KAVI-Institute of Clinical Research (ICR)

KAVI-ICR’s mission is to discover, apply, and disseminate knowledge through creative and innovative health research

- SARS-COV-2 pandemic research
- Sexually transmitted infections (STIs) & other infectious agents
- Non-communicable diseases
  - Stem cells and regenerative medicine
  - Tumor stem-like cells from brain and spinal cord tumors
  - Immunology of wounds
- Knowledge translation
  - Research, policy development, and implementation
  - Collaboration with a host of community cohorts and volunteers

KAVI-ICR is a center of excellence in mucosal immunology due to its capacity to conduct studies that enable understanding of early HIV immunology responses within mucosal surfaces of the genital tract. KAVI scientists collect and analyze mucosal samples to better understand transfusion that occurs within the mucosal tract and that of immune (B-cell and T-cell) responses that result from infections as well as immune responses to HIV candidate immunogens.

Laboratory capacity

KAVI-ICR’s laboratory section has the capacity for molecular biology and diagnostics for HIV and emerging infectious diseases (including more recently for COVID-19); cell imaging using high-resolution microscopy; and flow cytometry and cell-sorting. The laboratory based at KAVI-KNH is capable of HIV tests, hematology, serum biochemistry, STI testing, cryopreservation of lymphocytes, mucosal immunology assays, pregnancy tests, urinalysis, and enzyme-linked immunospot (ELISpot) assays. In addition to this, in 2018, KAVI-ICR laboratory established another mucosal facility to carry out mucosal explants and immunology
As of October 2021 through Nairobi.

The KAVI-ICR laboratory works closely with industry and, as of 2021, is collaborating with Qiagen, Bio-Zeq Laboratories, Tenak Africa, Panasonic Biomedical, Fast-Track Diagnostics, and Hardy Diagnostics. Through this collaboration, there exists capacity for molecular biology testing. The lab is enrolled in a comprehensive External Quality Assessment program covering all assays facilitated by Contract Lab Services in Johannesburg, South Africa, and has been accredited in internationally recognized Good Clinical Laboratory Practice (GCLP) since 2004. KAVI-ICR’s quality system complies with the highest regulatory standards for licensed medicinal products such as Good Manufacturing Practice, Good Clinical Practice and GCLP.

People
KAVI-ICR staff includes physicians, pharmacy staff, nurses/counselors, laboratory technicians, a data management team, community mobilizers, and administrative personnel. The key personnel include Walter Jaoko, BChB, MTropMed, P.h.D, PGD, director; Ornu Anzala, MBChB, Ph.D., senior researcher; Gloria Omosa-Manyonyi, M.D., investigator — clinical trials; Marianne Mureithi, Ph.D., investigator — basic sciences. Other personnel include an IT and data manager, a finance manager, and an administration manager.

Community engagement
KAVI-ICR has a well-developed community outreach program and a wide range of research preparedness activities that are carried out both in Kangemi and throughout Nairobi. These activities include a network to support community education and volunteer recruitment for clinical trials. KAVI-ICR has three active community advisory boards (CABs) for the KNH and Kangemi sites and a network of peer educators who participate in outreach activities through regular meetings and community events. Over the last two years, KAVI-ICR has constituted an adolescent CAB made up of 16 adolescents and their parents. This work is part of an effort to expand research into communities, such as adolescents, who have previously been on the fringe of research participation. KAVI-ICR continues to support and apply the principle of Good Participatory Practice in the engagement of new populations.

IAVI-supported activities

- Acute HIV infection
- Early infection and clinical outcomes cohort (Protocol C1)
- Simulated vaccine efficacy trial
- Investigator-initiated research
- Research preparedness: engaging communities and cohorts
- Long-term follow-up studies
- T-cell immunogen design and assessment
- B-cell immunology assessment
- Next generation technologies and immune correlates
- Mucosal immunology
- Explant mucosal studies
- International training

More information about KAVI-ICR’s research can be found at https://www.iavi.org/our-work/clinical-epidemiology-research/hiv-epidemiology/view-article?id=415:protocol-c&catid=60

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As of October 2021