Reviewer's report

Title: HIGH RESOLUTION MELTING: improvements in the genetic diagnosis of Hypertrophic Cardiomyopathy in a Portuguese cohort

Version: 1 Date: 27 September 2011

Reviewer: Christian Prinz

Reviewer's report:

Santos et al. evaluated High Resolution Melting for the genetic diagnosis of HCM in a Portuguese cohort. They demonstrated that HRM could be a cost-effective and sensitive technique for basic research and clinical medicine. Although the subject of the study is of high interest, there are major revisions needed.

Major Compulsory Revisions:

1. To my opinion the section "background" is much too long. Please shorten this section, particularly the first two paragraphs.

2. Please shorten the "conclusion" section. Do not repeat parts of the introduction.

Please start your discussion section with a (short!) summary of your essential findings.

3. Please try to reduce the number of tables and figures. 2 or 3 essential tables, and up to 4 essential figures seem to me enough in order to give a clear overview of your findings.

4. You report about findings in a Portuguese cohort. Unfortunately you don’t provide clinical or only biometric data of these patients (age, gender, blood pressure...). Please give this data.

5. Did you find any correlations between phenotype of HCM (septal, apical..., hypertrophy), HCM vs. HOCM (how much, ratio?) and genetic results? Please provide these data. Correlated the ventricular mass with your genetic findings?

6. Did you find mutations in the control group? Please report. Please give some basic data of the control group.

7. Please add a limitation section.

8. Please underline the clinical use of your findings.

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

Quality of written English: Acceptable
**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.