Down the hall I heard the beeping of linear accelerators as they ablated tumors using high-energy photons with pinpoint precision. I witnessed the power of physics in medicine as cancer patients exited treatment rooms after receiving their therapy. They were laughing, they were joking and most of them were walking without any need of assistance, a stark contrast to the gravity of their condition.

I completed an internship in medical physics at MD Anderson Cancer Center because I was seeking to bridge a gap between my two core interests -- physics and impacting everyday human lives. During my study of physics, I fervently learned about the fundamental phenomena of the universe, from the motion of protons in an electric field, to the quantum dynamics of its spin, and eventually leading to the principles of the MRI. My journey in physics even brought me to CERN where I contributed to one of the largest scientific collaborations in the world. Despite these amazing experiences, I realized that a career in particle physics research did not excite me. It seemed isolated from the world because the direction of the field did not clearly motivate discoveries that would directly impact our everyday lives. Medical physics offered a combination that appeared to be a much better fit for me.

During the internship, I observed radiation treatment procedures. I wanted to see physics in action, but I discovered a stronger desire to interact with the patients. I requested to shadow a radiation oncologist and witnessed the miraculous potential of modern medicine.

The physician showed me a patient's pre-treatment FDG scan from eighteen months ago. Over a dozen FDG avid regions, indicated by black regions, peppered the mediastinum, his lung cancer had aggressively metastasized. I suspected the patient passed away and the physician was referencing it as a case study. However, much to my surprise, he said, "Let's go check on him". I followed him to the exam room aware that the patient was at high risk for recurrence. The patient and his family greeted us with visibly tense smiles and quick, nervous handshakes. The physician's lighthearted and jovial personality began to ease them. As he joked with them, the tension in their bodies melted and their laughter lost almost all traces of distress. Then, he pulled up two FDG scans, the one he had shown me and one taken earlier that day. We all let out a sigh -- theirs in relief, mine in awe. His scan was clean and clear of the black regions. Everyone thanked the physician for saving not just the patient's life but all of theirs as well because he returned their lives back to a sense of normalcy. After we left the room, he explained that the results were due to the patient's enrollment in an immunotherapy with concomitant radiation trial to test the protocol's efficacy. I expressed my amazement and the physician reciprocated. He assured me that results like those did not occur often but that case shows the potential of the treatment protocol. In curiosity, I asked him for literature on radiation and immunotherapy. I never considered the joining of medicine and physics in such an intimate manner. Amazed by the power of this union, I began to seriously consider medicine as a career.

In the following months, I continued to shadow him and observed the array of interpersonal skills physicians require. I was amazed by his ability to console patients in a breadth of situations; some crying after receiving news of potential recurrence, a few others fed up with backlogged procedures due to bureaucratic errors. I heard new patients tell their stories and talk about goals they had to postpone, and follow-up patients living out their goals since he made them cancer free. Interacting with the patients clarified my core interest to impact our everyday lives. Now I wanted to directly impact people's lives; to give them hope and assurance in their greatest time of need.

While my desire to pursue medicine grew, I was hesitant to leave behind aspects of high-energy physics research. I enjoyed programming analysis code and learning the deeper physics of the universe, seemingly disparate pursuits from those of providing healthcare. I discussed my hesitation with the physician. He explained that I was in a unique position. Medicine is rapidly evolving to include the technological improvements of recent decades with no signs of slowing down. I can directly contribute towards this integration using my programming skills and my knowledge in physics. He encouraged me to consider becoming a physician-scientist to use my research background as a strong foundation for making substantial and impactful discoveries. I reflected upon my place in the future of medicine and all hesitation disappeared.

As a physician, I want to do more than just heal sick patients. I want to know them, truly care for them, and give them the chance to live their life again. I want to explore medicine and apply my skills to make discoveries that can impact more than just the patients that I will be able to personally care for in my lifetime. I know I may not be able to save all of my patients but at least I can give all of them a fighting chance.