Reviewer's report

Title: SNPs and real-time quantitative PCR method for constitutional allelic copy number determination, the VPREB1 marker case

Version: 1 Date: 26 October 2010

Reviewer: Marsha Speevak

Reviewer's report:

This paper describes a study that builds upon a previously published methodology paper. The methodology of qPCR was tested on a cohort of 100 patients suspected of a 22q11.2 microdeletion. The authors’ results validate the previous study and also draw attention to a design flaw in one of the primer pairs.

The paper has merit due to the validation of the methodology, as well as the streamlining of the technique using fewer markers. The example of the presence of a SNP under one of the primer pairs draws attention to the importance of cross-checking primers against the SNP database when performing clinical analyses.

Minor Essential Revisions

The paper is overall very well written and scientifically sound. However, there were a few grammatical and typographical errors to report. These are listed below.

Abstract
Line 2: Change ‘a 1 at 4000’ to ‘a 1 in 4000’
Line 5: Change ‘Aim of this study’ to ‘The aim of this study’

Results
The authors might consider setting the first paragraph of results into a separate subheading ‘Methods’.
Line 1: Change ‘A set of …. heart defects were tested’ to ‘A set of …. heart defects was tested’.
Line 6: Change ‘suggestive for a long distal deletion’ to ‘suggestive of a long distal deletion’.

Page 4/Background
Line 2: Change ‘routinary’ to ‘routine’
Line 7: Change ‘responsible of’ to ‘responsible for’
Line 13: Change ‘a sort of breeding’ ‘a breeding’ and change ‘of real-time’ to ‘of a real-time’
Line 22: Change ‘It lives on’ to ‘It is based on’

Page 5/Background
Line 1: Change ‘the markers primers design represents’ to ‘the primer designs represent’
Line 2: Change ‘qPCR marker primers’ to ‘qPCR primers’
Line 5: Change ‘proposed like’ to ‘proposed as’
Line 10: Change ‘the Weksberg’s’ to ‘the Weksberg’
Line 13: Change ‘cytogenetic tools like’ to ‘cytogenetic tools such as’
Line 14: Change ‘the Weksberg’s’ to ‘the Weksberg’
Line 17: Change ‘technical bug’ to ‘technical issue’

Results
Line 2-3: Change ‘standard curves slopes value’ to ‘standard curve slope value’
Line 4: Change ‘curves analysis’ to ‘curve analyses’

Page 6/Results
Line 6: Change ‘an homozygotic’ to ‘a homozygotic’
Line 13: Change ‘by the only’ to ‘solely the’
Line 18: Change ‘melting curves analysis’ to ‘melting curve analyses’

Page 8/Discussion
Line 1: Change ‘represents a robust’ ‘represent a robust’
Line 11: Change ‘patients cohort’ to ‘patient cohort’
Line 12: Change ‘a fast pattern of the patient genotype’ to ‘a rapid patient genotype’
Line 17: Change ‘with a fully concordance’ to ‘with fully concordant’

Page 9
Line 12: Change ‘that are carrier’ to ‘that are carriers’
Line 16: Change ‘These hypothesis’ to ‘This hypothesis’

Page 10
Line 4: Change ‘therefore an helpful’ to ‘therefore a helpful’

Page 10/Real-time quantitative PCR
Line 6: Change ‘were reduced than those’ ‘were reduced from those’

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