

On the Repressilator

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ABSTRACT

The repressilator is a simple gene regulatory network consisting of a loop of three proteins that repress the transcription of the following gene. Such a synthetic network was constructed by Elowitz and Leibler [1] in *E.coli* and shown to oscillate. We propose a new dynamic model for this gene network and analyse its dynamic features.

References

[1] M.B. Elowitz and S. Leibler: A synthetic oscillatory network of transcriptional regulators. *Nature* **403**(2000), 335 - 338.