

Preliminary inquiry report into alleged RI violation

Complainant: Alexander Magazinov
Respondent: Hanieh Shirvani
Preliminary investigator: Lloyd Ruddock, Professor

The complaint describes notification of alleged violations of RI for two publications:

Paper A: Non-coding RNA in SARS-CoV-2: progress toward therapeutic significance. *International Journal of Biological Macromolecules* 222 (2022), 1538-1550

The complainant describes the notification of three alleged violations of RI:

- i. Reporting research results and methods in a careless manner, resulting in misleading claims.
- ii. Manipulating authorship.
- iii. Expanding the biography of a study to artificially increase the number of citations.*

* Note: This appeared as paper B in the notification form, but was detailed as being in paper A.

Paper B: MiR-211 plays a dual role in cancer development: From tumor suppressor to tumor enhancer. *Cellular Signaling* 101 (2023), 110504

The complainant describes the notification of two alleged violations of RI:

- i. Reporting research results and methods in a careless manner, resulting in misleading claims.
- ii. Manipulating authorship.

During the preliminary investigation the complainant provided additional information (mainly in Chinese) of an alleged “pay to publish” scheme being operated by one of the editors (Prof Ziaoxiong Zeng) at the *International Journal of Biological Macromolecules* and the *Journal of Functional Foods*. This did not include evidence that either of the publications being investigated here had been purchased. A check of other University of Oulu publications in these journals did not reveal any evidence of other RI violations. In addition, during the preliminary investigation the complainant added an allegation of “Expanding the biography of a study to artificially increase the number of citations” for paper B.

Conclusion:

A full investigation is not required as the respondent admits that an RI violation has taken place for both publications, specifically that they purchased an authorship on both. They have initiated steps to have both publications retracted on this basis.

The preliminary investigation also concludes that all of the other alleged violations of RI have occurred, but that the respondent is not responsible for i) expanding the biography of a study to artificially increase the number of citations or ii) reporting research results and methods in a careless manner, resulting in misleading claims, as they did not write either manuscript.

While the purchase of authorship is a serious RI violation, the preliminary investigator notes that the respondent-initiated retraction of both publications by contacting the publishers, admitting the paid authorship and providing details of whom the payment was made to. This was done at some personal risk. This self-retraction and their clear contrition should be taken into account when considering any possible sanctions.

Lloyd Ruddock, Professor Oulu, 1st March 2024

People contacted during this preliminary investigation.

Aija Ryyppö (Senior Specialist, University of Oulu)

Emails received: 5/2/2024 (contained material for the preliminary inquiry)

Tiina Pääkkönen (HR manager, University of Oulu).

Emails sent: 5/2/2024

Emails received: 5/2/2024 ; 6/2/2024

Alexander Magazinov (complainant)

Emails sent: 6/2/2024; 6/2/2024; 6/2/2024; 22/2/2024; 25/2/2024; 29/2/2024

Emails received: 6/2/2024; 6/2/2024; 22/2/2024; 25/2/2024

Hanieh Shirvani (respondent)

Emails sent: 6/2/2024; 22/2/2024; 26/2/2024; 1/3/2024

Emails received: 1/2/2024; 12/2/2024; 12/2/2024*; 12/2/2024*; 23/2/2024; 28/2/2024

* These two emails are included in the appendix to this report.

Examination of each alleged violation of RI for each paper:

Paper A: Non-coding RNA in SARS-CoV-2: progress toward therapeutic significance.

This is a review article published in the *International Journal of Biological Macromolecules* in 2022, with the respondent as first author.

The complainant describes the notification of three alleged violations of RI:

- i. Reporting research results and methods in a careless manner, resulting in misleading claims.
- ii. Manipulating authorship.
- iii. Expanding the biography of a study to artificially increase the number of citations.

Note the third alleged violation appears in the summary document as linked to paper B, but in the detailed overview of suspected violations it is clearly linked to paper A.

i. Reporting research results and methods in a careless manner, resulting in misleading claims.

The specific irregularities raised by the complainant are not listed in detail in the submitted documentation, but they can be found in a pubpeer link contained therein. Specifically, the irregularities relate to figures, figure legends and linked citations. All five figures in the paper have very short figure legends with some questionable links to the figure. The figure legends are generally unhelpful and contain no references, despite the information contained therein clearly coming from prior publications. In addition, the link to the figure is in an inappropriate or misleading place for figures 1 and 4 and linked to an inappropriate or misleading citation for the same figures.

In addition, there is an issue with citations (see point iii below) and an apparent lack of critical engagement with the literature, though the latter is best examined by an expert in the field.

As such there is evidence to support the complainant's notification of reporting in a careless manner.

ii. Manipulating authorship

The affiliation of the respondent is given as the University of Oulu and the publication can be found in OuluCRIS. The initial manuscript is listed by the journal as having been received on the 22nd of January 2022 and the revised form on the 9th September 2022. Both of these fall outside the dates of employment of the respondent by the University of Oulu and as such they had no affiliation with the University of Oulu at the time of the initial or revised submission. This constitutes an authorship-related violation.

The complainant makes a claim of manipulating authorship and that this paper is of papermill origin. While no supporting evidence was given for the later, combining information from LinkedIn, ResearchGate, google scholar, Orcid, Loop and PubMed, the publication record of two of the coauthors are highly unusual. Specifically:

- i. Sajad Najafi appears to be a PhD student since Sept 2019 at Shadid Beheshti University of Medical Sciences, Tehran. Despite being an early-stage researcher, they have at least 69 publications, including 55 publications in PubMed in 2022/2023 on a very broad range of topics and they have acted as a reviewer for at least 26 publications/grants.

- ii. Seyed Mohsen Aghaei Zarch appears to be a PhD student since 2021 at Shadid Beheshti University of Medical Science, Tehran. Despite being an early-stage researcher, they have at least 33 publications on a broad range of topics.

In addition, some aspects of other authors publishing profiles are also unusual. These include two other authors from Shadid Beheshti University of Medical Science, Tehran (Poopak Farnia and Jalaledin Ghanavi).

Regarding the provenance concerns of the respondent, the field of expertise from her personal website, the research work she undertook at the University of Oulu give no indication of any experience in research related to the topic of the paper.

During the preliminary inquiry the respondent admitted that this was a paid authorship, with payment (700 euro) being made to one of the coauthors (Mehrdad Talebi). The respondent has provided information to the journal on this as part of a retraction request.

Taken together the evidence supports the complainant's notification of manipulating authorship.

iii. Expanding the biography of a study to artificially increase the number of citations

The complainant notes that 12 of the papers cited are co-authored by Sahar Zinatloo-Ajabshir or Masoud Salavati-Niasari in two continuous batches [8-11] and [90-98]. Furthermore, the complainant states that they have nothing to do with the topic at hand.

Examination of the citations in the paper revealed that the issues may go beyond those mentioned by the complainant. Of the 107 references cited, 26 references had issues arising. Specifically:

1. Inappropriate references, often completely unlinked to the topic: 5, 8, 9, 10, 11, 15, 22, 23, 26, 40, 78, 90, 91, 93, 94, 95, 96, 97 and 99
2. Errors in table 1 linked to methods: 36 and 64
3. Questionable references for the citation: 24, 25, 27, 92 and 100 e.g. Citation in section 1.2.1 regarding: "MiRNAs are known to be active during the regulation of various physiological and pathological pathways in animals, including humans [24-27]", all 4 citations are linked to diabetes, share co-authors and cannot reasonably be believed to cover the range of pathways reported in the literature.

Of the 26 references found to have issues arising 19 came from a small number of Iranian universities, with multiple inappropriate citations of papers with Zinatloo-Ajabshir, Salavati-Niasari, Zarch, Mehrjardi, Babakhanzadeh, Mehrjardi, Talebi or Nazari as co-authors. Three co-authors on this paper are co-authors on inappropriate citations contained therein: Zarch, Talebi and Najafi.

The evidence supports the complainant's notification of expanding the bibliography of a study to artificially increase the number of citations.

Paper B: MiR-211 plays a dual role in cancer development: From tumor suppressor to tumor enhancer.

This is a review article published in *Cellular Signaling* in 2023, with the respondent as first author.

The complainant describes the notification of two alleged violations of RI:

- i. Reporting research results and methods in a careless manner, resulting in misleading claims.
- ii. Manipulating authorship.

In addition, in the summary the complainant claimed a third alleged violation of RI, specifically:

- iii. Expanding the biography of a study to artificially increase the number of citations.

However, in the detailed overview of suspected violations this is linked to paper A. During the preliminary inquiry the complainant added information supporting this alleged violation of RI for paper B.

i. Reporting research results and methods in a careless manner, resulting in misleading claims.

The specific irregularities raised by the complainant are listed in detail in the submitted documentation with further details in a pubpeer link contained therein. Specifically, the irregularities relate to the citation of sources that “are surveyed uncritically” and which “have been retracted”, figures, figure legends and linked citations.

Examination confirms that the six papers the complainant says have been retracted have indeed been. However, three of these retractions (citations 38, 61 and 68) were after submission of the original (August 2022) and revised (October 2022) manuscript. The remaining three were retracted in April 2022 (citation 44), May 2022 (citation 94) and June 2022 (citation 41). Citation 44 was retracted one month after publishing and so was visible without the retraction only for a limited time.

In addition, there is an issue with citations (see point iii below) and an apparent lack of critical engagement with the literature, though the latter is best examined by an expert in the field. This includes issues with figure 3 raised by the complainant in the pubmed link.

While some of the issues raised by the complainant are inappropriate due to the timing of submission vs retractions, there is evidence to support the complainant’s notification of reporting in a careless manner.

ii. Manipulating authorship

The affiliation of the respondent is given as the Nanoscience Center and Department of Biological and Environmental Science, University of Jyväskylä. From information received from the University of Jyväskylä the respondent has no employment record at the University of Jyväskylä and they have a study right as an MSc student from 1st August 2022. The initial manuscript is listed by the journal as having been received on the 26th of August 2022 and the revised form on the 10th October 2022. During the preliminary investigation the respondent admitted that they had no association with the Nanoscience Center at the time of submission or resubmission and hence this may constitute an authorship-related violation.

The complainant makes a claim of manipulating authorship and that this paper is of papermill origin. While no supporting evidence was given for the later, combining information from LinkedIn, ResearchGate,

google scholar, Orcid, Loop and PubMed, the publication record of two of the coauthors are highly unusual. Specifically:

- iii. Sajad Najafi appears to be a PhD student since Sept 2019 at Shadid Beheshti University of Medical Sciences, Tehran. Despite being an early-stage researcher, they have at least 69 publications, including 55 publications in PubMed in 2022/2023 on a very broad range of topics and they have acted as a reviewer for at least 26 publications/grants.
- iv. Seyed Mohsen Aghaei Zarch appears to be a PhD student since 2021 at Shadid Beheshti University of Medical Science, Tehran. Despite being an early-stage researcher, they have at least 33 publications on a broad range of topics.

In addition, some aspects of other authors publishing profiles are also unusual. These include two other authors from Shadid Beheshti University of Medical Science, Tehran (Jalaleddin Ghanavi and Amin Aliabadi).

Regarding the provenance concerns of the respondent, the field of expertise from her personal website, the research work she undertook at the University of Oulu and her CV submitted as part of her application to the University of Oulu give no indication of any experience in research related to the topic of the paper.

During the preliminary inquiry the respondent admitted that this was a paid authorship, with payment (700 euro) being made to one of the coauthors (Mehrddad Talebi). The respondent has provided information to the journal on this as part of a retraction request.

Taken together the evidence supports the complainant's notification of manipulating authorship.

i. Expanding the biography of a study to artificially increase the number of citations

The complainant lists this in the notification form but provided no details in the detailed comments, possibly due to this being linked to paper A. During the preliminary inquiry the complainant added this this alleged violation of RI for this paper, specifically that citations 1-11 were inappropriate and that these were heavily linked to Zarch.

From examination of the 103 references cited, 11 references had issues arising. Specifically:

1. Inappropriate references:1-9
2. Questionable references for the citation: 11, 18

All of the 9 inappropriate references came from a small number of Iranian universities, with multiple inappropriate citations of papers with Zarch, Mehrjardi, Babakhanzadeh, Nazari, Talebi, Zeinali, Dehgahni and Najafi as co-authors. Four co-authors on this paper are co-authors on inappropriate citations contained therein: Zarch, Talebi, Najafi and Ghanavi. Zarch is a co-author on 8 out of the 9 inappropriate references.

The evidence supports the complainant's notification of expanding the bibliography of a study to artificially increase the number of citations.