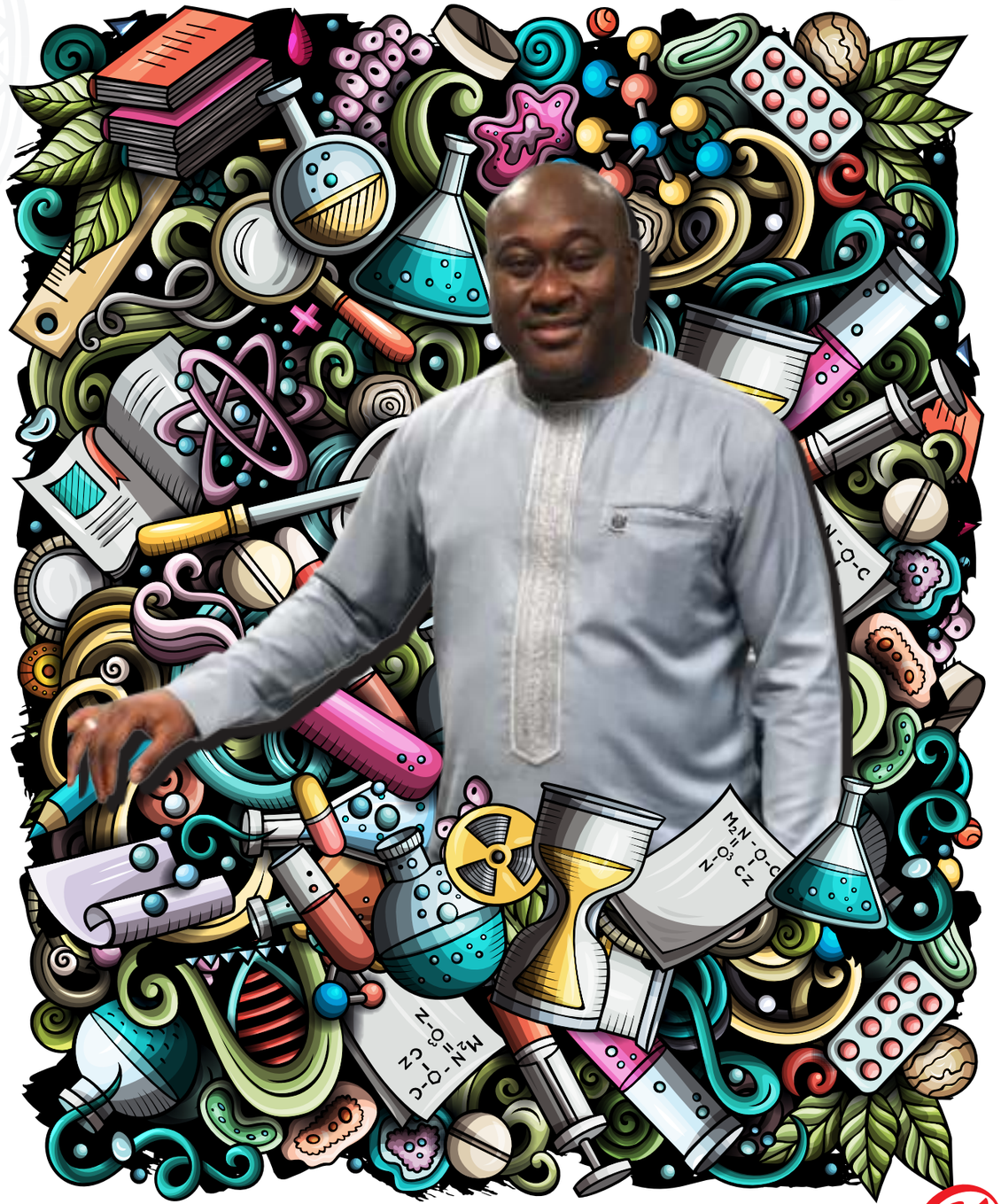
WORDS: TABITHA MWANGI

A LIFE IN RESEARCH

GORDON AWANDARE

Meet the Ghanaian parasitologist whose brush with death from malaria as a child led to him driving innovation in the diagnosis, treatment and control of infectious diseases in his home country



With his father still at university when he was born in 1974, Gordon Awandare went to live with his paternal grandparents in Kandiga, in the Upper East Region of Ghana.

The parasitologist recalls the contentment of grazing livestock with other boys in the village and making toys from sticks, or anything else they could find. But it was not all fun and games – Awandare and his brother were often sick.

"I would have extremely high fevers and would sometimes hallucinate," he says. "My grandmother would give me some painkillers and place me on a mat under a tree to tough it out. I always recovered, but my brother died of convulsions when he was [just] two years old. I was four."

After graduating, his father gathered his wife and child to start their new life together, and the now six-year-old Gordon attended school for the first time. While at Notre Dame Secondary School, Awandare found it difficult studying subjects such as history, which involved memorising people's names and dates of events. As a result, he gravitated towards maths and physics, and hoped to study engineering. But his family had other ideas. They wanted him to be a doctor. However, to study medicine at the University of Ghana, students had to pass the first year of a general science degree and an interview. Awandare passed the exams, but failed the interview.

"Although I did not particularly want to study medicine, this failure hit me hard," he says. "I felt I had disappointed my family. However, I did not let that kill my spirit."

Instead, he opted to study biochemistry and then moved into malaria research for his Master's degree. This is when he realised he had been suffering from severe malaria as a child and that the convulsions that killed his brother were likely a manifestation of cerebral malaria. His research was tackling a childhood foe.

When Awandare presented his work at a conference in Arusha, Tanzania, he made such an impression with Prof. Douglas Perkins from the University of Pittsburgh that he encouraged the young Ghanaian to pursue a PhD with him in the US. After completing his PhD, Awandare stayed in the US for a further three years, working at the Walter Reed Army Institute for Research in Silver Spring, Maryland, before he moved back to Ghana with his wife and two children.

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His laboratory in the US gifted him a few pieces of equipment, but he had no money for research. So, he used his salary and credit card to purchase reagents for experiments, while applying for funds. He succeeded with his seventh application, using the funding to set up a fully functional laboratory.

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Currently a professor at the Department of Biochemistry, Cell and Molecular Biology at the University of Ghana, Awandare is the founding director of the West African Centre for Cell Biology of Infectious Pathogens (WACCBIP).Since its launch in 2014, WACCBIP has provided scholarships for 300 scientists from across Africa. The centre's research focuses on understanding basic biology and disease mechanisms, providing new knowledge to drive innovation in the diagnosis, treatment and control of infectious diseases.

"We have created an environment where young Africans [conduct] high-quality research with equipment and facilities similar to what I had when I worked abroad," explains Awandare. "Young people come here to develop their talents and meet like-minded [colleagues] with whom they can collaborate."