

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 78629

Title: Role of Nickel-regulated Small RNA (NikS) in the modulation of *Helicobacter pylori* virulence factors

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05754827

Position: Peer Reviewer

Academic degree: PhD

Professional title: Deputy Director

Reviewer's Country/Territory: China

Author's Country/Territory: Brazil

Manuscript submission date: 2022-07-07

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-07-07 10:54

Reviewer performed review: 2022-07-10 10:39

Review time: 2 Days and 23 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

The authors of this study presented a timely review on srRNAs especially their regulatory roles in the virulence of H-pylori. Mostly they reviewed the available literature on of NiKs and showed how Niks can regulate the CagA etc. Although the manuscript is nicely written, but I have some suggestions for improvement of the overall quality of the manuscript.

1. I have noticed some language errors, especially in the choice of words with double meanings, I suggest authors should carefully revise the manuscript and choose the words with clear meanings.
2. This study reviews current aspéctos “Aspects” please check the entire manuscript for such non-English words also. “caga” should be “CagA”
3. The title of the manuscript says “small regulatory RNAs control the virulence of the H-pylori” but in the abstract authors only summarized the NikS, better authors should mention some important sRNAs which are associated with H-pylori virulence or change the title accordingly.
4. Please also mention NikR (nickel-responsive transcriptional regulator) for readers' convenience.
5. What about Niks role in other virulence factors of H-pylori such as VacA and OMPs?
6. Please provide a graphical presentation (figures) for each subsection of the manuscript especially post-transcriptional regulation by NikS.
7. What is the future of NikS research? What are key gaps in NikS regulation in H-pylori virulence? Please highlight the future prospects of your study?

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Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05400480

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Associate Chief Physician, Associate Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Brazil

Manuscript submission date: 2022-07-07

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-07-07 23:34

Reviewer performed review: 2022-07-16 16:29

Review time: 8 Days and 16 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
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Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

In this minireview entitled “Role of small regulatory RNAs in the control of *Helicobacter pylori* virulence factors”: the authors described the relationship between small regulatory RNAs and the virulence of *Helicobacter pylori* and the related research progress from several aspects, and expounds its potential clinical repercussions, concluded that increased nickel concentrations lead to reduced nickel-responsive transcriptional regulator expression, which turn down-regulates cytotoxin associated antigen A levels. And this may be related with peptic ulcer and gastric malignancies. However, there were some problems in this study.

1. However, improvements could be made to help with understanding. For example, Figure 1, which shows the effects of CagA translocation into the host cell and their modulation by NikS, was poorly organized and also not mentioned in the proof with a bit of confusion.
2. The full name of the abbreviation should be added where it first appears, e.g. MALT.
3. The authors mention that increasing nickel concentration leads to a decrease in NikS expression, which in turn downregulates CagA levels, while high nickel concentration leads to an increase in CagA levels. The mechanism of this should be described in detail and explained via the schematic diagram.
4. It is recommended to add summaries in SMALL REGULATORY RNAS and POST-TRANSCRIPTIONAL REGULATION OF H. PYLORI VIRULENCE FACTORS BY NIKS sections
5. Please also have an English language expert thoroughly review the manuscript for grammar and style.