

Initiative Excellence in Africa 100 PhDs for Africa



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Research field

Epidemiology

PhD title

Molecular epidemiology and spatial analysis of anti-viral drug resistance and its genetic transmission networks among HIV patients in Ethiopia



Keywords

- Anti-viral drug resistance
- Ethiopia, genetic transmission networks
- HIV
- Molecular epidemiology
- Spatial distribution

Summary

HIV drug-resistance mutations can be shared among genetically linked individuals before and during antiretroviral therapy (ART) which leads to immunosuppression and treatment failure. Thus, understanding the distribution of HIV including the spread of mutated form and its impacts in Ethiopia will guide to facilitate a focused prevention and control programs which will curb the spread of new HIV infection and increases the treatment outcome of ART medications. The study will use different evidences such as socio-



demographic, behavioral, medical history or clinical characteristics, and treatment related factors from patients with high risk for HIV. The overall immunological and virological changes across different comparison groups will be assessed to statistically evaluate the impact of HIV on the health and treatment outcomes of HIV patients. The contributing factors for HIV and its evolution will be evaluated and the general burden of disease across different geographical distribution will be mapped and will be used to take an area specific evidence based public health interventions.



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