Reviewer's report

Title: TCF7L2 and therapeutic response to sulfonylureas in patients with type 2 diabetes

Version: 2 Date: 12 January 2011

Reviewer: Jose Florez

Reviewer's report:

The authors ought to be commended for their responsiveness to the review process.

The manuscript is clearer, with a cleaner analysis, straightforward interpretation and appropriate caveats.

There are only some minor essential revisions required to make sure the Discussion conforms to the new analyses:

1. First paragraph of the Discussion: under the new analyses, diabetes duration was no longer a predictor of SU failure.
2. First paragraph of the Discussion: allele frequencies refer to the prior analyses, and should be changed to refer the new definition of SU failure.
3. First paragraph of the Discussion: was there an adjustment for diabetes duration, even if not significant? If not, the sentence should be removed; but the authors could consider performing this additional analysis, although this is not required.
4. First paragraph of the Discussion: carriers of the T allele were 57% more likely to fail SU; TT homozygotes were twice as likely as CC homozygotes.

There is one discretionary revision:

While the new HbA1c-based definition is preferable as suggested, it may be worthwhile to strengthen the paper to state that an alternate definition based on addition of insulin yielded similar results. As long as all the caveats expressed on initial review are included, the authors may not need to discard their prior analyses, but include them as secondary confirmatory analyses while specifying they are not independent from the previous analyses. The interesting piece of how diabetes duration differed between the two groups, and how adjustment for this covariate only reduced the odds ratio minimally (from 1.73 to 1.66, even if the P-value went from 0.04 to 0.06) would also be nice to present.

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

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

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