

# UMR 1035, BMGIC BORDEAUX

(5 TEAMS)

Dir. Pr F. MOREAU-GAUDRY

## TEAM 4

Normal & Leukemic hematopoietic stem cells



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### R&D OFFER

- R&D collaborative projects
- Sponsored research agreements
- CIFRE PhD Thesis (French Industrial agreement of training through research)
- Internship in public-private cotutorship (Master, engineer or other students)
- Consulting / Expertise / Training
- Access to Technical platforms
- Access to biological collections and databases (under conditions)
- Scientific articles reviewing, projects and grants expertise, editing scientific journals
- Scientific events organization
- Editing scientific journals
- Participation in ethics committees

### PLATFORMS & TECHNICAL RESSOURCES

- IN-VITRO & IN-VIVO PLATFORM (animal facilities, animal platform, Celloxia core facility for hypoxic cell culture)
- TBMCORE PLATFORM: flow cytometry and cell sorting, ONCR, vectorology, histopathology, CRISPR, metabolic & proteomic analysis
- ACCESS TO BIOLOGICAL COLLECTIONS: UMR1035, EFS, Biothèque Bordeaux Sante (BBS), Hospitals, CRB (Center of Biological Resources of Bordeaux)

### RESEARCH AREA & OBJECTIVES

- Hematopoietic & mesenchymal stem cells: Controlling the self-renewal / commitment for ex-vivo amplification & mechanisms of survival in hypothermia (preclinical & clinical studies)
- Molecular & functional characterization of stem cells by genomic, proteomic & metabolic approaches, for cell therapy

### KEYWORDS:

Hematopoietic stem cell & mesenchymal stem cells, tissue & cell conservation and differentiation, cell therapy, cell conditioning for engraftment and tissue constructs

### DOMAINS OF EXPERTISE

- STEM CELLS AMPLIFICATION & DIFFERENTIATION
- CELL & TISSUE CONSERVATION
- CELL THERAPY
- CELL CONDITIONING FOR TISSUE CONSTRUCTS AND GRAFTS

### SKILLS

- CELL CULTURE (Hematopoietic Stem Cells, Cryopreservation)
- IN-VITRO & IN-VIVO MODELS
- AEROBIC, ANAEROBIC SYSTEMS (Seahorse Technology, Hypoxic Culture Systems)
- FLOW CYTOMETRY (Analysis And Cell Sorting)
- MOLECULAR BIOLOGY (Energetic Metabolism Analysis, Nuclear Magnetic Resonance)
- GENETICS (Transcriptomic & Proteomic Analysis, qPCR, Sequencing, Microarray)
- PRE-CLINICAL & CLINICAL SCALE DEVELOPMENT

### RESEARCH RECOGNITION - 2019

- 3 ACTIVE PATENTS
- MULTIPLE INDUSTRIALS PARTNERS
- NATIONAL, EUROPEAN AND INTERNATIONAL GRANTS
- 28 PUBLICATIONS (2016-2019) SCIENTIFIC ARTICLES & BOOK CHAPTERS
- 28 PARTICIPATIONS TO INTERNATIONAL CONGRESSES
- PHD STUDENTS (2 IN 2019)