PROPOSITIONS

belonging to the thesis

A Prominent Couple: The *TMPRSS2:ERG* Gene Fusion in Aggressive Prostate Cancer

1. The TGF-β/ALK1 and FZD4/WNT signaling pathways are the molecular routes underlying *TMPRSS2:ERG*-mediated epithelial to mesenchymal transition (EMT) in prostate cancer cells. (*this thesis*)

2. *INSM1* is a regulator of neuroendocrine differentiation in prostate cancer cells. (*this thesis*)

3. Detection of the *TMPRSS2:ERG* translocation can become a tool to select patients for targeted therapy. (*this thesis*)

4. We can learn about the carcinogenic mechanisms of neuroendocrine prostate cancer from the molecular pathology of other neuroendocrine tumors, such as small cell lung cancer. (*this thesis*)

5. Genomic features rather than histopathological grading determine the clinical course of cancer.

6. The genomic complexity and heterogeneity of cancer are the biggest source of frustration but also of its fascination.

7. A broader spectrum of therapeutic approaches in addition to androgen deprivation therapy is fundamental for the personalized treatment of hormone sensitive cancers.

8. Incorporation of novel biomarkers into available prediction tools improves the objective justification for clinical decisions, and reduces the likelihood for the patient to regret treatment choice. (SF Shariat, Future Oncol 2009)


10. ‘It’s easy to make perfect decisions with perfect information. Medicine asks you to make perfect decisions with imperfect information.’ – adopted from Siddhartha Mukherjee: The Laws of Medicine.

Leonie Ratz, 15th of December 2017