Internship proposition
One page max
M2 I3/0HNU 2024-25

Lab: CRCI²NA, Centre de Recherche en Cancérologie Immunologie Intégrées Nantes-Angers

team: PETRY

Name and position of the supervisor: François Paris, Head of the team.

Email of the supervisor: francois.paris@inserm.fr

Candidate: None

Title of the internship: Anti-senescence strategies in GBM

Summary of the internship proposal:

Background: PETRY team in the CRCI²NA is contributing to glioblastoma research by demonstrating the importance of the vascular network in acute and chronic responses to radiotherapy. PETRY observes that radiological stress induces early aging of the peritumoral microvasculature, known as endothelial senescence, leading to increased aggressiveness of GBM relapses.
Project: The Master II project will contribute to the research and development of new anti-cancer strategies to eliminate these senescent endothelial cells. During its training, the student will specifically carry out technologies in cellular and molecular biology, confocal and live microscopy, with the support of the PETRY team and national core facilities. Precisely, transcriptomic characterization of endothelial senescence followed by a functional screening will be performed during the internship. Critical molecular targets will later be inhibited by inducible shRNAs to understand their roles in senescence.
Prospects: These results will represent a first step towards the development of dedicated pharmacological treatments enhancing the efficacy of radiotherapy by specifically targeting radiation-induced vascular dysfunctions.

Option(s) linked to the project:

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