Preclinical and 'near-patient' models for the evaluation of experimental therapy in prostate and bladder cancer

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Stellingen behorende bij het proefschrift

Preclinical and 'near-patient' models for the evaluation of experimental therapy in prostate and bladder cancer

1. The use of patient-derived tumor models, either alone or combined with other preclinical tumor models, represents a valuable tool in identifying novel therapies for urological cancers (*this thesis*).

2. The antipsychotic drug penfluridol exerts anti-tumor effects and may represent a novel strategy in the treatment of bladder and prostate cancer (*this thesis*).

3. *jin-3* mutant Reoviruses infect, replicate and generate anti-cancer responses in preclinical prostate cancer models and induce the expression of interferon-stimulated genes and inflammatory cytokines (*this thesis*).

4. Screening for E-cadherin (re)induction and inhibition of invasion resulted in the identification of novel drug candidates to reduce cancer cell migration and invasion (*this thesis*).

5. Patient-derived xenograft (PDX) models represent a valuable patient derived tumor model. However, thorough screening of PDX models for EBV-induced lymphoma development and murine stromal overgrowth is of crucial importance (*Wetterauer et al. The prostate (2015) and Taurozzi et al. PLoS One (2017)*).

6. Drug repositioning offers an attractive strategy since it involves the use of de-risked compounds, lower development costs and shorter development timelines than developing completely new drugs (*Pushpakom et al. Nature Reviews Drug Discovery (2019)*).

7. Oncolytic viruses hold great potential to induce anti-tumor effects, override immune evasion and promote anti-tumor immunity. In addition, oncolytic viruses can complement other anti-cancer therapies, including immune-checkpoint inhibition, resulting in better clinical outcome. (*Lee et al. Nature Reviews Urology 2018*).

8. EMT-inhibitors may provide great clinical potential as anti-cancer treatment by reducing invasive behavior, reduce stemness and increase therapy sensitivity. Administering EMT-inhibitors in a close therapeutic window is of crucial importance *(Santamaria et al. Molecular oncology 2017).*

9. It is essential to be aware of the advantages and limitations of a model system (inspired by ''A model is a lie that helps you see the truth'' by Howard Skipper *in The Emperor of all Maladies, Siddhartha Mukhertjee (2010)).*

10. Before you can multiply, you must first learn to divide (*Asian wisdom).*

11. The quote ''When you learn a little, you feel like you know a lot. But when you learn a lot, you realize you know very little'' (*Jay Shetty, Think Like a Monk (2020))* also applies to scientific research.

12. Taking breaks to unwind and re-charge is crucial for your well-being and improves productivity (inspired by ''Almost everything will work again if you unplug it for a few minutes, including you'' *Anne Lamott, Bird by Bird (2020)*).