THSTI FACULTY FRIDAY(S) SEMINARS Lecture 2

Antibody responses in Pediatric HIV-1 infection

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Date: 1st March 2019 Venue: Seminar Room 1 (THSTI) Time: 4 pm



About the lecture:

Disease progression in HIV-1 infected children is faster than in adults. Majority of the untreated children progress to AIDS, within two years of infection. In order to characterize the immune response to HIV-1 in infected children, since the last ten years, we longitudinally followed up antiretroviral naïve chronically-infected children and mapped their plasma for the presence of broadly neutralizing antibodies (bNAbs). We identified a few rare long term non-progressors and elite neutralizers. HIV-1C primary isolates generated from select infected children showed resistance to neutralization by majority of the known second generation bNAbs. Using the high throughput technology of HIV-1, specific single B-cell sorting, we isolated an N332 directed bNAb AIIMS-P01 from a pediatric elite neutralizer that was effective against diverse viruses belonging to different subtypes (Kumar et al, JVI, 2019) and demonstrated ability to neutralize autologous contemporaneous and evolving viruses.

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