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## Identifying aneuploidy-tolerating genes

Simon, Judith Elisabeth

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IDENTIFYING ANEUPLOIDY-TOLERATING GENES

1. Aneuploidy alone does not lead to tumorigenesis in the mouse, but it is an accelerator for tumour growth in a predisposed background. (*This thesis*)
2. The fact that aneuploidy combined with p53 deficiency leads to aggressive T-ALL with recurrent karyotypes indicates that cancer does not suffer from disorganised, but rather organised chromosomal chaos. (*This thesis and Siddhartha Mukherjee*)
3. PRMT5 accumulation in cytoplasmic granules increases upon aneuploidy in untransformed cells, suggesting that PRMT5 specifically responds to aneuploidy-induced stress. (*This thesis*)
4. PRMT5 is a potential target for the treatment of aneuploid cancer, as it functions as a sensor for methionine to activate mTORC1, which is essential for aneuploid tumour cell growth and metabolism. (*This thesis*)
5. Transposon mutagenesis and Mad2 activation in the haematopoietic system of mice is a powerful method for the identification of aneuploidy-tolerating genes. (*This thesis*)
6. In addition to studying how the cell itself responds to mitotic defects, it should be considered how cells cooperate to promote the growth of ‘less-fit’ subclones within a tumour. (*e.g. Marusyk et al., 2014*)
7. “The impediment to action advances action. What stands in the way becomes the way” - *Marcus Aurelius*
8. “You will reap what you sow” - *Galatians 6:7*
9. “Zeg wat je denkt, doe wat je zegt” – *Jack Henri Simon*

Judith Elisabeth Simon, september 2018