

Uncovering vulnerabilities in triple-negative breast cancer $\mbox{\rm He,\,J.}$

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Stellingen

behorende bij het proefschrift

Uncovering vulnerabilities in triple-negative breast cancer

- FRET-based signaling reporters not only substantially contribute to monitoring the efficacy of kinase drugs, but also to the further understanding of their mode-of-action in relation to crosstalk with well-defined signaling components in cancer, including ERK and AKT signaling. This thesis.
- 2. Src family member FYN confers TNBC resistance against EGFR kinase-targeted inhibition via negatively regulating EGFR/PI3K/AKT signaling. **This thesis.**
- 3. Polypharmacology-based multi-kinase targeted inhibition shuts down the crosstalk among receptors as well as mTOR pathway within signaling networks in the resistant scenario. **This thesis.**
- 4. ASAP1 is an amplification-dependent driver gene promoting TNBC cell proliferation. **This thesis.**
- 5. The cancer dependency map will facilitate the prioritization of therapeutic targets. **Tsherniak**, **Cell**, **2017**.
- 6. Image-based phenotypic screening approaches can provide high-throughput in vitro readouts of key parameters that represent commonly desired properties of anticancer therapies. **Conway, Nat Rev Cancer, 2014.**
- Combination therapy with rapamycin or rapalogs has become a promising approach, as various strategies have the potential of improving drug efficacy by inhibiting multiple targets either activated by removal of feedback loops or involved in parallel pathways. Li, Cell Metab, 2014.
- 8. Genes that are found in amplified regions and are highly expressed are likely drivers of important "hallmarks" of malignancy and represent critical candidate tumor addictions. **Patel, Nat Commun, 2018.**
- 9. Hardly can progress be made without facing the difficulties.
- 10. A banana kick bypasses, but rarely scores.

Jichao He 31 October 2019