

Supplementary information

Identification of a periodontal pathogen and bihormonal cells in pancreatic islets of humans and a mouse model of periodontitis

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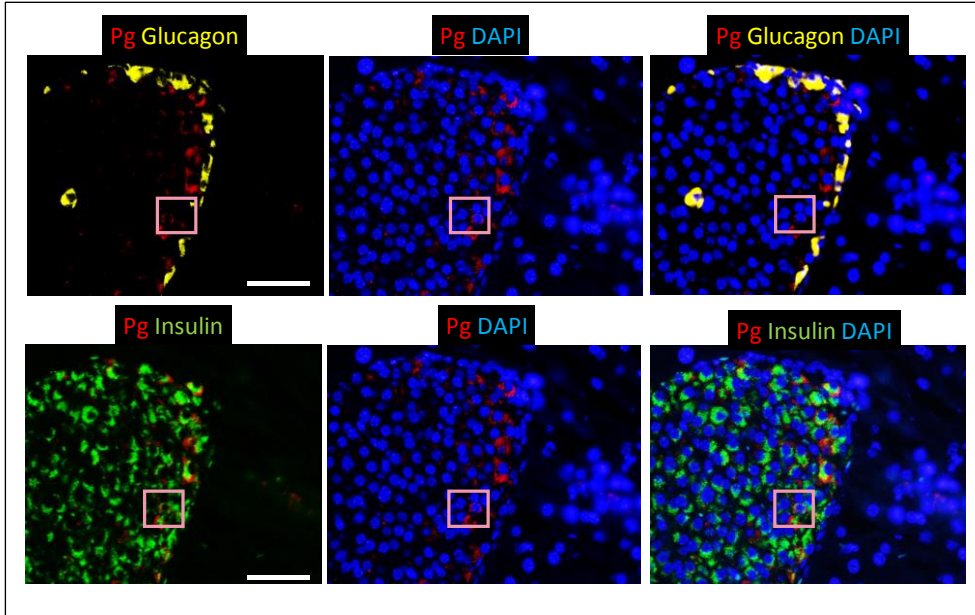
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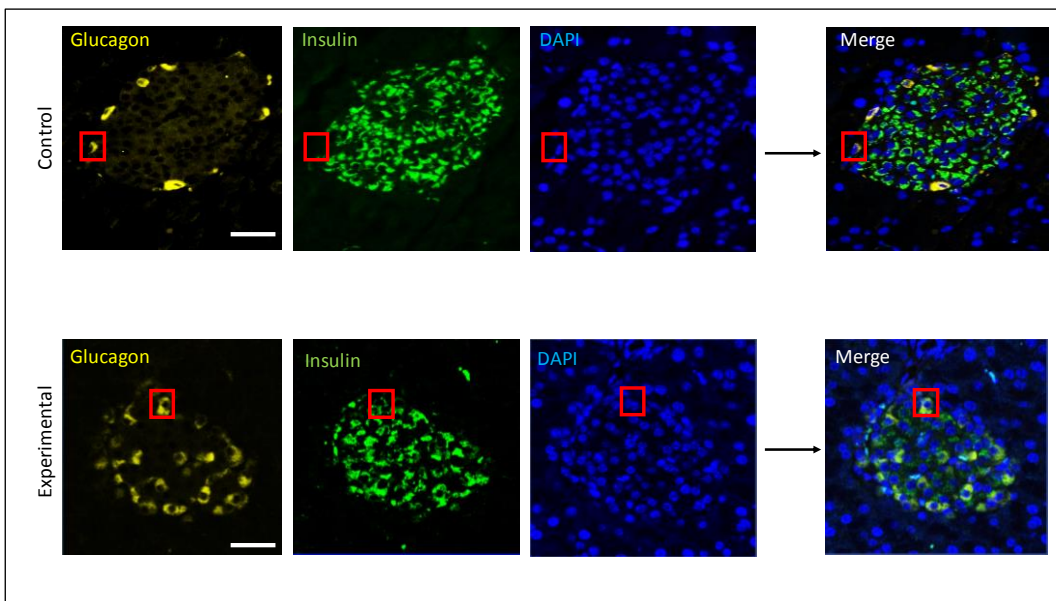
Supplementary Figure S1. Pg is localized in β -cells. (Separate channel images for Fig. 2A)

Representative immunofluorescence microscopy images showing the presence of Pg in β -cells in experimental mice. Yellow: glucagon, Green: insulin, Red: Pg, Blue: nuclei. Scale bar represents 50 μ m. Square represents an example of β -cells with Pg.



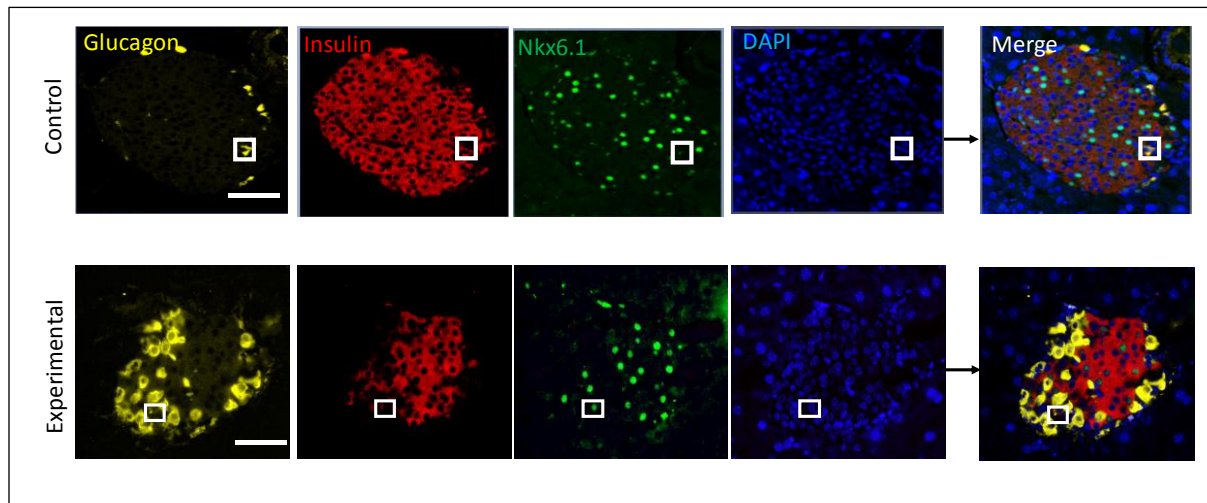
Supplementary Figure S2. Bihormonal cells are evident in islets of the experimental group. (Separate channel images for Fig. 3A)

Representative immunofluorescence microscopy images from a control animal (upper panel) which does not exhibit bihormonal cells and experimental animal (lower panel) which exhibit bihormonal cells. Yellow: glucagon, Green: insulin, Blue: nuclei. Scale bar represents 25 μ m. Rectangle represents an example of a bihormonal cell containing Pg (lower panel).



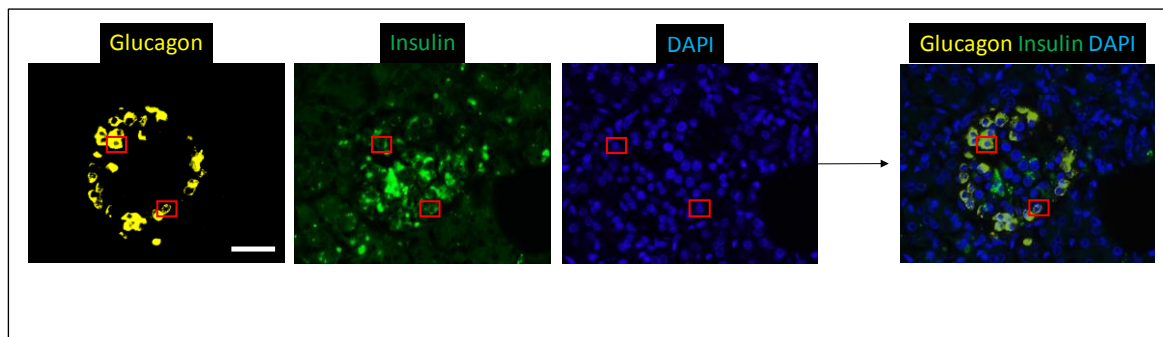
Supplementary Figure S3. Bihormonal cells from both control and experimental groups express the β -cell transcription factor, Nkx6.1. (Separate channel images for Fig 4A)

Mouse bihormonal cells express Nkx6.1. Representative immunofluorescence microscopy images showing the presence of Nkx6.1 in β -cells and bihormonal cells. Yellow: glucagon, Red: insulin, Green: Nkx6.1, Blue: nuclei. White rectangles show bihormonal cells expressing Nkx6.1. Scale bar represents 25 μ m.



Supplementary Figure S4. Bihormonal cells are present in human pancreata from Non-DM subjects. (Separate channel images for Fig. 7A)

Representative immunofluorescence microscopy images showing the presence of bihormonal cells. Yellow: glucagon, Green: insulin, Blue: nuclei. Red squares show examples of bihormonal cells. Scale bar represents 25 μ m.



Supplementary Figure S5. Human pancreatic bihormonal cells express Nkx6.1.
(Separate channel images for Fig. 8)

Representative images of bihormonal cells in human DM subjects expressing Nkx6.1. Yellow: glucagon, Red: insulin, green: Nkx6.1, Blue: nuclei. Rectangle shows an example of a bihormonal cell positive for Nkx6.1. Scale bar represents 10 μ m.

