

I thought for a while that the worst news I'd hear was that my PlayStation game was jammed. Sure, that had upset me but sitting in my living room, a weird tension settling over my family, I realized that the most devastating and painful news was something much more real. My grandfather had lung cancer. The days passed in a blur as I tried to comprehend what that meant. Was it a death sentence? A curse? An incurable disease that would steal away my grandfather's sweet eyes and Arabic jokes and *varung banir* sandwiches.

I eavesdropped on my dad as he spoke to his brothers, rambling on about MRIs and PET scans. It felt like Morse Code or another language, something that I could not understand. The acronyms confused me too, and Google was no help, showing me scary machines with metal arms and pieces that looked like they'd hurt. I asked my older sister, Mireille, what MRIs were, and she told me with a smile on her face that they were one of the greatest medical inventions and, to my surprise, they were invented by an Armenian. The PET scan was similarly created by an Armenian inventor, and suddenly there was a connection between my heritage and something that had seemed foreign and scary only a moment ago. I sat down at my desk, fingers flying across my keyboard as I researched what would potentially save my grandfather.

Created by Raymond Damadian, MRI stands for Magnetic Resonance Imaging. It was a machine that took X-ray pictures of what happened inside our body, every little blood cell, organ, and vessel. Damadian's very first model took five hours to capture one image, and I wondered in amazement how technology had transformed that into a 30-minute to 1-hour session. He worked hard with his graduate assistants from the State University of New York Health Science Center to finish the first scanner in 1977. He called it Indomitable because of the 7 years of hard work it

took to complete. I liked the name. It reminded me of my indomitable grandfather, who, even sick and with failing health, would not give up and was fighting hard to stay with us.

Damadian's intelligence and curiosity inspired me. I also held a passion for science, for creating things that could enhance human life. Even if Damadian's version of the MRI isn't in practical use today, his idea to apply this NMR technology to medicine was revolutionary. "If you could ever get this technology to provide the chemistry of the human body...you could spark an unprecedented revolution in medicine," he said. Damadian himself was also interested in how an MRI could help patients with cancer, and I felt so connected to him and the Armenian blood we shared. His parents too had escaped the clutches of the Armenian Genocide, like my grandfather, and had lived a better life that led Damadian to this exact moment.

The PET scan had a similar origin story as I read, enraptured by the story of Dr. Michel Mathew Ter-Pogossian. He was one of the leading researchers behind the PET scan, Positron Emission Tomography. The PET scan shows any metabolic or biochemical functions of your tissues and bones. If there is something irregular or dangerous, the scan will reveal it and doctors can act accordingly. Ter-Pogossian's parents also escaped the Armenian Genocide and settled in France with him to try and lead a normal life. Ter-Pogossian loved physics and even as a child created experiments with his toy chemistry and physics kits. He dedicated all of his years at school to heavy research in the biophysics department, becoming the head of the Mallinckrodt's Institute Division of Radiation Sciences. Here was yet another amazing Armenian innovator who had changed lives, and changed the scientific landscape of radiology. He had over 250 papers and chapters he'd written, and I bookmarked them all, eager to begin my own scientific journey,

especially now that I knew my grandfather had the power of Damadian and Ter-Pogossian behind him.

Technology has always interested me, but for the first time in my life, it was more than that - it acted as a beacon of light and hope for my family and me. Where before I had been confused and scared by what it meant for my grandpa to be sick with cancer, I now held faith and comfort in my Armenian brothers who had created ways to help patients like my grandpa. The use of the MRI machine, which scanned and told us the progress of cancer in his lungs, the exact stage, and what treatment option would be best, extended my grandpa's life for a few more years. I was blessed to spend those days with him, learning his favorite Armenian songs, accepting the chocolates he always tucked away in his pockets, and borrowing the hats he'd always have on his head.

Technology is nothing if not meaningless until it improves humanity. The chance I had to spend more time with my grandpa was the greatest gift the intelligent minds of Damadian and Dr. Pogossian could have offered. I was and still am proud to be Armenian, proud to be of the same roots that birthed such intellectual and life-changing ideas and scientists. Maybe someday, I can be the creator of an idea, a machine, something that can change the world, and I can do it with my Armenian last name.

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