Ageing and immunity: unraveling the association between immunosenescence and frailty

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Stellingen behorende bij het proefschrift getiteld

Ageing and Immunity
Unraveling the Association between Immunosenescence and Frailty

1. Differences in inflammatory responses do not fully explain the association between frailty and COVID-19 mortality in older patients. (this thesis, Chapter 3)

2. Older patients living with frailty receiving immunotherapy tolerate immune-related toxicity less well compared to younger patients. (this thesis, Chapter 5)

3. Variability in immune biomarker assays and definitions hampers cross-study comparability, emphasizing the need for standardized biomarker profiling protocols to ensure reproducible results. (this thesis, Chapter 2 and 4)

4. Identifying comorbid conditions and geriatric impairments can enhance risk–benefit assessments and improve management of treatment toxicity in older patients. (this thesis, Chapter 5)

5. Undertaking comprehensive, system-level analyses of biomarker profiles rather than analyzing biomarkers individually would capture more accurately the mechanistic pathways between the ageing immunity and frailty.

6. Prevention is better than cure: initiatives to improve healthy ageing are essential for pandemic preparedness. (Russel et al., 2023)

7. Biomarkers reflect multiple (patho)physiological processes and exposures, confounding their association with ageing and posing one of the main challenges for ageing biomarker research. (Moqri et al, 2023)

8. Increased interaction between researchers and clinicians is needed to facilitate sample collection and improve the identification of biomarkers toward specific use cases with practical clinical application. (Herzog et al., 2024)

9. A non-statistically significant result constitutes nonetheless a scientific finding.

10. “Science is more than a body of knowledge. It is a way of thinking.” (Sagan, *The Demon-Haunted World*, 1995), one that is never fully acquired and should always be cultivated throughout one’s lifetime.