

UMR955
TEAM 2
Paris-Creteil

TRANSFUSION AND
PATHOLOGIES OF THE
RED BLOOD CELL



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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

- **ACCESS TO IMRB TECHNICAL PLATFORM:**
 - EP3 physiological experimentation (animal facility)
 - Imaging platform (confocal microscope, fluorescent, histologic)
 - Cell culture labs
 - Genomic platform (sequencing, spectrophotometry...)
 - Bio-informatic platform
 - Rheology platform (Lorrca, viscosimeter)
 - Tissue engineering platform (GMP-grade cell production)
- **ACCESS TO BIOLOGICAL COLLECTIONS:** healthy donors, patients, and other biological collections – under conditions

RESEARCH AREA & OBJECTIVES

- Study of the **genetics** of red blood cell **diseases** and the side effect of **transfusion** (TIP, AHAI, sickle cell disease)
- Immune & genetic background of **allo-immunization** following the transfusion of RBCs
- **Innovative therapies**, hemolysis-related vasculopathies for SCD
- The alpha-hemoglobin pool & **hemoglobinopathies**
- Autoimmune **Cytopenia**

KEYWORDS

Haematology, haemoglobin diseases, transfusion, genetics, immunology

DOMAINS OF EXPERTISE

- HEMATOLOGY
- TRANSFUSION MEDICINE

SKILLS

- GENETICS (qPCR, Sequencing)
- CELL CULTURE (IN-VIVO & IN-VITRO)
- ANIMAL MODELS (Murine)
- IMMUNOLOGY (*Immunohistochemistry, Immunoassays*)
- MOLECULAR BIOLOGY
- FLOW CYTOMETRY
- PROTEOMICS (Mass-spectrometry, protein polymerization)
- DATA SCIENCE (Databases, algorithm, machine learning)
- CLINICAL STUDIES
- EPIDEMIOLOGY

RESEARCH RECOGNITION - 2020

- LABEX (LABORATORY OF EXCELLENCE) : GR-EX
- 4 PATENT FAMILIES
- 2 R&D CONTRACTS WITH INDUSTRIALS PARTNERS (ADDMEDICA / INNOVHEM)
- 3 MANY NATIONAL, EUROPEAN AND INTERNATIONAL GRANTS
- 278 PUBLICATIONS (2015-2021)
100 SCIENTIFIC ARTICLES & 133 CLINICAL ARTICLES & 3 BOOK CHAPTERS & 42 REVIEW ARTICLES
- 17 PARTICIPATION TO INTERNATIONAL CONGRESSES
- 6 PHD STUDENTS, 6 MASTER STUDENTS
- IMRB PLATFORM CERTIFIED ISO9001