

Review Form 3

Journal Name:	Asian Journal of Research in Infectious Diseases
Manuscript Number:	Ms_AJRID_125996
Title of the Manuscript:	Importance of using Artificial Intelligence in Microbial Diagnostics
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
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.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Are subsections and structure of the manuscript appropriate?		
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.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. :		

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<p>1. Abstract Improvements</p> <ul style="list-style-type: none"> • Problem Statement: The abstract should have a clearer problem statement. Currently, it introduces AI in microbiology, but it could be improved by briefly mentioning the limitations of traditional diagnostics that AI can address. • Flow & Cohesion: The sentences are somewhat disjointed. Try creating smoother transitions between the importance of accurate diagnosis, the role of AI, and its specific benefits. • Lack of Data/Examples: Including specific examples, like "AI algorithms can reduce the time for pathogen identification by X%," would strengthen the abstract. <p>2. Introduction Enhancements</p> <ul style="list-style-type: none"> • Background Information: The introduction jumps into AI applications without providing much background on traditional diagnostic methods. It would be helpful to briefly explain the traditional approaches to set the context. • Clarity & Definition: Ensure key terms (like AI, ML, DL) are defined clearly at the start. This section is somewhat repetitive with the "Definitions" section, so consider consolidating or streamlining the information to avoid redundancy. • Problem & Purpose: Clarify the main problems that traditional methods face (e.g., time consumption, cost, inaccuracy) and how AI addresses them. Make the purpose of the review paper clearer. <p>3. Structure and Organization</p> <ul style="list-style-type: none"> • Redundancy: There is repetition across sections. For instance, the advantages of AI are mentioned multiple times without new insights. Consolidate similar information to improve flow. • Heading Consistency: Some sections lack consistent or meaningful subheadings. Use subheadings to clearly demarcate different aspects (e.g., "AI Techniques in Microbial Diagnostics," "Comparison of AI and Traditional Methods"). • Transitions: Improve the transitions between sections. The document jumps from AI definitions to specific diagnostic techniques without clear links, making it seem fragmented. <p>4. Technical Depth & Evidence</p> <ul style="list-style-type: none"> • Lack of Specific Case Studies: The paper mentions AI's potential but does not provide concrete case studies or recent breakthroughs in microbial diagnostics that highlight its effectiveness. Consider adding specific examples of AI models (like Deep Colony) and their performance metrics in real-world applications. • Citations: Ensure all claims are supported by appropriate citations. There are areas where statements could benefit from additional references to recent studies. • Discussion on Limitations: The paper would be more balanced if it also discussed scenarios where AI might not be as effective, or the challenges in implementing these systems in real-world settings (e.g., data privacy issues, biases in AI models, high costs). <p>5. Figures and Visuals</p> <ul style="list-style-type: none"> • Clarity: Figures like "Figure 1: The relationship between machine learning (ML), robotics, and artificial intelligence" could be made more informative. Consider adding detailed captions that explain what each visual aims to convey. • Quality of Visuals: Ensure that all figures are clear, high-resolution, and labeled correctly. Figures should supplement the text rather than repeat it. • Usage of Diagrams: Adding diagrams that compare traditional diagnostic workflows with AI-enhanced ones could make the content more engaging and easier to understand. <p>6. Advantages & Disadvantages Section</p>	

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	<ul style="list-style-type: none"> • Detailing Disadvantages: The section on disadvantages of AI feels less detailed compared to the advantages. It would be beneficial to explain each challenge in-depth, such as specific ethical concerns, data biases, and limitations in current AI technologies. • More Balanced View: Provide a balanced discussion of the advantages and disadvantages. Right now, the text tends to highlight AI's potential without thoroughly addressing the challenges of deploying these technologies. <p>7. Conclusion</p> <ul style="list-style-type: none"> • Summarize Key Points: The conclusion should reiterate the main findings of the review rather than just discussing the future of AI. Summarize the key benefits of AI, the gaps it fills, and the areas needing further research. • Future Directions: It mentions future development, but this could be expanded. Suggest specific areas for improvement in AI diagnostic systems or potential future applications not yet realized. <p>8. Language & Style</p> <ul style="list-style-type: none"> • Repetitive Phrasing: The text tends to repeat certain phrases (e.g., "AI improves diagnosis") without adding new information. Try to vary the language and combine similar ideas to avoid redundancy. • Proofreading for Grammar: There are grammatical inconsistencies, run-on sentences, and awkward phrasing throughout the document. A thorough proofreading session will help. • Formal Tone: Ensure the language remains formal and academic. Phrases like "the right hand of doctors" might be better rephrased for a scientific context 	
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PART 2:

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

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