## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Quantification of the metabolic profile of iPS-ECs following PFK15 treatment for 7h. Statistical comparisons were conducted using the Ebayes method of the limma package. Nominal p-values and corrected for multiple testing p-values with the Benjamini-Hochberg method are provided.

File Name: Supplementary Data 2

Description: Quantification of the proteomic dataset of the BVO secretome. Statistical comparisons were conducted using the Ebayes method of the limma package. Nominal p-values and corrected for multiple testing p-values with the Benjamini-Hochberg method are provided.

File Name: Supplementary Data 3

Description: Signal Peptide Predicted Scores using the signalP tool were used to classify the identified proteins in the proteomic dataset as secreted based in the presence of a signal peptide.

File Name: Supplementary Data 4

Description: The proteomic dataset of the BVO secretome, output of the identification software.

File Name: Supplementary Movie 1

Description: Confocal stack of a CTR BVO stained for CD31 (green) and PDGFR-β (red) and

DAPI (blue). Bar scale 100 µm.

File Name: Supplementary Movie 2

Description: Confocal stack of a PFK15 treated BVO stained for CD31 (green), PDGFR-β (red)

and DAPI (blue). Bar scale 100 µm.