

# Existence of periodic and almost periodic solutions in a resonant model on stem cell dynamics

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## Abstract

This work deals with the existence of almost periodic solutions in a biological model, the model proposed by VG Nazarenko and E.E. Sel'kov of stem cell dynamics. This article demonstrates the existence of almost periodic solutions, for this purpose, the constant parameters of the system were changed to almost periodic functions which allows greater adaptability in biological cases such as this. This kind of changes have already been raised in other biological systems. In this case we will use the implicit function theorem to prove the existence of periodic solutions.

## Hosted file

Nazarenko.pdf available at <https://authorea.com/users/395721/articles/508864-existence-of-periodic-and-almost-periodic-solutions-in-a-resonant-model-on-stem-cell-dynamics>

