



EDCTP Stakeholder Meeting on Capacity Development

Online Consultation Feedback

1 Introduction

In preparation for the meeting, EDCTP has set up an online consultation to gather views from stakeholders. The end result is expected to be a concrete set of recommendations through an open consultative process that involves a broad range of stakeholders from academia, industry, foundations, non-governmental organisations, civil society, governments and other interested parties working in the area of capacity development.

The comments and recommendations will inform discussions at the respective meetings and where appropriate contribute to EDCTP strategy in this area. The feedback from the online consultation is presented in this document as they have been submitted. These will also feature in the final meeting report.

2 Online Consultation Feedback

Dr Ayola Akim Adegnika

CERMEL
Gabon

Current status of the field

- The integration of the National health priority and the capacity sustainable areas
- Research programme plan to support Africans researchers who decide to continue in research activities in their home country.

Future Directions

Better balance in health research development through African region with more focus to the neglected area such as French speaking researchers who are not fit into the ongoing process in comparison to their counterpart English speakers.

Dr Simon Agwale

INNOVATIVE BIOTECH / National Institute for Pharmaceutical Research (NIPRD) and Development
Nigeria

Current status of the field

- Mechanisms of retaining PhDs and also attracting Africans in the diaspora
- Research innovation via partnerships with the private sector.

Future Directions

- Support for NoEs should continue but modified to focus on activities
- Partnerships with private sector should be encouraged and strengthened to ensure utilization of research findings (translational research).

**Dr Eleni Aklillu**

Karolinska Institutet

Current status of the field

- Continue strengthening the capacity of national and institutional ethics committee and investigation review boards
- Strengthen the capacity for pharmacovigilance and pharmcoepidemiology of standard and new drugs or formulations
- Strengthen clinical trial research for neglected diseases such as leishmaniasis where currently there is no safe, effective and affordable drug to treat in Africa.

Future Directions

- Promote and strengthen national and regional centers of excellence research capacity for clinical trials
- Encourage partnerships with European and African organizations such as European Medicines Agency and The New Partnership for Africa's Development to promote clinical trial research in Africa.

Prof. Hannah Akuffo

Swedish International Development Agency (SIDA)
Sweden

Current status of the field

Lack of national government engagement and responsibility to address the issues.

Future Directions

EDCTP is on the right path and needs to get the started work well done. EDCTP and Africa wold benefit from supporting the change in attitude of researchers, from money focus to contribution focus.

Ms Hilda H. Ampadu

WHO Collaborating Center for Advocacy and Training in Pharmacovigilance
Ghana

Current status of the field

A major priority gap is the non-utilization or underutilization of data collected in our system for decision making. Africans have become very good at collecting data but most often the reason for data collection and how the data collected will be used to support decision making is not fully understood. Data management is the process of collecting, validating, cleaning data and then analyzing the data to support some form of decision making. In the last year, I traveled to six African countries to do an in-country data management assessment and offered training where needed to help national pharmacovigilance centers make use of the data they have collected in their own systems for decision making as it pertains to their populations. This year I am targeting six more countries. It is tough work but it had to be started and I am proud I am able to do this and will continue doing it.

Future Directions

The clinical trial process should be understood in full. There are so many silos in the system as it stands right now. Some people are teaching GCP without teaching GCDMP which is what will give the valid data needed to support a clinical trial outcome. Our researchers should be given detailed and complete training on the whole clinical trial process from preclinical to post marketing. The role data, that is valid and clean, plays in clinical trials should be emphasized in this training.

**Dr Abraham Aseffa**

AHRI
Ethiopia

Current status of the field

Challenges include:

- Inadequate commitment of African governments and institutions in an accelerated growth of national and indigenous capacity in health research
- Widening gaps in capacity between North and South
- Skewed priorities of health research in many African countries in favour of funding sources
- Persistence of fragmented, short term, low quality research that impacts little on local disease epidemiology or potentials
- Shortage of a critical mass of centers of excellence focused on needs driven programmatic research
- Limited high quality training opportunities for young researchers that lead to integration into improved local institutional development
- Inadequate duration of and incomplete capacity building initiatives, wasting opportunities and investment.

Future Directions

To do more in integration of external capacity building investment into national strategic plans and genuine local ownership while maintaining efficiency and productivity of quality research through mutually beneficial international partnership.

Dr Gary Aslanyan

TDR, World Health Organisation (WHO)
Switzerland

Current status of the field

Main gaps - research management skills, implementation research expertise.

Future Directions

Support research management, research costing and research governance capacity strengthening programmes.

Dr Constant Roger Ayenengoye

Organization for the Coordination of Endemic diseases control in Central Africa (OCEAC)
Cameroon

Current status of the field

Health research capacity in Africa needs to be fostered in order to support the technological development that is foreseen in the coming 20 years. The current status of health research in central Africa emphasizes a renewed interest in evaluating and promoting the use of local products and new paradigms to prevent or to cure endemic diseases in order to manage drug and insecticide resistance that threaten the current major public health strategies. However, the priority gaps in the development of this alternative and complementary approaches are:

1. Weaknesses in human, technical and financial resources for sustainable research programmes
2. Lack of coordination of initiatives in ethics and bioethics while most of the countries don't have enough capacity in this domain
3. Weak capacity in project planning, management and evaluation that impede the ability and competitiveness of researchers in disease endemic countries to access grants.



As far as ethics and Bioethics are concerned, OCEAC established a multi-country committee named "Ethics Committee for Research and Health in Central Africa (ECoRHCA)" launched in March 2014. The roles of this committee include to review multi-country research protocols, train members of national ethics committees, researchers and academia, and promote ethics and bio ethics in Central Africa under the coordination of OCEAC. The sustainability of this committee would need strong partnership with other regional structures and also financial support to ensure implementation of capacity building activities.

Future Directions

EDCTP should continue to support integrated approach in strengthening research capacity for clinical trials, ethics and bioethics. Furthermore, EDCTP should promote the sustainability of capacity building mechanisms established with the EDCTP grants. Other areas to be considered as funding priorities are:

- Building capacities for project planning, management and evaluation
- Research on the challenges in the implementation of interventions at community level
- Research on medicinal plants and biological pest management.

Dr Niresh Bhagwandin

MRC-SA
South Africa

Current status of the field

- Lack of highly skilled researchers
- Lack of research infrastructure eg. laboratories
- Poor/no support to researchers from government agencies
- Lack of training programmes eg., GCP training
- Poor understanding of research processes, research integrity and reporting research results
- Poor capacity for ethics review and ensuring patient rights.

Future Directions

EDCTP should:

1. Continue with its current activities and regularly assess the progress in meeting targets, modifying targets, consider exit strategies, etc.
2. Regional (more than one country working together in the same geographical area) projects/activities should be strengthened. In this way skills transfer can be enhanced
3. Funding for the EDCTP fellowship programme should be doubled.

Prof. Fred Binka

University of Health and Allied Sciences
Ghana

Current status of the field

Availability of molecules and antigens for testing by African Scientists and hence the growth and enhancement of existing clinical trials capacity.

Future Directions

Funding should extend to all phases of clinical development from Phase I to IV. Also provision should be made for clinical trials involving South-South partners.

**Prof. Moses Bockarie**

Centre for Neglected Tropical Diseases
United Kingdom

Current status of the field

- Supply chain management
- Financial management
- Post-intervention surveillance tools for diseases targeted for elimination.
- Grant writing
- Writing manuscripts for publications in peer reviewed journals.

Future Directions

Priority for funding:

- M&E for the endgame phase for NTDs targeted for elimination
- Strengthening capacity in vector ecology studies.

Prof. Martin Boeree

Radboud UMC Nijmegen
The Netherlands

Current status of the field

Major gap to my opinion is the shortage of senior scientists throughout Africa. Senior scientists to stay, to teach the upcoming scientific generation, to mentor the staff, to maintain the quality of the site and to attract and acquire autonomous funding and new staff.

Future Directions

Invest in incentive to keep and train senior scientists. Senior scientists are crucial to attract junior staff and to keep the staff at the site. So, human resources and preventing brain drain, both external as internal is most important.

And additionally, of course the integrated approach should be maintained in order to build and sustain all necessary conditions for GCP compliant trials.

Another priority is the ethical and scientific review capacity. Now there is substantial destruction of financial capital and demotivation because of the long ethical and regulatory review processes.

Dr Kalifa Bojang

MRC Unit
The Gambia

Current status of the field

1. Lack of senior scientist who can provide mentorship for junior staff
2. Inadequate research infrastructure
3. Limited funding opportunities for research.

Future Directions

1. E-learning should be harnessed to promote capacity building
2. Set up a mentorship programme for young scientists
3. Build capacity of African Universities to strengthen their postgraduate teaching
4. Partner with other organisations involved in capacity building
5. Involve African Governments in capacity building
6. Support South-South collaboration.

**Prof. Christian Burri**

Swiss Tropical and Public Health Institute
Switzerland

Current status of the field

A number of Centers of excellence were created in the past 10 years mainly covering the “big” diseases: malaria, TB and HIV/AIDS. Whereas those centers could build up a substantial scientific capacity and reputation, the managerial skills (all levels of governance, institutional leadership, project management, financial administration) still lag behind. The deficiencies slow or hinder the sustainable development of self-sustaining institutions with independent scientific and funding strategies. Hence, education and tutoring in those topics appears to be key. At the same time, professional development of scientists (master and PhD programmes) should continue, but I see this as second priority.

The situation is completely different for the newly added neglected diseases. On one hand, existing research centers have a huge backlog demand at all levels (scientific, technical and managerial); for certain diseases excellent centers are not the appropriate approach since they only exist in rural areas (e.g. human African trypanosomiasis, schistosomiasis, leishmaniasis). In those circumstances, a project by project, center per center approach is necessary to create the mere basis to conduct clinical trials and the centers will not be sustainable due to the disappearance of the disease when project are conducted in a certain region. However, particularly for researchers dedicated to the neglected diseases, the continuation of scientific educational programs (junior and senior) is of high importance.

Future Directions

See above; different approaches for big diseases vs. neglected diseases need a distinct approach.

Dr Maria Hermínia Cabral

Calouste Gulbenkian Foundation
Portugal

Current status of the field

- Feasible public policy on health research and a real coordination between Ministries of Education, Science and Health
- Assuming health research as a key issue for the national development strategies
- Well trained human resources and a scientific carrier perspectives
- Laboratories well equipped and run and simple governance models of scientific institutions defined
- Strong African collaborative networks.

Future Directions

- All activities under the strategic plan for the next years are important; more attention could be given to the relation between epidemiological research and clinical research
- Priorities in the capacity development areas: national ethics committees, lab technicians and statisticians.

**Dr Jan Coenen**

Institute for Tropical Medicine
Belgium

Current status of the field

Lack of sufficient core funding for many African institutions.

Future Directions

Let African institutions set their own priorities. Explore the creation of mechanisms for core funding.

Prof. Robert Colebunders

University of Antwerp
Belgium

Current status of the field

- Research focus should be broader than it is now. Also neglected diseases, even those that are not on the official list, should be included
- The quality of the research proposal should be the selection criteria and not the topic addressed.

Future Directions

More opportunities for smaller projects addressing a larger number of research topics stimulating more innovative research.

Prof. Tumani Corrah

Medical Research Council Unit
The Gambia

Current status of the field

- Attracting young talent, not later than the pre-doctoral phase, earlier if possible
- Emphasis should then be placed on developing the individuals to have the increased curiosity to ask questions such as 'why', 'what' and 'how'
- The appropriate collection of quality data, including basic analysis of same and the expertise to develop publications for peer review journals
- To this end there should be a greater focus on grant writing and publications
- Knowledge of research governance should be included
- There should be structures that include a well-defined career path for the development of promising candidates.

Future Directions

- Funding of clinical trials, under the leadership of African scientists in African institutions, with African researchers involved from the inception
- These trials should provide opportunities for on the job training, eg. development of SOPs and specialist lab training) for aspiring scientists and technologists
- Trials should also provide formal training opportunities including PhDs and MScs, with relevant training for support staff
- Creation of training hubs for data management, quality, statistics, bioinformatics and genomics.

**Dr Sylvia de Haan**

COHRED
Switzerland

Current status of the field

I believe one major challenge in the current approaches is that these are often fragmented. There are approaches, programmes, projects and funders for almost every aspect of capacity strengthening, but it is often difficult to know what all these efforts have contributed to and what the remaining gaps in health research capacity at national level are. Without such an overview it is difficult for any country to systematically plan its development and use of human resources in health research.

Future Directions

I am not familiar enough with EDCTP's current approaches to comment on this. However, I can say something about the approach to capacity strengthening (continuing my comment to the first question). I think it is very important that EDCTP allows for some flexibility and tailors its capacity strengthening approach per country depending on what the human resource situation in that country is. Thus building on what is there already and reducing further fragmentation.

Dr Philippe Deloron

IRD
France

Current status of the field

- Still insufficient level of equipment, as well as insufficient training of personnel to use this equipment
- Almost complete lack of after-sell services after purchase of high level equipment
- Not enough jobs for researchers in Africa. There are more and more people satisfactorily trained (at the PhD level), but very few jobs when they return home
- People employed at hospital or university have to numerous things to do, and are poorly available for research.

Future Directions

- Try to obtain commitment for the governments to employ in research the trainees from EDCTP
- Favour South-South collaborations, may be by favouring training in another country from the South
- High-level platforms are very scarce in Africa. Maybe EDCTP should consider to concentrate on one or few platforms in various domains (molecular biology, pharmacokinetics,...)

Dr Evelyn Deportere

Institute of Tropical Medicine
Belgium

Current status of the field

- Retention and increase of strong HR capacity and competences: The good people often work outside national structures; and there is a need to increase the number of people who actually have the capacity to do good quality research
- Resources are often limited, with little flexibility to determine local priorities; too often priorities are decided by the donors. Also, good management skills are needed with low (internal!) tolerance for corruption.

**Future Directions**

- Importance of letting the partner countries in the South determine their priorities and approaches. Research in the South is still too much driven by the North and by donor priorities
- Important to continue scholarships, but with a focus on sandwich models, where people spend most of the time in their home institution, focusing on research that benefits them, and allowing European researchers to spend time in the partner countries so that they gain a better understanding of the local capacities and limitations.

Dr Alioune Dieye

Institut Pasteur Dakar
Senegal

Current status of the field

Main gaps: Lack of capacities to manage and to coordinate the Health research in Africa.

Future Directions

Activities that should be continued: training within a project, fellowships, and support to NoEs.

New approaches: Better involvement of control programme managers.

Partnerships: Health research system and the local communities.

Dr Danny Edwards**Current status of the field**

Developing capacity in research management - specifically the contracting process, and ensuring LMIC organisations get the most benefit out of arrangements, and that research with international partners isn't a net cost.

Future Directions

Research contracting.

Dr Thomas Egwang

Med Biotech Laboratories
Uganda

Current status of the field

Lack of trained human capital in immunology and molecular biology; there is need to embrace new advances in nanotechnology which have great potential for vaccine and drug delivery.

Future Directions

Clinical trials should be re-oriented towards the current malaria eradication/elimination agenda.

**Prof. Knut Fylkesnes**

Centre for International Health, University of Bergen
Norway

Current status of the field

Major gaps are:

- Limited capacity in epidemiological training (Master, PhD)
- Limited capacity in management of intervention research.

Future Directions

Long-term academic partnership North-South-South for research cooperation and local capacity building.

Dr Martin Grobusch

AMC
The Netherlands

Current status of the field

The main problem is to maintain programs to continuously educate future generations of researchers, as well as offering interim career positions (Postdoc level) and career endpoints (tenure tracks leading to professorships).

Future Directions

Program is good as it is. More care should be given to areas which are so far underdeveloped, mainly in francophone Central Africa. Long-term capacity sustainability in terms of stable career paths (see above) should become a focus.

Prof. Tomas Hanke

University of Oxford
United Kingdom

Current status of the field

The main priority of the HIV-1 vaccine development field is to systematically test efficacy of candidate vaccines. This is greatly helped by building sustainable staff, expertise and infrastructure capacity at multiple trial sites in Africa. Establishment and maintenance of well characterised cohorts.

Future Directions

Maintenance of sites and cohorts. Community work, explanation and advocacy for interventions, education. Vaccine development should be an important part. Priority for small, iterative clinical studies followed by first indicative efficacy evaluations.



Dr Christian Happi
Redeemer's University
Nigeria

Current status of the field

A critical mass of well-trained African researchers that can use cutting-edge technologies to address the health challenges and needs of Africa.

Future Directions

Invest extensively in cutting-edge translational research and not only in clinical trials. EDCTP should expand its diseases priorities outside the current ones and encourage inter-African research projects that are not necessarily dependent of the European partners.

Dr Lyn Horn
Stellenbosch University
South Africa

Current status of the field

I am primarily an ethicist and thus will confine my answer to this field for now although with more time I could expand.

EDCTP has done a great deal to develop the capacity of research ethics committees in developing world countries over the last decade so that now most countries have an understanding of the role of RECs/IRBs and have sustainable IRBs in place. There is now a gap to develop an academic cadre of ethicists in Africa who can ensure that African institutions are able to run their own training programmes and ensure sustainability. Thus EDCTP needs to fund research calls on research ethics issues not only on pure scientific issues. Research integrity, especially plagiarism, is a problem in poorly resourced institutions; its remaining hidden because of many complex reasons and perhaps because of poor understanding of concepts. Ethical scientific writing, data handling and interpretation etc. could be valuable capacity development programmes that could be developed with assistance

Future Directions

Just as EDCTP has built capacity in research ethics over the last decade the same needs to happen over the issue of scientific integrity.

Dr Babatunde Imoukhuede
Jenner Institute
United Kingdom

Current status of the field

The key issue is still the limited available funding for infrastructure and personnel development in health research in Africa. Significant participation of African governments in this area is required. Sponsors of health research in Africa should be encouraged to do more in the area of capacity building, as a corporate social responsibility, especially in conjunction with research carried out by these organisations.

Future Directions

As the former Project Coordinator of MVVC and MVVC2, I can attest to the fact that the integrated strategy which involved project management, capacity building and networking in the conduct of clinical trials is a model to be continued into the future. Capacity building efforts within this project is a strategy worth emulating. Minor adjustments may be required but the model works! The participation of SME's and pharmaceutical companies should be



further encouraged. More importantly, they should be encouraged to contribute towards the capacity building efforts of the clinical trial sites in Africa especially with regards to infrastructure upgrade and personal development. In my view, new priorities should include training in vaccine safety especially with regards to participation of scientists as members of Data Safety Monitoring Boards as well as encouraging institutions in Europe to take training in vaccinology nearer to the scientific community in Africa.

Dr Saadou Issifou

Fondation pour la Recherche Scientifique (FORS)
Benin

Current status of the field

Sustainability in health research capacity in Africa associated with some neglected tropical diseases.

Future Directions

Efficiently use of clinical research results. Highly involvement of national tropical diseases control program in clinical research.

Dr Amina Jindani

St. George's University of London
United Kingdom

Current status of the field

As far as tuberculosis is concerned, there has been a complete failure of identifying treatments of durations of less than 6 months, either with new drugs or with existing drugs such as the rifamycins and the quinolones. From all the Phase III clinical trials so far conducted, it has become clear that the quinolones, at the standard dosage, cannot reduce treatment duration. Further, some groups are reluctant to introduce the quinolones for drug susceptible tuberculosis, preferring to keep them for use in drug resistant tuberculosis. As far as the rifamycins are concerned, significant amount of funding has been used in EBA studies and 2-month culture conversion studies, both of which give no indication of efficacy in terms of treatment cure or reduction of duration. It would have been far better had those funds been spent to study relapse rates in Phase III trials. Moreover, there is a lack of cooperation in groups conducting clinical trials, competition for limited funds and a lack of plan of investigation that could lead to shorter treatments. Available funding is mostly devoted to treatments for drug resistant tuberculosis which is less than 10% of the global burden of tuberculosis.

Future Directions

The EDCTP should stop funding EBA studies or those evaluation culture conversion at 2 months. There is now ample evidence that, whatever the rate of culture conversion at 2 months, eventual efficacy depends on treatment combinations after 2 months. There is an urgent need to fund Phase III trials of higher doses of the rifamycins and this should be considered a priority. Otherwise, the exploration of the rifamycins will again be neglected and an opportunity to reduce treatment duration will be missed. Further, there needs to be a coordinated plan to develop short duration treatments for tuberculosis and the EDCTP should organise meetings to develop such a plan so that funding can be appropriately assigned to each clinical trial group. This would discourage competition, encourage collaboration and, eventually, lead to much needed short treatments for tuberculosis.



Mrs Dr Brigitte Jordan-Harder

GIZ
Germany

Current status of the field

- Too much focus on individual capacity development and not enough on institutional development
- Involvement and planning of monitoring and evaluation from the start of the research partnership.

Future Directions

- EDCTP should request that proposals submitted should elaborate in much more detail on how capacity development is planned, including institutional capacity development. This plan should have a bigger weight for the decision making in regard to the proposal
- Beside this, EDCTP should also ask for continuous monitoring of research capacity development and description of the way how to do that
- As the researchers submitting the proposals are no specialists for M&E, the research partnerships should include also a partner organisation/university that can take up the responsibility of M&E.

Prof. Pontiano Kaleebu

MRC/UVRI Uganda Research Unit on AIDS
Uganda

Current status of the field

The lack of Government supported or funded organizations that can coordinate research, including setting priorities, vetting research and funding.

Due to limited research funding opportunities trained researchers leave for other sectors such as administration/management at ministries or go abroad

Future Directions

The South to South partnerships are important and it's only EDCTP which at the moment is emphasizing this, including the Networks of Excellence. EDCTP has also enabled projects led by scientists in the South which has contributed to capacity development.

EDCTP should support and fund postdocs i.e. the postdoc fellowships, since there are not many such fellowships for African scientists.

Dr Saidi Kapiga

London School of Hygiene and Tropical Medicine, and Mwanza Intervention Trials Unit
Tanzania

Current status of the field

Major priority is in training young researchers in Africa and provision of ongoing mentorship.

Future Directions

The current EDCTP approach should be continued. We have found the partnering of African and European institutions to be very helpful. Also the funding of both research activities and capacity development activities is key and valuable.



Prof. Gibson Kibiki

Kilimanjaro Clinical Research Institute
Tanzania

Current status of the fieldThe major gaps include:

1. Lack of clear integration of the research capacity into the institutional structure that will allow the capacity established to operate
2. Capacity focuses on the scientific field, with less emphasis on the administration part, thus resulting into mismatch between the scientific capacity to carry out large research capacity and the administration part to manage a large project
3. Most of the capacities built do not include the necessary elements that allow long term sustainability (i.e. infrastructure upgrade, optimum technology to support research, staff training, good administration, and commitment of the hosting institutions to sustain the capacity).

Future Directions

1. Strategic primer grants should continue, but also should cover basic science, test of hypothesis, modernization of research infrastructure, or technology, forming a research team/agenda
2. Support to Nodes of Excellence should be on multi-disease, multi-site programs. Programs with well-define capacity strengthening and sustainability
3. Support well defined, disease-specific programs which have a clearly defined niche and commitment to capacity development and equal participation of both Northern and Southern partners. Where also time-frame for transfer of the major responsibility to the Southern partners is defined
4. Support should be to major Southern institutions which have and are committed to mentor and develop young institutions to become equal research partners in the future.

Prof. Photini Kiepiela

Medical Research Council
South Africa

Current status of the field

Funding for projects in order to mentor future post graduate students who can be leaders in the field.

Future Directions

The mentoring of PIs from the African continent to apply for their own funding to conduct their own research in line with the priorities of their countries.

Dr Michael Kilpatrick

MRC
United Kingdom

Current status of the field

Improvements are required in financial systems and financial governance. There is inadequate inter-donor exchange of information on operational capacity and capability of recipient institutes in Sub-Saharan Africa.

Future Directions

- Agreement on common standards for financial governance
- Increased capacity building and development in financial governance
- Common approaches from all donors on per diems, expenses, salary top ups and the like.



Good clinical research requires a competent operational environment in order to successfully deliver high quality clinical data - hence a more holistic approach to what are permissible resources to the applied to a project would be beneficial.

Prof. Gilbert Kokwaro

Consortium for National Health Research
Kenya

Current status of the field

There are three priority gaps, namely:

1. Lack of national research agenda
2. Lack of attractive research career paths
3. Lack of platforms to translate research evidence to inform policy and practice.

Future Directions

EDCTP has achieved much in building capacity for clinical trials. For the future, it might want to consider shifting more resources to support:

1. Building capacity to translate the evidence from clinical trials to inform policy and practice
2. Building capacity on reformulation of existing therapeutic agents to either improve their efficacy/decrease side effects or delay emergence of drug resistance
3. Building capacity on post marketing surveillance of drugs that have successfully undergone clinical trials and been recently introduced into the market.

Dr Christoph Kolodziejcki

Volkswagen Foundation
Germany

Current status of the field

Building research capacity through strengthening junior researchers, as well as supporting the development and extension of academic networks within and beyond Africa.

Future Directions

Strengthen the partnership with local governments in development countries widen the focus of the activities to increasingly include neglected tropical and infectious diseases and make this area (NTDs/NIDs) a funding priority.

**Prof. Dr Peter Kremsner**

Institut für Tropenmedizin
Germany

Current status of the field

- Continued funding (not only project funding)
- Funding from the African partners/countries
- Not stopping funding for infectious diseases in the upcoming light of non-communicable diseases.

Future Directions

Continue: clinical trials in malaria (vaccines and drugs).

Start: clinical trials in neglected infectious diseases.

Capacity development: Sub-Saharan African networks as CANTAM.

Ms Katharina Kuss

CAAST Net Plus
Spain

Current status of the field

Budget for research is too low in most African countries.

Future Directions**Dr Trudie Lang**

Global Health Network
United Kingdom

Current status of the field

In my view the major impediments to research impediments in Africa are as follows:

1. Disease specific efforts. Most efforts that are labelled as 'capacity development' are training exercises to enable the operation of a specific study, or set of studies for either a particular product or disease area (HIV vaccine, or new TB drug, for example). Whilst this ensures that the study in question is performed well and does bring valuable knowledge and experience to the sites involved this type of training does not equip African research staff to think about their own studies and be able to design, implement and report them
2. Barriers to accessing training. Most research skills training is offered to the investigators rarely to the opportunities filter down to the frontline research team members such as the research nurses, lab technicians and data managers. These, and others, are key to the quality of the study and yet access to new skills, training and qualifications are very difficult to achieve
3. Career Development and Recognition. Conducting the operational aspects of running a trial is not an administrative function, but a research activity. Ensuring that a trial is carried out according to the SOPs and the protocol needs experienced staff who understand the study and the question that it is seeking to address. Only then can the study staff recognise and appreciate the consequences to the outcome of a step on process being conducted wrongly or differently. In Europe and the US, study staff have career paths in research. This is not so in Africa and the roles (and others) described above need to be recognised and rewarded. We are attempting to address this with the Global Health Network Professional Membership scheme that we developed with WHO-TDR, but we have a long way to go and need to collaborate more widely in increase the



impact of this.

Future Directions

In my view, I think that it would be beneficial not to be led by disease areas because there is not a village in Africa where the children only have malaria, nor of course a hospital that only treats TB or a laboratory that only does HIV diagnosis. If African healthcare workers, and I deliberately use that terms rather than Doctors, are to see where evidence is needed and generate their own trials and data, then they need to consider what are the locally relevant questions and be equipped to think about how to devise and lead a study. Most tasks, steps and challenges in clinical trials are the same irrespective of the disease area. Sharing of skills, knowledge and tools between researchers, their organisation and their networks could speed up progress. We are already working with the EDCTP Networks of Excellence to share their outputs and resources and we would be keen to discuss how we can expand and strengthen these mechanisms for skills and knowledge exchange.

Dr Valeriane Leroy

Inserm U897
France

Current status of the field

- Gaps from Clinical Research to operational research, public health research in maternal and child health, in infectious (HIV, TB and malaria) but also hepatitis, neglected disease
- Development of diagnosis tools.

Future Directions

- Development of clinical research
- Support of masters and PhD
- Need to support others study design: cohort studies, diagnosis studies also.

Ms Sarah Lock

Nuffield Foundation
United Kingdom

Current status of the field

- Getting policy into practice
- Evaluating health interventions
- Engaging governments.

Future Directions

Supporting scientists who have been trained to form networks and facilitating their access to funding and funding partnerships.

Ms Glaudina Loots

Dept of Science and Technology
South Africa

Current status of the field

- Insufficient networking opportunities
- Lack of experience within an industry environment for PhDs
- Insufficient clinical research capacities
- Lack of mid-career opportunities
- Lack of sustainable funding mechanisms

**Future Directions**

- Biostatistics
- Bio-informatics
- Regulator aspects of clinical research and product development
- Laboratory sciences and management in support of clinical trials
- Building a series of networks to provide training.

Dr Tomas López-Peña Ordoñez

Instituto de Salud Carlos III
Spain

Current status of the field

I believe that capacity is not only a matter of training courses. Capacity building in a country should be framed into a feasible national or regional health research programme where specific and realistic research and innovation priorities are defined.

Future Directions

I believe the EDCTP African Network should play a bigger role on this issue. They should be defined the regional capacity programme with the advice of the SAB. Member States should be asked to put funding into an unrestricted common pot aimed at funding these activities once they have been endorsed by the EDCTP GA.

Dr Andre Loxton

Stellenbosch University
South Africa

Current status of the field

Proper funding and skilled staff.

Future Directions

PhD level and postdoctoral training in industry. Fund new scientist for longer periods of time.

Dr Eusebio Macete

Centro de investigação em Saúde de Manhica (CISM)
Mozambique

Current status of the field

Core funding, management capacity and science management.

Future Directions

From my point of view, I think EDCTP has to continue in training, lab capacities and management training.

Prof. Kevin Marsh

KEMRI Wellcome Trust Research Programme
Kenya

Current status of the field

Sub-Saharan Africa currently has around 5% of the researchers per head of population of developed economies and around 0.5% of the required leadership positions. The major priority gap is having a sufficient number of "environments" with the critical mass (intellectual and physical) and sufficient supervisory and mentorship capacity to support the development of a



large cadre of internationally competitive research leaders.

Future Directions

Although EDCTP is by definition concerned with clinical trials, its capacity development approach should move away from an idea of “clinical trial sites” per se to the idea that clinical trials need to emerge from and be conducted by research programmes/institutions with strong across the board research expertise and capacity. Otherwise, we risk producing cohorts of very competent high level support staff without producing the genuinely innovative scientific leadership necessary to drive forward research around new tools for control and prevention of major health problems in Africa. There should be more emphasis on the specific career development paths necessary to produce internationally competitive research leaders, recognizing that this inevitably requires consistent sustainable support a minimum 20 year time line.

Dr Collen Masimirembwa

African Institute of Biomedical Science & Technology
Zimbabwe

Current status of the field

Lack of basic research facility such as bioanalytical and molecular biology analysis laboratories to support clinical trial sample analysis. As a result, most clinical study samples are either under analyzed or have to be sent to out of Africa laboratories.

Future Directions

EDCTP has done very well so far and has great potential to continue changing the clinical trial capacity and capability landscape. From the senior scientists and previously supported research groups, EDCTP must select champions for longer term support (5-10 years) and more significant funding (+500K Euro/year) to have established and sustainable centers of excellence in both HIV and other neglected tropical diseases.

Dr Alice Matimba

University of Zimbabwe, College of Health Sciences
Zimbabwe

Current status of the field

Systematic collection and utilisation of data/information. Lack of interdisciplinary platforms and consultations.

Future Directions

Data, information and systematic analyses, evaluation of current status, measurement of impact.

Dr Véronique Mazarin Diop

AARSH
Senegal

Current status of the field

In many investigational sites, evaluation and development of capacities are mainly conducted and financed by the trial sponsor; due to time constraints, training courses that are provided during the clinical trial preparation are strictly adapted to study protocol and procedures requirements. As a result, there is no real management of the capacities in the long term.

**Future Directions**

The responsibility of capacity development should be redirected to the site/institution; human and financial internal resources are essential to build and implement capacity development programs that will enable the site/institution to conduct and manage their own training programs independently.

Prof. Souleymane Mboup

Cheikh Anta Diop University
Senegal

Current status of the field

Medium term support at least 5 to 10 years of Networks of Excellence.

Future Directions

Learn on by doing (conductions of multicentre trials).

Dr Benjamin Mordmüller

University of Tübingen
Germany

Current status of the field

- Training and funding of early and mid-career scientist in Africa
- Connection of African scientists (esp. not Anglophone) to the international research community
- Easy-to-administer funding schemes (no bureaucratic overhead) with clear-cut milestones (scientific output)
- Innovative, high-risk research (e.g. experimental medicine projects)
- Intra-African scientific exchange
- Legal status of independent research institutions and small biotech companies in Africa (many high-performing centres of excellence have an insecure legal status with many financial risks and disadvantages).

Future Directions

Generally, I rate EDCTP as an extremely successful, game-changing institution. Focus on clinical research should remain a priority. Malaria, tuberculosis and HIV remain the most important topics, but major advances in another area shall lead to more flexible calls.

Prof. Maowia Mukhtar

Institute of Endemic Diseases
Sudan

Current status of the field

1. Strengthening South-South and South-North collaborations
2. Sustainability of trained personnel
3. Building capacity for product development and screening of natural and new products in Africa
4. Efficient project management.

Future Directions

1. Sustain the built capacity by activating the networking
2. Link the network with pharmaceutical production companies
3. Strengthen South-South collaboration



4. Strengthen South-North collaboration.

Dr Modest Mulenga

Tropical Diseases Research Centre
Zambia

Current status of the field

Development of well organised and resourced health research systems which are enshrined in the legal and the health provision system of countries. This should be accompanied by a well-trained critical means of researchers to initial and sustain research and research result utilization.

Future Directions

1. Capacity building into research should be strengthened and sustained
2. Networks for joint research and collaborations for comparative advantages should be assessed carefully so that clear roles of the stronger partner are spelled out and the outcomes clearly measurable for a given time
3. EDTCP should assist the networks to establish full-time secretaries during the life-span of the collaboration to foster good governance
4. Close collaboration with industry. Industry could be assigned networks to collaborate with and identify capacity building needs of the institutions and individuals.

Dr Rosemary Musonda

Botswana Harvard AIDS Institute Partnership
Botswana

Current status of the field

The major priority gap in health research capacity in Africa presently is the lack research agenda by most governments in Africa. The agenda for research is set by our partners and there is no commitment to research and capacity building. We need strong and real involvement of our government officials in setting our research priorities to ensure buy-in and sustainability of health research. Countries like South Africa are trying and we are now seeing dividends from the Medical Research Council and Department of Science and Technology. Need to find a way for accountability and documentation of in kind support and real financial support by the African member states.

Future Directions

The present model of partnerships with European cofunding system did not work well. There is a need for members to put money in a common pot for calls for proposals for clinical trials. I also feel that we need to have a window for calls for innovative research in various areas to open up basic science or pipe for new discoveries within Africa, which can contribute to preclinical research. What I mean is to have several categories of calls, clinical trials and innovation or basic science research to unravel the science as preclinical in order to enhance the science in Africa as part of the capacity building. There is also a need to support postgraduate training for MSc, PhD and fellowships for small grants through the Networks of Excellence in order to get the critical mass of researchers that is needed in Africa. This is coupled by real capacity development of infrastructure development which could be co funded by national governments and be utilized by networks. Most of the projects designed the last EDCTP1 programs have been great we just have to add other dimensions of rolling out the capacity for research to close up the gap. For example we need to attract small funding for PhD and Postdoctoral fellows to access and be able to answer questions as ancillary studies to



main studies or indeed small hypothesis driven studies that may feed or provide baseline data to future studies. This should include epidemiological studies and bioinformatics.

Dr Palmer Netongo

Initiative to Strengthen Health Research Capacity in Africa (ISHReCA)/ University of Yaounde I Cameroon

Current status of the field

- Lack of government commitment
- Poor mentorship
- Lack of transparency by many PIs.
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Future Directions

- Support institutions to set up and run grant offices to allow scientist to focus on research
- Continue to support clinical trials, but also of indigenous drugs with proven potency
- Enhance your NoE so that they do not become stumbling blocks for the region instead of promoting EDCTP's vision. They should not be the only way into the regions, this could be misleading, there are many potentials in the regions that they may not be able to tap into due to personal differences.

Mr Stanley Ngene

Pharmacist

Current status of the field

More emphasis on ethical issues, standard of care, standard healthcare infrastructure in research institutions and training of personnel quality of data and process in clinical research could make some difference. Support for patient organisations led by a healthy person for short non-renewable periods.

Future Directions

EDCTP2 can reach more countries through local events. Well-constituted ethics committees whose independence cannot be questioned should be supported in manner that does not signify influence from sponsors or supporters of clinical research.

Prof. Francine Ntoumi

Congolese Foundation for Medical Research
Congo

Current status of the field

National/governmental support and necessary to involve also local private sector financial support.

Future Directions

Re-entry grants for African scientists based outside Africa.



Prof. Maria Oliveira Martins

Instituto Higiene e Medicina Tropical
Portugal

Current status of the field

- Qualified human resources for health
- Organisational and cultural issues
- Management information.

Future Directions

All areas are relevant. New partnerships by including networking with participation of Portuguese speaking countries that is actually very low; increase networking.

Dr Martin Ota

WHO Regional Office for Africa
Congo

Current status of the field

The human resources are limited and scattered in the African region with no clear mapping of where the skills are. There is no good mechanism for coordinating capacity building efforts, thus the sustainability and continuity of investments are not guaranteed and the impact not optimized.

Future Directions

The government of countries should be involved to know what capacities that are being built in their countries. This will attract the countries to invest more in such institutions or investigators. This approach will also ensure that the countries implement the outcome of the research where applicable.

Dr Odile Ouwe Missi Oukem

CERMES
Niger

Current status of the field

My point of view is focusing on francophone countries, mainly in Central and West Africa. There is still a gap in the writing capacity, adequate planning, management and timely reporting of activities, financial management, Monitoring and evaluation, and dissemination of results & publication. Such gaps could be confirmed by looking at how African teams have managed their grant(s) and interacted with EDCTP (or by analyzing submitted reports). English remains a barrier, and francophone countries are definitely not competitive when an international call for proposals is launched.

African researchers should learn to better participate in case of collaborative projects, but it is like sometimes they are actually more comfortable waiting for their partners to write "joint proposals", and then, if the project is funded, they will execute their part, which is unfortunately still often limited to field and/or lab work. The conception, design, methodology on one hand, and the analysis, draft of manuscript and submission process on another hand are still areas where African researchers are not involved enough. This could be demonstrated by a bibliometrics study, by looking at the contribution of authors in published papers. However, the responsibility of this sad situation should be shared and it may not be always borne by the Northern partners.

As discussed at the Ethics meeting in Antwerp, empirical studies could evidence those gaps



and give more information.

From my personal experience, negotiation of MTA has still to be improved on the African part. At the country level, a great effort should be developed in the regulation of transfer of materials and sharing of data. To date, in some countries, authorizations for exportation of samples are easily given, without any problem, whatever the request and the type of samples/strains, without any distinction between research and public health concerns.

Future Directions

It is important to strengthen both lab/field and administrative activities, as the management of grants is critical and African research centres need support not only in research activity but also in administration of research and finances.

Particularly, planning is a key issue, because nowadays, it is not possible to submit a proposal without a plan of activities, expected results, indicators, and monitoring and evaluation. The science is not the only component of proposals, but applications must include other more administrative aspects and the institution must be trustable in terms of management and finances.

On another hand, research projects have to be integrated into strategic plans, and annual action plans that have to be elaborated by each research institution. Therefore planning and monitoring & evaluation have become specific fields, in which capacity has to be strengthened. Administrative staff may not be very aware or comfortable with such documents. As stated above, there is probably a need in regulation of transfer of biological material and data sharing and in negotiation in case of collaborative research.

Dr Norbert Peshu

KEMRI
Kenya

Current status of the field

1. Research capacity at the Universities is weak and it needs strengthening if capacity building has to be sustainable
2. Local institutions need long term support to be able to attract, train and retain capable researchers
3. Support for social sciences research
4. Local ownership of research priorities and agenda is an issue that need addressing
5. Framework for monitoring and evaluation of research capacity building is lacking or weak and is a priority area.

Future Directions

1. EDCTP should continue supporting the networks and partnerships as these help in linking up researchers
2. EDCTP need to improve its funding to sites that need upgrading to levels that can fully undertake clinical trials. The current networks have tried to build capacity (laboratory, monitoring etc.) but the funding has been inadequate and thus incomplete activities.
3. EDCTP should fund a Centre of excellence for clinical trials on long term basis that can be used for capacity building
4. Support efforts for translating research to policy and conversion to commercially viable products
5. Support research on traditional medicine.

**Dr Richard Phillips**

Kwame Nkrumah University of Science and Technology
Ghana

Current status of the field

- Despite calls by the World Health Assembly Resolution, WHA 66.12, for country ownership and expanded interventions by member states against neglected tropical diseases in order to reach the targets agreed in the Global Plan to Combat Neglected Tropical Diseases 2008–2015, there is an obvious lack in research experts and policy makers in countries and communities most affected by these diseases
- Endemic countries have limited capacity to manage and administer funding that is provided
- There is limited communication among funding organizations amongst each other to really complement, coordinate, and harmonize efforts
- There is the need for an effective mentorship programme within the funding schemes.

Future Directions

- Need for partnership among funding organisations that provide funding for research capacity in neglected tropical disease in a way to complement efforts?
- Need to encourage or promote an integrated platform for researchers trained on the back of other funding organisation to benefit from EDCTP initiatives in Neglected Tropical Diseases
- Need for interaction between scientists trained on the back of EDCTP in the area of NTDs with those of the African Researcher Network for Neglected Tropical Diseases as a way of solidifying the gains made.

Dr Kamija Phiri

College of Medicine
Malawi

Current status of the field

Management: research management remains poor with many academic and research institutions with no dedicated research management staff therefore making African scientists do most of the work making them less competitive and efficient in conducting their core business of research.

Monitoring & Evaluation: for clinical trials most academic and research institutions fail to take up the role of Sponsor in a trial due to inadequate capacity and understanding of the role.

Utilization: research findings presently are not used by policy makers due to poor packaging of scientific findings. Most countries do not have public health institutes or schools that can scientifically advise policy makers.

Future Directions

I think EDCTP has strengthened ethics/IRBs very well in the past call. I think in the next call it should try to strengthen research systems in institutions (research offices, grants management, clinical monitoring and sponsoring, etc.).

**Ms Elizabeth Pienaar**

South African Cochrane Centre
South Africa

Current status of the field

One of the biggest barriers is that English is not the first language of a large number of researchers from Africa.

Future Directions

Training in the use of the results from clinical trials and the synthesis of that into well conducted systematic reviews is important as is the promotion of the practice of evidence-based healthcare.

Ms Claudia Schacht

Eurice GmbH/Fit for Health
Germany

Current status of the field**Future Directions**

Working as project managers, my colleagues and I have found on-site capacity building sessions on (EDCTP) project and financial management, including a SWOT Analysis looking specifically at the respective site and giving direct Feedback and suggestions for improvement, highly valuable. We have implemented such site-visits in a past EDCTP project and have seen a tremendous impact on the sites, not only for this one project but for their entire set-up and internal management in general. We were grateful to have this opportunity in our project, and trust that future EDCTP project partners could benefit from such support workshops very much. So it would be great if such tailored, on-site support would be funded in the future as well, and maybe even encouraged.

Dr Esperanca Sevene

Eduardo Mondlane University
Mozambique

Current status of the field

Is to translate the research to policy and implementation. There is a need to ensure that the tools that are proving effective will be available and used for the benefit of those in need.

Future Directions

- Maintain the support and capacity of African scientists. Increase support on research infrastructure
- Support more phase IV studies on safety and effectiveness.

**Dr Sodiomon Sirima**

CNFRP
Burkina Faso

Current status of the field

- Effective and affordable malaria vaccine
- Rapid Diagnostic tool for TB
- Integrated case management of malaria
- Treatment of malaria in route for hospital.

Future Directions

Find a solution for to the current cofunding approach which limits the competitiveness of developing countries scientists. Common pot should be put in place for the cofunding. A kind of site maintenance grant should be set up to sustain some of the promising junior site renovated/built though EDCTP1 to really help them to be a self-standing site in the five coming years. Effort should also continue for the training and site building in the "empty corridor" and for the new diseases covered by EDCTP2.

Dr Hulda Swai

Council for Scientific and Industrial Research
South Africa

Current status of the field

- Need continuous evaluation and evidence on the progress
- Need harmonisation among donors for maximum effect
- Serious human capacity development is needed for progress and sustainability
- Identifying areas where opportunities for cross-donor collaboration can be utilised.

Future Directions

- Cross-donor collaboration approach to be utilised in strengthening research capacity
- Look into strengthening the pre-clinical research.

Dr Harry Tagbor

Kwame Nkrumah University of Science and Technology
Ghana

Current status of the field

I think that the major gap in health research capacity is the lack of or inadequate capacity or systems in African universities to train the next generation of research leaders. By capacity I mean having clear guidelines and pathways for postgraduate training and capacity to successfully supervise postgraduate training.

Future Directions

I wish to see capacity development in African Universities through postgraduate training and should be prioritise for funding.



Mr Jean Marie Talom

REDS
Cameroon

Current status of the field

- Define research items
- Mobilize public funds for research
- Training session for management of research activities
- Monitoring & evaluation structures exists, but are not good
- Support of civil society organisation in the field of research ethics.

Future Directions

- Implementation of clinical trials
- Take in account the neglected diseases
- Promote best practices in ethics
- Promote EDCTP activities during the international conference.

Prof. Veronique Penlap

University of Yaounde I
Cameroon

Current status of the field

- Low commitment of the stakeholders to health research
- Low access to health products and technology
- No politic of retention of trained scientists
- Few well trained personnel and strategy for retention of trained personnel
- Fighting the migration and curbing of the brain drain
- Few well established infrastructure and laboratories
- Results not translated and not communicated to the community
- Health research is typically dealt with by three different ministries: health, science and technology (S&T), and higher education, further exacerbating the fragmentation of health research capacity.

Future Directions

- To carry out multidisciplinary research in the context of national health research systems
- Strengthening human resources for research
- Increase health research system capacity and strengthen the knowledge base required to address local health needs
- Usefully conceptualised in systematic terms, allowing for more effective communication between stakeholders in all sectors and at each end of the research process
- This necessitates capacitating the system with people who have skills including administration and management, priority setting, networking and leadership, translation into policy and action, dissemination, advocacy, and ethics
- An enabling environment for research is important, the political will and leadership to mobilise a sustainable system.

Prof. Gerhard Walzl

Stellenbosch University-MRC TB
South Africa

Current status of the field

African institutions largely lack the financial strength to support full-time researchers, particularly their salaries, which has a serious negative impact on recruitment and retention of quality scientists. In addition, due to a lack of institutional funding capacity maintenance of



expensive research infrastructure, often obtained through donations or project funds, is not secured. As a result the entire spectrum of research staff and the required infrastructure are inadequate to maintain high level research activities.

Future Directions

Suggested activities and methods of implementation: funding and capacity development should be mainly through research projects in collaboration with stronger northern or southern partners (one cannot learn to swim on dry land).

Provide more funding (i.e. fellowships) for younger scientists (especially the level between post-doc and established researcher). Once established, these scientists will be able to compete better for international funding.

Continuity of funding: there should be better opportunities to maintain well-functioning consortia and collaborations that have been established through EDCTP funding. All momentum is lost when a project ends after 4 years without an opportunity to continue in the same group. Although stronger partners can survive the end of project funding by successfully competing for alternative funding for themselves, it is much more difficult to also obtain sufficient funding for weaker but emerging partners from such projects.

Partnerships with international non-European (i.e. Bill and Melinda Gates Foundation, NIH), European (i.e. Wellcome Trust) and African (i.e. SA MRC, SA Dept of Science and Technology) should be developed. The funders have different funding focus areas (i.e. some, like the Gates Foundation, do not focus on capacity development at all) and the gaps can be filled and funds used more effectively through closer partnerships. Local stakeholders, like African funders, although only a few exist, would improve local commitment to sustainable research development.

Dr Monique Wasunna

DNDi Africa Regional Office
Kenya

Current status of the field

1. Capacity to set research priorities
2. Capacity and ability to create equal partnerships that include stakeholders such as ministries of health, regulatory authorities, academia, research institutions, industry, civil societies etc.
3. The need for ethics and regulatory harmonization and the capacity to move this forward.
4. Coordination gap between researchers and MOH and regulators. Lack leads to issues in access to products of research such as medicines, diagnostic kits and vaccines
5. Capacity to translate research findings into policy
6. Lack of innovative funding mechanisms.

Future Directions

1. To be retained: infrastructure, training, networking S-S and N-S but more S-S to be emphasized, ethics and regulatory issues, CT registry
2. To be stopped: project management
3. To be modified regional centres of excellence to include regional platforms such as LEAP
There are several platforms of excellence in the region having the same objectives as the centres of excellence. Could we find a way of them working together to avoid duplication of effort and share the resources in order to maximise on results and time needed to carry out the research
4. Priority capacity building areas for funding: clinical trials in NTDs, ethics and regulatory



harmonization within the regions e.g. Eastern Africa, trainings to continue; this is key so that we can build a critical mass of researchers, writing policy briefs to enhance translation of research into policy, centres and platforms of excellence.

Prof. Ali Zumla

University College London
United Kingdom

Current status of the field

1. Lack of a coordinated approach by funding agencies, donors and national governments to funding priority R&D and aligning it to parallel capacity development
2. Lack of sustainability of infrastructures built with three or five year grant awards
3. Lack of engagement of governments and communities in the research (and training) programs. This is essential if the outputs are to inform policy and practice and get implemented. Trained staff need to be assured of career progression and security for continuing an academic career
4. Lack of focus by most external grant holders on engaging local researchers to their full capability

Future Directions

1. The current approach has progressed well and the stable foundation now needs to be fortified and expanded
2. The dominance by a few European institutions of the clinical trials portfolio should be expanded to incorporate a much larger/broader partnership with African scientists who should be actively engaged in decision making, scientific discourse
3. Within all research programmes there should be well defined short-term, medium term and long term achievable capacity building and training deliverables
4. Sustainability of built infrastructures and programmes will require consortia to have prioritised R&D coupled to training and be funded for longer periods with larger budgets. Cofunding by national governments where capacity is being built may go a long way in getting ownership, future investment and sustainability
5. Funders such as UK-DFID, CIDA, USAID, SIDA, etc. should consider EDCTP as a mechanism for getting best value for their huge investments
6. More investment into current priorities (local expertise for ethics, clinical trial designs, GCP/GLP, database creation and analysis, writing up to publications, laboratory methods, laboratory capacity, biobanking networks, etc.).

A discussion is required why there are very few South African Black scientists coming forward to take on the mantle of research.

A review of where EDCTP funded fellows at all levels have progressed would be interesting to focus discussions.