



SDI Review Form 1.6

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_41382
Title of the Manuscript:	A mathematical Model for Mycolactone toxin Reaction and diffusion in cell cytoplasm
Type of the Article	Short Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Abstract - Though there is a statement on justification on how" ...model will help us understand drug diffusion in cell .." ...a problem statement is lacking. - No statement on results of model	* There is a clear statement of the problem in the abstract. * I have included a statement on the numerical results in the abstract.
Minor REVISION comments	*Misspelling of word "disease" in introduction part".. Understanding the etiology of many dsisease ..." * Law of mass action alone is not enough to generate equations (4.1)..more detailed sequential model development ought to have preceded. Description, assumptions, flow chart etc * No source quoted or any justifications put down for initial and boundary conditions in the write up. * Why choose finite element method and not Finite volume/ difference method? Justification should come out * Describe Figure 1 and 2 to inform the reader. What are axes? And what do they represent? * What is the source of simulation data and parameters	* The misspelt word disease has been corrected and highlighted. * Assuming the diffusion of mycolactone, WASP and complexes formed follow the classical diffusion process, Fick's law applies and this has been stated to make equation (4.1) complete. *On the choice of the finite element method for this work, I must say the quality, scope and analysis that we wanted to do informed the choice of method to use. * Figure 1 and 2 have been well described in section 4 under mathematical model. It is a 3D model of the cell and the axes is the x-y-z in space which is clearly shown on the Figures 1 and 2 in colour. * The results presented in this study were obtained from numerical simulations/experiments. No statistical data was collected from any source.
Optional/General comments	*To inform the reader "Comsol Multiphysics" need to be described well and what it does. * Mathematical software inbuilt solvers did almost 90% of your work....therefore word "Simulation" qualifies to be in your title. * Add this to your reference and compare, Thesis by Peter Romeo Nyarko(2015) titled "Mechanistic Studies and Mathematical Models for Mycolactone Toxin and Autoinhibitory WASP: Model Mechanisms for Buruli ulcer Initiation and Spread" submitted to KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY for award of PhD.	* The "Comsol Multiphysics" is described under section 4.1 and cited (reference [4]) in the references for further reading. * I do not agree that the software did 90% of the work. *This is my work and I do acknowledge to cite it. See reference [17]