Reviewer’s report

Title: Using KASP Technique to screen LRRK2 G2019S mutation in a large Tunisian cohort

Version: 0 Date: 10 Feb 2017

Reviewer: Nicolas Dupré

Reviewer’s report:

This paper is limited in scope, describing a known method to diagnose a well established variant of LRRK2 in the North-African population.

A few comments:

1) The authors should describe in more detail the advantages and disadvantages of the KASP technique

2) The authors should give more examples of the recent use of KASP in other neurological disorders

3) The results of the genotyping of 60 DNA samples by TaqMan and Sanger should be given

4) The authors should comment as to wether KASP could be usefull in more diverse populations, to screen more variants. What does the litterature indicate? This would provide a larger applicability to their study

5) Please provide technical readouts of the KASP technique in a figure

6) Table 3 could be deleted, since it provides little usefull information

7) In the discussion, testing strategy for LRRK2 mutation in their population should be detailed (younger? family history? all cases? symptomatic vs asymptomatic?)

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal