HIV/AIDS Prevention Trials
Capacity Building Grants

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Global Health Research Initiative

The Global Health Research Initiative (GHRI) is a partnership of Canadian government agencies with mandates spanning health, research and international development. These partners are the Canadian International Development Agency (CIDA), the Canadian Institutes of Health Research (CIHR), and the International Development Research Centre (IDRC).

GHRI brings researchers and decision-makers together to tackle complex problems which have an impact on the health of people and communities around the world.

GHRI funds a wide range of global health research, capacity building and knowledge translation activities through several programs. Funded projects and programs of work involve Canadian researchers collaborating with researchers and decision-makers in Asia, Africa, Eastern Europe, the Middle East, Latin America, and the Caribbean.

About this booklet

This booklet presents projects being carried out with grants from GHRI’s HIV/AIDS Prevention Trials Capacity Building Grants program.

For more information about this program, contact:

Dr Renée Larocque - Senior Program Officer
Global Health Research Initiative
rlarocque@idrc.ca - +1 613 696 2540
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To learn more about the
Global Health Research Initiative,
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Canadian HIV Vaccine Initiative

The Canadian HIV Vaccine Initiative (CHVI), Canada’s contribution to the Global HIV Vaccine Enterprise, is a five-year collaborative initiative between the Government of Canada and the Bill & Melinda Gates Foundation, and represents a significant Canadian contribution to global efforts to develop a safe, effective, affordable, and globally accessible HIV vaccine.

The Minister of International Cooperation, the Minister of Health, and the Minister of Industry collaborate on the implementation of the CHVI, with the Minister of Health leading its overall coordination.

Participating federal departments and agencies are the Canadian International Development Agency, the Public Health Agency of Canada, Industry Canada, the Canadian Institutes of Health Research and Health Canada.

There are many steps on the road to an HIV vaccine from basic lab research, to manufacturing a potential vaccine, to testing it in clinical trials with solid regulatory and ethical oversight, to finally getting it approved for use.

The Government of Canada’s investment in the CHVI Research and Development Alliance complements CHVI’s efforts to address the spread of HIV and AIDS in Canada and globally. The Alliance will facilitate the advancement of the science that will lead towards the ultimate goal of an HIV vaccine.


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**CHVI Key Areas of Focus for HIV vaccines:**

- Advancing basic science
- Translating Basic Science into Clinical Trials
- Addressing Enabling Conditions

HIV/AIDS Prevention Trials Capacity Building Grants, Phase II


The teams are based in sub-Saharan Africa, with project activities involving a total of 23 countries in the region. The teams include researchers from several African countries, Canada, the United States, and the European Union.

This program is funded through a contribution from the Canadian International Development Agency and the International Development Research Centre and is a key component of the Canadian HIV Vaccine Initiative.
A comprehensive approach to strengthening African research capacity

The teams funded by the Global Health Research Initiative work to develop the ability of African researchers and research institutions to carry out randomized controlled trials. An important contribution in the fight against HIV/AIDS, randomized controlled trials allow researchers to rigorously test the effectiveness of new and existing HIV/AIDS prevention efforts, including potential vaccines.

Beyond the necessary technical and scientific knowledge and skills, researchers and their institutions must be able to coordinate all aspects of successful prevention trial research, including trial administration and management, ethics review processes, securing funding, engaging communities and policy-makers, and publishing research results. The teams are active in all these areas.

“On top of the great scientific challenges that need to be overcome in order to develop an HIV vaccine, Africa is currently facing the need to strengthen capacity in many areas in order to support such research.”

Dr Luis Gomes Sambo
WHO Regional Director for Africa during the 3rd forum of the African AIDS Vaccine Programme in Cameroon, 2005
Geographical Scope of Phase II projects in sub-Saharan Africa

- West Africa:
  - Benin
  - The Gambia
  - Guinea Bissau
  - Nigeria
  - Senegal

- East Africa:
  - Kenya
  - Rwanda
  - Tanzania
  - Uganda

- Southern Africa:
  - Angola
  - Botswana
  - Democratic Republic of the Congo
  - Lesotho
  - Madagascar
  - Malawi
  - Mauritius
  - Mozambique
  - Namibia
  - Seychelles
  - South Africa
  - Swaziland
  - Zambia
  - Zimbabwe

9 projects
23 countries
30 sites
Kenya AIDS Vaccine Initiative (KAVI): a Centre of Excellence for East Africa

Kenya - CA$1.8 million

The objective of this project is to establish the Kenya Aids Vaccine Initiative as a centre of excellence for training health care professionals for HIV vaccine trials and other prevention trials in East Africa.

KAVI is offering training in epidemiology, research design, immunology, good clinical and laboratory practice, data management, and cohort establishment. Basic science training is taking place in Kenya and Canada, with an emphasis on laboratory technology transfer. The project is also building vaccine literacy and acceptance on the part of local communities, policymakers, and other stakeholders; enhancing the capacity of local ethics review boards and institutional administrators to handle issues raised by vaccine trials; and enhancing the ability of KAVI to compete for research funding for clinical trials.

PRINCIPAL INVESTIGATOR - Omu Anzala, Department of Medical Microbiology, University of Nairobi, Nairobi (Kenya). CO-INVESTIGATORS - Rupert Kaul, University of Toronto, Toronto (Canada); Keith Raymond Fowke, University of Manitoba, Winnipeg (Canada).
“Our mission: To carry out creative, innovative research and knowledge translation.”

African Development of AIDS Prevention Trials (ADAPT2)

Southern African Development Community - CA$1.8 million
Angola, Botswana, Democratic Republic of the Congo, Namibia, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe

The African Development of AIDS Prevention Trials is a capacity building initiative. This African-Canadian partnership aims to increase the number and quality of HIV prevention trials led by African researchers. Building on experience gained during Phase I of the program, the team offers mentoring to researchers in 15 southern African countries through the process of designing and implementing HIV/AIDS prevention trials.

Activities include offering researchers a series of short courses on epidemiology and randomized controlled trials; building training capacity for HIV/AIDS prevention trials at two African universities and a nongovernmental organization. The team is also providing training to parliamentarians on interpreting research findings. In addition to gaining practical experience in ongoing HIV/AIDS prevention trials, a number of research fellows are expected to obtain graduate degrees as part of this project.

PRINCIPAL INVESTIGATORS - Neil Andersson, CIET Trust, Johannesburg (South Africa); Beverly Shea, CIET Canada, Ottawa (Canada); Kenneth Matengu, University of Namibia, Windhoek (Namibia).
CO-INVESTIGATORS - John Lengwe Kunda, CIET Trust Zambia & CIET Trust South Africa, Johannesburg (South Africa); Lehana Thabane, McMaster University, Hamilton (Canada); Anne Cockcroft, CIET Trust Botswana, Gaborone (Botswana); Christina Zarowsky, University of the Western Cape, Bellville (South Africa); Adrian Puren, National Institute for Communicable Diseases, Johannesburg (South Africa).
Building capacity for HIV/AIDS prevention trials research and clinical care: the CANSSA network

Lesotho, Rwanda, South Africa, Uganda, and Zambia - CA$1.8 million

Relatively few African research sites have the clinical and laboratory capacity to design, manage and carry out HIV/AIDS prevention trials. This project is based on the premise that many of the required skills are already present, but need further development.

The grant facilitates interaction between research sites within sub-Saharan Africa, and between sub-Saharan and North American institutions. This involves knowledge transfer, infrastructure development, and collaborative pilot projects. The results are expected to enhance the design and implementation of African-led clinical and laboratory studies, to optimize capacity building, and to provide a foundation of expertise readily extended to studies at other sites and to the control of other diseases.

PRINCIPAL INVESTIGATORS - Thumbi Ndung'u, University of KwaZulu-Natal, Durban (South Africa); Mark A. Brockman, Simon Fraser University, Burnaby (Canada). CO-INVESTIGATORS - Jaclyn Wright & Fundiswe Chonco, University of KwaZulu-Natal, Durban (South Africa); Glenda Gray & Guy de Bruyn, Perinatal HIV Research Unit, Soweto (South Africa); Mpolai Moteetee & Maud Boikanyo, National Ministry of Health, Maseru (Lesotho); Elwyn Chomba & Lawrence Mwananyanda, Zambia-Emory HIV Research Project, Rwanda Zambia HIV Research Group, Lusaka (Zambia); Etienne Karita, Project San Francisco, Rwanda Zambia HIV Research Group, Kigali (Rwanda); Nneka Emenyonu, Mbarara University of Science and Technology, Mbarara (Uganda); Zabrina Brumme & Cari Miller, Simon Fraser University, Burnaby (Canada); P. Richard Harrigan, British Columbia Centre for Excellence in HIV/AIDS, Vancouver (Canada); Todd M. Allen, Ragon Institute of MGH, MIT & Harvard, Boston (USA); David Bangsberg, Harvard University, Cambridge (USA); Susan Allen & Eric Hunter, Emory University, Atlanta (USA); Peter Hunt, University of California-San Francisco, San Francisco (USA).
CAPT Network: Building African Capacity for HIV/AIDS Prevention Trials

Kenya, South Africa, and Uganda - CA$1.8 million

The Canada-Africa Prevention Trials (CAPT) network was formed through the first round of the program and comprises eight African and seven Canadian institutions. The network is building on their Phase I work by enhancing prevention research programs at each African centre through workshops and training, while providing infrastructure support for research personnel. This grant combines hands-on training with yearly merit-based academic scholarships for advanced research degrees and mentorship programs. The aim is to prepare the network to offer a well-coordinated, African-led research agenda, and to respond to HIV prevention funding opportunities.

PRINCIPAL INVESTIGATORS - Pontiano Kaleebu, Uganda Virus Research Institute (UVRI), Entebbe (Uganda); Clive Gray, National Institute for Communicable Diseases, Johannesburg (South Africa); Janan Dietrich, Perinatal HIV Research Unit, Johannesburg (South Africa); William Cameron, University of Ottawa & Ottawa Hospital Research Institute, Ottawa (Canada); David Moore, British Columbia Centre for Excellence in HIV/AIDS, Vancouver (Canada). CO-INVESTIGATORS - Walter F. Schlech III, Dalhousie University, Halifax (Canada); Rafick-Pierre Selaky, Université de Montréal, Montreal (Canada); T. Blake Ball, University of Manitoba, Winnipeg (Canada); Ken Rosenthal, McMaster University, Hamilton (Canada); Louise Balfour, University of Ottawa & Ottawa Hospital Research Institute, Ottawa (Canada); Kate Shannon, British Columbia Centre for Excellence in HIV/AIDS, Vancouver (Canada); Paul Sandstrom, Public Health Agency of Canada, Ottawa (Canada); Douglas Wilson, Edendale Hospital, Pietermaritzburg (South Africa); Noleen Loubser, Pietermaritzburg Metropolitan Health Services, Pietermaritzburg (South Africa); Guy de Bruyn, University of the Witwatersrand, Johannesburg (South Africa); Joshua Kimani, University of Manitoba/Nairobi Research Group, Nairobi (Kenya); Josephine Birungi & Robert Mwesigwa, The AIDS Support Organization (TASO), Jinja (Uganda); Winnie Muyindike, Mbarara University, Mbarara (Uganda); Andrew Kambugu, Infectious Diseases Intitute, Kampala (Uganda); Edward Katongole Mbidde, UVRI, Entebbe (Uganda).

Number of scholarships awarded by the CAPT network to Masters and PhD students in 2011

Number of mentorship awards given by the CAPT network in 2011

Source: CAPT Network, 2011
Creating a Common Platform for HIV Vaccine Research and HIV Care and Treatment Programs

Nigeria - CA$1.35 million

Nigeria’s complex epidemic of HIV viral subtypes is an important target for HIV vaccine evaluation research. This grant supports a partnership between the Institute of Human Virology-Nigeria, (IHV-Nigeria) - a not-for-profit indigenous research organization based in Nigeria, and clinical research collaborators from the University of Ottawa and the University of Maryland.

The aim is to create an internationally certified HIV clinical research site capable of conducting HIV vaccine clinical trials.

This involves capacity building in clinical practice, research ethics, regulation, community mobilization, risk cohort development, and clinical research, as well as strengthening clinical laboratory facilities to the level of international certification. The idea is to achieve a fully functional clinical trials unit within a well engaged community and robust ethical and regulatory infrastructure.

PRINCIPAL INVESTIGATORS - Alash'le Abimiku, University of Maryland, Baltimore (USA) & Institute of Human Virology-Nigeria, Abuja (Nigeria); Gary E. Garber, University of Ottawa & the Ottawa Hospital, Ottawa (Canada). CO-INVESTIGATORS - Patrick Dakum & Clement Adebamowo, Institute of Human Virology-Nigeria, Abuja (Nigeria); John Idoko, National Agency for Control of AIDS, Abuja (Nigeria); William Blattner & Manhattan Charurat, University of Maryland, Baltimore (USA); Morenike Ukpong, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife (Nigeria); Jonathan Angel & William Cameron, University of Ottawa & the Ottawa Hospital, Ottawa (Canada).
TanZamBo Capacity Building for HIV Prevention Research Network

Botswana, Tanzania, and Zambia - CA$1.35 million

This grant is supporting the development of HIV/AIDS prevention trial expertise using existing collaborations between African and North American researchers, Canada and the United States. TanZamBo is composed of two African institutions with fairly well established facilities for HIV/AIDS prevention trials, one institution with an emerging environment for HIV/AIDS prevention trials, and two institutions with advanced facilities for HIV/AIDS prevention research and clinical trials.

Team members are using their comparative advantages in terms of expertise and technology to build the capacity of the less experienced institutions through learning-by-doing. By the end of the project, it is expected that TanZamBo will have built a strong cadre of young researchers capable of designing and conducting HIV/AIDS prevention trials, publishing in peer-reviewed journals, and competing for HIV/AIDS clinical trials grants, as well as a pool of competent laboratory scientists.

PRINCIPAL INVESTIGATORS: Rosemary M. Musonda, Botswana Harvard AIDS Institute Partnership, Gaborone (Botswana); CO-INVESTIGATORS: Gibson Kibiki, Kilimanjaro Christian Medical Centre, Moshi (Tanzania); Modest Mulenga, Tropical Diseases Research Centre, Ndola (Zambia); Mark A. Wainberg, McGill AIDS Centre, Montreal (Canada); Max Essex, Harvard AIDS Institute, Boston (USA).
West African Platform for HIV Intervention Research

The Gambia, Guinea-Bissau, and Senegal - CA$1.8 million

This grant is establishing a West African-driven partnership with Canadian and European collaborators to enhance HIV research and carry out clinical trials in Sénégal (Université Cheikh Anta Diop), the Gambia (Medical Research Council) and Guinea-Bissau (Bandim Health Project). The partners are jointly managing and sharing cohort and bio-resource data, thereby providing each partner access to a larger HIV study population.

The project involves constructing a unified database, reinforcing existing laboratory infrastructure, providing training in clinical trial support, and applying social science research in support of intervention preparedness and evaluation. The project also offers specialized postgraduate training with a view to building African research leadership in the management of clinical trials.

PRINCIPAL INVESTIGATORS - Souleymane Mboup, Laboratoire de Bactériologie Virologie, Dakar, (Senegal); Assan Jaye, MRC Laboratories, Banjul (the Gambia). CO-INVESTIGATORS - Salif Sow, Université Cheikh Anta Diop, Dakar (Senegal); Vinh-Kim Nguyen, Université de Montréal, Montreal (Canada); Rupert Kaul, University of Toronto, Toronto (Canada); Zacarias da Silva & Peter Aaby, Projecto de Saude de Bandim, Bissau (Guinea-Bissau); Anders Fomsgaard, Statens Serum Institute, Copenhagen (Denmark); Tao Dong, Oxford University, Oxford (United Kingdom).

“HIV-2 is less common than HIV-1 and is found mainly in West Africa.”

“Researchers worldwide have recognized that there are significant scientific obstacles to developing and delivering HIV vaccines, and that these obstacles can only be overcome through focused and globally coordinated commitment and sustained long-term action.”


Completing group work during workshop (Photo credit: South Africa team)
Preparing for HIV prevention randomized control trials

*Benin - CA$300 000*

GHRI is continuing its support to this team which was also funded in Phase I of the program. This Phase II grant aims to strengthen the capacities of Beninese researchers and their institutions, to enable greater autonomy in designing future HIV prevention trials and to increase the success rate of new grant applications in this field. The specific objectives are to: maintain the platforms which enabled the creation and monitoring of sex worker cohorts; allow two doctoral researchers to complete training; and support community health workers to act as catalysts in future prevention trials.

PRINCIPAL INVESTIGATORS - Djimon Marcel Zannou, Université d'Abomey-Calavi, Cotonou (Benin); Michel Alary, Université Laval, Quebec (Canada).

Building Capacity for HIV Prevention Trials in the Health Care Workplace

*South Africa - CA$300 000*

This project is focusing on building the capacity of front-line health care workers to participate in the design, implementation, and evaluation of programs aimed at reducing the transmission of HIV and other infectious diseases among health care workers. The project activities include Web-based modules on occupational health and infection control; workshops; problem-based learning and team building; and community-based learning. These activities are being carried out in tandem with a participatory action research project within the health care worker community in Free State.

PRINCIPAL INVESTIGATORS - Michelle Engelbrecht, University of the Free State, Bloemfontein (South Africa); Annalee Yassi, University of British Columbia, Vancouver (Canada).
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For more information about this program, contact:

Dr Renée Larocque - Senior Program Officer
Global Health Research Initiative
rlarocque@idrc.ca / +1 613 696 2540

Marc Cohen - Program Officer
Global Health Research Initiative
mcohen@idrc.ca / +1 613 696 2166

Research & writing: Esmé Lanktree and Gyde Shepherd
Global Health Research Initiative

Editing: Gyde Shepherd and Esmé Lanktree
Design: Gyde Shepherd