

## **MASTER 2 Neurosciences Fondamentales et Cliniques**

# Internship proposal 2021-2022

(internship from January to end of May 2022)

**Host laboratory:** *Name + address* 

Institut NeuroMyoGène CNRS UMR 5310 - INSERM U1217- UCBL Lyon 1 Faculté de Médecine et de Pharmacie 8 Avenue Rockfeller 69008 Lyon France

Host team : team name + website Equipe Neuro-développement, cancer et signalisation (V. Castellani)

Internship supervisors : name + position + email Servane Tauszig-Delamasure, PhD, DR2 CNRS

servane.tauszig-delamasure@univ-lyon1.fr

### **Project title :**

Study of a pediatric cancer, medulloblastoma in a new avian model.

#### **Project summary :** approx 10 lines

Our team, led by Valérie Castellani is belonging the NeuroMyoGene Institute (INMG, CNRS/INSERM/Université de Lyon mixt unit) in Lyon.

We study the migration and orientation of cells during embryonic development under physiological and pathological conditions.

We are modeling, in the chick embryo, the development of a cerebral cancer affecting children and teenagers: medulloblastoma. We observe the formation of a primary tumor and a metastatic dissemination with innovative imaging technics (clearing coupled with light sheet microscopy). The objectives of this training period will be to study the behavior of tumoral cells in their territory of origin : the developing cerebellum. In this aim, at the interface between neuro-development and cancer, we are looking for a neuroscientist student. This study should allow us to answer to unresolved questions on the biology of pediatric cancers from the nervous system and maybe to identify therapeutic targets.

### **3-5 recent publications :**

- Delloye-Bourgeois C, Bertin L, Thoinet K, Jarrosson L, Kindbeiter K, Buffet T, <u>Tauszig-Delamasure</u> <u>S</u>, Bozon M, Marabelle A, Combaret V, Bergeron C, Derrington E, Castellani V. Microenvironment-Driven Shift of Cohesion/Detachment Balance within Tumors Induces a Switch toward Metastasis in Neuroblastoma. **Cancer Cell.** 2017 Oct 9;32(4):427-443.e8. (2017)

- Ducuing H, Gardette T, Pignata A, Kindbeiter K, Bozon M, Thoumine O, Delloye-Bourgeois C, Tauszig-Delamasure S, Castellani V. SlitC-PlexinA1 mediates iterative inhibition for orderly passage of spinal commissural axons through the floor plate. **Elife.** 2020 Dec 21;9:e63205. doi: 10.7554/eLife.63205. (2020)

Please send your proposal to <u>emiliano.macaluso@univ-lyon1.fr</u> and <u>marion.richard@univ-lyon1.fr</u> for publication on the Master of Neuroscience website.