National Cancer Centre Singapore
SingHealth

NOV 20th

Liver tumors: identification of early genomic alterations

Time:

Monday
4.00pm – 5.00pm

Venue:

Peter and Mary Fu Auditorium, Level 4, NCCS

Hosted by:

Professor TEH Bin Tean



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Abstract

Hepatocellular carcinoma (HCC) is one of the leading causes of death by cancer worldwide. It is mainly developed on cirrhosis due to chronic hepatitis B and C, metabolic and alcoholic liver diseases in western countries. Recent advances in molecular classification and dissection of genetic and epigenetic drivers have increased our knowledge of the molecular diversity of malignant liver tumors. Using genomic approaches, we identified several new oncogenes and tumor suppressor genes and we described a molecular classification of hepatocellular carcinoma. Recently, sequencing identified TERT promoter mutations activating telomerase as the most important mechanism of malignant transformation of cirrhotic nodules in carcinoma. We also found new mutational signatures in HCC as the result of exposure to specific genotoxic agents and AAV2 insertion in rare cases of HCC developed in non-cirrhotic liver. Finally, next generation sequencing was particularly fruitful to identify new drug targets in hepatocellular carcinoma and these finding open new avenues to develop genome based clinical trials.

About the Speaker

Jessica Zucman-Rossi is Professor of Medicine at University Paris Descartes, within the department of Oncology at the European Hospital Georges Pompidou (AP-HP). She is the director of an INSERM laboratory "Functional Genomics of Solid Tumors", with a focus on liver, mesothelial and renal tumors. Her team aims to develop basic genomic approaches based on human tumors analyses to identify new mechanisms of tumorigenesis and to transfer this knowledge into biomarkers that could be introduced in clinical care. In particular, the group was pioneer in the elucidation of the molecular classification of benign and malignant liver tumors. Currently, she is executive secretary of ILCA (International Liver Cancer Association) and she acts as co-Editor for Journal of Hepatology.

All are welcome, no registration required