



Where I work Brighton Samatanga

Photographed for *Nature* by
Cynthia R. Matonhodze.

I study the interactions between cell proteins and DNA. I want to understand how the gene-editing tool CRISPR makes unintended changes to organisms' DNA.

I have a faculty appointment at Leipzig University in Germany. But in March 2021, I took parental leave – which will probably become permanent leave – and came home to Zimbabwe to work at the Biotech Institute, which I had set up. It is the nation's first privately owned research institute. We opened last August and have three graduate students in our labs, plus an intern, an undergraduate student from the University of Zimbabwe, nearby in Harare. We aim to recruit five faculty members to study resistance to antimicrobial drugs in diseases such as tuberculosis (TB).

We have three departments: technical services; research and education; and public health. Technical services will support our research with commercial work, including diagnostic tests for the public, such as those for SARS-CoV-2, HIV and TB. In this image from last November, I'm on the left, showing a technician how to use polymerase chain

reaction technology to test for SARS-CoV-2. I shipped the equipment from Germany.

We hope we will soon get government approval to offer degree programmes, including graduate courses in molecular biology, biotechnology and more. We will invest revenue from these into our research.

In one research strand, we aim to use CRISPR to edit genes of crops such as maize (corn) to help them become resistant to drought and to pests such as fall armyworm (*Spodoptera frugiperda*). In this way, we hope to boost food security in Zimbabwe.

Setting up a private research institution in sub-Saharan Africa is very challenging in terms of finances, logistics and recruitment. We rent a building that is too small for us. And we're spending money on building labs. Some people might think this is not a good idea. But I want to give back to Zimbabwe. It is my home, so it is my responsibility to improve it.

Brighton Samatanga is a molecular biophysicist and founder of the Biotech Institute in Harare. **Interview by Abdullahi Tsanni.**