

[Review Form2](#)

Book Name:	<u>From Muds to Meds: Cockle shell-derived nanoparticles as drug carrier against breast cancer</u>
Manuscript Number:	Ms_BPR_2744
Title of the Manuscript:	From Muds to Meds: Cockle shell-derived nanoparticles as drug carrier against breast cancer
Type of the Article	Monograph

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript is extremely significant to the scientific community since it investigates novel drug delivery methods employing calcium carbonate nanoparticles produced from waste materials, providing an environmentally acceptable approach. The study found that Gefitinib and Paclitaxel had promising synergistic effects in breast cancer treatment, indicating the potential for more effective and tailored medicines. Furthermore, the use of both ER+ and EGFR+ cell lines, as well as non-toxic behavior in healthy cells, increases the therapeutic relevance of our findings. I admire the manuscript's extensive examination of nanomaterial-based medication delivery and its potential to improve cancer treatment strategies.	
Is the title of the article suitable? (If not please suggest an alternative title)	<i>The title "From Muds to Meds: Cockle Shell-Derived Nanoparticles as Drug Carrier Against Breast Cancer" is interesting and conveys a thorough understanding of the article's subject, particularly the usage of cockle shell-derived nanoparticles in cancer treatment.</i>	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The article's abstract is fairly extensive, covering all of the major parts of the research, including the synthesis of cockle shell-derived nanoparticles, their usage as drug carriers for Gefitinib and Paclitaxel, and their biological characterisation against breast cancer cell lines. It also discusses key findings such as therapeutic synergy, the nanoparticles' non-toxicity, and their effect on apoptotic markers.	
Are subsections and structure of the manuscript appropriate?	Yes	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This manuscript demonstrates scientific robustness and technical soundness through its well-defined technique and comprehensive characterization of cockle shell-derived nanoparticles. The utilization of established breast cancer cell lines (MCF-7 and SK-BR-3) provides a relevant model for analyzing the efficacy of drug-loaded nanoparticles, and the studies performed, such as XTT and Resazurin reduction assays, are appropriate for evaluating cell viability and therapeutic efficacy. Furthermore, the manuscript's emphasis on both the synergistic effects of the medicine combination and the nanoparticles' non-toxicity strengthens its scientific validity. The use of modern techniques such as immunofluorescence and electron microscopy backs up the claims stated, demonstrating a thorough approach to studying the potential of these innovative drug delivery systems.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	yes	

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Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	The language and English quality of the paper are generally appropriate for scholarly communication, but certain sections might benefit from modest modifications for clarity and coherence. Some sentences may be too complex or contain grammatical faults, reducing readability. Simplifying difficult language and maintaining consistent usage of technical terminology would help improve comprehension. It would also be a good idea to proofread the document for typographical errors and inappropriate phrasing. Overall, with some attention to these details, the essay can achieve the high standards expected of scholarly publishing.	
Optional/General comments		

PART 2:

	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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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