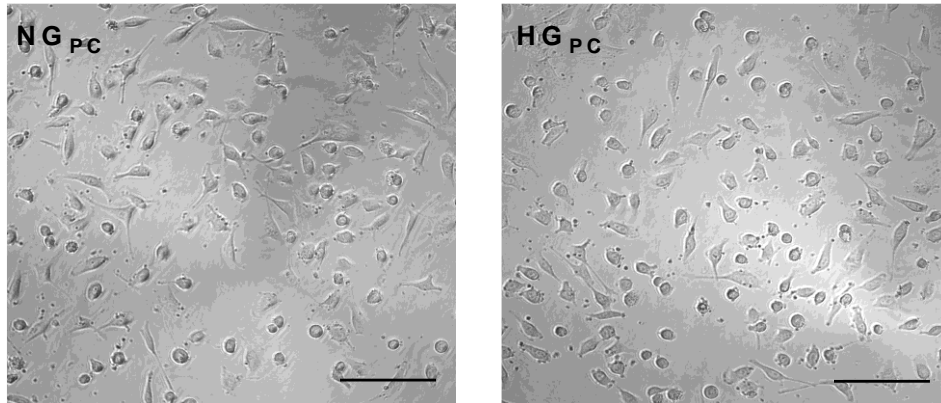


**The impact of glucose exposure on bioenergetics and function in a cultured endothelial cell model
and implications for cardiovascular health in diabetes**

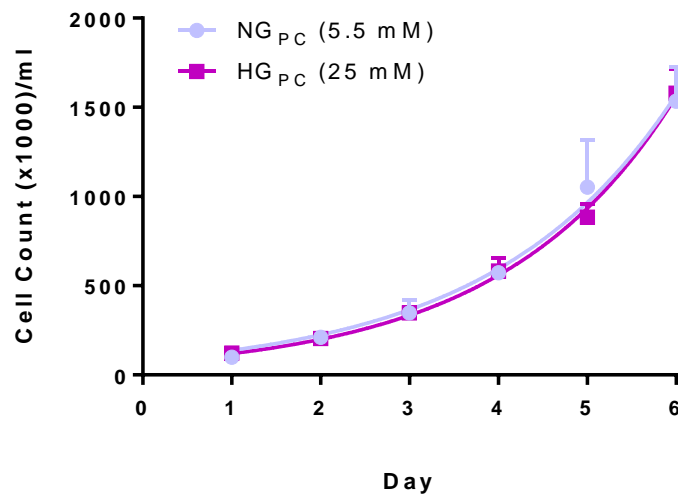
Maria Luisa Fiorello, Andrew T Treweeke, David P Macfarlane, Ian L Megson

Supplementary Fig S1

A

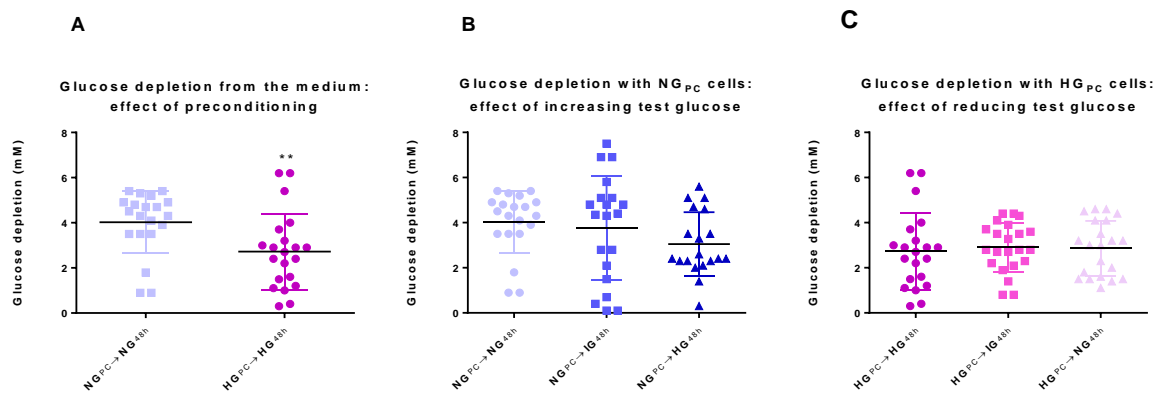


B



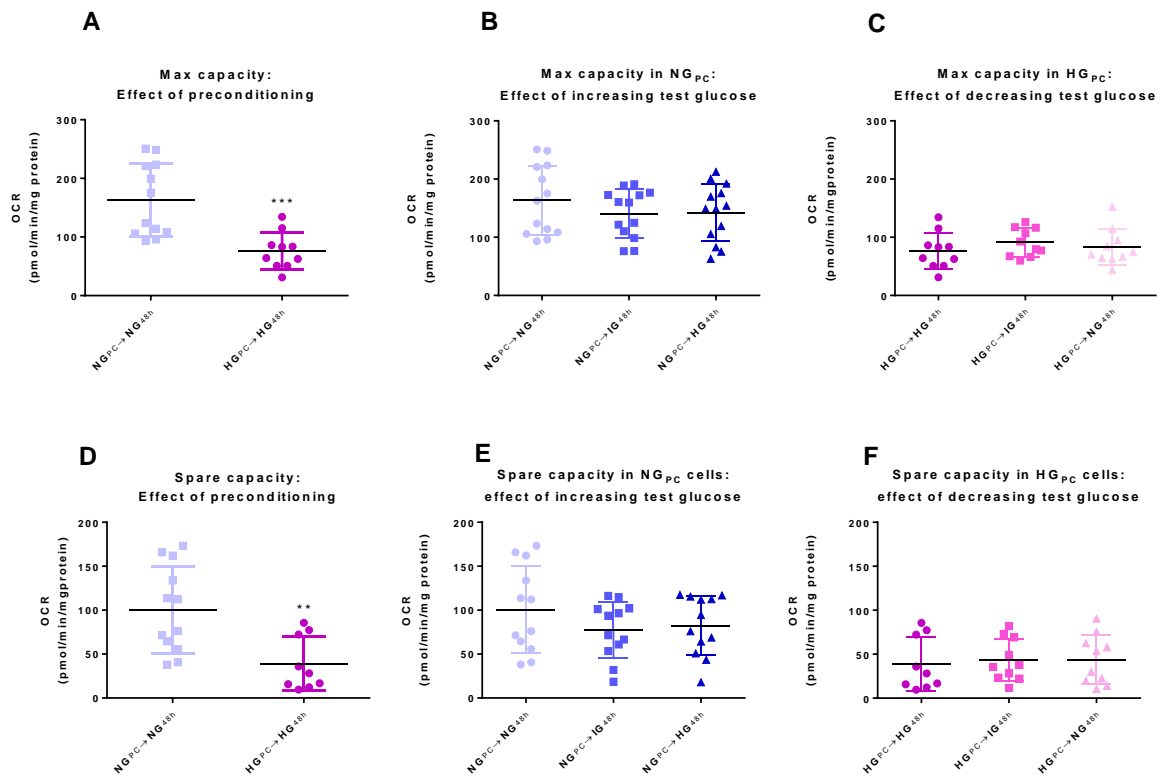
Supplementary Fig 1. Cell morphology (A) and growth rate (B) in cells cultured through >5 passages under normoglycaemic (5.5 mM starting concentration; NG_{PC}) or hyperglycaemic (25 mM starting concentration; HG_{PC}) conditions. There was no apparent change in morphology or growth rate ($P>0.05$; 2-factor ANOVA) induced by NG_{PC}. Scale bar: 150 μm . Cells used for treatment experiments were passaged at ~90% confluence and reached full confluence by conclusion of the incubation period.

Supplementary Fig S2



Supplementary Fig S2. (A) Effect of glucose preconditioning on glucose depletion from medium over 24 h ($***P < 0.001$; Mann Whitney U test). (B) Effect of 48 h exposure of increasing glucose concentrations to NG_{PC} cells on glucose depletion from the medium ($P > 0.05$; Kruskal Wallis). (C) Effect of 48 h exposure of decreasing glucose concentrations to HG_{PC} cells on glucose depletion from the medium ($P > 0.05$; Kruskal Wallis).

Supplementary Fig S3



Supplementary Fig S3. Effect of glucose preconditioning on maximum capacity (A) and spare capacity (D) (***) $P < 0.001$; ** $P < 0.01$, Mann Whitney U test). Effect of 48 h exposure of increasing glucose concentrations to NG_{PC} cells on maximum capacity (B) and spare capacity (E) ($P > 0.05$; Kruskal-Wallis). Effect of 48 h exposure of decreasing glucose concentrations to HG_{PC} cells on maximum capacity (C) and spare capacity (F) ($P > 0.05$; Kruskal-Wallis).