IRMB gathers scientist and medical expertise on regenerative medicine and innovative immunotherapies. The objectives of IRMB are to increase the knowledge of stem cell biology, interactions between stem cells and immune cells, stem cell niches and homing, as well as the role of epigenetics mechanisms in chronic and age related diseases.

The project is in close interaction with the Montpellier University Hospital (CHU) and laboratory research and development as well as the unit “Therapeutics for bone and joint diseases”. Interactions with the hospital for translational research, the platform “Investissement d’Avenir” eCell France and Ingestem are important and instrumental for
This new unit will be the core of the Research Institute of Regenerative Medicine and Biotherapies, which is dedicated to research on adult and embryonic stem cells, including both basic biological aspects and innovative applications of regenerative therapy. We propose to combine on a single site the new INSERM unit, hospital laboratories, private companies gathered around common technical platforms and two national infrastructures in health biology dedicated to stem cells (ECELLFRANCE and INGESTEM).

The aim of this project is to facilitate the transfer of research on stem cell biology to clinical applications in consultation with clinical specialists in chronic diseases (rheumatoid arthritis, rare genetic diseases, autoinflammatory disorders, diabetes, liver disease, musculoskeletal disorders). Grouping on the same geographic location expertises in the fields of genetics, inflammation, functional assessment of preclinical models, vectors and imaging would be an asset for the promotion of Research in the field of regenerative medicine. The IRMB is located close to the Cell Therapy Unit, Clinical Services division of internal medicine including the unit of clinical immunology and therapeutics, the Clinical Investigation Center, the Center Reference for autoimmune diseases. The Institute of Neurosciences of Montpellier (INM) is located nearby on the same site of the Saint Eloi Hospital, constituting the Campus of Biomedical Research in Montpellier. This allows sharing of technical platforms, cytometry and imaging through the network Montpellier Rio Imaging (MRI), as well as the animal facility. The grouping of several teams of excellence promotes synergy and quality of research, starting from the genetics of inflammatory diseases to validation in vivo in pathophysiological models for regenerative medicine. The IRMB is part of the pole F Rabelais “Experimental medicine and advanced therapy” supported by the University of Montpellier and CHU.

We will explore their interactions with adult differentiated cells as well as with the immune system. These results will be validated using patient materials and animal models available in the laboratory. The main strength of IRMB will encourage exchanges and partnerships between private companies, government agencies, the meetings between scientists, academics and clinicians who work together every day, a key factor of efficiency and success.