Martyna Scibiorek

Martyna is an accomplished scientist with a Ph.D. degree in immunology. Born in Poland, she completed her studies undergraduate and postgraduate studies in the Netherlands (BSAc from Hogechool van Arnhem en Nijmegen and MSc from Erasmus University Rotterdam). She continued her education being a PhD fellow at International Center of Genetic Engineering and Biotechnology receiving her PhD degree from University of Cape Town in South Africa. Martyna has spent 10 years studying and working in various countries abroad including Netherlands, Germany, and South Africa.

Her travels and educational experiences in each country have made her aware of the many pitfalls in higher education. Her special focus is towards health science postgraduates, which she discusses regularly on the YouTube channel "Science Bridge".

Her passion for the motivation and education of postgraduate students resulted in a one-of-a-kind Alternative Career Development Workshop in 2020 for Faculty of Health Sciences

students at the University of Cape Town, and Hybrid Biotechnology Job Expo 2021.

She has published several articles and reports on the needs of biotechnology postgraduate students in South Africa. She is a founder of Science Bridge, a company specializing in creating opportunities for biotechnology-related students across the country. Martyna is also a founder of the BuildUP Science Career Accelerator, which is a 2-year program providing support, guidance, education and mentorship for both students entering the job market as well as entrepreneurs. Today Martyna is advocating for creating joint ventures across the country, which will aid the transition of talented postgraduates to industry and result in the creation of more jobs for unemployed alumni.

She received recognition as a Change maker from Clinton Global Initiative University and she was Nominated for the Bottom-up #EiA's Top Entrepreneur & Innovator from Global StartupCities.

Name: Dr. Martyna Scibiorek

Position: Founder and CEO of Science Bridge and BuildUP Science Career Accelerator

What led you to the field of immunology?
Since I was a kid, I was fascinated with viruses. My first go to plan was to be like Dustin Hoffman from the movie Outbreak (yes, it's horrible movie but as a kid I did not care). I always loved biology and when the occasion occurred, I started studying it closer.

What have been the most interesting research topics you have got to tackle in and out of school?
In terms of research topics there were so many! However, two internships stick out the most, I enjoyed was my BASc thesis internship where I was screening natural substances for antiviral therapy in context of Measles and Hepatitis type C viruses at Helmholtz Zentrum Munich, Germany. My supervisor

was Dr. Katrin Singethan, who is an absolute trailblazer in field of viral infections. She introduced me to work in biosafety level 3(BSL3) lab, which you can imagine I was fascinated by as at that time my goal was to work with viral diseases. My second absolutely fascinating internship was with Dr. Ismé de Kleer, who is a leading researcher in field of early lung development and Bronchopulmonary Dysplasia. That internship not only taught me a lot about the importance of gestation and full term pregnancy, but also the importance of monocytes and macrophages in lung development. On the side it was a great lesson on resilience and independence as my supervisor had an unfortunate accident during the first two weeks of my internship, and she was unable to come to work through most of it.

What impact do you feel your research work has had in the field of Immunology?
As most of my research was mainly fundamental, I believe there is still a long way to go when it comes to my work getting to the point of actual commercial use. However, all fundamental work is crucial for progress and in a way, I hope I have contributed to pushing the knowledge further.

Care to share some recent or favourite publications that you have written with us?
Can we skip this question? Most of the articles I read these days are about jobs for scientists .

Collaboration is a key to youth employment and startup success – BizCommunity

Science Career Development in South Africa – Science Bridge

What are some key lessons you took during your time working between your degrees?
I have been always been hot-headed, I guess that's just part of being in your 20's is . Part of me growing up was a lesson on resilience and stillness (which I still struggle with).

By resilience I mean, as scientists we have to face many adversities including our experiments failing, our publications getting a beating from reviewers, we sometimes fail the exams or our applications get rejected. We have to push through many naysayers and not break down. That's what resilience is to me. I was told during my first attempt at the University (Technical University of Lodz, Biotechnology), that engineers and biologists will be selected during the course of Chemical Engineering and biologists will fail. This was our lecture number 1. Of course, I felt discouraged after such an introduction and I did fail. Soon after I dropped out of that university, because I did not want to be put to shame for who I am. Today, here I stand, having my PhD, being an Immunologist and having my own company. If I did not learn to be resilient, I would not have accomplished what I did.

The stillness is the other thing. As you can see from my CV I moved a lot, I had one suitcase (close to) and I moved without growing any roots anywhere. It was fun, however in South Africa I realized I needed to settle down, enjoy my place a bit more, less work more fun and South Africans proved they can be a fantastic company! I still have this internal gypsy spirit, but usually it's satisfied with occasional trips through the country. With stillness you also can achieve more, build stronger networks and prove you are a solid investment especially in the entrepreneurial world.

People talk a lot about non-academic jobs after going to the point of completing a whole PhD. What was that thought process like for you as you made the shift to the other side?

Yes…THE OTHER SIDE, gosh how I do not like that phrase! With us, researchers, we really have to get over ourselves and stop thinking that research is only done in academia and going to industry is evil or a betrayal. That is something I heard many times through my 10+ years at the university and I believe this is the reason I stayed in research so long. During my PhD I realized I like to do my own thing. I organized my exchange

program during my BASc and moved to Germany, During my MSc I arranged with my program director to have an exchange with UCT. None of them were pre-organized for me. I had to arrange the space, money, place to move to etc, and I absolutely enjoyed it. Then during my PhD together with help from these fantastic people: Dr. Nadia Ikumi, Dr. Sherazaan Ismail and Dr. Toinette Labuschagné, I organized an Alternative Careers Day for the Faculty of Health Sciences at UCT. After the event I had my "aha" moment, when I realized I want to be part of the change. This overlapped with my repetitive strain injury in my wrists, which prohibited me from work in the wet lab. Therefore, the idea of starting my own company crystalized.

What advice do you have for other students that are looking at applying their skills outside of the academic space?

Firstly, think of your skills as transferable skills. The more you open your mind and see that what you learnt during your academic career is applicable in a bigger picture, the more options you will have. For example, take running your PhD; how far is it from running a project? It is navigating your timelines, budget constraints, doing literature or wet/dry lab research, getting conclusions, writing and then navigating team/lab politics. All those things skills can easily be transferred to many positions. You need to start reading job posts in that way. For instance, a job post suggests your task will be to "ensure overall adherence to processes and SOPs". Ask yourselves: How many times were you following protocols in your lab work? How many times did you train undergraduate students or new coming team members in standard operating procedures in your lab? I bet it was more than once! Another example would be the requirement: "Demonstrated expertise in discussing scientific content and context to a variety of audiences". Think: how many times did you have to chat with your PI, your colleagues, on conferences or maybe you did a SoapboxScience or other type of outreach program? Once we transform the thinking about our skills, it turns out

that we were pretty well trained for the out-of-academia world.

What should people keep in mind and be aware of as they decide whether or not to make the transition out of academia?

Everyone paves their way differently. There is no right or wrong way in my opinion, however if you ultimately aim to move to industry, I believe that after receiving your final degree (MSc or PhD) the earlier you start the better. Depending on the career you want to build, once you start your industry journey all the positions teach you new skills that add to your "industry" experience. Universities do not have enough space to sustain all science graduates who do not want to leave. As you know, the tenure track process is very long, hence not many positions are offered. Additionally, at a certain point one will have to navigate the possibility of rejections from grant applications, which happens when some funding bodies put the cut off age for postdocs at 35/36. Think about whether you would be ready to establish a lab by then. If establishing your lab is not your goal, but moving to industry is, then what would be the point of staying as an "*eternal postdoc*"?

You officially started your own company, Science Bridge. Tell us a bit about it and what you aim to achieve with it

Science Bridge focuses on bridging the gap between industry and academia scientists. We do so by providing courses, coaching and providing some free material. We also developed BuildUP Science Career Accelerator, which is a 2-year program for final year MSc and PhD students as well as postdoctoral fellows, who aim to improve their employability, business knowledge and learn more about the entrepreneurial world.

The mission is to reduce the unemployment levels for science graduates and contribute to building South Africa's Bioeconomy, by focusing on retaining talented students in the

country.

If students and recent graduates want to know more about Science Bridge and its activities, could you tell us how they can get a hold of you and which platforms to find you on?

Drop us an email at info@sciencebridge.co.za

www.sciencebridge.co.za

https://www.facebook.com/ScienceBridgeAfrica

https://www.linkedin.com/company/science-bridge/

https://www.linkedin.com/showcase/buildupsca

https://www.youtube.com/channel/UCXik58sNsxzYLQ-SeACGBFg

Currently, one of our programs is **"Find your bridge"** is available on LabVine.

When you are not busy running Science Bridge, what do you do for fun and to just unwind after a long day of being a CEO ?
Swim in the ocean! I always loved swimming. At first when I came to Cape Town the ocean was too cold for me, but a couple months ago, I started just going with some friends to swim in Melkbosstrand and it became my addiction. I also started free diving, which is an amazing way to be with nature. You dive only with your lung capacity, and you can see this hidden gem of Cape Town, that not many are privileged to see. It is absolutely an honour to admire the sea creatures in their natural habitat.

Is there anything you ever miss about academia or being involved in biomedical research work?
I absolutely do miss working in the lab, having my own research and discovery moments, but I am glad moving out of academia does not mean you are done with innovation.

What is the one country you have got to live in that you would

encourage everyone to go visit and why?
Do I have to mention only one?

Absolutely the Netherlands is a must! It is a unique country, where you can enjoy the place just by riding a bike. Public transport is reliable and safe and policy is centralized on ecology. One advice is to go in March/April as Keukenhof (the famous flower garden) is open and in season

Interview by Vanessa Muwanga