Reviewer's report

Title: Modulation of macrophage cytokine profiles during solid tumor progression: susceptibility to Candida albicans infection

Version: 1 Date: 21 January 2009

Reviewer: Sunanda Basu

Reviewer's report:

Rodrigues de Camargo et al have in order gain insight between opportunistic fungi and their hosts have investigated the cytokine profile in response to Candida albicans infections in mice bearing solid tumor, at different stages of tumor development. Their finding is interesting but I have few concerns that need to be addressed for the publication to be considered for publication.

1. Both the writing style and proof-reading needs significant improvement. It is very hard to read and understand the manuscript. Both the table and figure legends need a lot of improvement.

2. In the figure legend the authors should mention the number of mice that had been used and/or how many times an (replicate) experiment has been performed. Without this information it is difficult for a reviewer to assess the statistical information provided in the paper.

3. The data shown in Table 1 is not clearly presented. The authors should provide statistical details (mean+/SD) and significance level. Since this is a critical data for the manuscript, both the style of presentation and the quality of data should be improved.

4. In Fig. 1, why no significant increase in production of TNF alpha is observed in CTL cultures following LPS stimulation. Macrophages are known to produce TNF upon stimulation with LPS and therefore, this should be a positive control for the assay.

5. How does spontaneous cytokine production (particularly TNF) following tumor development compare with non tumor bearing mice? Please also provide the statistical significance. This is important since from Fig. 1 it appears that spontaneous TNF production is higher in macrophages from tumor bearing mice (7, 14 and 21 days) and as yet candida clearance is impaired on 14 and 21 day tumor bearing mice.

6. It is unclear why spontaneous production of TNF is reduced at 24 h pi in day 14 tumor bearing mice and yet the macrophages (24 h pi in day 14 ) respond very well (comparable to 24h day7) in response to LPS.

7. Candida infection is mostly associated with neutropenia. The authors should speculate in the Discussion section of the manuscript about whether their findings (cytokine profile) on neutrophil function/number.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.