

# UMR S1255 STRASBOURG

Biology and pharmacology of blood platelets:  
hemostasis, thrombosis, transfusion



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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 on flow cytometry, electron microscopy**
- **Access to biological collections and databases (under conditions)**

## PLATFORMS & TECHNICAL RESSOURCES

### UMRS1255 BUILDING

- EFS Grand-Est building

### TECHNICAL RESOURCES ACCESS

- Access to technical platforms:
  - Animal platform
  - imaging platform: Photonic & electronic microscopy (In-vitro, In-vivo and real-time)
  - Flow cytometry
- Access to biological collection:
  - Biological samples from healthy donors (EFS), from patients (hospitals), and other biological products – under precise regulatory conditions

## RESEARCH AREA & OBJECTIVES

- **Team 1 :**
  - Molecular mechanisms regulating platelet function (in the context of hemostasis, thrombosis and inflammation)
  - Identification & validation of anti-thrombotic drug targets in platelets
  - Design of safer ways of preparing blood products for transfusion
- **Team 2 :**
  - Identification of cellular/molecular mechanisms controlling platelet formation, and how platelet progenitors (megakaryocytes, MKs) develop
  - Development of new & improved ways of culturing MKs in vitro for platelet production and further safe transfusion into the patient

## KEYWORDS:

Platelets, hemostasis, thrombosis, inflammation, transfusion medicine

## DOMAINS OF EXPERTISE

- HEMATOLOGY & PLATELETS
- CELL THERAPY & ONCOLOGY

## SKILLS

- GMP platelet biotin-labeling process
- MOLECULAR BIOLOGY
- CELL CULTURE
- IN VIVO MODELS (thrombosis, hemostasis & inflammatory models)
- GENETICS (Transcriptomic & proteomic analyses, qPCR, sequencing)
- IMAGING (Confocal & Electronic microscopy)
- CLINICAL STUDIES
- MICROFLUIDICS (Platelet adhesion, activation and aggregation under flow condition)

## RESEARCH RECOGNITION - 2019

- 3 active patents
- IDEX grant (initiative of excellence)
- Multiple industrial partners
- Many national, european and international grants
- > 121 publications (2011-2019) scientific articles & book chapters
- Quality certifications (health & safety program, quality management system in place)
- Participation in many national & international congresses
- Numerous PhD students (11 in 2019, including 1 foreign students thanks' to international public collaborations)