Targeting Fascin-1 in hepatoblastoma
LCTI Team, BRIC, Bordeaux

1<sup>er</sup> workshop du Groupe de travail « Chimie et Cancer »

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Toulouse
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Liver Cancer and Tumor Invasion, LCTI

Axis 1
Pre-cancerous lesions & mediators of liver carcinogenesis

Axis 2
Molecular bases of tumor invasion

Axis 3: Care management / Improve diagnosis and patient stratification

Hepatoblastoma

Hepatocellular carcinoma

Violaine Moreau

Frederic Saltel
Fascin-1 in hepatoblastoma, a target

Fascin-1 is overexpressed in hepatoblastoma
Fascin-1 PPI inhibitors

Fascin-1 inhibition as a therapeutic strategy?
Skills & Techniques

✓ Cell growth

- 2D Cell growth
- 3D Spheroid growth
- Flow cytometry
Skills & Techniques

- Cell death
  - HB cell lines

- Cell Cycle
  - HB Patient derived xenograft cells

Flow cytometry
**Skills & Techniques**

- **Invasion and migration**
  - **Transwell assay**
  - **Extracellular matrix degradation assay**
  - **Wound healing assay**

![Graph showing Huh6 invasion data](image)

![Images of cell cultures](image)
Skills & Techniques

✓ Cell differentiation and molecular pathways

- RTqPCR
- Western blotting
- Immunofluorescence
- Mice orthotopic xenograft models

✓ Laser microdissection and IPA analysis

FFPE tissue sample

1- laser microdissection

2- Mass spectrometry analysis on small sample

Fascin
Search for collaborations and needs

• Current Collaborator, Sebastien Papot
  ✓ Field of chemistry, design of new fascin inhibitor smart drugs.

• Collaborators « wanted »
  ✓ Field of chemistry

• Need to improve drug delivery
  ✓ Find new strategies to deliver NPG2044 to the liver and specifically Fascin+ cells

• Need to find new Fascin-1 inhibitors
  ✓ Find new strategies to inhibit Fascin-1 or degrade it such as nanodrugs or PROTAC
Questions