

# A **MATRIX** Minute with Tapiwa Manyarara



## About Tapiwa

Tapiwa Manyarara is a pharmaceutical scientist from Harare, Zimbabwe with experience in the fields of formulation technology, nanomedicine and product development. He studied at the [University of Zimbabwe](#), where he earned both a Bachelor of Pharmacy and a Master of Philosophy in Pharmaceutics, Pharmacology and Nanomedicine. In 2022, he joined the University of Zimbabwe's [Department of Pharmacy](#) and Pharmaceutical Sciences as a Junior Lecturer where he was part of a team that taught and trained students in pharmaceutics. His research experience includes development of pediatric formulations for children with HIV, along with optimization and formulation of anti-infectives using indigenous herbal extracts and small-scale manufacturing of cosmeceuticals. He has published original research articles in several journals and supervised undergraduate student research work in pharmaceutical technology. In MATRIX, he is a Research Fellow through the [CaSE](#) (Capacity Strengthening, Engagement and Mentorship) Track 3 Fellowship Programme. As a Track 3 Fellow, he will be able to gain expertise in the development of novel HIV prevention drug delivery technologies, primarily focusing on pre-formulation, formulation and scale-up phases of product development. He is currently in the U.S. working on hydrogel formulation under Drs. Lisa Rohan and Sravan Kumar Patel at the [Magee-Womens Research Institute](#) in Pittsburgh, PA.

## Why did you decide to apply for this CaSE fellowship?

I was interested in opportunities in the field of pharmaceutical product development and discovered the fellowship on LinkedIn. After looking into it, I had realized that the fellowship met my interests and that it was an opportunity to get exposed to product development in a laboratory setting. It felt similar to the work I did during my post graduate studies where I did research on HIV and AIDS in order to develop drugs for pediatric use, so I decided to apply and see where this opportunity would take me.

## What do you hope to be doing after your fellowship?

There is quite a lot that I would like to achieve beyond my fellowship. Down the road, I want to be able to make a product, or even a prototype, and say “this is what I made, and this is its efficacy.” Being able to look at a product or project that you worked on and seeing the positive impact it has on a community would be quite the achievement. Another goal of mine is to publish research articles with some of the mentors that I have worked with, as well as being able to attend conferences and give presentations on my research. I would also like to continue doing research and collaborating within MATRIX if possible, and I would like to start a research group dedicated to product development for Zimbabwe.

## What is your favorite part about working with MATRIX?

My favorite part about working with MATRIX is having access to resources for product development, along with having professors, postdoctoral researchers and research associates who can assist you in any projects you are working on. You also have access to well-maintained and automated equipment, raw materials and active pharmaceutical ingredients. I also enjoy having the opportunity to travel around the world, meet new people and experience different cultures and foods.

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## What advice would you give to someone considering this line of work?

The first thing I will say if you are considering working in this field, is to start with passion and really master your craft. Back during one of my first jobs, I worked with a professor that used to joke that formulation is like preparing a meal. You can give everyone the same exact ingredients, yet they all come out with completely different and interesting results. In a sense, it's like an art – sometimes you put everything together and it may not work out, and other times it may turn out great. You just have to keep trying until you find the recipe that works. Another piece of advice I would give is to look for good mentors and areas to study. I would personally encourage newcomers to study in the regulation field. If you become an inspector or something along those lines, you can really develop an understanding of the quality and regulation sides of research before diving into the lab work. The last piece of advice I would give is that if you have the resources and opportunity to try and formulate or make products, don't hesitate to take it.

## Do you have anyone who inspires you?

I have plenty of people who inspire me. Some of these people are well known icons, and others are people in my everyday life. Two of my biggest inspirations are my parents. They raised me to become the person I am today - and after high school when I wasn't fully sure which way I wanted to go in life, they helped me to figure out my path. They encouraged me to do great in both my education and my career. In addition to my parents, I also feel inspired whenever I see the average everyday person accomplishing great things.

## What is a fun fact about you?

My middle name is Edward, and I actually got it from both my great uncle on my mother's side as well as my great uncle on my father's side. Coincidentally they were both named Edward, and so both of my grandmothers said that I should be called Edward – and that's how I got the name.

## What do you like to do in your free time?

I enjoy watching sports, one reason being because it inspires me how teams come together to face adversity on the field. Sometimes you win the match, and sometimes you lose and have to work together to bounce back. Unfortunately, a lot of the sports I like aren't too popular here in the U.S., such as football (soccer), cricket and some others. I am trying to adapt however, and I am looking forward to the upcoming NFL season. I do plan on going to see a Steelers game or two this year, and I recently went to go see a baseball game. Back home when I am with my family, we enjoy going to church, going out to eat, visiting our extended family, playing board games and even travelling to national parks for the holidays whenever time permits. One of our favorite parks is by Darwendale Dam, about 40 kilometers from the Harare city center.

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### **MATRIX**

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