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| Book Name: | **Innovative Solutions: A Systematic Approach Towards Sustainable Future** |
| Manuscript Number: | **Ms\_BPR\_3724.12** |
| Title of the Manuscript: | **EXPLORING THE ANTIMICROBIAL POTENTIAL AND PHYTOCHEMICAL COMPOSITION OF OCIMUM TENUIFLORUM LEAF EXTRACTS: AN ANALYTICAL APPORACH** |
| Type of the Article | **Complete Book chapter** |

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| 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 minimumof 3-4 sentences may be required for this part.** | This manuscript is highly valuable for the scientific community as it investigates the antimicrobial potential and phytochemical composition of *Ocimum tenuiflorum*, a plant with a rich history in traditional medicine. Its findings contribute to the ongoing search for natural alternatives to combat antimicrobial resistance, a global health challenge. The study provides a comprehensive analysis of the plant’s bioactive compounds and their effects on significant pathogens, offering insights into the development of novel therapeutic agents.  I appreciate the manuscript's clear objectives, robust methodology, and potential to address critical gaps in alternative medicine. However, while the findings are compelling, the manuscript could benefit from broader exploration of comparative studies with synthetic antimicrobials or additional mechanisms of action. Overall, it presents a strong case for the therapeutic potential of *Ocimum tenuiflorum*. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | Alternatives   * Antimicrobial Activity and Phytochemical Analysis of Ocimum Tenuiflorum Leaf Extracts * Therapeutic Potential of Ocimum Tenuiflorum: Phytochemicals and Antimicrobial Effects * A Study on Ocimum Tenuiflorum Leaf Extracts: Phytochemical Profile and Antimicrobial Efficacy |  |
| 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 of the article is clear, structured, and covers essential components of the study, including the aim, study design, methods, results, and conclusion. However, there are areas where it could be improved for greater clarity, depth, and alignment with the standard abstract structure. Below are specific suggestions:   * Addition of Key Quantitative Result * Avoid Redundancy |  |
| **Are subsections and structure of the manuscript appropriate?** | **Yes.**   * Potential Improvements need for below aspects: * Consistency in Subsection Headings * Figures and Tables Integration * Discussion Depth * Language Refinement (A few typographical errors are present ("Esherichia coli" instead of "Escherichia coli"). Proofreading for such inconsistencies can enhance professionalism) |  |
| **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 minimumof 3-4 sentences may be required for this part.** | The manuscript is scientifically robust and technically sound, as it demonstrates a well-defined methodology and clear experimental design. The study employs validated techniques, such as agar diffusion for antimicrobial testing and poisoned food technique for antifungal evaluation, ensuring reliable and reproducible results. The use of both decoction and digestion methods for extracting bioactive compounds from *Ocimum tenuiflorum* is innovative, offering comparative insights into their phytochemical and antimicrobial properties.  Furthermore, the manuscript emphasizes statistical reliability by conducting experiments in triplicate and graphically presenting average results. The inclusion of Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) assessments provides quantitative evidence of antimicrobial activity, supporting the claims made. Overall, the manuscript's adherence to established protocols and detailed data presentation underpins its scientific rigo |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | Suggestions for Additional References:   * **Ethical Frameworks and Standards** (Declaration of Helsinki (2013 update), Belmont Report (1979): * Include region-specific guidelines * **Context-Specific References** |  |
| Minor REVISION commentsIs the language/English quality of the article suitable for scholarly communications? | The language used in the article is mostly clear and professional, suitable for scholarly communications. However, there are areas where minor revisions can enhance clarity, conciseness, and grammatical accuracy. Below are the detailed points of feedback:   * Rephrase for clarity * Consistency and wording * Consistency in method names * **Grammatical improvements**: * Consistency in references to figures * Spelling and Typographical Consistency * Avoid redundant phrases |  |
| Optional/Generalcomments |  |  |

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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: | **M. Sankareswaran** |
| Department, University & Country | **Muthayammal College of Arts and Science (Autonomous), India** |