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(54) Title: **HYPOIMMUNE BETA CELLS DIFFERENTIATED FROM PLURIPOTENT STEM CELLS AND RELATED USES
AND METHODS**

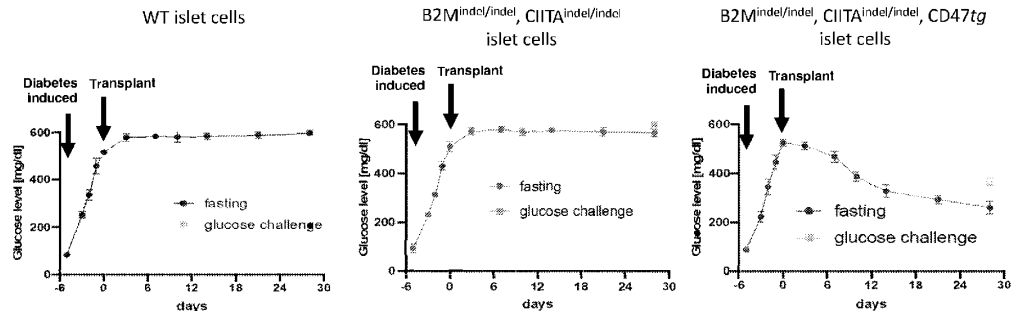


FIG. 1A

(57) Abstract: Provided are functional modified stem cell-derived beta (β) cells (SC-beta cells) containing one or more modifications, such as genetic modifications, and related methods of their use and generation. In some embodiments, the modified cells are hypoinmunogenic cells. In some embodiments, the modified SC-beta cells are cells differentiated in vitro from a modified or hypoinmunogenic pluripotent stem cell that contains the one or more modifications. In some embodiments, the one or more modifications reduce or eliminate expression of MHC class I and/or MHC class II human leukocyte antigens and also exogenously express one or more tolerogenic factors such as CD47.

[Continued on next page]

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