

## Propositions

1. Elderly end-stage renal disease (ESRD) patients have an advanced aged circulating T cell compartment compared to elderly healthy individuals, which is mainly driven by CMV latency. (this thesis)
2. A skewed T cell V $\beta$ -receptor repertoire is already present within the naive T cell compartment of ESRD patients. (this thesis)
3. Restoring defective ERK phosphorylation might be a potential intervention enhancing T-cell mediated immunity in ESRD patients. (this thesis)
4. The risk of CMV infection in CMV-IgG<sup>negative</sup> patients receiving CMV-IgG<sup>positive</sup> donor kidneys can be assessed more precisely by evaluating CMV-specific T-cell immunity. (this thesis)
5. Compromised T-cell mediated immunity seems to be a double-edged sword for ESRD patients. (this thesis)
6. Lowering immunosuppressive medication needs sensitive and specific biomarkers to predict or early diagnose kidney rejection as the safety guide.
7. It is not the years in your life that count. It is the life in your years. (Edward J. Stieglitz. The second forty years. 1946)
8. We cannot change our chronological/calendar age, but rejuvenating T-cells is possible.
9. Positive thoughts to negative results lead to success in research.
10. 不积跬步，无以至千里。-荀子（A thousand mile journey starts from one small step. Xunzi, Chinese philosopher）
11. Doing research is a good way to teach a baby in the womb.