Reviewer's report

Title: Mutations in the 3'-untranslated region of GATA4 as molecular hotspots for congenital heart disease (CHD)

Version: 3 Date: 8 June 2007

Reviewer: Rumiko Matsuoka

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The authors mainly investigated genomic DNA from formalin-fixed explanted hearts with congenital heart disease (CHD). There are basically problem with the reliability of the mutations. If the authors want to confirm that somatic GATA4 mutations in the 3'-UTR are associated with CHD, they should prove that the same mutations are found in the genomic DNA from freeze-fixed heart from the same patients instead of formalin-fixed samples only. I believe that this report would be excellent if they proved this. In addition, if the authors want to confirm the mutations, they should analyze at least more than 200 control (400 chromosomes) samples.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Reject because scientifically unsound

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.