Author's response to reviews

Title: Islet Expression of the DNA Repair Enzyme 8-OxoG DNA glycosylase (Ogg1) in Human Type 2 Diabetes

Authors:

Bjorn Tyrberg (btyrberg@ucsd.edu)
Kamen A Anachkov (k_anachkov@doctor.com)
Sergio A Dib (sadib@endocrino.epm.br)
Jessica Wang-Rodriguez (jwrodriguez@ucsd.edu)
Kun-Ho Yoon (yoonk@cmc.cuk.ac.kr)
Fred Levine (flevine@ucsd.edu)

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PDF covering letter
Reviewer 1 (Decio Eizirik)

1. The reviewer requests the inclusion of a recent Diabetologia paper in the discussion. This study was not published when we originally submitted the manuscript. However, we have now referred to it both in the introduction (p. 4, lines 13-16) and in the discussion (p. 8, lines 15-25). We have added a discussion of differences in what was measured and what we found compared to the data published in that paper.

2. The reviewer asks us to add to the Introduction more information on Ogg1 and on the rationale of selecting this enzyme for our study. We have changed a few sentences (p. 4, lines 19-29) to make that more clear. We also added the information that we first observed the up-regulation of Ogg1 in a gene expression screen.

3. We are asked to include more patient data regarding the pancreas donors. This point is well taken, and we added a table (Table 1) to address this issue. Unfortunately it was not possible to recover patient data from two of the control subjects. We are also aware of the limitations in the exclusion of late onset type 1 diabetes. This is an area of controversy in the field, and the only way to analyse the issue at present is by histological examination of lymphocyte infiltration, as indicated in the legend to Table 1.

4. The reviewer requests information on the ischemic time of the pancreata. Unfortunately, this information was never recorded for the autopsy specimens. However, as we also have several surgical specimens for which the ischemic time is very short, and that show the same staining pattern as the autopsy specimens, we believe that the data presented for the autopsy specimens have not been altered by ischemic time.

5. The reviewer requests additional information on the specificity of the Ogg1 staining. We have added an explanation of this issue in the Methods section (p. 5, lines 21-26).
Reviewer 2 (Irene Green)

The reviewers major concern is the statistical analysis. This point is well taken, and we have performed a Mann-Whitney test, as suggested by the reviewer. These analyses resulted in significant $P$-values for both area ($P < 0.05$) and intensity ($P < 0.02$) of Ogg1 staining. We have changed the text accordingly and inserted these new $P$-values.