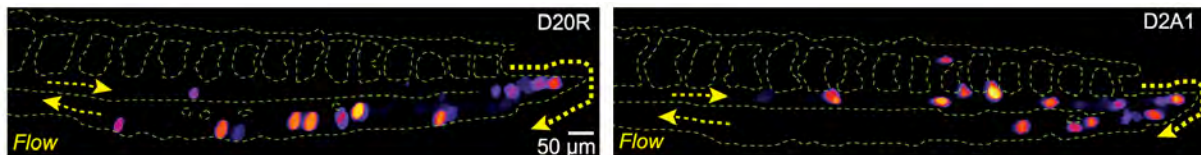
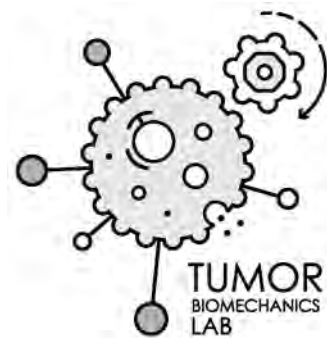


## Post-doctoral position : 2-years

### Cellular protrusions & metastasis: from an intravascular perspective



The **Goetz Lab** at INSERM U1109 (Tumor Biomechanics, [www.goetzlab.com](http://www.goetzlab.com)) is seeking a talented postdoctoral scientist with background in **Cell Biology, Cancer Biology or Biophysics** and interest in interdisciplinary research. Our lab uses advanced imaging techniques (such as intravital microscopy, correlative electron microscopy and high-speed imaging) coupled to microfluidics and

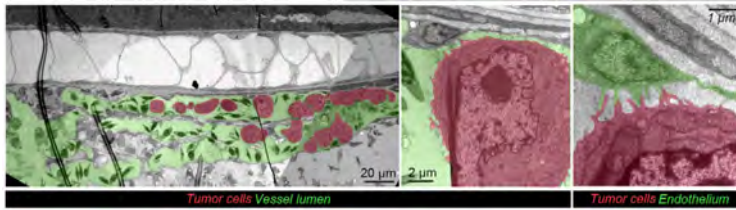


zebrafish models to study tumor metastasis at multiple scales. The lab is actively investigating the **contribution of mechanical forces as well as extracellular vesicles in metastasis onset**. Our approach permits real-time imaging ranging from single-cell metastatic events to whole body tumour progression. Doing so, we aim at understanding how metastasis occurs in relevant and controlled animal models (see relevant publications). Our lab has recently relocated into the **Center for Biomedical Research of Strasbourg**, a brand new institute that is equipped with multiple platforms and facilities (mouse and zebrafish husbandry, imaging facility, sequencing platform).

The successful candidate will join an **interdisciplinary team made of cell and cancer biologists, molecular biologists and physicist**. The candidate will be in charge of driving a project aiming to decipher the role of **cell protrusion and adhesion in metastatic progression as well as the contribution of blood flow forces using microfluidics and the zebrafish embryo**. The candidate will develop his project independently, under the close supervision of Naël OSMANI (CRCN INSERM), with input from Jacky GOETZ (group leader). The candidate is also expected to present his results in the form of publications and international conference presentations, and to participate to writing of grant applications.

For more information on the group's research, see [www.goetzlab.com](http://www.goetzlab.com)  
All applications must be sent to **Jacky G.Goetz** ([jacky.goetz@inserm.fr](mailto:jacky.goetz@inserm.fr)) and **Naël OSMANI** ([osmani@unistra.fr](mailto:osmani@unistra.fr))

The position is full time with an initial two-years contract with strong prospects for renewal. The salary will be adapted to the experience of the candidate. The candidate will apply to additional funding (national and european). We are interested in candidates who recently defended their Ph.D.



### Relevant publications :

Gensbittel et al. (2021) Mechanical adaptability of tumor cells during metastasis. **Developmental Cell** In press.

Follain, G. et al. (2020) Fluids and their mechanics in tumour transit: shaping metastasis. **Nature Reviews Cancer** 20, 107–124

Osmani, N. et al. (2019) Metastatic Tumor Cells Exploit Their Adhesion Repertoire to Counteract Shear Forces during Intravascular Arrest. **Cell Reports** 28, 2491-2500.e5

Follain, G. et al. (2018) Hemodynamic Forces Tune the Arrest, Adhesion, and Extravasation of Circulating Tumor Cells. **Developmental Cell** 45, 33-52.e12

Follain, G. et al. (2018) Using the Zebrafish Embryo to Dissect the Early Steps of the Metastasis Cascade. **Methods Mol Biol.** 1749, 195-211.

Osmani, N. et al. (2021) Probing intravascular adhesion and extravasation of tumor cells with microfluidics. **Methods Mol Biol.** In Press.

### About the candidate

#### Essential skills

PhD in Cell Biology, Cancer Biology or Biophysics

2-4 years of relevant experience

Experience with confocal or multiphoton microscope systems

Experience with zebrafish and or microfluidics (although not essential, additional experience with mouse models would be an advantage)

Ability to work independently and collaboratively with biologists and physicists in the team

#### Desired skills

Cell culture and transfection-

Zebrafish xenografts

Confocal and intravital microscopy

Image analysis

Writing skills



The candidate will be involved in a collaborative project with teams in Bordeaux (Giannone, Nassoy) and Stanford, USA (Sage).

#### Please include the following in your application:

A cover letter

Your resume including at least 2 referees with supporting letters/contact details

This position will remain open until filled. We are reviewing applications as they are received, as such candidates are encouraged to submit their application as soon as possible.

**Starting Date: March-June 2021**