Dear Dr. Yan,

We are pleased to inform you that, after preview by the Editorial Office and peer review as well as CrossCheck and Google plagiarism detection, we believe that the academic quality, language quality, and ethics of your manuscript (Manuscript NO.: 89935, Review) basically meet the publishing requirements of the *World Journal of Gastroenterology*. As such, we have made the preliminary decision that it is acceptable for publication after your appropriate revision. Upon our receipt of your revised manuscript, we will send it for re-review. We will then make a final decision on whether to accept the manuscript or not, based on the reviewers' comments, the quality of the revised manuscript, and the relevant documents.

Please follow the steps outlined below to revise your manuscript to meet the requirements for final acceptance and publication.

Author response to Editor: Dear Editor (World Journal of Gastroenterology)

Thank you for the comprehensive evaluation of our manuscript (Manuscript NO.: 89935) and the constructive feedback provided by the Editorial Office and reviewers.

We are pleased to inform you that we have carefully addressed all the comments and suggestions from both the Editorial Office and the reviewers. The revisions were made with utmost consideration for enhancing academic quality, language precision, and adherence to ethical standards. We are grateful for the preliminary decision that our manuscript is deemed acceptable for publication after appropriate revision. We have followed the outlined steps to ensure our revised manuscript meets the final acceptance and publication requirements. The revised manuscript is submitted herewith for your review.

We look forward to the re-review process and appreciate the opportunity to contribute to the World Journal of Gastroenterology. Your guidance has been invaluable, and we are committed to providing any further clarification or modifications as needed.

3 SCIENTIFIC QUALITY

Please resolve all issues in the manuscript based on the peer review report and make a point-by-point response to each of the issues raised in the peer review report, and **highlight the revised/added contents with yellow color in the revised manuscript**. Note, that authors must resolve all issues in the manuscript that are raised in the peer-review report(s) and provide point-by-point responses to each of the issues raised in the peer-review report(s); these are listed below for your convenience:

Author response to Editor comment 3: Thank you for your guidance. We have diligently addressed all the issues raised in the peer review report and provided a comprehensive point-by-point response to each comments and suggestions by the Editors and reviewers.

Reviewer #1:

Scientific Quality: Grade B (Very good)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: This is an interesting multifaceted review that discusses in detail the immune mechanisms of the Hepatitis B Virus reactivation. The involvement of different immune cells is discussed and drug strategies are also described. A minor comment: it would be useful to add additional references to the literature sources, as sometimes in the text a very large amount of information corresponds to only one reference.

Author's response to the reviewer: Dear Reviewer, thank you for your positive review and insightful feedback on our manuscript. We are delighted to learn that you found our review on the immune mechanisms of Hepatitis B Virus reactivation interesting and multifaceted.

We are grateful for your suggestion to add additional references to the literature sources. We have thoroughly revisited the cited literature in the main text (highlighted) and have made the necessary updates to ensure a more comprehensive coverage of the discussed topics. The additional references now provide robust support for the various aspects presented in the manuscript.

Your constructive comments have been invaluable, and we believe these revisions significantly strengthen the scholarly quality of our review. We greatly appreciate your time and thoughtful review and are committed to delivering a manuscript that meets the highest standards. Thank you once again for your positive feedback.

4 LANGUAGE POLISHING REQUIREMENTS FOR REVISED MANUSCRIPTS SUBMITTED BY AUTHORS WHO ARE NON-NATIVE SPEAKERS OF ENGLISH

As the revision process results in changes to the content of the manuscript, language problems may exist in the revised manuscript. Thus, it is necessary to perform further language polishing that will ensure all grammatical, syntactical, formatting and other related errors be resolved, so that the revised manuscript will meet the publication requirement (Grade A).

Authors are requested to send their revised manuscript to a professional English language editing company or a native English-speaking expert to polish the manuscript further. When the authors submit the subsequent polished manuscript to us, they must provide a new language certificate along with the manuscript. Once this step is completed, the manuscript will be quickly accepted and published online. Please visit the following website for the professional English language editing companies we recommend: https://www.wignet.com/bpg/gerinfo/240.

Author response to Editor comment 4: In response to your suggestion, we have collaborated with a professional proofreader to address language-related issues and have attached the language editing certificate and the revised version. The proofreading process has focused on resolving grammatical, syntactical, formatting, and other language-related errors (if any) to ensure the manuscript meets the highest publication standards (Grade A).

We believe that the language polishing conducted by the professional proofreader has significantly improved the overall clarity and coherence of the manuscript. The attached language editing certificate verifies the comprehensive language editing undertaken.

We sincerely hope that these revisions meet the language polishing requirements, and we look forward to any further guidance you may provide.

5 ABBREVIATIONS

In general, do not use non-standard abbreviations, unless they appear at least two times in the text preceding the first usage/definition. Certain commonly used abbreviations, such as DNA, RNA, HIV, LD50, PCR, HBV, ECG, WBC, RBC, CT, ESR, CSF, IgG, ELISA, PBS, ATP, EDTA, and mAb, do not need to be defined and can be used directly. The basic rules on abbreviations are provided here:

- (1) Title: Abbreviations are not permitted. Please spell out any abbreviation in the title.
- **(2) Running title:** Abbreviations are permitted. Also, please shorten the running title to no more than 6 words.
- **(3) Abstract:** Abbreviations must be defined upon first appearance in the Abstract. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*).
- **(4) Key Words:** Abbreviations must be defined upon first appearance in the Key Words.
- **(5) Core Tip:** Abbreviations must be defined upon first appearance in the Core Tip. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*).
- **(6) Main Text:** Abbreviations must be defined upon first appearance in the Main Text. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*).
- (7) **Article Highlights:** Abbreviations must be defined upon first appearance in the Article Highlights. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*)
- **(8) Figures:** Abbreviations are not allowed in the Figure title. For the Figure Legend text, abbreviations are allowed but must be defined upon first appearance in the text. Example 1: A: Hepatocellular carcinoma (HCC) biopsy sample; B: HCC-adjacent tissue sample. For any abbreviation that appears in the Figure itself but is not included in the Figure Legend textual description, it will be defined (separated by semicolons) at the end of the figure legend. Example 2: BMI: Body mass index; US: Ultrasound.

(9) Tables: Abbreviations are not allowed in the Table title. For the Table itself, please verify all abbreviations used in tables are defined (separated by semicolons) directly underneath the table. Example 1: BMI: Body mass index; US: Ultrasound.

Author response to Editor comment 5: In response to your valuable feedback, we have revised the manuscript to adhere to standard practices regarding using abbreviations. Non-standard abbreviations have been either eliminated or appropriately defined upon first usage. We have ensured that commonly used abbreviations are used directly without additional definitions.

We believe these revisions contribute to the clarity and readability of the manuscript.

6 EDITORIAL OFFICE'S COMMENTS Authors must revise the manuscript according to the Editorial Office's comments and suggestions, which are listed below:

(1) Science editor:

- 1. *Conflict of interest statement:* The Academic Editor has no conflict of interest.
- 2. Academic misconduct: No academic misconduct was found.
- 3. *Scientific quality:* The authors submitted a review of the immunological mechanisms in hepatitis B virus reactivation. The manuscript is overall qualified.
- 4. *Advantages and disadvantages:* The reviewers have given positive peer-review reports for the manuscript.
- 5. Classification: Grade B;
- 6. Language Quality: Grade A. This is an interesting multifaceted review that discusses in detail the immune mechanisms of Hepatitis B Virus reactivation. The involvement of different immune cells is discussed and drug strategies are also described.

Author response to Science Editor: We are grateful for the positive peer-review reports provided by the reviewers. We have carefully considered the feedback and have made revisions to enhance the manuscript.

We are pleased to have received a Grade A for language quality. We engaged a professional proofreader to address language-related issues, and we have attached the language editing certificate for your reference.

Moreover, based on your feedback, we have made the necessary revisions to the manuscript.

A minor comment: it would be useful to add additional references to the literature sources, as sometimes in the text a very large amount of information corresponds to only one reference.

Author response: We have carefully revised the manuscript to include additional relevant literature sources where needed, ensuring a more robust and well-supported presentation of our findings.

- (1) Main manuscript content: The author clearly stated the purpose of the study and the research structure is complete. However, the manuscript still required further revision according to the detailed comments listed below.
- (2) Table(s) and figure(s): There are 1 Figure and 2 Tables that should be improved. Detailed suggestions for each are listed in the specific comments section.
- (3) References: A total of 122 references are cited, including 106 published in the last 3 years.
- (4) Language evaluation: The English-language grammatical presentation needs to be improved to a certain extent. There are many errors in grammar and format, throughout the entire manuscript. Before final acceptance, the authors 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.wignet.com/bpg/gerinfo/240.

Author response: We appreciate your positive comments on the clarity of the study's purpose and the completeness of the research structure. We have carefully addressed each of your specific suggestions and revised the manuscript accordingly.

- *Tables and Figures:* Your suggestions for improvement have been thoroughly considered, and we have made the necessary revisions to enhance the quality of the figures and tables.
- *References:* We appreciate your observation regarding the citation of references, and we have reviewed and updated the reference list as necessary to ensure a balanced representation of literature throughout the manuscript.
- Language improvements: Based on your feedback, we have carefully revised the English-language presentation, addressing grammar and format errors throughout the entire manuscript.

Additionally, we have obtained the required English Language Certificate from a professional editing company and have uploaded it for your reference.

5 Specific comments:

(1) Please provide the Figures cited in the original manuscript in the form of PPT. All text can be edited, including A,B, arrows, etc. With respect to the reference to the Figure, please verify if it is an original image created for the manuscript, if not, please provide the source of the picture and the proof that the Figure has been authorized by the previous publisher or copyright owner to allow it to be redistributed. All legends are incorrectly formatted and require a general title and explanation for each Figure. Such as Figure 1 title. A: ; B: ; C: .

Author response 1: In response to your comments, we have provided the figures in PowerPoint format, allowing for easy editing of all elements. We have verified the source of each Figure and ensured proper authorization for redistribution where applicable.

(2) Please obtain permission for the use of picture(s). If an author of a submission is re using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the Figure to be re-published, and correctly indicate the reference source and copyrights. For example, "Figure 1 Histopathological examination by hematoxylin-eosin staining (200×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. World J Gastroenterol 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]". And please cite the reference source in the references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable.

Author response 2: We appreciate your attention to detail. Regarding the use of the Figure, we would like to clarify that there is only one Figure in our manuscript, which the corresponding author generated. Therefore, there is no reuse of figures published elsewhere, and we can confirm that the Figure is an original creation for this submission. Nevertheless, we understand the importance of proper citation and have ensured that the Figure is correctly indicated in the manuscript.

(3) Please don't include any *, #, †, §, ‡, ¥, @....in your manuscript; Please use superscript numbers for illustration; and for statistical significance, please use superscript letters. Statistical significance is expressed as a P <0.05, bP <0.01 (P > 0.05 usually does not need to be denoted). If there are other series of P values, cP <0.05 and dP <0.01 are used, and a third series of P values is expressed as eP <0.05 and fP <0.01.

Author response 3: We acknowledge the use of special characters (such as *, #, \dagger , \S , \dagger , Ψ , @) and understand the need for uniformity. In response, we have removed these characters (if any) and replaced them with superscript numbers for illustration purposes. Additionally, we have adopted superscript letters to denote statistical significance (if any), ensuring clarity and adherence to the recommended format (e.g., P < 0.05, P < 0.01).

(4) Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. If there is no PMID or

DOI, please provide the website address. 6 Recommendation: Conditional acceptance.

Author response 4: We appreciate your guidance regarding the reference list. In response to your comment, we have ensured that PubMed numbers (PMID) and DOI citation numbers are provided for each reference. Additionally, we have listed all authors of the references, and where a PMID or DOI is unavailable, we have included the relevant website addresses.

Language Quality: Grade A (Priority publishing)

Scientific Quality: Grade B (Very good)

(2) Company editor-in-chief

1. I have reviewed the Peer-Review Report, all of which have met the basic publishing requirements of the World Journal of Gastroenterology, and the manuscript is conditionally accepted.

I have sent the manuscript to the author(s) for revision according to the Peer Review Report, the 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, it is recommended that the author(s) 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. When revising the manuscript, it is recommended that the author supplement and improve the highlights of the latest cuttingedge research results, thereby further improving the content of the manuscript.

Author response to Company Editor-in-Chief: Thank you for the prompt review and conditional acceptance of our manuscript. We appreciate your valuable feedback, including the insights from the Peer-Review Report and the Editorial Office's comments. We have carefully addressed the suggested changes and improvements, ensuring that the manuscript aligns with the criteria outlined for revision.

In response to the noted concern about the English language quality, we have obtained the English Language Certificate from a professional editing company, as recommended. We trust that this certificate attests to the enhanced language quality of the revised manuscript.

Furthermore, as suggested, we have diligently supplemented and improved the highlights of the latest cutting-edge research results to further enhance the content's quality and relevance. We hope these revisions meet the journal's requirements, and we appreciate the opportunity to refine our work following your guidance.

2. To this end, authors are advised to apply PubMed, or a new tool, the RCA, of which the data source is PubMed. RCA is a unique artificial intelligence system for citation index evaluation

of medical science and life science literature. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: https://www.referencecitationanalysis.com/, or visit PubMed at: https://pubmed.ncbi.nlm.nih.gov/.

Author response to Company Editor-in-Chief: We appreciate your recommendation to use the RCA tool in conjunction with PubMed for citation index evaluation, and we have diligently applied these insights to enhance our manuscript.

Furthermore, we would like to confirm that the reference section has been thoroughly revised and updated following your suggestions. We believe these changes contribute to the overall quality and relevance of our manuscript.

7 STEPS FOR SUBMITTING THE REVISED MANUSCRIPT

Step 1: Author Information

Please click and download the format for authorship, institution, and corresponding author guidelines, and further check if the author's names and institutions meet the requirements of the journal.

- **Step 2:** Manuscript Information Please check if the manuscript information is correct. **Step 3:** Abstract, Main Text, and Acknowledgements
 - (1) Guidelines for revising the content: Please download the guidelines for Original articles, Review articles, or Case Report articles for your specific manuscript type (Review) at: https://www.wjgnet.com/bpg/GerInfo/291. Please further revise the content your manuscript according to the Guidelines and Requirements for Manuscript Revision.
 - **(2) Format for Manuscript Revision:** Please update the format of your manuscript according to the Guidelines and Requirements for Manuscript Revision and the Format for Manuscript Revision. Please visit https://www.wjgnet.com/bpg/GerInfo/291 for the article type-specific guidelines and formatting examples.
 - (3) Requirements for Article Highlights: If your manuscript is an Original Study (Basic Study or Clinical Study), Meta-Analysis, or Systemic Review, the "Article Highlights" section is required. Detailed writing requirements for the "Article Highlights" can be found in the Guidelines and Requirements for Manuscript Revision.
 - **(4) Common issues in the revised manuscript.** Please click and download the List of common issues in revised manuscripts by authors and comments (PDF), and revise the manuscript accordingly.

Step 4: References

Please revise the references according to the Format for References Guidelines, and be sure to edit the reference using the reference auto-analyser.

Step 5: Footnotes and Figure Legends

- (1) Requirements for Figures: Please provide decomposable Figures (in which all components are movable and editable), organize them into a single PowerPoint file, and submit as "89935-Figures.pptx" on the system. The figures should be uploaded to the file destination of "Image File". Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s). Please click to download the sample document: Download.
- **(2) Requirements for Tables:** Please provide decomposable Tables (in which all components are movable and editable), organize them into a single Word file, and submit as "89935-Tables.docx" on the system. The tables should be uploaded to the file destination of "Table File".

Reminder: Please click and download the Guidelines for preparation of bitmaps, vector graphics, and tables in revised manuscripts (PDF), and prepare the figures and tables of your manuscript accordingly.

Author response to Company Editor-in-Chief:

Response to Step 1: Author Information

We have carefully reviewed the format for authorship, institution, and corresponding author guidelines. The author names and institutions have been revised to meet the journal's requirements.

Response to Step 2: Manuscript Information

We have verified the manuscript information, and all details have been confirmed to be accurate.

Response to Step 3: Abstract, Main Text, and Acknowledgements

- (1) The manuscript content has been revised following the specific guidelines and requirements for manuscript revision.
- (2) The manuscript format has been updated following the Guidelines and Requirements for Manuscript Revision and the Format for Manuscript Revision.

Response to Step 4: References

We have revised the references following the Format for References Guidelines. The reference auto-analyzer has been used to ensure accuracy.

Response to Step 5: Footnotes and Figure Legends

- (1) Decomposable Figures have been provided, organized into a single PowerPoint file named "89935-Figures.pptx," and submitted to the system under the file destination "Image File." Original figures have been confirmed, and the copyright information has been added to the bottom right-hand side of each original Figure in PowerPoint (PPT).
- (2) Decomposable Tables have been organized into a single Word file named "89935-Tables.docx" and submitted to the system under the file destination "Table File."

We believe these revisions address the Editor's comments and follow the prescribed steps for manuscript submission.

Step 6: Automatically Generate Full-Text Files Authors cannot replace and upload the "Manuscript File" separately. Since we only accept a manuscript file that is automatically generated, please download the" Full-Text File" or click "Preview" to ensure all the contents of the manuscript automatically generated by the system are correct and meet the requirements of the journal. If you find that there is content that needs to be modified in the Full-Text File, please return to the corresponding step(s), modify and update the content, and save. At this point, you then have to click the "Save & Continue" button in Step 5 and the F6Publishing system will automatically regenerate the Full-Text File, and it will be automatically stored.

Author response to Editor comment 6: Thank you for providing clear instructions on the submission process for our manuscript. We have followed the outlined steps and taken the necessary actions to ensure compliance with the journal's requirements. We have generated the Full-Text File using the F6Publishing system, and we appreciate your reminder to download and preview the File for accuracy. We have carefully reviewed the contents and confirm that the Full-Text File accurately represents the manuscript as intended.

We understand the importance of ensuring that the Full-Text File aligns with the journal's requirements. We appreciate your guidance throughout the submission process and are committed to meeting the standards set by the journal.

Step 7: Upload the Revision Files

For all required accompanying documents (listed below), you can begin the uploading process *via* the F6Publishing system. Then, please download all the uploaded documents to ensure all of them are correct.

- (1) 89935-Answering Reviewers
- (2) 89935-Audio Core Tip
- (3) 89935-Conflict-of-Interest Disclosure Form
- (4) 89935-Copyright License Agreement
- (5) 89935-Non-Native Speakers of English Editing Certificate

- (6) 89935-Image File
- (7) 89935-Table File

For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. This is mandatory and is one of the determining factors for whether or not the manuscript will be finally accepted. If human and animal studies received waiver of the approval requirement from the ethics committee, the author(s) must provide an official statement to this effect made by the ethics committee. The guidelines for manuscript type and related ethics and relevant documents/statements can be found at: https://www.wignet.com/bpg/GerInfo/287.

If your manuscript has supportive foundations, the approved grant application form(s) or funding agency copy of any approval document(s) must be provided. Otherwise, we will delete the supportive foundations. If your manuscript has no "Video" or "Supplementary Material", you do not need to submit those two types of documents.

Author response to Editor comment 7: Thank you for providing detailed instructions regarding the required data for our revised submission. In response to your suggestions, we have carefully initiated the uploading process for all the necessary documents via the F6Publishing system. The following documents/forms are uploaded with the revised manuscript file.

- (1) 89935-Answering Reviewers
- (2) 89935-Audio Core Tip
- (3) 89935-Conflict-of-Interest Disclosure Form
- (4) 89935-Copyright License Agreement
- (5) 89935-Non-Native Speakers of English Editing Certificate
- (6) 89935-Image File
- (7) 89935-Table File

Additionally, we confirm that our manuscript does not involve human studies and/or animal experiments; therefore, we have not submitted related formal ethics documents. We have reviewed the guidelines for manuscript type and ethics requirements at the link provided.

Regarding supportive foundations, we would like to clarify that no funding was received for this study, and no supplementary files were generated. We appreciate your diligence in ensuring the completeness of our submission.

8 COPYRIGHT LICENSE AGREEMENT

All authors should accept and sign the Copyright License Agreement (CLA), following the link sent in individual emails to each author. After all authors have accepted and signed their respective CLA, the Corresponding Author is responsible for downloading the signed CLA by clicking on the "Download" button on the CLA page, re-storing it as "PDF", and then uploading it to the file destination of "Copyright License Agreement". If any of the authors do not agree to sign the CLA, the manuscript will not be accepted for publication.

Reminder: If any of the authors do not receive the email from CLA, please check the spam folder. If the author still can't find the email, please contact us via email at: submission@wjgnet.com.

Author response to Editor comment 8: We appreciate your guidance on the Copyright License Agreement (CLA) requirements. We have ensured that all authors have individually accepted the CLA through the provided links in their respective emails. As the Corresponding Author, I have downloaded the signed CLA by clicking the "Download" button on the CLA page. I have restored it as a PDF and promptly uploaded it to the specified file destination labeled 'Copyright License Agreement' in the submission system.

9 CONFLICT-OF-INTEREST DISCLOSURE FORM

Please click and download the fillable ICMJE Form for Disclosure of Potential Conflicts of Interest (PDF), and fill it in. The Corresponding Author is responsible for filling out this form. Once filled out completely, the Conflict-of-Interest Disclosure Form should be uploaded to the file destination of 'Conflict-of-Interest Disclosure Form'.

Author response to Editor comment 9: We appreciate your attention to detail and guidance. In response to your suggestion, we have carefully filled out the ICMJE Form for Disclosure of Potential Conflicts of Interest as the Corresponding Author. The completed form is attached and uploaded to the specified file destination labeled 'Conflict-of-Interest Disclosure Form' in the submission system with the revised manuscript file.