

Successful East Africa Personalised Medicine Regional Stakeholder workshop held in Nairobi, Kenya (Press Release)



13th – 14th July 2022, Nairobi Kenya

Recently, over 70 participants from health systems policy makers, researchers, funding agencies, scientific societies, regional technology developers and international organisations in the field of Personalised Medicine (PM) and health research institutions met in Nairobi, Kenya, to discuss Personalised Medicine and identify regional specific needs around the area of PM for potential collaboration between other African Sub-Regions and Europe. The East African countries' participants came from Kenya, Tanzania, Uganda, Rwanda and Ethiopia. Joining in the discussions were EU-Africa PerMed consortium members, from Europe, different African Sub-regions; West and Southern Africa and representatives from the European Union Commission (EC).

The two-day stakeholder workshop was held at the Winsor Golf Hotel and Country Club in Nairobi between the 13th and 14th July 2022 and was organised by the National Commission for Science Technology and Innovation (NACOSTI) on behalf of the EU-Africa PerMed project.

The forum was insightful to East African countries as they learned about possibilities for collaborative partnerships/projects in the field of Personalised Medicine supported through the EC. As a keynote speaker and representing the European Union Commission (EC), Dr Jean-Luc Sanne, Policy officer at the Directorate-General for

Research and Innovation, gave an overview of the EC strategic focus, highlighting opportunities for collaboration between Europe and Africa on PM and how African organisations can leverage on EC opportunities to strengthen implementation of PM in Africa.

The objective of the meeting was to discuss the PM agenda in East Africa and convene a regional committee to identify regional specific health needs to develop the potential for PM, as well as to identify challenges and opportunities for collaboration with Europe. As the host for the meeting, NACOSTI, represented by Mr. Gideon Kirui, the Director in charge of Finance and Administration emphasised on the importance of prioritising precision medicine, bringing into perspective the role of research and innovation.

Officially opening the workshop was Dr David Soti, Senior Deputy Director for Medical Services, who pointed out in his speech the importance of finding innovative solutions to implementing PM in East Africa, reiterating on the importance of bringing PM into the regional and national health agendas. Dr Soti also thanked the organisers and gave his assurance that the Ministry of Health of Kenya is in full support of the PM initiatives.

Following the official opening, participants were taken through the vision of PM in Africa and the rationale for a regional approach, a presentation made by Rizwana Mia from the South Africa Medical Research Council (SAMRC), who is also a member of the EU-Africa PerMed consortium. During her presentation, Dr Mia acknowledged the fact that different terms were used interchangeably, but often referring to the same thing, citing a few such as Personalised, Precision and Genomic medicine. She then provided an overview of the need to develop PM solutions starting off with precise diagnosis toward building personalised medical approaches. She highlighted the gaps in the global database due to African human genome diversity and the need to study African genomics to develop relevant treatments for the African continent, to address the continents large disease burden.

Erika Sela, from INNOVATEC, the coordinating organisation of the EU-Africa PerMed project, provided an overview of the project, stating its objective: **Building Links Between Europe and Africa in Personalised Medicine**. In her presentation, Ms Sela mentioned that the project will facilitate the participation of African organisations in the activities of the International Consortium for Personalised Medicine (ICPerMed) and will build bridges between the research communities on PM in Africa and Europe.

The forum was also an opportunity to share findings from the EU-Africa PerMed project on Scientific and Policy Mapping in the East African region, highlighting limited research and information from the existing data on African populations for informed interventions and decision-making on PM and the fact that the status of PM implementation across the African continent was at different stages, using the further indicators: Governance of health research, financing of health research, resources for health research, health research outputs, international collaborations in health research, and PM/genomic research.



A very informative session followed with an overview of the status of PM in the East African Countries. Dr Francis Makokha, Head of the Human Health Research Program, Directorate of Research and Innovation, Mt. Kenya University, presented the current status of PM in Kenya, and highlighted the main challenges ahead: Cost implications, treatments based on foreign populations (key drivers in the Kenyan population not included in the available panels) and the lack of sufficient skills in genomics, proteomics, bioinformatics and synthetic biology and the need for more facilities. Prof Celestino Obua, the Vice Chancellor from Mbarara University in Uganda mentioned during his presentation the four key components of personalised medicine in Uganda: Understanding genetic differences and how they relate to people and their interaction and responses to diseases; understanding and use of technology; generating populationlevel data and adequacy of infrastructure in the health system to accommodate research, and implement targeted diagnosis and treatment processes. Dr Agnes Jonathan, manager of the Sickle Cell Programme, Department of Haematology and Blood Transfusion at Muhimbili University of Health and Allied Sciences, Tanzania, also gave a very inspiring talk about a real case of PM model in Africa, the Sickle cell disease project (SCD), which is the single most important genetic cause of childhood mortality globally, and Tanzania has one of the highest annual births of SCD in the world, estimated to reach 11 000 births a year. Dr Alemseged Abdissa, deputy director general of the Armauer Hansen Research Institute (AHRI), in Ethiopia, expressed Ethiopia's developments in the health sector particularly to the research innovation efforts made by AHRI.

Participants in the meeting worked in five group sessions, divided by countries, to review the landscape in each of the five participating countries and to identify and prioritise needs and areas of interest in personalised/precision medicine.

The second day of the meeting mainly focused on carrying out a SWOB analysis (Strength, weaknesses, Opportunities and Barriers) to identify gaps, needs and areas of interest. This country level analysis conveyed an understanding of what each East African country possesses that could be leveraged to build capacity for growth in the region

including the competitive innovation ecosystem, technological, intellectual and physical assets, the interplay of government support – regulation policy and research funding, academic areas of interest, health system environment and critical infrastructure this will prove to be critical to developing the strategic direction and ultimately an implementation plan for the East African Region.

Some important issues were found to be the major challenges for developing PM in the region

- Limited funds
- Develop knowledge on the African genome for precise diagnostics and relevant drug treatment
- Pharmacogenomic aspects to address current serious adverse drug reactions on essential drug use
- Infrastructure to conduce genomic, data and health system science
- Ethico-legal issues

The workshop provided the opportunity to discuss about the need and potential to set up country/regional task forces to further strengthening science and policy initiatives for capacity building and collaborations in PM.

The East Africa regional workshop was the first of a series of regional workshops (North, West/Central and South Africa) organised in the cause of 2022. The outcome of all regional meetings will be discussed in the next EU-Africa PerMed Stakeholder Workshop in February 2023, in Cape Town, South Africa.

About the EU-Africa PerMed Project

The EU-Africa PerMed Project, themed "Building Links between Europe and Africa in Personalised medicine" is a 4-year action project receiving funding by the European Commission Horizon 2020 programme. EU-Africa PerMed seeks to facilitate and strengthen Research and Innovation collaboration between Europe and Africa in Personalised Medicine (PM), to foster joint projects and programmes as well as to facilitate the participation of African organisations in the International Consortium for Personalised Medicine (ICPerMed). The project was launched in February 2021 and is implemented by a consortium of 13 partners: 6 from Europe and 7 from Africa.

For further information and if you are interested in participating in one of our workshops, please contact: info@euafrica-permed.eu

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