Internship proposition
One page max
M2 0HNU 2025-26

Lab: CRCI2NA

Team: 9 - ChromatIn and transcriptionaL Deregulation in pediatric bone sarcoma

Name and position of the supervisor: Bénédicte Brounais-Le Royer, MCU

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Title of the internship: Implication of P300 in osteosarcoma progression.

Summary of the internship proposal:

Osteosarcoma is the most common primary malignant bone tumor, with 250 patients diagnosed each year in France, and mainly affects children and adolescents. Patient survival has not changed in recent decades, and is closely linked to the response to chemotherapy. It reaches 60-70% at 5 years for patients with localized tumors, and only 30% when pulmonary metastases are detected at the time of diagnosis. It is therefore essential to develop new therapeutic strategies to improve the treatment of osteosarcoma patients. In this context, we are interested in the mechanisms of transcriptional regulation and more specifically in histone acetylation by the Histone Acetyltransferase (HAT) P300 at the enhancers that govern gene expression in osteosarcoma cells.
The aim of this research project is to better understand how histone acetylation by HAT regulate gene expression in osteosarcoma cells and consequently control the development of these tumors. We will therefore focus on the involvement of HAT P300 in the primary and metastatic tumor development, using PROTAC (Proteolysis-Targeted Chimaeras) to selectively degrade P300.

Option(s) linked to the project:

☐ Hematology
☒ Oncology
☐ Immunology-Cancerology
☐ Nuclear Medicine

Option(s) linked to the profile:

☐ Clinical Research Profile
☐ Data Analyst Profile
☒ Experimental Biology Profile