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Mass spectrometry-based degradomics analysis of toxoid vaccines

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Stellingen

Behorende bij het proefschrift

Mass spectrometry-based degradomics analysis of toxoid vaccines

1. Even in century-old vaccines, there is still much to discover.
This thesis, chapter 2
2. No vaccine batch is truly identical to the previous one.
This thesis, chapter 5
3. Treating a protein with formaldehyde can increase its susceptibility to enzymatic proteolysis.
This thesis, chapter 3
4. From an immunological standpoint, formaldehyde-inactivation should be considered for new vaccines; from an analytical standpoint, it should be avoided.
This thesis, chapter 2 and 4
5. For the vaccination of healthy people, only the safest vaccine should be used.
Alfaro-Murillo et al. (The Lancet, 2020)
6. For vaccine efficacy, a high purity is sometimes detrimental.
Plotkin (Clinical Infectious Diseases, 2014)
7. If vaccines would be held to similar analytical and consistency standards as therapeutic proteins, the use of animal tests would be drastically reduced.
8. COVID-19 human challenge trials on young healthy volunteers are a safe and more reliable alternative to animal tests for studying infection risk and vaccine efficacy.
Manheim et al. (Risk Analysis, 2021)
9. Sadly, the root cause of most red tape in, for instance, our healthcare system, education system, vaccination programs and PhD programs, is a lack of trust.
10. Discrimination is never positive.