The collaboration between Karolinska Institutet in Sweden and Makerere University in Uganda is a comprehensive international collaboration, including education and research activities.

The first Memorandum of Understanding confirming the partnership, and the initiation of the double degree program, was signed in 2003. A new Memorandum of Understanding was entered into in 2011 for the mutual development of the two universities. It was signed and endorsed during a formal ceremony at Makerere University in Kampala.
Exchange studies
Over 200 students and teachers from both universities, have taken part in exchange activities at undergraduate level from the beginning financed by the Swedish Linnaeus-Palme programme. The study programmes at Karolinska Institutet that have had bilateral exchange agreements with Makerere University are: Dentistry, Medicine, Midwifery, Nursing, Occupational Therapy, Physiotherapy, Public Health Sciences, and Speech and Language Pathology.

Doctoral education
A double PhD degree programme has been developed based on double registration/admission, joint supervision and a joint examination process. The PhD candidates are under the regulations of both universities, and have a Master’s degree as a minimum requirement, for example a basic degree in medicine, biochemistry, or social sciences.

The students work in a “sandwich mode”, spending most of their time at Makerere University with their local supervisor, doing field or laboratory work in Uganda, interspersed with periods at Karolinska Institutet, taking specialised PhD courses not available in Uganda, learning laboratory methods, or doing focused analysis and writing.

From initially including five research areas in 2002 with 20 PhD students, the collaboration in 2014 comprises seven research areas and 40 PhD students.

The research areas include
- Biochemistry: malaria
- Clinical Pharmacology: malaria and antiretroviral drugs
- Cancer: human papilloma virus
- Health Systems Research
- Mental Health: depression and psychosis
- Microbiology: tuberculosis
- Reproductive Health

29 double degree PhD thesis have been defended so far:

- 2005 Emilio Ovuga, Depression and suicidal behavior in Uganda: Validating the response inventory for stressful life events (RISLE)
- 2006 Dan K Kaye, Domestic violence during pregnancy in Uganda: The social biomedical consequences and the relationship with induced abortion
- 2006 Eliabila Sarkiaieli Okello, Cultural explanatory models of depression in Uganda
- 2007 Celestino Obua, Fixed-dose chloroquine and sulfadoxine/ pyrimethamine treatment of malaria: Outcome and pharmacokinetic aspects
- 2007 Wilson Winston Mukweze, The interface between family structure, life events and major depression in Uganda
- 2007 Josaphat K Byamugisha, Emergency contraception among young people in Uganda: User and provider perspectives
- 2008 Benon Assimwe, Molecular characterization of Mycobacterium tuberculosis complex from Kampala, Uganda
- 2008 Lynn Atuyambe Muhimbura, Adolescent motherhood in Uganda: Dilemmas, health seeking behaviour and coping responses
- 2009 Catherine Abbo, Profiles and outcome of traditional healing practices for severe mental illnesses in two districts of Eastern Uganda
- 2009 Elizeus Rutebemberwa, Access to health care for febrile children in Uganda: Symptom recognition, care seeking practices and provider choice
- 2009 Cecily Banura, Human papillomavirus infections among sexually active young women in Uganda: Implications for a vaccination strategy
- 2009 Charles Ateiyy Agaba, Human papillomaviruses and their association with squamous cell carcinomas of the conjunctiva
- 2009 Twahe Serunjogi Mutyaba, Early cervical lesions detected by visual inspection: Viral factors, management and follow-up
- 2010 Peter Waiswa, Understanding newborn care in Uganda: Towards future interventions
- 2010 Fred Bwanga, Rapid tests for multidrug resistant tuberculosis in low income settings
- 2010 Michael Odida, Cervical carcinoma in Kampala, Uganda, and the relationship with human immunodeficiency virus and human papillomavirus infections
- 2010 Jolly Beyeza Kasheya, Fertility and HIV Infection: Fertility Decision-making Challenges of Mutually-Disclosed Discordant Couples and Young People
- 2011 Noeline Nakasujja, Cognitive Deficits and HIV Associated Psychotic Disorders in Uganda
- 2011 Paul Bangirana, Computerized rehabilitation for cognitive deficits after central nervous system malaria in Ugandan children
- 2011 Solome Bakeera, Social determinants of health care use for Ugandan children: does social capital matter?
- 2011 Jackson Mukonzo, Pharmacogenetic aspects of HIV/AIDS, tuberculosis and malaria: emphasis on Ugandan population
- 2011 Muhammed Labega, Lost in Transition: Pre-antiretroviral Care and Delayed Initiation of Antiretroviral Therapy in Uganda
- 2011 Gorette Nalwadda, Contraceptive Use among Young People in Uganda: Exploration of obstacles, enablers, and quality of services
- 2011 Sasa Nanzigu, HIV treatment outcomes in Uganda: the impact of baseline characteristics and variability in pharmacokinetics and pharmacogenetics of antiretroviral drugs
- 2013 Joan Nakayaga Kalyango, Integrated community case management of malaria and pneumonia in eastern Uganda: care-seeking, adherence, and community health worker performance
- 2014 Christine Nalwadda, Seeking referral care for newborns in eastern Uganda: community health workers’ role, caretakers’ compliance and provision of care
- 2014 Jackson Orem, Etiological risk factors and clinical characteristics of childhood non-hodgkin lymphoma in Uganda
- 2014 Roy William Manyaga, Type 2 diabetes in rural Uganda: prevalence, risk factors, perceptions and implications for the health system

Signing the Memorandum of Understanding in May 2011. From left: Mr. Goddy Muhangazi Muhumuza, Senior Legal Officer and Head of Legal Unit at Makerere University, Professor Nelson Sewankambo, Principal of Makerere University College of Health Sciences, Professor Venansius Baryamureeba, former Vice-Chancellor of Makerere University, and Clara H. Gumpert, former Dean of Doctoral Education at Karolinska Institutet.
Partnership results

Strong research capacity has been built, both in Uganda and in Sweden. The collaborative research environment addresses health issues and health system priorities in Uganda, in several cases resulting in policy and practice reforms. The collaboration has provided the research groups with many comparative advantages and promoted the development of “consortium-like” thematic area research projects.

Thirteen years of financial support from the Swedish International Development Cooperation Agency (Sida) has resulted in 44 graduated PhD students from Uganda and more than 500 peer reviewed articles, the majority with a Ugandan as first author. All Ugandan PhD graduates have remained in Uganda and thirteen have embarked on postdoc training. It is expected that this increased pool of trained researchers and locally directed research projects will have effects on the development of the civil society in Uganda.

A Demographic Surveillance Site (DSS) in the Inganga and Mayube districts has been established as a "population research laboratory" with longitudinal follow-up of a population of 70,000 in 65 villages. There is continuous registration of the population and its health status is performed. In our collaboration the DSS is hosting some of the PhD students’ field work, and has, through additional funding, expanded to involve researchers and projects beyond those initially included.

Lessons learned

The support from Sida has been formalised in three consecutive agreement periods from 2001 to date, and a fourth period is pending. In addition to Sida’s support, competitive grant funding has been received for research in areas such as malaria, newborn health and diabetes. However, Sida’s long term commitment has been key to ensuring capacity development, something that is often lacking in project grants. This has ensured the sustainability of the partnership between Karolinska Institutet and Makerere University, which is important when seeking further funding from alternative sources in the future.

Other items that will provide sustainability to the partnership is the development of additional PhD courses and a coordinated course curriculum as well as a plan for providing graduating students with opportunities for post doc positions and careers.

The research projects in the university setting need to address the Ugandan health sector priorities in order to get research findings into policy and practice. Sufficient infrastructure, such as laboratory space, bio-banking, and internet resources must be available to ensure the success of the research projects.

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Makerere University in Kampala, Uganda was established in 1922, the Medical School in 1923. With 30,000 students it is one of the largest universities in East and Central Africa.

Karolinska Institutet is one of the world’s leading medical universities. Its vision is to significantly contribute to the improvement of human health. Karolinska Institutet accounts for over 40 per cent of the medical academic research conducted in Sweden and offers the country’s broadest range of education in medicine and health sciences. Since 1901 the Nobel Assembly at Karolinska Institutet has selected the Nobel laureates in Physiology or Medicine.