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NACCAP Mid term review

Information guide and appendices

**NACCAP mid term review
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Technopolis Group
2009**

Wieneke Vullings
Ingeborg Meijer

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1. NACCAP introduction and scope Midterm review

NACCAP is The Netherlands-African Partnership for Capacity Development and Clinical Interventions against poverty related Diseases. The Dutch Ministry of Foreign Affairs (DGIS) made available 20 M€ for NACCAP, which is the Dutch contribution to the European and Developing Countries Clinical Trials Partnership (EDCTP). EDCTP is funded within the Sixth Framework Programme under Article 169 of the European Treaty.

The mission of EDCTP is to accelerate the development of locally effective, affordable clinical interventions against **HIV/aids, malaria, tuberculosis** focussing on the needs and priorities of developing countries. For this, EDCTP aims to join relevant European national research programmes and their African partnerships to develop new clinical tools against these three diseases.

Because in 2004 the implementation strategy of EDCTP was not clear, the Dutch ministry decided to contribute to EDCTP through the NACCAP programme; the Netherlands-African partnership on capacity strengthening and clinical trials against poverty-related diseases; a research and capacity strengthening programme managed by NWO/WOTRO¹.

According to the grant regulation for NACCAP, several evaluation moments need to be built in, of which this mid term review (MTR) is one. NACCAP initiated this MTR in order to gain insight in the progress towards achieving its own objectives, and specifically in the added value of NACCAP within EDCTP. In addition, the MTR should recommend future steps for NACCAP including concrete conditions for prolongation of NACCAP if relevant.

The MTR commissioned by DGIS needs to focus on:

- Assessing NACCAP's contribution to the EDCTP aims, in terms of **relevance, efficiency** and **effectiveness**;
- Assessing NACCAP's contribution to **policy** and **strategy development** of EDCTP;
- Assessing the **added value** of NACCAP on past and present investments of **Dutch public sector in R&D** and **research capacity building** in the field of poverty related diseases, in terms of **efficiency** (a niche filled by NACCAP) and in terms of **involvement** of Dutch expertise in EDCTP.
- Provide input into the **formulation of the future approach** for NACCAP through recommendations, both with regard to the grant period 2008-2010 and beyond 2010.

The MTR is prepared by Technopolis Group and the peer review will be performed by three carefully selected independent experts. The experts will assess the progress of NACCAP and report on future steps during a 2-day peer review held on February 18 and 19, 2009 in The Hague, the Netherlands.

The MTR panel consists of:

- **Hannah Akuffo**, Swedish International Development Agency (SIDA), Adj Prof in Dept. of Microbiology, Tumor and Cell Biology, Karolinska Institute, Sweden
- **Egeruan Babatunde Imoukhuede**, Director Clinical and Regulatory Affairs, European Malaria Vaccine Initiative, Copenhagen

¹ Excerpt from ToR MTR NACCAP, September 2008

- **Wilfred Mbacham**, Associate Professor Public Health Biotechnology, University of Yaounde, Cameroon
- **Ingeborg Meijer** PhD, senior consultant Technopolis Group, coordinator of the MTR

2. Programme logics of NACCAP and relation to EDCTP objectives

At European level, NACCAP is part of the Joint Programme of EDCTP, and thus, its mission and aim must be in line with that of EDCTP. At national level, NACCAP is part of the Dutch national Action Programme for Sustainable Development. As such, NACCAP in the first place is a development orientated support programme. NACCAP is run by the Netherlands Organisation for Scientific Research (NWO).

The general aim of NACCAP is to provide an impulse to the investment in, and development of, African owned and controlled health research centres aimed and capable of clinical testing of new interventions against poverty related diseases. As a result, the position and contribution of African institutes in EDCTP (and other international initiatives) will be strengthened, supporting partnerships in joint R&D activities to fight poverty related diseases in Africa.

The objectives of NACCAP are two-fold:

1. Development of African owned, internationally recognised research centres capable of conducting clinical trials for clinical interventions against HIV/Aids, malaria and tuberculosis;
2. Clinical testing of promising candidate interventions against HIV/Aids, malaria and/or tuberculosis in Africa, taking into account the needs and interests to the African stakeholders

The final goal is a strengthened research & development capacity of multiple (2 to 5 locally owned health research centres in sub-Saharan Africa contributing to the EDCTP objectives. Ultimately, NACCAP aims at strengthening a research environment that is able to prioritise research and conduct research according to international quality and ethical standards. The centres should function independently as a central node of knowledge and capacity building in its regions and being able to add to the national research agenda for health. NACCAP aims at transferring responsibilities for sustained developments to the supported centres: eventually, successful NACCAP funded centres should become part of the African network of health research centres collaborating with their European partners in conducting clinical trials funded by EDCTP.

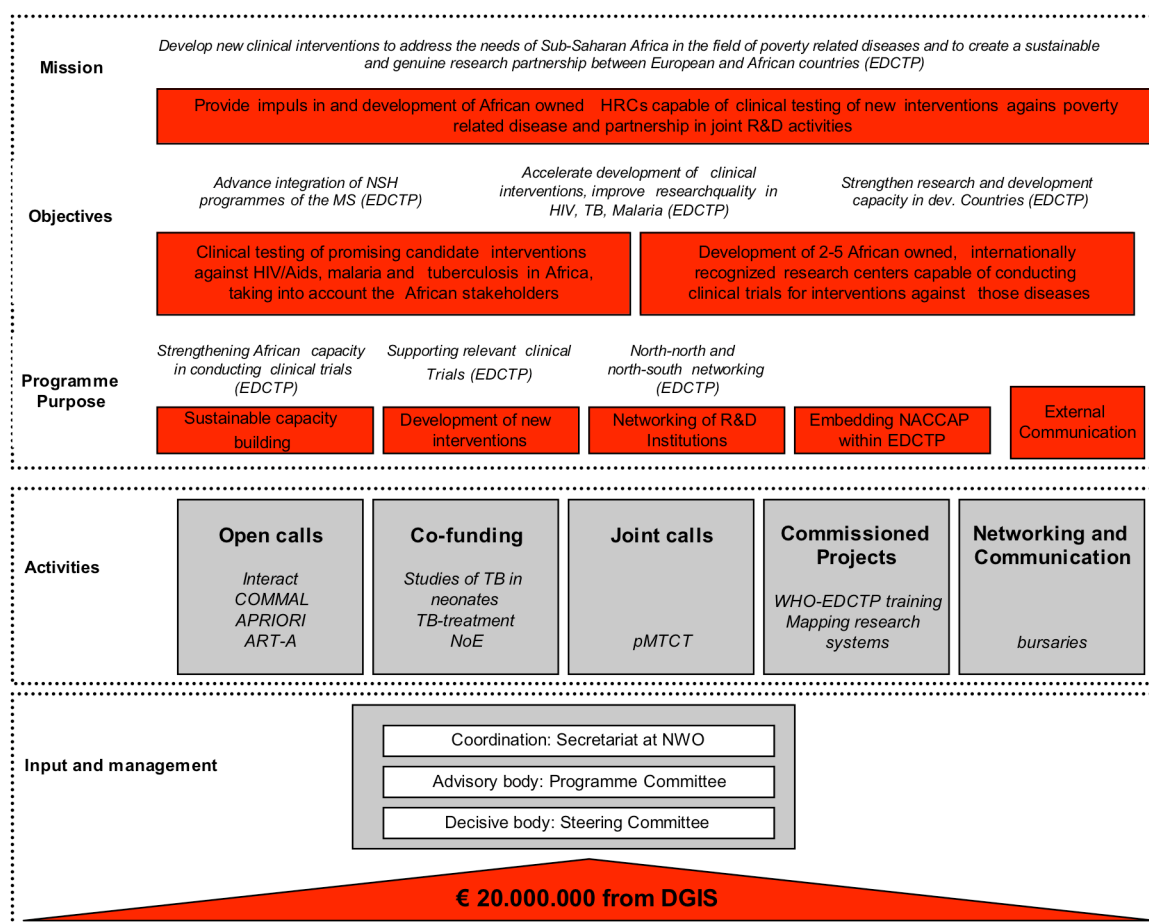
NACCAP's activities include: funding of African-European partnership research and capacity strengthening programmes via: open calls (initiated either by NACCAP, EDCTP or NACCAP and EDCTP together), support activities (by commissioned projects), networking and dissemination activities

The programme was initially supposed to run for 2004-2008 with a total budget (subsidy) of € 20 million. In 2006, the Ministry agreed to extend at no cost the NACCAP running period from 2008 up to and including December 2010².

The following figure shows the programme logic of NACCAP, with NACCAP mission, objectives and purpose in the red boxes, with EDCTP objectives in *Italic*.

² Excerpt from ToR MTR NACCAP, September 2008

Figure 1 Programme logic of NACCAP and EDCTP objectives



Source: Technopolis Group based on documentation provided by NACCAP management

3. Activities 2004-2008 NACCAP programme

NACCAP’s activities were operationalised and assessed by the secretariat in accordance with the following four themes:

1. Setting up the operational structure of the NACCAP programme as described in the NACCAP proposal
2. Formulating and executing the operational working modus to fund activities
3. Communicating the existence of NACCAP and its primary objectives to stakeholders and relevant parties
4. Embedding NACCAP within the EDCTP joint programme

This section will describe the main activities that took place between February 2004 and December 2007, according to the progress reports written by the NACCAP Secretariat.

3.1 Setting up the operational structure

At the beginning of the NACCAP programme, a Steering Committee, Programme Committee, Senior Programme Coordinator and Secretary were installed. The committees met 2-4 times a year. The Steering Committee (SC) discussed and decided on selection criteria of the calls for proposal, decided upon funding proposals, and evaluated procedures followed. The SC also formulated NACCAP deliverables and endpoints. The Programme Committee (PC) gathered to formulate calls including criteria, evaluate and advise on the selection of proposals on the basis of peer review reports and the comments thereof by the applicants, to formulate strategies to embed activities in EDCTP, and to assess yearly progress reports of the programmes. The Programme Committee advises the Steering Committee, who then finally decides.

At the end of 2005, the results of a first open call showed that involvement of private partners lagged behind. Therefore, the SC formulated a strategy on the involvement of private partners (small Pharma) and to link the medical infrastructure of Dutch multinationals to African research institutes. Meetings were organized with potential private partners to get them interested in participating, and a call was published in which private partners and PDP's were encouraged to join partnerships with academia and share technology. In addition in 2006 embedding NACCAP in EDCTP became possible and therefore co-funding calls, commissioned projects and joint calls were integrated in the programme.

As a result of this strategy, NACCAP awarded 4 partnership programmes through the open calls; 3 co-funding grants and three Networks of Excellence; 1 joint call; 1 brokering call; 2 commissioned projects (training workshops and mapping of research systems in Tanzania) and networking and communication activities.

At the beginning of 2005, the first call was launched. Three joint programmes were awarded: COMMAL, Interact, and APRIORI (the latter started of later because the applicants had to adjust their programme). In 2007 the ART-A programme was awarded with the grant from the second call for joint programmes with a focus on technology transfer and involvement of private partners.

The joint-call grant on pMTCT was awarded to Dr. Kisanga from the Kilimanjaro Christian Medical Centre (KCMC) in Tanzania as main applicant. Two co-funding proposals were accepted: One grant was awarded to A.H. van 't Hoog MD of the Kenya Medical Research Institute (KEMRI) / Centers for Disease Control and Prevention (CDC) in Kenya as main applicant, with studies of TB in neonates and adolescents in Western Kenya. NACCAP co-funded the BMGF call on HIV vaccine capacity strengthening. Furthermore, training on regulatory issues in Africa was organised, co-funded with EDCTP-WHO.

In the second half of 2006, NACCAP co-organised a conference on "Connecting the chain" with the aim to link PDP's with EDCTP and DG Dev with DG Res. In addition, NACCAP (PC) offered EDCTP to make an inventory of all products ready to be tested in phase II-III clinical trials in order to better focus EDCTP grant policy and to speed up the product development process. The PC also offered EDCTP to organize one of the stakeholder meetings that were aiming at jointly formulating an approach to speed up the product-orientated approach of EDCTP³. One of these Stakeholders meetings resulted in NACCAP co-funding a public-private collaboration on TB treatment (brokering call). This proposal still awaits EDCTP contracts.

After the programmes were granted the PC assessed the annual progress reports of the partnership programmes of the first NACCAP call (COMMAL, Interact, APRIORI) and discussed the capacity strengthening aspects of the selected proposal of the second call

³ See appendix A for a list of the granted projects/programmes

for partnership programme (Art-A), which started in October 2007. Initially the APRIORI report was not accepted because of its 'vagueness'. Although accepted, questions remained about the ethical soundness of planned activities within the programme.

At the end of 2007 it was decided to allocate the final 2.5 million Euro to EDCTP call on Networks of Excellence that aimed at capacity strengthening of centres in Africa by mentoring networks in which strong centres mentor the weaker ones.: € 1 M for East African Network, € 0.5 M for Central African Network (Ntoumi) and € 1 M for a Western African Network). EDCTP is currently discussing contracts with all these 3 NoE's.

3.2 Formulating and executing the operational working modus to fund activities

At the start of the programme the SC formulated the general conditions of the first call. The PC further developed the detailed criteria and conditions leading to an operational working modus and planning for funding activities. Of the 15 proposals that sent in, 2 did not meet the formal criteria. The other 13 proposals represented a total amount of € 41 M. Two of those were excluded from further evaluation on formal grounds. The final pre-proposals were evaluated on relevance, scientific quality and sustainable capacity strengthening. After ranking, 6 pre-proposals, representing € 24 M, were selected and their main applicants were invited to organise a workshop with their proposed partners and elaborate their pre-proposal into a full proposal. At the deadline 1 applicant withdrew because the participating private partner (Crucell) decided that they could not take the responsibility of the risks regarding technology transfer.

The organisation Family Health International paid site visits (mainly to assess the capacity strengthening needs) to the African centers and sites of the selected final proposals in the second half of 2005. Budget negotiations with the awarded proposals took place and participating institutes were obliged to match the costs of permanent personnel for reasons of sustainability, and commitment.

NACCAP organised a stakeholder meeting on tuberculosis vaccines and participated in (organising) one on malaria vaccines (and participated also in a Stakeholder meeting on diagnostics and send representatives to other Stakeholders meetings). These meetings resulted in formulating research priorities in these disease areas, which served as the basis for EDCTP R&D calls for proposals. NACCAP was furthermore closely involved in formulating the approach on Networks of Excellence with the Developing Countries Coordinating Committee (DCCC) and the European Networking Officers and NACCAP. NACCAP attended the ENNP meetings of EDCTP where EDCTP strategy is discussed and it formulated the N-N networking call of EDCTP.

3.3 Communicating NACCAP to stakeholders

NACCAP's start was publicly announced at the opening of the EDCTP secretariat at NWO on February 4, 2004. Furthermore, NACCAP was presented at various national and international platforms and meetings (such as the Forum for Global Health Research), both formally as informally.

A website was launched and regularly updated www.nwo.nl/naccap, and articles were published in several newsletters, and written updates.

The first call was published in various Dutch magazines in the development sector and was sent to scientific stakeholders in Africa and Europe through international networks and by direct mailing, or announcements at (informal) meetings. This communication strategy led to 15 pre-proposals at the date of the deadline. 8 of the

main applicants worked at African research institutes, and seven came from Dutch research institutes.

A communication plan was developed for R&D activities and applicants of awarded partnership programmes had to formulate an elaborated communication and dissemination plan aiming at involving local stakeholders in Africa.

3.4 Embedding NACCAP within the EDCTP Joint Programme

Since both EDCTP as NACCAP use NWO staff and offices, the embedding of NACCAP within EDCTP was not difficult. Contacts with the EDCTP structure and staff are close and informal. In addition, NWO is represented in the EDCTP working groups on Capacity Building and European Networking of National programmes (ENNP).

Many of the EDCTP employees have fulfilled a role in NACCAP, and vice versa:

The Haut Representative of EDCTP is a member of the NACCAP Steering Committee, and the formal representative of the Netherlands in the EDCTP –EEIG Assembly (Mr. Beem) worked closely with the NACCAP secretary who acted as the European EDCTP Networking Officer (ENO). The chair of the NACCAP SC was asked to chair the EDCTP expert committee of the first EDCTP call. Moreover, the NACCAP secretariat took part in the review process of EDCTP proposals on capacity development.

In the second part of 2006, the NACCAP secretary also became a member of the Taskforce on Nodes (later Networks) of Excellence with the goal of identifying EDCTP certified African Centers in Africa, an approach that mirrors both NACCAP as EDCTP strategy. The Taskforce made an inventory of all European- African partnerships and formulated a trapped plan to link the different partnerships where relevant. For implementing this plan, a N-N networking call was announced (resulted in additional grants from EDCTP for N-N networking of NACCAP funded centres).

Regularly, the NACCAP bureau and NWO staff discussed possibilities for cooperation with the Executive director (Mr. Mgone) as well as the EDCTP Haute Représentant (Mr. Mocumbi). From 2006 onwards, these discussions also included the topic of a product-oriented approach of joint calls and IPR and EDCTP became convinced that technology transfer should be part of its objectives.

Furthermore, NACCAP and EDCTP have tuned their ethical guidelines, IPR regulations and budget guidelines, and EDCTP has adopted the NACCAP (= NWO/ZonMW) evaluation and selection procedures.

4. Results and outcomes against objectives NACCAP programme

Twice a year the NACCAP secretariat produced progress reports in which the results and outcomes of the activities were analysed against the four main objectives of the programme:

1. Sustainable capacity building in Sub-Sahara Africa
2. Development of new interventions against HIV/AIDS, malaria and tuberculosis
3. Networking of R&D institutions
4. Embedding NACCAP within EDCTP

4.1 Sustainable capacity building in Sub-Sahara Africa

One of the prime conditions for the first call of proposals was working towards sustainable capacity development. To this end, the PC formulated operational criteria for capacity development, and these criteria were equally important in the assessment

procedure to the criteria of scientific quality. The criteria included individual, institutional and environmental capacity development. This capacity development focused on the following aspects:

- **Individual capacity development:** PhD's, MSc's, data managers, research laboratory personnel, statisticians, research management
- **Institutional capacity development:** research coordinating / management structures, ICH-GCP and GLP capacity, infrastructure and durable equipment, training modules. See appendix C for the table that was used to measure the 'level' of the African partners
- **Environmental capacity development:** coherency of policy, strategies and coordination across sectors and among (non) governmental and international actors, embeddedness in local community, harmonization research activities in region, equality of partners

Furthermore, a site visit was organized for the selected proposals to better judge the needs and possible sustainability of the capacity development of the proposals.

The first three selected programmes (COMMAL, Interact, APRIORI) build on existing research partnerships embedded in a national research environment with strong international connections. They mainly include upgrading of clinical sites including baseline studies as well as implementation studies.

In order to develop a monitoring and evaluation plan for NACCAP, a student formulated a proposal on how to measure the impact of programmes funded by NACCAP on sustainable capacity development, quantitative and qualitative. This was not used because it turned out to be not very practical. The main applicants of the programmes delivered their draft models on how to measure the impact on sustainable capacity strengthening of their programmes. In the end, the secretariat and the PC proposed a M&E for NACCAP funded programmes, which was discussed and adjusted by the SC. MTR committee and funded programmes were also asked to provide input to the M&E forms (EDCTP did not yet have a M&E for MTR).

To reach the objective of NACCAP in terms of involvement of private partners, a fourth programme was selected (ART-A) as a result of the second call.

For embedding NACCAP in EDCTP, a joint pMTCT call was awarded aiming at strengthening clinical research capacity in the field of interventions that prevent the transmission of HIV from pregnant women to their (newborn) children. Another joint call (BMGF joint call on HIV vaccines) was co-funded by NACCAP. In addition, NACCAP co-funded on a project basis other proposals that were selected in response to EDCTP calls (see overview in chapter 9).

Like the programmes selected from the first and second call, they all link European and African partners to the overall clinical capacity that is being build up. Capacity strengthening includes epidemiology, diagnostic testing, administrative, ICH/GLP standard operations, and training of three African PhD's.

According to one of the interviewees, capacity building mainly should be measured by the quality and number of students that is trained. Furthermore, workshops and mentoring are important tools to disseminate results and knowledge to the local community and achieve further capacity strengthening.

The progress made by the different programmes that are managed by NACCAP in the first period (until 2007) is described shortly in this section based on existing progress reports, and will be further elaborated in chapter 9. Three programmes so far have been reviewed mid-term by an external review committee, and for Interact and COMMAL a review report was already written. The outcomes are also described in Chapter 9.

The programme participants see NACCAP as a very important source of funding for capacity building. According to one of the interviewees of CoMMAL, this programme

would not have survived without NACCAP: it helped to strengthen the programme in terms of manpower, and the RSC is now partly self sufficient (although the salaries are still paid for by NACCAP). The RSC has a clear position in the College of Medicine in Malawi, and expertise is being spread to Zimbabwe, Uganda and Zambia. The RSC model is used as a blueprint.

Figure 2 Progress made by the programmes and projects of NACCAP up to 2007 on Sustainable capacity development

Programme/ Project	Progress
INTERACT	<p>Training of 90 individuals in office software, ICG-GCP, SOP, HIV resitance, neuropathology assessment and pelvic examination</p> <p>6 PhD candidates attended courses in epidemiology and statistics in the Netherlands and 2 received a MSc Public Health Training</p> <p>In total, 9 PhD students were selected</p> <p>Two courses have been developed, 16 students have been identified</p> <p>A training database is being built</p> <p>Within project B, a data management system is being built</p> <p>Contribution to a sustainable research environment is unclear</p> <p>Contribution to a favorable public health environment is less clear</p>
COMMAL	<p>Establishment of RSC, including its research support service</p> <p>Recruitment of core staff (46)</p> <p>Organization of methodology courses: 25 students and lectures</p> <p>Courses on data management: 40 applicants</p> <p>5 GCP courses provided 108 individuals training in ICH-GCP</p> <p>Short courses in ICH-GCP: 23 students received support.</p> <p>Set up of platform for international discussion on the topic</p> <p>Training of clinical monitors</p> <p>7 GCP trainers trained in 6 courses. Course has been included as a module of the MSc Public Health at CoM.</p> <p>Training of 3 CRAs, who are monitoring 3 clinical trials executed by affiliated partners</p> <p>Establishment of mentorship with John Hopkins</p> <p>Contact made with GlaxoSmithKline for training of clinical trial monitoring</p> <p>Expatriated senior Malawians have been attracted to return to their home country</p> <p>RSC adds to a favorable research environment, PhD students (3) , biostatistician, health economist are shared.</p> <p>Contribution to a favorable public health environment is less clear</p>
APRIORI (up to 2007)	<p>Training of staff</p> <p>Design of Research Center infrastructure</p> <p>Recruitment of clinical researchers, 21 positions</p> <p>Identification of PhD students</p> <p>Training in research methodology, data presentation and writing of scientific papers</p> <p>Presentation on the R&D plans on malaria held for national policy makers</p> <p>Development of educational video to inform the community about malaria (control)</p> <p>Establishment of website</p>
ART-A (up to 2007)	Just established in 2007
WHO EDCTP Joint training activities (up to 2007)	<p>Training workshop on clinical trial authorization in Zimbabwe with participants from regulators and ethics committees in Ghana, Gambia, Botswana, Ethiopia, Uganda and Tanzania. Followed up by a Good Clinical Practice inspection course</p> <p>Joint inspection of a clinical trial in Mali by members of regulators and ethics committees from Gambia, Mali, Ethiopia, Ghana and Burkina Faso. In total 80 members from 25 African countries participated in the training.</p>
Co-funded project on TB Vaccines (up to 2007)	EDCTP is monitoring annual progress
Networking (up to 2007)	7 African junior researchers/Forum (n=2) financed to attend the annual EDCTP Forum in Burkina Faso to present their progress and to network with other researchers
BMGF joint call on HIV vaccines	-
Join call on pMTCT	<p>Almost 20 PhDs</p> <p>Technicians</p> <p>Short course</p> <p>GCP course</p>

4.2 Development of new interventions against HIV/AIDS, malaria and TB

The research centres involved in the NACCAP partnership programmes of the first call did not have the capacity to execute large-scale clinical trials when the programme started. They were mainly involved in smaller scale trials that focus on clinical development of new treatment strategies, and less on clinical development of new products. For this reason a second call was launched focussing on translational research.

INTERACT focuses at malaria treatment and intermittent preventive treatment in pregnancy, with and without HIV infection; the optimization of chemotherapy for HIV/AIDS, tuberculosis and malaria in adults, pregnant women and children by studying the pharmacology of drugs; and HAART in Rwandan children 0-15 years: incidence, severity, risk factors and long term outcome of adverse effects.

COMMAL focuses on intermittent preventive therapy post-discharge (IPTpd), an innovative approach in the prevention of rebound severe malaria anaemia in young children. CoMMAL will investigate if it is safe and beneficial to apply RCT of iron supplementation in HIV infected children. In addition, the effect of iron supplementation on maternal morbidity in HIV-infected pregnant women (in cooperation with Fogarty/NIH) will be studied.

APRIORI addresses Phase I and II testing of malaria vaccines and in-depth pharmacological studies to optimise treatment protocols for TB. The programme aims at a safe and effective concurrent treatment in TB and HIV co-infection and at the development of drug regimens to shorten treatment for tuberculosis.

The ART-A programme resulting from this second call aims at developing a diagnostic test and not an intervention, but it was judged indispensable. The programme aims to determine HIV resistant strains using a dried blood spot on a filter paper and linking the results to a phenotypic database in order to translate the genotype results into clinical treatment.

The joint pMTCT project aims at developing a new strategy to prevent mother-to-child transmission of HIV by adding an enzyme to the standard treatment of single dose Nevaripine (SD-NVP). The first objective is to conduct two randomized controlled clinical trials in HIV-infected females who receive SD-NVP as pMTCT in Moshi, Tanzania. The first study will randomize patients to either SD-NVP + SD CBZ or SD-NVP alone. The second study will combine SD-CBZ with 3-7 days of ARVs.

The co-funded TB vaccine project aims at providing the epidemiological information needed before a new intervention can be tested clinically in Africa in the populations that will use the new vaccines. The co-funded TB vaccine project will not result in a new intervention immediately.

The following figure shows the scientific progress of the funded programmes and projects:

Figure 3 Scientific progress of programmes and projects

Programme/ Project	Progress
INTERACT	Protocols submitted to ethical committees Standard operating procedures in place A PhD has published 1 scientific article, and 2 articles have been accepted for publication. Presentations have been held at national (2) and international (1) HIV/AIDS conference
COMMAL	Proposal submitted to ethical review board in Malawi and in Liverpool and approved Patients recruited for trial Additional partnerships and grants have been established
APRIORI (up to 2007)	SOP developed Proposals submitted for ethical clearance Established partnerships with other (EDCTP) funded partners
ART-A	First annual report just received
Joint PMTCT	Annual report to be received from EDCTP
Co-funded project on TB Vaccines	Annual report to be received from EDCTP
HIV vaccine capacity strengthenin g	Annual report to be received from EDCTP
TB treatment (brokering)	Contract to be signed by EDCTP
Joint Call pMTCT	Meetings dissemination Papers Scientific meetings Friday scientific forum

4.3 Networking of R&D institutions

NACCAP ties to assure networking of R&D institutions by its organizational structure. The Steering Committee is composed of representatives from stakeholder groups, including African government policy and pharmaceutical industry. The Programme Committee is composed of representatives of both the Dutch and African expert community, although this was not equally divided at the start of the programme. In order to encourage equal partnerships in the programmes, the NWO rules were adjusted so that the African researchers can serve as main applicant. As a result, half of the main applicants of the received pre-proposals were African, affiliated with African research institutes.

The selected partnerships in the first call all already had a long-term relationship and were embedded in the local research environment. Some of those added south-south partnerships (Ethiopia-Tanzania-Mali; Rwanda-Uganda) while all include north-north partnerships (the Netherlands-UK-Sweden-Belgium-Denmark). Two programmes include a private partner, although they play a minor role (both in cash or in-kind funding). To involve private partners was, and still is, the biggest challenge for NACCAP's networking objectives.

The programmes from the first NACCAP call were encouraged to apply for EDCTP grants, which most of them did successfully. As such, new (European and African) partners joined the NACCAP funded partnerships and (vice versa).

Furthermore, NACCAP grantees had preference while allocating the bursaries for the EDCTP Forums.

4.4 Embedding within EDCTP

At the start of the NACCAP programme, its mission and objectives have been discussed in EDCTP context and were well received by both the Partnership Board and Developing Countries Coordinating Committee (representation of African experts in EDCTP). For reasons of sustainability, the Programme Committee made a clear choice to focus (in the first call) on existing African-European partnerships by Dutch research and development in order to embed NACCAP within concrete EDCTP activities. This left little possibilities for new partnerships (although new partners were welcomed to link up with the existing ones), which could be a point for discussion in the evaluation of the programme and recommendations for the future.

Since EDCTP's future strategy and procedures for long stayed unclear, NACCAP started off without awaiting the possibilities to integrate with EDCTP programmes.

A strategy was formulated to embed NACCAP (awarded) activities more into EDCTP: National (EU) co-funding became a requirement (the Netherlands was the only country that had reserved fresh funds for co-funding of proposals responding to EDCTP calls); NACCAP's approved partnership programmes from the first call applied for EDCTP calls with in-kind co-funding, hereby embedding them into EDCTP programmes if selected.

NACCAP also reserved budget for capacity strengthening activities initiated by EDCTP that contribute to harmonizing operations of clinical trial sites. NACCAP also proposed to EDCTP to develop joint calls with other MS on technology transfer, health systems, diagnostics and community involvement, all linked with clinical trials and all regarded very important priorities by the African community.

However, according to NACCAP, EDCTP was not very interested in the beginning in technology transfer, so NACCAP announced a second call by itself.

The lack of well educated national regulatory authorities in Africa hindered the execution of clinical trials, so NACCAP decided to co-sponsor, together with EDCTP, training of regional and national regulatory authorities, by educative workshops coordinated by WHO. NACCAP awarded sites were included in these workshops.

The frequent change of personnel at EDCTP, but also at national level hindered continuity and progress in the process of aligning national programmes with EDCTP. In addition, the absence of national financial commitment specifically allocated towards EDCTP-like programmes and the absence of harmonization of possibilities with EDCTP procedures were bottlenecks.

According to an EDCTP/ENNP assessment all NACCAP funded programmes (from the first call, so not ART-A) classify as category A programmes, meaning that although not totally embedded in EDCTP, they contribute to the objectives of EDCTP and EDCTP would like to co-fund them in order to encourage and strengthen further integration between NACCAP and EDCTP. (Since EDCTP has now included diagnostics, a new assessment should point out that ART-A also classify as category A.)

EDCTP was reviewed in 2007. The review report stated that: "For the EDCTP programme to continue, the Member States (...) should endeavour to take all necessary measures to financially support at the promised level and to drastically improve the EDCTP governance and performance." As a condition for renewing the financial Decision under Frame Work Programme 7, the review committee formulated 5 key recommendations to be implemented before the end of 2008. As a follow-up action, Charles Mgone and the European Commission have send a letter to all relevant European Member State ministers, including minister van der Ardenne and minister Plasterk and asked their renewed (financial) commitment. The Dutch GA member and NACCAP together with representatives of the ministry of OCW, VWS, EZ and BuZa is formulating a joint strategy to answer the requests of Mgone and the European Committee.

5. Financial information

NACCAP's project plan (December 23, 2003) gives also insight into the financial plan and spending targets for 2004-2008. A total amount of 20,000,000 Euro was granted to NACCAP for a period of 5 years (2004-2008).

According to this plan the budget reserved for capacity building and clinical trials was to be committed to selected proposals in two competitions (scheduled in 2004 and 2006). 80% of the budget (about € 14,5 M) was reserved for the first competition, and 20% (about € 3,5 M) for the second competition.

Figure 4 Budget as described in NACCAP's initial project plan

Cost Item	Specification	Costs/Target
Capacity development of African research centers	<ul style="list-style-type: none"> • Salary costs of African staff (scientific, technical, support and management) • Training / courses • Required equipment • Required infrastructure • Ethical Review Board • Involvement of local stakeholders • Baseline population studies 	14,000,000
Clinical trials of new interventions	<ul style="list-style-type: none"> • Salary costs European staff • Travel European staff • Laboratory and storage costs • Analysis costs • Other consumables 	4,300,000
Networking centers and initiatives, dissemination, communication	<ul style="list-style-type: none"> • Meetings in Africa, communication(forum) • Contributing to EDCTP calls (co-funding) • Contributing to combining National programmes (joint open call) • S-S networking • Bridging (int) initiatives 	330,000
Programme management	Personnel costs (2.2 fte)	750,000
	Governing structure	375,000
	Travel	75,000
	Office costs	70,000
	Legal advice	In kind NWO
	Office space and furniture	In kind NWO
	Assessment capacity development level African institutional sites, first call	
Public relations & advocacy	NL + Europe	45,000
	Africa	55,000
Formulating proposals workshops call I and II		
TOTAL 2004-2008		20,000,000

NACCAPs Programme management costs have not exceeded the budget so far. The same accounts for its Public Relations and Advocacy budget. The budget for capacity development, clinical trials and networking (in total about 18,704,000 Euro) neither was exceeded. In general, less was spent than expected. NACCAP has reformulated its budget now until 2010, and it is expected to spend almost all the budget within this timeframe as planned.

The Appendix on financials gives an overview of the budget and costs of NACCAP from 2006 to 2010.

The applicants had to follow specific guidelines while requesting subsidy from NACCAP. In the first call it was stated that the subsidy should not be less than € 1 M nor exceed € 5 M. The second call had a maximum of € 3 M. For both calls the applicants were obliged to carry out the activities in Africa, and spent 80% of the NACCAP in Africa. (For the second call, there is some room to spend less in Africa

during the first years as long as there is an increase in spending (towards 80%) in Africa towards the end of the programme. Spending outside of Africa should not impair the sustainability of the African part of the programme, and the ‘necessity’ of this spending should be shown in the proposals. Moreover, private partners should contribute 50% of the total amount requested, either in cash or in kind.

The applicants could apply for the following costs:

- Costs of temporary personnel
- New equipment and use of equipment
- Consumables
- Costs for joint activities (workshops, seminars)
- Costs for disseminating results
- Costs for training of African personnel within the African region.
- The establishment/strengthening of GLP/GCP standards
- Setting up/strengthening of reference laboratories
- Data management and administration, managerial and administrative capacity development
- The establishment/strengthening of (ethical) research committees

The fact that 80% of NACCAPs funding is spent in Africa is greatly contributing to capacity building, according to one of the interviewees of the TB co-funding project. This funding scheme allowed to hire good people and train them. Since EDCTP is monitoring the progress of the co-funded projects, NACCAP funds are also seen as ‘easy money’ by participants of these projects.

As long as EDCTP has not managed to organise a co-funding pot by all Member States, it was suggested by one of the interviews to certainly keep NACCAP as co-funding source.

The following table provides budget information of the approved programmes and projects.

Figure 5 Budget information per programme/project

Programme/ project	Budget in Euro	Running time	Country in which research is executed
INTERACT	NACCAP: 4,793,000	15-12-2005/ 15-08-2010	Rwanda and Uganda
COMMAL	NACCAP: 1,650,000 EDCTP: ?	15-12-2005/ 15-12-2009	Malawi
APRIORI	NACCAP: 2.100,000 plus 151,000	2006-2010	Tanzania, Mali, Ethiopia
ART-A	NACCAP: 3,000,000 CLS: 500,000 (in kind) VIRCO 2,500,000 (in kind)	2007-2010	South Africa, Zambia, Ethiopia, Uganda
Joint call on pMTCT	NACCAP: 412,000 (cash), 2,000.000 in kind (by INTERACT) UK MRC: 131,760 EDCTP: 580,000	2007-2010	Tanzania, Zambia
Co-funding TB vaccine	NACCAP: 1,000,000 Other MS: 136,800 (in kind) Private partner: 663,373 EDCTP: 1,678,216	2007-2010	Kenya
BMGF-call HIV vaccines	NACCAP: 350.000 EDCTP: 7.000.000 Other MS: BMGF: 7,000,000		
NoE's	NACCAP: 2.500,000 EDCTP: Other member States	-	
TB Treatment (brokering call)	NACCAP: 500,000 and APRIORI: 200.000 in kind EDCTP: Other MS: Private partners:		

6. Management and organisation

6.1 Operational structure and governance

The operational structure of NACCAP is formed by a small decisive body (Steering Committee) consisting of independent stakeholder representatives responsible for strategic and funding decisions; and an advisory committee (Programme Committee) consisting of independent international experts in science and capacity strengthening, responsible for advice on general strategy and selection of project proposals. The Haut Representative of EDCTP, Dr Mocumbi, is a member of the NACCAP Steering Committee. The committees are supported by a coordinator and small secretariat at NWO⁴.

It could be questioned whether the mandate of the SC and PC were far-reaching enough. It would have been possible to broaden the mandate of the programme committee and more physical involvement. Currently, only written reports are being assessed. According to a member of the PC, the committee could have had a wider mandate by assessing the progress of the programmes on more structural basis, and not only selecting them. In the Mid Term Review reports of COMMAL and INTERACT it was suggested that NACCAP becomes more involved in discussing progress and exchange views on improvement. Not only by email, but also by visiting the sites earlier after the start of the programme.

⁴ Excerpt from ToR MTR NACCAP, September 2008

The mandate of the Steering Committee includes decisions regarding / approving of:

- The composition of the Programme Committee;
- The overall financial framework and annual budget plans;
- Final decisions on funding of proposals, based on advice by the Programme Committee.

The mandate of the Programme Committee includes:

- Development of a strategic action plan based on the principles defined in the subsidy agreement, to be submitted for approval to the Steering Committee;
- Formulation of calls / tenders, including evaluation and selection criteria, to be submitted for approval to the Steering Committee;
- Proposing plans for commissioned projects, to be submitted for approval to the Steering Committee;
- Installation of ad hoc review panels for external evaluation of proposals;
- Active and critical monitoring of funded activities and, if deemed necessary, develop measures to ensure compliance with the approved proposal and contract;
- Proposing additional activities required to reach the NACCAP goals, to be submitted for approval to the Steering Committee;
- Advising the Steering Committee on the general NACCAP framework and policy.

The Programme Committee has no decisive power regarding NACCAP funded activities.

The tasks of the secretariat include:

- Supporting the Steering Committee and Programme Committee in its responsibilities;
- Drafting of general and annual budget plans to be discussed with Programme Committee and submitted for approval to the Steering Committee;
- Organisation of calls/tenders: application, initial screening of proposals for compliance with formal criteria, communication with applicants, peer review procedures;
- Day-to-day management of portfolio of funded activities;
- Organisation of additional activities required for the proper functioning of the NACCAP programme;
- Maintaining contacts with financing agencies (e.g. DGIS) and other stakeholders.

Since NACCAP is small and flexible, the recipients of funds perceive it as less bureaucratic than EDCTP. There is flexibility for discussion over processes and alternative structures. Moreover, the informal atmosphere is a positive characteristic.

Potentially, NACCAP could add more to policy development of EDCTP, according to one of the interviewees. They have a good knowledge of the issues at stake, and a good grass root feeling and general overview.

6.2 Knowledge transfer and IPR

The NACCAP programme develops and generates knowledge in the form of research results, but also in the form of experiences and expertise on various aspects of conducting health research and clinical trials, as well as developing high quality research centres in sub Sahara Africa. Knowledge transfer and sharing is crucial in the NACCAP programme. This involves partnership in the development of plans and strategy, early involvement of target groups and tailor made strategies to go for effective communication with different stakeholders.

According to the draft programme proposal for NACCAP (23 december 2003), the Programme Committee is responsible for developing a strategy for knowledge sharing at local, regional and international level, including the identification of potential target groups/stakeholders, and tailor made strategies to effectively share and transfer knowledge. According to the progress reports however it was the Steering Committee who formulated a strategy on the involvement of private partners to link the medical infrastructure of Dutch multinationals to African research institutes. Meetings were organized with potential private partners to get them interested in participating, and a call was published in which private partners were encouraged to join partnerships with academia and share technology.

In NACCAPs discussions with private sector and STW, it became clear that general strategies do not work and that there should be a tailor made approach for each partnership. The lawyer of NWO and STW formulated the general conditions as laid out in the guidelines and rules applying to NACCAP.

7. Challenges and issues

Several challenges for the success of NACCAP were defined and described in the progress reports of the programme, or mentioned during the interviews Technopolis held with stakeholders:

The main challenges are:

1. How to guarantee a combined focus on (a) sustainable capacity development and (b) scientific quality. It seems that in the course of the programme scientific quality improved, as well as African leadership, but no clinical trials have been performed yet. Are the involved organisations ready to set up a clinical trial at the end of the funding period? How to assess the added value of NACCAP's funding for the centres (does NACCAP add to sustained institutional capacity building and not only to individual capacity building and science)?
2. How to deal with the dilemma to only reward already existing partnerships, and not new initiatives? NACCAP took existing partnerships as a starting point to be able to achieve something within 5 years. Starting from scratch takes much longer because trust must grow. Are sufficient links being made with new initiatives?
3. How to ensure that clinical trial capacity building contributes to health policy, systems and services? (Sustainable capacity development of environment)? An example is the current implementation of the involvement of National Health Programmes in strategic steering committees of the partnerships.
4. How to create synergy between the EDCTP focus on product development and large-scale clinical trials and the NACCAP objectives on sustainable capacity development?
5. How to optimally combine the EDCTP strategy and objectives with the focus on strengthening African-Dutch partnerships?

6. How to encourage involvement of pharmaceutical industry in NACCAP research and development activities? Communications with Crucell, MVO and STW revealed that the NACCAP rule to spend 80% in Africa hinders the involvement of private industry in technology transfer to Africa. Should it be made possible for them to be applicant themselves?
7. How to participate in joint calls when the other Member States do not have any budget allocated for joint calls? Most other MS fund their national researchers, and NACCAP now funds only African researchers in joint calls/co-funding. EDCTP (EC) should be responsible for the rest. The challenge is that Dutch researchers will also be asked by EDCTP to pay for themselves, which NACCAP can hardly provide because of 80% rule.
8. It has been observed that African partners tend to cooperate more easily with Northern partners than with their neighbours. Different explanations include the origin of the funding, the tradition to cooperate with the former colonizing country and the quality of the research. Most important is the lack of national health research policies in most African states, which makes it difficult for African researchers to organise long-term African partnerships beyond (mostly short time) donor driven projects. However, the 80% rule seems to give African partners a better position; partnerships are forced to look for African partners because European partners cannot be paid from the budget.
9. For the optimal embedding within the national structures, senior African participants involved in the programmes must be experienced, have a high position and a good network. This means that in general they are involved in much national and international collaboration and have a busy agenda. Moreover, there is a lack of senior scientists in Africa, and in the MTR reports of INTERACT and COMMAL it was already suggested to proactively create possibilities for (expatriated) African senior scientists to return to their home countries.
10. The younger African participants (e.g. PhD's and Masters) often have to conduct the research next to their regular job. In addition, the many international programmes and NGO's in Africa lack African academics. It is therefore a challenge to retain these young professionals for research. In Tanzania, researchers are now being paid equally to professionals; the government hopes to make a research career more attractive.
11. Although ministries of health are involved in the partnership proposals, embedding within public health structures/services is less obvious. Activities aiming at involvement of the local/regional (non-scientific) communities could be developed by NACCAP.
12. Regulatory and ethical review of research protocols takes considerably more time than is ideal because of bureaucratic organisation. Therefore, trials may start later than previewed.
13. It will also be a challenge to embed the latest ART-A partnership within EDCTP since this partnership is a bit out of EDCTP scope with a focus on diagnostic tools and technology transfer between public and private partners. However, EDCTP has formulated a new strategy (beyond 2008) in which diagnostics and technology transfer are included. Only when a partnership can be encouraged with an EDCTP financed partnership, the ART-A partnership will be considered by EDCTP as contributing to EDCTP.

8. NACCAP beyond 2008

NACCAP has formulated a few possible strategies in a discussion paper for the future of the programme, until its end in 2010. The proposed ideas are summarized for this information guide.

EDCTP has adopted the “learning by doing” approach used by NACCAP for its strategic period 2007-2010 and has shifted from funding of small scale (PhD) projects towards funding of partnership programmes and networking (see annex 1). Thus, for this period, NACCAP is intending to continue with implementing its original strategic plan. The activities of NACCAP in 2008-2010 will be mainly determined on the basis of the outcomes of the mid-term reviews (both of the partnership programmes and of NACCAP as a whole). In addition, NACCAP being part of EDCTP, the future strategy of NACCAP (beyond 2010) should continue to align with that of EDCTP.

In its preliminary strategy 2010 and beyond, EDCTP has however formulated a new approach for its second phase. This strategy (which still is in a very preliminary phase) proposes to expand the scope of EDCTP also toward other diseases and other geographical areas. Secondly, the paper proposes to transform EDCTP into a bridge to the future that addresses not only clinical trials but also the broad health systems and development agendas of developing countries by for example making room for operational research. Thirdly, mechanisms of registration, delivery, pharmacovigilance and service delivery capacity, data management centres and capacity of competent authorities will be eligible for funding by EDCTP.

The renewed EDCTP strategy beyond 2010 offers NACCAP three new strategic choices concerning the content:

1. Expanding towards other diseases and geographical areas
2. Strengthening the relationship between clinical research and policy & practice
3. Quality assurance of generic, African owned production

First, expanding NACCAP to other diseases and geographical areas is considered doubtful in the discussion paper. It will not lead to capacity strengthening of the clinical trial sites now funded by NACCAP/EDCTP at all costs and will probably only scatter the capacity being build now. It is unclear if EDCTP will be able to manage a broadening of scope that will involve new networks and partners.

Second, even if the strengthened capacity will lead to new or improved interventions, these interventions will not automatically be available, accessible and affordable for and acceptable to the people who need them. This notion was one of the reasons why, from the beginning, NACCAP included activities like health systems research that encouraged participation of local NGO's to enhance implementation of interventions eligible for funding. Unfortunately, in spite of repeated requests of African partners, EDCTP considered these activities not to be part of the EDCTP strategy and therefore, few efforts were done by NACCAP to further elaborate on the implementation of this part of the NACCAP strategy (although within the partnership programmes funded by NACCAP, applicants were encouraged to work closely together with local partners responsible for public health and service delivery).

If the renewed strategy of EDCTP beyond 2010 will be accepted, NACCAP can as yet implement the last part of its strategy by focussing on partnerships with local NGO's to enhance implementation of interventions for example by funding capacity strengthening of social and operational research linked to existing clinical trial

partnerships (funded both by EDCTP and/or NACCAP) and aiming at improving accessibility to (new or improved) interventions and the acceptability thereof.

Third, during its first phase, together with WHO, NACCAP already incidentally contributed to this kind of environmental capacity strengthening by co-funding training on regulatory aspects. In addition, NACCAP's experience with its call on technology transfer between European and African private industry showed that indeed it was difficult to find African owned research centres with quality assurance systems making them attractive partners for private industry.

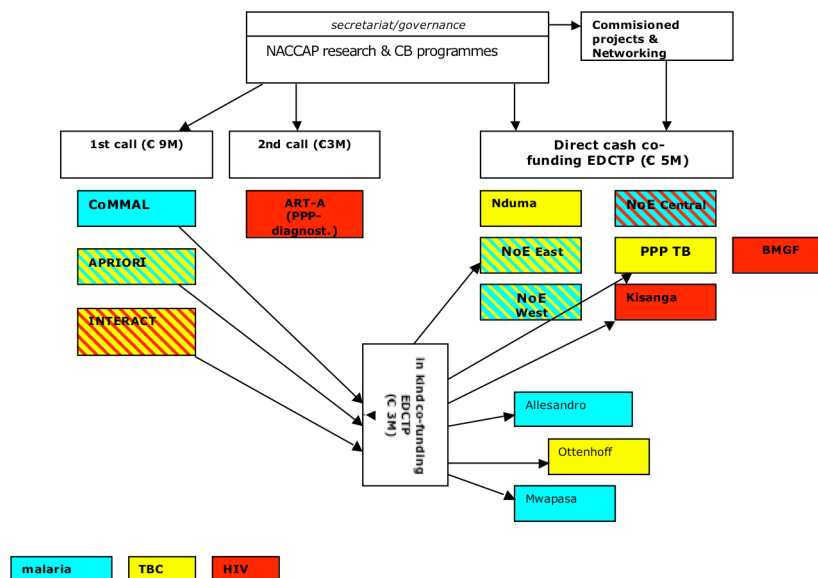
The discussion paper suggests that NACCAP's future strategy therefore could focus on strengthening the ICH capacities of NACCAP / EDCTP funded centres. Eventually this will lead to international accredited research centres that will enable pharmaceutical industry to meet ICH conditions. This approach will add to the long-term sustainability of the centres because they will be able to attract private funding as well. In addition, African owned generic industry could partner with these centres and produce safe, effective and affordable drugs for Africa. They might even become an interesting and even preferred partner (low costs, expanded manufacturing capacity) for western-based pharmaceutical industry (both generic and brand) and thus will be a more equal partner in technology transfer.

It will be important for the peers to discuss with the interviewees these optional routes for the future of NACCAP.

9. NACCAP funded actions

In this chapter brief information is given on the NACCAP funded actions. Although the focus of the MTR is on NACCAPs contribution to EDCTP goals, policy and strategy and its added value for the Dutch investments in R&D and capacity building, insight in its individual actions will help to make judgements on the efficiency, effectiveness and impact of NACCAP, in relation to the EDCTP goals. Further information on the actions can be obtained during the peer review if necessary, and the 2 MTR reports of the joint programmes CoMMAL and INTERACT will be provided as appendices to this report. Please note that the progress of the co-funded and joint projects is being monitored by EDCTP, and not by NACCAP.

Figure 6 Schematic overview of NACCAP funded actions



Source: NACCAP

9.1 Open Calls

The open call procedure consisted of two stages: first, a call for letters of interest was published. Based on the results of this bottom-up procedure, the Programme Committee invited selected applicants to elaborate the proposal for the second stage evaluation and selection. External review was an important part of the second stage (final) evaluation and selection. Specific funding was provided for workshops in which all partners jointly develop investment and research plans.

9.1.1 INTERACT

9.1.1.1 General description

Main applicant: Prof. Dr J.M.A. Lange. Academic Medical Centre, Amsterdam, the Netherlands

Partners: Prof. Dr E. Katabira (Makerere University, Infectious Diseases Institute, Uganda) and Dr L. Munyakazi (Ministry of Health, Treatment and Research for AIDS Center (TRAC), Rwanda)

Countries in which the research is executed: Rwanda and Uganda

Running time: 15-12-2005 tot 15-08-2010

Budget: € 4,793,000

This program focuses on establishing and consolidating the infrastructure for conducting clinical chemotherapeutic intervention trials for HIV/AIDS, malaria and tuberculosis.

The scientific approach of INTERACT is characterised by several dimensions. Firstly, INTERACT concentrates on strategic issues surrounding chemotherapy of these three diseases, which are on the top of the international research agenda. Secondly, a comprehensive palette of research methodologies is used, in order to lay down an infrastructure for conducting studies surrounding clinical trials. Thirdly, based on the infrastructure for studies in adults, INTERACT initiates studies in two vulnerable but little studied populations, children and pregnant women. Lastly, using the established research facilities as a springboard, INTERACT reaches out from the setting of the dedicated referral clinics to primary health facilities and the general population, to assess the outcomes of clinical trials against a real life background.

The programme consists of the following 10 projects:

- Building sustainable clinical trial capacity
- Building and implementation of high quality data-systems
- Implementation research: operational aspects of diagnosis and treatment of HIV-infection and tuberculosis at the district level
- Assessing the impact of HAART on reproductive health of Rwandan women
- Incidence of and risk factors for selected adverse effects of HAART treatment in HIV-1 infected adults without a clinical suspicion of TB co-infection
- Immune Reconstitution Inflammatory Syndrome (IRIS) and other selected adverse effects of therapy in TB HIV co-infected patients first commencing HAART
- Surveillance of HIV-1 drug resistance in HAART treated patients and in the general population
- Malaria treatment and Intermittent Preventive Treatment in pregnancy, with and without HIV infection
- The optimisation of chemotherapy for HIV/AIDS, tuberculosis and malaria in adults, pregnant women and children by studying the pharmacology of drugs (I)
- HAART in Rwandan children 0-15 years: incidence, severity, risk factors and long term outcome of adverse effects.

9.1.1.2 Outcomes and results

Based on the MTR of the INTERACT programme held in 2008, the following conclusions have been drawn relating to the outcomes and results of the programme.

The partners are committed, scientifically strong and generally well equipped. The partners are creating a valuable database and show a promising ability to raise additional funding from international donor organisations. INTERACT is well integrated in EDCTP as is shown by additional funding by EDCTP grants.

Interact managed to develop a new diploma level research course embedded within the university. The Pharmacokinetic project has done well with its efforts to link research evidence to pharmaceutical policies and programmes development in Uganda and should continue to strengthen these efforts.

The programme is more or less on track with its scientific activities and its bigger challenges appear to be in the area of sustainable local health research capacity development and embedding of the programme in a strong local research environment. According to the MTR panel, creative approaches need to be explored and more efforts put into creating an environment that is better supportive of clinical research career development and institutional strengthening. The INTERACT programmes need to better engage stakeholders outside the core partnership, especially within the Ministries of Health and Education in the countries in which they work and get a better buy in from these stakeholders into the work they are doing. A number of the problems encountered are structural, such as the orientation of universities towards education rather than research, the lack of career opportunities for scientists, and the absence of a defined research policy at ministerial level.

The programme had however a slow start, and patient enrolment will probably only be completed in 2010. The commitment of PhDs could be threatened partly by the absence of clear scientific career paths and the current relatively low commitment of the university and MoH towards research (-education). The workload for the seniors is high. The MTR commission recommended to INTERACT to invest in gaining a clear commitment of both the universities and MoH's for the objectives of INTERACT. The commission furthermore concluded that for a truly shared ownership and management of the database it is not optimal when its management is located in Amsterdam. The governance structure of INTERACT is under revision, since it was considered weak.

In terms of testable goals, the following information was obtained during the MTR:

Projects A and B aim at strengthening research capacity at the individual level (training) as well as at the institutional level. The other (research) projects focus on research training on the job with the aim of delivering 9 PhD's.

Results on the individual level:

- INTERACT has trained 90 individuals in office software, ICG-GCP, SOP, HIV resistance, neuropathology assessment and pelvic examination.
- Six PhD candidates attended courses in epidemiology and statistics in the Netherlands and 2 staff members received a Master of Public Health training.
- The students and staff attended critical appraisal courses of IDI. Training opportunities were only provided for students and staff participating in INTERACT. All courses are closed by an exam and the acquired knowledge is used within the research projects of INTERACT.
- Scientific "learning by doing" for PhD's is done within the eight research projects. Each PhD student (9 in total) is jointly supervised by a senior researcher of Makerere (Uganda) or TRAC (Rwanda) and by a senior researcher from one of the Europe-based partner institutes. In Uganda, PhD's (from IDI and FoM) are

nominated and have to compete for a PhD trajectory. In Rwanda, PhD's are assigned by TRAC.

Results on the institutional level:

- At the moment two courses have been developed by INTERACT, one on applied clinical research and one on advanced clinical research (and include proposal writing and manuscript writing). The AMC, Amsterdam will provide an attendance certificate. In the future, the courses will be embedded into masters of clinical epidemiology or the Masters on Public Health courses with certification of the courses by the university of Makerere in Uganda. In Rwanda, the Faculty of Health, school of Public Health (National University Rwanda) will host and certify the courses. The courses will start in 2008 and will be open for BSc, MSc and PhD students already working in research activities.
- The students will be assessed by the use of exams. Sixteen students (eight from INTERACT and eight from other affiliated organisations) have been identified for attending the courses.
- In addition, a training database is being built that gives insight in what courses are available, and have been attended by whom.
- Within project B, an impressive data management system is being built; computers have been installed and data management staff assisted by temporary staff for data entry have been recruited in both Uganda and Rwanda. It is anticipated that a local database is set up in Rwanda and one in Uganda. The database format allows for linking by internet if needed. No plans exist to set up a central database in Africa or to embed a central database within the universities and Rwanda and Uganda do not have direct access to each others databases.
- Up to now, the capacity strengthening activities have led to an upgrade in the level of the African clinical trial capacity
- In Uganda 5 senior employees left and were replaced while in Rwanda 6 were replaced. This high turn-over of key persons in the programme may be coincidental, but it might also indicate major competing demands for senior staff and or some lack of commitment to the programme.

Results on the Environmental level:

- The contribution of INTERACT to a sustainable encouraging research environment by embedding of the scientific capacity strengthening and research projects within the university in both Uganda and Rwanda is unclear.
- In Uganda, INTERACT works closely together with IDI that has a very well equipped laboratory mainly financed by BMGF and Pfizer. Some additional high tech infrastructure is provided by INTERACT. IDI however operates at somewhat of a distance of the university of Makerere; and mainly co-operates with Mulago Hospital/FoM (which has official but weak links with university) and Kampala City Council Clinics.
- In Rwanda, the main partner (TRAC) is affiliated with the MoH, also somewhat distanced from the university.
- In both countries, the (faculties of medicine of the) universities are mainly focussed at education and PhD's have to fulfil clinical tasks, which are considered more important for their education (as MD) than research. Research career possibilities hardly exist nor do the universities have a clear post-doc trajectory.
- In Uganda, recently special possibilities for PhD's to take a leave from clinical tasks have been organised (on advice of SIDA) but only in the last years of the PhD trajectory.
- Although INTERACT contributes to the scientific environment of IDI, the contribution towards a broader scientific environment and local sustainable

international level research capacity building in terms of the ability to independently write proposals, attract research funding and implement and manage research is less clear.

- PhD students from Rwanda once visited Uganda to discuss progress. However, in general, communication between Uganda and Rwanda mainly seems to be channelled through the Dutch partners and few direct links exist between Uganda and Rwanda. Uganda being the more experienced African scientific partner, is willing to assist their Rwandan partners but notes that the language barrier (English in Uganda, French in Rwanda) is a severe hindrance. Vice versa, Rwanda has ample expertise in co-operation with MoH and might be able to share best practices with Uganda.
- The involvement of South African partners in the PK study (project I) adds to S-S interaction and strengthening of IDI. IDI also has experience in inviting high-level outside visitors that, by showing a role model, can motivate PhD's for research. According to Rwandan partners, the NACCAP budget leaves few possibilities for scientists to visit international meetings.
- With regard to creating a favourable public health environment, INTERACT has close connections with TRAC and the National TB and HIV programmes of Rwanda, which directly fall under the auspices of the MoH. TB projects contribute to the analysis for evaluating current performance of health centres with regard to TB and HIV treatment and adherence. Dutch students perform quantitative and qualitative studies of health systems components, including quality of care. Involvement of African students in these undergraduate studies is difficult because of differences in the level of MSc's of Dutch and African students.
- In Uganda INTERACT co-operates closely with the KCC clinics, that were set up to lower the workload of Mulago hospital and the IDI treatment programme. At the KCC clinics, patients are recruited for studies and INTERACT contributes to the improvement of health services by capacity strengthening of data management, GCP training of staff and by motivating staff by personal interaction between clinical research staff and medical staff.
- The final aim of the pharmacokinetic studies, performed in collaboration with IDI and Mulago hospital is to develop treatment guidelines. In the long term, IDI aims at developing into a health information centre on HIV treatment that could advise the ministry on HIV treatment policies in general.
- The Ugandan MoH is familiar with the INTERACT programme and considers research very important in order to improve health policy. The MoH expresses its severe interest in being involved more closely.
- Existing activities in social and operation research were not very obvious for the MTR committee nor visible for the MoH.

Scientific relevance and efficiency:

It was concluded that the partnership is relevant with regard to scientific focus. Scientific co-operation however could be improved by a more integrated and multidisciplinary approach and as such might result in added value of the research for health policy. The programme had a severe delay because of change of jobs of senior staff, replacement, but also over loaded PhD's. The data management system is crucial for the efficiency of the scientific output but has severe delay in implementation. It is previewed that enrolment will be completed in 2010. INTERACT expects to be able to gather enough data for the delivery of 9 PhD theses. For one project (PK) a PhD has already published a scientific article while two articles on treatment option in developing countries have been accepted for publication. Presentations have been held at national (2) and international HIV/AIDS conferences (1).

9.1.2 COMMAL

9.1.2.1 General description

Main applicant: Dr M. Boele van Hensbroek. Academic Medical Centre / Emma Children's Hospital, Amsterdam, the Netherlands

Partners: Prof. E. Borgstein (University of Malawi), Dr F.O. ter Kuile (Liverpool School of Tropical Medicine, United Kingdom), Dr V. Mwapasa (University of Malawi), Dr K. Phiri (University of Malawi)

Country in which the research is executed: Malawi

Running time: 15-12-2005 to 15-12-2009

Budget: € 1,650,000

Clinical research in malaria and HIV conducted by the College of Medicine (CoM), University of Malawi, is recognized to be of a high international standard. However, its research agenda has been developed mainly by its international collaborators, and CoM has depended on its collaborators for international funding.

The CoM aims to establish a Research Support Centre (RSC) to assist local researchers in the design and conduct of clinical research; introduce GCP-ICH quality standards; and develop a training programme in research methodology. It is anticipated that the successful establishment of a dedicated RSC will make a sustainable contribution towards the quality and quantity of Malawian owned research and foster a high quality competitive research environment that reduces brain drain and encourage talented Malawian post-graduates and senior scientists to return to Malawi (reverse brain drain).

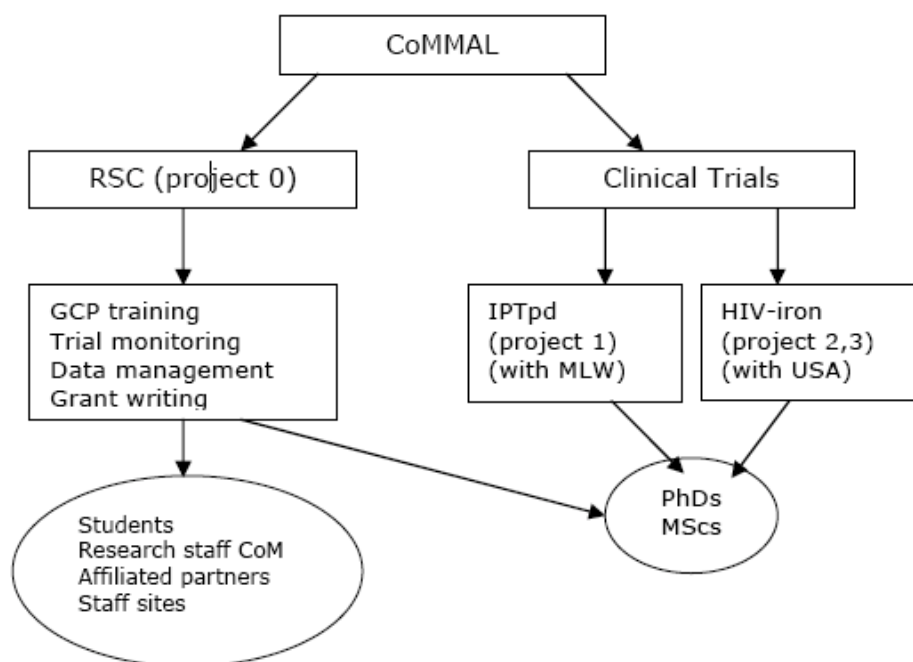
The programme is developed in collaboration with other partners of the CoM from the UK (Liverpool) funded by the Wellcome Trust and the US, funded by the Fogarty International Centre of NIH. The CoM has identified the RSC as high priority in their strategic development plans and proposes to take over the running costs of the RSC in incremental steps from 2007 onwards.

Although very common, the importance of anaemia and its aetiology is poorly understood in Malawi. The existing research collaboration between the CoM, the Emma Children's Hospital AMC and the Liverpool School of Tropical Medicine (LSTM) concentrated on the role of malaria, iron deficiency, and HIV in causing maternal and childhood anaemia.

The programme consists of the following 4 projects:

- Intermittent Preventive Therapy post-discharge (IPTpd); an innovative approach in the prevention of rebound severe malaria anaemia in young children
- RCT of iron supplementation in HIV infected children: Is iron safe and beneficial?
- Development of a Research Support Centre within the Post Graduate Institute of the College of Medicine (CoM), University of Malawi.
- The effect of iron supplementation on maternal morbidity in HIV-infected pregnant women (together with Fogarty/NIH)

Figure 7 Visualised approach of COMMAL



Source: Midterm evaluation report of CoMMAL, October 2008

9.1.2.2 Outcomes and results

Based on the MTR of the CoMMAL programme held in 2008, the following conclusions have been drawn relating to the outcomes and results of the programme.

The CoMMAL partnership programme is assessed as very promising. Its capacity building approach is working well, and individual research capacity building through PhD training and short courses in GCP and GLP are on track. The programme managed to create a favourable institutional and research environment. To retain focus and to attract additional funding for the RSC, the MTR committee recommended CoMMAL to write a business plan for the next two years (2009-2011) that positions RSC as a cross-supportive unit and to communicate this plan to the MoH, University and external funding organisations.

The CoMMAL programme's creativity in developing effective interventions to reverse brain drain and attract senior researchers back into Malawi as part of research capacity building, as well as the embedding of the programme firmly within the College of Medicine for long term sustainability are commendable and to be encouraged. So also is the team spirit and open collaboration that was observed by the MTR committee within the CoMMAL programme and between the programme and other research programmes within the University and the College in general.

According to the peers, the major observed challenges that CoMMAL needs to address are to make sure it maintains what it is currently doing and also moves fast enough with its capacity building and development efforts related to the Research Support Centre (RSC) to stay ahead of the enthusiasm and increasing demands generated by its success so that it does not become overwhelmed. The CoMMAL programme also needs to better engage stakeholders outside the core partnership, especially within the Ministries of Health and Education in the countries in which they work and get a better buy in from these stakeholders into the work they are doing.

With regard to efficiency, the scientific progress is delayed, due to slow recruitment of patients and there is need for a 12 months no-cost extension of the programme.

In terms of testable goals, the following information was obtained during the MTR:

Project 0 (RSC) is aiming at individual and institutional capacity strengthening and coordination, the second, third and fourth project are clinical trials aiming at research and scientific capacity strengthening 'by doing'. These last projects aim at specific PhD and MSc skills building.

Results on the individual level:

- The RSC provides individual support (research training) consisting of one-to-one support including research methodology, ethics, statistics, epidemiology and proposal writing & submission.
- Short courses are given in ICH-GCP, basic and clinical research methodology. This support is not only available for the staff and students who are included in the CoMMAL partnership, but open to everyone who needs support. As such, 23 students received one-to one support on the different aspects. The courses on data management attracted over 40 applicants ranging from students to representatives of NGO's. Five GCP courses provided 108 individuals (students, study site staff including scientists, CRO's, nurses and data managers, ethics committee members) training in ICH-GCP.
- The RSC managed to gain external funding to broaden its curriculum towards a course on basic research methodology that educated 25 students and lectures. The courses are not closed by an exam. All the trainees (of which 35 clinical staff) now use their knowledge in practice.

Results on the institutional level:

- Institutional support consists of providing ICH-GCP quality control, trial monitoring services, data management and data analysis support.
- The RSC provides information on funding & training opportunities, conferences, dissemination of research results, research database, publication tracking and opportunities for collaboration with (international) partners.
- Seven GCP trainers were trained by Kendle/GSK in 6 courses. These trainers will take over the ICH-GCP training. The trainers include not only employees from RSC but also from the MLW and from the Centre for Bioethics (MoH). The course is closed by an exam. RSC now has developed its own GCP material for the courses and Kendle will accredit the course (since an international accrediting body does not exist).
- The course on GCP has been included as a module of the Masters of Public Health programme at CoM.
- RSC with help of Kendle, has trained three clinical research associates (CRAs) who are monitoring 3 clinical trials executed by different affiliated partners. For the future, it is previewed that the RSC team can operate as a self-sufficient Site Management unit.
- The data management team of RSC is trained by MLW and assists in providing services to research projects within 12 different research programmes (of the MLW clinical research programme and of other programmes executed by (affiliates of) CoM). Courses on data management have been developed and will start in 2008.
- Data management is expected to become one of the income-generating services of RSC.
- These capacity strengthening activities have led to an upgrade in the level of the African clinical trial capacity
- Expatriated senior Malawians (2 from the USA, 1 from the UK) have been attracted to return to their home country. They receive a core salary from CoM,

which is being topped up by the externally funded grants. A senior epidemiologist is employed and several senior employees (data manager) are shared between affiliated programmes and CoMMAL. 3 African PhDs and 1 Dutch PhD have been attracted to the programme. For each local trial site a CRO, 2 nurses, a data manager, field officer and lab personnel are employed. All employees are trained, and there is little turn-over.

Results on the environmental level:

- The RSC project of the CoMMAL programme adds to a favourable research environment, by providing courses open for all partners and overall clinical trial services and by harmonization of the different GLP courses that existed within CoM and its affiliated partners. As such, RSC contributes to collaboration between and harmonization of different research programmes.
- PhD students (n=3) of CoMMAL and specific expertise of different affiliated partners of CoM are shared, resulting in cross-fertilisation of specific expertise. For example, MLW educates RSC on data management so that finally, data management of MLW can be handled to RSC.
- A biostatistician will be shared between MLW and RSC while the health economist of MAC assists RSC in setting up an educational programme on health economics.
- Individual interviews with all affiliated partners show that all are prepared to hand over their specific expertise to the RSC and support the RSC to become the cross-cutting supportive centre, providing ICH-GCP courses, trial monitoring, data management.
- The willingness of the fairly autonomous affiliated partners of CoM to strengthen RSC for the sake of better performance of all, shows that the RSC answers to a need of the different research stakeholders.
- CoM has been asked to assist in setting up a similar RSC-like structure in Zambia and Zimbabwe.
- CoM through RSC is also a partner in a consortium formulating a proposal on Networks of Excellence for EDCTP, aiming at embedding CoM into a regional research network on clinical trials. This clearly shows that CoMMAL contributes to collaboration of CoM with EDCTP.
- With regard to creating a favourable public health environment, some added value exists but is less obvious. Research projects are executed in collaboration with local health services. The added value of CoMMAL for these services include an upgrade of the quality of care because CRO's, nurses, data managers, field workers and laboratory personnel are trained in ICH-GCP.
- In some of the research projects, collaboration exists with international non-governmental HIV care programmes (MSF, DIGNITAS). However, in general, national non-governmental organisations that settle at the campus seem to last only two-three years and therefore are hardly regarded as sustainable partners.
- Informal links exist with the Ministry of Health, but more structural involvement of the Ministry of Health seems to be low.
- CoMMAL research projects work within the context of the national Aids programme (including PEPFAR) and the national malaria programme (by the Malaria Alert Centre (MAC), but research linkages do not seem to be very strong.
- MAC focuses on operational research and has good expertise in health economics. Although MAC is willing to assist RSC in educational activities on health economics, operational research activities are hardly taken into account by the CoMMAL programme.

Scientific relevance and efficiency:

The scientific part of the programme focuses on the relationship between anaemia and malaria treatment (children) and anaemia treatment and HIV (children and pregnant women). The projects include a clinical trial in malaria treatment and thus are at the core of the scientific objectives of EDCTP. The research projects on HIV do not exactly focus on interventions for HIV but on improving the treatment for anaemia in HIV infected persons and therefore, aiming at improvement of clinical care for HIV patients. However, where the first research question was inspired by EDCTP, the second aligns with the research agenda of CoM itself, and focuses on severe anaemia and iron supplementation.

The research projects are well integrated, sharing health services sites for recruiting patients for different research questions while all projects are linked to relevant projects of affiliated partners and sharing expertise with those partners.

Multidisciplinary approaches however, and especially the involvement of social sciences are lacking.

Although the programme started successfully, there is a 4-6 months delay. This delay is due to difficulties with recruiting senior Malawian staff, slow release of funds due to lengthy contract discussions and slow patient recruitment for the malaria treatment study due to drought. Most of these problems have been solved now.

It is anticipated that the RSC that started as a project within the Post Graduate Institute will be fully integrated into and taken over by CoM in 2010. CoM already contributes to RSC by paying part of the core salaries (2 staff members). This commitment is also shown by the housing of the RSC; first being located in a small office within the GSK building of the rotavirus vaccine project, now moving to and occupying a floor of a building of the CoM itself.

At the moment, CoM is already discussing the transformation of RSC from a project towards a department of CoM with tasks that include grant administration and management. Being a department will embed RSC into the CoM with the director of the RSC a member of the board of CoM. However, CoM does not yet have a budget line

Additional partnerships and grants have already been established during the first 2,5 years of the partnership programme. For example, with Kendle/GSK (€ 20,000), MSF (training fees), The Swiss Tropical Institute (€410,000), Malawian Medical Journal (US\$10,000 – supporting 25 participants fees for basic research methodology course) and NIH (Gates grant € 96,000). RSC also has generated some income with courses and one-to one support (€ 8,000). CoMMAL also has applied for new grants: Welcome Trust grant with LSTM and Barts University, EDCTP grant on malaria treatment (pending), while the first steps to set up a RSC-like structure in Zambia and Zimbabwe together with SA have been made (EDCTP and WT grant pending). Effectiveness of research activities is still modest with all PhD's identified, ethical clearance obtained and only 50% recruitment of all trial participants needed and under spending of the budget.

9.1.3 APRIORI

9.1.3.1 General description

Main applicant: Dr A.J.A.M van der Ven. Radboud University Nijmegen Medical Centre

Partners: Prof Dr J. Shao, Prof. Kibiki, (Kilimanjaro Christian Medical Centre, Tanzania)

European partners: The Netherlands: Leiden University Medical Centre, Maastricht University, RIVM, Wageningen University, KNCV Tuberculosis Foundation, University Medical Center Rotterdam, National TB Reference Hospital Dekkerswald

The United Kingdom: London School of Hygiene and Tropical Medicine

Denmark: Statens Serum Institute.

Countries in which the research is executed: the focus of capacity building/research is Tanzania, in collaboration with partnerships in Mali and Ethiopia.

Running time: 2006-2010

APRIORI aims at establishing a state-of-the art clinical research centre, and by involving African centres of excellence, strengthening south-south collaboration. As such APRIORI will (1) contribute to a new dimension of quality (2) develop a new specialised training program (MSc, PhD, Clinical Trials) (3) establish an innovative and unique cooperation structure (north-south and south-south), (4) address the following scientific objectives (A) rationale vaccine development and down stream selection of candidates based on safety profile, analysis of immune response and efficacy and (B) in-depth pharmacological studies to optimise treatment protocols for TB.

The programme consists of the following 5 projects:

- Capacity building to establish KCRC
- Phase I and II testing of malaria vaccines
- Capacity building and establishment of clinical trial centre for testing new TB-vaccines (phase-I/IIa) and TB-drug interactions in the context of HIV in Africa
- Concurrent treatment in TB and HIV co-infection
- Development of drug regimens to shorten treatment for tuberculosis

9.1.3.2 Outcomes and results

The APRIORI programme was reviewed in January 2009, a report is not yet available.

9.1.4 Art-A

9.1.4.1 General description

Main applicant: Prof. T. Rinke de Wit. Centre for Poverty Related Diseases (CPCD) University of Amsterdam (UvA), The Netherlands

European partners: The Netherlands: PharmAccess Foundation, Amsterdam Dr R. Schuurman (University Medical Center Utrecht (UMCU) Luxemburg: Dr J.C. Schmit (Centre de Recherche Public de la Santé, Luxemburg)

African Partners: South Africa: Prof. W.S. Stevens, Dr C. Ingram (Witwatersrand University, Johannesburg) Zambia: Dr M. Siwale (Lusaka Trust Hospital), Van Hasselt (KARA clinic Lusaka) Ethiopia: Dr D. Wolday (Medical Biotech Laboratories)

Private Partners: PharmAccess: Prof. T. Rinke de Wit (Amsterdam) CLS: Dr C. Ingram, Contract Laboratory Services (CLS) Wits Health Consortium, Pty Ltd (South Africa) VIRCO: W. Verbiest (VIRCO BVBA, Belgium)

Countries in which the research is executed: South Africa, Zambia, Ethiopia, Uganda

Running time: 2007-2010

Specific programme objectives:

- Development of an affordable genotypic HIVDR protocol for testing and interpretation, using a convenient sample collection device, for Africa.
- Technology transfer to Africa and capacity building, including ongoing assistance and comprehensive laboratory and clinical training program.
- Dissemination of information to various audiences.

Long term perspectives:

The affordable and convenient HIV-1 subtype independent HIVDR test and interpretation system can be used in national HIVDR surveillance and monitoring programs in resource-poor settings, relevant for health policy makers, and the will be available to clinicians in the clinical management of individual patients on HAART. For the first time, the availability of real-time, affordable HIVDR testing, embedded in ongoing assistance in the responsible interpretation of test results, will become a realistic option, thus greatly improving HIV care in Africa.

The programme consists of the following 5 projects including 2 PhDs:

- Development of a convenient sample collection device and extraction protocol to facilitate HIVDR testing in resource-limited settings
- Development of affordable genotypic applications
- Implementation and optimization of genotypic interpretation systems
- Technology transfer and Training Work Package
- Dissemination and communication

9.1.4.2 Outcomes and results

ART-A has not yet been reviewed. The programme officially started in October 2007. So far 2 PhDs have been contracted, who started in July 2008.

9.2 Co-funding

9.2.1 Studies of TB in neonates and adolescents in Kenya

9.2.1.1 General description

Prospective epidemiological studies of TB in neonates and adolescents in Karemo Division, Siaya district, Western Kenya, in preparation for future vaccine trials

Main applicant: A.H. van 't Hoog MD. Kenya Medical Research Institute (KEMRI) / Centers for Disease Control and Prevention (CDC), Kenya

Principal Investigator: V. Nduba MPH (Kenya Medical Research Institute (KEMRI), Nairobi, Kenya)

European partners: The Netherlands: Prof. M.W. Borgdorff (KNCV Tuberculosis Foundation and Academic Medical Centre, Amsterdam) Italy: San Raffaele Scientific Institute, Milan

African partners: Kenya: K. Laserson (CDC, Kisumu) South Africa: Prof. G. Hussey (SATVI, University of Cape Town)

Private partners: USA: Dr L.J. Geiter (Aeras Global Tuberculosis Foundation)

Country in which the research is executed: Kenya

Running time: 2007-2010

Demonstration of the capacity to form, track and retain neonatal and adolescent cohorts is a critical prerequisite for future TB vaccine trials. This project combines two prospective, observational cohort studies with no experimental interventions of neonates and 14-18 year old adolescents, respectively. The neonatal study aims to build capacity to:

- Estimate the one year incidence of tuberculosis disease as diagnosed by two sputum smears positive for AFB and/or a positive Mycobacterial culture;
- Determine all-cause and TB-specific mortality, through vital events monitoring and verbal autopsies; out-migration and cohort retention
- Develop a system of reporting home deliveries and provision of BCG vaccination within 96 hours of birth;
- Monitor incidence of BCG-related adverse events;
- Assess community knowledge and attitudes about current practices regarding BCG vaccination.

The adolescent study aims to estimate the:

- Optimal way to access an adolescent population;
- One year incidence of TB disease as diagnosed by two sputum smears positive for AFB and/or a positive Mycobacterial culture;
- Prevalence of TB infection and disease;
- Annual risk of infection with *M. tuberculosis* as evidenced by the tuberculin skin test (TST);
- Assess community knowledge and attitudes about current practices regarding BCG vaccination and TB;
- Rate of hospitalization and mortality events through record review and verbal autopsy; out-migration and cohort retention.

The original plan of the project states that: the studies will be conducted in close collaboration, in Karemo division, part of Siaya district with an estimated population of 84,000 and 3600 births per year, of which 80% take place at home. There are approximately 10,000 adolescents aged 14-18 years. The study area has a total TB case notification rate of 400/100,000, the HIV-prevalence in pregnant women is 20-25%, and antiretroviral treatment is available for adults and children. At least 2900 infants and 5000 adolescents will be enrolled and followed for 1 year. Recruitment will be conducted from homes via village reporters and at secondary schools. Follow-up will occur during 4-monthly home visits for both cohorts (and for neonates also during EPI visits) where morbidity, mortality and migration surveillance will be performed including TB exposure, utilizing our continuous demographic surveillance. A demographic surveillance system (DSS) will be operating in the area as of April 2007 and will be built upon experience of a neighbouring division under continuous DSS since 2001. Infants and adolescents with suspected TB will be referred for further diagnosis including HIV-testing to pediatric and adolescent TB diagnostic centres respectively at Siaya district hospital. In addition, TB treatment and laboratory registers at health facilities, death certificates, and registers from local hospitals will be checked for additional cases.

9.2.1.2 Outcomes and results

No information available

9.3 Joint Call

9.3.1 *pMTCT*

9.3.1.1 General description

Main applicant: Dr E.R Kisanga. Kilimanjaro Christian Medical Centre (KCMC), Moshi, Tanzania

European partners: The Netherlands: Dr D.M. Burger, Dr A.J.A.M. van der Ven (Radboud University Medical Centre Nijmegen) United Kingdom: Prof. D.M. Gibb, Dr A.S. Walker (Medical Research Council, London)

Zambia: C. Kankasa MD (University Teaching Hospital Lusaka, Zambia)

Countries in which the research is executed: Tanzania and Zambia

Running time: 2007-2010

The single dose (SD) of nevirapine (NVP) strategy reduces the risk of MTCT by 50%, is affordable and standard of care in Sub-Saharan Africa (SSA). Studies, however, have shown that this SD-NVP strategy can induce NVP resistance in 25-48% of the females, or even in higher proportions when more sensitive techniques are being used. The mechanism of NVP resistance development is most likely related to the long elimination half-life of NVP. One possible intervention may be the addition of a short-course of an enzyme inducer, since NVP is metabolized by CYP450. The applicants previously have demonstrated in healthy volunteers that the elimination half-life of SD-NVP was significantly reduced (-35%) by SD carbamazepine (SD-CBZ) 400mg. SD-CBZ appears an attractive intervention to be added to SD-NVP for PMTCT as it is inexpensive, simple to take, and can be given to women presenting late in pregnancy. In addition, it can easily be combined with other ARV intervention strategies, e.g. addition of ARVs for 3-7 days after delivery.

The objective of this project is to conduct two randomized controlled clinical trials in HIV-infected females who receive SD-NVP as PMTCT in Moshi, Tanzania. The first study will randomize patients to either SD-NVP + SD-CBZ or SD-NVP alone. The second study will combine SD-CBZ (if proven effective) with 3-7 days of ARVs (such as Combivir).

9.3.1.2 Outcomes and results

No information available

9.4 Commissioned projects

9.4.1 *WHO-EDCTP training workshops*

9.4.1.1 General description

The European and Developing countries Clinical Trial Partnership (EDCTP) in collaboration with the World Health Organisation (WHO) planned to facilitate assessment of the national regulatory environment of various African countries and to support the development of a common regulatory framework where possible at the regional level. EDCTP funding coupled with NACCAP co-funding supported NRA training workshops in 15 target African countries namely: Tanzania, Kenya, Uganda, Rwanda, Mozambique, Malawi, Zambia, Gabon, Ghana, Nigeria, Burkina Faso, The Gambia, Cote d'Ivoire, Mali, and Ethiopia.

9.4.1.2 Outcomes and results

No information available

9.5 Networking and communication activities

9.5.1 Bursaries

Since NACCAP thinks it is of utmost importance for African researchers to attend the Annual EDCTP Forum, NACCAP sponsored bursaries for African researchers affiliated with NACCAP financed research programmes for the following Forums:

- Bursaries for the EDCTP Annual Forum 2009 in Arusha, Tanzania
- Bursaries for the ESF conference 2009 in Brussels
- Bursaries for the EDCTP Annual Forum 2007 in Burkina Faso
- Bursaries for the EDCTP Annual Forum 2006 in Stockholm

Appendix A - NACCAP financial information

PDF supplied by Judith de Kroon, NACCAP

Appendix B - Awards and grants

Open Calls

As a result of the first and second NACCAP open call, 4 partnership programmes were awarded:

- Infectious diseases Network for Treatment and Research in Africa (INTERACT).
- College of Medicine, Malawi-Amsterdam-Liverpool partnership for Research Capacity Development through the establishment of a Research Support Centre in the College of Medicine, University of Malawi. (COMMAL). Main applicant:
- APRIORI - African Poverty Related Infection Oriented Research Initiative
- ART-A Program - Developing an affordable HIV drug resistance test for Africa

Joint call

As a result of the NACCAP co-funding call for proposals of the joint call between the European Member States & EDCTP the following programme was awarded with a grant:

- Improving the balance between efficacy and development of resistance in women receiving single dose nevirapine (Viramune®, NVP) for the prevention of MTCT in Tanzania & Zambia

Co-funding

As a result of the NACCAP co-funding call for EDCTP proposals of call CG ct 05 32080/32090/33070/32030 the following programme was awarded with a grant:

- Prospective epidemiological studies of TB in neonates and adolescents in Karembo Division, Siaya district, Western Kenya, in preparation for future vaccine trials
- TB-treatment (still awaiting EDCTP contracts)
- Networks of Excellence (3 networks co-funded)
- Capacity strengthening HIV vaccine trials (BMGF-call)

Commissioned project(s)

- WHO-EDCTP training workshops for national regulatory authorities in Africa
- Mapping of research systems in Tanzania

Networking and communication activities

Since NACCAP thinks it is of utmost importance for African researchers to attend the Annual EDCTP Forum, NACCAP sponsored bursaries for African researchers affiliated with NACCAP financed research programmes for the following Forums:

- Bursaries for the EDCTP Annual Forum 2009 in Arusha, Tanzania
- Bursaries for the ESF conference 2009 in Brussels
- Bursaries for the EDCTP Annual Forum 2007 in Burkina Faso
- Bursaries for the EDCTP Annual Forum 2006 in Stockholm
- Conference “Connecting the chain” 2006 (on PDP involvement in EDCTP)
- Stakeholders meeting TB treatment (2007)