

Southern Africa Consortium for Research Excellence (SACORE): successes and challenges

Most universities and research institutions in sub-Saharan Africa are limited by inadequate resources and research expertise. The few appropriately qualified academics have a large teaching workload (in addition to a clinical workload in the case of clinicians).^{1,2} Additionally, young researchers who take up training opportunities overseas rarely return home because of a scarcity of career opportunities and incentives.^{3,4} The Southern Africa Consortium for Research Excellence (SACORE) aims to contribute to reversing this trend by establishing a vibrant environment to support training and research in southern Africa. This goal was to be achieved by building a critical mass of Masters, PhD, and post-doctoral scientists, developing strong leadership in research, setting up attractive career pathways, and developing comprehensive research management and support systems. Here we share some of the initiative's early successes and challenges.

SACORE is one of seven consortia funded under the Wellcome Trust African Institutions Initiative—a £30 million, 5-year initiative launched in 2009 and aimed at strengthening research capacity in sub-Saharan Africa.⁵ SACORE consists of three African universities (and their affiliated research institutes) with an emerging research environment (in Malawi, Zambia, and Zimbabwe; the low-income partners), three African institutions with established research environments (in South Africa and Botswana; the middle-income partners), and four UK universities with highly developed research environments (the high-income partners).⁶

SACORE established a range of fellowships targeting researchers at all stages of their careers. First, SACORE

offered small grants of £5000 to junior faculty and postgraduate researchers, which provided seed funding for locally relevant research to generate preliminary data in support of grant applications. Second, the consortium provided travel fellowships of up to £2000 to allow SACORE fellows, administrators, and faculty to attend courses and conferences. Third, SACORE competitively awarded MPhil and PhD fellowships to enable fellows at low-income partner institutions to undertake research in a subject area of their choosing. 11 Masters and 18 PhD fellows were recruited through a rigorous process; all fellowships were approved by the SACORE fellowship committee. By August, 2014, three scholars had graduated and connected with future collaborators. At least 20 articles have been published in peer-reviewed journals with SACORE fellows as co-authors. The fourth area of activity, recruitment of post-doctoral fellows, has been more challenging, largely because of a paucity of eligible applicants and inadequate institutional frameworks (unpublished data).

Few appropriately experienced supervisors or mentors were available at low-income partner institutions, particularly for some areas of study. In response, we constructed triangular supervisory networks with local, regional, and UK-based advisers. For some fellows, this system worked well, with complementary advice from different senior academics. It worked less well for some others, either because of difficulty engaging the UK or regional expert, or because scholars were reluctant to reach out to people they had never met. The SACORE Annual Scientific Meeting was intended as a forum where scholars and advisers would meet, but advisers were often unable to attend. Thematic workshops (eg, in parasitology and pharmacology) at the annual meeting enhanced supervision and direction, and this approach could be extended in the future.

A key achievement of SACORE has been the establishment of research support centres in the three low-income partner institutions. These act as one-stop service centres through which various research-related activities are coordinated and facilitated.^{7,8} They provide comprehensive research support services, including pre-award and post-award management of grants, to faculty and students, irrespective of funder.

When SACORE was launched, the research support centre in Malawi was already fully operational, having been established in 2006 with support from the Netherlands–African partnership for capacity development and clinical interventions of poverty-related diseases (NACCAP).⁸ In Zimbabwe, the research support centre was established in 2011, and has since leveraged additional funding to construct offices and teaching facilities. The centre in Zambia was established in 2011 and funded through SACORE. It consists of offices for research administration and lecturing facilities. All three centres are fully operational, and serve as a model for other institutions in the region (eg, Makerere University in Kampala, Uganda, and the University of Rwanda in Butare, Rwanda).

To build, support, and retain a critical mass of quality researchers at the low-income partner institutions, SACORE members realised that the existing faculty and fellows needed to be supported, not only in terms of their own professional development, but also to build career pathways for aspiring researchers. A professional development committee was established to determine the training needs of faculty and fellows. A situational analysis was done and a consortium-wide professional development plan was developed, which provided a framework for professional development training, focusing on providing faculty with the skills to support fellows to



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design, implement, analyse, and write up their work. Faculty at all sites received training in supervision, mentoring, and scientific writing. Additionally, SACORE provided high-level academic leadership training to senior academics, providing opportunities for shared problem solving and learning.

SACORE has provided a unique platform for new South–South partnerships, collaborations, and networking. Collaborative activities led by middle-income partner institutions have included cohosting of selected PhD fellows when specialist training was not available at the host low-income partner institution; mentorship and supervision; and the training of fellows in the writing of research proposals, biostatistics, and laboratory skills. The SACORE Annual Scientific Meeting provides a forum for scientists at all stages of their careers to present their research and network with each other. A cross-consortium team visited all low-income partner institutions to assess progress towards consortium aims and provide technical guidance. Increasing numbers of opportunities for South–South collaborative research grant submissions and exchange of scholars and teaching faculty are planned to strengthen these South-to-South partnerships.

At the University of Malawi College of Medicine (Blantyre, Malawi) and University of Zambia School of Medicine (Lusaka, Zambia), SACORE is no longer regarded as a standalone project, but as integral to the institutions. The University of Zimbabwe College of Health Sciences (Harare, Zimbabwe) leveraged funding from NACCAP to

engage a biostatistician to provide individualised support with proposal design and statistical analysis. In the future, the research support centres could be sustained financially with funds collected as research overheads, as is the case at most universities in the USA and Europe.

There is substantial interest in developing research capacity in Africa from various institutions in the global North and South. Failing to do so could result in much of global health research being driven by the North rather than the South, thereby perpetuating the often unequal North–South research partnerships of previous years. We believe that SACORE's experiences will be of interest to academics and practitioners committed to the development of global health as a scientific discipline.

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*Wilson L Mandala, Frances M Cowan, David G Laloo, Robert J Wilkinson, Paul Kelly, Midion M Chidzonga, Charles Michelo, Exnevia Gomo, Robin Bailey, Moses Simuyemba, Rosemary Musonda, Moffat Nyirenda, *Jean B Nachega*
jnachega@sun.ac.za

College of Medicine, University of Malawi, Blantyre, Malawi (WLM, MN); Malawi Liverpool Wellcome Trust Clinical Research Programme, Blantyre, Malawi (WLM); University College London, London, UK (FMC); Liverpool School of Tropical Medicine, Liverpool, UK (DGL); University of Cape Town, Cape Town, South Africa (RJW); School of Medicine, University of Zambia, Lusaka, Zambia (PK, CM, MS); College of Health Sciences, University of Zimbabwe, Harare, Zimbabwe (MMC, EG); London School of Hygiene & Tropical Medicine, London, UK (RB); Botswana–Harvard AIDS Institute Partnership, Gaborone, Botswana (RM); Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London, UK (PK); and Department of Medicine and Centre for Infectious Diseases, Faculty of Medicine and Health Sciences, Stellenbosch University, PO Box 19063, Tygerberg 7505, Cape Town, South Africa (JBN)

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