



*In Search of Better Health*

## PRESS RELEASE

**TO: NEWS EDITORS**

**SUBJECT: KEMRI PUTS UP NEW STATE OF THE ART PLATFORMS TO IMPROVE HEALTH RESEARCH**

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**NAIROBI-KENYA:** The Kenya Medical Research Institute (KEMRI) is pleased to announce the establishment of a new bespoke laboratory platform for research in new and re-emerging pandemics and outbreak containment. These new facilities to be based at the KEMRI Headquarters also have capabilities of development of rapid diagnostic solutions for not just for Kenya and the East African region, but also the entire African continent.

The assembled infrastructure, a robust highly automated DNA Synthesizer and a Next-Generation sequencer fully financed by the Government of Kenya through the KEMRI Internal Research Grants will now be used in the development of molecular diagnostic kits including (but not limited to) PCR, Rapid Test Kits (or Immunochromatographic) and Enzyme-Linked Immunosorbent Assay (ELISA), as well as detection and characterization of DNA for any emerging or re-emerging infections. The establishment of this platform involved three key activities done simultaneously:

- The first activity was the procurement of two state-of-art DNA sequencing machines with capacity to identify pathogen responsible for epidemic within few hours.
- The second, was to procure another state-of-art precision machine that can synthesize short strands of DNA (also known as primers) that are complementary to some part of the pathogen genetic material sequences, which have previously been obtained from the sequencers mentioned above. These primers together with other general reagents are used to develop PCR test kits.
- third activity has involved training technical staff on how to use this new platform to develop diagnostic solutions.

Besides providing a platform for Rapid development of diagnostic kits in case of national epidemics, the platform is expected to promote and enhance quick outputs in biomedical research in the country and regionally. Currently, it takes between one and four weeks for biomedical researchers to procure primers for their research. This platform will be able to provide these primers within one to five days, at a minimal cost that will be used to maintain the equipment. The synthesizer will also promote local research in development of vaccines and chemicals that promote their activities (adjuvants). It will also support research in development of medicines to treat some cancers.

This platform will help the country to be better prepared for any likely emerging and re-emerging infections. The availability of this diagnostic platform will make it possible for the country to quickly develop diagnostics that are specific to the emerging mutations, which often have to wait for the international response that may not even happen hence exposing the nation to health insecurity.

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