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Title: HIV integration and LEDGF/p75

Short abstract :
The stable insertion of a copy of their genome into the host cell genome is an essential step of the life cycle of retroviruses. The site of viral DNA integration, mediated by the viral-encoded integrase enzyme, has important consequences for both the virus and the host cell. The analysis of retroviral integration site distribution was facilitated by the availability of the human genome sequence, revealing the non-random feature of integration site selection and identifying different favored and disfavored genomic locations for individual retroviruses. LEDGF/p75, a 530 amino acid cellular protein able to bind both chromatin and lentiviral integrases, is a critical cofactor for lentiviral integration efficiency, favoring integration in transcription units. One proposed function involves LEDGF/p75 as a general transcription coactivator. In order to gain further insight on the cellular role of this protein and to better characterize which genes are preferentially targeted for HIV integration, we aimed at identifying genes directly modulated by LEDGF/p75.