RNA splicing in breast cancer progression

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Stellingen

behorende bij het proefschrift

RNA splicing in breast cancer progression

1. Phenotypic RNA interference screening is a powerful approach to uncover novel metastatic driver genes (this thesis).

2. Splicing factors provide a new layer of oncogenic control and are powerful targets to combat breast cancer progression (this thesis).

3. Integration of functional genomics and transcriptomics provides critical mechanistic understanding on the role of splicing factors in breast cancer cell migration and proliferation (this thesis).

4. 3D breast cancer cell models are closer to human breast cancer but not yet optimal for all drug screening (this thesis).

5. Alternative splicing enhances the complexity of the proteome with great precision and adds flexibility that is of prime medical relevance as many human diseases are associated with aberrant mRNA splicing (Wahl et al, 2009, Cell).

6. There has been rapid progress in uncovering the regulatory aspects of alternative splicing, the next challenge will be the understanding of its physiological relevance (Baralle et al, 2017, Nat Rev Mol Cell Biol).

7. Partnership between bioinformaticians and cancer researchers is likely to solve unmet challenges in cancer biology (Robinson et al, 2019, Clinical Cancer Research).

8. Genomic splicing studies in combination with biochemical and molecular analyses using splicing-modulating drugs promise to uncover new targets and enable novel approaches to block canonical cancer pathways (Chen et al, 2015, Oncogene).

9. An experiment is like a recipe: precisely following the instructions usually provides good results, prolonging incubation time can be disastrous.

10. Publicly supported large-scale omics efforts are worth every penny; they stimulate collaborations, creativity and improve cancer treatment.

11. A PhD is similar to a race or ‘de Nijmeegse Vierdaagse’: every step counts and once finished you forget about the pain.