Reviewer's report

Title: The PGC1alpha Gly482Ser polymorphism is associated with left ventricular diastolic dysfunction in men

Version: 2 Date: 13 August 2008

Reviewer: Norbert Stefan

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With this cross-sectional study the authors provide novel and interesting information that the Ser482 encoding allele in PPARGC1A is associated with decreased prevalence of diastolic left ventricular dysfunction in men, but not in women.

Minor Essential Revisions
1. The relationships of the genotypes with age, BMI, LTPA, diabetes and blood pressure in men and women need to be shown.
2. The largest study (n>13000) addressing the relationship between the Gly482Ser SNP with hypertension (Vimaleswaran et al. J Appl. Physiol. 2008) showed a higher risk of hypertension in young (<50 years) Ser482 allele carriers. No relationship was found in older subjects. These data need to be discussed in the light of the present findings.
3. The discussion is very well written. The authors should also address the important role of estrogen-related receptors in the pathogenesis of cardiomyopathy.
4. PPARGC1A is the HUGO-approved gene symbol in humans.

Level of interest: An article of importance in its field

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