Reviewer's report

Title: Saliva Samples are a Viable Alternative to Blood Samples as a source of DNA for High Throughput Genotyping.

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Reviewer: Peter Celec

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This is an interesting methodological paper that shows the feasibility of salivary DNA as a source for genotyping. The results are of interest. However, the manuscript should be improved.

The authors should explain the rationale for doing this study. What are the advantages and disadvantages of saliva sampling in comparison to blood collection?

Is the sampling of unstimulated saliva really easier than blood taking? What about the potential application of saliva collection devices such as Salivette?

What was the ratio of bacterial and human DNA isolated from saliva? This is important for other applications.

What was the variability of DNA yield? It seems that it was much higher for saliva. Was it related to oral hygiene? Is the yield important for subsequent analyses? What about the effects of toothbrushing?

Self-collection of saliva is an issue due to the variable volume and quality of the sample. As the volume collected was not be assessed, the interpretation of the outcomes is difficult and the multiplication by a factor of 2 in comparison to blood questionable. This should be mentioned in the Discussion.

What was the fragmentation of the isolated DNA? Picogreen has some limitations regarding the fragmentation of DNA quantified. The fragmentation should be assessed as it can be important in other applications including sequencing.

What are the costs of the sampling/isolation? The Oragene kits are not cheap. This should be at least mentioned in the Discussion as a limitation of the use.

What are the alternatives of sampling and isolation? Could simple whole saliva be used? DNA isolation from saliva is tricky. Why did the authors choose the Oragene kits? Are there other alternative options?

The authors should try to compare the results statistically, at least the yield, purity etc.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I have no conflicts of interest to declare.