

Master program in Cancer Biology

Internship proposal form 2024

MASTER 1

MASTER 2

Title	Functional analysis of RNA granules: example of <i>Drosophila</i> germ granules
Host laboratory	mRNA Regulation and Development Institut de Génétique Humaine (IGH)
Name of the PI	Martine Simonelig
Supervisor	Anne Ramat / Martine Simonelig
E-mail- Contact	Martine.Simonelig@igh.cnrs.fr
Description (10 lines)	<p>Membraneless condensates are thought to play a key role in organizing biological reactions within the cell. However, the relationships between the organization of condensates and their functions are poorly understood. RNA granules are a specific class of condensates. The project aims at analyzing RNA granules in the <i>Drosophila</i> germline, to decipher the links between organization and functions of membraneless condensates. The project involves innovative single molecule imaging approaches to record ongoing translation.</p> <p>Methods and approaches: <i>Drosophila</i> molecular genetics; RNA molecular biology; single molecule imaging: smFISH, SunTag; live imaging.</p> <p>Key-words: mRNA regulation; Phase separation; RNA granule; Translational regulation; Single molecule imaging</p>
Duration (2 to 6 months)	6 months