#### Round-1

Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript

# entitled "Altered spontaneous brain activity patterns in patients with diabetic retinopathy using amplitude of low-frequency fluctuation: an fMRI study

" (Manuscript NO.: 62193, Clinical and Translational Research

). Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responds to the reviewer's comments are as flowing: Responds to the reviewer's comments:

#### **Reviewer #1:**

Scientific Quality: Grade B (Very good)

Language Quality: Grade C (A great deal of language polishing)

Conclusion: Major revision

Specific Comments to Authors: The study was well-performed and has interesting data. However, there are many syntax and grammar errors. Many sentences don't make sense. Verbs and articles are often missing. You should rewrite it entirely, like this it is unacceptable.

**Response:** Thank you for your suggestion. The article has been sent to a professional English editing company for polish.

#### Science editor:

Paper ref. 62193 1 Scientific quality: The manuscript explores the relationship between diabetic retinopathy (DR) and altered connectivity of brain function by amplitude of low-frequency fluctuation (ALFF) technique. The topic is within the scope of the WJD. (1) Classification: Grade B; (2) Summary of the Peer-Review Report: The study was well-performed and has interesting data. However, the clarity of the manuscript is poor. The indications by the reviewer should be addressed; (3) Format: There are 3 tables and 7 figures; (4) References: A total of 55 references are cited, including 9 references published in the last 4 years; (5) Self-cited references: There are 13 self-cited references. The self-referencing rate should be less than 10%. Please keep the reasonable self-citations (i.e. those which are most closely related to the topic of the manuscript) and remove all other improper self-citations. If the authors fail to address the critical issue of self-citation, the editing process of this manuscript will be terminated; (6) References recommendations: no improper references have been recommended by the peer reviewer. 2 Language evaluation: Classification: Grade C. A language editing certificate was provided. 3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement, and the

Institutional Review Board Approval Form. No academic misconduct was found by the Google/Bing search. 4 Supplementary comments: This is an unsolicited manuscript. Several financial supports were obtained for the study. 5 Issues raised: (1) The language classification is Grade C. Please visit the following website for the we professional English language editing companies that recommend: https://www.wjgnet.com/bpg/gerinfo/240 ; (2) The authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s); (3) The authors did not provide original pictures (figures embedded in the manuscript). Please provide the original figure files. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; (4) The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text (and directly before the References) 6 Re-Review: Required. 7 Recommendation: Conditional acceptance

**Response:** Thank you for your suggestion. The article has been revised as required, the number of self-cited documents has been deleted to 4, and the approved funding agency documents and original pictures and forms have been uploaded. The article highlights have been added at the end of the article.

#### Company editor-in-chief:

I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Diabetes, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. However, the quality of the English language of the manuscript does not meet the requirements of the journal. Before final acceptance, the author(s) must provide the English Language Certificate issued by a professional English language editing company. Please visit the following website for the professional English language editing companies we recommend:

https://www.wjgnet.com/bpg/gerinfo/240. Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...". Language Quality: Grade C (A great deal of language polishing).

**Response:** Thank you for your suggestion. The article has been sent to a professional English editing company for polish.

We would like to express our great appreciation to you and reviewers for comments on our paper. Looking forward to hearing from you. Thank you and best regards. Yours sincerely, Yi Shao

#### Round-2

## **RE-REVIEW REPORT OF REVISED MANUSCRIPT**

### Name of journal: World Journal of Diabetes

#### Manuscript NO: 62193

**Title:** Altered spontaneous brain activity patterns in patients with diabetic retinopathy using amplitude of low-frequency fluctuation: a functional magnetic resonance imaging study

Reviewer's code: 02548382

**Position:** Peer Reviewer

Academic degree: MD

**Professional title:** Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: China

Manuscript submission date: 2021-01-01

Reviewer chosen by: Chen-Chen Gao

Reviewer accepted review: 2021-09-04 06:30

Reviewer performed review: 2021-09-05 09:57

Review time: 1 Day and 3 Hours

	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C:
Scientific quality	Good
	[ ] Grade D: Fair [ ] Grade E: Do not publish
	[ ] Grade A: Priority publishing [Y] Grade B: Minor language
Language quality	polishing [ ] Grade C: A great deal of language polishing [ ]
	Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority)
	[Y] Minor revision [] Major revision [] Rejection
Peer-reviewer	Peer-Review: [ ] Anonymous [Y] Onymous
statements	Conflicts-of-Interest: [ ] Yes [Y] No

#### SPECIFIC COMMENTS TO AUTHORS

Although improved, some perplexities remain. This is especially evident in the abstract, which is the most important section in a paper that will go on PubMed. I will correct it for you here, but will not go to correct the paper; based on the differences between your and my abstract, you might wish to correct the entire paper by sticking to logical analysis of your sentences. Abstract BACKGROUND Diabetes mellitus is a metabolic disorder characterized by prolonged elevation of blood glucose due to various causes. Currently, the relationship between diabetic retinopathy (DR) and altered connectivity of brain function is unclear. AIM Using the amplitude of low-frequency fluctuation (ALFF) technique to explore altered spontaneous brain activity of patients with DR, we investigated the relation between this brain activity and clinical manifestations and behaviors of DR patients. METHODS Twenty-four DR patients and 24 healthy controls (HCs) matched for age and gender were enrolled. We measured and recorded average ALFF values of DR patients and HCs and then classified them using receiver **RESULTS ALFF values of both left** operating characteristic (ROC) curves. and right posterior cerebellar lobe and right anterior cingulate gyrus were remarkably higher in the DR patients than in the HCs; however, DR patients had lower values in the bilateral calcarine area. ROC curve analysis of different brain regions demonstrated high accuracy in the area under the ROC curve (AUC) analysis. However, there was no significant relationship between mean ALFF values for different regions and clinical presentations in DR patients. Neuronal synchronization abnormalities in some brain regions of DR patients were associated with cognitive and visual disorders. CONCLUSION Abnormal spontaneous brain activity was observed in many areas of DR patients' brains, which may suggest a possible link between clinical manifestations and behaviors in DR patients. I hope to have provided an idea.

RE: Thanks for your suggestion, the article has been revised as required.