Reviewer's report

Title: Individual Fluoride Bioavailability in Saliva and Plaque.

Version: 1 Date: 22 January 2011

Reviewer: Andrej M Kielbassa

Reviewer's report:

This is a timely report, easily intelligible, and worth publishing after minor revisions as given below.

Major Compulsory Revisions

1. There is some more evidence of CaF2 loss over time. Please refer to Hellwig et al. (The influence of saliva on the dissolution of calcium fluoride after application of different fluoride gels in vitro. Quintessence Int. 2010 Oct;41(9):773-7), and expand your Intro section, adding some thoughts on the observations that CaF2 apparently dissolves rapidly, even at almost neutral pH, thus leading to the conclusion that highly concentrated fluorides should be applied at an adequate frequency to reestablish a calcium fluoride-like layer.

2. At the end of your Intro section, please add your null hypothesis.

3. Please give rationales for including 8 participants. Specify your power analyses for gaining "reliable data".

4. Please specify "(the method of known addition for low ionic strength samples with a fluoride concentration of less then 0.38 ppm". Insert closing bracket, and refer to the relevant literature.

5. When starting your discussion section, please stick to your null hypothesis, and provide information whether this has been rejected (or not).

6. Discussion section seems to be somewhat superficial. There should be more aspects for a satisfying in-depth discussion. Please see comments given above.

Minor Essential Revisions

1. Still there are some typos (for example, "min." should read "min"). Please re-check your draft thoroughly.

2. "now well known that at least" should read "at least"

3. Please check for space bar throughout your text: "NaF mouth rinse_[16]"

4. Please be consistent with your references used in the draft. First, please avoid authors names; instead, please focus on your main main thoughts of the respective sentence. Second (only if names seem essential), please re-edit
thoroughly: "Watson et al[17]" should read "Watson et al. [17]"
5. "the day and nigh time" should read "the day and night time"
6. "from a in-vivo study" should read "from an in vivo study".
7. "6h" should read "6 hours".
8. Please check for typos and revise: "1.0g tablet. The tablet had to be chewed before tooth brushing. and (...)"
9. Again, please be consistent with your abbreviations. Instead of "h" or "hrs", please use "hours".
10. Please use the term "study leg" instead of "arm".
11. Again, please check for the International Unit System. "Sec" should read "s", and "min" should be given without a full stop.
12. With your Table, please check for dots instead of commas.
All in all, this paper is interesting and should be worth to follow.

**Level of interest:** An article of importance in its field

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

**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.