvania, where I have been since 2013. I found a niche for myself in invasive cardiac imaging, as part of a "heart valve team" including a cardiac surgeon and interventional cardiologist. In this role, I provide the imaging required to guide percutaneous heart valve replacement and repairs, as well as other structural heart procedures. I am also involved in clinical research, as principal and co-principal investigator in different medical device trials.

Journey of the Surgeon

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Tomasz Kozlowski

I was born, raised, and educated in Warsaw, Poland. I finished my 6-year medical school at the age of 24. My first workplace was my own medical alma mater. Two years prior to being granted official employment in the Department of Surgery, I was an anatomy tutor for medical students. I tutored during the day and volunteered as a young surgeon in training afterhours.

This was not a residency program, as we know it in the United States. I was an employee in training. For some individuals, coaching could last a lifetime. Career advancement in such an old school, byzantine system, was not always purely based on merit. Within my first year of working, I was granted the privilege of doing independently kidney transplants. It was actually a kidney transplant surgery that I observed as a medical student that drove me to choose surgery as my career in the first place. I was lucky to get exposure to a variety of general surgery cases, complex open vascular surgeries, and kidney transplantation. After 7 years of excitement and learning from technically outstanding senior surgeons, I no longer wanted to wait in line for new things to come in my professional life.

A prospect of going abroad, meeting new people, learning new techniques, and bringing home liver transplantation experience was very appealing. I got myself scholarship money from an extramural source, got approval from my boss, translated my diplomas, got numerous official seals from Ministry of "This and That," and landed in Stockholm, Sweden. All of these happened with the participation of my young family consisting of a newborn, 2-year old baby girl, and my terrific wife, a physician as well. The Karolinska Institute and its transplant division were my home for 2 years. Initially, it was supposed to be a 1-year assignment that was extended for 12 more months after my annual report to the sponsor. It was an exciting time, filled with a lot of operating experiences and travels through the icy roads

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for procurements, always at nighttime since the average Stockholm daylight lasts only 6 h. There was also a lot of experimenting with animals on the hottest topic of the time, xenotransplantation.

Whereas my home boss extended my stay in Sweden with just a little concern, he got really upset when I asked for another yearlong extension after being accepted to one of the most vibrant transplant immunology labs in the world, at the Massachusetts General Hospital in Boston. It was time to make a decision, likely for life. In many places on the Old Continent, you live your life in one city only; you are a part of the clan. I realized that I might not have a chance to return to my hometown, at least professionally. This choice was easy, or was it? Who on the Earth would turn down the opportunity to learn transplant immunology from the finest of the finest? I sure would not, and I did not.

Once I was assigned to my project in Boston, I bought some secondhand furniture and a used car from my Japanese lab predecessor and was ready to start my new venture. Luckily, due to a language barrier, I figured out a few days later that my predecessor will be staying in the lab for another 3 months, and… he still needs his "stuff" despite having received his money. After 4 years of crossmatching, flowing cells through the sorters, working and not working CMLs, MLRs, cytokines, pheresis, and large and small animals projects, I was at a crossroad again. What to do next? Seeing my children growing and responding in English to conversation in Polish, seeing my ambitious wife in her first year of medicine residency, and having an impression of being ostracized by my old home boss and colleagues, I matched for a 5-year surgery residency. I did it. Though I was left wondering why it was always endless hours of training, the work was never finished, and there was no time off granted when needed, even for family needs. To continue work in transplantation, I found a fellowship at Johns Hopkins, a place that seemed to be a guarantee for a stable and great training experience. To my surprise, the liver team collapsed there 3 months after the commencement of my fellowship. Again, I negotiated to move to a new place, at least for 3–4 months, to learn what I needed. Three months of sub-fellowship at a Midwest center helped.

Whereas my initial, real job package was written for an Associate Professor appointment, the final offer given for my signature was for an Assistant. My first life didn't count. I was born again; I will be young forever!

It has been and continues to be an exciting journey for me. For those that may relate to my story and may experience second thoughts about their life choices, for those that experienced feeling of being a tourist in your own hometown, and for those that feel that they are reminded by their surroundings that they do not belong, I have a suggestion: Never look back, no regrets, and always move forward and look into the future. Nobody can take from you who you are. Your home is there, where the people you love are.

Fabrizio Michelassi

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Fabrizio Michelassi

Mine is a story of persistence and serendipity over the course of 5 years. It started when I was a third-year medical student at the University of Pisa when I came in contact with an Italian anesthesiologist who was working in the United States. Dr. Michael LaPorta, this was his name, suggested to me to spend some time in the United States as an observer at the hospital where he was working. He was convinced that it would have been an excellent educational experience. I managed to finish all my exams by July and decided to accept his invitation and spend August through December in the United States.

I did not know where he was working. It turns out that he was a staff anesthesiologist at a nice community hospital in New Jersey, staffed by private physicians. By then I had spent 3 years in the Department of Surgery at the University of Pisa as I was interested in becoming a surgeon. The Director, Prof. Mario Selli, was a master surgeon at ease with gastrointestinal, hepatobiliary, thoracic, and urological procedures. The disciplines of kidney transplant and vascular surgery were at their beginning but already on solid grounds. Despite my course load, I had attended the wards and the operating room as much as I could. This allowed me to see hundreds of operations and even to work as a "scrub nurse" for a 3-month period when they needed some extra hands. It was a fantastic experience in an outstanding surgical unit. As a consequence I was not terribly impressed by the magnitude of surgery and the quality of care delivered at the community hospital in New Jersey, but I liked the structure of the residency program.

One of the Urologists there took an interest in me. He was of Italian heritage and kept telling me that I should visit the Massachusetts General Hospital in Boston if I really wanted to see an outstanding medical center. So one evening I took a bus from New Jersey to New York City where at Port Authority I connected with a second bus

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to Boston. Traveling by night allowed me to save on hotels and put me in Boston early in the morning. After a quick shave and a change of clothes in the men's restroom of the Boston Greyhound station, I walked to the MGH.

The medical center was imposing. I immediately realized that a residency here or at one of the top medical centers in the United States would afford a great experience and innumerable opportunities for further growth. I entered the White Building of the MGH determined to come to the United States for my residency in general surgery.

I made my way to the information desk and asked for directions to the office of the Chairman of Surgery. I did not know who the chairman was but decided that his office was a good starting point. It turns out that the Chairman of Surgery was Dr. Gerry Austen, a very famous cardiac surgeon who eventually would become President of the American Surgical Association and President of the American College of Surgeon, a distinction which only a few have ever achieved.

When I arrived at his office suite, I introduced myself to his secretary as a medical student from Italy and asked whether it would be possible to talk to Dr. Austen to find out more about residency at the MGH. Looking back now 45 years at that day, I cannot help but smile at my naïveté: a foreign medical student asking to talk to one of the most famous Chairmen of Surgery in one of the most prestigious medical centers in the world!

It turns out that Dr. Austen was out of town; his secretary Connie Martino informed me. Connie was of Italian heritage and suggested that I talk to Dr. George Nardi, Vice-Chairman of the Department. This was my lucky break; although Dr. Nardi did not reveal this to me at our first meeting, he was actually born in Bologna, and at age 2 his parents immigrated to the United States.

Dr. Nardi was very kind. He patiently listened to my story, my interest in surgery, my experience at the University of Pisa and at the hospital in New Jersey, and my desire to come to the United States for a residency in general surgery. He explained to me that the general surgery residency at the MGH was very competitive and suggested that I come back for an observership during my penultimate year (5th year) of medical school. I walked back to the Greyhound bus station for my night ride back to NJ knowing that it had been a successful day.

Two years later, confronted with the question of how to communicate back with Dr. Nardi (letter, phone call, personal visit), I decided to go back in person to remind him of our previous encounter and of his suggestion. By now, I did not need to stop at the information desk and went directly to Dr. Nardi's office, where his secretary Judith recognized me immediately. It did not take long for Dr. Nardi to recognize me and to remember his suggestion to spend some time at the MGH as an observer on the surgical services.

It was the end of July, and Dr. Nardi was just about to go on vacation to his house in Falmouth on Cape Cod. He invited me to join him and his family for the month of August at their house. His generosity allowed me to get to know him better, know many MGH surgical faculty members who had houses in the same area (Clement Darling, Chief of Vascular Surgery, was one), and make the acquaintance of his four children, who were just about my same age. September then came, and I spent the

following 6 months on three different surgical services: General Surgery with Drs. George Nardi and Joseph Fischer, Pediatric Surgery with Drs. Hardy Hendren and Patricia Donahue, and Thoracic Surgery with Dr. Hermes Grillo. This experience confirmed my desire to come to the United States for my residency in general surgery.

It was through the generosity of Dr. Hardy Hendren that my next chapter came into being 2 years later. After graduating in Italy and passing the "Esame di Stato," I was accepted by Dr. Hendren for a 6-month clinical rotation in Pediatric Surgery, followed by a 6-month experience in Dr. Donahue's lab. This time allowed me to solidify my desire to come to the United States for residency and to participate to the match in general surgery.

I matched at New York University in NY. The Chairman was Dr. Frank Spencer, another very famous cardiac surgeon who, like Dr. Austen, became President of the American Surgical Association and President of the American College of Surgeons. Other surgeons on the faculty included Dr. John Ranson (of the Ranson criteria for pancreatitis); Dr. Arthur Localio, a master GI surgeon; and Dr. Anthony Imparato, a master vascular surgeon.

The NYU program was "pyramidal" with 16 interns and only 8 chief resident positions. With grit, persistence, and luck, I "made the cut" and was allowed into the senior residency. During my 3 senior years, I took 2 years off for research and went back to the MGH to the laboratory of Dr. Warren Zapol, an anesthesiologist who eventually became the Chairman of Anesthesia at the MGH. Leukotrienes had been just synthesized which allowed us to study their effects on the myocardium. This work led to a paper in science.

After residency, I joined the University of Chicago as an Assistant Professor. I was recruited by Dr. David Skinner, another giant in American Surgery, to work with Dr. George Block, a master GI surgeon. I stayed at the University of Chicago for 20 years, and eventually I became the Thomas D. Jones Professor of Surgery, Chief of the Section of General Surgery, and Vice-Chairman of the Department of Surgery. In 2004, I was recruited by Weill Cornell Medicine in New York City to become the Lewis Atterbury Stimson Professor and Chairman of the Department of Surgery at the New York-Presbyterian Weill Cornell Medical Center.

So, as I said, a story of persistence and serendipity over 5 years that led to an academic career in surgery in the United States over several decades. Nobody can plan serendipity, but everybody can certainly be persistent, and persistence will eventually generate serendipitous opportune situations.

Luigi Pascarella

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Luigi Pascarella

I graduated in Medicine and Surgery summa cum laude in 1998 in Naples, Italy. My "alma mater" was the Second University of Naples, now known as Universita' degli Studi della Campania "Luigi Vanvitelli."

My first contact with surgery was far from being glorious. I was second assistant in a redo thyroidectomy, essentially holding retractors with the surgeon who was literally screaming because of my poor performance. Traumatized by the experience, at the end of the case, I decided that surgery was not my ultimate vocation. In March 1993, I started the integrated course of cardiovascular disease. My first rotation was in the Cardiovascular Surgery Unit at the Monaldi Hospital in Naples. The unit was led by Dr. Maurizio Cotrufo, who had trained in Cardiac and Vascular Surgery in Houston, Texas. He had performed the first heart transplant in Southern Italy. My second contact with surgery was in his operative room during an open coronary revascularization. The experience was completely different from the previous one. He was engaging and discussed with the team and me the indications for surgery and all the aspects of the operation he was performing. One week later, I had made my choice: "I wanted to be either a Cardiac or a Vascular Surgeon." I enrolled as a student intern and I started attending Dr. Cotrufo's service regularly, learning as much I could. The team included a number of surgeons trained abroad. I soon realized that the difference between the Italian trained and the foreign-trained surgeons was stunning.

After the medical school, I passed the Italian medical board exams, and I completed the mandatory national service in the Italian army as a medical officer.

I, then, matched into the Vascular Surgery Residency Program at the University of Parma. The years in Parma were very formative. However, despite an overall

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good training, I realized that the Italian training and medical system were not fit to satisfy my quest to successfully pursue a career in surgery. In addition, the job market for surgeons in my country was quite problematic.

I was aware that training in the USA would have been an uphill battle with several roadblocks, of which the first one was the medical board examinations. The entire examination process was expensive and overall complex. Cultural differences between the Italian/European and US medical systems were profound. In addition, I had never taken standardized tests. I had to teach myself a new way of learning. At the end, even though the score was not stellar, I was able to pass all the three tests and the Clinical Skills Assessment in Atlanta.

While I was studying for the USMLE, I also learned that some degree of research was highly recommended prior applying for residency positions. I was able to connect with John J. Bergan in La Jolla, California. Dr. Bergan had just retired from Northwestern and moved from Chicago to California to found a private practice Vein Clinic "The Vein Institute of La Jolla." In addition, he was faculty within the Department of Surgery at UCSD. He was highly interested in investigating the molecular bases of venous disease and had partnered in a very successful research line with Geert Schmid-Schonbein, Professor of Engineering at UCSD. I interviewed both, and I was offered a postdoctoral Vascular Biology Fellowship at UCSD. In May 2002, I moved to San Diego.

I spent 4 years in Dr. Schonbein's laboratory working on a novel animal model of chronic venous insufficiency and investigating the molecular bases of venous hypertension. Our research was presented at several venues and led to a number of publications in peer-reviewed journals. I was also able to observe Dr. Bergan in his practice, perfected my vascular sonography techniques, and slowly became accustomed to a different medical system. Another very important aspect of my association with John Bergan and Geert Schmid-Schonbein was the constant networking with scientists and surgeons interested in our research, becoming highly visible to them.

In 2004, I applied for a position in general surgery residency. I was granted several interviews, but they did not lead to a fruitful match. I think the result was a combination of the USMLE scores and the foreign medical graduate status. But this initial failure did not discourage me from pursuing my dreams.

My visa status was also a concern. I was initially granted entry and permanence in the USA through the J1 Research Visa Program. Since 2003, I had been in touch with an immigration lawyer in the city of Laguna Niguel. Upon review of my portfolio, my case was deemed to be adequate for an application as permanent resident under the National Interest Waiver Program. Briefly, the goal of the program was to demonstrate that my presence in this country and mostly my research were in the national interest. Dr. Bergan and Dr. Schonbein were very instrumental. Proofs of my research, research awards, and letters from scientists and vascular surgeons that had known my work were provided to the Immigration Services. The dossier, created by my immigration lawyer, was 3000 pages in length. Six months after the initial application, I obtained permanent resident status.

In the fall of 2005, while at the VEITH Symposium, I was introduced to Cynthia K. Shortell, Division Chief of Vascular Surgery at Duke University Hospital. We had a long conversation regarding my difficulties in obtaining a residency position in surgery and what I felt was a generalized unwillingness in giving training opportunities to international medical graduates. Dr. Shortell was able to connect me with Michael Skinner, Professor of Pediatric Surgery and General Surgery Program Director at Duke, who granted an interview. Shortly after, I was offered a 1-year preliminary residency position in Surgery, with the possibility of becoming a categorical resident, pending on my performance.

In June 2006, I moved to Durham, North Carolina. Residency started on June 24. My first rotation was at the Durham VA.

While the overall department and faculty were welcoming, from the first day it became clear to me that surgery training in the USA was far more complex than in Italy.

I had to learn the nuances regarding not only the new medical system but also the Duke healthcare system. Both were completely foreign to me. The teaching was outstanding. The faculty was engaging on rounds and in the operative rooms. I still remember my first M&M presentation as PGY-1 of a patient that had bled after a mastectomy, requiring an emergent re-exploration. The work was hard but very satisfactory. At the end, I was granted a categorical position. I still have the offer letter from Mike Skinner. Gradually, the institution and the training system became familiar, and I felt I was able to blend without any particular problems. My foreign medical graduate status was never used against me.

While Dr. Bergan retired from his practice, Dr. Shortell had become my mentor. She was available, understanding, and highly committed to my career. During the third year of residency, I made her aware of my intention of pursuing a vascular surgery fellowship. I wanted to stay at Duke. My fourth year rotations were adjusted in order to allow me to spend more time on the Vascular Surgery Service. An out of the much fellowship position was offered to me early in the PGY-4 year.

The Vascular Surgery Fellowship at Duke was intense. The entire service was very fellow-centric. The faculty was highly committed in the training of medical students, residents, and fellows. For the first time in 9 years, I was able to overcome what I perceived as the stigma of being an international medical graduate. Dr. Shortell was very influential not only in my vascular surgery training but mostly in guiding my career choices toward academic surgery. During fellowship, I became a US citizen and certified in general surgery.

My first job was at the University of Iowa Hospitals Clinics as Assistant Professor of Surgery. The faculty at the UIHC was very inclusive and allowed me to cultivate my interests in residents and medical student education. After a decade of being a mentee, I was mentor. I became first Associate Program Director of the Vascular Surgery Residency and Fellowship and then Program Director of the General Surgery Residency. More recently, I moved back to North Carolina as Assistant Professor of Surgery at the University of North Carolina Hospitals and Clinics, where I currently practice.

In conclusion, the path to a career in the USA is complex for foreign medical graduates. The entire process is lengthy and needs to be carefully planned ahead of time, as the medical and the training systems are unique to this country.

The research years I spent in San Diego were essential to overcome several obstacles, including the immigration matter. Mentors have been important in guiding my career choices since the 2002.

Ultimately, persistence and pragmatism have helped more than anything else in seeing the big picture, even in the darkest days.

Marco Patti

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Marco G. Patti

After completing high school (there is no college in Italy), I attended medical school in Catania, a lovely city of about 700,000 people on the east coast of Sicily. The regular course is 6 years during which students study basic sciences for the first 3 years and then have clinical rotations (somewhat repetitive) during the following 3 years.

As a senior student, I had the opportunity to spend a couple of months at the Massachusetts General Hospital (MGH) in Boston. Earlier in the year, a famous thoracic surgeon, Dr. Hermes C. Grillo, had visited the Department of Surgery at the University of Catania where I was working as a sub-intern preparing my thesis on tracheal reconstruction in rabbits using the small bowel. I had the opportunity to present some data during a conference, and he invited me to spend some time with him at the MGH and observe his work. I could not believe it, as Hermes Grillo was the father of tracheal surgery and had met me for 45 min only! During the time I spent with him at the MGH, I learned tremendously not only about tracheal surgery but also about the United States. From that time, there are some indelible impressions that the passage of time (almost four decades) has not altered:

- In the eyes of a medical student from Italy, the MGH was a temple of medicine.
- The United States is a country of opportunities. Dr. Hermes Grillo's father was originally from the same little town in Sicily where my mother had grown up. He had migrated to the United States in search for a better life, and there Dr. Grillo was born. In the course of one generation, he had become one of the most famous surgeons in the world, working at the Massachusetts General Hospital, the

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premier Harvard hospital. A similar story could not have happened in Italy where socioeconomic status and nepotism play a big role.

- It is nice to be important, but it is more important to be nice. Dr. Grillo was incredibly nice to all the medical students and residents. He was always available and willing to go the extra mile to teach, on the wards and in the operating room. And in the operating room, he always took the time to share his knowledge and experience, letting the residents and the fellows do the most difficult procedures. This was quite different to what I had witnessed during my rotations in surgery in Italy where residents, fellows, and junior faculty were not allowed to perform surgery, but rather they were supposed to first assist the chief.
- While I realized that it was a fantastic, albeit demanding, educational system, I felt I was not at the same level of an American senior medical student. I had a very good fund of knowledge but I had not been exposed as much to patients' management. I felt inadequate.
- At the end of August 1980, I said goodbye to Dr. Grillo and went back to my medical school where I graduated in July 1981. Graduation is an exciting time. It is both an ending and a beginning. It is warm memories of the past and big dreams for the future. I envisioned my career as a walk along a well-defined path, a well-illuminated tunnel with a clear light at his end. Unfortunately, the reality of training in surgery in Italy hit me hard. For the first 2 years, I was mostly writing up the history and physical exam of patients waiting for an operation. I went to the operating room once a week, mostly as second or third assistant. The schedule was easy as we worked from 7:30 AM to 2:00 PM 6 days a week, because at 2 PM the chief left to go to work in a private clinic, and once he was gone nobody could touch a patient. At 2 PM the night shift started. Slowly a strong feeling of frustration developed, and got worse with time. I realized that upon completion of the 5 years of training I was not going to be able to take care of patients as a competent surgeon. Suddenly, however, a unique opportunity presented in the form a scholarship sponsored by a private organization.

I left Catania, Italy, in June 1983 with idea of spending 1 year in San Francisco doing research at the University of California San Francisco (UCSF). After the first year of research, I realized that the educational system I was witnessing was fantastic and very different from the one I had experienced in Italy. Halsted in 1890, when Chief of Surgery at Johns Hopkins School of Medicine, created the residency program, establishing a major shift in the system. The focus was not any longer on the success of the professor but rather on the education of the residents in order to create the surgeons of the future. I realized that this shift had never occurred in Italy. Even though the chairman of my department trained in the United States, he had not embraced the American educational system but rather preferred the traditional hierarchical training in Italy.

I did 3 years of research at the UCSF during which I passed the ECFMG part I and II and the FLEX, the required exams at the time. In 1985 I applied through the NRMP, and I was accepted as a categorical intern at the UCSF, where I started on June 20, 1986.

I have wonderful memories of the years I spent training; it was hard work, but it was incredibly gratifying. Every day I felt I was learning something new, becoming a better physician. I did 5 clinical years and 2 more years of research in the Swallowing Center of the UCSF. After graduation in 1993, I was sent by Dr. Haile Debas (the Chairman at the UCSF at that time) to train at the Queen Mary Hospital in Hong Kong with Professor John Wong. I went with one of the chief residents who graduated with me in 1993. Still, today, I remember my colleague's reaction to being immersed in a very hierarchical and autocratic system, and how he demanded things rather than earning them. While for him it was a real cultural shock, I adapted really well and enjoyed my time. John Wong was a very talented surgeon and eventually would become one of my mentors for my entire career.

After going back to the UCSF, I spent the following 14 years working at Moffitt-Long Hospital as junior partner to Dr. L. W. Way (Carlos Pellegrini had moved to Seattle to become Chair of the Department of Surgery). Looking back, I can only be incredibly grateful to Dr. Way for his mentoring. He took a well-trained but rough individual, and over time, he transformed him into a surgeon. I also treasured the continuous, albeit long distance, mentorship that Dr. Carlos Pellegrini provided over the years, making sure that I excelled in other aspects of academic surgery, such as scholarship and leadership in academic surgical societies.

In 2008, I accepted the offer of Dr. Jeff Matthews and moved to the University of Chicago where I assumed the position of Director of the Center for Esophageal Diseases. This was indeed a major honor, as I was trying to continue the tradition of Dr. David Skinner and Dr. Tom DeMeester, resuscitating a program that had been slowly dying after their departure.

In 2016, I moved to the University of North Carolina in Chapel Hill, NC, where I am presently working as a professor in the Departments of Medicine and Surgery and as Co-Director of the Center for Esophageal Diseases and Swallowing. In 2015, I was named President of the oldest international surgical association, the International Society of Surgery, and in August 2017 I was the President of the World Congress of Surgery which took place in Basel, Switzerland.

If I reflect on my own experience, I do not think that a complete process of assimilation has taken place, but rather the blending of two different cultures has occurred. From my place of origin, I preserve the respect for authority, the respect for the elders, the gratitude for the tremendous opportunities I was given, and sometimes a feeling of annoyance when my authority is challenged by individuals who feel that things have to be given to them rather than earning them. From my country of adoption, I have learned the importance of embracing other cultures and be tolerant of differences, avoiding being ethnocentric, and be open to other people's opinions with the goal of achieving a shared objective. Overall, as I reflect on my journey, I realize that I could not have done what I did in any other country in the world. The United States is a country of opportunities, where meritocracy is still the norm independently from gender, race, and culture. It was hard to leave my family, my friends, my culture, and my country, but I felt that I gave a sense to my life. A life without sense is the torture of the restlessness and unfilled dreams; it is like a boat that longs for the sea but at the same time is afraid of it.

Marco Bertucci Zoccali

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Marco Bertucci Zoccali

My interest for surgery dates back to my fourth year in medical school at the Catholic University of Rome, when for the first time I have been called to attend a minor surgical procedure. Since then my passion and dedication to this exciting discipline have been steadily growing. Everything I have seen, learned, and done at the General Surgery Unit as a medical student leads me to the decision to be a surgeon. During the 6 years of my general surgery residency at the same institution, my interest grew from strength to strength as I gained competence rotating between surgical units at my hospital.

In December 2009, while on the third year of my residency, I was offered a position as a fellow in Gastrointestinal Surgery at University of Chicago for 6 months. Not without some skepticism and certain degree of apprehension, I decided to accept the offer, with the main goal of perfecting my English, improving my CV, and acquiring new skills. Despite the support provided by the accepting institution, the bureaucracy involved resulted extremely frustrating and time consuming. I moved to Chicago in June 2010; it was the first time I visited the USA and adjusting to the new environment ended up being everything but smooth and effortless. However, after only a few weeks, all the distress caused by the innumerable logistic, social, linguistic, and administrative barriers was replaced by the growing enthusiasm for what will eventually represent a truly life-changing experience. At the University of Chicago, I was welcomed by some of the most brilliant, talented, and hardworking individuals, in a diverse and stimulating environment, ideal platform for bringing the potential of each individual to fruition. As a result, the original 6-month project was extended becoming an 18-month journey—the maximum my Italian Residency Program would allow me to stay abroad—and by far one of the thrilling and productive chapters of my life. Under the supervision of Dr. Marco Patti and Dr. Alessandro Fichera, I undertook a number of research projects which

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resulted in 20 papers, 7 of which were first author, with minimally invasive approaches for the treatment of inflammatory bowel disease as the main—but not exclusive—focus. I presented my work at a number of national meetings and had a valuable opportunity to discuss my work with leaders in the field. In addition to research activities, I was afforded the privilege to participate in clinical activities, both in the operating room and on the floor, with special attention to the minimally invasive treatment of esophageal and colorectal diseases. This turned out to be an enlightening experience that sparked in me the desire to undertake further training in the USA.

I resumed my 6-year training program in Italy as a PGY5 in January 2012, dedicating significant amount of time and efforts in completing my ECFMG certification, thus being able to apply for a position as a resident in a US General Surgery program. Sadly, and with my great surprise, despite my prior clinical and academic experience, nearly none of the top programs would offer me an interview for a categorical intern position. Nevertheless, I was eventually lucky enough to match for a preliminary position as an intern at Weill Cornell. Well aware of the challenges and potential pitfalls that going through a second round of training might have posed, I approached my second residency with a great deal of modesty and determination, and, with the contribution of some concomitant collateral events, one year later I was afforded a categorical PGY3 position. Now that I am nearing completion of my residency, under the mentorship of Dr. Jeffrey Milsom, I can safely say that the General Surgery Program at Weill Cornell has far exceeded my most optimistic expectations. Working hand-in-hand with some of the world's most prominent authorities in the field has been truly inspiring, resulting in the perfect platform for me to develop a stronger knowledge base, higher proficiency, and broader skill sets.

As an ambitious and dedicated individual, I hold myself to the highest of standards. I strongly believe that my original goal of pursuing an ACGME-accredited colorectal fellowship will allow me to build on the expertise I gained in my two general surgery residencies, taking my clinical acumen and surgical abilities to the next level. I envisage playing an influential role in this cutting edge and dynamic specialty one day, devoting my efforts to caring for an increasingly challenging patient population and participating to the advancement of the field. I am thrilled at the prospect of being a colorectal surgery trainee and looking forward to my fellowship with great enthusiasm.

Carlos Galvani

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Carlos Galvani

The journey of a thousand miles begins with one step.

Lao Tzu

Introduction

I am a foreign-born and foreign-trained general surgeon. I am currently an Associate Professor of Surgery in the Department of Surgery at Baylor College of Medicine in Houston. I specialize in minimally invasive surgery and bariatric.

That being said, back in 1998, as a third-year resident at Hospital Carlos G. Durand in Buenos Aires, Argentina, I didn't know what I wanted to do after finishing my training. However, I was always intrigued about the emerging field of laparoscopic surgery.

My "single step" began in 2000 after a 3-month international rotation in laparoscopic and robotic surgery at the University of Illinois at Chicago. This was a unique and wonderful experience, introducing me to the practice of academic medicine in the USA.

Upon my return to Argentina, it was clear to me that I discovered my career path. Unfortunately, I found myself in a position where it felt that I was simply exchanging my time for money. Frustrated, I ultimately pushed myself to seek alternatives for fellowships in the USA.

Choosing a career path is not easy and can be very stressful, yet early career planning can help you make decisions about your training and education. Perhaps,

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one of my biggest regrets was not to have a clear vision of my career in the initial part of my training.

I must confess that even though surgery was always my true passion and travelling to the USA to gain clinical experience was my dream, it was not easy to leave my country. Nonetheless, I felt the need to find new horizons and the desire to engage in care that may not be available in my home country because of resource constraints. I believe that my journey was affected by this decision and significantly influenced my career path.

I hope that this chapter can be advantageous and informational for other international medical graduates (IMG) as I reflect upon my experiences, anxieties, and quotidian efforts that I went through during those years.

The Transition to the USA

I finished my residency in June 2001. My next step was to complete a minimally invasive surgery (MIS) fellowship to improve my surgical skills and eventually return to my country. Obviously, I was not familiar with all the technical aspects of getting clinical training in the USA. One of my mentors advised me that the best route to get into a clinical fellowship was to begin with a research fellowship.

In 2002, I had the opportunity to perform a postdoctoral fellowship in gastrointestinal surgery/motility at the University of California, San Francisco.

While I was excited for the new chapter of my life to begin, to say that the transition from Buenos Aires to USA was smooth and painless would be underrepresenting the facts.

First of all, IMGs who seek entry into the USA must obtain a valid US visa. Most research institutions are designated by the US Department of State (DoS) to sponsor J-1 "research scholars." Research scholars can be categorized as having either "no patient contact" or "incidental patient contact." In my case, the designation was as "incidental patient contact" (patient contact incidental to the activities of observation, consultation, teaching, or research). All visas are issued only in US embassies and consulates outside the country and require additional documentation along with a personal interview.

My interview for a J-1 research visa was straightforward. I did my homework; I knew my program dates, learned about my training/research program, brought all the required documentation, including the right size passport picture, and paid the visa fees. I was able to demonstrate to the consular officer that I had no plans of staying in the USA beyond my training visa, and I raised no red flags.

Research Experience

Soon after my arrival, I learned that there was an expensive and time-consuming process of certification for IMGs to obtain clinical training in the USA, including in

some cases the completion of a second residency. Again, I was encouraged to maximize my research experience because foreign medical graduates (FMG) tend to have a more difficult time obtaining residency or fellowship spots in the USA than US graduates. I came to the conclusion that research experience is only valuable if it is productive (publications, abstracts, oral presentations, book chapters, etc.). At the end of the day, if it results in publications, it becomes a permanent part of your CV. Clearly, when compared to any other experience, research work is the strongest way to build your career plan providing you the highest likelihood of success.

For example:

1. It demonstrates your interest toward a specific specialty and helps define a career path.
2. It helps you understand the literature.
3. It makes you stand out compared to other applicants.
4. It helps develop a professional network while collaborating with other researchers.
5. It adds names of prominent researchers to your CV.
6. It simplifies the process of getting supporting letters of recommendation from US-based practitioners.
7. Academicians value research experience, which could increase job opportunities (residency, fellowships, faculty positions, etc.)

The drawback to research is that it tends to be time consuming and is of little to no benefit when done for a short period of time. Ideally, I recommend up to 12 months of research exposure or more if possible.

Medical Licensing Examination

I started to investigate the step-by-step approach to getting US clinical training. Even though I had already finished medical school and general surgery residency, to be eligible to enter a US training program, I had to be certified by the Educational Commission for Foreign Medical Graduates (ECFMG). The certification includes verification of medical school credentials, a passing score of the first 2 steps of the US Medical Licensing Examination (USMLE), and the ability to speak English (TOEFL). The entire process, from initial application to certification, could take an average of 2–3 years to complete. On paper, the process looks relatively straightforward, but it can only be achieved if you have enough time and money to dedicate to this daunting task.

I felt privileged to have a paying job while preparing for the exams. Of course, this was not stress-free since I was studying before and after work. In addition, I found myself studying for long hours, because of language differences. It was overwhelming trying to speak and listen to a new language every day while trying to understand how things are done.

Maintaining Legal Status

In May 2004, I passed all the examinations and obtained my ECFMG certificate. While studying for the exams, I started the application process for MIS clinical fellowships through the MIS Fellowship Council. In June 2004, I was accepted at the prestigious fellowship in advanced laparoscopic surgery at the University of Illinois at Chicago. Obviously, as a J-1 "research scholar," I had to request sponsorship in the "alien physician" category by filing a formal change of category with the DoS through the ECFMG. Subsequently, I applied to extend my fellowship another year to include laparoscopic bariatric surgery in my training (2005–2006). Unfortunately, although I had a J-1 visa, for the second year of fellowship, I had to notify the ECFMG of the proposed changes to the already approved training.

To my surprise, just when I thought I have conquered the VISA battle, I encountered another hurdle. I learned that because laparoscopic and bariatric surgery are considered *nonstandard training* disciplines by the ECFMG (no Accreditation Council for Graduate Medical Education (ACGME) accreditation and/or American Board of Medical Specialties (ABMS) board certification available for that subspecialty), the J-1 visa sponsorship is limited to the "time typically required" to complete the program. Consequently, the J-1 visa is not automatically granted to participate in multiple nonstandard programs. In order to be considered for an extension of the J-1 visa, the ECFMG has a number of requirements, of which the most troubling was The Statement of Need (SoN). The SoN is a letter by the Ministry of Health of your country stating that there is a need for qualified medical practitioners in your specialty. In exchange, you commit to return to your country upon completion of training in the USA. Unfortunately, I was not able to get it remotely; thus I had to travel to Argentina to obtain the letter from the Ministry of Health. Thankfully, after submitting all the supporting documentation necessary to complete the application, the visa was granted.

Landing My First Academic Position

As I was finishing my second year of fellowship, I knew that I wanted to establish myself in the USA. I felt strong ties to the culture that helped me prosper in my career. I knew that repeating the residency was not an easy thing, and it could be frustrating to find a residency spot as a foreign-trained physician.

Fortunately, I was honored to be offered the position of Assistant Professor of Surgery at the UIC. So here I was, a "legal alien physician" with the chance to practice medicine in the USA, fulfilling my dream of working for an academic institution.

The position was offered to me under two conditions: (1) obtain a full license to practice medicine in Illinois and (2) obtain a valid visa to remain legal in the USA. Once again, I was facing new challenges and new deadlines. Logically, I couldn't miss this opportunity that rarely comes one's way.

In order to obtain the Illinois license, I needed to document 2 years of a clinical training program and pass Step 3 of the USMLE, which I had not taken up to that point. Thankfully, with the 2 years of fellowship, I was able to fulfill the 2-year

requirement. The next big challenge was once again my legal status. As a J-1 visa holder, I was subject to the 2-year home residency requirement rule under Section 212(e). There are two ways this requirement can be waived: (1) work for a Veterans Administration (VA) for 3 years or (2) work in an underserved area for 3 years. However, there was a third option, introduced to me by the Office of International Students (OIS). If eligible, the O-1 visa would allow me to continue working in the USA beyond my J-1 training period. In general, the O-1 is available to research-oriented, well-published physicians. To qualify, it has to be established that the O-1 candidate has a national reputation for excellence in the respective field of expertise. In addition, appropriately worded testimonial letters from as many diverse geographical sources possible that detail the individual's distinctions in the field are often the cornerstone to support a claim for extraordinary ability.

Working closely with the OIS as well as tapping into my professional network, I was able to file the paperwork and was granted to O-1 visa.

Obtaining the J1 Waiver

I entered the US workforce in August 2006. Due to the help of my colleagues and hospital staff, my onboarding process was much easier than expected. I felt I was l prepared for broad-based general surgical practice.

Although, I was very gratified, I knew that there were still challenges ahead that will eventually come back to track me down, and this was emotionally draining. The main challenge was related to the O-1 visa that had to be renewed after 3 years with unlimited extensions in 1-year increments. Through hours of research in the internet, I found out that my best option would be to go through the J-1 waiver process. This required for me to find a new job in a medically underserved community. In 2008, I started exploring my options. There was a job opening at the University of Arizona for a MIS surgeon. After 2 successful interviews, I was awarded the position and a promotion to Associate Professor of Surgery. My ultimate goal was to file for the J-1 waiver while in Arizona. I had to apply for a new O-1 visa, and of course I had to again prove my eligibility. Thereafter, in 2010, the J-1 waiver was approved, and we filed for the H-1B visa based on an EB-1 outstanding researcher petition to fulfill the waiver requirement. Once on an H-1B visa, and after my 3-year waiver, the transition to permanent residency was possible through the sponsorship of the university. The whole process consumed more than a decade. As an international medical graduate, there were many challenges I did not anticipate. Despite the challenges, my success was the result of hard work, perseverance, and sacrifice.

Final Thoughts

Today, I am the Chief of Metabolic and Bariatric Surgery at the Michael E. DeBakey Department of Surgery, Baylor College of Medicine. I am proud to say that the last 15 years were some of the most formative moments of my life. During those years, I gained an understanding of the nuances of the "American Healthcare System".

This process began during my training and the choices I made, and has provided me with a great framework to achieve my goals.

Choosing a career path is a journey rather than a one-time decision. The main challenge is to understand your long-term goals in order to develop a strategy to plan for your education and training. Every career path has milestones along the way. If you want to pursue training in the USA, decide how much you are willing to sacrifice. IMGs come to the USA with different medical backgrounds (completing medical school abroad, after residency/fellowship, or after several years of clinical practice); similarly, there are many alternative ways to becoming eligible to practice medicine in the USA. For that reason, it is very important to have the most up-to-date information that pertains to your situation. Relevant organizations update provides the most up-to-date information on their websites. The quickest way to avoid mistakes that could cost you months of wasted time and effort is by reaching out to someone in your field who's a few years ahead of you and asking them questions.

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