

Propositions related to the thesis

CHANGING THE HORIZON OF ENDOCRINE THERAPY RESISTANCE

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1. High mRNA levels of EZH2 are associated with poor outcome to tamoxifen therapy in advanced breast cancer and its downregulation is linked to upregulation of ER leading to a better response to anti-estrogens. (this thesis)
2. The best response to tamoxifen in patients with metastatic breast cancer can be expected in patients with low mRNA expression levels of EZH2, CCNE1 and CDC2 and high expression of miR-26a in their primary tumor. (this thesis)
3. The higher the quantitative expression of EZH2 on protein level, independent of the intensity, in the primary tumor of patients with metastatic breast cancer, the worse the response to first-line tamoxifen therapy. (this thesis)
4. The activity of EZH2, measured in H3K27me3 binding patterns, is predictive for a poor response to aromatase inhibitors. (this thesis)
5. The characterization of circulating tumor cells can lead to predictive gene expression profiles to best identify patients for a certain treatment. (this thesis)
6. DNA circulating in the bloodstream could guide cancer treatment — if researchers can work out how best to use it. (Yong E. Cancer biomarkers: Written in blood. *Nature*. 2014;511(7511):524-6)
7. The story of EZH2, from its discovery as a regulator of body patterning in fruit flies to the recognition of its role as a transcriptional regulator of chromatin structure and as a driver of cancer, should soon have a new chapter once clinical trials reveal whether targeting EZH2 can bring a substantial therapeutic advance. (Kim KH, Roberts CW. Targeting EZH2 in cancer. *Nat Med*. 2016;22(2):128-34)
8. Underlying the 10 hallmarks of cancer are genome instability, which generates the genetic diversity that expedites their acquisition, and inflammation, which fosters multiple hallmark functions. (Hanahan D, Weinberg RA. Hallmarks of cancer: the next generation. *Cell*. 2011;144(5):646-74)
9. The findings on mRNA level can be opposite to those on protein level and should therefore be both of interest in research. (Van Der Willik et al. SIAH2 protein expression in breast cancer is inversely related with ER status and outcome to tamoxifen therapy. *Am J Cancer Res*. 2016; 6(2): 270–284)
10. There is no clear boundary that divides P-values into meaningful and meaningless. (NRC Handelsblad 18-6-2016)
11. Man cannot discover new oceans unless he has the courage to lose sight of the shore. (Andre Gide)