OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

Jundishapur Journal of Microbiology
Article DOI: 10.5812/jjm.100654
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Peer Review Report for "The Role of Some Transcription Factors in Expression of *GyrA* and *GyrB* Following Exposure to Ciprofloxacin"

Author(s): Razieh Pourahmad Jaktaji, Seyed Mohammad Lesani, Hoda Akhavan, Maryam Tanhaei

Review Timeline:

Submit Date: 3 Jan 2020
Revised Date: 20 Jun 2020
Accepted Date: 20 Jun 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | Revision (0)

24 Mar 2020

Dear AE,
In this manuscript, the authors presented their results on effect of some transcriptional factors (TFs) on gyrase genes expression in some mutants of E.coli. Although the subject and objectives of presented research are interesting but because the structure of manuscript has several defects and results are very limited I do not think this manuscript is suitable for publication in this Journal at present form.
Title:
1- Following comments (inside parenthesis) are suggested for Title and some other parts through all manuscript:
“The role of some transcription factors on expression of gyrA and gyrB (genes of Escherichia coli) following exposure to ciprofloxacin”
- gyrA, gyrB, and Escherichia coli must be written in italic.
Abstract:
2- Following sentence is a long sentence and can be divided to some sub sentences:
The aims of this research were first to select some transcription factors which regulate expression of gyrA and gyrB and then investigate the effect of these transcription factors on expression of these genes in Escherichia coli mutants with different levels of resistance to

ciprofloxacin in the presence and absence of these transcription factors.

3- “The relative expression of genes was determined by qRT-PCR (quantitative real-time polymerase chain reaction (qRT-PCR)).”

4- “Results (which results? Software analysis results? Experimental results?) showed that CspA, FhlA, and SoxS transcription factors could be selected for further analysis (according to what criterias?).”

5- “Expression of gyrA and gyrB (genes?) remained unchanged in the presence and absence of CspA and FhlA (proteins? Receptors? What?) following exposure to the low amount of ciprofloxacin. However, SoxS (protein? What?) might have indirect effects on the expression of these genes (which genes?), as the soxS gene was overexpressed following treatment with a higher amount of ciprofloxacin.”

6- “It was concluded that overexpression of gyrA and gyrB (genes?) is not dependent on CspA and FhlA (proteins? Transcription factors? …), but may be dependent indirectly on regulatory proteins involved in oxidative stress following exposure to ciprofloxacin.”

Introduction:

7- “DNA gyrase is a heterotetramer enzyme consists of two GyrA and two GyrB subunits (A2B2) and is responsible for introducing negative supercoils into DNA.” “…responsible for introducing negative supercoils into DNA” is repeated in sentence before and not necessary to mention it again.

8- “Treatment of cells with antibiotics, which target genes encoding DNA gyrase subunits (gyrA and gyrB) leads to DNA relaxation in E. coli (1). These relaxing conditions are known to promote gyrA and gyrB (gene) expression.

9- DNA gyrase is one of the important targets (target) for antibacterial drug development.

10- Introduction is not complete. More information should be added especially about the factors that upregulate the gyrA and gyrB expression and drugs that downregulate the expression of these factors.

Objectives:

11- “The aims of this work was to select regulatory proteins using an online software and to examine their effects on expression of gyrA and gyrB in mutants lacking these proteins (which proteins? GyrA and GyrB?).”

- What does it mean by “in mutants lacking these proteins” Lack means knockdowned? downregulated? Suppressed? If the mutant strain lacks these proteins how some factors can affect their expression?

Materials and Methods:

12- “Approximately, 500 nucleotides upstream of translation start site (start site of what?) were considered to find TFs (TFs for what?).”

13- “ … version 3.0 (http://prodoric.tu-bs.de/vfp/vfp_promoter.php) was used to find TF of these genes (which genes?)”

14- “The TF sequence binding site with a score of match higher than 6 to given sequence (upstream of gene (selected gene?) were selected for further consideration.”

15- “We used Lauria Bertoni (Bertani) (LB; Merck, Darmstadt, Germany) as the…”

16- “The minimum inhibitory concentration (MIC) of the strains was almost similar to the MIC of wild type strain (MG1655) to (for) ciprofloxacin (35ng/ml).”

17- “Then, RNA protect reagent (Qiagen, Hilden, Germany) was added to cultures (How much time used for incubation?). Cultures were centrifuged and cell pellets were used for RNA extraction.”

18- “3.4 RNA preparation (RNA extraction?) and quantitative real-time polymerase chain reaction (qRT-PCR) assay (You used this abbreviation (qRT-PCR) in abstract too without describing it, it is better to write it completely in that section (abstract) and use here only abbreviation)”
19- “Total RNA was extracted (from what? All strains mentioned above?) using an RNeasy Mini kit (QIAGEN, Hilden, Germany)”
20- … according to the recommendation of the manufacture (manufacturer)”.
21- … according to the manufacture's protocol (the protocol of manufacturer or similar words (please refer to journals and find a good example or template))”
22- “RNA samples were amplified by PCR to show the absence of DNA.” (Primers for PCR? It should be mentioned right here not later)
Results:
23- As there are not very much results presented therefore supplementary results (Table S1-S3) are better to be returned to main results.
24- Although in materials and methods that is somehow explained, but here in results also briefly the way that results in Table S1-S3 obtained, should be described. According to what analysis or using what software such findings are tabled?
25- Fig. S1A and Fig S1B were not seen or included in the results section.
26- Where the results of section 4.3 are shown? Which Table or Figure? Also in some parts of other sections in results, there are not refereeing to any table or figure.
27- Results are presented without any conclusion, what is the outcome of the results. If some genes are expressed (over or lower) or not expressed or If some TFs had effect or not effect what they indicate to it. This is different from what can be presented in discussion.
28- Were there any gel (gel electrophoresis) images for RNA purification or PCR reactions? If so, the presenting of them will increase the quality and quantity of results.
29- The quantity of results is very low and seems to be not in the standard of this journal because all results are summarized in one table (Table 3).
Discussion:
30- The relationship of two following sentences are not clarified:
Sentence 1: However, emergence of ciprofloxacin-resistant E. coli mutants has limited the clinical use of this antibiotic.
Sentence 2: To overcome this problem, it is necessary to inhibit the expression of genes, encoding two enzyme subunits, gyrA, and gyrB.
31- “Therefore, CspE may act as an active heat (cold?) shock protein in the presence of ciprofloxacin.”
32- “Therefore, under aerobic condition, FhlA does not act as a regulatory protein (for what kind of expression? All gene expression? only gyrB expression?) in the presence of ciprofloxacin.”
33- “Oxidative response is mediated by the OxyR and SoxRS (proteins).”
Conclusion:
34- Why there is not any conclusion about CspA and FhlA expression?
References:
35- Ref 8. “PLoS One” is correct.
Thanks.

REFEREE: Associate Editor | **Revision** (0)

4 May 2020

Dear EIC,
Because some essential questions are drawn by the reviewers, the manuscript can be considered for publication after major revisions.
Thanks.

REFEREE: EIC | **Revision (0)** 16 May 2020

Dear Author,
Peer-reviewers have evaluated your manuscript, and have recommended that it not be published (see comments below). I, along with the Associated Editor to whom the work was assigned, have reviewed the document and the reviews, and I regret to inform you that we agree with their recommendations. Specific comments are made in the reviews. I trust that you will appreciate the fact that JJM receives many more manuscripts than can be published and as a result, we have instituted very strict criteria relative to the acceptability of submitted reports. Thank you for considering JJM. I am sorry that we will not be able to publish your study.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

In response to reviewers:

Comment	reply
Title	
Change title	It was changed
gyrA, *gyrB* and *Escherichia coli* must be italic	All were italic in word version through the manuscript, but they appeared unitalic in pdf version
Abstract	
2-Division of aims to some sub sentences	It was divided
3-qRT-PCR	Full name of abbreviation was written
4- Results	It was changed
5- adition of genes and transcription factors	It was done
6-addition of transcription factors	It was done
Introduction	
7-deletion of responsible for introducing….	It was deleted
8- addition of gene	It was added
9-one of important targets	It is correct. It means that there are some important targets.
10-More information about up and down-regulation of *gyrA* and *gyrB* expression	It was provided
11- these proteins	Regulatory proteins
11 mutants lacking these proteins	Yes, the encoding genes were knockdowned
11- If the mutant strain lacks these proteins how some factors can affect on their expression	It was corrected
12 translation strat site	Translation strat site of *gyrA* and *gyrB* genes
13- which genes	*gyrA* and *gyrB* genes
14- selected gene	*gyrA*, *gyrB* and *dnaA* genes
15- Luria Bertoni	It was corrected
16- change to to for	It was changed
17- for How long?	It was mentioned
18-change preparation to extraction	It was changed
Complete description of abbreviation	It was done in abstract
19- from what?	It was mentioned
20, 21- manufacture	It was corrected as you wanted
22- primers	It was added
23- addition of table S1-S3	It was added
24 brief explanation for software	It was done
25- FigS1A and S1B	It was added
26- Result section 4.3	It was added
27- Results without conclusion	It has already presented for 4.1 and 4.2 sections. I added this for 4.3
28- gel electrophoresis	Section 3.2 was added
29 quantity of results	Three tables and two figure were added
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32- what kind of expression	The expression of *gyrA* and *gyrB* genes
33- OxyR and SoxS proteins	It was added
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anf FhlA expression	this study.
35 Ref 8	It was corrected

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REFEREE: EIC | **Revision (1)** 15 Jun 2020

Dear Author,
Please add PMID, PMCID, and DOI to al your references and send according the below:
Youssef SS, Abbas EAE, Mostafa A, el Zanaty T, Seif SM. Association of IL28B polymorphism with fibrosis, liver inflammation, gender respective natural history of hepatitis C virus in Egyptian patients with genotype 4. J Interf Cytok Res. 2014;34(1):22–7. doi: 10.1089/jir.2013.0036. [PubMed: 23981065].
Thanks.

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anf FhlA expression	this study.
35- Ref 8	It was corrected
36- addition of doi and PubMed	It was added
37- correction of tables numbers	It was corrected

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Revision (2)

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REFEREE: EIC | **Revision** (2) 20 Jun 2020

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According to the associated editor report, your manuscript is accepted for publishing in JJM and send to the publisher for the next process.
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