

## Master program in Cancer Biology Internship proposal form 2024

- **☑** MASTER 1
- **☑** MASTER 2

Title	Higher order chromatin organization in preliferative or conscent contexts
nue	Higher-order chromatin organization in proliferative or senescent contexts (Organisation supérieure de la chromatine en contexte prolifératif ou sénescent)
Host laboratory	IGMM - team "Genome organization and epigenetic control" (IGMM – équipe "Organisation génomique et contrôle épigénétique »)
Name of the PI	Thierry Forné
Supervisor	Thierry Forné
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Description (10 lines)	Cellular senescence plays an important role in tumor initiation and progression. A better understanding of the molecular mechanisms determining gene expression profiles in senescent cells could ultimately lead to more effective anti-cancer treatments. Our working hypothesis is that certain genetic predisposition sites contribute through their mutation to a change in the 3D spatial organization of the genome during cell senescence. In order to assess this hypothesis, the aim of the proposed project will therefore be to compare the genomic organization of a region containing single nucleotide polymorphisms (SNPs) highly associated with lung cancers, and the expression of the genes located there, in a cell line of interest (IMR-90 fetal lung fibroblasts) in proliferative and senescent contexts.
Duration (2 to 6 months)	5/6 months (5 ou 6 mois)