



1-2 February 2010
KORANET PARTNERING EVENT

Research for life-long health

Casteilla
UMR 5241
University Toulouse III/CNRS
Fat as a reservoir of regenerative
cells



RESEARCH CENTRE

partnering, partnering, partnering, partnering, partnering

- STROMALab:
A multipartner project: University, CNRS, EFS, Inserm
For a better understanding and uses of mesenchymal like
cells in tissue homeostasis and regenerative medicine





PROJECT IDEA

Adipose tissue as a reservoir of different immature cell subsets: comparison with bone marrow

Common view of adipose tissues

Obesity



- Energy storage (10 à 50% of BW)
- Reversible enlargement
- Endocrine function

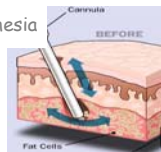
Plastic and reconstructive surgery (old uses)



PROJECT IDEA

Adipose tissue as a reservoir of different immature cell subsets: comparison with bone marrow

Local anesthesia

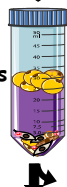


Adipose tissue



Enzymatic digestion

Adipocytes (40%)



SVF

Non adherent cells

AD-CMG \leftrightarrow cardiac potential

HSC \leftrightarrow hematopoietic potential

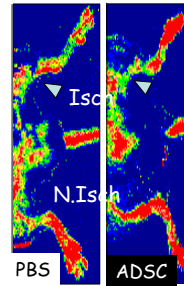
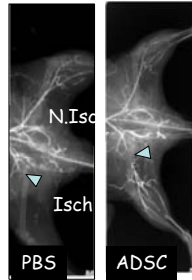
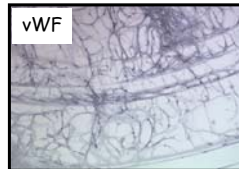
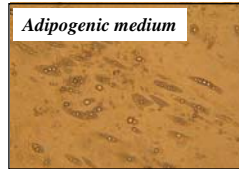
ADSC \leftrightarrow Adipogenic, osteogenic, chondrogenic
Immunosuppressive, angiogenesis
Anti-tumor





PROJECT IDEA

Angiogenic properties of ADSC



ADSC: Paracrine activity + endothelial like phenotype
Planat-Benard et al, 2004, coll U541, patent

=> Chronic myocardial infarction
(Mazzo et al, 2009)

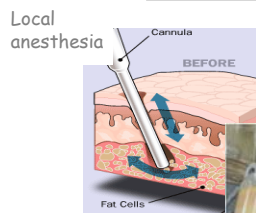
=> Wound healing ± irradiation
(Ebrahimian et al, 2009, coll IRSN, Abbo et al, unpublished data)

=> but anti-tumor effect =>...



PROJECT IDEA

Adipose tissue as a fountain of regenerative cells

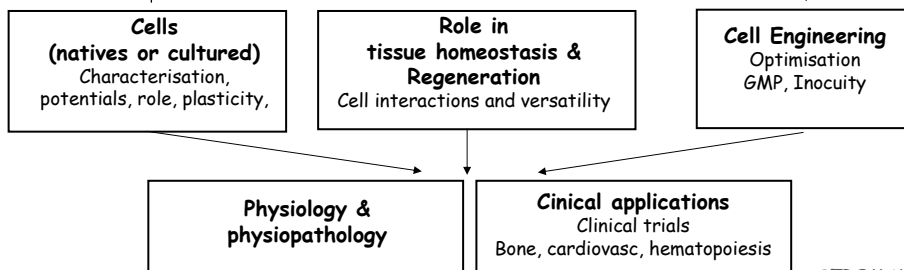
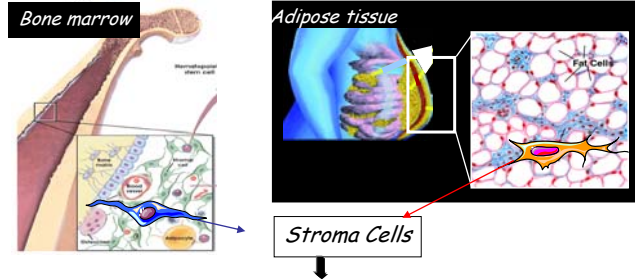


Adult tissue
Easily sampling (liposuccions)
=> no ethic issue
Frequency of "therapeutic cells"
(ADSC/MSC: 100 à 500)





EXPERTISE



STROMALab



PARTNER SOUGHT

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- Expert in developmental biology
- Nanotechnology (cell tracking)
- Animal models
- Modeling





CONTACT DETAILS

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