Franke, E. K.

A mathematical model of synchronized periodic growth of cell populations. (English)

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Summary: It is shown that the periodic change of growth rate in an externally synchronized cell population growing in a chemostat can be fully accounted for by the properties of the renewal equation. The amplitude of the oscillations depends only on the strength of the synchronizing stimulus, the mean generation time, and its standard deviation.

MSC:

92C37 Cell biology
92D40 Ecology

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