

iCMoB visit to KENYA MEDICAL RESEARCH INSTITUTE – Mbagathi

Linking the University and industries being a major objective of AFRICA-ai-JAPAN Project and with the determination to come up with a Natural Product Research Centre, a representative team from iCMoB subtask force made a visit to KEMRI – Headquarters on 1st December 2020 in a bid to understand the processes involved as well as identify areas in the institution that would offer basis for linkages.

iCMoB Team

Dr. Caroline Ngugi – Chairperson

Dr. Amos Mbugua – member

Dr. Mutinda Kyama – member

Dr. Josephine Kimani – member

Ms. Jane Kiarie – member

Mr. Bernard Kinyua – member

Mr. Daniel Mutwiri – member

Objectives of the visit

- Familiarize with the activities, structure and machinery of the institution
- Understand the production process of their products and regulations involved
- Identify areas of collaboration and partnership

Briefing on the institution history

Dr. Kimotho, being our host, shared with us a brief history about the institution and some of their achievements so far. KEMRI is a medical research center located in Kenya, Nairobi. It was established through the Science and Technology (Amendment) Act of 1979, as the national body responsible for carrying out health research in Kenya. The institution has played an important role in the fight against malaria, HIV/AIDS and other diseases over the years in Kenya and sub-Saharan Africa as a whole. It has also developed a critical mass of scientists and technical personnel. The institution was constructed around 2004 and 2005 and opened in January 2006. At the time, they had collaborations majorly with the Japanese.



iCMoB team being briefed by Dr. Kimotho about the institution

A tour in the institution

The facility has various research centers and programs. The iCMoB team had a chance to visit three sections that are relevant to the establishment of a Natural Products Research Centre. These sections included;

- i. The Production Department
- ii. Center for Traditional Medicine and Drug Research (CTMDR)
- iii. Animal House

The Production Department

Dr. James Kimotho, the Head of Department, and Mrs. Lucy Mwita, the Head of Microbiology Section took the team through the research and product development activities carried out in this department. Some of the research laboratories with state of the art equipment visited included the cell culture laboratories, molecular biology laboratory, the genome sequencing laboratory, product developing laboratory, the cold room with numerous cold chains and the microbiology laboratory. Dr. Kimotho highlighted the need for having a fully functional team for the success of any business venture, proper planning of activities, proper market survey, linkages with government and other institutions and good leadership as key in achieving success in any project.



Dr. Kimotho and iCMoB team in the Production Center Laboratories

He also took the team through some of the products they've been able to produce and that are already in the market as well as those that they're still working on. Some of the products included pre-packed solid culture media, the KEM-rub hand sanitizer, KEMRI Hep-cell kit, PCR kits for SARS-COV-2 and the KEM-VTM (Viral transport media). Issues concerning revenue generation policy and Intellectual Property (IP) were also highlighted.



Dr. Kimotho showing the iCMoB team some of the KEMRI products

The center mostly focuses on problem solving and currently has an ongoing project to come up with an anti-venom end product to solve the issue of snake bites. Dr Kimotho mentioned that he is working with JKUAT post graduate students on this.

Center for Traditional Medicine and Drug Research (CTMDR)

After a warm welcome and an introduction session with Dr. Festus Tolo, the Director of the center, he shared with us some of the insights entailing phytochemical analysis, cytotoxicity tests and use of some of their equipment. He explained to the team some of the research activities the center is currently involved in. Dr. Beatrice Irungu, a chemist, in the center, took the team through the Chemistry Laboratory and other laboratories in their center.

Animal House

Dr Kimotho took the team on a tour through the KEMRI animal house. The team was taken through the maintenance and handling of the research animals, as well as the design and maintenance of the animal house.

A wrap up meeting was held over lunch after the facility walk and more insights highlighted on the way forward to succeed with our vision to set up a Natural Product Research Centre. Both teams noted the importance of collaboration and partnership with other institutions to achieve research goals.

The visit was a success, with the objectives of the visit accomplished.



iCMoB Team and Dr. Kimotho after the facility walk