

**We offer a Master Thesis and/or Erasmus internship on**  
*Exploring novel therapeutic approaches in colorectal cancer*

**Project description**

Colorectal cancer (CRC) is the third most common and deadly cancer worldwide. CRC is a molecularly highly heterogeneous disease and there is an urgent need to map the heterogeneity of CRC, to identify novel therapeutic intervention points and to identify novel prognostic and predictive biomarkers.

To address this need, our team developed two research lines:

- 1.) To explore the implication of preselected modulators in CRC we are using tissue specific knock out mice, relevant animal models for CRC, distinct tools of immunohistochemistry, organoid cell cultures, biochemistry and RNAseq. Moreover, we collaborate with the local University Hospital as well as different clinical centers in Europe for the analysis of patient biopsies to identify CRC subtype-specific expression patterns (see our previous publications: [doi.org/10.15252/embr.202255687](https://doi.org/10.15252/embr.202255687), [doi.org/10.1172/JCI131517](https://doi.org/10.1172/JCI131517), [doi.org/10.1038/s41467-021-24792-4](https://doi.org/10.1038/s41467-021-24792-4)).
- 2.) A more recent project implemented in our group involves a collaboration with bioinformaticians at Imperial College in London. Together we develop a machine learning approach to predict novel compounds targeting tumor subtype specific CRC cell lines. The testing of predicted compounds is performed in our laboratory using established cell assays to detect alterations in cell morphology, cell death and cell cycle. In a proof of principle project, we validated feasibility of this project.

**Qualifications and skills:**

You are a highly motivated student with a strong interest in cancer biology and translational biomedical research. Fluent proficiency in written and oral communication in English is a prerequisite.

**Terms of employment:**

We offer an interesting and challenging research project in either of the two described axes, individual supervision and working in a dynamic team. The position for the project is available at the IGMM in Montpellier in 2025 for a length of 6-9 months for a Master or undergraduate student in the Erasmus frame. A continuation for a PhD will be encouraged. The IGMM is a multidisciplinary and international research institute, where English is commonly spoken. Group and in-house seminars are in English. The Master student will be compensated with a so-called "gratification" of at least 650 € per month. Additional funding can be requested through the European Erasmus program. In addition, there is the possibility to apply for housing benefit.

**Information and application:**

For further information, please contact Dr. M. Hahne (E-mail: [michael.hahne@igmm.cnrs.fr](mailto:michael.hahne@igmm.cnrs.fr)). Interested candidates should send their electronic application in English, including a letter of motivation, Curriculum Vitae, credentials and qualifications, and reference contact information.