Profile

Samson Kinyanjui: pressing for more science in Africa, by Africans

It was during the years 2004 to 2006, while working in the Mill Hill laboratories of the UK National Institute for Medical Research, that Samson Kinyanjui began to think seriously beyond the study of malaria immunology that had brought him from Kenya to London. "We have a lot of African scientists working abroad. I looked at the facilities in Mill Hill and I asked myself why we couldn't have similar facilities in Africa." He'd already developed an interest in the need for training and capacity building back in his home country. The stint in London served as a stimulus to consolidate his thinking: to "concretise it", as he himself puts it.

When he went back to Africa it was not to Kenya but to Ethiopia; he took time off from laboratory science and spent 6 months with the African Union in Addis Ababa exploring the issue further, and developing a framework by which that body could become more involved in health research. On returning to Kenya, he became a postdoctoral fellow at the Kenya Medical Research Institute (KEMRI)–Wellcome Trust Research Programme. Here, in Kilifi, he continued work on the invasion of red blood cells by malaria parasites, the hope being to identify antigens that might be susceptible to therapeutic intervention. But Kinyanjui was also involved in capacity building—and it was becoming clear to him that policy work and training were what he really wanted to do. He hadn't lost interest in the science itself, but he talks of having become more concerned with the big picture, with the state of science in his country. In 2008, he took up the post he still holds as Head of Training and Capacity Building at the KEMRI–Wellcome Trust Research Programme.

His first task was to devise a system for building more capacity and training more young researchers. He refers to it as the "attract, train, and retain framework": in essence to get more young graduates interested in research, teach them how to do it, and then make their careers sufficiently attractive to deter their migration abroad. He's happy for them to spend a couple of years abroad garnering experience—as he himself did—so long as they then return to the continent to build their careers. African governments periodically commit themselves to putting this or that percentage of gross domestic product into scientific research. "The challenge has been to match those declarations with action. But it's something that African governments must be ready to do. If Africa wants to develop we have to be ready to invest in this area." Kinyanjui's broad hope was, and is, to see more science being done by Africans in Africa.

Kevin Marsh, Professor of Tropical Medicine at Oxford University and currently a senior adviser to the African Academy of Sciences, was Director of the KEMRI–Wellcome Trust Research Programme from 1989 to 2014. He's known Kinyanjui since the mid-1990s and was not entirely surprised by his move out of the lab. "Sam's always had a wide range of interests in everything. He's always been a bigger picture person. And we'd talked a lot about capacity building and the like while he was still doing research." He's impressed by Kinyanjui's achievements. "I think Sam's done brilliantly. I had reservations at the time he made the move because of the early stage he was at in his career. I wondered if he oughtn't to get another 5 years of postdoctoral science under his belt…The worry was that if he made the move too early he wouldn't have enough scientific credibility to have the leverage he needed. In fact, that hasn't been the case. He's been influential, and not just in Kenya; he's widely recognised across Africa as having expertise in how you develop science." Professor Faith Osier, a Clinical Research Fellow and Group Leader at KEMRI–Wellcome Trust Research Programme, is equally impressed. Because of Kinyanjui's experience as a researcher he understands the difficulties as well as the rewards of a career in science, she says: "That's been valuable in helping him design the programme of PhD and postdoc training that he manages." A manager without this background might not have been as effective as Kinyanjui. And as Marsh points out, while no longer doing lab work "Sam maintains a very active interest in the detail of science. He's still able to hold his own in talking about the areas he's worked in like malaria immunology."

While Osier sees Kinyanjui's ambitions for African science as realistic, she isn't blind to the challenges. "It will take a long time to materialise fully," she says. The infrastructure to support cutting edge laboratory research can't be created overnight. "We're one of the best institutions in Africa, but we can still only cope with a limited number of candidates given the facilities and supervision available." And the openings for an African wanting a research career in industry are even fewer. Last year Kinyanjui became the director of IDeAL, the Initiative to Develop African Research Leaders. "It aims to create a pool of young African science graduates who are looking at research as a career, and from their number to support those who have the potential to become independent researchers", he explains. Last year the scheme was awarded an £8 million grant from the Developing Excellence in Leadership, Training and Science (DELTAS) Africa programme that aims to establish world-class research environments in a clutch of African universities.

"Sam's incurably curious about everything, but particularly in relation to science and development", says Marsh. And according to Osier, he knows his own mind. "He doesn't take things lying down. He's not just a rubber stamp kind of guy who'll go along with everything you say. He'll take you on."

Geoff Watts

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