System biology exercise week 14

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Exercise 1

The pandemic doesn’t start because there’s no infected individual at t=0, so when I0 is changed to anything other than 0, the pandemic kicks off.

Chart

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Text

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Exercise 2

When infection period is changed to 3 days

When number of infected is comparatively smaller, all 3 lines are almost flat, low infection rate, low death rate and high susceptible rate.

Graphical user interface

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The number of infected only display in a visible manner if the number is initialized with a large value, and the number of infected continues to drop in the simulation.

Text

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Graphical user interface

Description automatically generated

Exercise 3

When the initial infect individuals and the contact rate are set to the following values, this simulation has a peak infected of 1000

Text

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Graphical user interface

Description automatically generated