Dear partners and friends,

Development of scientific excellence and leadership is a key driver to building sustainable and impactful research and development. This issue celebrates the EDCTP fellows as part of the transformative success stories of our partnership.

The large EDCTP-funded clinical research projects as a rule offer integrated and collaborative post-graduate training for Master’s and PhD students, as well as post-doctoral mentorship. Beyond this is a comprehensive fellowship scheme for current and aspiring African scientific leaders. To date, EDCTP has invested in more than 160 fellows from sub-Saharan Africa who are connected through the EDCTP Alumni network established in 2017.

Our multiple-level fellowship scheme bridges various difficult spots in scientific career paths. The first level fellowship is offered in partnership with the Africa Research Excellence Fund; it aims to hone the skills needed to compete for research grants to get beyond the post-doctorate phase. At the second level are the Clinical Research and Product Development Fellowships jointly implemented with TDR. They offer researchers and key members of clinical research teams the opportunity to acquire technical and project skills in clinical R&D through placement in pharmaceutical companies, PDPs and CROs. The grants also support a second phase for knowledge transfer at the home institution of the fellow.

At the third level, Career Development Fellowships support early and mid-career scientists to develop their individual clinical research skills, providing an opportunity for talented scientists to establish themselves as independent researchers and team leaders. The fourth level is formed by the Senior Fellowships which support experienced researchers to advance themselves as leaders in clinical product development and closely related fields while also training and mentoring junior researchers.

It is worth noting that we have introduced the novel element of a tandem fellowship in the Senior Fellowships to address the capacity equity gap. The 2019 call ‘Senior Fellowships Plus’ asks senior fellows to train and mentor not only junior researchers at their institution but also a Trainee Fellow at a host institution in another country. This requirement – a separate work package – aims to address a geographical and gender imbalance in the proposals we receive, which usually come from better-resourced African countries.

We expect to publish the ten 2019 calls for proposals in full shortly and I would like to highlight two of them: ‘New drugs and vaccines for priority pathogens in antimicrobial resistance’, and ‘Vaccines against Lassa virus’ (in collaboration with CEPI, the global partnership for the development of vaccines to stop future epidemics). For a complete list of the 2019 calls see below in this newsletter.

Regarding our portfolio, I am happy to mention that it is more balanced with the major recent awards for malaria drugs and vaccines R&D. Agreements for several substantial grants are currently being finalised. By the end of 2018, our project portfolio had grown by more than a third, and our investment in clinical trials had reached €395.83 million. In 2019, I expect our investment to increase by about €120 million.

To conclude, I would like to take this opportunity to thank all of you who are associated with EDCTP and especially our Board members for the oversight and guidance in the implementation of this programme.

Dr Michael Makanga
Executive Director
EDCTP fellowship programme

(2014-2018)

Fellowship programme €20.81 M
invested to support 89 fellowships that focus on the career development of individual researchers.

Clinical Research and Development Fellowships
13 grants
€1.20 M

Objective: to promote career development and retention of postdoctoral researchers and postgraduate medical researchers in the research field and in sub-Saharan Africa; and to equip the fellows with the ability to establish themselves as independent researchers, with the skills to initiate and manage their own research at host organisations in sub-Saharan Africa.

Career Development Fellowships
51 grants
€7.40 M

Objective: to support capacity development of potential African research leaders. The Senior Fellowships are based on the train-the-trainer model. They build their own research team and mentor junior researchers with emphasis on hands-on research training linked to clinical trials activities conducted in sub-Saharan Africa.

Senior Fellowships
25 grants
€12.21 M

Objective: to support capacity development of potential African research leaders. The Senior Fellowships are based on the train-the-trainer model. They build their own research team and mentor junior researchers with emphasis on hands-on research training linked to clinical trials activities conducted in sub-Saharan Africa.

EDCTP Alumni network: connecting African researchers

Since the start of the first programme in 2003, EDCTP has invested in support for individual African researchers at different stages of their careers. A set of graduate and post-doctoral fellowship opportunities was developed, from early career preparatory fellowships to senior fellowships which support research team building and mentorship. These fellowships are part of the broader EDCTP strategy to support development of African health research capacity. Moreover, this investment includes support for four regional Networks of Excellence and for activities that strengthen the necessary ethical, regulatory and legal frameworks of clinical research.

In 2017, EDCTP established its Alumni network, aimed at tracking and monitoring the impact of the fellowship programme, and at encouraging trained fellows to continue working together. A two-day interactive workshop, attended by 74 of the current and past EDCTP fellows in Johannesburg, South Africa in October 2017 launched the network. It is supported by an online platform which became available in April 2018. The website makes the professional profiles of all current and past EDCTP fellows easily accessible. Moreover, it facilitates reflection and collaboration among the more than 160 EDCTP fellows from sub-Saharan Africa to date. To that end, working groups on HIV, tuberculosis, malaria, and neglected or emerging infectious diseases were established at the launch of the network.
Ahead of the Ninth EDCTP Forum, EDCTP held a Fellow’s Day in Lisbon, Portugal that brought together 72 of its fellows. The workshop provided opportunities for broad discussions on the challenges and opportunities for developing scientific leaders in Africa. The four working groups for EDCTP fellows established in October 2017, were also facilitated by the meeting. As the lack of good mentors was identified as one of the main stumbling blocks for researchers in Africa, it was decided to use the Fellow’s Day to explore the role of mentors in the growth and development of research leaders in Africa.

After an introduction by Professor Moses Bockarie, EDCTP Director of International Cooperation for Africa, a short video on the launch of the Alumni Network was shown. Alumni explained how the fellowship had shaped their careers. For many it was the single opportunity that enabled them to become established and recognised as an independent researcher.

Dr Michael Makanga, EDCTP Executive Director, gave a presentation on the elements of the EDCTP model for research capacity development: fellowship programme, strengthening ethics and regulatory capacity, the regional Networks of Excellence, strengthening product-focused health systems research, and site preparation for conducting clinical trials.

Professor Hannah Akuffo (Swedish International Development Cooperation Agency) gave the keynote speech on mentorship, distinguishing between the role of the academic supervisor and that of an external mentor, whom she defined as more of a bridge for the doctoral student to the world outside the direct research environment, as a trusted personal interlocutor not directly involved in the student’s projects. She highlighted the need for supervisors to train to have a solid grounding in the rules pertaining to doctoral (or post-graduate) supervision and in the different educational phases and problems. Mentorship on the other hand is more about accessibility and, where possible, a long-term concern and support for the career of the mentee.

A panel discussion explored the need for cooperation between organisations as building research leadership capacity in health is a collective effort towards a common objective. Dr Thomas Nyirenda and Dr Pauline Beattie (EDCTP) moderated a discussion in which participated: Dr Dermot Maher (World Health Organisation / TDR); Dr Maria Bellocchi (African Research Excellence Fund); Dr Mark Palmer (Medical Research Council, United Kingdom); Prof. Charles Mgome (Hubert Kariuki Memorial University, Tanzania); and Prof. Francine Ntoumi (coordinator of the CANTAM Network of Excellence from the Republic of the Congo). One of the major challenges discussed was the language barrier for French- and Portuguese-speaking researchers.

The final panel, moderated by Ms Michelle Nderu (EDCTP), explored personal stories by EDCTP fellows on how their careers developed towards research leadership.

- Dr Abraham Alabi, Centre de Recherches Médicales de Lémbaréré (CERMEL), Gabon, received his fellowship in 2004. He focused on assays for HIV, work which was carried out in The Gambia. This fellowship led him to work at a research site of the US Military HIV Research programme in Nigeria and then to CERMEL where he now heads the TB laboratory.

- Professor Kamija Phiri, University of Malawi, received his fellowship in 2009. Following its completion in 2011, he was appointed Associate Professor and later to full professor and Head of the School of Public Health and Family Medicine. He is involved in the 2016 Post-discharge Malaria Chemoprevention Consortium and in the EVIDENT consortium established in 2018. This DFID-funded project aims to mainstream the use of evidence in health policy decision-making. He serves on various WHO panels as well as in national and regional working groups.

- Dr Nesri Padayatchi, Deputy Director of the Center for the AIDS Programme of Research in South Africa (CAPRISA), received a fellowship in 2013. Since completing this study on improving retreatment success of tuberculosis, she completed her PhD and published 56 peer-reviewed publications. She has supervised three PhD students and received awards from the Academy of Science of South Africa (ASSAf) and the South African Medical Research Council (SAMRC).

- Associate Professor Pauline Byakika-Kibwika, Infectious Diseases Institute Limited (IDI), Uganda, received her fellowship in 2010 for work on severe malaria. Besides the challenges for all young researchers, she also brought up the additional challenges for women in science, who must combine the roles of researcher, wife, mother, and daughter-in-law with all the responsibilities implied.

The afternoon was dedicated to meetings of the four disease-specific working groups. They met to develop objectives to work towards in the period until the Tenth EDCTP Forum. The EDCTP Project officer for the Alumni network is Ms Shingai Machingaidze who also coordinated the event and the production of the video. Visit the Alumni Network platform at http://edctpalumninetwork.org and watch the video at https://youtu.be/3SIIZ1h-XZM.
Alumni Network working groups

Four working groups were established as part of the EDCTP Alumni Network:

- **HIV & HIV-associated infections**
  - **Chair:** Professor Nicaise Ndembe, Nigeria
  - **Objectives:**
    - To conduct a mapping exercise of members in the working group
    - To identify and collate recent HIV Research Updates
    - To create opportunities for capacity development
    - To provide biostatistics training
    - To conduct regular online meetings.

- **Malaria**
  - **Chair:** Professor Pauline Byakika Kibwika, Uganda
  - **Objectives:**
    - To submit a collaborative grant application
    - To develop short courses for training
    - To develop a language mobility programme
    - To write a collaborative systematic review.

- **Neglected or emerging infectious diseases**
  - **Chair:** Dr Takafira Mduluza, Zimbabwe
  - **Objectives:**
    - To improve communication within the group
    - To conduct a mapping exercise of members in the working group and their research activities
    - To address the free use of NID data generated by diseases endemic countries.

- **Tuberculosis**
  - **Chair:** Dr Abraham Alabi, Gabon
  - **Objectives:**
    - To strengthen South-South collaborations through joint research activities
    - To publicise Fellows strength for maximum exploitation of available capacity.

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**Dr Nicaise Ndemi**
Chair of the HIV working group

Dr Nicaise Ndemi (Nigeria) is a former EDCTP Fellow, member of the EDCTP Alumni network and Chair of the network’s working group on HIV. In his view, “the most helpful aspect of the EDCTP Alumni Network until now has been its role as a platform for discussing and defining priorities for HIV research.” He mentions topics such as: reducing the incidence of HIV; research towards an HIV cure; addressing HIV-associated co-morbidities, co-infections and complications; treatment outcomes; antiretroviral drug resistance; and care for ageing HIV-infected populations. These discussions could also inform the EDCTP strategic plan.

Secondly, it is important to encourage and support South-South collaborative research as well as collaborative competition for international grants. “A network of EDCTP investigators that can aim to compete for international grants through joined responses to calls for proposals is a significant achievement. Interacting with other EDCTP fellows through the platform develops these connections among alumni.”

As chair of the HIV working group and in his capacity of Associate Editor of the journal *AIDS Research and Therapy*, he helped commission a special issue on ‘Treatment outcomes and paving the way for an HIV cure in low- and middle-income countries’. EDCTP Career Development and Senior fellows have submitted manuscripts based on research funded under EDCTP2.
Dr. Misaki Wayengera (Uganda) currently holds a Career Development Fellowship and is also involved in an EDCTP-funded Ebola emergency project. “I was still early in my career as a researcher when I received the EDCTP Career Development Fellowship. Professionally, I was motivated to apply by EDCTP’s agenda to address neglected tropical diseases. Most important, however, was the need to secure funding to advance my research for the development of an affordable, easy-to-use, point-of-care rapid diagnostic test (RDT) for viral haemorrhagic fevers-VHF caused by the two rare Ebola and Marburg filoviruses.

The EDCTP fellowship helped me to lay the groundwork for removing the obstacles to a working antigen assay. It had us ready with a solution in 2018, when EDCTP published an emergency funding call for proposals in response to the Ebola virus disease outbreak in the Democratic Republic of Congo. The call was open for seven days. Only those who were already working in the area could successfully respond to such a call. Because of our ongoing work based on the Career Development Fellowship at the time, we had already started to figure out what needed to be tackled to have an RDT that would perform well in the field.

We successfully secured one of the five EDCTP emergency grants for the AdjustEBOVGp-Dx project. This aims to develop biochemical treatments that adjust native Ebola Virus glycoprotein (EBOV GP) in patient samples as a target for RDTs. It was under my fellowship grant that we arrived at the insight that we needed a sample buffer to unmask the target epitopes of the filovirus glycoprotein (which undergoes post-translational modifications such as dimerization, folding, glycosylation etc.).

Thus, the AdjustEBOVGp-Dx project could yield the first prototypes of RDTs for the dual-detection of Ebola and Marburg virus, which are required to ensure early detection, response and control of ongoing and future outbreaks.”

With this innovative rapid diagnostic test, Dr. Wayengera entered the WHO Africa Innovation Challenge. He belonged to the final 30 contenders (out of almost 2500) who were recognised at the WHO Africa Health Forum in Praia, Cabo Verde, on 26 March 2019.

In 2011, Dr. Stellah Mpaga (Tanzania) received a research grant through the EDCTP-PanACEA consortium. “At that time, I was just registered as a Ph.D. candidate at Kilimanjaro Christian Medical University College in Tanzania. Thanks to this grant my next steps in research were incorporated in the PanACEA consortium. It supported me not only in acquiring hands-on skills for the design and conduct of clinical trials but also with other aspects of academic career development. Through this period of support and involvement, I succeeded in advancing the management of our MDR-TB patients through hypothesis-driven research.”

In April 2018, Dr. Mpaga was awarded an EDCTP Senior Fellowship. “First of all, I very much appreciate becoming one of the EDCTP Senior Fellows; I have received a prestigious award. With my fellowship, I want to conduct a clinical trial focused on TB-HIV co-infected patients. It will aim to answer an important scientific question of direct benefit to patients, with, of course, additional components of capacity building for laboratory scientists, research trialists and a rapid response infrastructure. Through training MSc and PhD students, I hope to create a critical mass of scientists with hands-on skills and the capacity to identify both the individual patients’ needs and the public health needs.”

“In this spirit of hypothesis-driven research, I hope to further develop my career by addressing unresolved issues in implementation and clinical challenges in the field of infectious diseases. I hope this fellowship can spark transformations in the health system of my country to become a more resilient system in addressing patients’ and public health needs with a greater focus on long-term disease prevention.”

In 2017, Dr. Atinuke Olaleye (Nigeria) received an EDCTP-WHO/TDR Clinical Research & Development Fellowship, a type of grant designed to gain experience in a product development setting. The acquired skills and experience are then to be translated into capacity development at the home institution of the fellow. “I was placed in the Clinical R&D department of GSK Biologicals S.A, Belgium, where I worked as a Clinical Research & Development Lead trainee. I provided medical oversight on malaria vaccine clinical trials being involved in site preparation and the start of a large efficacy trial. Involvement in further safety and immunology studies enhanced my competence in clinical trials operations and study implementation. The TDR grant then enabled me to initiate various capacity building activities for early career researchers at Babcock University, Ogun state, Nigeria.”

“Currently, as an EDCTP Career Development Fellow, I can build and coordinate a strong multidisciplinary research group which will carry out capacity building and research in reproductive health. My mentor, Prof Oladapo Walker provides guidance and I will focus on reducing maternal and under-five mortality. Additionally, the fellowship grant helped establish an advanced biotechnology laboratory in my institution. Basic genomics research is now possible for my study, while the equipment also serves other researchers, such as PhD candidates and faculty members, to conduct their own genomic studies.”

“In the short to medium term, I intend to make us more competitive and attract larger grants to conduct clinical trials in my home institution’s Centre for Advanced Medical Research and Biotechnology (CAMRAB), where I am the current director.”
2019 calls for proposals: coming soon

The EDCTP calls for proposals are supported through three distinct types of Horizon 2020 ‘actions’:

- **Research & Innovation Actions (RIA)** are multicentre clinical trials conducted by research consortia involving both European and African research teams, with integrated capacity development and networking elements.
- **Coordination & Support Actions (CSA)** support activities that strengthen the enabling environment for conducting clinical trials and clinical research, including ethical review and regulatory capacity.
- **Training & Mobility Actions (TMA)** are fellowships that focus on the career development of individual researchers or research team members.

In 2019, EDCTP intends to launch 10 calls for proposals to support clinical research and related activities on poverty-related diseases. Details of the call texts are planned to be published on the website in May 2019, conditional on approval by the EDCTP General Assembly. All dates below are therefore indicative.

### Strategic actions supporting large-scale clinical trials

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<th>Type</th>
<th>Procedure</th>
<th>Open to applications</th>
<th>Deadline for applications</th>
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<tr>
<td>Research &amp; Innovation Action (RIA)</td>
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<td>3 June 2019</td>
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### Ethics and regulatory capacities

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### New drugs and vaccines for priority pathogens in antimicrobial resistance

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### Paediatric drugs formulations for poverty-related diseases

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### Strategic actions on product-related implementation research

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### Vaccines against Lassa virus – joint call with CEPI

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### Career development fellowships

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### EDCTP-AREF Preparatory fellowships

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### EDCTP-TDR Clinical research & product development fellowships

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### Senior fellowships Plus

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