Reviewer’s report

Title: Common variants of the TCF7L2 gene are associated with increased risk of type 2 diabetes mellitus in a UK-resident South Asian population

Version: 2 Date: 5 December 2007

Reviewer: Jana van Vliet-Ostaptchouk

Reviewer’s report:

General

The authors have adequately addressed all my comments.

- Major Compulsory Revisions

None

- Minor Essential Revisions

1. The authors do not have the information regarding the family relatedness among individuals included in the present study. Also, taking into account that controls were collected from the same geographical areas (as stated in the Method section), the presence of the family members in both cases and controls group can not be excluded. As proper sampling is an important issue in case-control studies, this should be considered as a limitation of the paper. Please, include a short sentence in the Discussion accordingly.

As an additional remark, please note, that the presence of T2D relatives in the control group may explain the enrichment of the controls by minor homozygotes for rs12255372 resulting in the deviation from HW and from other reported studies. If possible, it would be beneficial for the quality of the future genetic studies in this population to collect the information on relatedness.

2. New:

The following statement concerning the statistical power was added to the Discussion section of the revised manuscript: "It is interesting to note, however, that despite a smaller control group, statistical power was greater when using an age cut-off of 46 (power _ 94% for all variants) compared to an age cut-off of 35.

Although that is an interesting observation, it is very likely that the CIs for the calculated ORs will be larger in the smaller subset of controls (age cut-off of 45) compared with CIs for the age group above 35. If that is the case, the observed difference in power might be due to the statistical noise suggesting nothing meaningful and, thus, is not worthy to be mentioned.

- Discretionary Revisions

None
**What next?:** Accept after minor essential revisions

**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