

PRE-SUBMISSION PEER REVIEW

Pre-Submission Peer Review Report for your manuscript titled “Fully Complementary Interactions of Human mRNA Genes with miRNAs from NCBI Database” [FLBBZ_2_9]

Dear Author,

Welcome and thank you for giving us the opportunity to work with you! We have carefully reviewed and evaluated your manuscript. The overall assessment of your manuscript presented in this report, along with detailed problem areas and suggested revisions mentioned in your manuscript, will help you make improvements and reduce chances of journal rejection.

For ease of understanding, this report is divided into the following sections:

SECTION 1	TECHNICAL OVERVIEW • Main areas of focus from the Technical Review • Level 1 checks: Assess the originality / novelty of your research, ethical compliance • Level 2 checks: Overview of each section of your manuscript, with an indication of the extent of revisions required • Level 3 checks: Appraise the language, presentation, and readability of your manuscript
SECTION 2	Recommendations and NEXT STEPS
APPENDIX	FAQs

We will be happy to provide further clarifications or answer any queries you may have about this report.

We are committed to supporting you throughout your publication journey with the aim of having your manuscript published in the most appropriate journal. If, however, the manuscript was to be rejected (with major revisions that could have been identified through our service), we will rework the assignment at no additional charge.

We look forward to continuing to be your partner in your publication journey towards acceptance!

Best regards

Section 1: TECHNICAL OVERVIEW

The manuscript presents an in-silico analysis of miRNA–mRNA interactions, focusing on the identification of potential miRNA binding sites in human mRNAs using sequence-based computational analysis. The study addresses a relevant topic; however, the manuscript requires substantial improvement in methodological description, clarification of data and results, and discussion of study limitations and novelty to strengthen its scientific rigor and overall quality.

To improve chances of a positive review by the target journal, we recommend that the authors address the following major comments:

1. All statements requiring citation have not been referenced
2. Please emphasize the data collection methods and establish the validity of the data
3. The conclusion should discuss the wider implications of the study findings and specify future research avenues
4. The conclusions of the study should be revisited
5. The data in the figures do not correspond with those in the text
6. The discussion needs to be reorganised
7. The tables need to be appropriately cited
8. The introduction does not have sufficient background information about the study
9. The limitations of the study need to be specified clearly
10. The literature survey needs to be more exhaustive
11. The methodology/statistical analysis is not sufficiently appropriate and rigorous
12. The methods/techniques have not been adequately described
13. The research rationale/hypothesis has not been communicated clearly
14. The study objective has not been defined
15. The title does not clearly describe the study
16. The abstract does not clarify the purpose and/or significance of the study and does not clearly describe the main methods, results, and/or conclusions

The following are the most important strengths of the manuscript that the authors must retain through the process of revisions:

1. Large-scale computational analysis
2. Potential biological relevance
3. Relevant research topic

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LEVEL 1 CHECKS – Quality of research

REVIEW PARAMETER	DESCRIPTION	RATING
Novelty	Does the work add to knowledge already available (original research)? <i>Notes: The study addresses an important area of post-transcriptional gene regulation by systematically investigating miRNA–mRNA interactions using an in silico approach. However, the novelty and specific contribution of the study are not sufficiently established, as similar computational analyses of miRNA–mRNA interactions, including studies involving overlapping miRNAs and human gene datasets, have been previously reported. The authors should therefore more clearly define the research gap and explain how the present analysis differs from and advances previous studies.</i>	FAIR
Rationale	Is the rationale for the research made credible with appropriate references to both scientific principles and literature review? <i>Notes: The rationale for conducting the study is partially explained, but the research gap and the specific justification for undertaking the present analysis are not sufficiently articulated. The Introduction would benefit from a more comprehensive and focused review of previous research on miRNA–mRNA interactions and computational prediction approaches. Detailed comments with recommendations for improving this section have been included in your manuscript file.</i>	FAIR
Ethical Compliance	Does the research meet standard good practice guidelines for journals to ensure that ethical and responsible research is published, and that all necessary consents and approvals have been obtained from authors to publish their work? <i>Notes: Not applicable</i>	Choose an item.

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LEVEL 2 CHECKS – Manuscript structure

REVIEW QUESTION	RATING	EXTENT OF REVISIONS REQUIRED
Are the study HYPOTHESIS & OBJECTIVES clear, specific and testable? <i>Notes: The Hypothesis & Objective should be more clearly presented in the study.</i>	GOOD	MINOR
Are the METHODS presented in full details, so that an interested reader can repeat the experimentation? <i>Notes: Detailed comments with recommendations for improving this section have been included in your manuscript file</i>	GOOD	MINOR
Is the STUDY DESIGN sound and appropriate to answer the research questions? <i>Notes: The Study Design is good and described well.</i>	GOOD	MINIMAL
Is the STATISTICAL ANALYSIS sufficient and appropriate? <i>Notes: Not applicable</i>	Choose an item.	Choose an item.
Are the RESULTS clearly stated and presented in text, tables and figures? <i>Notes: Detailed comments with recommendations for improving this section have been included in your manuscript file</i>	GOOD	MINOR
Is the DISCUSSION precise, interprets findings, compares existing research, and shows value addition? <i>Notes: This section needs additional details - detailed comments with recommendations for improving this section have been included in your manuscript file</i>	FAIR	CONSIDERABLE

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Do the CONCLUSIONS highlight the importance of findings, state limitations, and suggest future direction? <i>Notes: This section is missing. Please see the detailed comment included in your manuscript file</i>	FAIR	CONSIDERABLE
Is the CITED LITERATURE relevant, selective, recent and sufficient? <i>Notes: Please check and cite additional references, such as the similar studies mentioned in the comment in your manuscript file</i>	GOOD	MINOR

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LEVEL 3 CHECKS – Language, flow and formatting

REVIEW PARAMETER	DESCRIPTION	EXTENT OF REVISIONS REQUIRED
Language & Presentation	Spellings and grammar, effectiveness of sentence construction, organization within paragraphs	MINIMAL
Formatting & Citation	Accurate formatting and citation of text, tables, figures, and references	MINOR
Readability & Style	The style of writing communicates the scientific message in a clear and simple manner	MINIMAL

Section 2: RECOMMENDATIONS & NEXT STEPS

Detailed comments from the technical expert can be found in the manuscript file. Comments are structured into focus areas and recommended actions.

- **Focus areas** are potential gaps that might be raised by journal peer reviewers
- **Recommended actions** are solutions recommended by our expert to fix these problems.
Please follow the recommended actions and make the suggested revisions.

We strongly recommend that you incorporate the suggested revisions. If the suggested revisions are not adequately completed, it is likely that the manuscript may receive a desk rejection once submitted to the target journal.

NEXT STEPS FOR YOU

Please contact us if you have any queries about the peer review report.

Thank you for choosing us as your publication partner!

Appendix: FREQUENTLY ASKED QUESTIONS

Q: Who reviews my manuscript? What is the experts' qualification?

A: Our reviewers have a minimum qualification of a PhD in your relevant subject area and have extensive experience in publishing and peer-reviewing manuscripts. These experts also have experience of writing and publishing their own manuscripts in peer-reviewed journals. Many of our experts even serve as peer reviewers on journal editorial boards.

Q: Do I have to make ALL the changes suggested by the reviewer in the report and the manuscript?

A: We highly recommend that you review and address all the focus areas and recommendations for improvements that we have suggested. These will help with improving the scientific rigor of your manuscript.

Q: I do not fully understand / agree with some of the reviewer comments

A: Please respond in the 'comments' box with your queries about focus areas or recommendations for improvement. The reviewer will respond to these in the free round of review after you have addressed all requests for changes/revisions.

Q: Will you make revisions / correct the areas flagged by your reviewers?

A: No, we will not make any changes to the manuscript. We will provide suggestions for improvement of your manuscript by highlighting gaps in scientific content (similar to a journal peer reviewer). We will review the changes you have made and give you further comments, as needed.

Q: Do you guarantee publication?

A: Publication depends largely on the quality of your research and is a subjective decision that the journal editor takes based on several factors. Therefore, we cannot guarantee publication.

Q: Is there post service support?

A: You can make revisions and send the manuscript back to the expert for one round of free review. Please make ALL revisions possible before sending back the manuscript, so that the review of the revised manuscript will be more effective.