Autoreactive B cells in rheumatoid arthritis

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Stellingen behorende bij het proefschrift getiteld:
Autoreactive B Cells in Rheumatoid Arthritis

1. Autoreactive B cells against citrullinated antigens in rheumatoid arthritis (RA) display characteristics that suggest a pathogenic role in the inflammatory disease process. (in this thesis) Their pathogenic function likely involves the orchestration of innate and adaptive immunity against modified self-antigens.
2. ACPA-expressing B cells secrete neutrophil-activating and -recruiting factors. (in this thesis) Interaction between long-lived, yet rare ACPA-expressing B cells and short-lived, yet abundant neutrophils at the site of arthritis could be involved in maintaining the chronicity of inflammation in RA.
3. The study of autoreactive B cells in different phases of disease suggests that these cells may be inactive for a long time, prior to the onset of clinical disease symptoms. (in this thesis) Understanding the events that lead to a switch in phenotype (inactive to active) of these cells may be key to prevent autoimmune diseases.
4. ACPA-expressing B cells downregulate some but not all immune inhibitory receptors. (in this thesis) Inhibitory signals may protect autoreactive B cells from activation-induced cell death.
5. Autoantigen conjugation to immunomodulatory drugs can result in antigen-specific modulation or depletion of autoreactive B cells. (in this thesis)
6. A significant fraction of mature B cells in healthy individuals are autoreactive. The function of these cells in homeostasis remains to be studied.
7. “Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows.” (Charles Darwin, 1859) The immune system is a textbook example of evolution. Long-term longitudinal studies of the evolution of immune responses to autoantigens are indispensable for understanding autoimmune diseases.
8. The most important lesson from the immune system is that tolerance and self-acceptance are key for a long and peaceful life.
9. Another important lesson from the immune system is that diversity and collaboration are essential for solving multi-dimensional and ever-changing problems that the future brings forward.
10. Always aim high. If you fail reaching for the stars, you might already step on the moon.
11. A PhD traineeship teaches you how to deal with constant failures and how to convince people despite imperfection.