Author's response to reviews

**Title:** Protective effect of KCNH2 single nucleotide polymorphism K897T in an LQTS family and identification of novel KCNQ1 and KCNH2 mutations

**Authors:**

Xianqin Zhang (zhangx3@ccf.org)
Shenghan Chen (chens@ccf.org)
Li Zhang (Li.Zhang@intermountainmail.org)
Mugen Liu (lium@mail.hust.edu.cn)
Michael G Vincent (G.Michael.Vincent@intermountainmail.org)
Sharon Redfearn (sharon.redfearn@jax.ufl.edu)
Randall M Bryant (randy.bryant@jax.ufl.edu)
Carlos Oberti (Obertic@ccf.org)
Qing K Wang (wangq2@ccf.org)

**Version:** 5  **Date:** 30 August 2008

**Author’s response to reviews:** see over
Dear Matt:
Thank you for your help with our manuscript.
As you requested, we have revised our manuscript by addressing the reviewers’ comments.

1. Major Compulsory Revisions
I have still one important comment: the authors state repeatedly that they are presenting results from 112 families. I understand that there is a cohort or registry of 112 families. Nevertheless in the manuscript the Results section describes only 8 of them. So there are two possibilities: Either the authors must complete information on KCNH2 mutational analysis in the remaining 104 families. Or it must be clearly stated that this manuscript describes 8 families from a cohort of 112.

We carried out mutational analysis in 112 families with a family history of lethal cardiac events, including LQTS. LQTS-associated mutations were identified in eight families. No mutation was detected in the rest of 104 families. To clarify this issue, we added the last two sentences in Results (see 1st paragraph, 2nd and 3rd sentences). We also added one sentence, “Mutations were identified in 8 of 112 families.” in Discussion (see 1st paragraph, 1st sentence).

2. Please also ensure that your revised manuscript conforms to the journal style (http://www.biomedcentral.com/info/ifora/medicine_journals). It is important that your files are correctly formatted.

We have carefully formatted our manuscript to adhere to your journal style.

Other minor comments:
Abstract please state in the 112 LQTS families, how many had mutations identified.

As recommended, we added “LQTS-associated mutations were identified in eight of 112 families.” In the Results section of Abstract (1st sentence).
Page 7 bottom line replace "any" with "either"
page 8 after cardiac arrest replace "and" with "or of"
page 10 line 1 carrier should be carriers
page 10 para 2 ectypes should be ectopy
page 11 end of para 1 delete "the" before "first degree".
page 15 4 lines from bottom "do" should be "die"

All suggested changes described above were made.

In the methods section the explanation of superiority of bike ergometer should be omitted and moved to the Discussion.

We tried to move the sentence to Discussion, but could not find an appropriate place to insert it. We also tried to simply delete the sentence, but it will make the connection to the next sentence awkward. Therefore, we did not make this change.

Information on ECG lead configuration is missing.

We have added the ECG lead configuration.

Throughout the article there are some letters missing, it should be re-read carefully and corrected.

We have proof-read the manuscript carefully.

We appreciate the careful reading from all reviewers that has improved this manuscript. If you have any questions, please feel free to contact us.

Yours sincerely,

Qing Kenneth Wang