Answering Reviewers point by point

We thank the reviewers for their constructive criticism. All corrections have been marked in yellow.

Reviewer #1:

1.This is the brief review. However, I am not sure whether it is necessary over 500 references.

*The scope of the paper was to be a thorough review of a rather complicated subject and not a mini-review. Most of the published data were presented. Despite that, we had to select references and several were omitted***.**

2. **The structure of the review is not regular. No abstract is presented**.

We felt that a rather irregular structure would be more informative for the reader. Abstract was submitted and probably was not sent to the reviewer.

3**. I want to know the detail of Ischemia-reperfusion injury (IRI), are they liver diseases.**

IRI is not strictly a liver disease as it is observed only after transplantation of other organs as well, but the most extensive studies were performed after liver transplantation. Iron is clearly involved in the pathogenesis. We added a comment in the relevant point.

4. **Whether the authors can further describe sickle cell liver disease (SCD).**

We did that.

5. **Covid-19 part can be deleted.**

We decided to include a single paragraph as we have met several cases of liver involvement in SARS-CoV2 infections. Therefore, we found very interesting the recent paper on a possible explanation.

6. “It is well documented, that iron in the liver is a double-edged sword.” **Actually, I think authors can add the section for the challenges of iron in the liver diseases.**

We feel that the relevant section may be more comprehensible in the iron metabolism chapter as it refers not only to liver diseases.

7. **Table 1 is too easy.**

Indeed, this was our intension, as details of the ferroptosis inducers and inhibitors are presented in the text. We felt that the non- expert reader would benefit from a simple table.

8. **How to classify so many liver diseases**.

Indeed, we agree that it is almost impossible to classify all liver diseases under simple discrete groups. Therefore, we chose to discuss the most common liver diseases such as NAFLD/NASH, Alcoholic liver disease, and Chronic viral diseases (HBV, HCV). Moreover, we examined separately the common end point of all, namely fibrosis and cirrhosis and hepatocellular carcinoma. For reasons of completeness, we included the rather limited available information on other diseases such as Autoimmune hepatitis, Cholestasis, Ischemia-reperfusion injury, Acute Liver failure, and Sickle Cell liver disease. In that context, a paragraph was added.

Reviewer #3:

Question 1: When elaborating the regulatory mechanism of endogenous and exogenous regulators on ferroptosis, the author should further discuss the two main pathways that cause ferroptosis: "exogenous/transporter dependent pathway" and "endogenous/enzyme regulated pathway".

We did that.

Question 2: If the key steps of GelNB synthesis process are highlighted, especially the steps to achieve the strong adhesion of the material, the article will have more reference value. The authors are suggested to modify as appropriate.

We could find no connections with our subject of GelNB synthesis. Therefore, we were unable to modify the text.

Revision Reviewer #1:

Over 500 references, which is not common.

*The scope of the paper was to be a thorough review of a rather complicated subject and not a mini-review. Most of the published data were presented. Despite that, we had to select references and several were omitted***.**

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