Document details

‹ Back to results | ‹ Previous 2 of 91 Next ›

Journal of Physics: Conference Series
Volume 890, Issue 1, 21 September 2017, Article number 012085
1st International Conference on Applied and Industrial Mathematics and Statistics 2017, ICoAIMS 2017; Vistana City CentreKuantan, Pahang; Malaysia; 8 August 2017 through 10 August 2017; Code 130792

Modelling the cancer growth process by Stochastic Differential Equations with the effect of Chondroitin Sulfate (CS) as anticancer therapeutics (Conference Paper)

Ayuni Mazlan, M.S.[a], Rosli, N.[a], Arief Ichwan, S.J.[b], Azmi, N.S.[a]

[a]Faculty of Industrial Sciences and Technology, Universiti Malaysia Pahang, Gambang, Kuantan, Pahang, Malaysia
[b]Kulliyyah of Dentistry, IIUM Kuantan Campus, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, Pahang, Kuantan, Malaysia

Abstract

View references (14)

A stochastic model is introduced to describe the growth of cancer affected by anti-cancer therapeutics of Chondroitin Sulfate (CS). The parameters values of the stochastic model are estimated via maximum likelihood function. The numerical method of Euler-Maruyama will be employed to solve the model numerically. The efficiency of the stochastic model is measured by comparing the simulated result with the experimental data. © Published under licence by IOP Publishing Ltd.

Reaxys Database Information

View Compounds

Indexed keywords

Engineering controlled terms: Differential equations | Diseases | Maximum likelihood | Numerical methods | Stochastic systems

Compendex keywords: Anti-cancer therapeutics | Cancer growth | Chondroitin sulfates | Euler-Maruyama | Maximum likelihood function | Simulated results | Stochastic differential equations

Engineering main heading: Stochastic models

Funding details

Funding number	Funding sponsor	Acronym
	Ministry of Education	MOE
130122	Universiti Malaysia Pahang	UMP

Funding text

We would like to thank the Ministry of Education (MOE) and Research Management Center, Universiti Malaysia Pahang (UMP) for the FRGS grant Vote No. 130122. We would like to thank to the Malaysian Government for providing financial support under Mybrain15 programme.

ISSN: 17426588
Source Type: Journal
Original language: English

DOI: 10.1088/1742-6596/890/1/012085
Document Type: Conference Paper
Volume Editors: Muhammad N.
Sponsors:
Publisher: Institute of Physics Publishing

References (14)

View in search results format ›

All Export Print E-mail Save to PDF Create bibliography

1 Stewart, B., Wild, C.
(2014) *World Cancer Report 2014*. Cited 1114 times.
(Geneva, Switzerland: WHO Press)