**Title: Biochemical activities encoded by human transposable elements (Full Doctorate)**

Half of the human genome is made of retrotransposons. These mobile genetic elements, more specifically the LINE-1 element (L1), are a source of inter-individual genetic variation, and can be responsible for new genetic diseases and cancers. Our laboratory has developed biochemical approaches to purify the core of the L1 retrotransposon machinery, a ribonucleoprotein particle (RNP), and to mimick in vitro some of the steps of its replication cycle [1,2]. The goal of this project is to reconstitute the whole retrotransposition process in vitro and to study the impact of cellular factors on this reaction. The candidate should have a strong background in biochemistry, molecular and cellular biology, with a particular interest for RNA and RNP biology.

[1] Monot et al. PLoS Genetics 2013
[2] Viollet et al. Mobile Genetic Elements 2014

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