

My Unconventional yet Common Science Career Path

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“Science is an experience! Once you have tasted it, it is tough to let go!”

About

Dr. Lakshmi Ramachandran works in Science Communications at the Mechanobiology Institute (MBI), National University of Singapore. Prior to this she worked in early drug discovery research at AstraZeneca India after obtaining a PhD in Cell and Molecular Biology from SUNY Buffalo. Today she is focused on enabling better female participation in both STEM education and careers. She is a member of the MBI women in science organization (@MBIWIS) and has been part of international symposiums, such as the Gender Summit and the UNESCO symposium, which addressed female participation in STEM education and STEM careers. She is a mother of two young boys, has a unique memoir-cookbook (Roomies/Foodies) to her credit, and writes poetry in her leisure time.

Three years ago, I got involved in the activities of a voluntary ‘Women In Science’ (WIS) group within the Mechanobiology Institute (MBI), National University of Singapore (NUS), where I work. I joined WIS because I wanted to benefit from being in a support group, and in the process, I had the opportunity to support my fellow women in the field of science. This is when I began to gain awareness on the complex issues faced by women in science and was amazed to see how much I could relate to many of these. The awareness also helped me understand what went behind some of my decisions that impacted my career path in science, and provided me with the knowledge to look at similar situations in my life today, in a different light.

My career path has been unconventional on one hand and yet, common on the other. It is unconventional because I have changed track twice - once from academia into pharma and then, into science communications, and all this was with a career break in between! Ironically my career path is also common because it falls in the category of 35% of women who drop out of science careers following their PhD or a postdoc. This phenomenon is known as the ‘leaky career pipe’, where women drop out of STEM careers at a high rate at earlier time points in their career cycle. Unfortunately, this leads to a loss of talented and skilled women in science, and consequently high under-representation of women at the independent investigator and leadership levels.

The 'leaky career pipe' coincides with the challenges of balancing work and family, and this often becomes a major issue post motherhood. In my case I had full support, both from my family and my wonderful employers at Astrazeneca India, to stay on the career track while pursuing a family. But the emotional distress from infertility treatments had left me with a dissatisfactory feeling of not being able to give my 100% at work and in personal life. Despite advice from the wise that "life is not to be taken as piecemeal", I felt I needed to focus on one thing at a time. I quit my career based on a thought that my biological clock will not wait, but my career will!

However, when I wanted to get back to science after settling my personal matters, it wasn't easy! I recall sending application after application for research positions both within and outside of my research area to get back to science. The rejections and lack of response did leave me feeling desperate, but I often told myself that it is only a matter of time. I continued to pursue my job hunt with persistence and focused on staying positive and healthy throughout the process. Fortunately, I was working on a memoir-cookbook with a friend from the PhD studies, and the writing and publishing of 'Roomies/Foodies' during this period not only gave me something to do, but also presented me with exciting moments and a sense of accomplishment.

When I realized that updating my skill sets was imperative to moving forward, I enrolled for courses such as molecular diagnostics and looked at alternate careers that best suited my inherent skills and passion, such as teaching and science communications. I waited patiently while networking and keeping myself updated on the latest in science. Much later, I landed my present job in science communications at MBI, which presented me with a breath of fresh air, for not only could I get back to science in a new and exciting capacity, but it also helped rekindle my aspirations.

Additionally, through my involvement in MBI-WIS I got to know of the complex problems leading to the 'leaky career pipe' of women researchers. Awareness on some of these problems, such as lack of self-confidence in taking on higher responsibilities and inadequate networking, helped me revisit these aspects in my life and work on it. I see the 'leaky career pipe' as a multilayer problem that involves the individual, family, society, institutions and governments. For the same reason, this needs to be tackled at multiple levels, encompassing grassroots level as well as political level., I cannot emphasize enough on the role of good mentoring in enabling women to retain or excel in science careers, by compassionate people (not just successful researchers), as I have been a beneficiary of it, thanks to Prof. Linda Kenney (Professor and WIS lead at MBI).

Although I have no regrets in the way my personal and professional lives have shaped together, today I share a different perspective on 'quitting'. I now know that challenges in life come and go, including the initial challenges of motherhood. It is a transient phase that tides over just like any other. Most importantly, acknowledging that a human being cannot give his/her 100% in all aspects of life at all times helps remove significant mental burden and enables one to hang in there without taking oneself out of the game. I emphasize on this because, once you are out of the game, it may take tremendous efforts, resilience, and adaptability to put oneself back!

I was just fifteen when I decided to become a scientist. I had a burning ambition to become a drug discovery researcher that arose from my fascination for science, mainly in understanding the biology and genetics of cells and microbes. I was undeterred, came out with flying colours and entered my desired career path - that of a drug discovery researcher. Yet, at one point I left science because I felt then that family and science were incompatible! Today I have proved myself wrong by getting back into science, after becoming a mother of two, while balancing my life, work and social involvement. All of this owing to my undying passion for science!