



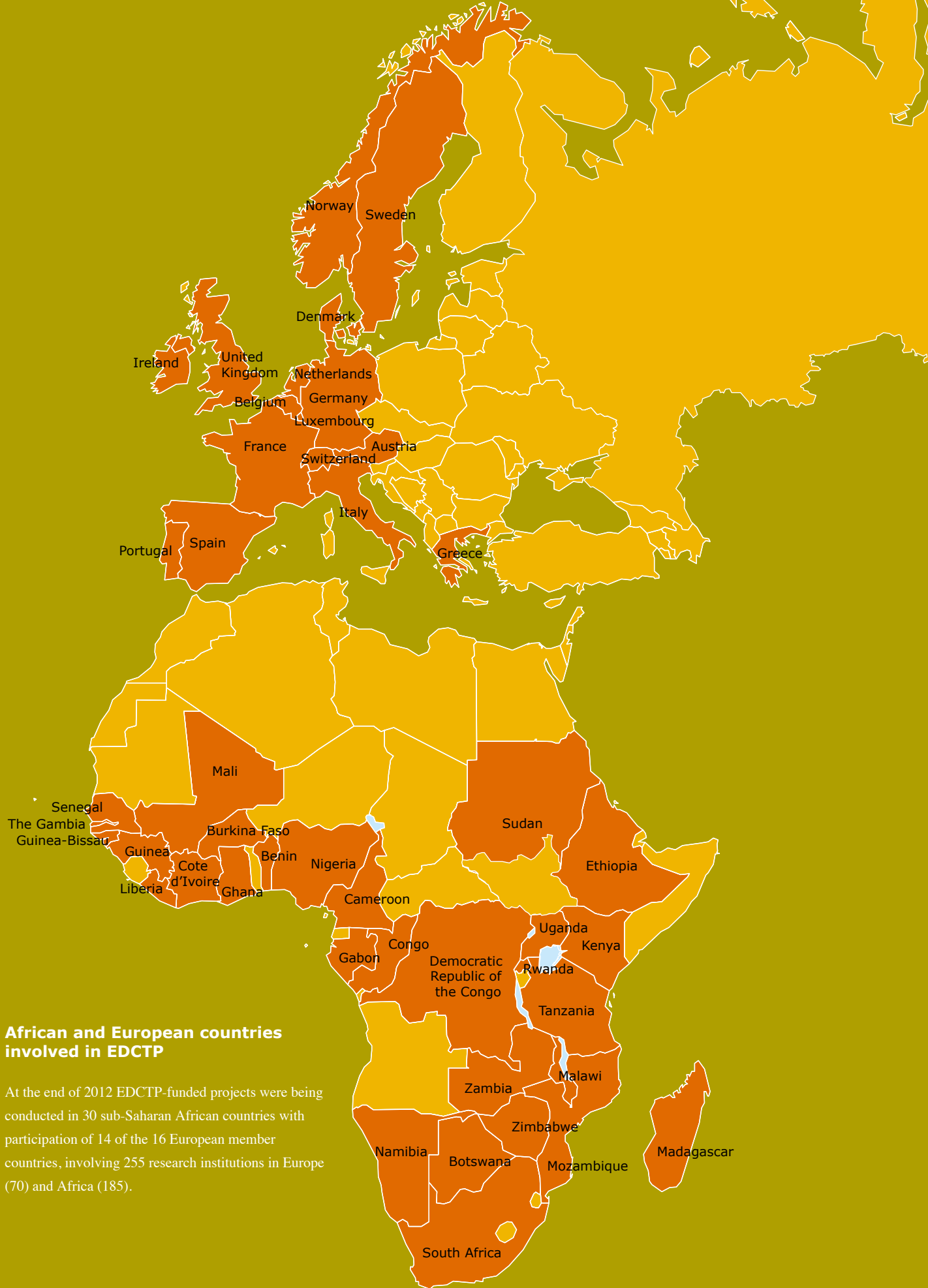
EDCTP

*European & Developing Countries  
Clinical Trials Partnership*

Annual Report 2012

Transition





**African and European countries involved in EDCTP**

At the end of 2012 EDCTP-funded projects were being conducted in 30 sub-Saharan African countries with participation of 14 of the 16 European member countries, involving 255 research institutions in Europe (70) and Africa (185).

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# Message from the Executive Director



By the end of 2012, nine years after its launch, EDCTP had awarded 241 grants of which 106 were still active and 135 completed. Among the awarded grants 88 are clinical trials; 31 on HIV/AIDS, 25 on tuberculosis and 32 on malaria. Although no new calls for proposals were launched in 2012, it was a very busy bridging period between the current and the coming EDCTP programme planned to start in January 2014 under Horizon 2020. Preparations to ensure a smooth transition included the publishing of the EDCTP Strategic Business Plan for 2014-2024 in May and meetings with various stakeholders. The EDCTP Strategic Business Plan for 2014-2024 highlights the expanded scope of EDCTP to include neglected infectious disease and all phases (I-IV) of clinical trials. The business plan is very ambitious with a significantly increased budget, underpinning the European Union's and Participating States' commitment to the programme.

Among the meetings that took place in 2012 to prepare for the second EDCTP programme was an information meeting hosted by the Danish EU Presidency in Copenhagen in May. The goal of this meeting was to introduce the programme to the EU non-EDCTP members and invite them to join. Another important milestone of 2012 was the high-level conference on the second EDCTP programme that took place in November in Cape Town hosted by the Department of Science and Technology of South Africa. Participants of the conference, who included the European Commissioner for Research, Innovation and Science; African Ministers of Health, Science and Technology; members of the European Parliament; the President of the Bill & Melinda Gates Foundation's Global Health Program; heads of pharmaceutical companies, representatives of patient groups and members of the research community, reaffirmed their commitment to partner with EDCTP. Furthermore, to enhance synergy with other health product development partners, EDCTP had a series of meetings with pharmaceutical companies and Product Development Partnerships, and hosted an EDCTP-Industry workshop to discuss how this could be facilitated. Recommendations from this workshop will be taken up in the second phase of EDCTP.

In order to maintain the momentum of the EDCTP programme and in preparation for the next phase, the European Union awarded EDCTP a Coordination and Support Action Grant. Activities that are supported under this grant include landscape analysis and mapping of the new areas that EDCTP plans to venture into such as neglected infectious diseases and implementation research on optimisation of health services. The grant is also used to continue supporting networking and capacity building activities.

In 2012, EDCTP also awarded Strategic Primer Grants following a call for proposals that was launched in December 2011. The aim of this grant scheme is to support innovative projects that could generate results to inform future clinical trials, strengthen capacity and increase networking. This grant scheme generated a lot of interest.

Finally, the Partnership Board (PB) and Development Countries Coordinating Committee (DCCC) were dissolved to prepare for the formation of an interim Strategic Advisory Committee. The PB and DCCC jointly held their last meeting in October 2012. On behalf of EDCTP, I would like to extend our sincere gratitude and appreciation to the members of these two bodies that over the years have served EDCTP tirelessly and unreservedly. It is our sincere hope that EDCTP can continue to count on their support.

Let me conclude by thanking all of you who continue to make this programme the success that it is. Thank you.

Charles S. Mgone  
Executive Director

# 2012 in a nutshell



In 2012, the transition from the first to the second EDCTP programme (EDCTP2) became evident. Following a comprehensive consultative process and a Member State Consensus meeting in 2011, a draft Strategic Business Plan for EDCTP2 was finalised and released after the EDCTP General Assembly on 14 May 2012. In parallel, the European Commission developed a draft legislative proposal for EDCTP2 during 2012. The European Union also granted support for EDCTP-Plus projects in order to lay the foundations for EDCTP2. The views and support of existing European and African EDCTP participating member states, prospective participating countries and a broad range of other stakeholders were brought into focus at the High-Level Conference on EDCTP2 in Cape Town, South Africa on 5 November 2012. The European Commission will submit the final proposal for the ordinary legislative procedure in 2013. EDCTP2 (2014-2024) is expected to start in 2014 under the new EU Framework Programme for Research and Innovation, Horizon 2020.

## Towards EDCTP2

The second EDCTP programme will retain focus on HIV, tuberculosis and malaria; phase II and III clinical trials; and sub-Saharan Africa. It will build on the current objectives and achievements and expand to include all clinical trial phases (i.e. I-IV), including operational research on health services optimisation, Neglected Infectious Diseases (NIDs) endemic in sub-Saharan Africa, closer collaboration with the pharmaceutical industry, like-minded product development partners and development agencies. The programme will also allow collaborative research with other developing countries outside sub-Saharan Africa when possible and desirable.

### EU support for EDCTP-Plus

In March 2012, EDCTP received a Coordination and Support Action (CSA) grant from the European Commission under the EU Seventh Framework Programme (grant agreement no. 304786) to consolidate the achievements of the current programme and prepare for EDCTP2. These preparations are distinct from the current EDCTP research activities and structured in the EDCTP-Plus project. Implementation of these activities started in 2012 and will continue in 2013.

EDCTP-Plus aims to ensure that the EU-Africa research partnership remains strong and to lay the foundation for implementing and managing the EDCTP2 programme in view of the proposed expansion of scope and budget.

A number of related priority areas and activities have been identified for the EDCTP-Plus project:

- The mapping of national programmes and research activities related to major poverty-related and neglected infectious diseases in order to strengthen integration and alignment of African and European research activities
- Following the work to increase engagement with the private sector which was funded by the member states, EDCTP will work closely with a range of

potential partners including Small- and Medium-sized Enterprises, Product Development Partnerships (PDPs) and like-minded organisations. The current EDCTP programme is recognised for its contributions to capacity development and to the coordination and networking of researchers and institutions in Africa and Europe. Related follow-up activities will consolidate and reinforce these achievements through continued support to ethics and regulatory bodies, the Pan-African Clinical Trials Registry and the regional Networks of Excellence

- Communications and advocacy activities will ensure the visibility of EDCTP-funded activities and that all stakeholders are informed during this critical period
- Finally, EDCTP's operational processes and systems are being improved and updated in order to ensure that the operational systems and management are ready for a programme of expanded scope and budget. To ensure that the impact of EDCTP2 can be closely measured, a robust monitoring and evaluation framework will also be developed.

To support this preparatory work in 2012, EDCTP recruited new members of staff, namely: a North-North Networking Manager, a North-North Networking Officer, a Project Officer and an Information Technology Officer. Additional staff will be recruited in 2013.

### Public endorsements of EDCTP2

In 2012, a broad range of advocacy, research and funding organisations as well as PDPs have publicly expressed strong support for a second EDCTP programme, especially for the expansion of the scope to include neglected infectious diseases. Several PDPs urged the European Union and its Member States to invest in research and development for poverty-related and neglected infectious diseases (PRNIDs). These position papers included:

- *Saving lives and creating impact: EU investment in poverty-related neglected diseases*, a report written by Policy Cures, an independent research and advisory



group in the field of neglected diseases, and funded by DSW (Deutsche Stiftung Weltbevölkerung) which assessed the impact of EU funding for PRNIDs R&D and highlighted the return on investment for both developing countries and the EU (September 2012)

- *Call to EU leadership in global health research and development* published by 23 non-governmental organisations working in the field of global health (September 2012)
- *Creating the tools of tomorrow: investing in global health R&D*, an appeal published by the Bill & Melinda Gates Foundation, DSW, the Global Health Technologies Coalition (in which 40 non-profit organisations participate), and Policy Cures (May 2012)
- *Key recommendations for inclusion in Horizon 2020 of research and innovation regarding neglected diseases* focussed on NIDs and was published by a group of global PDPs in order to advocate the PDP-approach and to give specific recommendations for EDCTP2 (May 2012)
- *Research and development for poverty-related and neglected diseases: a priority in the next EU Research Framework Programme "Horizon 2020"* endorsed by more than 30 organisations which advocated prioritisation of research for poverty related diseases (April 2012).

### Expanding European membership in EDCTP2

National representatives from current and prospective member states of EDCTP convened in Copenhagen, Denmark on 15 May 2012. The meeting was hosted by Statens Serum Institut with the support of the Danish Presidency of the European Union. The Danish presidency was represented by the Danish Ministry for Science, Innovation and Higher Education.

The aim of the one-day meeting was to provide information on the strategic opportunities and benefits offered by participation in the EDCTP2 programme and to provide a forum for discussion between current and prospective EDCTP member countries. The goal was to begin the process to expand European membership of EDCTP in preparation for EDCTP2 and thereby leverage investments in European national research programmes of relevance to poverty-related diseases.

EDCTP actively seeks to promote a wider European membership in order to further integrate the European clinical research effort regarding PRNIDs. In November 2012, Finland informally expressed willingness to join EDCTP2.

### Implementation challenges and opportunities of EDCTP2

The European Commission discussed preparations for EDCTP2 with EDCTP-EEIG Member States, Associated Countries and prospective new partner countries during a two-day meeting in Brussels, 27-28 September 2012. The aim of this meeting was to discuss preparations for the legislative proposal by the Directorate General (DG) for Research & Innovation. Participants discussed a wide range of issues pertaining to the practical implementation of EDCTP2. These included strategic and operational issues related to the partnerships within EDCTP ranging from a global portfolio approach to joint programming, including the cofunding at project and programme level; partnership with other funders; EDCTP's role in multi-funded large-scale clinical trials; scientific scope of EDCTP2; further integration of the sub-Saharan African countries in EDCTP decision making processes; and rules for participation in Horizon 2020.



The meeting was an important milestone in the preparation of the proposal for EDCTP2 and was attended by representatives from Belgium, Denmark, France, Italy, Portugal, Spain, Sweden, Switzerland and United Kingdom; and observers from Finland and Latvia, the Bill & Melinda Gates Foundation, the European Investment Bank, and the European Commission Directorate General for Development & Cooperation – Europe Aid.

### **High-Level Conference on EDCTP2 in South Africa**

A high-level conference to consult African and international stakeholders on the second programme of the European & Developing Countries Clinical Trials Partnership was held in Cape Town, South Africa on 5 November 2012. The conference was jointly organised by the Department of Science & Technology of South Africa, the European Commission and EDCTP.

The objective of the conference was to provide a forum to discuss with African and European stakeholders needs and expectations; and for African and European governments to endorse EDCTP2 and express commitment to the programme. Invited participants included African and European ministers and senior representatives from governments, PDPs, patient organisations and the research community. The 244 participants at the meeting heard presentations from 15 senior speakers and also two panel discussions, each of which was followed by contributions from the floor. The conference was opened by the Minister of Science and Technology of South Africa, Hon. Derek Hanekom.

Four strategic issues for EDCTP2 were addressed. These included lessons learnt from the current programme; the scope of EDCTP2; the role and commitment of the participating European and African countries; and participation of the private sector (in particular, pharmaceutical companies, PDPs, private foundations and philanthropic organisations) in EDCTP2. The speakers were unanimous in praising the achievements of EDCTP

so far, and in welcoming the broadening of the remit of the second programme while maintaining focus on the core objectives. Máire Geoghegan-Quinn, European Commissioner responsible for Research, Innovation and Science, described EDCTP as *“a beacon of hope”* and *“a brilliant success story for EU-Africa research cooperation”*. She said the fight against poverty-related diseases was a global challenge in which Europe could and must make a major contribution. Appreciation and continued support for the work of EDCTP was also expressed by representatives from African and European countries, research institutions, the Bill & Melinda Gates Foundation, and the private sector represented by European Federation of Pharmaceutical Industries and Associations (EFPIA), and GlaxoSmithKline.

Many speakers highlighted the importance of equality within the partnership. For example, Maria da Graça Carvalho MEP, described EDCTP as, *“a genuine partnership with Africa, in which African partners have retained a high degree of ownership and leadership”*. The need for African governments to participate more actively was stressed by several speakers. Also much referred to was the need to increase the involvement of other partners – including industry, philanthropic organisations and foundations, and communities



Ms Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science at the opening session of the High-Level Conference.

themselves. It was regarded as essential that research supported by EDCTP should be translated into effective new products that reach those most in need.

Many participants took the opportunity to join the organised visits to witness the research work funded by EDCTP at clinical trial centres and institutions in the Cape Town area, including the South African Tuberculosis Vaccine Initiative (SATVI) laboratories, the Khayelitsha TB vaccine site, and the research and teaching institutions at Groote Schuur and Tygerberg Hospitals.

## EDCTP calls and grants overview

Four calls for proposals were launched in 2011, resulting in grant agreements for the successful projects in 2012.

### Member State Initiated (MSI) projects

The MSI grant scheme provides funding for networking and cooperation between two or more projects or programmes within the scope of EDCTP that have been independently initiated and are funded separately by EDCTP member countries. In response to the 2011 third call and after the review process, two out of the four applications received were recommended for funding. Grant agreements for these projects were signed in 2012.

### Senior Fellowships

A Senior Fellowships Call for proposals was launched in August 2011, resulting in 32 applications. The scheme supports mid-career to senior researchers capable of building and leading research groups at sub-Saharan African institutions. Six Senior Fellows were selected for funding after the review process and five of these grant agreements were signed in 2012.

### Strategic Primer Grants

The Strategic Primer Grants call for proposals was published in December 2011. The purpose of the call is to provide funding for research groups in sub-Saharan Africa and Europe to conduct innovative studies that will generate results to inform future clinical trials. The grants will also sustain and strengthen the capacity built under EDCTP1 as well as further the networking of the research programmes of the African and European participating countries.

This scheme followed a two-step applications procedure and a two-step peer-review process. By 14 February 2012, 89 letters of intent had been received. Seventy-four of the letters of intent were deemed eligible and peer-reviewed. Of the 74 peer-reviewed letters of intent, 32 were highly ranked and their authors were invited to submit full applications.

The 32 full applications went through another round of peer-review followed by a face-to-face meeting of the Scientific Review Committee (SRC) which recommended 14 full applications for funding. The SRC's recommendations were supported by the EDCTP Partnership Board and these applications were approved by the EDCTP General Assembly for funding.

### Capacity building for Ethics Review

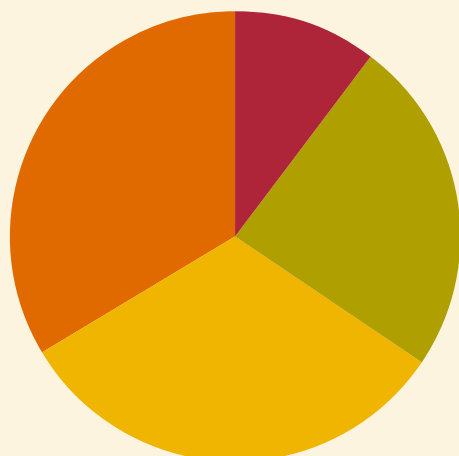
Calls for proposals to support the establishment and strengthening of National Ethics Committees (NEC) and Institutional Review Boards (IRB) in sub-Saharan Africa were launched in February and August 2011. The August call sought applications from IRBs and countries that had not received EDCTP funding previously.

A total of 55 applications were received. The eligible applications were peer reviewed by members of the Scientific Review Committee (SRC). The SRC's recommendations were supported by the Partnership Board and the EDCTP General Assembly approved funding for the 20 projects recommended by the Partnership Board. The grant agreements for all 20 projects were signed in 2012.

### Overview of grant agreements signed in 2012

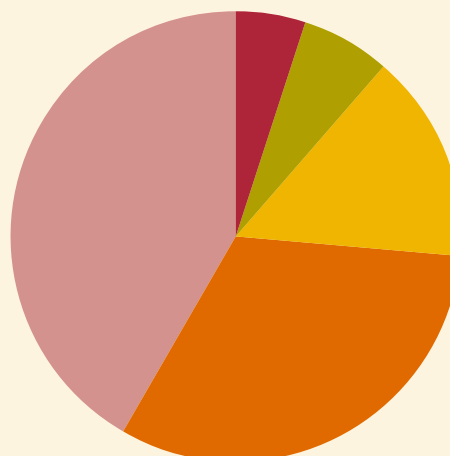
Call	No. of contracts signed in 2012	Total grant value (€)
Senior Fellowships (second call)	12	2,360,982
Ethics/Institutional Review Boards (second call)	20	969,255
Member States Initiated (MSI) projects	2	979,188
Strategic Primer Grants	11	8,152,375
<b>Total</b>	<b>45</b>	<b>12,461,800</b>

### Overview of funding by disease (2003-2012) (€ '000)



■ Non-disease specific	€ 21,470
■ Malaria	€ 49,388
■ Tuberculosis	€ 65,216
■ HIV/AIDS	€ 68,365
<b>Total</b>	<b>€ 204,439</b>

### Overview of funding by intervention (2003-2012) (€ '000)



■ Microbicides	€ 10,350
■ Diagnostics	€ 13,300
■ Not clinical trial specific	€ 30,560
■ Vaccines	€ 65,533
■ Drugs	€ 84,696
<b>Total</b>	<b>€ 204,439</b>

## Governance

### Developing Countries Coordinating Committee

The 28th meeting of the Developing Countries Coordinating Committee (DCCC), EDCTP's former independent advisory body of prominent African scientists and health professionals, took place at the EDCTP Africa Office in Cape Town (South Africa) from 15-16 March 2012. Two new members attended the meeting. Prof. Gita Ramjee of the Medical Research Council HIV Unit in Durban (South Africa) replaced Prof. Nkandu Luo (now honourable Minister of Chiefs and Traditional Affairs of the Republic of Zambia) as HIV focal person for Southern Africa. Dr Abraham Aseffa, Scientific Director of the Armauer Hansen Research Institute in Addis Ababa (Ethiopia), replaced Prof. Mecky Matee as TB focal person for Eastern Africa.

### Partnership Board

The Partnership Board (PB), the former EDCTP independent scientific advisory board met in The Hague on 11-12 April 2012. The board discussed ongoing activities of the Secretariat and preparations for EDCTP2. Two new members were welcomed. Professor Marie-Louise Newell, Professor of Paediatric Epidemiology at the University College London, is an expert in the field of HIV. Dr Dawit Wolday, Executive Director of the Medical Biotech Laboratories (MBL) in Addis Ababa and Associate Professor of the Medicine at College of Health Sciences- Mekelle University in Ethiopia, brings considerable expertise in the area of cross-cutting issues and HIV.

### Joint and last meeting of PB and DCCC

On 29 and 30 October 2012, the PB and the DCCC convened in The Hague for their last and joint meeting. The EDCTP Executive Director, Prof. Charles Mgone, provided an overview of the proposed governance structure for EDCTP2. This included the establishment of a streamlined scientific and strategic advisory body, the Strategic Advisory Committee (SAC) to replace the DCCC and the PB. In view of imperative preparations for the second programme, an interim advisory body, an interim SAC was constituted as a precursor to the SAC. This interim committee comprises a selected representation from both the former DCCC and PB membership, with

plans to recruit additional members with expertise to match the EDCTP2 expanded remit. The interim SAC is chaired by Professor Shabbar Jaffar.

### General Assembly

The EDCTP General Assembly (GA), convened at the Statens Serum Institute in Copenhagen, Denmark on 14 May 2012. Among other things, the GA discussed ongoing business and approved the Annual Statutory Accounts and Annual Report for 2011. The 10 proposals on Ethics capacity building and six Senior Fellowships which were recommended for funding by the SRCs and the Partnership Board were also approved. The meeting focussed on preparations for EDCTP2 and the draft Strategic Business Plan for EDCTP2 was released for publication.

For its regular second meeting of the year, the GA convened in Cape Town, South Africa on 2 November 2012, prior to the High-Level Conference on EDCTP2. Extensive discussion was dedicated to EDCTP2 on topics including the legislative process, the governance structure and the mechanisms for cofunding the partnership.

### Executive Secretariat

The EDCTP Executive Secretariat expanded its staff in 2012 as part of the ongoing preparations for the second programme. For the important task of furthering research collaboration among the participating European countries, EDCTP appointed a North-North Networking Manager (Dr Gabrielle Breugelmanns, August 2012) and a North-North Networking Officer (Ana Lúcia Cardoso, May 2012). The further development of the financial and project management systems required an Information Technology Officer (Lucien de Corte, September 2012) while the EDCTP Africa Office needed an additional Project Officer (Dr Michelle Singh, April 2012). Wendy Morrill joined EDCTP as Administrative Officer in April 2012. Temporary financial staff joined EDCTP in October (Rafael Taguas Sánchez as Finance Assistant) and November (Ralph Buchrnhornen as Grants Finance Assistant).

## Publications in 2012

EDCTP published the following reports, documents, and videos in 2012:

- **EDCTP Project Portfolio: a compendium of clinical trial, capacity building and networking projects**  
(Comprehensive compendium of technical information on all EDCTP-funded projects)
- **Proceedings of the Sixth EDCTP Forum**  
(Addis Ababa, Ethiopia, 9-12 October 2011)
- **Sixth EDCTP Forum**  
(Video report on the Sixth Forum)
- **EDCTP – Fighting Tuberculosis**  
(Video published on the occasion of World Tuberculosis Day, 24 March 2012 about some of the EDCTP funded tuberculosis research)
- **Fighting Malaria**  
(Video published on the occasion of World Malaria Day, 25 April 2012 about EDCTP malaria projects)
- **Strategic Business Plan for the Second Phase of the European and Developing Countries Clinical Trials Partnership Programme (EDCTP2, 2014-2024)**
- **EDCTP Annual Report 2011**
- **Fighting HIV/AIDS** (Video on EDCTP funded research on HIV/AIDS)
- **Developing the Dialogue: report of the EDCTP Pharmaceutical Industry Workshop** (Meeting on 26 June 2012)
- **Charting Research: EDCTP Member State Programmes and Activities in the Scope of EDCTP2**  
(Summary overview of research in poverty-related and neglected infectious diseases in the current EDCTP member states)
- **Joining Forces: EDCTP current and prospective partner countries meeting report** (Copenhagen, Denmark, 15 May 2012)
- **EDCTP Capacity Building**  
(Video on EDCTP capacity building activities, including training, clinical trial registration and strengthening of ethics research committees and regulatory boards in Africa)
- **Towards the second EDCTP programme (2014-2024)**  
(Video published on the occasion of the High-Level Conference on EDCTP2, Cape Town, 5 November 2012).

The videos are available on the EDCTP YouTube channel: [www.youtube.com/edctpmedia](http://www.youtube.com/edctpmedia).

The *Journal of Tropical Medicine & International Health* published selected peer reviewed abstracts as a supplement to its June 2012 issue under the title 'Strengthening Research Partnerships for Better Health and Sustainable Development. Abstracts of the Sixth EDCTP Forum 9-12 October 2011, Addis Ababa, Ethiopia' (*JTMIH*, June 2012, Volume 17, Issue Supplement S1, pages 1-82).



# HTV/AIDS



Since 2005, Africa has reduced AIDS-related deaths by one third. Despite this important progress, sub-Saharan Africa still remains the region most affected by HIV. According to the *UNAIDS World AIDS Day Report 2012*, the region accounted for 72% of all new HIV infections worldwide in 2011, despite the 25% reduction in sub-Saharan Africa.

This section highlights projects from the EDCTP portfolio: two paediatric and second-line treatment trials; studies on prevention of HIV transmission from mother to child (PMTCT); and projects to strengthen clinical and laboratory research capacity for future HIV vaccine and microbicides trials. As of 31 December 2012, HIV research received €68.36 million or 33.4% of EDCTP grant funds for a total of 55 grants in this field.

## HIV/AIDS treatment

### CHAPAS-3: paediatric treatment

A major barrier to scaling up the treatment of HIV-infected children is a lack of appropriate paediatric antiretroviral (ARV) drug formulations and simple dosing regimens. There is a clear need for increased availability of fixed dose combination (FDC) tablets appropriate for young children. Therefore, the main purpose of the CHAPAS-3 project is a paediatric treatment study comparing different antiretroviral regimens in order to identify optimal first-line regimens for HIV-infected children.

CHAPAS-3 is coordinated by Dr Veronica Mulenga of the University Teaching Hospital, Lusaka, Zambia. Treatment regimens are compared in terms of safety, pharmacokinetics, adherence/acceptability, cost, cost-effectiveness, and viral load suppression. The study evaluated four new simplified paediatric ARV FDC tablets administered according to WHO dosing tables in addition to two FDCs already available.

Moreover, several sub-studies are being conducted alongside the main trial and the capacity for implementing clinical trials was strengthened with training in pharmacokinetic studies, statistical and cost effectiveness analyses. A number of young research scientists were equipped with multi-disciplinary skills to lead future paediatric HIV research and clinical trials. CHAPAS-3 built on the infrastructure and experience from the EDCTP-funded CHAPAS-1 trial.

In December 2011, recruitment for this phase II/III trial was completed. A total of 480 children were enrolled of which 450 children, aged 1 month to 13 years, are still actively being followed up for a period of two years. Additionally, 249 uninfected children were enrolled as controls. Follow-up continues until the end of 2013 and first preliminary results were presented in 2012 at international meetings.

### EARNEST: second line treatment

In 2012, the Europe-Africa Research Network for Evaluation of Second Line Therapy (EARNEST) continued follow-up of the 1277 HIV-infected patients who failed on first-line therapy. The project is coordinated by Prof. Peter Mugenyi of the Joint Clinical Research Centre, Kampala in Uganda. The study aims to evaluate options for second-line therapy in HIV/AIDS patients failing on first-line therapy. The project is expected to finish in March 2014.

Following the massive rollout of anti-retroviral treatment (ART) in Africa, an increasing number of patients are expected to fail on first-line therapy and require second-line therapy. There is an urgent need to develop the evidence base for second-line therapy in Africa and other low-income countries where there is extensive resistance to first-line treatment drugs at the time of failure. The EARNEST trial is a three-arm, open-label randomised trial of HIV-infected adults that compares second-line regimens containing boosted protease inhibitor (bPI) in patients failing on first-line therapy. For the main analysis, the proportion of patients who have a good clinical and immunological outcome at week 144 will be compared between group A (standard of care) and group B (boosted protease inhibitors (PI) and integrase) and between group A and group C (boosted PI monotherapy). The study will provide evidence that may directly influence national treatment guidelines and global public health approach to ART rollout.

The secondary objective of the project is to build a well-functioning group of research centres for addressing second-line therapy and also building new cadres of young researchers to lead future clinical trials. The network comprises of 14 clinical trial centres from Kenya, Malawi, Uganda, Zambia and Zimbabwe. The collaborating institutions in Europe are MRC Clinical Trials Unit, United Kingdom, which acts as the trial Sponsor; University College Dublin, Ireland; and Istituto Superiore di Sanità and CINECA consortium in Italy.

## Prevention of mother-to-child transmission of HIV infection

Two studies funded under the 2006 call 'Support of studies for the prevention of mother-to-child transmission (PMTCT) of HIV' were completed in 2012: the ComTru study and the Vita-2 project. In a third study, PROMISE-PEP, recruitment and follow-up were completed and data analysis was started.

Currently single-dose Nevirapine (NVP) for the mother at the onset of labour and for the infant within 72 hours of birth is the most widespread intervention for prevention of mother-to-child transmission of HIV in many parts of the developing world. However, a considerable risk of up to 80% of resistance development towards ARVs in the same class as NVP (non-nucleoside reverse transcriptase inhibitors, NNRTIs) has been demonstrated. The NNRTI resistance development is induced by the long half-life of NVP, leading to the presence of a low-concentration NVP 'tail'. Various strategies have been proposed to cover this tail.

### ComTru

The ComTru study led by Dr Teresa Katzenstein, University Hospital Copenhagen, Denmark, aimed to compare the mother-to-child transmission rates of HIV as well as NNRTI resistance rates after the administration of two nevirapine-based antiretroviral combination therapies for PMTCT of HIV infection. The regimens compared were single-dose nevirapine with Combivir (zidovudine and lamivudine) for seven days and single-dose nevirapine with single-dose Truvada (emtricitabine and tenofovir). Randomised equally over the two arms, 288 mother-infant pairs were evaluated. Additionally, all women received antepartum zidovudine from week 28 onwards.

Furthermore, the study assessed the p24 antigen assay for diagnosis of MTCT and for monitoring ART response, by comparison with HIV RNA measured by PCR. This method is the gold standard for monitoring disease activity in patients receiving ART, but it is

expensive and complicated to implement in resource-poor settings. The p24 antigen assay is an ELISA based assay, and as such less demanding both financially and technically than HIV RNA PCR.

The study was conducted in close collaboration between the Danish and Tanzanian partners. A network of laboratory technicians and scientists working with the p24 antigen analysis in Denmark and Tanzania was established. The project also contributed to capacity building, with one PhD student, one MSc student and a range of short-term staff training courses. Nurses from all the partner antenatal clinics and maternity wards have received training in HIV, PMTCT including good feeding practices and family planning. Tanzanian laboratory technicians, who have been trained to carry out the p24 antigen analysis by colleagues from Denmark and Tanzania, have trained others in this assay.

### PROMISE-PEP

The PROMISE-PEP clinical trial, coordinated by Professor Philippe Van de Perre, University of Montpellier 1, France, compares two prophylactic treatment regimens to prevent transmission of HIV from mother to child during 12 months of breastfeeding. In 2012, recruitment was completed and analysis of preliminary results started at the end of 2012.

The preliminary findings of this antiretroviral treatment trial in infants are encouraging. The transmission rate of the disease from mother to child was reported as 1.1% at 12 months. Moreover, the survival rate was 96% among infants who remained uninfected for a period of 50 weeks, which is the highest rate ever reported, corroborating the health benefits of prophylactic ART during breastfeeding. However, complete data analyses for the comparative efficacy and tolerance of the two regimens will only be available in fourth quarter of 2013.



## Preparatory studies for clinical trials of microbicides

HIV still continues to spread rapidly especially among women in developing countries. In the fight against HIV/AIDS, the availability of non-contraceptive microbicides in the form of a gel, cream, vaginal ring or suppository is hoped to greatly empower women to protect themselves and their partners as women could control its use. The positive results of the CAPRISA 004 phase IIb microbicide trial first conducted in South Africa suggested the feasibility of such an approach.

As the capacity in sub-Saharan Africa to test the many new candidate microbicides coming through the development pipeline was insufficient, EDCTP funded three studies aimed at the development of clinical, laboratory and field facilities and the training of staff to conduct clinical trials of vaginal microbicides. All projects have been successfully completed. While consecutive microbicide trials have yielded disappointing results, the achievements of these projects in terms of establishing cohorts and research capacity will continue to contribute to HIV research in sub-Saharan Africa.

### Preparing for phase III trials in Rwanda and Kenya

Phase III trials of microbicides have to be conducted in female populations with a high incidence of heterosexually-acquired HIV. HIV incidence data is crucial in the planning, design and interpretation of microbicide trials and the target populations of such trials are generally HIV-negative high-risk populations. Dr Janneke van de Wijgert from the Centre for Poverty-related Communicable Diseases (CPCD) of the Academic Medical Center (AMC), University of Amsterdam in The Netherlands, led a project to prepare research sites in Kigali, Rwanda and in Mombasa, Kenya.

During the site preparation, HIV prevalence was estimated through cross sectional surveys and HIV incidence through prospective cohort studies. The cohort studies evaluated further the sites' recruitment

and retention strategies, and assessed other relevant outcomes for microbicides studies, including reproductive tract infections and pregnancy rates. The project improved the clinical laboratory and data management infrastructure and provided training to a wide research community.

The capacity building through this project also established the reproductive health clinic at the Kigali Teaching Hospital, increasing treatment options for cervical cancer and infertility. Moreover, the study results have been instrumental for the Rwandan Ministry of Health to develop a new HIV prevention policy focusing on female sex workers. The results from the human papilloma virus (HPV) study will be useful in the evaluation of the newly implemented national cervical cancer screening and HPV vaccination programme.

The successful Rwanda-Kenya-Belgium-Netherlands collaboration was continued under the EDCTP funded biomarkers project led by Dr Kishor Mandalia entitled 'Characterisation of novel microbicide safety biomarkers in East and South Africa'.

### Site preparation in Tanzania and Uganda

Professor Richard Hayes of the London School of Hygiene and Tropical Medicine (United Kingdom) coordinated a project to expand the capacity for phase I, II and III clinical trials of candidate vaginal microbicides in Tanzania and Uganda. The project demonstrated that the study populations of women at high risk of contracting HIV in both Tanzania and Uganda are suitable for the implementation of future trials of microbicides or other HIV prevention tools, with high HIV incidence and high retention rates.

As a result of the studies, the MRC (United Kingdom) funded a project titled 'Intravaginal practices in Tanzania and Uganda: Relationships with the vaginal microenvironment, HIV and other STIs' which was carried out in close collaboration with the EDCTP project. This research was to better understand potential risk factors for HIV infection among women in sub-Saharan Africa.

In Mwanza, Tanzania research infrastructure that was required to test new interventions including microbicide trials was successfully established. Research team members were trained and a system to recruit and follow up women and retain them in active follow-up for a period of up to one year was developed. A strong community liaison system was established to ensure effective communication between researchers, participants, and other local stakeholders. Collaboration between researchers and local health officials was key to the success of research activities at the centre.

In Uganda, the first female high-risk cohort was set up which provided important information for policy makers and scientists. The new clinical trial site is ready to conduct studies while the established high-risk cohort will enable new multi-discipline HIV research.

### **Preparing for microbicide trials in Mozambique**

Dr Sheena McCormack of the Medical Research Council UK (MRC UK) coordinated a project to establish HIV microbicide clinical trial capacity in Mozambique and expand an existing centre in South Africa. The objectives of this study were to conduct a microbicide feasibility and pilot study in Mozambique under the umbrella of the Microbicides Development Programme (MDP); and to build capacity at the Reproductive Health and HIV Research Unit (RHRU) in Johannesburg, South Africa. Clinical infrastructure was improved in order to complete this centre's targets for the phase III MDP301 microbicide trial exploring

the PRO 2000 vaginal gel. Regretfully, this MDP301 effectiveness trial, which enrolled almost 9,400 women in four African countries, found no evidence that the PRO 2000 microbicide, although safe, reduced the risk of vaginal transmission of HIV-1 infection.

RHRU staff provided support to the Mozambique team to implement and co-monitor similar studies. Through this project, capacity for clinical trials was built in two Mozambican research centres (Manhiça Health Research Centre and Mavalane Hospital, Maputo). In these centres staff also gained experience of health care delivery, including ART, and was well positioned to support implementation of new interventions. Moreover, laboratory capacity was improved for HIV, HSV-2 and syphilis testing. A feasibility study that aimed to evaluate the population and study sites in the healthcare centres of Mavalane and Manhiça in preparation for a possible phase III vaginal microbicide trial, provided the first incidence data in Mozambique and raised awareness of the threat of HIV among policy makers.

The project was realised in collaboration with: International Partnership for Microbicides (IPM); Community Development Foundation and Instituto Nacional de Saúde (Mozambique); Department for International Development, Medical Research Council and Imperial College London (United Kingdom), University of Barcelona (Spain); University of Witwatersrand (South Africa); and Endo Pharmaceuticals Solutions.



## Preparatory studies for HIV vaccine clinical trials

The joint call for proposals launched by EDCTP and the Bill & Melinda Gates Foundation on World AIDS Day 2006 resulted in six projects. The studies aimed to develop capacity to conduct future HIV vaccine clinical trials in Africa based on international regulatory standards. Three projects, led by Professor Linda-Gail Bekker (Desmond Tutu HIV Centre, South Africa), Dr Saidi Kapiga (London School of Hygiene and Tropical Medicine, United Kingdom), and Professor Pontiano Kaleebu (Uganda Virus Research Institute/Medical Research Council, Uganda) were completed by 2012.

### South Africa

The SASHA project coordinated by Prof. Linda-Gail Bekker of Desmond Tutu HIV Centre, University of Cape Town, South Africa, investigated the feasibility of conducting HIV vaccine prevention trials in South Africa with adolescents, a group that is particularly at risk for HIV infection. By using the human papillomavirus (HPV) vaccine as a proxy, the project team showed that it is feasible to enrol and retain 12-17 years olds in a clinical trial. The project also developed an ethical-legal guide for conducting clinical trials with adolescents. All six sites in this study now have the necessary infrastructure for future adolescent vaccine trials.

### Burkina Faso and Tanzania

Dr Saidi Kapiga (London School of Hygiene and Tropical Medicine, United Kingdom/National Institute for Medical Research Mwanza, Tanzania), conducted a capacity development project in preparation for HIV vaccine trials in Burkina Faso and Tanzania. The main objectives were to develop and maintain a study cohort among a high-risk population for HIV vaccine trials; characterise HIV-1 viral isolates and assess factors associated with viral genotypes among identified target populations; and determine immunological and genetic factors that could confer resistance to HIV infection and/or slow down the progression of the disease. The study

showed that the cohort in Moshi, Tanzania, is suitable for future HIV vaccine trials. According to preliminary results, there are multiple HIV subtypes present in Moshi and Mwanza with a substantial proportion of recombinant viruses. This suggests that Tanzania offers opportunities to test new vaccines against a range of virus subtypes. The project also strengthened capacity in the Mwanza Intervention Trials Unit (MITU) and developed a Good Clinical Practice-compliant data management system in the Burkina Faso and Tanzania sites.

### Malawi and Uganda

Professor Pontiano Kaleebu of Medical Research Council Programme on AIDS-Uganda Virus Research Institute, Entebbe, Uganda, led a study on fishing communities, which are identified as high-risk groups for HIV infection in Malawi and Uganda. Fishermen are a mobile community who often spend extended periods of time away from their homes. They have limited to no access to health services, and have been largely excluded from AIDS programmes and research. As a result, these communities suffer from high rates of HIV infection. The study had two major goals. The first was to map the prevalence of HIV and the ways in which it spreads throughout these mobile communities. This information provides guidelines on how to best prevent the spread of HIV. Second, the study evaluated HIV strains circulating amongst these populations and found that the Ugandan sites had a high percentage (21%) of recombinant viruses, suggesting a high degree of sexual mixing in this population.

### Tanzania and Mozambique

The TaMoVac-I study, coordinated by Professor Muhammad Bakari from the Muhimbili University of Health and Allied Sciences (MUHAS, Tanzania), comprising three clinical trials: trials. The first trial looked at the safety and immunogenicity of the HIVIS DNA-MVA prime-boost regime in healthy Tanzanian adult volunteers. The second trial added a recombinant protein rpg140 used as an additional boost and the third trial looked at safety and immunogenicity of this vaccine regime in

Mozambican youth. These trials were completed in 2012. However, follow-up and immunological analyses are ongoing.

The TaMoVac-II study is led by Professor Elegius Lyamuya (Muhimbili University College of Health Sciences, Tanzania) and is still ongoing. The study pursues the objectives of the TaMoVac-I studies: capacity building for HIV vaccine trials in Tanzania and Mozambique by continued exploration of DNA and MVA boosting strategies. Collaborating partners are: National Institute for Medical Research (NIMR) Muhimbili station in Tanzania, Central Hospital in Maputo, Mozambique; University of Munich in Germany; Karolinska Institute, Vecura, Venhälsan and Swedish Institute for Communicable Disease Control (SMI) in Sweden; and Imperial College and MRC-Clinical Trials Unit, United Kingdom. The project comprises several sub-studies and PhD-studies and is expected to finish in 2014.

### **Kenya and The Gambia**

The PedVacc study, led by Professor Tomás Hanke from the University of Oxford, United Kingdom, conducted two clinical trials to evaluate the safety and immunogenicity of the HIV-1 candidate vaccine, MVA.HIVA, in healthy infants born to HIV-1-negative (The Gambia) and HIV-1-positive mothers (Kenya). The project also aimed to build capacity at these two trial centres. The project was completed. Collaborating partners were: MRC Laboratories, The Gambia; Kenya AIDS Vaccine Initiative and University of Nairobi, Kenya; Karolinska Institute, Sweden; Medical Research Council UK and University of Oxford, United Kingdom; University of Washington (United States of America).

### **HIV vaccine trial capacity in Guinea-Bissau**

Under the 2009 call for Member State Initiated proposals, support was given for *a joint initiative to sustain HIV vaccine trials and research capacity in the Republic of Guinea-Bissau*, funded by the Statens Serum Institut (SSI), Denmark and the Danish International Development Agency (DANIDA),

Ministry of Foreign Affairs, Denmark. EDCTP support made it possible to formally add a capacity building component to an ongoing HIV-vaccine study. The project was led by Professor Anders Fomsgaard of SSI and was completed successfully in July 2012.

The grant supported a phase I trial in Guinea-Bissau to evaluate the safety and tolerability of an HIV vaccine (AFO18) and to investigate the immunological and ARV responses in vaccinated individuals. The vaccine was shown to be safe and well tolerated, but there were no significant changes in HIV-1 viral load or CD4+ T-cell counts. The project has resulted in six manuscripts, four of which have been published in peer-reviewed journals, one is pending publication to date and the last one was presented in abstract form at the 2012 Keystone Conference in Canada.

The project built capacity through short-term English language training, research ethics and international Good Clinical Practice standards at all sites as well as detailed training in scientific manuscript writing to researchers in Guinea-Bissau. The project upgraded the laboratories of the Instituto Nacional de Saúde Pública in Guinea-Bissau through the assistance of the Biomedical Engineering Unit, MRC-Gambia and the West Africa Platform for HIV Intervention Research (WAPHIR). Moreover, a new molecular biology laboratory was set up at the Laboratório Nacional de Saúde Pública (LNSP) in Guinea-Bissau to enable measurement of HIV viral load locally.

This project has been highly active in public engagement efforts, producing a 30 minute documentary film in collaboration with medical students at the Faculty of Health, University of Amílcar Cabral, Guinea-Bissau. The film '*HIV SIDA: O Inimigo perigoso do ser Humano/ HIV AIDS: Menneskets farlige fjende*' was co-financed by the Danish International Development Agency and ENRECA Health, a Danish research network for international health.



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# Tuberculosis



According to the *WHO Global Tuberculosis Report 2012*, in 2011 there were an estimated 8.7 million new cases of tuberculosis (TB) (13% co-infected with HIV) and 1.4 million people died from TB, including almost one million deaths among HIV-negative individuals and 430,000 death among HIV-positive individuals. Global progress conceals regional variations. Africa and Europe are not on track to halve the 1990 TB mortality rate by 2015.

TB is the most common opportunistic infection and cause of death in HIV-infected individuals. In sub-Saharan Africa over 50% of TB patients are co-infected with HIV. TB/HIV co-infection and MDR/XDR-TB are difficult to control by means of the currently available drugs, diagnostics and programmes. Therefore, there is an urgent need for more effective TB treatment, vaccines and diagnostics. As of 31 December 2012, TB research received €65.22 million or 31.9% of EDCTP grant funds for a total of 37 grants in this field.

## TB Treatment

### REMox TB trial completes enrolment

The global REMox TB clinical trial made significant progress as enrolment of volunteers was completed in January 2012. The study aims to establish the efficacy of moxifloxacin against TB in order to reduce treatment time from six to four months. It is mainly being conducted in Africa (approximately 70% of patients). Further data on cure rate is collected during a follow-up period for patients of 18 months. If the results are positive, the TB Alliance and the pharmaceutical company Bayer will seek registration of moxifloxacin as part of a multi-drug regimen for drug-sensitive TB.

REMox TB is a three-arm, double-blind phase III study coordinated by Professor Stephen H. Gillespie of St. Andrews University, Scotland. The trial substitutes moxifloxacin for two different drugs in the current first-line standard TB therapy, ethambutol and isoniazid. It is administered for a total of four months. The trial will determine whether either of these two new, four-month regimens are not inferior to standard six-month therapy in terms of failure and relapse. The study is registered with ClinicalTrials.gov and with the Pan African Clinical Trials Registry (PACTR20111000124315). The African component of the REMox TB study is also part of the Pan African Consortium for Evaluation of Anti-tuberculosis Antibiotics (PanACEA), a network of six European research organisations, twelve sub-Saharan clinical trial centres, and three pharmaceutical companies.

As part of the study, the capacity of African clinical trial centres to perform studies to international regulatory standards was significantly strengthened at sites in Tanzania, Kenya, Zambia, and South Africa. African researchers recruited the majority of patients.

The study is jointly funded by: EDCTP; Bill & Melinda Gates Foundation; Irish Aid; Netherlands Organisation for Scientific Research; Medical Research Council United Kingdom; United Kingdom Department for International Development (DFID);

and United States Agency for International Development (USAID). The pharmaceutical companies Bayer Healthcare AG and Sanofi provided the trial drugs and other support. To date, EDCTP has contributed a total of €6.91 million towards the REMox TB study within PanACEA.

### TB and HIV co-treatment

As TB is the most common opportunistic infection and cause of death in HIV infected patients, concomitant HIV/TB treatment is recommended in patients with low CD4 cell counts. Although effective therapy is available for both TB and HIV, concurrent treatment is complicated due to drug interactions between rifampicin and efavirenz, the cornerstones for TB and HIV treatment respectively. Rifampicin reduces efavirenz plasma level and this may cause treatment failure and/or emergence of a treatment resistant viral strain.

The HIV-TB Pharmagene project coordinated by Professor Leif Bertilsson, Karolinska Institute, Sweden, investigated this problem. The project aimed to establish the optimal efavirenz dose to be used with rifampicin. Pharmacokinetic and pharmacogenetic interactions between rifampicin and efavirenz and the resulting effect on efavirenz treatment response were studied by comparing two treatment groups receiving efavirenz with and without rifampicin in Ethiopia and Tanzania.

This project was completed in 2012. The results showed that, contrary to suggestions in some treatment guidelines, increasing efavirenz dose in HIV-TB co-infected patients may aggravate the relatively higher number of events. Rifampicin co-administration had no significant effect on efavirenz pharmacokinetics or on the efficacy of 600mg/day efavirenz based HAART in Ethiopian and Tanzanian HIV patients.

Four researchers including two medical doctors and two pharmacists from Ethiopia and Tanzania completed their PhD training as part of capacity building in this project. The study was conducted in

international collaboration between institutions from Ethiopia, Germany, Sweden, Tanzania, and Zimbabwe. The study was funded by EDCTP under the 2005 call 'Efficacy and safety of ARV's with TB treatment' and by University of Heidelberg (Germany), Karolinska Institute and Stockholm County Council (Sweden).

## TB diagnostics

### **AE-TBC: diagnostic biomarkers for active TB infection**

The African-European Tuberculosis Consortium (AE-TBC) includes seven African and five European institutions. The consortium aims to develop new, sensitive, inexpensive, and field-friendly diagnostic tests for active TB. Combinations of host blood markers are investigated for their diagnostic potential.

This project is coordinated by Professor Gerhard Walzl, Stellenbosch University, South Africa, and the main objective of the project is to develop a point-of-care test for diagnosis of active TB that will be based on an overnight culture of whole blood in the presence of *Mycobacterium tuberculosis* antigens and the measurement of up to three markers by lateral flow technology. The consortium aims to recruit 800 HIV-negative and 400 HIV-positive adults with suspected TB and will evaluate the ability of a multi-marker test to identify active disease. Additionally, a sample bank for future diagnostic studies will be established and clinical trial capacity at the participating sites built.

The clinical trial started recruitment in 2011 and made good progress in 2012. Screening of new mycobacterial antigens for diagnostic promise and for inclusion into the clinical trial is ongoing. Lateral flow tests are being developed for multiple cytokines and performance appears promising.

The AE-TBC project complements, extends and continues the GC6-74 'Biomarkers of protective

immunity against TB in the context of HIV/AIDS in Africa' study, funded by the Bill & Melinda Gates Foundation under leadership of Professor Stefan Kaufmann, Max Planck Institute for Infection Biology, Berlin, Germany. Many of the current consortium members already collaborated in this study. AE-TBC was the first EDCTP-funded project to work with a clinical trial centre in Namibia, at the University of Namibia. At this clinical trial centre, the AE-TBC consortium successfully developed new research and clinical trial capacity. Successful meetings were held in South Africa (kick-off meeting), Addis Ababa, Ethiopia and Germany, which aided internal networking.

### **TB NEAT**

The EDCTP-funded TB NEAT consortium, led by Professor Keertan Dheda, University of Cape Town, South Africa aims to facilitate the development of point-of-care tests for TB and to validate new technologies for day-to-day clinical primary-care practice in Africa. The project is evaluating several new diagnostic methods for TB diagnosis in smear-negative and HIV-infected persons. The project includes four main studies and three sub-studies. High-quality field testing sites and bio-banks were established and African scientists are being trained.

In 2012, recruitment of 1,600 patients was completed for the largest clinical study so far on the use of the GeneXpert® MTB/RIF diagnostic test at the point-of-care. The six-month patient follow-up has been completed for some sites. This randomised controlled trial evaluates whether one sputum GeneXpert® MTB/RIF assay performed at point-of-treatment will improve TB diagnosis and time-to-treatment for HIV-infected and un-infected patients with TB who present to primary level TB clinics in settings of high HIV prevalence.

### **TB CHILD consortium meeting**

The EDCTP-funded project TB CHILD coordinated by Dr Fred Lwilla, Ifakara Health Institute, Tanzania, evaluates new and emerging diagnostics for childhood TB in countries with a high disease burden.



The project has two main studies running in three clinical trial centres. One study focuses on testing various new diagnostic techniques in adults. The second study focuses on children aged between 6 weeks and 14 years old with suspected TB and is testing a total of eleven diagnostic techniques. The trial centres are the Ifakara Health Institute in Bagamoyo, the National Institute of Medical Research-Mbeya Medical Research Programme in Mbeya, both in Tanzania, and the Nsambya Hospital in Kampala, Uganda. The project is expected to end in May 2013.

In July 2012, the consortium held its second general meeting in Rome, Italy where technical and scientific issues were discussed. Recruitment for the adult study made excellent progress. The study in children experienced some difficulties in recruitment and retention, but the team expects to realise the target recruitment sample size. Four post-graduate studies are in progress.



# Malaria



Since 2007, joint malaria prevention, control and combined interventions have saved many lives, but the burden of disease remains significant, especially among high-risk populations, including young children and pregnant women. According to the *WHO World Malaria Report 2012*, the vast majority of estimated cases (80%) and deaths (91%) occur in sub-Saharan Africa and the vast majority of deaths (86%) occur in children under 5 years of age. EDCTP funds clinical research to accelerate the development of new or improved drugs and vaccines. As of 31 December 2012, malaria research received €49.39 million or 24.2% of EDCTP grant funds for a total of 41 grants in this field.

## Malaria treatment

### WANECAM: comparison of four ACTs

With the progressive development of drug resistance to the antimalarial drugs that were previously in use, the national malaria control programs of Mali, Burkina Faso and Guinea changed their treatment guidelines and adopted artemisinin based combination therapies (ACTs) as new first-line therapy. In order to maintain a steady pool of effective antimalarial drugs, endemic countries need to actively contribute to the search and testing of new drug entities.

The EDCTP-funded West-African Network for Clinical Trials of Antimalarial drugs (WANECAM) project is coordinated by Professor Abdoulaye Djimdé, University of Bamako, Mali. This project involves a phase IIIb/IV clinical study that investigates the treatment of acute uncomplicated malaria in children and adults. The trial aims to assess the safety and efficacy of repeated administration of four ACTs over a two-year period.

In 2012, recruitment was in progress at all six trial sites, i.e. three in Mali, two in Burkina Faso and one in the Republic of Guinea. The total sample size is 5,376 subjects. The project held its second investigators meeting in Conakry, Guinea from 31 May-3 June 2012 which involved partners from Germany, Switzerland, The Gambia, Guinea, Mali and Burkina Faso as well as Medicines for Malaria Venture (MMV). This project has a large capacity development component and the Master's and PhD students involved are progressing according to plan. The necessary site refurbishments and short-term staff trainings were completed in 2012.

The project is expected to be completed in 2013 and to generate important safety and efficacy data that will contribute to the registration of a new generation ACT: Pyramax® (pyronaridine-artesunate). The project is being implemented in partnership with MMV.

### SMAC phase III clinical trial completes recruitment

The Severe Malaria in African Children network (SMAC) completed enrolment of patients for the phase III artesunate follow-up study led by Professor Peter G. Kremsner (University of Tübingen). The earlier SMAC phase II multicentre clinical trial, also coordinated by Prof. Kremsner, demonstrated that a shorter antimalarial treatment regimen with the same total drug content is equally effective as the longer standard regimen in treating children with severe malaria. It was shown that three doses over two days of the drug artesunate delivered intravenously are as effective as five doses over three days. The results for the SMAC studies on artesunate treatment for severe malaria were published online in the *Journal of Infectious Diseases* in December 2011 (doi: 10.1093/infdis/jir724).

In 2012, recruitment for this follow-up clinical trial was completed and a total of 1,046 children with severe malaria were enrolled. The overall goal of this phase III comparative, open-label, dose and regimen optimisation follow-up study is to compare the efficacy, safety and tolerability of three-dose regimens: intravenous artesunate and intramuscular artesunate simplified dosing regimens (4 mg/kg artesunate at 0, 24 and 48 hours; 12 mg/kg total dose) and the standard intravenous 5-dose regimen (2.4 mg/kg artesunate at 0, 12, 24, 48 and 72 hours; 12 mg/kg total dose).

If the outcome of this study is positive, a simplified treatment of severe malaria by administering artesunate intramuscularly in a three-dose regimen will contribute to reducing costs and improving severe malaria management in resource limited settings. These results are expected to inform future policy and evidence-based changes for malaria treatment.

The sponsor of the clinical trial is the University of Tübingen (Germany). The clinical trial centres are in: Gabon (Albert Schweitzer Hospital in Lambaréné and Université de Médecine et Science de la Santé in Libreville); Ghana (School of Medical Sciences,

Kumasi); Kenya (KEMRI Coast in Kilifi and KEMRI Kondele Children's Hospital in Kisumu); Malawi (Queen Elizabeth Central Hospital, Blantyre); and The Gambia (MRC laboratories, Banjul). Supporting sites are in: Austria (University of Innsbruck, Innsbruck and the Vienna School of Clinical Research, Vienna); Germany (Institut für klinische Pharmacologie, Stuttgart); United Kingdom (St George's Hospital Medical School, London). The study is cofunded by the Federal Ministry of Education and Research (Germany).

## Malaria in pregnancy

### **PREGACT: Antimalarial treatment for African pregnant women**

Pregnant women are a high-risk group for malaria infection and require effective antimalarial treatment when needed. However, because they are usually excluded from clinical trials, there is insufficient information on the safety and efficacy of antimalarials currently used in pregnancy.

The PREGACT study is coordinated by Professor Umberto D'Alessandro, Institute for Tropical Medicine, Antwerp, Belgium). It aims to determine the safety and efficacy of four artemisinin-based combination treatments (dihydroartemisinin-piperaquine, mefloquine-artesunate, amodiaquine-artesunate and artemether-lumefantrine) when administered to pregnant women with *P. falciparum* infection during the second and the third trimester. The objective of this head-to-head comparison of the four treatments is to identify at least two valid first-line and one second-line treatments.

In 2012, recruitment was completed in three of the four recruiting centres, i.e. in Malawi, Zambia and Burkina Faso. The trial has recruited >90% of the planned sample size. There are four ongoing PhD studies based on the scientific activities of the PREGACT.

The PREGACT study group comprises six African institutions and four European institutions and is part of the Malaria in Pregnancy Consortium (MiPC), led by the Liverpool School of Tropical Medicine.

### **MiPPAD-1 malaria trial completed enrolment**

The Malaria in Pregnancy Preventive Alternative Drugs (MiPPAD) study reached a major milestone in January 2012 when it achieved the planned total sample size of 4,734 pregnant women enrolled into the study after screening 17,947 women in Benin, Gabon, Mozambique, and Tanzania. This study is led by Professor Clara Menéndez (Barcelona Centre for International Health Research, Spain) and aims to evaluate the safety, tolerability and efficacy of an alternative drug for preventive treatment of malaria in pregnant women.

Globally, malaria is a major cause of low birth weight and a major cause of severe anaemia contributing to maternal mortality. The study is part of a worldwide effort by the Malaria in Pregnancy (MiP) Consortium to find effective ways of preventing malaria in pregnant women and their infants.

The MiPPAD study aims to evaluate the safety, tolerability and efficacy of Mefloquine (MQ) as an alternative to the standard drug Sulfadoxine-Pyrimethamine (SP) used for Intermittent Preventive Treatment in pregnancy (IPTp) in combination with Long Lasting Insecticide Treated Nets (LLITNs). For this randomised, controlled trial HIV-non-infected pregnant women were recruited and they will be followed up until their infants are one year old. It is conducted in four countries: Benin (Allada, Sékou and Attogon), Gabon (Fougamou and Lambaréné), Mozambique (Manhiça and Maragra), and in Tanzania (Makole and Chambwino). The trial is registered with the Pan African Clinical Trials Registry (PACTR2010020001429343).

Several institutions support the MiPPAD project: Barcelona Centre for International Health Research (Barcelona, Spain); Université d'Abomey-Calavi

(Cotonou, Benin); Albert Schweitzer Hospital (Lambaréné, Gabon); Manhica Health Research Centre (Manhica, Mozambique); Ifakara Health Institute (Dodoma, Tanzania); Kenya Medical Research Institute / Centers for Disease Control and Prevention (Nairobi, Kenya); Vienna School of Clinical Research (Vienna, Austria); Institut de Recherche pour le Développement (Paris, France); and Institute of Tropical Medicine and University of Tübingen (Tübingen, Germany).

These studies are co-funded by: Institute of Health Carlos III (Spain), University of Tübingen and German Aerospace Center (Germany); Institut de Recherche pour le Développement (France); Austrian Federal Ministry of Science (Austria); and Malaria in Pregnancy Consortium, which is funded through a grant from the Bill & Melinda Gates Foundation to the Liverpool School of Tropical Medicine.

### **Alternatives for standard intermittent preventive treatment in pregnancy**

Increasing resistance to sulfadoxine-pyrimethamine (SP) is a major challenge to the efficacy and effectiveness of Intermittent Preventive Treatment of malaria in pregnancy (IPTp) with SP. In addition to declining IPTp effectiveness, the incidence of malaria, including the incidence in pregnant women, is declining in many African countries. Thus, there is a need to re-examine the efficacy and cost effectiveness of giving IPTp-SP in pregnancy. This applies especially to areas with highly seasonal malaria transmission where women are at risk for a relatively short period during the year.

These problems prompted the IPT-SP study, coordinated by Professor Feiko ter Kuile, Liverpool School of Tropical Medicine, United Kingdom. The study investigates the declining IPTp effectiveness and studies alternative approaches to IPTp-SP. The two options considered are replacing SP with other drugs for IPTp, and alternative strategies to replace IPTp.

The concept of Scheduled Intermittent Screening and Treatment in pregnancy ISTp is to provide scheduled

screening for malaria using a rapid diagnostic test (RDT) and treating RDT-positive women with a long acting ACT to clear existing infections and provide additional post-treatment prophylaxis for three to six weeks. Screening ensures that only women who test positive for malaria parasites receive treatment, and women without evidence of malaria are not unnecessarily exposed to antimalarial drugs. ISTp is delivered as part of 'focussed antenatal care'. Women are screened and receive treatment, if required, at least three times during the second and third trimesters of pregnancy.

The study aims to compare the efficacy of scheduled intermittent screening with RDTs and treatment of RDT-positive women with dihydroartemisinin-piperazine (ISTp-DP; Malawi) or artemether-lumefantrine (IST-AL; four countries in West-Africa) with intermittent preventive treatment with sulphadoxine-pyrimethamine (IPTp-SP) in the second and third trimesters. The comparison is on adverse birth outcome and malaria infection at term among HIV-negative women protected by insecticide-treated bed nets. A sub-study explores the relationship between the level of SP resistance in the population of pregnant women and the effectiveness of IPTp-SP in reducing adverse effect of malaria at birth.

In 2012, the first preliminary results became available and the project showed good overall progress. The field work for the SP-resistance studies was completed in Malawi, Mali and Burkina Faso, totalling 4,383 pregnancies. Preliminary analysis was presented to the WHO Evidence Review Group for IPTp in July 2012. Results indicated sustained effectiveness of IPTp-SP in Burkina Faso and Mali, but reduced effectiveness in Malawi where severe SP resistance was confirmed. Recruitment for the ISTp trials has been going well with good recruitment and follow-up rates. Completion of recruitment in Malawi is expected early 2013. For the ISTp trial in West-Africa, follow-up of all women in the study is now complete with 5,356 women recruited into the trial and 4,559 to be followed until delivery.

The project includes five African institutions in Burkina Faso, Ghana, Malawi, Mali, The Gambia, and four European partners in Austria, Denmark, and the United Kingdom. The project is part of the global Malaria in Pregnancy (MiP) Consortium's six-year research agenda and is closely linked with the above mentioned MiP projects funded by EDCTP.

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## Malaria Vaccines

### **MVVC: Malaria Vectored Vaccine Consortium**

The Malaria Vectored Vaccine Consortium (MVVC) aims to develop a malaria vaccine. The consortium carried out phase Ib clinical trials to assess the safety and immunogenicity of the candidate malaria vectored vaccines, AdCh63 ME-TRAP and MVA-TRAP, in healthy sub-Saharan African adults and children aged 2-6 years. In 2012, the phase Ib trials were completed at centres in The Gambia and Kenya, while phase IIb trials started in Kenya, Burkina Faso and Senegal. The phase IIb clinical trials are to assess the efficacy, safety and immunogenicity of these candidate malaria vaccines in prime-boost regimes in healthy sub-Saharan African children and infants aged 5-17 months.

The phase Ib trials conducted in Kenya and The Gambia showed good safety and immunogenicity profiles. In preparation for the phase IIb trials, baseline epidemiological studies were conducted in Burkina Faso and Senegal. Seven scientists are already enrolled in long-term training programmes including one Post-Doctoral Fellow, three PhD candidates and three MSc students. One of the MSc students completed the training in July 2012. The trial site at the Sukuta Health Centre in The Gambia was refurbished and the Keur Sossé Research Centre in Senegal was finished and fully equipped by MVVC with EDCTP funding.

In 2012, another two-year grant was awarded to the consortium through the Strategic Primer Grants

scheme. The study will continue as MVVC2 testing a new combination of malaria vaccine candidates.

The eight MVVC partners include academic institutions, collaborative research programmes, and a biotech company: Vienna School of Clinical Research, Austria; Centre National de Recherche et de Formation sur le Paludisme, Burkina Faso; European Vaccine Initiative, Germany; Kenyan Medical Research Institute, Kenya; Université Cheik Anta Diop, Senegal; Medical Research Council (MRC) Laboratories, The Gambia; University of Oxford Centre for Clinical Vaccinology and Tropical Medicine, United Kingdom; and biotechnology company Okairos, Italy.

VITAMINI A HUTUPATIA  
AFYA BORA NA NGU VU

Uliza kuhusu vidonge vya vitamini A  
kuzoka kituo cha huduma hiyo  
kilichopo karibu nawe

USAID

BED #4



# Building African research capacity



EDCTP strategically invests in sustainable capacity for conducting clinical trials in sub-Saharan Africa by attracting, developing and retaining scientific leadership in Africa; improving and updating infrastructure and facilities, and strengthening the ethical and regulatory framework for conducting trials. The 2012 CSA grant from the EU facilitated the start of related follow-up activities as part of the EDCTP-Plus project. These activities aim to consolidate and reinforce the capacity building achievements through continued support to ethics and regulatory institutions, the Pan-Clinical Trial Registry and the regional Networks of Excellence. This section presents the progress made through training awards, fellowship schemes and ethics grants.



### Scholarships for MSc programme in vaccinology

One of the main aims of the EDCTP Pharmaceutical Industry Workshop on 26 June 2012 was to further engage industry in improving Africa's capacity to conduct clinical trials. As a first result of this dialogue, eligibility for MSc scholarships in vaccinology was extended to African physicians and researchers involved in EDCTP-funded vaccine development projects.

The University of Siena Medical School, Novartis Vaccines and Diagnostics, the Novartis Vaccines Institute for Global Health (NIGH), and the ADITEC (Advanced Immunization Technologies) programme funded under FP7 invited applications for the Master's Programme in Vaccinology and Pharmaceutical Clinical Development commencing in May 2013.

The programme offers a one-year course at the University of Siena in Italy followed by a six-month Novartis internship. Field training at various investigational sites involved in vaccine trials is also included. The objective of the Master's programme is to build capacity in vaccinology and vaccine development in developing countries. The programme prepares students for a career in academia, public health or Research & Development in public and private vaccine institutes.

### EDCTP support for postgraduate and postdoctoral degrees and studies (in progress or completed)

Career stage	Number of trainees
Senior Fellows	50
Career Development Fellows	5
Postdoctoral researchers on EDCTP grants	32
PhD/MD students	144
Master's students	183
Bachelor's students	6
<b>Total</b>	<b>420</b>

### Preparation of laboratories for future accreditation

In 2012, EDCTP initiated further development of the laboratory capacity of the Regional Networks of Excellence (NoEs) as part of the EDCTP-Plus project. In a consultative process, the four NoEs selected a total of 24 clinical research and public health laboratories in 19 sub-Saharan African countries which are actively involved in EDCTP funded clinical trials. These laboratories will be systematically developed towards future accreditation by international agencies.

Initial assessment by the Senegalese-based agency LQT Consulting commenced in September 2012 in order to establish baseline capacity and conduct a gap analysis. The assessment is based on frameworks established by the International Organisation for Standardisation (ISO) and the World Health Organisation-African Region (WHO-AFRO) for a Stepwise Laboratory Quality Improvement Process towards Accreditation (SLIPTA).

### Financial management training

EDCTP organised financial management workshops for finance staff of EDCTP grantee institutions as part of EDCTP-Plus. The workshops were held for West and Central Africa in Dakar, Senegal from 10-15 September 2012 and for Southern and Eastern Africa in Johannesburg, South Africa from 10-14 December 2012. The objective of the workshops was to provide participants with the required knowledge and financial management skills to improve financial accountability and transparency at their respective institutions. Forty-two participants from 11 countries and 61 participants from 13 countries, respectively, benefited from the training. The initiative is part of capacity building in preparation of EDCTP2.

### Senior Fellowship programme

This grant scheme aims at developing African scientific leadership and mentorship. It has been instrumental in developing the careers of mid-level to senior African scientists to become more competitive internationally, build research teams and to develop

the scientific excellence and leadership required for larger grants from EDCTP and alternative funding sources. A number of Senior Fellows have received prestigious international awards. EDCTP has so far granted 45 Senior Fellowships. In May 2012, the EDCTP General Assembly approved six Senior Fellowships. By the end of 2012, five of the new fellows had signed their contracts with EDCTP, bringing the total number to 50, which include 19 on HIV, 13 on TB and 18 on malaria research.

Through this grant Senior Fellows typically establish research teams and contribute directly to the development of African research capacity through the supervision of MSc, PhD and post-doctoral candidates in their projects. Some students who trained under Senior Fellows have been successful in acquiring similar grants. In certain circumstances the Fellowship scheme has contributed to ground breaking research that contributed to change of policy and practice. In September 2010, for example, WHO recommended that GeneXpert® MTB/RIF replace smear microscopy as the first-line diagnostic test for TB in areas with high prevalence of MDR-TB or HIV. The preliminary results of a study by Professor Mark Nicol (South Africa) contributed substantially to the scientific evidence in a report submitted to the WHO Strategic and Technical Advisory Group. Additionally, Dr Badara Cisse's work on acceptability and efficacy of three regimens for intermittent preventive treatment for malaria in children, contributed significantly to WHO endorsement of policy change in management of seasonal malaria chemoprevention for falciparum malaria control in highly seasonal transmission areas of the Sahel sub region in Africa.

Twenty-three of the Senior Fellows have completed their projects and twenty two of them are still working in the research field in sub-Saharan Africa. These include Didier Ekouevi (Ivory Coast), Abdoulaye Djimdé (Mali), Abraham Alabi (Nigeria), Mawoia Mukhtar (Sudan), Willem Hanekom (South Africa), Ambrose Talisuna (Uganda), Issa Nebie (Burkina Faso), Davis Nwakanma (Gambia), Badara Cisse

(Senegal), Keertan Dheda (South Africa), Nicaise Ndembi (Nigeria), Mark Nicol (South Africa), Freeya Njai (The Gambia), Christian Happi (Nigeria), Wendy Burgers (South Africa), Pauline Mwinzi (Kenya), Daniel Dodoo (Ghana), Takafira Mduluzi (Botswana), Stephen Kennedy (Liberia), Sunny Oyakhirome (Republic of Congo), Kamija Phiri (Malawi) and Eric Achidi (Cameroon).

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## Health research ethics review

### Strengthening ethics review capacity

Since the ethics grant scheme started in 2005, EDCTP has awarded a total of 74 grants for projects to strengthen the capacity for ethics review of health research in sub-Saharan Africa. Ten more grants were approved in May 2012. Under the EDCTP-Plus project further ethics work is planned. The aim of the grant scheme is to strengthen the ethics review capacity of sub-Saharan institutions and countries, i.e. to develop the appropriate human resources and infrastructures required for functional, competent, independent and sustainable ethics review boards.

The projects funded so far fall into three categories, i.e. training projects, institutional development and networking. The training of members of ethics committees or institutional review boards is supported for instance through the development of online training programmes. Grants have been awarded to both European and African organisations such as TRREE for Africa (Training and Resources in Research Ethics Evaluation for Africa) led by Professor Dominique Sprumont (Institute of Health Law, University of Neuchâtel, Switzerland) and the ERECCA (Enhancing Research Ethics Capacity and Compliance in Africa) online courses on Good Clinical Practice and Research Ethics Review led by Professor K. Moodley (University of Stellenbosch, South Africa). More formal training courses resulting in a diploma or certificate have also been supported, for example, 10 members from the National Health Research Ethics Committee in Nigeria received

support to obtain a diploma in research ethics. Moreover, courses on Good Clinical Practice (GCP) and Human Subjects Protection training are often part of larger projects.

Grants for support, establishment and strengthening of ethics capacity at both the institutional and national level form the second category. The purpose of these grants is to contribute to the establishment of independent and functional Institutional Review Boards and National Ethics Committees (NECs). For example, in 2005, EDCTP funded a project for the 'Establishment and support of a National Ethics Committee in Gabon' awarded to the Ministry of Health of Gabon and was coordinated by Dr Pierre-Blaise Matsiegui. Today, the Gabonese NEC is leading initiatives on establishing an even broader network involving Ethics Committees in the Central African region.

The objective of the third group of projects is to network and coordinate and thereby support national ethics initiatives. Under this grant scheme support has been given to the Southern African Research Ethics Network (SAREN) and to the Mapping of ethics review and trial regulatory capacity in sub-Saharan Africa (MARC) project.

Through this grant scheme, ethics research committees have been established in countries which previously had few resources for ethics, such as Benin, Democratic Republic of Congo, Liberia, and Rwanda and have been strengthened in other countries. Grants contributed to improving infrastructure and office equipment. In many cases websites were set up to facilitate sharing of information and documents such as Standard Operating Procedures, which are essential to the operation of the ethics review committee and guidelines, were prepared according to templates provided by the World Health Organisation. At the end of 2012, a total of 37 ethics projects were successfully completed.

### **TRREE for Africa: online courses on research for ethics**

TRREE for Africa (Training and Resources in Research Ethics Evaluation for Africa) is a web-based training and capacity building programme that provides an introduction as well as access to regulations, ethical guidelines and internationally recognised human rights standards relevant to health research. Local issues and perspectives relevant to North-South research partnerships are integrated in the courses. The TRREE portal ([www.trree.org](http://www.trree.org)) offers e-learning programmes tailored to the needs of members of health research ethics committee (HREC), investigators and other healthcare professionals.

Funded by EDCTP, TRREE was launched in 2009 focusing mainly in Africa. The platform has now been expanded beyond Africa and Europe, to the Americas and Asia. As of December 2012 there are over 3,800 participants from 178 countries, 49% of whom are from Africa and 4% from Asia. More than 4,000 participants successfully completed at least one TRREE module. The programme available on the portal consists of modules at four levels: 1) introduction to research ethics; 2) research ethics evaluation; 3) informed consent; 4) national supplements. These modules are available in English, French, German, and Portuguese. A new level three module on Good Clinical Practice (GCP) was launched in December 2012 and another one on ethical issues related to HIV vaccine testing is under development.

### **MARC: Mapping African Research Ethics Review Capacity**

The MARC project was a three-year initiative funded by EDCTP. It aimed to develop an interactive and continuously updated map of Africa's health research ethics committees (HRECs) and to provide a web-based platform to increase contact and communication between these committees. EDCTP supported this project because effective and efficient ethics review of health research, including clinical trials, is essential to developing medicines,

interventions and medical technologies in and for Africa.

MARC was implemented through collaboration between the Council on Health Research for Development (COHRED) in Geneva, Switzerland and the South African Research Ethics Training Initiative (SARETI) at the University of KwaZulu-Natal, South Africa. This project was coordinated by Professor Carel IJsselmuiden, Director of COHRED. The EDCTP-funded project was completed in June 2012, but it continues with resources from COHRED. MARC identified 166 Health Research Ethics Committees operating in Africa with a great variation in skills, membership and efficiency. A website was developed to offer an overview of the mapped information. [www.researchethicsweb.org](http://www.researchethicsweb.org)

Moreover, an information management platform was developed with feedback and support from the MARC project. The Research for Health and Innovation Organiser (RHinnO Ethics, [www.rhinno.net](http://www.rhinno.net)) facilitates efficient ethical review clearance through a fully web-based system as an alternative to currently widely used and complex paper-based systems for research ethics review. Since its launch in April 2012, RHinnO Ethics is used by the national ethics committee in Tanzania, and will soon be used by ethics committees based at institutions in Mozambique, South Africa, Senegal and Tanzania.

MARC data were also fed into COHRED's Health Research web, a website offering an overview of health research systems including national institutions and governments, funders and HRECs/ Institutional Review Boards (IRBs). The website provides ethics information per country as well as up to date information on research ethics activities, events and opportunities.

### **Extended support for PACTR**

The Pan African Clinical Trials Registry (PACTR) is the only WHO-endorsed primary registry in Africa. Funded by EDCTP, the registry provides accessible information that describes the scope, location, ethics

and funding patterns of trials conducted across the continent. Trial registration in the PACTR portal ([www.pactr.org](http://www.pactr.org)) meets the requirements that the International Committee of Medical Journal Editors (ICMJE) mandates and feeds information to the WHO International Clinical Trials Registry Platform (ICTRP). The PACTR registry facilitates understanding of regional research patterns, enables the identification of research gaps for future studies, and facilitates the investigation of the scope, quality and funding patterns of African trials.

In 2012, as part of the EDCTP-Plus activities, EDCTP has given further support to develop the registry. This phase of the project aims to improve the performance of the registry and to enhance the database to include links to publications related to each trial as well as geocodes for the clinical trials. Through these and other improvements PACTR will offer an increasingly comprehensive instrument for monitoring the clinical trial environment in Africa.



# EDCTP Capacity



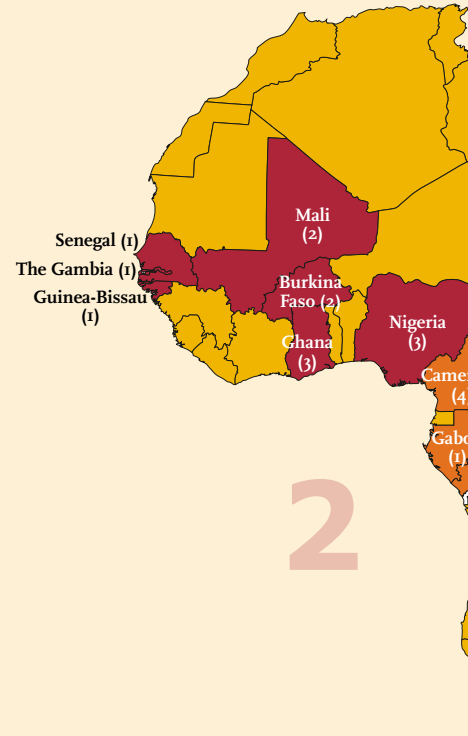
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## 1 Number of Senior Fellowships and training projects funded per country

EDCTP supported capacity development activities in Africa include Senior Fellowships and training grants awarded directly to individuals (e.g. MSc studentships, PhD scholarships and Career Development).

The purpose of the Senior Fellowship grant scheme is to develop and retain qualified researchers capable of building and leading research groups at sub-Saharan institutions. EDCTP has funded a total of 50 fellowship grants, of which 19 fellowships are on HIV/AIDS, 13 on tuberculosis and 18 on malaria.

The figures do not comprise Masters, PhD and postdoctoral fellowships supported on Integrated Projects.



2

## 2 Number of institutions collaborating in the EDCTP Networks of Excellence

The Networks of Excellence facilitate regional collaboration by uniting diverse institutions that bring their individual strengths (e.g. GCP, GCLP, data management and laboratory techniques) to the network. By collaborating they learn, develop capacity together, and thereby raise the quality of clinical research and practice in sub-Saharan Africa.



**Western Africa: WANETAM**  
Project Coordinator: Prof. Soleymane Mboup

**Central Africa: CANTAM**  
Project Coordinator: Prof. Francine Ntoumi

**Eastern Africa: EACCR**  
Project Coordinator: Prof. Pontiano Kaleebu

**Southern Africa: TESA**  
Project Coordinator: Dr Alexander Pym

## 3 Number of ethics projects funded per country

The aim of the ethics grant scheme is to strengthen the ethics framework of sub-Saharan institutions and countries by developing the appropriate human resource and infrastructure required to enable functional, competent, independent and sustainable ethics review boards in Africa.

EDCTP has awarded a total of 74 grants for projects to strengthen ethics capacity in 23 countries in sub-Saharan Africa. Five ethics grants are coordinated from European countries (Austria, Switzerland and United Kingdom).

# Connecting research



Dr Pascoal Mocumbi, EDCTP High Representative, and Dr Michael Makanga, Director South-South Cooperation at Forum 2012



## Charting research

In September 2012, EDCTP published a report on research in poverty-related and neglected infectious diseases in the current EDCTP member states. It presents a summary overview of activities and programmes which are of relevance to the scope of EDCTP2. The report is entitled *Charting Research: EDCTP member state programmes and activities in the scope of EDCTP2*. It highlights available research capacities and expertise which will form the foundation for the second programme. It was a first step in the review of past achievements and future opportunities for increased European research integration and African research partnership in the EDCTP area of clinical research.

As part of EDCTP-Plus, a comprehensive mapping analysis is being conducted of European and African national research programmes, partnerships, activities, and capacities in the field of HIV/AIDS, tuberculosis, malaria and neglected infectious diseases.

This ongoing project will be complemented by a bibliometric analysis of relevant research output (2003-2011). On 16 October 2012, EDCTP published a call for tender for bibliometric analysis of European and African research output within the scope of EDCTP2. The objective of this analysis is to quantify research output of European and African researchers in the field of HIV/AIDS, tuberculosis, malaria and neglected infectious diseases, identify leading institutions and researchers in these fields, and describe collaboration patterns at a country and institutional level.

## Private Sector involvement

### EDCTP Pharmaceutical industry workshop

Through the years several large and smaller pharmaceutical companies have been involved in EDCTP-projects, mainly through providing compounds or drugs to specific clinical trials. In 2012, EDCTP met with key representatives of many pharmaceutical companies to explore and develop ideas for broader public-private partnerships and to prepare for greater collaboration with the pharmaceutical sector in the second EDCTP programme. These meetings were prepared by the EDCTP private sector relations working group, led by the Executive Director, Professor Charles Mgone and coordinated by the then Private Sector Coordinator, Christa Janko.

The first result was a joint workshop with representatives from major companies which took place in The Hague, The Netherlands, on 26 June 2012. Representatives from the European Federation of Pharmaceutical Industries and Associations (EFPIA) and several pharmaceutical companies including Bayer, Boehringer-Ingelheim, Crucell, Emergent Biosolutions, GlaxoSmithKline, Johnson & Johnson, Merck Serono, Novartis, Sanofi, and ViiV Healthcare participated. Representatives from the Medicines Patent Pool, the Sabin Vaccine Institute, Quintiles and the Directorate General for Research and Innovation of the European Commission also participated in the discussions.

Dr Line Matthiessen-Guyader, Head of the Unit Infectious Diseases and Public Health, Directorate General for Research and Innovation, European Commission, and Professor Simon Croft, Head of the Faculty of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, co-chaired the meeting and facilitated the discussions.

In a free and wide ranging discussion about challenges and opportunities, the meeting revolved around three main topics: clinical trials networks compliant with good clinical practice; capacity

building in personnel, infrastructure, ethics review and regulatory affairs; and EDCTP's role as a broker in creating partnerships and leveraging resources. A report of the meeting, *Developing the Dialogue*, was published in September 2012.

The meeting was followed up by several initiatives. The extension of eligibility for the Siena-Novartis MSc in vaccinology programme to EDCTP researchers was arranged in November 2012. Another recommendation from the workshop resulted in deliberations between EFPIA, the EC and EDCTP to establish a Clinical Research Fellowship scheme. In January 2013, EFPIA and EDCTP signed an agreement to implement the scheme.

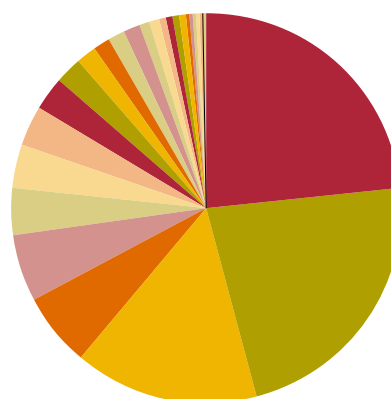
### Post-approval programmes

In the majority of African countries there is clearly a substantial need to monitor the safety and effectiveness of new drugs and vaccines. For the second programme EDCTP – supporting a complete life-cycle approach – will need to clearly define its role in phase IV studies. One aspect of that role could be acting as a broker to bring together all pertinent partners and also to participate in developing the capacity development required to improve post-registration safety monitoring of medicinal products in sub-Saharan Africa.

In this context, and as part of preparations for EDCTP2, a meeting on 'Post-registration medicinal products safety monitoring in sub-Saharan Africa' was held in Cape Town, South Africa on 4 November 2012. The aim was to discuss opportunities to address issues of safety and effectiveness which arise following the approval and deployment of new medicinal products with other stakeholders. Invited participants included African and European experts from the research community, the pharmaceutical industry, product development partnerships, regulatory agencies, funders as well as policymakers.

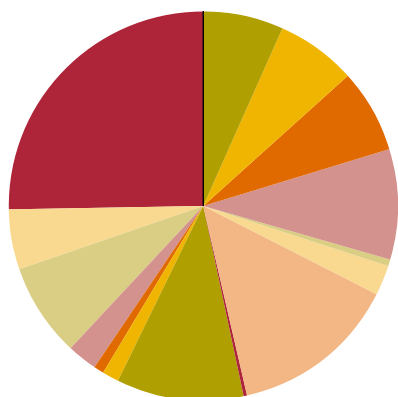
Dr Alex Doodo (University of Ghana Medical School; International Society of Pharmacovigilance) and Professor Elly Katabira of Makerere University,

### Third-party funding to EDCTP activities for all types of contributions 2003-2012 (€ '000)



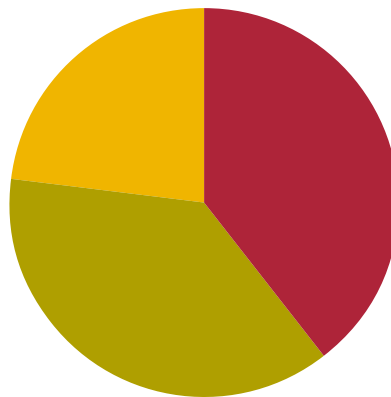
Bill & Melinda Gates Foundation	17,260
Global TB Alliance	16,948
Aeras Global TB Vaccine Foundation	10,642
Medicines for Malaria Venture (MMV)	4,513
Sequella	3,876
European Vaccine Initiative (EVI, previously EMVI)	3,491
Wellcome Trust	2,444
Foundation for Innovative New Diagnostics (FIND)	2,375
International Partnership for Microbicides (IPM)	1,487
World Health Organization	1,331
Bayer AG	1,200
FHI360	1,028
International AIDS Vaccine Initiative (IAVI)	920
Foundation for the National Institutes of Health (FNIH)	641
Sanofi Aventis	376
Sanaria Inc.	369
US National Institutes of Health (for the CHAMPS study)	356
Chiracon GmbH	355
Cipla Ltd.	350
Delft Imaging Systems	300
Vectura Company	200
Walter Reed Army Institute of Research (WRAIR)	178
International Association of National Public Health Institutes (IANPHI)	178
Heidelberg Pharma GmbH	165
La Fondazione Centro San Raffaele del Monte Tabor	141
Merck Investigator Studies Program (MISP)	133
Okairos Srl	110
Oxford-Emergent Tuberculosis Consortium Ltd	99
Novo Nordisk	81
Other	441
<b>Total</b>	<b>71,988</b>

EDCTP member state total funding for research within the scope of the EDCTP programme, including cofunding of EDCTP projects, 2003-2012 (€ '000)



■ Austria	1,544
■ Belgium	52,940
■ Denmark	51,619
■ France	55,087
■ Germany	73,097
■ Greece	3,453
■ Ireland	19,979
■ Italy	108,988
■ Luxembourg	2,203
■ Netherlands	83,515
■ Norway	10,636
■ Portugal	7,963
■ Spain	20,311
■ Sweden	59,598
■ Switzerland	41,361
■ United Kingdom	197,569
<b>Total</b>	<b>789,863</b>

Funding contribution (expenditures and future commitment) to EDCTP supported projects: € 372.3 million



■ European Commission	146,951,890 *
■ EDCTP member states	139,959,257
■ Third parties	85,384,175
<b>Total</b>	<b>372,295,322</b>

\* Note, this figure includes a € 2.08 million FP7 contribution

Uganda, co-chaired this meeting. Dr Doodo gave an overview of the current drug and vaccine pharmacovigilance activities in Africa, and Dr Edith Roset Bahmanyar (Senior Epidemiologist at GlaxoSmithKlein Biologicals) presented the comprehensive post-registration programme GSK Biologicals developed for the first malaria vaccine RTS,S/AS. After this introduction, participants discussed a wide range of issues, such as capacity development, good governance, safety data sharing and the collection of baseline data. A report of the meeting, *Sharing responsibility*, was published in February 2013.

## Research, networking and policy visits

Country visits are part of the ongoing EDCTP process of project monitoring and evaluation and are also opportunities to discuss possibilities for future collaboration. The objectives of EDCTP country visits are: to establish personal contact and dialogue with the teams working in the field; to do a technical assessment of progress made; to assess finance systems, internal controls, reporting, and information technology capacity; to remind managers, researchers and their teams about the principal objectives and philosophy of EDCTP. Country visits also offer opportunities for strategic dialogue with policy makers, regulators, and ethics review committee/board members, and for identifying potential areas of collaboration. The specific composition of the visiting teams vary according to the objectives and opportunities of the visit.

### Tanzania

EDCTP visited several major research centres in Tanzania from 16-20 April 2012. The EDCTP team included Mr Abdoulie Barry, Director of Finance and Administration, Dr Thomas Nyirenda, South-South Networking and Capacity Development Manager, and Professor Omu Anzala, member of the former Developing Countries Coordination Committee (DCCC).

At the Kilimanjaro Clinical Research Institute (KCRI) in Moshi, the team met with the coordinators and network work package leaders of the East African Consortium for Clinical Research to discuss the ongoing activities of this Network of Excellence in the coming two years as well as new activities planned under EDCTP-Plus for 2012 and 2013.

Focussed time was dedicated to technical and financial assessments of projects at KCRI, Moshi; Muhimbili University of Health and Allied Sciences Research Institute, Dar es Salaam; Ifakara Research Institute, Bagamoyo; and Mbeya Medical Research Programme, Mbeya. Several PhD students presented their work. The assessments focussed on the progress of EDCTP

projects conducted at the various sites and aspects of financial management and control.

### Senegal

From 5-7 September 2012, Mr Abdoulie Barry, Director of Finance and Administration, Dr Michael Makanga, Director South-South Cooperation and Head of Africa Office, Dr Michelle Singh (Project Officer), and Professor Alioune Dieye, Chair of the DCCC, conducted visits in Senegal where seven projects including clinical trials and one project towards strengthening national ethics review capacity are supported. The EDCTP team also had meetings with the honourable Minister of Health of Senegal, Professor Awa Marie Coll Seck; Dr Abraham Doi (Head of AIDS National Programme) and a team of senior policy makers within the Ministry of Health of Senegal.

### Botswana

From 17-19 November 2012, a small EDCTP team consisting of the Director of Finance and Administration and the South-South Networking and Capacity Development Manager visited several projects in Botswana: three projects related to research ethics, two clinical trial sites and the EDCTP Network of Excellence TESA (Trials of Excellence in Southern Africa).

## EDCTP representation at meetings

### 22 March: Symposium Europe and ACP against tuberculosis

The Tuberculosis Vaccine Initiative (TBVI) organised a symposium for high-level speakers from the group of African, Caribbean and Pacific states and Europe. The meeting was hosted in Brussels in the European Parliament by Member of Parliament Mr Charles Goerens. Professor Charles Mgone, EDCTP Executive Director held a presentation on 'How EDCTP strengthened North-South collaboration in tuberculosis clinical trials'.

### **29-30 March: LSHTM Conference on Intervention Research**

The London School of Hygiene and Tropical Medicine held a symposium to celebrate 40 years of the MRC Tropical Epidemiology Group. The theme of the conference was 'Intervention Research to Improve Health in Developing Countries: Progress and Future Challenges'. Prof. Charles Mgone participated in the panel on 'Funder perspectives on intervention studies'.

### **24-26 April: Forum 2012**

The 14th Global Forum for Health Research jointly organised by the Council on Health Research for Development (COHRED) and the South African Departments of Science & Technology and Health, convened in Cape Town in April 2012. The theme was 'Beyond Aid'. Professor Hannah Akuffo, Chair of the EDCTP General Assembly, and Dr Michael Makanga, EDCTP Director South-South Cooperation and Head of Africa Office, were actively involved as panellists.

### **9-12 September: Global HIV Vaccine Conference**

In 2006 the Bill & Melinda Gates Foundation and EDCTP launched a joint call on capacity building in preparation for preventative HIV vaccine trials. At the AIDS vaccine 2012 meeting in Boston, a satellite meeting was organised for the presentation of the results as five of the six projects were completed. EDCTP Operations Manager, Dr Pauline Beattie, presented the plans for EDCTP2.

### **21-24 October: World Health Summit Berlin 2012**

At the Berlin Health Summit, Dr Gabrielle Breugelmanns, EDCTP North-North Networking Manager, participated in the panel of the partner symposium on 'EU Global Health R&D: impact and return on investment' organised by DSW - Deutsche Stiftung Weltbevölkerung on 23 October 2012.

### **11 November: ASTMH**

Prof. Charles Mgone participated in the annual conference of the American Society of Tropical Medicine and Hygiene in Atlanta (USA). He delivered

a presentation on the EDCTP programme and the principles of capacity building for clinical trials in Africa for the Global Health pre-meeting course 'Building Global Public Health and Research Capacity' on 11 November 2012.

### **3-4 December: Africa-EU Science & Technology cooperation**

The third CAAST-Net stakeholder conference took place in Accra, Ghana in collaboration with PAERIP. These projects, funded by the EU under FP7, aim to promote cooperation between Africa and the European Union in the area of science and technology (CAAST-Net) and research infrastructure (PAERIP). Dr Michael Makanga presented EDCTP as a case study in cooperation and highlighted its impact on the infrastructure for clinical trials in sub-Saharan Africa.

### **1-7 December: ASLM International Conference**

The African Society for Laboratory Medicine held its first international conference in Cape Town, South Africa in 2012. In a plenary session EDCTP Executive Director Prof. Charles Mgone held a presentation on 'Preparing Africa for High Level Research and Clinical Trials'. EDCTP has a keen interest in accelerating the process toward accreditation to pave the way for the establishment of regional reference laboratories within the EDCTP Networks of Excellence.

# EDCTP Governance



EDCTP General Assembly meeting 2-3 November 2012

## General Assembly in 2012: representatives and deputy representatives

Austria	Dr Christiane Druml <i>Medical University of Vienna</i>	Dr Hemma Bauer <i>Austrian Federal Ministry of Science and Research</i>
Belgium	Prof. Bruno Gryseels <i>Institute for Tropical Medicine</i>	Dr Dirk van der Roost succeeded by Ms Margarida Freire MSC <i>Belgian Science Policy Office</i>
Denmark	Dr Soren Jepsen <i>Statens Serum Institute</i>	
France	Prof. Patrice Debré <i>Hôpital Pitié-Salpêtrière</i>	Dr Bernadette Murgue <i>INSERM</i>
Germany	Dr Joachim Klein <i>Bundesministerium für Bildung und Forschung</i>	Dr Detlef Böcking <i>Deutschen Zentrum für Luft und Raumfahrt e.V.</i>
Greece	Prof. Evangelia Ntzani <i>University of Ioannina School of Medicine</i>	Dr Suzanne Kolyva <i>General Secretariat for Research &amp; Technology</i>
Ireland	Dr Teresa Maguire <i>Health Research Board</i>	Dr Diarmuid McClean <i>Irish Aid</i>
Italy	Prof. Stefano Vella <i>Istituto Superiore di Sanità</i>	Dr Anne-Laure Knellwolf <i>Istituto Superiore di Sanità</i>
Luxembourg	Dr Carlo Duprel <i>Fonds National de la Recherche</i>	
Netherlands	Ms Marja Esveld MSc (Vice-Chair) <i>Ministry of Health, Welfare and Sports</i>	Dr Eva Rijkers <i>NACCAP</i>
Norway	Dr Arne-Petter Sanne succeeded by Dr Marit Endresen <i>Norwegian Directorate for Health and Social Affairs</i>	Mr Kårstein Måseide succeeded by Dr Unni Hirdman Rørslett <i>The Research Council of Norway</i>
Portugal	Dr Ana Maria Faisca succeeded by Dr Paula Elyseu Mesquita <i>FCT – Foundation for Science and Technology</i>	Prof. Catarina Resende succeeded by Dr Ana Quartin <i>FCT – Foundation for Science and Technology</i>
Spain	Dr Rafael De Andrés Medina <i>Instituto de Salud Carlos III</i>	Mr Tomas López-Peña Ordoñez <i>Instituto de Salud Carlos III</i>
Sweden	Prof. Hannah Akuffo (Chair) <i>Swedish International Development Agency (Sida)</i>	Prof. Olle Stendahl (retired) <i>Faculty of Health Sciences, University of Linköping</i>
Switzerland	Dr Isabella Beretta <i>State Secretariat for Education and Research</i>	
United Kingdom	Dr Mark Palmer (Vice-Chair) <i>Medical Research Council</i>	Morven Roberts <i>Medical Research Council</i>

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## African representation at the General Assembly in 2012

### The African Union (AU) Commission of Social Affairs

Advocate Bience Gawanas, Commissioner Social Affairs of AU (left office)

Alternate representative: Dr Olawale Maiyegun, Director for Social Affairs of AU

### The East African Community (EAC)

Ambassador Richard Sezibera, Secretary General of EAC

Alternate representative: Dr Stanley Sonoiya, Principal Health Officer of EAC

### The Economic Community of Central African States (ECCAS) and the Organisation for the Coordination of the Struggle Against Epidemics in Central Africa (OCEAC)

Dr Jean Jacques Moka, Secretary General of OCEAC

### The African Regional Committee of Health Ministers

Prof. John Gyapong, Pro-Vice-Chancellor (Research Innovation & Development), University of Ghana

Alternate representative: Dr Alasford M. Ngwengwe, School of Natural Sciences, Department of Mathematics and Statistics, Lusaka, Zambia

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## European Union representation at the General Assembly in 2012

Dr Line Matthiessen-Guyader, Head of Infectious Diseases and Public Health, DG Research & Innovation

Dr Gianpietro van de Goor, Senior Policy Officer for International Cooperation, Infectious Diseases and Public Health, DG Research & Innovation

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## Observers to the General Assembly in 2012

Country / EU	Representative	Alternate representative
Finland	Dr Jarmo Wahlfors <i>Health Research Unit, Academy of Finland</i>	Dr Sirpa Nuotio <i>Health Research Unit, Academy of Finland</i>
Latvia	Dr Modra Murovska <i>Augusta Kirhensteina Microbiology and Virology Institute, Riga Stradins University</i>	Dr Uldis Berkis <i>National Contact Person Health, Ministry of Science and Education</i>
European Commission, DG DEVCO	Dr Walter Seidel <i>Unit D4 EC-DEVCO</i>	Dr Eric Sattin <i>Unit D4 EC-DEVCO</i>



## Partnership Board in 2012

The Partnership Board ceased its activities as of 31 December 2012.  
Its advisory function will be continued by the (interim) Strategic Advisory Committee.

Prof. Shabbar Jaffar (Chair)	United Kingdom
Prof. Martin Grobusch (Vice-Chair)	The Netherlands/Germany
Dr Rosemary Musonda (Vice-Chair)	Botswana/Zambia
Dr Salim Abdulla	Tanzania
Prof. Tumani Corrah	The Gambia
Dr Opokua Ofori-Anyinam	Belgium
Prof. Marie-Louise Newell	South Africa
Prof. Robert Sauerwein	The Netherlands
Dr Dawit Wolday	Ethiopia

## Developing Countries Coordinating Committee in 2012

The Developing Countries Coordinating Committee ceased its activities as of 31 December 2012.  
Its advisory function will be continued by the (interim) Strategic Advisory Committee.

Prof. Alioune Dieye (Chair)	Senegal
Prof. Nkandu Luo (Vice-Chair)	Zambia (left on 31 December 2011)
Prof. Véronique Nitchom Penlap (Vice-Chair)	Cameroon (left on 31 December 2011)
Dr Abraham Alabi	Nigeria
Dr Martin Antonio	The Gambia
Dr Abraham Aseffa	Ethiopia (appointed on 1 January 2012)
Dr Omu Anzala	Kenya
Dr Herman Awono Ambene	Cameroon
Dr Saadou Issifou	Gabon
Dr Josephine Kibaru Mbae	Tanzania/Kenya
Dr Mecky Isaac Matee	Tanzania (left on 31 December 2011)
Dr Modest Mulenga	Zambia
Prof. Peter Ndumbe	WHO-AFRO (deceased, 14 May 2013)
Prof. Angélique Ndjovi Mbiguino	Gabon
Prof. Jasper Ogwal-Okeng	Uganda
Dr Jean Bosco Ouedraogo	Burkina Faso
Dr Gita Ramjee	South Africa (appointed on 1 January 2012)
Dr Issa Sanou	WHO-AFRO (left on 31 December 2011)
Dr Hulda Swai	South Africa/Tanzania (left on 31 December 2011)

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## EDCTP Secretariat staff in 2012

Prof. Charles Mgone	Executive Director
Abdoulie Barry	Director of Finance and Administration
Dr Michael Makanga	Director South-South Cooperation and Head of Africa Office
Dr Pascoal Mocumbi	High Representative
Dr Pauline Beattie	Operations Manager
Dr Gabrielle Breugelmans	North-North Networking Manager
Dr Thomas Nyirenda	South-South Networking and Capacity Development Manager
Hager Bassyouni	Project Officer
Dr Montserrat Blázquez Domingo	Project Officer
Chris Bruinings	Financial Officer
Ralph Buchrnhornen	Grants Financial Assistant
Ana Lúcia Cardoso	North-North Networking Officer
Mary Jane Coloma-Egelink	Grants Financial Assistant
Lucien de Corte	Information Technology (IT) Officer
Nuraan Fakier	Project Officer
Jean Marie Vianney Habarugira	Project Officer
Suzanne Hoogervorst	Travel and Events co-ordinator
Suzanne Ignatia	HR Adviser
Christa Janko	Private Sector Relations Coordinator (left September 2012)
Nancy Kensmil	Administrative Officer & HR Assistant
Gert Onne van de Klashorst	Communications Officer
Sophie Mathewson	Networking Officer
Wendy Morrill	Administrative Officer
Pete Murphy	Project Officer
Daniela Pereira-Lengkeek	Assistant Communications & IT Officer
Emma Qi	Grants Financial Assistant
Dr Monique Rijks-Surette	Project Officer
Sayma Siddiqui	Financial Assistant
Dr Michelle Singh	Project Officer
Gail Smith	Senior Administrative Officer
Rafael Taguas Sánchez	Financial Assistant
Lidwien van der Valk	Legal Adviser
Jing Zhao	Grants Financial Assistant



# Summary financial statements 2012 and Auditor's Report



## Statement of comprehensive income for the year ended 31 December 2012

Expressed in thousands ('000) of Euro

	Restricted EC 2012	Restricted Donor 2012	Total 2012	Total 2011
<b>Income</b>				
Contributions	7 582	26 592	34 174	36 341
Finance income	319	312	631	750
<b>Total income</b>	<b>7 901</b>	<b>26 904</b>	<b>34 805</b>	<b>37 091</b>
<b>Expenditure</b>				
Grants expenditure	(4 457)	(28 440)	(32 897)	(36 713)
Other expenditure	(3 252)	(404)	(3 656)	(4 118)
Governance expenditure	(224)	(78)	(302)	(376)
<b>Total expenditure</b>	<b>(7 933)</b>	<b>(28 922)</b>	<b>(36 855)</b>	<b>(41 207)</b>
<b>Total comprehensive income for the year</b>	<b>(32)</b>	<b>(2 018)</b>	<b>(2 050)</b>	<b>(4 116)</b>

All income and expenditure relates to continuing activities.

	2012 € 000	2011 € 000
<b>Result attributable to:</b>		
Restricted reserves EC	(32)	(79)
Restricted reserves Donor	(2 018)	(4 037)
	<b>(2 050)</b>	<b>(4 116)</b>

## Statement of financial position as at 31 December 2012

Expressed in thousands ('000) of Euro

	31 December 2012	31 December 2011
<b>Assets</b>		
<b>Non-current assets</b>		
Property Plant & Equipment	–	–
Debtors	0	7 714
<b>Total non-current assets</b>	<b>0</b>	<b>7 714</b>
<b>Current assets</b>		
Debtors and other receivables	16 663	21 046
Cash and cash equivalents	28 919	38 416
<b>Total current assets</b>	<b>45 582</b>	<b>59 462</b>
<b>Total assets</b>	<b>45 582</b>	<b>67 176</b>
<b>Equity</b>		
Restricted reserve: EC	(239)	(207)
Restricted reserve: Donors	1 899	3 917
<b>Total equity</b>	<b>1 660</b>	<b>3 710</b>
<b>Non-current liabilities</b>		
Grant payables	13 599	26 473
<b>Total non-current liabilities</b>	<b>13 599</b>	<b>26 473</b>
<b>Current liabilities</b>		
Grant payables	29 995	36 702
Other payables	328	291
<b>Total current liabilities</b>	<b>30 323</b>	<b>36 993</b>
<b>Total equity and liabilities</b>	<b>45 582</b>	<b>67 176</b>

The financial statements were approved by the Executive Secretariat on behalf of the EDCTP-EEIG General Assembly by:

Professor Charles Mgone

Dated 29 May 2013

## Statement of Changes in Equity

Expressed in thousands ('000) of Euro

	Restricted reserve: EC	Restricted reserve: Donor	Total
<b>Balance as at 31 December 2011</b>	(207)	3 917	3 710
Total comprehensive income for the year	(32)	(2 018)	(2 050)
<b>Balance as at 31 December 2012</b>	(239)	1 899	1 660

## Statement of cash flows for the year ended 31 December 2012

Expressed in thousands ('000) of Euro

	2012	2011
<b>Cash flows from operating activities</b>		
Result for the year	(2 050)	(4 116)
<i>Adjustment for:</i>		
Finance income	(631)	(750)
(Increase) decrease in debtors and other receivables	11 967	10 756
Increase (decrease) in grant and other payables	(19 544)	(18 629)
<b>Net cash flows from operating activities</b>	<b>(10 258)</b>	<b>(12 739)</b>
<b>Cash flows from investing activities</b>		
Interest received	761	792
<b>Net cash flows from investing activities</b>	<b>761</b>	<b>792</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(9 497)</b>	<b>(11 947)</b>
Cash and cash equivalents at 1 January	38 416	50 405
Exchange rate effects	0	(42)
<b>Cash and cash equivalents at 31 December</b>	<b>28 919</b>	<b>38 416</b>

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## Notes to the summary financial statements

### 1. Basis for preparation

The summary financial statements, including the 2011 comparative figures, comprising the statement of financial position as at 31 December 2012, the statements of comprehensive income, changes in equity and cash flows for the year then ended, have been extracted from the annual financial statements of EDCTP-EEIG for the year ended 31 December 2012. These financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (hereafter EU-IFRS).

### 2. Accounting policies

The summary financial statements omit the notes comprising the significant accounting policies and other explanatory information as required by EU-IFRS. Therefore, to obtain a full understanding of the financial statements, the summary financial statements should be read in conjunction with the annual financial statements from which the summary financial statements were extracted.

The annual financial statements can be obtained from the EDCTP website ([www.edctp.org](http://www.edctp.org)).



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## Independent auditor's report

### To: the General Assembly of EDCTP-EEIG

The accompanying summary financial statements, which comprise the statement of financial position as at 31 December 2012, the statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes comprising a summary of the significant accounting policies and other explanatory information, are derived from the audited financial statements of EDCTP-EEIG 2012. We expressed an unqualified audit opinion on those financial statements in our report dated 29 May 2013. Those financial statements, and the summary financial statements, do not reflect the effects of events that occurred subsequent to the date of our report on those financial statements.

The summary financial statements do not contain all the disclosures required by International Financial Reporting Standards as adopted by the European Union. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of EDCTP-EEIG.

### Management's responsibility

Management is responsible for the preparation of a summary of the audited financial statements on the basis described in note 1 (Basis of preparation) of the summary financial statements.

### Auditor's responsibility

Our responsibility is to express an opinion on the summary financial statements based on our procedures, which were conducted in accordance with Dutch law, including the Dutch Standard on Auditing 810 'Engagements to report on summary financial statements'.

### Opinion

In our opinion, the summary financial statements derived from the audited financial statements of EDCTP-EEIG 2012 are consistent, in all material respects, with those financial statements, on the basis described in note 1 of the summary financial statements.

The Hague, 28 June 2013  
KPMG Accountants N.V.

C. den Besten RA

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The Hague, July 2013

European & Developing Countries Clinical Trials Partnership

## Photo acknowledgement

- Cover:** Dr Godwin Nchinda and Research team in Cell Culture Unit of the Immunology Laboratory in Yaounde, Cameroon (project led by Dr Godwin Nchinda)
- Page 4:** Professor Charles Mgone, EDCTP Executive Director (photo by Hans Hordijk, the Netherlands)
- Page 6:** Aerial view of Table Mountain & Cape Town Harbour (iStockphoto.com)
- Page 14:** The health centre at Sukuta, The Gambia (project led by Prof. Tomás Hanke)
- Page 18:** HIV-1 sequencing training in Mwanza, Tanzania (project led by Dr Saidi Kapiga)
- Page 21:** Laboratory staff conducting pharmacokinetic (PK) study on samples in Benin (project led by Dr Corinne Merle)
- Page 22:** X-ray showing cases of tuberculosis, Groote Schuur Hospital in Cape Town, South Africa (project led by Prof. Keertan Dheda; photo by EDCTP)
- Page 25:** Enrolment of patient at a Guguletu clinic, South Africa (project led by Prof. Keertan Dheda; photo by EDCTP)
- Page 26:** Mother and child at Bagamoyo Research Centre, part of Ifakara Health Institute, Tanzania (photo by EDCTP)
- Page 31:** Mother and child at Bagamoyo Research Centre, part of Ifakara Health Institute, Tanzania (photo by EDCTP)
- Page 32:** Laboratory staff at the NIMR - Mbeya Medical Research Center in Tanzania (project led by Prof. Michael Hoelscher)
- Page 37:** Researcher at the Centre National de Recherche et de Formation sur le Paludisme in Burkina Faso (photo by EDCTP)
- Page 51:** Researchers at the Laboratory of Bacteriology and Virology at Le Dantec Hospital in Dakar, Senegal (photo by EDCTP)
- Page 52:** Transport of patients in Bougoula, Mali (project led by Prof. Abdoulaye Djimdé)