THRESHOLD DYNAMICS OF A HCV INTRACELLULAR INFECTION MODEL

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Abstract

The dynamics of a HCV intracellular infection model is studied. We derive that the trivial equilibrium of the system is unstable, if $R_0 > 1$, the positive equilibrium of the system is locally asymptotically stable.

Keywords and phrases: HCV intracellular infection model, locally asymptotically. Received September 13, 2014

References

- [1] Eric L. Haseltine, John Yin and James B. Rawlings, Implications of decoupling the intracellular and extra-cellular levels in multi-level models of virus growth, Biotechnol. Bioengng. 101(4) (2008), 811-820.
- [2] J. Mittler, B. Sulzer and A. Perelson Neumann, Influence of delayed virus production on viral dynamics in HIV-1 infected patients, Math. Biosci. 152 (1998), 143-163.
- [3] Michael Y. Li and Hongying Shua, Global dynamics of an in-host viral model with intracellular delay, Bull. Math. Biol. 72 (2010), 1492-1505.