Reviewer's report

Title: Soluble toll like receptor 2 (TLR-2) is increased in saliva of children with dental caries.

Version: 1 Date: 15 March 2014

Reviewer: Agnieszka Gornowicz

Reviewer's report:

1. Is the question posed by the authors well defined? Question well defined
2. Are the methods appropriate and well described? Methods were well described, but some corrections are needed, see specific comments
3. Are the data sound? Data was clearly presented.
4. Does the manuscript adhere to the relevant standards for reporting and data deposition? The manuscript is well organized and adhere to the relevant standards.
5. Are the discussion and conclusions well balanced and adequately supported by the data? The discussion was performed in an appropriate way, conclusions are well balanced and supported the data.
6. Are limitations of the work clearly stated? Limitations clearly stated
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? It was clearly presented.
8. Do the title and abstract accurately convey what has been found? The title is correct and in accord with abstract, but IL-8 should appear also in abstract, because it was described in Methods, the level of IL-8 was presented in Fig. 1B and in section: Results and Discussion.
9. Is the writing acceptable? Acceptable after minor essentials revisions

Final comments:
The presented study demonstrates higher contents of sTLR-2 in caries active saliva compared to children without caries. Authors suggested that salivary sTLR-2 level may represent an efficient biomarker for caries activity. I think that correlation between sTLR-2 levels with cariogenic bacterial counts will be necessary for further analysis.

It is important subject for researchers, because findings from experiments will help in prevention and treatment of caries. This article falls within the scope of the journal. It is well conducted and explores important issues. This is an acceptable article, but after minor essentials revisions.

Specific comments (Minor essential revisions):
1. The concentration of IL-8 was showed in Fig. 1B, but detailed characteristic of that pro-inflammatory cytokine was missed in Background section. It should be completed.
2. In section Methods the substrate which was used for HRP is TMB (3,3',5,5'-Tetramethylbenzidine), not TNB.

3. In section Methods the authors said: „The concentration of sTLR-2 or sCD14 in pg/mg of salivary proteins was determined using standard curve of purified recombinant human CD14Fc and TLR-2Fc of known concentration”. The sentence should be corrected, the results were presented in pg/mL (in Fig.2A), but in section Results authors used „ng/ml”. The clarifications are needed.

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

**Quality of written English:** Acceptable

**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'