A doctor’s dilemma

Deniz Kirik was drawn to medicine by his desire to better understand the human brain, but he found that doctors in his native Turkey have little opportunity for research. Nonetheless, he has turned what first felt like a failed career choice into an advantage. Now a neuroscience professor at Lund University in Sweden and co-founder of a spinoff company, Kirik uses his medical background to develop novel gene-based therapies for Parkinson’s disease and bring them to the clinic. In October, Kirik secured a partnership with his regional government in southern Sweden to build a hospital specialized for testing and implementing gene therapies. This interview was edited for brevity and clarity.

Q: How did you get into science?
A: My frustration at realizing that my purpose for entering medical school clashed with what was expected of me as a medical doctor in Turkey led me to try my hand at research in my spare time. Several people on campus opened their laboratories to me. I was to start my final-year clinical residency when one of their colleagues at Lund University invited me for a short stay in his laboratory. So I took a break from medical school and, once in Sweden, stayed on for a Ph.D.

Q: Was it hard to change course?
A: My decisions were not well understood back home. My relatives called my parents lamenting that I had lost purpose in life. Even my professional colleagues seemed to think that research was the wrong path to follow. The medical faculty board threatened to dismiss me if I didn’t return. After a 4-year-long uphill battle and a lot of back-and-forth between the two countries, I eventually managed to finish my medical studies. I earned my degree to state that even though my path was different, it wasn’t any less good than medical practice.

Q: Is your medical background helpful today?
A: Even though venturing through medical school initially felt like a failed attempt at fulfilling my career ambition, that decision eventually brought me to where I am today: doing science in a basic and translational research environment, still within a medical faculty. I am using viral vectors to deliver genes to the brain to treat Parkinson’s disease, and I am looking into the possibility of controlling the activity of therapeutic proteins to personalize treatment. I’ve also had to convince hospital directors to invest space, time, and competent people into a translational project like this. Had I had no engagement with the clinical world as a trainee years ago, I would have had a less clear view on how to get clinicians’ commitment. In turn, our ability to understand clinical challenges is improved when some of us on the research team have a medical background in that area.

Q: How do you juggle your work activities and personal life?
A: As scientists, we are immersed in the questions we work on, and they become part of our personal identity. But that presents a challenge, in that I am married with two small kids. My wife is as prominent as I am in her research career, and she is also an active clinician. We have established a routine whereby we prioritize and share taking care of the children after daycare. I wouldn’t say it’s been easy, but we buffer each other’s difficult times at work by slowing down when the other has to really push the limits.

Q: What’s your advice for young scientists?
A: Defining the purpose of their life and their ambitions is very important. Then they need to determine what path will lead them to their goals, revising it and iterating continuously. They will need a lot of strength and persistence. Also, it’s ironic, but the things that taught me the most are the things that I failed at. I’ve always investigated the reasons for my failures much more intensely than my successes, and failing drives me to try harder the next time.

Elisabeth Pain is Science Careers contributing editor for Europe. Send your story to SciCareerEditor@aaas.org.
A doctor's dilemma
Elisabeth Pain

Science 350 (6263), 998.
DOI: 10.1126/science.350.6263.998