#### **Reviewer 1**

Thank you for the valuable suggestions.

1. The topic discussed in this manuscript contains two big important areas: bile acids and gut microbiota in metabolic disease. It is difficult to discuss these two topic in one paper. The subjects summarized in this manuscript is detailed while inadequate, so I think it is better to discuss bile acids or gut microbiota in one paper respectively.

**Response:** The reviewers' remarks are accepted by the authors. Two significant and vast topics to consider are bile acids and gut microbes. However, we made an effort to provide a very succinct discussion of the role of bile acids and gut microbiota in metabolic diseases.

2.Most of this manuscript is literature stacking, we cannot get their own idea in this manuscript clearly;

Response: We edited the manuscript in response to your recommendations to make clear.

**3.** In part "BILE ACID METABOLITES ALLEVIATES THE METABOLIC DISEASES ", the authors discussed the bile acid sequestrants, not metabolites. We also suggest discussion of bile acids spieces, like CDCA, DCA, etc.

**Response:** As a result of your recommendations, we added the bile acids metabolites to the section titled "BILE ACID METABOLITES ALLEVIATES THE METABOLIC DISEASES."

4. As we all know that the changes of bile acids and gut microbiota are also two important mechanisms in the alleviation of T2DM and obesity after bariatric surgery. So the authors should not ignore this field.

**Response:** In response to suggestions from reviewers, we added the mechanism of bariatric surgery in the part under "BILE ACID METABOLITES ALLEVIATES THE METABOLIC DISEASES"

# Reviewer 2: Thank you for the insightful comments; We value your wise advice and grammatical corrections.

Grammar: Need some revision. (Check The Paper Comments).

**Response:** Thank you for the suggestions. We edited the English as well as the grammar adjustments the reviewer had suggested.

#### 1. Some references without DOI.

**Response:** All references have the DOI/PubMed number added.

## 2. Writing references according to the terms of the journal

Response: We updated every reference to conform the journal format

3. Reducetheabstracttolessthan250words.Response: In response to your recommendations, we shortened the abstract.

## 4. Reduce the number of references.

Response: The number of references was lessened.

## 5. The result and discussion must be in one paragraph.

**Response:** The section on results and discussion is not included in this review. Even though, we kept the section on limitations and future prospects concise.