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| Book Name: | [Contemporary Research and Perspectives in Biological Science](https://www.bookpi.org/bookstore/product/contemporary-research-and-perspectives-in-biological-science-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4523** |
| Title of the Manuscript: | **An in-depth analysis of the production of silk sericin and its biological applications** |
| Type of the Article | **BOOK CHAPTER** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | 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. A minimum of 3-4 sentences may be required for this part.** | This chapter is highly valuable to the scientific community as it provides a comprehensive analysis of silk sericin, an underutilized by-product of the silk industry with significant biomedical, pharmaceutical, and industrial applications. By detailing sericin’s physicochemical properties, extraction methods, and diverse biological functions—including wound healing, antioxidant, anti-inflammatory, and drug delivery capabilities—the study highlights its potential as a sustainable and eco-friendly biomaterial. The book chapter also underscores the need for further research into sericin’s applications in tissue engineering, cosmetics, and food industries, encouraging interdisciplinary collaboration. Its findings can pave the way for innovative advancements in biomaterials and contribute to sustainable waste management in the silk industry |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The current title, "An in-depth analysis of the production of silk sericin and its biological applications," is informative but could be more concise and engaging. Since the book chapter covers not just the production but also the properties and extensive applications of sericin, a more refined title could be:  **"Silk Sericin: Production, Properties, and Emerging Biological Applications"** |  |
| 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 abstract effectively introduces silk sericin, its extraction, and its diverse applications. However, it could be more comprehensive by including key aspects such as its role in sustainable biomaterials, its potential in biomedical and industrial applications, and a brief mention of its significance for future research.  **Suggested Additions:**  Clarify Sericin’s Potential – The abstract could emphasize its role as a sustainable and eco-friendly biomaterial, reducing industrial waste.  Expand on Applications – A brief mention of sericin’s applications in tissue engineering, drug delivery, and food packaging would improve completeness.  Future Prospects – A concluding sentence on the necessity for further research and industrial adoption could strengthen the abstract. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The book chapter appears to be scientifically accurate, as it provides well-researched information on silk sericin, including its composition, extraction methods, physicochemical properties, and various biological applications. It is supported by relevant references, ensuring credibility. However, a thorough review of the citations for consistency and accuracy would strengthen its scientific rigor. Additionally, minor clarifications regarding specific mechanisms of action (e.g., sericin’s role in wound healing, drug delivery, and cancer suppression) could enhance the depth of explanation. Overall, the book chapter is scientifically sound but could benefit from slight refinements for clarity and precision. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | The book chapter includes a substantial number of references, covering various aspects of silk sericin, its properties, and applications. However, some references appear outdated, with a few dating back several decades (e.g., Capsadel, 1883; Huddar, 1985). While historical context is valuable, recent advancements in biomaterials, biotechnology, and biomedical applications of sericin should be incorporated to strengthen the scientific foundation.  **Suggestions for Additional References:**  **Recent Advances in Sericin Applications:**  Mithilasri,M., K.T. Parthiban and S.M. Shankar (2021) Role of silk protein in biomedical applications. LAMBERT Academic publishing.  Aramwit, P. (2017). "Biofunctional Properties of Silk Sericin and Its Potential Uses in Biomedical Applications." Applied Sciences, 7(3), 282.  Lamboni, L., Gauthier, M., Yang, G., & Wang, Q. (2015). "Silk sericin: A versatile material for tissue engineering and drug delivery." Biotechnology Advances, 33(8), 1855-1867.  Sericin in Drug Delivery and Tissue Engineering:  Kundu, S. C., Dash, B. C., Dash, R., & Kaplan, D. L. (2008). "Natural protective polymeric materials: Silk sericin proteins and their applications in tissue engineering and drug delivery." Progress in Polymer Science, 33(10), 998-1012.  Sericin in Sustainable Biomaterials and Cosmetics:  Nayak, S., & Talukdar, S. (2021). "Advances in silk sericin-based biomaterials for sustainable and biomedical applications." Journal of Materials Research and Technology, 12, 1562-1580.  Updating the reference list with more recent studies (from the past decade) would ensure that the book chapter reflects the latest advancements in the field. Let me know if you'd like me to suggest specific places in the text where these references could be incorporated |  |
| Is the language/English quality of the article suitable for scholarly communications? | The book chapter is understandable but requires grammatical refinement and enhanced clarity to meet the high standards of scholarly communication. A professional language edit or proofreading session would ensure correctness, coherence, and fluency. |  |
| Optional/General comments | The book chapter is well-researched and scientifically relevant but requires revisions for language clarity, reference updates, and minor technical refinements. With these improvements, it has strong potential for publication in a materials science, biomaterials, or biotechnology journal. |  |

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| **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?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |

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| **Reviewer Details:** | |
| Name: | **Mithilasri, M** |
| Department, University & Country | **Anna University, India** |