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## HIV-1 integration site preferences in pluripotent cells

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<sup>2</sup>Center for Stem Cell Biology and Regenerative Medicine, Thomas Jefferson University, USA HIV-1-based vectors are widely used in gene therapy. In somatic cells, these vectors mainly integrate within genes. However, no distinct integration site preferences have been observed with regard to large chromosomal regions. The recent emergence of induced pluripotent stem (iPS) cells, similar to embryonic stem (ES) cells, has raised questions about where integration occurs in these cells. In this work we investigated the integration site preferences of HIV-1-based vectors in a pluripotent, ES-like cell line. We show that over 30% of the integrations occur in the vicinity of telomeres. We have analyzed integration sites in various somatic cells, as reported by us and other groups, and observed that this integration pattern is unique to the analyzed pluripotent cell line. We conclude that pluripotent cells may contain distinct cellular cofactors that participate in integration targeting and that are not present in somatic cells.