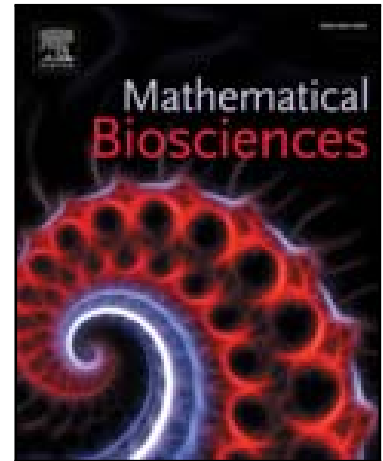


Accepted Manuscript

Pattern formation in a nonlocal mathematical model for the multiple roles of the TGF- β pathway in tumour dynamics

Raluca Eftimie, Matthieu Perez, Pietro-Luciano Buono

PII: S0025-5564(16)30288-7
DOI: [10.1016/j.mbs.2017.05.003](https://doi.org/10.1016/j.mbs.2017.05.003)
Reference: MBS 7940



To appear in: *Mathematical Biosciences*

Received date: 29 November 2016
Revised date: 1 May 2017
Accepted date: 12 May 2017

Please cite this article as: Raluca Eftimie, Matthieu Perez, Pietro-Luciano Buono, Pattern formation in a nonlocal mathematical model for the multiple roles of the TGF- β pathway in tumour dynamics, *Mathematical Biosciences* (2017), doi: [10.1016/j.mbs.2017.05.003](https://doi.org/10.1016/j.mbs.2017.05.003)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- We derive a nonlocal 1D model for the dynamics of cancer cells under the influence of TGF- β
- Increase in cell-cell adhesion leads to the formation of fewer but larger cell aggregations
- The role of TGF- β on the loss of cell-cell adhesion and on tumour growth can explain the formation of distant small cell aggregations
- The TGF- β parameter with greatest effect on tumour spread is the production rate by tumour cells

Download English Version:

<https://daneshyari.com/en/article/5760502>

Download Persian Version:

<https://daneshyari.com/article/5760502>

[Daneshyari.com](https://daneshyari.com)