



Chromosomal fragile sites (FSs) - HIV integration positions

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Abstract:

Chromosomal fragile sites (FSs) are loci where gaps and breaks may occur and are preferential integration targets for some viruses, for example, Hepatitis B, Epstein-Barr virus, HPV16, HPV18, and MLV vectors. However, the integration of the human immunodeficiency virus (HIV) in Giemsa bands and in FSs is not yet completely clear. This study aimed to assess the integration preferences of HIV in FSs and in Giemsa bands using an in silico study. HIV integration positions from Jurkat cells were used and two nonparametric tests were applied to compare HIV integration in dark versus light bands and in FS versus non-FS (NFSs). The results show that light bands are preferential targets for integration of HIV-1 in Jurkat cells and also that it integrates with equal intensity in FSs and in NFSs. The data indicates that HIV displays different preferences for FSs compared to other viruses. The aim was to develop and apply an approach to predict the conditions and constraints of HIV insertion in the human genome which seems to adequately complement empirical data.



Biography:

Abanoub has completed his BSc at the age of 24 years from Alexandria University and genomic studies from Exeter University UK . He was the director of annual surgery conferences of Alexandria University , a head of Graduation ceremony 2018, He was also a medical representative for Amoun pharmaceutical company one of pouch pharmaceutical Canadian group.

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