Mechanisms of melanoma-targeting antibody therapy in mice

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Stellingen behorende bij het proefschrift

‘Mechanisms of melanoma-targeting therapy in mice

1. Inflammatory macrophages expressing Fcγ receptor I are important for antibody-mediated killing of tumor cells in mice (this thesis).
2. The TA99 antibody combined with TLR ligands and IL2 induces tumor-specific CD8 T cell responses that are required for tumor control (this thesis).
3. The CD3-targeting bispecific antibody CD3xTRP1 does not induce protective immune memory against subsequent tumor challenge (this thesis).
4. An mCMV-based vaccine induces an endogenous polyclonal antibody response against tumor surface antigens mediating Fcγ receptor-dependent killing of tumor cells (this thesis).
5. A role of Fcγ receptors always need to be considered as a mechanism of antibody-mediated treatments against cancer, contributing in a positive or negative way (Labrijn et al., Sci rep, 7: p2476, 2017).
6. Mice lacking the Fc-associated common γ chain are not suitable to study Fcγ receptors, as multiple other innate immune receptors, like MINCLE, are hampered as well (Yamasaki et al., Nat Immunol, 9: p1179, 2008).
7. Extrapolation of mouse studies on Fcγ receptors to understand the human system is possible although a careful evaluation is always required due to species differences (Bruhns et al., Blood, 119: p5640, 2012).
8. CD3-targeting antibodies perform better when they do not bind Fcγ receptors (Labrijn, Sci rep, 7: p2476, 2017).
9. Unexpected results lead to scientific progress.
10. It is easier to design studies afterwards.

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