

Master program in Cancer Biology

Internship proposal form 2024

MASTER 1

MASTER 2

Title	Study of the co-translational assembly of macromolecular complexes by the HSP90/R2TP chaperone
Host laboratory	Institute of Human Genetics
Name of the PI	Dr Edouard BERTRAND
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Description (10 lines)	<p>The HSP90/R2TP chaperone plays an essential and unique role in protein homeostasis by ensuring the ordered assembly of macromolecular complexes, which are essential for cell proliferation. Our preliminary results suggest that the assembly of these cellular machineries begins co-translationally and that the ribosomes could be regulatory hubs that determine the fate of nascent proteins.</p> <p>The objective of the internship project will be to study the co-translational interactions between the chaperone HSP90/R2TP, the different newly translated protein subunits and the corresponding mRNAs under normal conditions and oxidative stress, in particular by RNA (smFISH) and protein (SunTag) single molecule imaging approaches.</p>
Duration (2 to 6 months)	5-6 months

