

Dear Dr. Meinita

Your manuscript has now been reviewed by experts in the field. Please find your manuscript with the referee reports at this link:

<https://susy.mdpi.com/user/manuscripts/resubmit/d8582d44062aed5c534d2738806d096c>

Please revise the manuscript according to the referees' comments and upload the revised file within 10 days.

Please use the version of your manuscript found at the above link for your revisions.

(I) Any revisions to the manuscript should be marked up using the "Track Changes" function if you are using MS Word/LaTeX, such that any changes can be easily viewed by the editors and reviewers.

(II) Please provide a cover letter to explain, point by point, the details of the revisions to the manuscript and your responses to the referees' comments.

(III) If you found it impossible to address certain comments in the review reports, please include an explanation in your rebuttal.

(IV) The revised version will be sent to the editors and reviewers.

If one of the referees has suggested that your manuscript should undergo extensive English revisions, please address this issue during revision. We propose that you use one of the editing services listed at <https://www.mdpi.com/authors/english> or have your manuscript checked by a native English-speaking colleague.

Do not hesitate to contact us if you have any questions regarding the revision of your manuscript. We look forward to hearing from you soon.

Kind regards,

Ms. Freya Feng

Assistant Editor

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Manuscript ID: **appls-ci-1519658**

Type of manuscript: **Review**

Title: **Seaweed as Functional Food Exhibit Therapeutic Properties against Chronic Diseases: A Systematic Review**

Reviewer 1

This review outlined the potentially bioactive compounds in seaweeds for the treatment of treat chronic diseases such as neurodegenerative and cardiovascular diseases, osteoporosis and diabetes mellitus. The review is nicely presented and follows a well-set design. With a minor revision this manuscript can be published in the journal *applied sciences*.

- Title: should be “Seaweeds as Functional Foods Exhibit Therapeutic Properties against Chronic Diseases: A Systematic Review”
- Prepare the references in the text and the section references strictly following the journal format. Be sure names of the seaweeds are *in italic* in the references.
- line 26: “We found that...”. This sentence should be changed as this work is a review.
- The term “seaweed” in most parts of the text should be in pleural “seaweeds”. The same for the term “disease”.
- line 42: “... fresh water”. It should be “freshwater”.
- The terms “in vivo”, “in vitro” and “in silico” should be in *italic*.
- line 122: Edit the term “class” as Chlorophyta and the other two groups are not classes.
- line 302: “Ulvale cell-wall polysaccharides...”. The first word should be “*Ulva*”.
- Materials and Methods: This review was prepared well. It followed the Preferred Reporting Items for Systematic Reviews and Meta-85 Analyses (PRISMA) method.
- Results: They were presented almost well.
- Conclusions: It summarized the main goal of this review, but this section still needs a minor rephrasing to be more expressive.

Reviewer 2

The topic of this review is very interesting. However, this work requires major corrections, including correctly defining the field of action of the review: seaweed, as a functional food or the use of bioactive compounds from seaweed for the treatment of chronic diseases, or both but properly developed.

The authors present in a better way the second section of the manuscript related to bioactive compounds for the treatment of chronic diseases. This part of the manuscript could be a contribution to the use of seaweed for the treatment of chronic diseases.

The title, abstract and introduction must be consistent with the content of the manuscript.

Title:Line 1: The words functional food can be removed

Abstract: Functional food to treat chronic diseases? or bioactive compounds from seaweed to treat chronic diseases?

It is important that the authors define this and present the review accordingly. The abstract should end with the most important findings more detail of these findings are needed.

Introduction

Line 58: these six species should be mentioned

Line 62: what kind of seaweed?

There are other coastal countries in other parts of the world with seaweed consumption, include them or mention that their review is limited to Asia.

Materials and Methods

Lines 91-85

In this part limit to mentioning the use of the word seaweed in conjunction with other keywords and mentioning them.

Figure 1. This information may be better presented in a table with the information from the two graphs

Figure 2.

Information on diseases is not clear or is not adequately presented. The information on the type of study is repetitive is presented in the previous graph. The legend of the figure corresponds only to the first figure which is clear.

Line 125: If a nutrient section appears, it should be mentioned in the introduction and abstract.

Line 130: reinforce with more studies.

Line 133: In this part, it is necessary to relate the type of carbohydrates with the type of algae (green, red or brown)

Line 170: This belongs to the carbohydrates section

Line 179: Why sterol is an important lipid?, types of sterol?

Line 183: Ash content

Review this statement, there are seaweed with higher ash values.

Line 195: The authors contradict the ash content

Line 198: Check this statement, there is dry algae with lower moisture content (this depends a lot on the drying method)

Line 217: Minerals

This section needs to be reviewed. The authors generalize the high content of certain minerals in all types of seaweed. The type of mineral is related to the type of algae.

Line 225:

Bioavailable to whom and why?

Figure 4. This figure presents the mechanisms of chronic diseases and their relationship with seaweed?

Reviewer 3

Comments and Suggestions for Authors

Dear Assistant Editor of Applied Sciences, Dr. Shirley Zhang,

After my revision in the manuscript " *Seaweed as functional food exhibit therapeutic properties against chronic diseases: A systematic review*" by Maria Dyah Nur Meinita, Dicky Harwanto and Jae-Suk Choi (Manuscript ID: applsci-1519658), I consider the manuscript accepted for publication in Applied Sciences.

The document is well structured and I have no major issues regarding the manuscript. The only note to the authors is to include the specific authorities in the names of the seaweeds species. In this way I consider the manuscript accepted for publication in Applied Sciences.

Yours sincerely,

Comments and Suggestions for Authors

The authors comprehensively reviewed the phytochemicals in three groups of seaweeds and their pharmacological properties against many kinds of chronic disease. This review is more like "an overview" rather than "a systematic review". A systematic review should be narrow in scope and answer a specific research question. The topic on chronic diseases might be too broad as a systematic review but okay as a traditional review. "A systematic review" needs to change in the Title.

Abstract, line 25-26, specify the "gaps where further research in this field is needed".
Line 26 "found" is not accurate. Review articles review/summarize the findings from research articles.

Line 80-82, the aim needs to improve. The sentence looks like a research study to be conducted.

Figure 2. No description text in the Results for the bottom Figure

Submission Date
06 December 2021
Date of this review
11 Feb 2022 16:53:13

Date of submission: 24 February 2022

Dear:
Ms. Freya Feng
Editor of Applied Sciences

We would like to re-submit the manuscript titled "Seaweed as Functional Food Exhibit Therapeutic Properties against Chronic Diseases: A Systematic Review". Manuscript ID is applsci-1519658

We thank you and the reviewers for your thoughtful suggestions and insights. The manuscript has benefited from these insightful suggestions. I look forward to working with you and the reviewers to move this manuscript closer to publication in the Applied Sciences.

The author's revisions are indicated and highlighted using red color font. The responses to all comments have been prepared and attached herewith/given below. Please check the attachment below.

Thank you for your consideration. Looking forward to hearing from you.

Sincerely yours,
Dr. Maria Dyah Nur Meinita

Author's response to reviewers

Reviewer 1

This review outlined the potentially bioactive compounds in seaweeds for the treatment of treat chronic diseases such as neurodegenerative and cardiovascular diseases, osteoporosis and diabetes mellitus. The review is nicely presented and follows a well-set design. With a minor revision this manuscript can be published in the journal *applied sciences*.

- Title: should be “Seaweeds as Functional Foods Exhibit Therapeutic Properties against Chronic Diseases: A Systematic Review”

Author's response:

Thank you for your correction. As we know the noun “seaweed” can be countable or uncountable, like “Fish” and Fishes”. We have checked, most of scientific papers used the term “Seaweed” instead of “Seaweeds”.

- Prepare the references in the text and the section references strictly following the journal format. Be sure names of the seaweeds are *in italic* in the references.

Author's response:

Thank you for your correction. We have italicized the species name both in the text and references

- line 26: “We found that...”. This sentence should be changed as this work is a review.

Author's response:

Thank you for your correction. We have corrected and removed the sentence “We found..”

- The term “seaweed” in most parts of the text should be in pleural “seaweeds”. The same for the term “disease”.

Author's response:

Thank you for your correction. The noun “seaweed” can be countable or uncountable. In more general, commonly used, contexts, the plural form will also be “seaweed”. Some of the research articles that we cited in our review also use the term “Seaweed” as plural and singular form. We also have checked the use of noun “disease”, some of them we use as plural but some of them we also use as singular, it depends on the context.

- line 42: “... fresh water”. It should be “freshwater”.

Author's response:

Thank you for your correction. We have corrected “fresh water” to “freshwater”.

- The terms “in vivo”, “in vitro” and “in silico” should be *in italic*.

Author's response:

Thank you for your correction. We have italicized “in vivo”, “in vitro” and “in silico”.

- line 122: Edit the term “class” as Chlorophyta and the other two groups are not classes.

Author’s response:

Thank you for your correction. We have edited the term “class” into “phylum”.

- line 302: “Ulvale cell-wall polysaccharides...”. The first word should be “*Ulva*”.

Author’s response:

Thank you for your correction. We have edited the term “Ulvale” into “Ulva”.

- Materials and Methods: This review was prepared well. It followed the Preferred Reporting Items for Systematic Reviews and Meta-85 Analyses (PRISMA) method.

Author’s response:

Thank you for your compliment.

- Results: They were presented almost well.

Author’s response:

Thank you for your compliment.

- Conclusions: It summarized the main goal of this review, but this section still needs a minor rephrasing to be more expressive.

Author’s response:

Thank you for your suggestion. We have revised the conclusion