

GROUP 3

Sources of blood & erythropoiesis



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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)

PLATFORMS & TECHNICAL RESSOURCES

- TECHNICAL PLATFORM: SORBONNE UNIVERSITÉ, PLATFORMS THROUGH COLLABORATIONS (IMRB, IRSN...), EFS ATMP PLATFORMS
- ACCESS TO BIOLOGICAL COLLECTIONS: healthy donors, patients, and other biological collections – *under conditions*

RESEARCH AREA & OBJECTIVES

- Study of erythropoiesis for cell therapy and transfusion
 - Immortalisation of cell lines
 - Mass-production of *in vitro* erythrocytes
 - Production of red blood cells from hiPSCs
- All-CMH compatible hiPSc generation
 - Genetic studies, Reversible protein expression process
- Generation of a stem cell graft (generated from hiPSc) capable of improving hematopoietic stem cell transplantation
 - Proof-of-concept,
 - GMP Scaling-up (on going)

KEYWORDS

Haematopoietic stem cell, regenerative medicine, Cell therapy, erythropoiesis, transfusion

DOMAINS OF EXPERTISE

- STEM CELLS
- HEMATOLOGY
- CELL THERAPY

SKILLS

- CELL CULTURE (IN-VIVO & IN-VITRO)
- ANIMAL MODELS (Murine)
- GENETICS (qPCR, Sequencing)
- IMMUNOLOGY
- MOLECULAR BIOLOGY (Flow Cytometry)
- BIOINFORMATICS
- PRECLINICAL STUDIES

RESEARCH RECOGNITION - 2019

- 2 PATENTS
- 1 R&D CONTRACT WITH INDUSTRIAL PARTNER
- 4 NATIONAL GRANTS
- 3 PUBLICATIONS (2013-2019)
SCIENTIFIC ARTICLES & BOOK CHAPTERS
- 2 PARTICIPATION IN INTERNATIONAL CONGRESSES
- 1 PHD STUDENT, 10 MASTER STUDENTS