



“The roles of mobile DNA in human cancer”

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Abstract

Somatic retrotransposition represents the most frequent class of structural variation in some human cancers. For the last 10 years, we have illuminated two relevant mutational mechanisms by which somatic RT can provide the mutations that a cancer clone requires to survive and grow (PMID: 25082706; PMID: 32024998). Currently, our research focuses on the use of long-read sequencing and chromatin conformation capture techniques for the discovery of novel, previously unreported mutational roles of somatic retrotransposition in human cancer.

Jose Tubio has carried out his research at the forefront of cancer genomics, being involved in the discovery of new cancer genes in hematological cancers and bone cancers, the identification of new mechanisms of mutation, the characterization of mechanisms that drive the dynamics of metastasis, the identification of genes that drive transmissible cancers, and the identification of early genetic mutations that occur in normal tissues and their role in tumour transformation.