

# Cell growth, Regeneration, and Tissue Repair (CRRET)

EAC 7149 - UPEC/CNRS

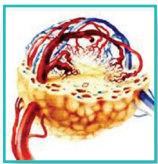
## Key words

Tissue repair • Age-associated diseases • Glycobiology  
• Glycosaminoglycans • Heparin binding proteins  
• Alzheimer's disease • Osteoarthritis • Cancer  
• Angiogenesis • Heparan mimetics

## Objectives and research topics

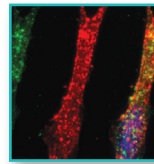
The overall objective is to better understand the mechanisms regulating cell behaviour and tissue homeostasis with the aim to identify new diagnostic and therapeutic targets for still unresolved diseases as neurodegeneration, osteoarthritis, but not only. Are particularly considered the relationship between regulatory proteins/peptides and matrix/cell membrane-associated glycanic components as heparan sulfates and other sulfated glycosaminoglycans. Studies are guided by fundamental research and also through series of projects with potential medical applications performed in partnership with the pharmaceutical industry.

The CRRET laboratory is formed by two teams and different technological platforms:



### ➤ Sulfated glycosaminoglycans and tissue homeostasis

- Study of the molecular mechanisms implying sulphated glycosaminoglycans in pathology
- Development of cutting-edge strategies to identify new diagnostic and therapeutic targets for unresolved disease events, in particular osteoarthritis and brain diseases as Alzheimer's disease, but not only



### ➤ Growth factors and angiogenesis

- Study of normal and pathological angiogenesis mechanisms
- Development of therapeutic strategies for cancer and abnormal and pathological angiogenesis treatment and diagnosis

## Technological platforms

- "Glycan-mix" Glycomic platform for structural and functional glycosaminoglycan analysis
- Mass spectrometry
- Cell biology
- Flow cytometry (MACSquant analyser, 8 colours, Miltenyi)
- Histology
- Confocal microscope (Olympus)
- Accredited animal experimentation facilities/laboratory
- Peptide synthesiser

## CRRET

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➔ More information: [www.vjf.cnrs.fr/spip/crret](http://www.vjf.cnrs.fr/spip/crret)