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A journey in the path of science

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I grew up in a different world - a world of innocence, obedience, respect and discipline. It was a world with limited opportunities, with almost no exposure to the outside world; no career counseling, no management or administration courses, no MNCs or BPOs, no mobile phones or the internet. One was lucky to have books at home or at the school library and the opportunity to learn from one's elders, teachers and environment. The family's aspirations motivated children to do well. But, I know that if I had to choose a career in today's time and world, I would still become an independent, free-living and free-thinking scientist. How and why I became a scientist is not difficult for me to relate and I am so honored to share my path - my background, the options I had, my sources of inspiration and motivation - in this compilation, 'Lilavati's Daughters'.

I came from a pretty little town called Madikeri, situated in the hills and valleys of a heavenly place called Coorg, south of Mysore. I was raised by a very loving, caring and progressive family - which included my parents, grandparents and several aunts - in a small house with a large backyard. My parents were busy government officials. My grandfather was a highly disciplined, gentle

yet firm man who had served in the British army and was an art teacher in a government school. One of my aunts, who was the first woman to serve in the government office in Coorg, took on the role of our mother and teacher. In our household, there was no discrimination done between boys and girls. Everyone was held to the highest standard. I began primary school at the age of 3. We got the best education middle-class parents could afford because, our parents repeatedly reminded us, education was the one thing which would stand by us.

I had no pressure from any teacher to pursue a specific field. I loved chemistry and biology but had no chance to read about scientists. Performing well in our studies was the only focus. The crucial moment came when I was in class nine and had to choose which stream to take: arts or science. Because science needed greater understanding and logical approach, science was believed to be only for the brainy, arts for the dull ones. These stereotypes worked their way into our mind as children.

The evening before I had to make my choice, I told my aunt that I wanted to take science. Still reeling from my performance on my tests, she shortly responded, “you should take arts because studies in science need dedication. you are only interested in playing, not studying.” The next morning, as soon as the school bell rang students formed two queues one for arts and the other for science. Sadly, I joined the queue for taking admission in the arts stream. My craft and needlework teacher saw me and pulled me out of the line. “What’s wrong with you? Why are you in this line? Go, join the science line”, she ordered and I obeyed. I walked back home, afraid to face my aunt. I told her what happened and what my teacher said.

In Class X, I was the only one in my school to get first class in all four parts. The next big decision was which subject I would take in college. My father wanted me either to do Masters in maths or join the IAS, but my heart was elsewhere. It was my dream to become a doctor. To this day, the sight of a doctor treating his patients fascinates me.

My family was supportive. I moved away from home and started college in Bangalore. In spite of my lack of dedication, I

managed to pass my exams with first class. Unfortunately, I was still under age when the time came to fill out forms for medical school. Everybody agreed that there was no point wasting three years to go back to medical school. Upon completing my B. Sc., I decided to pursue a masters in zoology.

While doing my masters, the head of the department gave me cytology as the special paper, instead of physiology – which I wanted. I could not come to terms with their decision and resisted dedicating too much to the course. I constantly interacted with a mentor and her students who were pursuing Ph.D in animal physiology. The energy and discussions in her lab helped me make the final decision to opt for a career in science. I decided to pursue a Ph.D in biomedical research.

Due to poor preparation, I did not get to do my Ph.D at any of my first choice schools. I began my Ph.D. at Delhi University. I moved even further from home. I was a single girl getting onto a train headed to a place where people spoke the language I did not know.

My obsession to do biomedical research led me to my Ph.D. mentor Prof. S.R.V. Rao. The lab had a very relaxed environment and the passion and commitment to a research question that I saw in my teacher made a lasting impression. Prof. Rao spent long hours at work, discussing not just the project at hand, but all other contemporary findings. He nurtured a passion for scientific research and emphasized the research process, rather than the results. I enjoyed every moment in the laboratory and tried to learn as much as possible.

I joined the Human Genetics Laboratory at the Children's Hospital in Basel, Switzerland for my postdoctoral fellowship. Because I was in a hospital setting, the experience was very satisfying. I returned to India eventually. I decided to become a teacher - scientist so that I could inspire others the way Prof. Rao did. I joined the Genetics Department at Delhi University, where I continue to work and serve even today.

The journey has been long but not arduous, because science is my passion and I enjoy and cherish every moment of it. My commitment is deep and unswerving, and even today, I

continue to discover my potential. I will always cherish the trust and faith my family put in me, as it was central to developing confidence early in my life.

So my path, perhaps not unique, was a special blend of luck, determination, opportunities and guidance.

As said by Guru Sri Sri Ravi Shankar, for our prayer to be answered, the desire has to be intense and the greater the intensity of the desire, the greater will be the gratitude; but for the desire to become intense, time and need are required which ultimately leads you to devotion. I have experienced this and while I am devoted to scientific pursuit, I remain ever grateful to my family, Gurus and Gods, who shaped my path of life in unseen ways.