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FIT OF IMMUNE RESPONSES BY CD4$^+$ T CELLS TRIGGERED BY LCMV INFECTION

B.M.P.M. Oliveira[*1,3], Filipe Martins[2,3],
Atefeh Afsar[2,3] and A.A. Pinto[2,3]

[1]FCNAUP, University of Porto, Portugal

[2]FCUP, University of Porto, Portugal

[3]LIAAD-INESC TEC, Porto, Portugal

bmpmo@fcna.up.pt (*corresponding author)

We fit an ODE model of immune response by CD4+ T cells to a time series of data from mice infected with lymphocytic choriomeningitis virus (LCMV). We considered two clonotypes of CD4+ T cells, gp61 and NP309 LCMV epitopes. The model also includes the presence of regulatory T cells (Tregs) and interleukine-2 (IL-2) density. This model is able to fit both the immune activation phase triggered by the LCMV infection and the subsequent relaxation phase, with a smooth transition from faster to slower death rates.

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References

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