

PROPOSITIONS  
TO THE THESIS

**Viral Hepatitis and Fatty Liver Disease in Liver Cancer: two sides of the coin**

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1. The findings that sofosbuvir directly promotes the growth of hepatocellular carcinoma (HCC) cells in vitro may help to understand the ongoing debate whether direct-acting antivirals can promote HCC recurrence or occurrence in treated hepatitis C patients. (This thesis)
2. Fatty liver disease has become a heavy public health burden because of the increasing prevalence, progression to severe liver diseases, and association with serious cardiometabolic abnormalities. (This thesis)
3. Tumor organoid model systems offer new opportunities for advancing the understanding of liver cancer biology, the development of anti-cancer drugs and the exploration of personalized medicines. (This thesis)
4. LGR5 marks targetable cancer stem cells in murine liver tumor which are resistant to conventional anti-cancer treatment. (This thesis)
5. 3D co-culture models of liver tumor organoids with cancer associated fibroblasts reveal reciprocal effects between these two cell types. (This thesis)
6. Organoids recapitulate in vitro some principles of organ biology and provide simplified and readily accessible 'minimal systems' for discerning the relative contribution of different tissue components to complex morphogenetic processes. (Giuliana Rossi, Nature reviews, 2018)
7. Current paradigms of cancer-centric therapeutics are usually not sufficient to eradicate the malignancy, as the cancer stroma may prompt tumor relapse and therapeutic resistance. (Erwei Song, Nature Reviews, 2018)
8. Evolution has driven men love to wonder and by that provided the seed of science. (based on Ralph Waldo Emerson)
9. When all else is lost the future is remain (Unknown). Likewise failed experiments open the door to new investigations.
10. 勉之期不止，多获由力耘. (Persistently diligent achieved success).
11. 不善始者不善终. (A bad beginning makes a bad ending.)