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Understanding the complexity of TGF-beta signaling in cancer

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Stellingen

Behorende bij het proefschrift

Understanding the complexity of TGF- β signaling in cancer

1. Using fluorescent tools in appropriate model systems will help to understand the temporal and spatial involvement of TGF- β signaling throughout cancer metastasis.
(*This thesis*)
2. Tumor cells seemed to respond differently to TGF- β in vivo compared to in vitro, as TGF- β signaling in tumor cells decreased proliferation and migration in vitro but increased metastatic outgrowth in liver in vivo.
(*This thesis*)
3. By understanding how tumor cells communicate with each other and their environment, more optimal TGF- β targeting therapies can be designed.
(*This thesis*)
4. TRAF4 is able to regulate BMP and TGF- β signaling by controlling levels of SMURF1 and 2.
(*This thesis*)
5. All cells in the human body can perceive TGF- β family signals and can respond with effects that are as varied as the target cell types.
(*C. David & J. Massague, Nature Reviews Mol Cell Biology 2018*)
6. Patients with liver metastases appear to derive limited benefit from immunotherapy, independent of other markers of response.
(*J. Yu et al, Nature Medicine 2021*)
7. While the effects of TGF- β on tumor cells can vary and are context-specific, the role for TGF β signaling in immune evasion appears to be more similar across a wide range of tumor types.
(*AE Metropulos et al, EBioMedicine 2022*)
8. There are multiple bottlenecks that malignant cells must overcome to successfully form a tumor, many of which depend on resisting normalizing cues from the surrounding tissue and hijacking microenvironmental processes.
(*K. de Visser & J. Joyce, Cancer Cell 2023*)
9. Evil communication corrupts good manners, I hope to live to hear that restoring good communication corrects bad manners.
(*Based on Benjamin Banneker*)
10. I was taught that the way of progress was neither swift nor easy.
(*Based on Marie Curie*)