Reviewer's report

Title: Genetic mapping of a new heart rate QTL on spontaneously hypertensive rats chromosome 8

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Reviewer: Michal Pravenec

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The manuscript by Silva et al., “Genetic mapping of a new heart rate QTL on spontaneously hypertensive rats chromosome 8” describes a new QTL that is associated with heart rate in an F2 generation derived by crossing the SHR and BN strains.

Critique:
The authors used data from their original paper that was published more than 10 years ago (Schork et al., Genome Research 5:164-172, 1995). Since that time, multiple new polymorphisms (both SSLPs and SNPs) are available and if DNA for genotyping is available from the F2 intercross it should be used since it is possible that a complete coverage of the genome might enable the authors to discover new QTLs associated with both heart rate and blood pressure in more detail. The authors claim that heart rate and blood pressure are poorly correlated but it is interesting that the blood pressure regulatory QTL reported in their original paper is located in the vicinity of the QTL that is associated with heart rate. It is therefore possible that both traits are determined by the same gene.
The major revision is to use more markers at least for the chromosome 8 region that harbors both the blood pressure and heart rate regulatory QTLs.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Declaration of competing interests:
I declare that I have no competing interests.