OVERVIEW

The Haematological Malignancies Laboratory focuses on investigating novel drivers, biomarkers, diagnostic tools and therapeutic targets and approaches in haematological neoplasms such as myeloma and acute myeloid leukaemia.

Five main lines define our research project:

→ Generation of mouse models focused on the molecule hnRNP K, a novel driver of lymphoma and leukaemia.
→ Development of novel diagnostic and follow-up tools, such as minimal residual disease analysis in acute myeloid leukaemia (AML).
→ Screening of novel drivers, biomarkers and therapeutic targets by next-generation-sequencing (NGS, e.g. exome sequencing of amyloidosis).
→ Innovation of immunotherapy approaches. Generation of NK CARs and in vitro/in vivo validation.
→ Novel therapeutic approaches. Screening of novel compounds (e.g. hnRNP K inhibitors) and pre-clinical trials of new drugs or drug combinations.

“We have developed a strategy to identify undetectable levels of minimal residual disease using an NGS method, thereby improving the capacity to predict AML outcome over the current technical approaches.”