

A Spirited Scientist with a Passion for Communicating Science

written by Saarani Vengadesen | 02/11/2021

THE myth that scientists are bound solely to laboratories was debunked by Dr Felicita Fedelis during her interview with the e-estidotmy team. Felicita, an enthusiastic scientist hailing from Penang recalls how being adventurous, trekking into the forest and setting up traps for insects with her friends sparked her interest in Biology and shaped her into the scientist she is today. Felicita is currently a Senior Lecturer in the Department of Physiology, Faculty of Medicine, University Malaya.

e-estidotmy: When did you fall in love with science?

Felicita: I came from a lower-income family but my parents really emphasised the love of knowledge. When my parents first bought me a set of Encyclopedia, I was really fascinated with all the images and information, which sparked my curiosity for the finer details of the creation. During my Sixth grade, my friends and I wanted to give some colours into our high school days and took some unconventional approaches to explore Science topics apart from simply studying textbooks for exams. We volunteered for training with a botanist, Ms Lai Ee May, in Penang Botanical Garden and even went jungle trekking to find different types of plants and insects for our school project. I enjoyed nurturing my sense of curiosity to understand how things functioned biologically. Perhaps, this was one of the main reasons I ended up pursuing a Bachelor's Degree in Biomedical Science, University Malaya.

e-estidotmy: Who were some key figures in setting your career path?

Felicita: However, after completing my Degree, I was still figuring out what to do next and I wanted my skills and talent to be utilised. I had some incredible university lecturers such as Dr Noraishah Mydin Abdul Aziz, Assoc Prof Azlina Ahmad Annuar and Prof Mary Anne Tan, who inspired me and recognised that I had a knack for research. A life-changing moment was when I sat in person with the preceding Vice-Chancellor of University Malaya, Datuk Dr Professor Ghauth Jasmon, one of the most revolutionary persons that I know. We spoke about my passion and interest in Malaria research. He suggested that I apply for a scholarship to pursue my PhD overseas to enhance my skills. After two years of the application process, with the support of the Physiology Department of UM, I secured a scholarship from the Ministry of Higher Education (MoHE) to do a PhD in Pathology, University of Sydney, Australia in 2011. Isn't it worth the waiting process? Yes, look again on the bright side, I had the opportunity to receive postgraduate training in Sydney.

e-estidotmy: What did you learn from your time in Sydney?



Dr Felicita Fedelis with her PhD supervisors, Prof Nicholas Hunt and Dr Helen Ball

Felicita: I was thrilled with my experience in Sydney, as I was exposed to a hot-pot of cultures and people. My entire perspective on research evolved when I was under the mentorship of Prof Nicholas Hunt and Dr Helen Ball, experts in the field of Malaria and Kynurenine pathway. Although I was initially passionate mainly about malaria disease, I realised that research is a limitless field where the skills acquired can be applied in multiple ways in any research field. From there, I started delving deeper into the Kynurenine pathway which is a metabolic pathway that plays a critical role in generating cellular energy. I specifically start looking into how it modulates the immune responses, and why different individuals have different responses to diseases. When I returned after completing my PhD, I was interested to understand the role of pathways in a more locally relevant disease such as Dengue.

e-estidotmy: When did you realise the need of communicating science?

Felicita: When the pandemic hit in 2020, I realised there was a huge need in communicating science to encourage understanding and inculcate an interest in science among the public. I realised that every scientist could engage more to communicate science than they do. I participated in FameLab 2020 competition to lay my foundation as a science communicator and I was one of the finalists in that competition. FameLab gave me insight on the art of communicating science and how it can be utilised as a powerful tool to increase public science literacy. It was a life-changing experience which inspired me to make learning science infectious. It also provided me with the opportunity to collaborate with other colleagues in Science Café KL, a webinar organised virtually through social media platforms. It is an initiative to make science communication as part of our culture and lifestyle and engage more with the needs of society.

Take away message

Felicita believes that educators are not simply knowledge providers but also carry the responsibility to guide students on how to utilise the knowledge with integrity and conscientiously. She is passionate about instilling values in students that shape them into better people and, therefore, better healthcare personnel. Her deepest desire for all her students is that they will always enjoy learning and the knowledge acquired will propel them forward.