Reviewer's report

Title: Trafficking of phagocytic peritoneal cells in hypoinsulinemic-hyperglycemic mice during candidemia.

Version: 1 Date: 11 January 2013

Reviewer: F M Muller

Reviewer's report:

- Major Compulsory Revisions

1. The authors should explain more in detail why they have addressed two hypotheses in one experiment with a limited number of mice in each group. What is the rationale why they did use hypoinsulinemic-hyperglycemic mice and how this condition may potentially affect the spread of migratory peritoneal phagocytes during candidemia/invasive candidiasis?

2. Please discuss more in detail the rationale for the adoptive transfer assay, and discuss potential other methods.

3. Mice were euthanized 1,3 or 7 days after the fungal inoculum. The authors may discuss, whether the sample size in each group is sufficient for statistical analysis, and whether the results of a single mice was affecting the mean.

4. In the result section the authors report that the HH condition leads to an increase of fungal load on day 7 in the liver. However, why was the fungal load not elevated in the other organs, was the fungal load elevated in the liver of all individual mice, please clarify.

- Minor Essential Revisions

1. Title: please change title, abstract, and in the body text from candidemia to invasive candidiasis as the infection was spread to different organs.

2. Abstract: The conclusion indicates what was already stated in the background section "experimental studies have showed that the candidemia could be controlled by activated peritoneal macrophages". Instead the authors may stress in the abstract and in particular in the conclusion the interesting observation that peritoneal phagocytes migrate to tissues infected by fungi.

3. spelling "Diabetes mellitus"

4. spelling Candida spp.

5. spelling C. albicans inoculum
6. Please clarify the C. albicans suspension was inoculated in which vein (lateral tail vein ?) at what time-point after HH induction ?

7. In HH-Ca and Ca groups, PKH+ cells were also found both in the lung and brain. Please discuss the limitations by the number of mice studies.

8. Please delete the following sentence: "similar studies are being conducted in our laboratory and are subject of future publications"

9. "imprint toll - please clarify

10. last sentence - please stress clinical impact of the findings and future study tasks

- Discretionary Revisions

none

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests