Author’s response to reviews

Title: The gene-treatment interaction of paraoxonase-1 gene polymorphism and statin therapy on insulin secretion in Japanese patients with type 2 diabetes: Fukuoka Diabetes Registry

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Responses to the comments of Reviewer #1

1. I would suggest the authors include a figure with a model to illustrate the mechanism of how PON1 Q192R polymorphism and statins interact on insulin secretion in patients with T2D.

Response: We included Figure 2 illustrating the mechanism by which PON1 Q192R polymorphism and statins interact on insulin secretion.
Responses to the comments of Reviewer #2

1. Please use "multiple explanatory variable analyses" instead of "multivariable analyses" throughout the manuscript (e.g. lines: 176, 184, 223...)

Response: We corrected the term to “multiple explanatory variable” instead of “multivariable” in the Abstract, line 68, page 4; Methods section, lines 176 and 184, page 11; and Methods section, line 223, page 13.

2. In the bottom of the Table 1, the authors states that "Data are expressed as mean ± SD, median (interquartile), and n (percentage). CVD: cardiovascular disease, OHA: oral hypoglycemic agents, α-GI: alpha-glucosidase inhibitor, DPP4-I: inhibitors of type 4 dipeptidyl peptidase* log-transformed for the statistical analysis."

I could not see median (interquartile) and results for log-transformed data in the table. Please check that.

Response: We removed “median (interquartile)” and “* log-transformed” from the statistical analysis at the bottom of Table 1, page 25.

3. Table 2: Please state/mark statistically significantly group(s) after post-hoc test for interaction (or main effect(s) if there is no interaction).

Response: We have marked statistically significantly groups in Table 2, page 26.

4. Figure 1/B (for HbA1c): P=0.18 and also the graph does not support interaction. Please remove "*".

Response: "*" did not denote a statistically significant interaction, but rather a trend in the group with statins. We added this information in the figure legend.