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 "**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:

Peer Review

Journal of Inflammatory Diseases
Article DOI: https://doi.org/10.69107/jid-162271
Published in: Journal of Inflammatory Diseases: 29(3) ; e162271

Peer Review Report for "The Microbiota Gut Axis and Their Role in Inflammation, Autoimmunity and Multi Organ Diseases as a Therapeutic Target"

Author(s): Sanaz Momen, Neda Soleimani

Review Timeline:

Submit Date:	26 Apr 2025
Revised Date:	13 Aug 2025
Accepted Date:	17 Aug 2025

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

14 May 2025

Dear AE;

My comments are below:

Firstly, thank you for choosing an interesting topic(Gut Microbiota Dysbiosis and Its Systemic Impacts: From Inflammation to Neurodegeneration) and for your good draft of the article.
Then, I suggest some recommendations to improve it.

A. The title needs revision.
for example:
The microbiota gut_axis and their role in Inflammation, autoimmunity and multi organ diseases as a therapeutic target

B.Please remove some sentences with similar or repetitive concepts about the pathophysiology of diseases and the role of intestinal microbiota.

C.Please organize the headings of each
topic according to the title of the article, for example:

1. Gut Microbiota and Dysbiosis:(Impact on Health and Disease,role of genetic and environmental factors)

2. The Gut Microbiota and Its Role in Inflammation and Immune Regulation, and surrogate factors to detect theses condition(CRP,...):

3. Pathophysiology of Inflammatory and Autoimmune Diseases in Relation to Gut Dysbiosis:

4. Microbiota-Gut Axis and
Cardiometabolic Diseases: (Type 1,2 diabetes , Obesity ,CVD)

5. Microbiota-Gut Axis and Gastrointestinal Diseases and Cancers : (GERD, IBD, IBS, PUD, Gastric cancer and Colorectal cancer)

6.Microbiota-Gut Axis and Liver Diseases and cancers :(Non alcoholic fatty liver disease, Steatohepatitis, Cirrhosis, and Hepatocellular Carcinoma)

7.Microbiota-Gut Axis and Neurological and Neurodegenerative Disorders :multiple sclerosis, Parkinson's, and Alzheimer’s disease
8. Techniques and Markers for Assessing the Gut Microbiota:Laboratory methods such as stool analysis, metagenomics, and microbial profiling

9.Microbiota-Gut Axis and Therapeutic Potential of these:

D.Please, at the beginning, after defining the gut microbiota and its impact on health, and defining dysbiosis, address the factors influencing the balance of the

normal microbiota populations, including the role of genetics and environmental factors.

E.Please include in the cardio-metabolic

section, explanations about obesity and the role of the gut microbiota.

F.Please provide a few lines explaining the relationship between non fatty liver disease, Steatohepatitis, hepatocellular carcinoma, and the gut microbiota.

G.Please include at the end of the draft article a title about the role of the gut microbiota axis as a target in disease prevention and control, then proceed to subtitles discussing genetic modification, the role of common diets such as Mediterranean, ketogenic, low-carbohydrate, and prebiotics, and lastly, modern methods of preventing or treating dysbiosis targeting the gut microbiota.
H.Please explain how fecal transplantation works and its role in temporarily or permanently changing the gut flora, and in which diseases it is beneficial.

I.Please add in the targeted therapy section of the gut microbiota, some information, include several tables summarizing the results of some recent and reputable studies, such as a table showing the effects of lifestyle factors like weight loss and different diets (e.g., Mediterranean, ketogenic , low carbohydrate , ...), new weight-loss drugs such as semaglutid, probiotics, and others microbiota-based therapies.

Another table should summarize studies on novel methods targeting the gut microbiota.
A third table should summarize studies on the outcomes of fecal transplantation in the treatment of various diseases mentioned in the text of draft .

J.Please correct any grammatical and spelling errors.

Good luck.

REFEREE : Associate Editor

17 May 2025

Dear EIC,

I Thank the authors for submitting their manuscript to Journal of Inflammatory Diseases.
Dear authors, due to the journal's word limitation for articles for publication, please ensure that the total word count of the submitted word file does not exceed 3500 words.
To increase the chances of the article for publication, the reviewer's comments should be answered point by point and applied in the text as much as possible.
If you add a table, avoid repeating the table's contents in the text.
Please, according to the topic of the article, the submitted manuscript should only be

about inflammation and neurodegenerative disease and additional content should be removed.

Best Regards.
AE

Sahar Moghbelinejad-EIC : EIC

17 May 2025

Dear Authors:

I would like to thank you for submitting your manuscript entitled "Gut Microbiota Dysbiosis and Its Systemic Impacts: From Inflammation to Neurodegeneration " to the Journal of Inflammatory disease (JID). Your manuscript has been reviewed, and it has minor revisions. The comments of the reviewer(s) are included at the bottom of this letter.

Kind Regards.
EIC

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.

Manuscript ID: 162271

Response to Reviewers

Dear Dr. Sahar Moghbelinejad

Thank you for giving us the opportunity to submit a revised draft of the manuscript "Gut Microbiota Dysbiosis and Its Systemic Impacts: From Inflammation to Neurodegeneration" for publication in the *Journal of Inflammatory Diseases*. We appreciate the time and effort that you and the reviewers dedicated to providing feedback on our manuscript and are grateful for the insightful comments on and valuable improvements to our paper. Please see below, in blue, for a point-by-point response to the reviewers' comments and concerns. All responses refer to the revised manuscript file with highlighted lines.

Reviewers' Comments to the Authors

:Reviewer #1: Comments

A. The title needs revision.
for example: The microbiota gut_axis and their role in Inflammation, autoimmunity and multi organ diseases as a therapeutic target

Thank you for pointing this out. The title of the article was changed to "The Microbiota Gut_axis and Their Role in Inflammation, Autoimmunity and Multi Organ Diseases as a Therapeutic Target"

B. Please remove some sentences with similar or repetitive concepts about the pathophysiology of diseases and the role of intestinal microbiota.

As suggested by the reviewer some sentences with similar or repetitive were removed.

C. Please organize the headings of each topic according to the title of the article, for example:

We have added the suggested content to the manuscript. All headlines changed to those suggested by the Reviewer.

D. Please, at the beginning, after defining the gut microbiota and its impact on health, and defining dysbiosis, address the factors influencing the balance of the normal microbiota populations, including the role of genetics and environmental factors.

Thank you for pointing this out. The title 'factors influencing the balance of the normal microbiota populations' was added at the beginning of the text and the points made were explained.

E. Please include in the cardio-metabolic section, explanations about obesity and the role of the gut microbiota

As asked by the reviewer, After the explanation of "Cardiovascular Diseases (CVD)", the subheading "Obesity and Cardio-Metabolic Health" was added and explained.

F. Please provide a few lines explaining the relationship between non fatty liver disease, Steatohepatitis, hepatocellular carcinoma, and the gut microbiota.

In the section "Microbiota-Gut Axis and Liver Diseases and Cancers", "the relationship between non-fatty liver disease, Steatohepatitis, hepatocellular carcinoma, and the gut microbiota" was explained as a subtype.

G. Please include at the end of the draft article a title about the role of the gut microbiota axis as a target in disease prevention and control, then proceed to subtitles discussing genetic modification, the role of common diets such as Mediterranean, ketogenic, low-carbohydrate, and prebiotics, and lastly, modern methods of preventing or treating dysbiosis targeting the gut microbiota.

we appreciate the reviewer's feedback. The title "Diet influences the gut microbiome" was added and the items mentioned such as "Fat, fiber and carbohydrates diet, Proteins, Mediterranean, probiotics and prebiotics diet" were explained.

H. Please explain how fecal transplantation works and its role in temporarily or permanently changing the gut flora, and in which diseases it is beneficial.

As asked by the reviewer, the title "How FMT Works" was added and explained.

I. Please add in the targeted therapy section of the gut microbiota, some information, include several tables summarizing the results of some recent and reputable studies, such as a table showing the effects of lifestyle factors like weight loss and different diets (e.g., Mediterranean, ketogenic, low carbohydrate), new weight-loss drugs such as semaglutid, probiotics, and others microbiota-based therapies. Another table should summarize studies on novel methods targeting the gut microbiota. A third table should summarize studies on the outcomes of fecal transplantation in the treatment of various diseases mentioned in the text of draft.

We agree with the reviewer's assessment and we summarize studies on the outcomes of fecal transplantation in the treatment of various diseases as "Table 1: Clinical Outcomes of Fecal Microbiota Transplantation in Disease Treatment". Then summarize studies on novel methods targeting the gut microbiota as "Table2: Novel Methods for Targeted Gut Microbiota Modification". Another one is a table showing the effects of lifestyle factors like weight loss and different diets as " Table 3: Effects of Lifestyle Factors and Interventions on Gut Microbiota"

J. Please correct any grammatical and spelling errors.

Thank you for pointing this out. All sentences were checked and grammatically corrected.

Associate Editor's Comments:

Associate Editor 1:

Dear Authors,

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should only be about inflammation and neurodegenerative disease and additional content should be removed.

thank you for your email and the reviewers' valuable comments. The manuscript has been revised accordingly: all reviewers' comments have been addressed point by point and applied to the text, repetitive descriptions of table content in the main text have been removed, and unrelated sections have been deleted to focus solely on inflammation and neurodegenerative diseases. We appreciate your time and consideration.

OPEN PEER REVIEW

Revision (1)

Sahar Moghbelinejad-EIC : EIC

27 May 2025

Dear authors,
in order to continue reviewing, please reduce the total word count of the submitted file (with references and etc.) to less than 4000 words.

Kind Regards,
EIC

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

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Manuscript ID: 162271

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G. Please include at the end of the draft article a title about the role of the gut microbiota axis as a target in disease prevention and control, then proceed to subtitles discussing genetic modification, the role of common diets such as Mediterranean, ketogenic, low-carbohydrate, and prebiotics, and lastly, modern methods of preventing or treating dysbiosis targeting the gut microbiota.

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J. Please correct any grammatical and spelling errors.

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Associate Editor's Comments:

Associate Editor 1:

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should only be about inflammation and neurodegenerative disease and additional content should be removed.

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OPEN PEER REVIEW

Revision (2)

REFEREE : Reviewer

12 Jul 2025

Dear AE;
My comments to the authors are as follows:

Thank you for implementing some of the suggested changes, but the structure of the article still does not conform to the standard format of a review article .
Please download the review article guide format from the Inflammatory Journal website and revise the draft article based on its items.
Please write the review article in the standard order : Introduction, Method,(Main Body / Content), Discussion,...
Please state in the introduction the purpose of the review article and the questions it intends to answer with the review of studies.
Please state in the method what keywords and search strategy you used and how many search engines (with names such as pub med etc.) you used and describe the criteria for selecting sources, search strategies, and screening processes and detail the types of sources used (articles, theses, etc) and any filters applied.
Please select keywords based on the mesh

Please state in the study method the characteristics of eligible studies and the inclusion and exclusion criteria.

Please include in the tables a summary of the results of studies from at least the last 5 to 10 years with high quality and related to the topics classified in the tables, stating the name of the authors, country where the study was conducted , type of study, year of completion, significant results, etc.

On line 8 and dysbiosis linked to...

Please use formal, scientific language.
Ensure logical coherence between sections.
Pay attention to grammar and spelling especially from line 213 onwards.
Please consider providing, analytical and critical insights and focus on emerging or less-explored aspects of the topic

good luck

REFEREE : Associate Editor

14 Jul 2025

Dear EIC;

We appreciate the authors' efforts to improve the initial version of the submitted manuscript.

However, the current manuscript still requires improvement both in writing style and content to meet the standards of review articles.
Additionally, for the tables presented, the publication year, the name of the first author, and the sample size should be added in separate columns. Considering the time frame for gathering articles in this review, please include a larger number of relevant studies comprehensively in the tables.
Some sentences or paragraphs need better linkage to the preceding and following content.
Please ensure that the other reviewers' comments are also addressed before resubmitting to the journal office.
Thanks.

Sahar Moghbelinejad-EIC : EIC

15 Jul 2025

Dear Authors;

I would like to thank you for submitting your manuscript entitled "Gut Microbiota Dysbiosis and Its Systemic Impacts: From Inflammation to Neurodegeneration" to the Journal of Inflammatory disease (JID). Your manuscript has been reviewed, and it needs major revision. The comments of the reviewer(s) are included at the bottom of this letter.

Kind Regards;
EIC.

OPEN PEER REVIEW

Revision (3)

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.

Manuscript ID: 162271

Response to Reviewers

Dear Dr. Sahar Moghbelinejad

Thank you for giving us the opportunity to submit a revised draft of the manuscript "Gut Microbiota Dysbiosis and Its Systemic Impacts: From Inflammation to Neurodegeneration" for publication in the *Journal of Inflammatory Diseases*. We appreciate the time and effort that you and the reviewers dedicated to providing feedback on our manuscript and are grateful for the insightful comments on and valuable improvements to our paper. Please see below, in blue, for a point-by-point response to the reviewers' comments and concerns. All responses refer to the revised manuscript file with highlighted lines.

Reviewers' Comments:

Reviewer 0:

Thank you for implementing some of the suggested changes, but the structure of the article still does not conform to the standard format of a review article.

1. Please download the review article guide format from the Inflammatory Journal website and revise the draft article based on its items.

Thank you for pointing this out. The article format was revised according to the guidelines stated on the site**.**

2. Please write the review article in the standard order: Introduction, Method (Main Body /Content), Discussion,...

As suggested by the reviewer the text of the article was revised according to the stated standard and the items were highlighted**.**

3. Please state in the introduction the purpose of the review article and the questions it intends to answer with the review of studies.

According to the respected reviewer, the research objectives and questions were clearly explained and highlighted in the introduction section.

4. Please state in the method what keywords and search strategy you used and how many search engines (with names such as pub med etc.) you used and describe the criteria for selecting sources, search strategies, and screening processes and detail the types of sources used (articles, theses, etc) and any filters applied.

Thanks for bringing this up, all the suggested items have been added and highlighted in the methods section.

5. Please select keywords based on the mesh

The article keywords have been modified.

6. Please state in the study method the characteristics of eligible studies and the inclusion and exclusion criteria.

As suggested by the reviewer and exclusion criteria.Added and highlighted in the method section.

7. Please include in the tables a summary of the results of studies from at least the last 5 to 10 years with high quality and related to the topics classified in the tables, stating the name of the authors, country where the study was conducted , type of study, year of completion, significant results, etc.

As suggested by the reviewer the points mentioned were listed and highlighted in the tables. Given the limited number of words, an attempt was made to list the reviewed items in full as much as possible.

8. On line 8 and dysbiosis linked to...
Please use formal, scientific language.
Ensure logical coherence between sections.
Pay attention to grammar and spelling especially from line 213 onwards.
Please consider providing, analytical and critical insights and focus on emerging or less-explored aspects of the topic

All sentences and grammar were checked with Grammarly artificial intelligence, and the text was reviewed.

Associate Editor's Comments:

Associate Editor 0:
We appreciate the authors' efforts to improve the initial version of the submitted manuscript. However, the current manuscript still requires improvement both in writing style and content to meet the standards of review articles.
Additionally, for the tables presented, the publication year, the name of the first author, and the sample size should be added in separate columns. Considering the time frame for gathering articles in this review, please include a larger number of relevant studies comprehensively in the tables.
Some sentences or paragraphs need better linkage to the preceding and following content.
Please ensure that the other reviewers' comments are also addressed before resubmitting to the journal office.

Thank you for your email and the valuable comments of the reviewers. The manuscript has been revised accordingly: All the reviewers' comments have been addressed point by point and implemented in the text, and the tables have been revised. The text has been grammatically checked. According to the journal website, the word count of a review article is 5000 words, and after the aforementioned revisions, we reduced the word count to 4997.

OPEN PEER REVIEW

Revision (3)

REFEREE : Reviewer — 10 Aug 2025

Dear AE,
I did not find the answer to my comment.
Please send it again.
Thank you.

REFEREE : Associate Editor — 11 Aug 2025

Dear EIC;

Please send again.

Thank you.

Sahar Moghbelinejad-EIC : EIC — 11 Aug 2025

Dear Authors,
I hope this message finds you well. First and foremost, I would like to express my sincere gratitude for your continuous efforts and dedication in the previous revisions of your manuscript. Your work has significantly improved, and we are proud to collaborate with you.

Please send us the answers to these comments again:

AE comments:
1. There are a few final changes that could further enhance the quality of your manuscript. These changes will add clarity, comprehensiveness, and strengthen the scientific credibility of your work. We recommend focusing on the reviewer comments.
2. Additionally, please consider citing the following related articles from the “Journal of Inflammatory Diseases” in your manuscript. Please highlight them in the text:
- "Poly Cystic Ovary Syndrome (PCOS): Inflammation, Hormonal Imbalance, Cardiovascular Risks, and Metabolic Factors" - related to inflammation and metabolic factors.
- "Effect of Rilmenidine on Substantia Nigra Neurons Injury in a Rat Model of Parkinson's Disease" - related to neuronal injury and neurodegeneration.
These articles may enhance the scientific depth of your work.
3. Please submit the revised version with the changes highlighted.

We are confident that these enhancements will significantly contribute to the manuscript's impact. Should you have any questions or need further assistance, please feel free to reach out.
Wishing you the best of luck,
Associate Editor

Reviewer comments:

Thank you for implementing some changes, but there are still some reforms that need to be made.
Please explain the FMT method in coherent sentences instead of telegraphic sentences on line 238 onwards.
The contents of lines 238 to 272 can be written in connected and continuous sentences .
For example:
But how does FMT work?
FMT begins with donor screening and stool preparation.
Donors undergo rigorous testing for
infection...and Fresh or frozen stool is mixed with saline or other solutions... .
There are different methods for FMT such as Colonoscopy/Enema, Oral Capsules, ...
each of which has some advantages, disadvantages, and specific indications, but their mechanism of action is applied through: Immune Modulation (...),Metabolite Restoration(...),Breaking down Colonization Resistance (...).
In addition, the effect of FMT on intestinal flora over time leads to two types of changes: 1.Temporary Changes: In some cases, especially...
2.Long-Term Shifts: For recurrent C. diff, FMT often induces durable... .
Despite this,only recurrent C. diff Infection treatment with FMT have been FDA-approved as first-line treatment after antibiotic failure, with 80–90% efficacy,
but other cases are still under investigation are:
Irritable Bowel Syndrome (IBS): Potential reduction in symptoms like diarrhea and bloating.
Metabolic Disorders: Obesity and insulin resistance may benefit from ...
In the table1 , please add specify the method of using FMT for all studies: colonoscopy/enema, oral capsule or ...

Kind Regards;
EIC.

OPEN PEER REVIEW

Revision (4)

Reply to Reviewers

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

Manuscript ID: 162271

Response to Reviewers

Dear Dr. Sahar Moghbelinejad

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EIC 0:
Dear Authors,

I hope this message finds you well. First and foremost, I would like to express my sincere gratitude for your continuous efforts and dedication in the previous revisions of your manuscript. Your work has significantly improved, and we are proud to collaborate with you.
1. At this stage, there are a few final changes that could further enhance the quality of your manuscript. These changes will add clarity, comprehensiveness, and strengthen the scientific credibility of your work. We recommend focusing on the reviewer comments. Thank you for your attention and the time you spent reviewing the file. The comments of the reviewer referees were fully taken into account.

2. Additionally, please consider citing the following related articles from the "Journal of Inflammatory Diseases" in your manuscript. Please highlight them in the text:
- "Poly Cystic Ovary Syndrome (PCOS): Inflammation, Hormonal Imbalance, Cardiovascular Risks, and Metabolic Factors" - related to inflammation and metabolic factors.
- "Effect of Rilmenidine on Substantia Nigra Neurons Injury in a Rat Model of Parkinson's Disease" - related to neuronal injury and neurodegeneration. These articles may enhance the scientific depth of your work.

As suggested by the EIC, two articles mentioned were cited and highlighted in the text and references, numbers 9 and 21, respectively.

3. Please submit the revised version with the changes highlighted. We are confident that these enhancements will significantly contribute to the manuscript's impact. Should you have any questions or need further assistance, please feel free to reach out.

Wishing you the best of luck,
Associate Editor

reviewer comments:

Title:Gut Microbiota Dysbiosis and Its Systemic Impacts: From Inflammation to Neurodegeneration

Thank you for implementing some changes, but there are still some reforms that need to be made.

Please explain the FMT method in coherent sentences instead of telegraphic sentences on line 238 onwards.

The contents of lines 238 to 272 can be written in connected and continuous sentences .

For example:

But how does FMT work? FMT begins with donor screening and stool preparation. Donors undergo rigorous testing for infection...and Fresh or frozen stool is mixed with saline or other solutions... . There are different methods for FMT such as Colonoscopy/Enema, Oral Capsules, ... each of which has some advantages, disadvantages, and specific indications, but their mechanism of action is applied through: Immune Modulation (...),Metabolite Restoration(...),Breaking down Colonization Resistance (...). In addition, the effect of FMT on intestinal flora over time leads to two types of changes: 1.Temporary Changes: In some cases, especially... 2.Long-Term Shifts: For recurrent C. diff, FMT often induces durable... . Despite this,only recurrent C. diff Infection treatment with FMT have been FDA-approved as first-line treatment after antibiotic failure, with 80–90% efficacy, but other cases are still under investigation are: Irritable Bowel Syndrome (IBS): Potential reduction in symptoms like diarrhea and bloating. Metabolic Disorders: Obesity and insulin resistance may benefit from ...

Thanks for bringing this up, The FMT section has been integrated and highlighted.

In the table1, please add specify the method of using FMT for all studies: colonoscopy/enema, oral capsule or ...

As suggested by the reviewer 'FMT Administration Method' added to Table 1 and highlighted

OPEN PEER REVIEW

Revision (4)

REFEREE : Associate Editor — 16 Aug 2025

Dear EIC,

The comments have been well answered.

Thanks

Sahar Moghbelinejad-EIC : EIC — 17 Aug 2025

Dear Authors:

I would like to thank you for submitting your manuscript entitled "The Microbiota Gut axis and Their Role in Inflammation, Autoimmunity and Multi Organ Diseases as a Therapeutic Target" to the Journal of Inflammatory disease (JID). Your manuscript has been reviewed, It is pleasure to inform you that your manuscript accepted for publication in JID journal .
The JIM production office will contact you for proofreading in the near future. Your article will be published ahead of print as soon as possible, and in the printed edition at a later time.

Kind Regards;
EIC.