Reviewer's report

Title: Genetic evidence of multiple loci in dystocia - difficult labour

Version: 2 Date: 22 September 2009

Reviewer: Héctor Lamadrid-Figueroa

Reviewer's report:

The authors looked for possible genetic contributing factors to dystocia. The article is clearly written except for some minor grammatical errors and it adequately describes the methodology used. In particular the statistical methodology employed seems adequate to answer the research question. A few issues have to be covered before recommending this paper for publication.

Major Compulsory Revisions

1. Nothing is said about the selection criteria for the 107 subject control sample. This is crucial since without a description it is difficult if not impossible to evaluate if selection bias could be present. Due to the nature of the variables studied I can not think of a reason why this (selection bias) would occur, however it is still necessary to cover this in the final version of the article. Also, it is crucial to state if the controls were somehow matched to the cases. It appears not to be the cased, however it is necessary to explicitly state this.

2. Some kind of table is needed to show descriptive statistics of the 107 control group, preferably showing how it compares to the 68 affected individuals sample used for the Re-sequencing sub-analysis.

3. In page 9, the authors state that "We cannot exclude the possibility that the linkage is in fact to some other condition such as high birth weight or post-term pregnancy", why didn't the authors specifically test this hypothesis? They should be able to do this with the data at hand, and they could easily compare the magnitude of the association with either outcome, which would shed some light onto the issue.

Minor Essential Revisions

1. Several grammatical errors appear throughout the manuscript, ie. "where" instead of "were", "of" instead of "for", etc. These small errors are too many to list. I would suggest that a native english speaker reviews the document.

2. In page 5, the authors state that minor genotyping errors were removed using MERLIN, how many genotyping errors were encountered (a relative frequency would be useful)?

Discretionary Revisions

NONE
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