

MSc Research: Abstract

Killer immunoglobulin receptor Gene profiles in HIV-1 exposed seronegative Northern Thai.

Tehani Silva (Department Immunology and Molecular pathology, University College London).

Supervisor: Dr Henry Stephens (Department of Medicine, Royal Free Campus)

NK receptors participate in activating a NK cell against viral infection and Immunoglobulin like receptors (KIR) are one of them. Both KIRs and its ligand HLA class I molecules show high degree of polymorphism. Various genotypes of KIR/HLA are involved in creating protection against HIV-1 infection in highly exposed persistently seronegative (HEPS) individuals. In this study I show HEPS individuals from Northern Thailand carry two genotypes KIR3DL1+/Bw4+ and KIR3DL1+KIR3DS1+/Bw4+ more favourably and majority carry the KIR3DL1.

This data support that KIR3DL1 together with Bw4 provide protection against HIV-1 infection and the innate immune system play a role in the resistance.