

Propositions associated with this thesis

**Searching for modulators of CD8+ T cell exhaustion**

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1. Repeatedly stimulating CD8+ T cells with the cognate peptide for five days could induce the development of bona fide exhausted CD8+ T cells.  
*This thesis*
2. *Tcf7* promoter DNA methylation contributes to TCF1 downregulation in exhausted CTL.  
*This thesis*
3. MiRNA miR-139 is significantly downregulated in effector cells, however, miR-139 deficiency or overexpression does not affect the development of effector and memory CD8+ T cells *in vivo*.  
*This thesis*
4. ITK is highly activated in *in vitro* exhausted cells.  
*This thesis*
5. Ibrutinib could directly reverse T cell exhaustion.  
*This thesis*
6. During persistent infection, effector T cells stably differentiate into a state that is optimized to limit viral replication without causing overwhelming immunological pathology.  
*Daniel T Utzschneider, et al. Nature Immunology 2013.*
7. Exhausted T cells acquired an epigenetic profile distinct from that of effector and memory T cells that was minimally remodeled after PD-L1 blockade.  
*Kristen E. Pauken, et al. Science 2016.*
8. The enemy of studying is the feeling of satiation. Anyone who wants to learn anything, must start from not feeling full.  
*Mao Zedong's Quotations*  
学习的敌人是自己的满足，要认真学习一点东西，必须从不自满开始。 《毛泽东语录》
9. When three are walking together, you will always find teachers among them. I will select from their good qualities and follow them, and avoid their bad ones.  
*Confucian Analects*  
三人行，必有我师焉。择其善者而从之，其不善者而改之。 《论语》
10. The most beautiful scenery lies on the dangerous peak.  
*Mao Zedong's Quotations*  
无限风光在险峰。 《毛泽东语录》
11. Life has a limit but knowledge does not.  
*Zhuang Zi*  
吾生也有涯，而知也无涯。 《庄子》 庄子