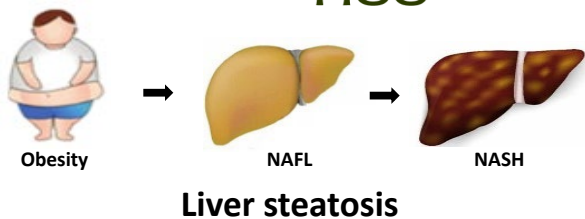
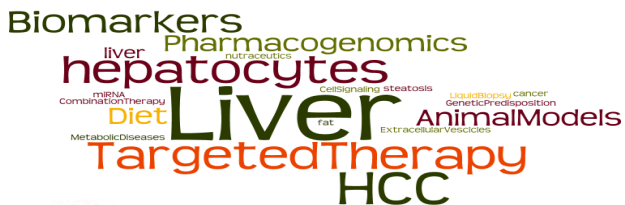
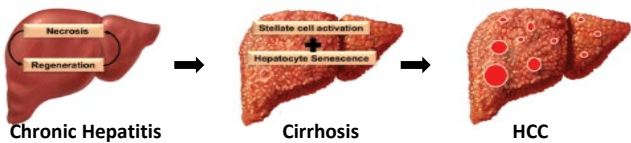


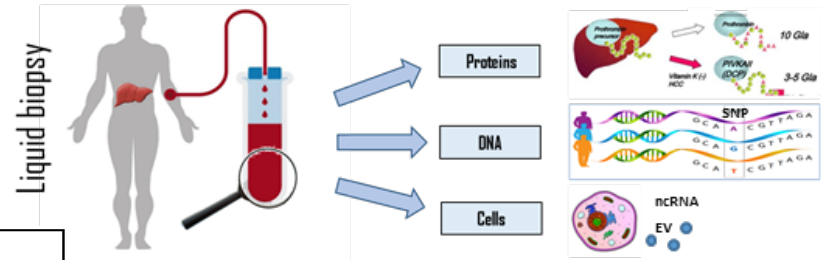
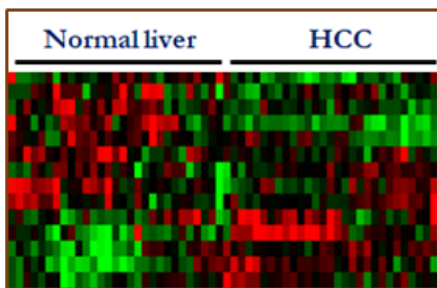
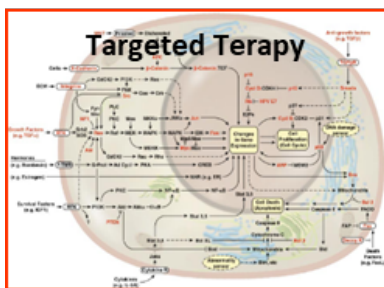
# Molecular mechanisms and biomarkers of neoplastic transformation and invasiveness



## Hepatocellular carcinoma



## Biomarkers



**Research group:**  
**Melchiorre Cervello**  
**Antonella Cusimano**  
**Antonina Azzolina**  
**Giuseppa Augello**  
**Maria Rita Emma**

**Principal National collaborations**

**Principal International collaborations**

**Supported by:**

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Role of NUPR1 in hepatocarcinogenesis and hepatic steatosis.
- Piano Sanitario Nazionale (PSN)**  
LP 6 - Azione - 6.15 - Supporto alla ricerca nell'ambito della caratterizzazione genomica, anche in riferimento all'ambito oncoematologico.
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- Ministero della Salute – IZS - Ricerca corrente 2020**  
Studio del pathway NUPR1/RUNX2 nel tumore mammario canino e umano per lo studio di fattori che inducono chemoresistenza e metastasi.

**2015-2020**  
**52 publications in ISI Journals**  
**1 International Patent**

**Critical issues:** the need for new high-tech equipment. In particular: modular system of advanced microscopy and imaging; flow cytometer and cell sorter; systems for real-time analysis of cellular functions in 2D / 3D / organoid models.

