A slim chance for South African medical research

Incoming president of the nation's Medical Research Council, Salim Abdool Karim, talks about the challenges he faces.

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CAPRISA

Salim Abdool Karim.

Salim Abdool Karim earned the nickname ‘Slim’ at school because he acted like a wise guy towards his teacher (‘slim’ means ‘clever’ in Afrikaans). The name stuck, following him through medical school. Involved in clinical trials for HIV prevention, Karim has been director of the Centre for the AIDS Programme of Research in South Africa (CAPRISA) since 2002. While keeping his job at CAPRISA, for the next three years he is taking the helm at the country’s ailing Medical Research Council (MRC), which like the US National Institutes of Health (NIH), is responsible for government-supported biomedical and health-related research in South Africa. He faces a tough challenge. Funding has declined in real terms over the past four years, and its international reputation has slid as the proportion of the world's scientific publications by MRC-funded researchers has diminished by almost a fifth, from 0.59% in the early 1990s to 0.48% by 2000.

How did you get the job?

The MRC has been without a president for the past three years. In November, the minister of health called to ask if I could assist the MRC, and because I have existing long-term committments, I agreed to work half-time for no more than three years. My task is to provide a turnaround strategy that will revitalize the MRC. I have a deep interest in our country’s ability to be a scientific leader, and I think the MRC is a key part of that. If the MRC cannot generate the leadership we need in clinical research, things don’t bode well for science in this country.

What’s your plan?

I want to improve the quality of grant peer review, both the way in which we advertise for applications and the way we evaluate them. Right now, the MRC puts out a generic call for applications, we don’t say how we will assess applications, and a researcher must hope the peer-review panel understands their area of research because we do not have study sections in which experts evaluate a set of proposals relevant to their area of study. Right now, the applications are all examined by one panel.

Luckily, I don’t need to reinvent the wheel. I’ve been talking with people at the NIH because I’m impressed by the way the NIH system works. When you read an RFA [request for applications], you know what they are looking for. Then the NIH tells you who reviewed the application, and sends you detailed comments with your scores and a summary of the committee’s discussion. The net effect is that you improve your research.

Is it difficult to find reviewers?

Probably the biggest challenge I encounter is politeness. Reviewers here don’t want to be harsh. They feel a person should be given a chance. I need to read between the lines to understand what the reviewer means behind the politeness.

What’s the funding situation like?

Right now the government’s contribution is around US$40 million to $45 million per year, which is not enough but it’s much more than other African governments contribute to health research.

Over the next few years, my goal is to double our budget so that we can reach critical mass in research areas relevant to South Africa's burden of disease, such as HIV, diabetes and injuries, as well as to address big challenges in the country. One is the introduction of national health insurance. Unlike in the United States, everybody in South Africa accepts that we have less fortunate people and we need to look after them, and we will pay taxes for that. The question is how to do it in a way that is sustainable while not compromising the quality of care. So the government has created ten pilot districts that will experiment with the implementation of health care. One of my goals is to ensure that the MRC becomes the arm to help the government understand what works and what does not. We want to ensure that the decisions South Africa makes are evidence-based.

Will a better MRC keep South African scientists in the country?

I'm hugely concerned about brain drain, but it's a problem that I can't solve. Professionals need to have a sense of a secure future, that this will be a place for their children. In South Africa, the political situation is stable, but we have economic and safety issues. We need to address those, but I think that's beyond my ability.

Will the MRC work with the NIH?

Yes, I've talked with Anthony Fauci [director of the US National Institute of Allergy and Infectious Diseases, NIAID] a great deal, and our goal is to put out a joint NIAID–MRC RFA within the next 18 months, in which we will invite collaborations between US scientists and South African scientists to undertake research in certain areas, such as HIV vaccines or tuberculosis diagnostics.

Investigators from the United States and Europe lead many clinical trials in South Africa, does that aid clinical research in the country?

In a strange way, South Africa's strength in clinical research has come from the long-term clinical trial investments made by the NIH, the US Agency for International Development and the EDCTP [European and Developing Countries Clinical Trials Partnership], which have enabled us to build clinical-trial capability and infrastructure. The problem is that we now need to go beyond being a site for international study to being scientists that lead and initiate these studies. It's one thing to collect data, and another to dream up the idea, design the protocol and do the study. If you take South Africa's contribution globally, we produced 0.56% of all the journal articles in the world over the past five years. We used to be above that level in clinical medicine, but in the past few years we've fallen below it. And much of what we retain is because of multicentre clinical trials in which the South African author is number 16 of 24, as opposed to clinical studies initiated by a South African. It's overly optimistic to say that this can change within three years, but I hope that I can put the country on the right path.

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