

# Overcoming barriers to T cell activation, infiltration and function in tumors

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#### Stellingen

#### Behorende bij het proefschrift

### Overcoming barriers to T cell activation, infiltration and function in tumors

- 1. The use of Incomplete Freund's Adjuvant in melanoma peptide vaccines supports the induction of a tumor-specific, cytotoxic T cell response (this thesis)
- 2. The composition of the vaccine-site microenvironment is crucial for the systemic efficacy of cancer vaccines (this thesis)
- 3. A comprehensive analysis of collagen deposition, localization and organization in different human cancer types is crucial to understand the impact of the extracellular environment on T cell migration and function (this thesis)
- 4. Therapeutic modulation of both the extracellular matrix and the T cell integrin repertoire would provide optimal utilization of T cell motility and retention in tumors (this thesis)
- 5. T cell differentiation is similar to terraced farming: cellular differentiation is a continuum of developmental potential and migration heterogeneity, not simple subset classification (adapted from Rosata et al, 2020, Current Opinion in Immunology).
- Functionality of a vaccine-induced T cell response has an important bearing on the degree of protection against viral infections and tumors. (adapted from Mark Davis, 2020, Current Opinion in Immunology)
- 7. T cell exhaustion is an evolutionarily conserved adaptation to chronic antigen stimulation that is probably important to limit immunopathology or autoreactivity; thus, exhausted T cells are not inherently good or bad. (E. John Wherry, 2019, Nat Rev Imm)
- 8. CD49a is critical for T cell motility, a feature that can provide persistence in tissues through confined migration within collagenrich areas. (adapted from Emma Reilly et al, 2020, PNAS)
- 9. "Fight for the things that you care about, but do it in a way that will lead others to join you". Ruth Bader Ginsburg, 2015. Be passionate in your research, but also pass it on to others by being a good teacher.
- 10. Some words or phrases are blobs. William Zinsser, 1976, On writing well. Science writing is hard.
- 11. Use your smile to change the world; don't let the world change your smile. *Unknown*. Stay true to your values and do that what makes you happy.