Peer to peer article discussion Topic 6 (Baral et al.)

1. **Introduction**
   a. The three possible outcomes of viral infections(resolution, long term persistence, Host mortality)
   b. How does outcome depend on inoculum size?
   c. What are the observations that the model tries to recapitulate?
       i. What are CD8-T cells and how they work, what is CD8-T cell exhaustion…
       ii. How are the CD8-T cells responses related to the 3 possible outcomes of viral infections?
2. **Results I:**
   a. Dynamical motif underlying the outcomes of viral infection – Fig 1a-d
       i. Motif and model
       ii. Viral clearance and Persistence as steady states of the motif
       iii. What is the key result of this part?

   b. Immunopathology as a Dynamical outcome of the motif - Fig 1E-F
       i. What is the main outcome of this part?

3. **Results II:**
   a. Influence of the viral inoculum and initial effector pool sizes – Fig 2
       i. What is the main outcome of this part?
4. **Results III:**
   a. Influence of Innate immune response - Fig 4
       i. Motif and equations (SI Appendix , Text S4)
   b. Spontaneous clearence of the infection – Fig 5
5. **Discussion:**
   a. What does the model able to recapitulate?
   b. Treatment/intervention strategies and how these relate to the modeling results.
       i. Immune check-point inhibitors
       ii. Antiviral drugs
   c. Limitations of the study