



Editorial

We are pleased to launch the first monthly newsletter of CDT-Africa.

This is the fourth year of CDT-Africa as a functioning Centre of excellence and its fifth year as a brand. These have been exciting, hopeful, busy, productive, challenging and learning years. We have novel training programmes with over 600 beneficiaries; 15 research projects; over 250 scientific publications; four promising new medical products with seven under development; over 100 new staff; expanding facilities; brand new medical discovery laboratory; and new local and international partnerships.

These success stories have been possible because of the committed contribution of the core faculty, the tireless work of the staff of the centre, and the continued support of the College of Health Sciences and Addis Ababa University. The support of the Ministry of Science and Higher Education, the National Steering Committee, the Scientific Advisory Board, the Ministry of Health, World Bank offices in Ethiopia and Head Quarters as well as the Inter-University Council of East Africa were instrumental.

The month of May has been an exciting month as usual. CDT-Africa was involved in the Annual Research Week celebration of Addis Ababa University contributing to the success of the Week, including exhibiting some of its new products and initiatives. CDT-Africa facilitated the first workshop to begin a national movement to transform the science and innovation ecosystem in Ethiopia. On behalf of CDT-Africa, Addis Ababa University entered a cooperation agreement with Eiken Chemicals Co. LTD, facilitated by the Japan Embassy. The agreement was signed in the historic Ras Makonnen hall. The aim of this agreement is to accelerate diagnostic innovations for COVID-19, Tuberculosis and Malaria. We also celebrated the annual International Clinical Trials Day. CDT-Africa has continued its work on COVID-19, including its knowledge synthesis activities. The new Unit for Health Evidence and Policy also became operational this month.

Thank you for being a partner with CDT-Africa to ensure Africa builds its endogenous medical discovery capacity and become part of the global health solution.

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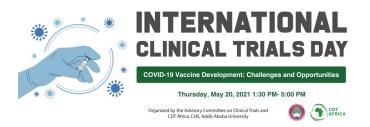
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CDT-Africa marks International Clinical Trials Day with the theme: Covid-19 Vaccine Development: Challenges and Opportunities



CDT-Africa marks International Clinical Trials Day 2021 virtually on May 20. Opening remarks were made by Professor Afework Kassu, State Minister, MoSHE and Dr. Dawit Wondimagegn, Chief Executive Director, College of Health Sciences, AAU.

Prof. Afework Kassu commended the clinical trials being done in the country and underlined the need for building local capacity to produce drugs and vaccines. Building the national pharmaceutical capabilities is imperative as drug and vaccine development ultimately links with the industry, he added.

Prof. Afework said clinical trials require significant infrastructure. As a nation, we mark this year's International Clinical Trials Day with a commitment to invest more in our pharmaceutical capabilities.

Dr. Abebaw Fekadu, CDT-Africa Centre Leader, remarked that Africa cannot afford to wait to develop the essential expertise and infrastructure for vaccine development. While CDT-Africa has research and training programmes targeting vaccine development, vaccine development and production work should be government-led and requires high-level strategic direction and leadership.

H.E., Dr Mulu Nega, State Minister, Ministry of Science and Higher Education, in his closing remark noted how remarkable it has been that vaccine has been developed within a year of a new pandemic and that "this landmark achievement has required decades of investment on infrastructure, human capital and broader discovery research capabilities". He emphasized the need to ensure that Ethiopia becomes "part of this global discovery movement" and the commitment of the Ethiopian government to make Ethiopia part of this global movement. "The four Africa Centres of Excellence of Ethiopia, which are coordinated by the Ministry of Science and Higher Education, are good examples of government's commitment. These centres are expected to develop the necessary programs, partnerships, infrastructure and leadership to adapt and develop new technologies to address the development challenges of Ethiopia as well as Africa." Dr. Mulu acknowledged the field of medical discovery that CDT- Africa is engaged in as "technology intensive and requires strong international partnerships" and that "MoSHE recognizes strong government support is crucial for the success of this important work and we are fully committed to support and guide this centre".

Dr Mulu ended by thanking "CDT-Africa, Addis Ababa University and the Advisory Committee on Clinical Trials for organizing this event and for the hard work to improve the clinical trials ecosystem in Ethiopia".

Presentations were made on COVID-19 vaccines progress, challenges, and the future scope by Dr Asma Aziz, Vaccine hesitancy and biological features of vaccines for COVID-19 by Dr. Birkineh Tilahun (both from the International Vaccine Institute); Vaccine hesitancy: Global experience, by Dr Yimtubezinash W/Amanuel, COVID-19 related clinical trials at CDT-Africa by Prof Asrat Hailu (both from CDT-Africa); Clinical trial on medicinal herbs for supportive treatment of COVID-19 (Dr Asfaw Debella, EPHI); COVID-19 related clinical trials at AHRI (Dr Mekonnen Teferi); Experience on clinical trial authorization on COVID-19 (Mr. Habtamu Gashaw, EFDA).

The ICTD programme was Chaired by Prof Eyasu Makonnen, Deputy Centre Leader of CDT-Africa and panel discussion was chaired by Prof Telahun Teka, member of the Advisory Committee on Clinical Trials and chair of the National Research Ethics Review Committee of Ethiopia.

Cooperation agreement signed to accelerate diagnostics capacity for COVID-19, Tuberculosis & Malaria



Prof. Tassew Weldehanna & Ambassador ITO Takako Signing the Cooperation agreement

Addis Ababa University entered a cooperation agreement with Eiken Chemicals Co. LTD, facilitated by the Japan Embassy, in the historic Ras Makonnen Hall.

Professor Tassew Weldehanna, AAU President and Ambassador ITO Takako, Japanese Ambassador to Ethiopia, signed the agreement.

The objective of the Memorandum of Cooperation is to accelerate Tuberculosis, Malaria and COVID-19 testing in Ethiopia. AAU's CDT-Africa & EIKEN Chemical Co. Ltd will be implementers. The two parties will work together to conduct a study on the validity of sample test kits, and once the certification of clinical use and the national guidelines are obtained, they will embark on technology transfer.

Professor Tassew Weldehanna said 'We have various academic and research relations with Japanese government and the Japanese government has been supporting AAU and the people of Ethiopia in various ways since the start of diplomatic relation between the two countries.'



ITO Takako, Japanese Ambassador to Ethiopia, expressed her privilege to witness the formulation of such a valuable alliance between CDT-Africa and Eiken Chemical.

According to the Ambassador, being able to introduce the LAMP technology is not only applicable to Tuberculosis and Malaria but also useful to diagnose the COVID-19.

"Currently, the main method of diagnosing Coronavirus in Ethiopia is PCR test, but the LAMP technology has the potential to provide this diagnosis with as high accuracy as a PCR test but using less time and less financial cost."



The Ambassador sincerely wished that, in the near future, Ethiopia will become a local production venue of this technology and the starting point for its distribution all across Africa.

Dr. Abebaw Fekadu, CDT-Africa Centre Leader said the technology enables us to diagnose three kinds of diseases: Tuberculosis, Malaria and COVID-19; however, there is a possibility to adapt them to be used for all infectious diseases and to focus on the technology transfer as an institution.

African Solution for a Global Problem

Initiative to Transform Ethiopia's Science and Innovation Ecosystem



The first stakeholders meeting, chaired by Dr Mitike the commitment of the University to this goal. Molla, Vice President for Research and Technology the Transfer, was held on May 18 with theme: Envisioning Tomorrow's Ethiopia through Science and Innovation -Creating a national movement to transform the science and innovation ecosystem of Ethiopia.

The initiative, led by AAU (Office of the VPRTT/ Community Engagement + CDT-Africa), Ministry of Education and the Ethiopian Academy of Sciences, aims to create a national movement through which children will be offered opportunity to enhance their knowledge in science and nurture their creativity to solve local, continental and global problems. The initiative envisions creating high quality science education programs targeted at children 4-12 years by engaging stakeholders from the private sector, professional and civic society members. In its full scale, the initiative will have nation-wide reach through various platforms.

On the occasion, Dr. Yania Seidmekiy, State Minister of Innovation & Technology appreciated the efforts underway to build science and technology ecosystem and highlighted the need to work in integrated manner to transform the nation. She indicated that her ministry's Science, Technology and Innovation policy aims to make science a culture among the nation which is in line with the objective of the initiative. She highlighted ways the ministry can get involved for the success of the program.

Professor Tassew W/Hanna, Addis Ababa University President said Science is paramount to the development of any nation. Development can only be achieved if a nation is able to create scientific citizenry who believe in the application of science to solve its problems. That necessitates working on children. He expressed

Dr. Abebaw Fekadu, CDT-Africa Centre Leader during the concept note presentation stressed that investing in children is not an option but rather a national security issue. Science and technology can transform societies and an enabling environment should be created for children to nurture their creativity.

Professor Tsige Gebre-Mariam, President of the Ethiopian Academy of Sciences in his talk on 'Science: Its Perspective Development & importance in today's world' linked science with curiosity and exploration, and the opportunity it offers to dig into the unknown world & capacity for new innovations and technology. Technology in turn serves to solve societal problems. At the core of the academy is making science the culture of our society. He expressed the commitment and huge potential of the Academy to co-lead this initiative.

Dr. Getachew Dinku, Former Director General of Ethiopian Broadcasting Authority presented on 'The role of the media in shaping and communicating science to children, and the challenges and opportunities' highlighted on the responsibility of the media in educating the public and that they should focus on "what the people need". He emphasised that the public needs content and programs on science, and innovation.

In his closing remarks, Dr. Geremew Huluka, State Minister Education appreciated the timeliness of the initiative and stressed that it needs holistic intervention & comprehensive approach to bring societal transformation, and create national movement to enhance science and innovation. He guaranteed his ministry's full support.

During the occasion, the role of science in child development, the role of media in shaping and communicating science to children, and the importance of science in today's world were discussed.

Insurance companies in Ethiopia briefed on Clinical Trial Insurance Coverage



CDT– Africa organised a day long training for insurance companies in Ethiopia on Clinical trial insurance coverage. This training followed a focused needs assessment from among investigators and insurance companies. Of 18 companies invited, 11 of the major companies attended with 12 representatives.

Opening the occasion, Dr. Abebaw Fekadu, CDT–Africa Centre Leader, highlighted the value that insurance companies add to scientific discoveries in the country by providing insurance coverage for clinical trials. However, this service has not been available in Ethiopia and investigators had to rely on coverage from international insurance companies. This has meant that local companies had not benefited from the opportunity and

Ethiopian scientists are forced to search for coverage elsewhere. He hoped that with the initiation of this partnership, there would be sufficient insurance coverage for clinical trials in Ethiopia.

The programme was chaired by Professor Eyasu Makonnen, Deputy Centre Leader, who emphasised the gap in insurance coverage of clinical trials in Ethiopia and the overall lack of experience in this area. Prof. Eyasu said 'We want you to support clinical trials in the country in efforts to develop new drugs and diagnostics.'

Prof. Eyasu also explained, in response to a question raised by participants, the areas that coverage would be required for, for example, against any harm to participants that may occur from taking part in a clinical trial.

One of the participants, Ato Girum Girma from Ethiopian Insurance Corporation (የኢትዮጵያ መድህን), said clinical trials insurance has been minimal in the past but has a great potential for insurance companies to engage in. He added, "We are in the process of finalizing a comprehensive policy on clinical trials insurance coverage. The training has clarified a lot of issues that we have been struggling with".

Topics on Fundamental principles of bioethics, Introduction to Good Clinical Practice, Roles of Ethics committees and regulatory body, and Introduction to Clinical trials were discussed. Instructors were leading investigators and bioethicists in Ethiopia: Prof. Telahun Teka (Chair of National Ethics Review Committee of Ethiopia), Prof. Eyasu Makonnen (Deputy Centre Leader of CDT-Africa and Chair of the Advisory Committee on Clinical Trials), Dr. Yimtubezinash Woldeamanuel (Former Chair of the Institutional Review Board of the College of Health Sciences; Regulatory Affairs Lead and the Head of the Africa Bio-Hub of CDT-Africa) and Dr Solomon Mequanente, Secretary of the Institutional Review Board of the College of Health Sciences and Secretary of the Advisory Committee on Clinical Trials).

This highly interactive training clarified a lot of misconceptions on clinical trials insurance. Participants agreed to collaborate further and engage in fruitful partnerships.



African Solution for a Global Problem

CDT-Africa launches an online training program via Clinical Operations (ClinOps) Training Transfer & Delivery program



CDT-Africa launched transfer of an online training program in May 2021 that will train Study Coordinators working in Africa.

The training program is part of CDT-Africa's Clinical Operations (ClinOps) program coordinated by Dr Dawit Ejigu, a visiting faculty of CDT-Africa, and led by Professor Eyasu Makonnen, Deputy Centre Leader of CDT-Africa.

During the occasion, Dr. Dawit Ejigu said the course is aligned to the local needs in Africa and is developed based on a competency framework. He also alluded that the training employs pedagogic innovation.

The training program is mainly intended for study coordinators based in low-and middle-income countries and working with various Product Development Partners (PDPs). The training has been delivered previously in three iterations since 2017 through collaboration of several organizations including Faculty of Capacity Development (FCD), FIND, Medicines for Malaria Ventures (MMV), IAVI, PATH, and the



Special Programme for Research and Training in Tropical Diseases (TDR).

To date 207 Study Coordinators from 29 Low- and Middle-Income Countries have been trained. The training improves study coordinators competency in timely initiating, conducting and concluding a trial. They will also be in a position to reduce critical/major mistakes while conducting clinical trials.

The program will enhance CDT-Africa's capacity to deliver additional programs to support scientific capacity development in the region by transferring from FCD the skills to design, develop and deliver online training programs following best international practice.

CDT-Africa exhibits its new products at AAU Research week

CDT-Africa participated in AAU's research week. The event was held between May 24 and 28, 2021, under the theme "Research for Peace and Nation Building". The event included exhibitions, job and book fairs. CDT-Africa exhibited some of its new medical products, including products relevant to the COVID-19 pandemic response.

Professor Tassew Weldehanna, President of Addis Ababa University, highlighted the sig-



nificant progress made by the University in global ranking and the determination to strengthen its research and technology transfer efforts to enhance the impact of the University.

H.E. Dr. Mulu Nega State Minister, Ministry of Science and Higher Education (MoSHE) said research plays an important role in a country's development. There is no economic, political, cultural or social sector that could be effective without research. Research is also useful when innovations can be transferred to the community and transform the country's socio-economic development.

Should We Dare Hope that the Second Wave of COVID-19 in Ethiopia is Receding?

A second surge in the COVID-19 pandemic has been observed in Ethiopia since late January. Stricter control measures were mandated from late March. After the announcement of these measures, wearing face masks, at least in Addis Ababa has improved.

We have noted previously a pattern of slight decline in both positivity rate and daily new cases. Adherence to the control measures, particularly public wearing of face masks, is more apparent in Addis Ababa.

Truly speaking, it was the public wearing of face covering requirements that were adhered to. This adherence was more apparent in Addis Ababa than other parts of the country. Substantive and steady decline in the test positivity rate has continued since around the 3rd week of the introduction of stricter control measures. Fig. 1



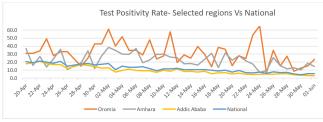
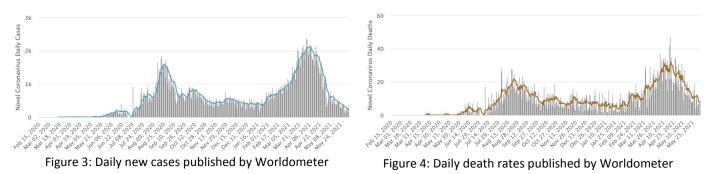


Figure 1: Test positivity rate based on daily reports of the Ministry of Health available in the public domain

Figure 2: Selected Regions Vs National - Test Positivity Rate Reports from EPHI

This decline has occurred mostly in Addis Ababa (Figure 2), where adherence to face mask mandate has been more noticeable. The daily case numbers have also declined steadily (Figure 3). Although the decline in daily case numbers can partly be explained by the decline in the decline in the daily test rate, it is noteworthy that the decline in case numbers is too large to be explained away by reduction in the test rate. Additionally, the trend in daily death counts (Figure 4) and admissions for severe illnesses have declined substantially.



Would epidemiologists think that the second wave of the COVID-19 pandemic in Ethiopia is now truly receding? If this is the case, the reason is almost certainly the more consistent wearing of face masks/face coverings. It should be of serious concern that wearing of face masks/face coverings is beginning to be less consistent even in Addis Ababa. Leaders have often set good examples in wearing face masks and should continue modelling this behaviour.

The Knowledge Synthesis Team

