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HLA Genomic Diversity of India and its Implications in HIV Pandemic

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ABSTRACT Both culturally and biologically, India is one of the mega diversity countries of the world. This pertains to Human Genome Diversity as well. Although little explored so far, HLA is no exception to this. HLA profile varies based on regional, linguistic and caste profiles. HLA alleles identified as common in HIV non progressors in other parts of the world are the commonest in the Vellala related communities of southern India. Migration and selection might be responsible for this. In the context of the well established MHC restriction phenomenon and the role of CTL in controlling HIV viral replication, it has become essential to revisit these areas and better understand the underlying phenomena so that better experiments are designed in future research. The article highlights these aspects in the context of HIV pandemic in India.