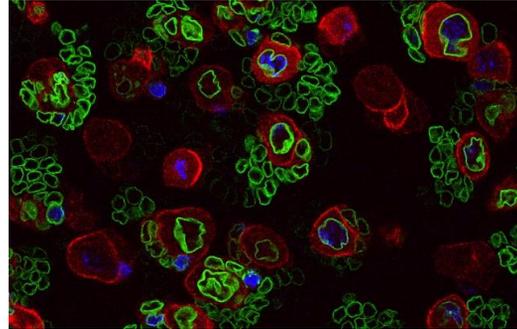


# PhD position in Developmental Biology

## microRNA dynamics and function during neurogenesis

Institut de Biologie du Développement de Marseille, France

**Team** : Neural Stem Cell Plasticity  
**Group leader** : Cédric Maurange  
**Funding** : 3 years  
**Anticipated starting date** : 02/2022



We welcome applications from highly motivated, curiosity-driven PhD candidates, interested in the topic of **Developmental Neurobiology**, to join Cédric Maurange's team. The position is funded for **3 years**.

Research in our team is focusing on the molecular principles underlying neural stem cell properties during brain development. Fine-tuning of gene expression is a fundamental requirement for development of the nervous system, where few stem cell populations generate thousands of different neuronal and glial cell types in a perfectly controlled temporal and quantitative manner. Thanks to their ability to simultaneously fine-tune the expression of multiple mRNA targets, microRNAs represent an attractive mechanism for coordinating dynamic gene expression programs as development progresses. However, cell-specific expression of microRNAs has been difficult to exhaustively assess, and consequently their role in neural stem cells and in neuronal differentiation is unclear.

The student will take advantage of a new technique developed in the lab in collaboration with the Cremer team at the IBDM to isolate active microRNA modules in specific neural cell populations. Using the fruitfly *Drosophila* as a model organism, the project will aim at providing a better understanding of how different modules of microRNAs are deployed during development to coordinate the activity of gene networks involved in neurogenesis. Understanding these mechanisms opens the way to controlled manipulation of gene networks for therapeutic applications in regenerative medicine or cancer.

The IBDM, located on the Luminy Campus in the middle of the Calanques National Parc, is composed by an interdisciplinary community of 240 researchers, lecturers, engineers and technicians, Post doc, PhD students, and trainees spread over 21 research teams and 11 technical platforms and services. The IBDM is a joint research unit under the supervision of the CNRS and Aix-Marseille University, which explores the field of Developmental Biology and associated pathologies.

For further information about the research in our lab, please visit our IBDM website: <http://www.ibdm.univ-mrs.fr/equipe/neural-stem-cell-plasticity/>

Students who have recently completed their Masters in Biology or related areas, are invited to apply. As the team is made up of several nationalities, fluency in English is essential, and an interest for interdisciplinarity is encouraged.

**To apply** : Please send a brief motivation statement and a CV with contact information of two references to Cédric Maurange and Karine Narbonne-Reveau (cedric.maurange@univ-amu.fr and karine.narbonne-reveau@univ-amu.fr).

**Application deadline** : 30/11/2021 (applications will be considered as they arrive until the position is filled).

**Host laboratory** :

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