

## Reviewer Report

**Title:** Connections between human gut microbiome and gestational diabetes mellitus

**Version:** Revision 1      **Date:** 5/16/2017

**Reviewer name:** Isabel Moreno-Indias

### Reviewer Comments to Author:

The authors have addressed most of the changes and recommendations asked by the reviewers, and the manuscript has improved. However, there are still some concerns detailed below:

The authors have included a table of the characteristics of the patients. However, they have not discussed any characteristics of the patients. For example, I have serious concerns about the age of the patients, which is significantly different between groups. GMD patients are older than healthy patients, and it must be discussed. Although it is a manuscript about gut microbiome, your conclusion should be taken into account the clinical parameters if you want to use the data for clinical purposes.

Please, include in the limitations of the study the lack of serum samples from the patients, in order to measure LPS levels as this endotoxemia is the key aspect of your hypothesis.

Parabacteroides seems to have a key role in GDM, but the authors have not fully addressed this issue within the discussion.

The dysbiosis is usually assessed by a change in the richness of the groups. The authors have measured this index, but this information is not included in the results or discussion sections. However, they mentioned a dysbiosis in the first section of the results. Please, include this data.

In the abstract, the "... " are not explicative. It should be fully understood by itself.

### Methods

Are the methods appropriate to the aims of the study, are they well described, and are necessary controls included? Yes

### Conclusions

Are the conclusions adequately supported by the data shown? Yes

### Reporting Standards

Does the manuscript adhere to the journal's guidelines on [minimum standards of reporting?](#) YesChoose an item.

### Statistics

Are you able to assess all statistics in the manuscript, including the appropriateness of statistical tests used? No, and I do not feel adequately qualified to assess the statistics.

### **Quality of Written English**

Please indicate the quality of language in the manuscript: Acceptable

### **Declaration of Competing Interests**

Please complete a declaration of competing interests, considering the following questions:

- Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
- Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
- Do you hold or are you currently applying for any patents relating to the content of the manuscript?
- Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
- Do you have any other financial competing interests?
- Do you have any non-financial competing interests in relation to this paper?

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Yes