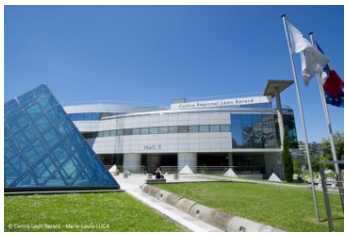
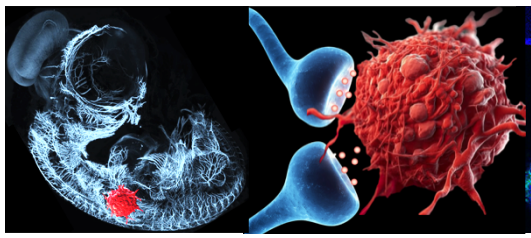
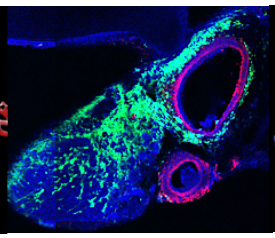
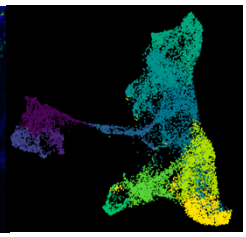
POSTDOCTORAL POSITION

Cancer Neuroscience in Pediatric Malignancies of the Peripheral Nervous System

The KidsCaN lab is seeking a talented and enthusiastic postdoctoral scientist to work on the **ERC-funded CANEUTREAT project** for a minimum of 2 years. Neuroblastoma (NB) is an emblematic pediatric cancer of the peripheral nervous system, having an embryonic origin, with a typically wide and aggressive metastatic pattern. Despite its occurrence in sites of active neuronal communication, whether neural activity impacts on NB tumor features and metastatic progression is fully unknown. We have conceived a model of NB that reproduces the embryonic and nervous microenvironment in which it arises and metastasizes. The project aims at decrypting the panel of neuro-cancer functional interplays in NB, at the anatomical, electrophysiological and molecular level.

The successful candidate will be trained to use and to implement an *in vivo* embryonic model of NB, involving micromanipulations in avian embryos – ie, micrograft, electroporation, optogenetics, electrophysiology – (Delloye-Bourgeois et al., Cancer Cell 2017; Ben Amar et al., Nat. Comms, 2022; Akkermans et al., Cell, 2022). Multiscale imaging (correlative light and electron microscopy in core facility; 3D lightsheet microscopy & confocal videomicroscopy devices in the team) will be at the heart of the project together with single cell transcriptomic as part of the team expertise.

The candidate will join the young and united KidsCaN team "Cancer Neuroscience and Metastasis in Pediatric Malignancies" that will provide technical support and training to key approaches. The team is part of a highly dynamic and international environment at the Cancer Research Center of Lyon (CRCL), providing access to key high-tech core facilities (microscopy, flow cytometry, single cell omics, …). The CRCL comprises 24 teams, totaling about 600 members and is affiliated with the University Claude Bernard Lyon 1, Inserm, CNRS, the Léon Bérard Comprehensive Cancer Centre (CLB) and with the Lyon University Hospitals (HCL). The city of Lyon offers an excellent quality of life for young researchers and families, and is ideally located 2h from Paris, Marseille and Alps mountains.
https://www.crcl.fr/en/tumor-escape-resistance-immunity-department/kidscan-cancer-neuroscience-and-metastasis-in-pediatric-malignancies/

Skills required:
- A strong expertise in at least one of this field is mandatory: electrophysiology in tissues / neurons, *in vivo* optogenetics, cutting-edge fluorescence imaging (see above)
- Autonomy and ability to lead a project
- Excellent communication skills and team player

Would be a great plus:
- Expertise in more than one of the mandatory skills
- Skills in bioinformatics, single cell omics analyses

Profile required:
- PhD in cancer biology / neuroscience
- English is mandatory

Contract start date: flexible, between February and June 2024
Contract duration: The contract is funded by the ERC for 2 years, up to 3. Salary will depend on previous experience.

Applications should contain a CV, a letter of motivation with a description of research accomplishments and the contact information of two references. The position will remain open until filled. Candidates are encouraged to apply as soon as possible. Contact: celine.delloye@lyon.unicancer.fr