

## Protocol C

A prospective, observational, multi-center study to evaluate Laboratory, clinical, immunologic and viral markers of Disease progression in recently HIV-infected volunteers One of the primary requirements of an effective vaccine is to elicit a strong, sustained, and specific immune response against a target pathogen. The complex nature of HIV infection can be viewed as a race of adaptations between the virus and the host immune system making the development of an effective vaccine a great challenge. It is suggested that the outcome of this race is driven by events taking place early during infection. This study will aim at shedding light on these events using a multi-parameter approach to analyze the virus-host interactions in recently HIV-infected volunteers. Frequent sampling during the period immediately following HIV acquisition allows for a more detailed and in-depth evaluation of the immune response and viral evolution. Very little work has been done at this detailed level in Africa, with the relevant types of HIV in the context of the varied genetics of the human hosts. For example, HIV-specific CD8 T cell responses are known to be induced as the acute burst of viral replication occurs; however, much remains to be learned about the nature of this response or how its subsequent evolution may impact the initial and long-term ability to control viral replication. Results from this analysis would provide valuable information to help direct the design and development of vaccine candidates better suited to the regions where efficacy trials will be performed.