# EDCTP Portfolio Networks of Excellence





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#### **EDCTP** networks of excellence projects

Project Acronym (Coordinator)	Disease/ Program area	Project goal	Institutions involved	Status
WANETAM	TB, HIV, malaria and networking	Capacity Building	Burkina Faso	Ongoing
CANTAM	TB, HIV, malaria and networking	Capacity Building	<ul> <li>Cameroon</li> <li>Organisation de Coordination Pour La Lutte Contre Les Endemies (OCEAC)</li> <li>University of Buea (UB)</li> <li>University of Yaoundé</li> <li>Centre International de Référence Chantal Biya (CIRCB)</li> <li>Republic of Congo</li> <li>Université Marien Ngouabi</li> <li>Centre d'Etudes sur les Ressources Vegetales (CERVE)</li> <li>Gabon</li> <li>Fondation Internationale de l'Hôpital du Docteur Albert Schweitzer</li> <li>Tanzania</li> </ul>	Ongoing

			Multilateral initiative on Malaria	
EACCR	TB, HIV, malaria and networking	Capacity Building	Ethiopia	Ongoing
TESA	TB, HIV, malaria and networking	Capacity Building	<ul> <li>Botswana</li> <li>Botswana- Harvard AIDS Institute Partnership (BHP)</li> <li>Malawi</li> <li>College of Medicine</li> <li>Mozambique</li> <li>Centro de Investigação em Saúde da Manhiça (CISM)</li> <li>South Africa</li> <li>University of Cape Town</li> <li>University of Stellenbosch</li> <li>Medical Research Council of South Africa</li> <li>Zambia</li> <li>University Teaching Hospital Lusaka</li> <li>Zimbabwe</li> <li>Biomedical Research and Training Institute</li> <li>University of Zimbabwe College of Health Sciences</li> </ul>	Ongoing

#### 1 WANETAM

EDCTP Project Coordinator:	Souleymane Mboup (University Cheikh Anta DIOP de Dakar (UCAD), Senegal)
EDCTP Call Title:	Networks of Excellence
EDCTP Project Title:	Capacity building to prepare West African sites for clinical trials on HIV, TB and malaria (WANETAM)
EDCTP Project Code:	CB.2007.41700.007
EDCTP Project Start Date:	31 July 2009
EDCTP Project End Date:	31 December 2013
Collaborators:	<ul> <li>Richard Adegbola (Medical Research Council (MRC) Laboratories, The Gambia)</li> <li>Simon Agwale (National Institute for Pharmaceutical Research (NIPRD), Nigeria)</li> <li>Toure Aissatou (Institut Pasteur de Dakar, Senegal)</li> <li>Abraham Sunday Alabi (MRC Laboratories, The Gambia)</li> <li>Martin Antonio (MRC Laboratories, The Gambia)</li> <li>Ekow Biney (Korle-Bu Teaching Hospital, Ghana)</li> <li>Kalifa Bojang (MRC Laboratories, The Gambia)</li> <li>Tumani Corrah (MRC Laboratories, The Gambia)</li> <li>Bouke de Jong (MRC Laboratories, The Gambia)</li> <li>Potiandi Serge Diagbouga (Centre Muraz, Burkina Faso)</li> <li>Ogobara Doumbo (University of Bamako, Mali)</li> <li>Audrey Gyanuah Forson (University of Ghana)</li> <li>Oni Idigbe (Federal Ministry of Health, Nigeria)</li> <li>Aderemi Kehinde (University of Ibadan, Nigeria)</li> <li>Awewura Kwara (Korle-Bu Teaching Hospital, Ghana)</li> <li>Kalifa Manneh (National Health Laboratory Service, The Gambia)</li> <li>Issa Ouedraogo Nebie (Centre national de recherche de Formation sur le Paludisme (CNRFP), Burkina Faso)</li> <li>Paulo Rabna (Bandim Health Project, Guinea-Bissau)</li> <li>Sarah Rowland-Jones (MRC Laboratories, The Gambia)</li> </ul>
Objectives:	To establish capacity building and technology transfer to prepare West African institutes for the successful conduct of clinical trials and creation of a network for sub-regional scientific collaborations
Status:	Ongoing
Results and outcomes:	WANETAM website: www.wanetam.org
Results and outcomes:	<ol> <li>Malaria incidence and serological marker study linked to the network started in January 2010 in Burkina Faso, Senior</li> <li>Some institutions submitted proposals for HIV surveillance through dried blood spots to ECOWAS and received approval for funding</li> <li>Senior Fellowship funded by EDCTP started in 2009</li> <li>Training:         <ul> <li>TB: BACTEC and MGIT training conducted. MDR-TB surveillance in Guinea Bissau is linked to MRC Laboratories through NoE grant</li> <li>HIV: One workshop on Research Capacity in HIV Network for Prevention Trials conducted</li> <li>Ethics training done in Dakar in January 2011</li> <li>HIV drug resistance surveillance done in Dakar in March 2011</li> <li>Data management and grant writing done in Dakar in April 2011</li> <li>Project Management done in Dakar in September 2011</li> </ul> </li> </ol>

- GCP/GCLP training, The Gambia, 26-28 June 2012 - GCP Training, Ghana, 23-26 July 2012 - TB specific disease Training: DNA extraction, PCR, Spoligotype analysis, MTBDR for drug resistance testing; DNA sequencing, Bioinformatics WANETAM workshop, MRC, The Gambia (6-17 Feb. 2012): Participants (n=16) were equipped with microbiological and epidemiological tools to independently perform surveillance for TB drug resistance. Sessions included DNA extraction, setting up a PCR laboratory and spoligotyping. An article about this training was published in the TAMA newsletter (2012, vol 11, issue 2) HIV Viral load assay for regional use (optimization of in-house Elona assay and real time PCR. No of participants=16. This training was provided over a four month consultancy by Dr Abraham Alabi (July-Aug 2012). The consultant provided external quality control, guidance on optimization and running the assay and also reviewed the standard operating procedure for the technique Training on HLA/KIR genotyping was attended by Dr Moustapha Mbow. This is a train-the-trainer initiative. The cost of implementation will be shared by WANTAM and WAPHIR Workshop on Basic Quality Control practices for clinical laboratories participating in Malaria clinical trials, 2-7 July 2012 **Publications:** 

## 2 CANTAM

EDCTP Project Coordinator:	Francine Ntoumi (Congolese Foundation for Medical Research,
	Congo)
EDCTP Call Title:	Networks of Excellence
EDCTP Project Title:	Central African Network on TB, HIV/AIDS and malaria (CANTAM)
EDCTP Project Code:	CB.2007.41700.006
EDCTP Project Start Date:	19 December 2008
EDCTP Project End Date:	31 December 2013
Collaborators:	<ul> <li>Eric Akum Achidi (University of Buea, Cameroon)</li> <li>Herman Parfait Awono-Ambene (Organization for the Coordination of Endemic Disease Control in Central (OCEAC), Camerron)</li> <li>Leonardo Basco (Institute of Research for the Development (IRD), Cameroon)</li> <li>Matthias Frank (University of Tübingen, Germany)</li> <li>Saadou Issifou (Albert Schweitzer Hospital, Gabon)</li> <li>Sinata Koulla-Shiro (National Agency for AIDS Research (ANRS), France)</li> <li>Rose Leke (University of Yaounde, Cameroon)</li> <li>Pierre Blaise Matsiegui (Albert Schweitzer Hospital, Gabon)</li> <li>Elie Mavoungou (Albert Schweitzer Hospital, Gabon)</li> <li>Mathieu Ndounga (Centre d'Etudes sur les Ressources Végétales (CERVE), Congo)</li> <li>Peter Ndumbe (University of Yaounde, Cameroon)</li> <li>Marie-Yvonne Nkodia (CERVE, Congo)</li> <li>Odile Ouwe Misse Oukem (International Reference Centre Chantal Biya (CIRCB), Cameroon)</li> <li>Veronique Penlap Beng (University of Yaounde, Cameroon)</li> </ul>
Objectives:	<ol> <li>To develop human resources in the skills required to conduct safe clinical trials including GCP/GLP training and preparation and development of clinical and standardized protocols from recruitment of participants to the conduct of clinical trials</li> <li>To strengthen laboratories to be able to perform relevant tests for HIV/AIDS and malaria clinical research</li> <li>To strengthen ethical review boards and regulatory authorities in needy collaborating sites; and establish effective community liaison at each site and identify new study cohorts in villages and towns for future clinical trials on HIV/AIDS and malaria.</li> </ol>
Status: Results and outcomes:	Ongoing CANTAM website: www.contom.org
Results and buttoffles.	CANTAM website: <a href="www.cantam.org">www.cantam.org</a> Malaria: The studies done so far include 2 prevalence studies, 2 entomology surveys and 1 socio-demographic survey Details of some of these studies are given below. 4 MSc students and 3 MD students are in training. In preparation for conduct of malaria trials a cohort of children less than 10 years and malaria surveillance studies in the childhood cohort have been completed. Two EDCTP funded malaria Senior Fellowships awarded to Eric Achidi started in 2009 and Mathieu Ndounga in 2011.
	TB: Activities are aimed at capacity building for future vaccine and drug trials. A laboratory has been refurbished and equipped, 2 PhD and 2 MSc students have been recruited Once the details of studies by students are known they will be published in the next update of this report. The scientists have

established links with Novartis and Aeras. An EDCTP funded TB Senior Fellowship awarded to Sunny Oyakhirome 2010-2012 HIV: Baseline studies in HIV-malaria co-infection started at CIRCB in Cameroon (details are not yet available). An HIV laboratory was renovated and equipped and a cohort for HIV positive mother-child was started. Four HIV community studies were completed (see below). An EDCTP funded Senior Fellowship awarded to Mathieu Ndounga will start in 2011.

TB and HIV: Co-infection baseline studies and social science studies have commenced. Details of these studies are yet to be reported

Training: These include GCP, ethics (through AMANET and TRREE), clinical data management, on line diploma in statistics, molecular tools for TB and HIV epidemiological studies, training of an FP7 funded project on Young African Scientist initiative.

Collaboration with other NoE:

EACCR: Training in HIV research, biostatistics

TESA: discussions on joint grants application have taken place WANETAM

#### **Publications**

- 1. Kilama W, Ntoumi F.2009. Malaria: a research agenda for the eradication era. *The Lancet*. Oct 31;374(9700):1480-2
- 2. Ntoumi Francine. 2010. Networking and capacity building for health research in Central Africa. *Wien Klin Wochenschr*. 2010 Mar; 122 Suppl 1:23-6.
- 3. Francine Ntoumi, Gunilla Priebe. 2010. Africanizing scientific knowledge: The Multilateral Initiative on Malaria as a model? *Malaria Journal*, 9(Suppl 3):S7 December 2010.
- Pembe Issamou Mayengue, Mathieu Ndounga, Freddy Vladimir Malonga, Michel Bitemo, Francine Ntoumi. 2011. Genetic polymorphism of merozoite surface protein-1 and merozoite surface protein-2 in Plasmodium falciparum isolates from Brazzaville, Republic of Congo. *Malaria Journal* Sep 22; 10(1):276.
- 5. Francine Ntoumi. The Ant Who Learned to Be an Elephant. 2011. *Science*. 2011 Sep 30; 333 (6051):1824-5.
- 6. Matthias Frank, Nicola Lehners, Pembe I Mayengue, Julian Gabor, Matthias Dal-Bianco, David U Kombila, Ghyslain Mombo Ngoma, Christian Supan, Bertrand Lell, Francine Ntoumi, Martin P Grobusch, Klaus Dietz and Peter G Kremsner. 2011. A thirteen-year analysis of Plasmodium falciparum populations reveals high conservation of the mutant pfcrt haplotype despite the withdrawal of chloroquine from national treatment guidelines in Gabon. *Malaria Journal* 10:365.
- 7. Selidji T Agnandji, Florian Kurth, Jose F Fernandes, Solange S Soulanoudjingar, Beatrice P Abossolo, Ghyslain Mombo-Ngoma, Arti Basra, Raquel González, Gondo Kizito, Pembe I Mayengue, Lorenz Auer-Hackenberg, Saadou Issifou, Bertrand Lell, Ayola A Adegnika and Michael Ramharter. The use of paediatric artemisinin combinations in sub-Saharan Africa: a snapshot questionnaire survey of health care personnel. *Malaria Journal* 2011, 10:365
- 8. Koukouikila-Koussounda F, Malonga V, Mayengue PI, Ndounga M, Vouvoungui CJ, Ntoumi F. 2012. Genetic polymorphism of merozoite surface protein 2 and

- prevalence of K76T pfcrt mutation in Plasmodium falciparum field isolates from Congolese children with asymptomatic infections. *Malar Journal*. Apr 1;11(1):105.
- Gervais Gouana Tchinda, Julius Atashili, Eric A. Achidi, Henri L. Kamga, Anna L. Njunda, Peter M. Ndumbe. 2012. Impact of Malaria on Hematological Parameters in People Living with HIV/AIDS Attending the Laquintinie, Hospital in Douala, Cameroon. *Plos One*, Volume 7, Issue 7, e40553.
- 10. Jude D. Bigoga, Derek N. Ndangoh, Parfait H. Awono-Ambene, Salomon Patchoke, Etienne Fondjo, Rose G.F. Leke. Pyrethroid resistance in Anopheles gambiae from the rubber cultivated area of Niete, South Region of Cameroon. *Acta Tropica* 124 (2012) 210–214.
- 11. Jude D Bigoga, Ferdinand M Nanfack, Parfait H Awono-Ambene, Salomon Patchoké, Jean Atangana, Vitalis S Otia, Etienne Fondjo, Roger S Moyou5 and Rose GF Leke. Seasonal prevalence of malaria vectors and entomological inoculation rates in the rubber cultivated area of Niete, South Region of Cameroon. *Parasites & Vectors* 2012, 5:197
- 12. Felix Koukouikila-Koussounda, Vladimir Malonga, Pembe Issamou Mayengue, Mathieu Ndounga, Christevy Jeannhey Vouvoungui and Francine Ntoumi. 2012. Genetic polymorphism of merozoite surface protein 2 and prevalence of K76T pfcrt mutation in Plasmodium falciparum field isolates from Congolese children with asymptomatic infections. *Malaria Journal*, 11:105.
- 13. Felix Koukouikila-Koussounda, Ange-Antoine Abena, August Nzoungani, Jean-Vivien Mombouli, Jean-Maurille Ouamba, Jürgen Kun, Francine Ntoumi. 2013. In vitro evaluation of antiplasmodial activity of extracts of Acanthospermum hispidum DC (Asteraceae) and Ficus thonningii Blume (Moraceae), two plants used in traditional medicine in the Republic of Congo. *African Journal of Traditional*, Complementary and Alternative Medicines. Volume 10, No. 2, 2013. pp.270-276.
- 14. Rod Ibara-Okabande, Felix Koukouikila-Koussounda, Mathieu Ndounga, Jeannhey Vouvoungui, Vladimir Malonga, Prisca Nadine Casimiro, Jean Rosaire Ibara, Anissa Sidibe, Francine Ntoumi. 2012. Reduction of multiplicity of infections but no change in msp2 genetic diversity in P. falciparum isolates from Congolese children after introduction of artemisin-combination therapies. Malaria Journal. 11:410 (7 December 2012).
- 15. Felix Koukouikila-Koussounda, Francine Ntoumi, Mathieu Ndounga, Hoang V. Tong, Peter G. Kremsner, Ange-Antoine Abena, Velavan TP. Regulatory polymorphisms in the promoter region of STAT6 and FOXP3 are associated with protection against uncomplicated malaria and high *Plasmodium falciparum* parasitemia in Congolese children. *Malaria Journal* Jan8; 12:9

#### 3 EACCR

EDCTP Project Coordinator:	Pontiano Kaleebu (Medical Research Council Programme on
	AIDS - Uganda Virus Research Institute (MRC/UVRI), Uganda)
EDCTP Call Title:	Networks of Excellence
EDCTP Project Title:	East Africa Consortium for Clinical Research (EACCR)
EDCTP Project Code:	CB.2007.41700.001
EDCTP Project Start Date:	14 May 2009
EDCTP Project End Date:	31 December 2013
Collaborators:	Salim Abdulla (Ifakara Health Research and Development Control Tangania)
	<ul><li>Centre, Tanzania)</li><li>Michael Ashton (University of Gothenburg, Sweden)</li></ul>
	Muhammad Bakari (Muhimbili University College of Health
	Sciences, Tanzania)
	John Changalucha (National Institute for Medical Research
	(NIMR), Tanzania)
	<ul> <li>Philippa Easterbrook (Makerere University, Uganda)</li> </ul>
	<ul> <li>Anna Ekstrom (Karolinska Institute, Sweden)</li> </ul>
	<ul> <li>Alison Elliott (London School of Hygiene and Tropical Medicine (LSHTM), UK)</li> </ul>
	Howard Engers (rmauer Hansen Research Institute (AHRI),
	Ethiopia)
	Heiner Grosskurth (MRC/UVRI, Uganda)
	Michael Hoelscher (Ludwig-Maximilians Universitat
	Munchen, Germany)
	Walter Godfrey Jaoko (University of Nairobi, Kenya)
	Andrew Kambugu (Makerere University, Uganda)      Thy Ketabira (Makerera University, Uganda)
	<ul><li>Elly Katabira (Makerere University, Uganda)</li><li>Edward Katongole-Mbidde (MRC/UVRI, Uganda)</li></ul>
	<ul> <li>Jonathan Kayondo (MRC/UVRI, Uganda)</li> </ul>
	Gibson Kibiki (Tanzania)
	Stafford Kibona (NIMR, Tanzania)
	Japhet Killewo (Muhimbili University College of Health
	Sciences, Tanzania)
	Eugene Kinyanda (MRC/UVRI, Uganda)
	Andrew Yona Kitua (NIMR, Tanzania)  Trudia Anna Lang (Kanya Madiaal Bassarah Instituta
	<ul> <li>Trudie Anne Lang (Kenya Medical Research Institute (KEMRI) Kenya)</li> </ul>
	Kayla Laserson (Centers for Disease Control and
	Prevention (CDC), Kenya)
	Martha Lemnge (NIMR, Tanzania)
	<ul> <li>Frank Van Leth (KNCV Tuberculosis Foundation,</li> </ul>
	Netherlands)
	Asuman Lukwago (Ministry of Health, Uganda)
	<ul> <li>Leonard Maboko (Mbeya Medical Research Programme, Tanzania)</li> </ul>
	Kevin Marsh (KEMRI, Kenya)
	Sayoki Godfrey Mfinang (NIMR, Tanzania)
	Adane Mihret (Ethiopia)
	Odd Mørkve (University of Bergen, Norway)
	Candida Moshiro (Muhimbili University College of Health
	Sciences, Tanzania)
	Maowia Mukhtar (University of Khartoum, Sudan)  Retaining the Advanced (Mathiatal Mathiatal
	Patricia Jane Munseri (Muhimbili University College of  Health Sciences, Tanzania)
	<ul><li>Health Sciences, Tanzania)</li><li>Beatrice Kemilembe Mutayoba (NIMR, Tanzania)</li></ul>
	<ul> <li>Beatrice Kemilembe Mutayoba (NIMR, Tanzania)</li> <li>Martin Nsubuga (San Raphael of St. Francis Hospital</li> </ul>
	Nsambya, Uganda)

	<ul><li>Ayub V. O. Ofulla (Maseno University, Kenya)</li><li>Bernhards Ragama Ogutu (KEMRI, Kenya)</li></ul>
	Norbert Peshu (KEMRI, Kenya)
	Eric Sandström (Karolinska Institute, Sweden)
	Innocent Semali (Muhimbili University College of Health
	Sciences, Tanzania)
	Mark Urassa (NIMR, Tanzania)
	<ul> <li>Andre Van Der Ven (Radboud University Nijmegen,</li> </ul>
	Netherlands)
	<ul> <li>Liya Wassie (AHRI, Ethiopia)</li> </ul>
Objectives:	To upgrade research capacity and build formal operational links
Objectives.	and affiliations among east African and northern partner
	institutions to form a consortium with enhanced multi-disease
	(HIV/AIDS, TB and malaria) capacity to conduct ICH-GCP
	compliant clinical trials. To establish and strengthen East African
	excellence in the field of clinical trials on HIV/AIDS, Tuberculosis
	(TB) and Malaria in a well-structured and integrated network,
	organised and run by the East African research community
	itself.
Status:	Ongoing
Results and outcomes:	EACCR website: http://eaccr.org/
Results and outcomes.	<ul> <li>Malaria: Node Committee coordinated from Kilifi was</li> </ul>
	formed in 2010, face-to-face meeting was held in Nairobi
	in January 2012
	<ul> <li>HIV: Node Committee coordinated from UVRI was formed</li> </ul>
	in 2010
	TB: Node Committee coordinated from KCMC was formed
	in 2010
	<ul> <li>Implementation of a successful Reciprocal innovative</li> </ul>
	clinical monitoring scheme for research quality
	management with pooling of monitors completed in April
	2012
	<ul> <li>Long-term trainees: 26 Masters candidates have projects</li> </ul>
	in progress
	<ul> <li>Four EDCTP-linked Senior Fellowships:</li> </ul>
	<ul> <li>"Evolution of HIV-1 ARV drug resistance mutations in</li> </ul>
	the ART naïve during therapy; threshold frequency
	levels and linkage context associated with treatment
	failure in Uganda " by Dr Jonathan Kayondo in Uganda
	<ul> <li>"Comparison of efficacy, safety and pharmacokinetics</li> </ul>
	of intravenous artesunate and intravenous quinine
	followed by oral artemisinin combination therapy for
	severe malaria treatment in uganda AND evaluation of
	pharmacokinetic drug interactions of artesunate,
	quinine, lumefantrine and piperaquine with
	antiretroviral drugs" by Dr Pauline Byakika-Kibwika in
	Uganda
	<ul> <li>"Clinical trials in HIV/AIDS in Africa: Should they</li> </ul>
	routinely control for mental health factors?" by Dr
	Eugene Kinyanda
	<ul> <li>"Short and long term clinical and immunological</li> </ul>
	outcomes of patients with HIV/TB co-infections on ART"
	by DR William Worodria
	As of May 2012, 105 personnel received short-term
	training in basic epidemiology, biostatistics, monitoring
	and grant writing Other training included laboratory
	techniques (PCR and Malaria microscopy)
	Completion of 15 mentorship visits
	<ul> <li>Completed upgrades of 11 of the 17 sister sites</li> </ul>

	<ul> <li>New networks: TB-TEA, Global Health Trials, WWARN, other NoE (joint paper writing), contribution to NACCAP booklet</li> </ul>
	<ul> <li>Three collaborative grant applications submitted to EDCTP, CAPTN, IANPHI and Danish Government</li> </ul>
Publications:	

## 4 TESA

EDCTP Project Coordinator:	Alexander Pym (Medical Research Council South Africa (MRC),
EDCTP Project Coordinator.	South Africa)
EDCTP Call Title:	Networks of Excellence
EDCTP Project Title:	Trials of Excellence for Southern Africa (TESA)
EDCTP Project Code:	CB.2007.41700.009
EDCTP Project Start Date:	16 November 2009
EDCTP Project End Date:	31 December 2013
Collaborators:	<ul> <li>Keertan Dheda (University of Cape Town, South Africa)</li> <li>Amina Jindani (St. George's University of London, UK)</li> <li>Stefan Kauffman (Max Planck Society, Germany)</li> <li>Christian Lienhardt (Institut de Recherche pour le Développement (IRD), France)</li> <li>Eusebio Macete (Manhiça Health Research Center, Mozambique)</li> <li>Peter Robert Mason (Biomedical Research and Training Institute (BRTI), Zimbabwe)</li> <li>Helen McIlleron (University of Cape Town, South Africa)</li> <li>Rosemary Musonda (Botswana Harvard Partnership (BHP)/(Botswana-Harvard AIDS Institute Partnership), Botswana)</li> <li>Peter Mwaba (University Teaching Hospital, Zambia)</li> <li>Tom Ottenhoff (Leiden University, Netherlands)</li> <li>Zulmira Almeida da Silva (Hospital José Macamo, Mozambique)</li> <li>Gerhard Walzl (Stellenbosch University, South Africa)</li> <li>Lynn Zijenah (University of Zimbabwe, Zimbabwe)</li> </ul>
	Alimuddin Zumla (University College London, UK)
Objectives:	To build capacity and strengthening of new and established sites including infrastructure for the conduct of clinical trials in HIV/AIDS, TB and Malaria in accordance with the highest ethical and Good Clinical Practice. The network also aims on building experience and infrastructure in clinical trial design, biomarker discovery and research project management.
Status:	Ongoing
Results and outcomes:	<ol> <li>TESA website: www.tesafrica.org</li> <li>Management: Upgrade in lab infrastructure and IT system have taken place in Botswana, Mozambique, Zimbabwe and South African sites. Approx.60 research staff is being supported by the NoE grant</li> <li>Malaria: Currently there are no ongoing malaria activities. The network has failed twice to get EDCTP senior fellowship grants</li> <li>HIV: HIV incidence study protocol has been finalised in Malawi. An EDCTP funded Senior Fellowship awarded to Dr. Takafira Mduluza attached to BHP, started in 2009</li> <li>TB: Preparations for a multi-site epidemiological study are underway. A prevalence study of TB and MDR-TB among HIV+ patients on HAART which will involve all sites is in preparation. An EDCTP funded Senior Fellowship awarded to Mark Hatherill attached to UCT, started in 2009</li> <li>Training: over 500 laboratory staff, researchers and investigators, have attended, at least one, TESA short courses The short course trainings included; Project Management, Laboratory Management, Research Ethics and Methods, TB- DR/TB and HIV lab diagnostic techniques, biomarker studies, PK/PD assay development methods and TB/HIV clinical courses in addition to; GCP</li> </ol>

	/CCLP across all sites. Through the NoE grant 12
	/GCLP across all sites. Through the NoE grant 13 MPhil/MSc students, 5 PhD and 3 Post Docs have been identified, registered with universities and supervised within the network of excellence. All sites have strengthened the existing or formed new community
	advisory boards (CAB).
Publications:	<ol> <li>Corbett EL, Bandason T, Cheung YB, Makamure B, Dauya E, Munyati S, Churchyard GJ, Willams BG, Butterworth AE, Mungofa S, Hayes RJ, Mason PR. Prevalent infectious tuberculosis in Harare, Zimbabwe: burden, risk factors and implications for control. <i>PLoS Medicine</i> 2010; e1000178</li> <li>Corbet EL, Zezai A, Cheung YB, Bandason T, Dauya E, Munyati S, Butterworth AE, Rusakaniko S, Churchyard GJ, Mungofa S, Hayes RJ, Mason PR. Provider-initiated</li> </ol>
	symptom screening for tuberculosis: diagnostic value and the impact of HIV. <i>Bulletin of the World Health Organisation</i> 2010:88;13-21
	3. Corbett EL, Bandason T, Duong T, Dauya E, Makamure B, Churchyard GJ, Williams BG, Munyati SS, Butterworth AE, Mason PR, Mungofa S, Hayes RJ. Comparison of two active case-finding strategies for community-based diagnosis of symptomatic smear-positive tuberculosis and control of infectious tuberculosis in Harare, Zimbabwe (DETECTB): a
	cluster-randomised trial. <i>The Lancet</i> 2010: 376; 1244-53 4. Dimairo M, MacPherson P, Bandason T, Zezai A, Munyati SS, Butterworth AE, Mungofa S, Rusakaniko S, Fielding K, Mason PR, Corbett EL. The risk and timing of tuberculosis in smear pegative TB suspects: a 12-month cohort study
	in Harare, Zimbabwe. <i>PLoSOne</i> 2010:e11849  5. Fernandez MAL, Gray H, Mason PR, Maes P, Baurnfeind A,
	epidemic 2008-9 in Harare, Zimbabwe: A secondary data analysis. <i>Transactions of the Royal Society of Tropical</i>
	6. Hallett T, Gregson SAJ, Kurwa F, Garnett G, Dube S, Chawira G, Mason PR, Nyamukapa C. Monitoring progress towards Millennium Development Goal 4 in countries with generalized HI epidemics: measurements for bias in child mortality statistics. <i>Bulletin of the World Health</i>
	7. Mutsvangwa J, Millington KA, Chaka K, Mavhudzi T, Mason PR, Butterworth AE, Corbett EL, Lalvani A. Identifying
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	8. Kim SY, Choi Y, Mason PR, Rusakaniko S, Goldie SJ.
	Potential impact of reactive vaccination in controlling
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	press
	9. Ma Z, Lienhardt C, McIlleron HM e tal. Global tuberculosis
	10. MacPerson P, Dimairo M, Bandason T, Zezai A, Butterworth
	suspects: a cohort study in Harare, Zimbabwe.
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