Immunological profiles in HIV positive patients following HAART initiation in Rwanda

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About your institution
Jomo Kenyatta University of Agriculture and Technology is one of the universities in Kenya. The University main campus is in Juja/Nairobi. The University has different campuses including one (part of the college of Health Sciences, former ITROMID) at Kenya Medical Research Institute. The university run both undergraduate and postgraduate studies in addition to different research activities.

Objectives:
To assess the level of CD4⁺ cells, IL-2, IL-10, IFN-γ and viral load in HIV positive patients before HAART and six months of HAART. To determine any statistically significant change in these parameters after six months of HAART. To correlate the levels these parameters and viral load before HAART and six months of HAART.

Methods:
CD4 count using Flow cytometry, Cytokines using ELISA techniques, HIV Plasma RNA using COBAS® AmpliPrep/COBAS® TaqMan® HIV-1 (Roche Technology)

Expected outputs from the project:
A shift from Th1 to Th2 cytokines at the start of HAART, shift from Th2 to Th1 cytokines at six months of HAART. A (-) correlation btwn IL-2, IFN-γ, CD4 count and the viral load; a (+) correlation between the viral load and IL-10, a (-) correlation between CD4 count and IL-10, a (+) correlation between CD4 count, IL-2 and IFN-γ and a statistically significant change in these parameters after six months of HAART.

Impact of the outputs on agriculture in Africa:
Well treated HIV positive patients and HIV free People will practice quality agriculture.

What types of molecular biology equipment do you have at your labs?
• Thermo-cycler
• Electrophoresis equipment
• Micropipettes
• Centrifuge
• UV Trans-illuminator
• Vortex