

# ELECTRONIC SUPPLEMENTARY MATERIAL

**ESM Table 1. Human islet donor characteristics**

| Islet preparation                                                           | 1                                              | 2                   | 3                          | 4                              | 5                       | 6                                              |
|-----------------------------------------------------------------------------|------------------------------------------------|---------------------|----------------------------|--------------------------------|-------------------------|------------------------------------------------|
| <b>MANDATORY INFORMATION</b>                                                |                                                |                     |                            |                                |                         |                                                |
| Unique identifier                                                           | SAMN08769819                                   | SAMN08612554        | SAMN08612553               | SAMN09228907                   | SAMN09370567            | SAMN09432880                                   |
| Donor age (years)                                                           | 45                                             | 51                  | 51                         | 62                             | 32                      | 51                                             |
| Donor sex (M/F)                                                             | F                                              | F                   | M                          | M                              | M                       | M                                              |
| Donor BMI (kg/m <sup>2</sup> )                                              | 30.5                                           | 32.2                | 25.5                       | 36.5                           | 28.5                    | 35.6                                           |
| Donor HbA <sub>1c</sub> or other measure of blood glucose control           | 6.6%                                           | 5.3%                | 5.4%                       | 5.8%                           | 5.2%                    | 5.4%                                           |
| Origin/source of islets                                                     | IIDP                                           | IIDP                | IIDP                       | IIDP                           | IIDP                    | IIDP                                           |
| Islet isolation centre                                                      | Southern California Islet Cell Resource Center | University of Miami | University of Pennsylvania | Scharp/Lacy Research Institute | University of Wisconsin | Southern California Islet Cell Resource Center |
| Donor history of diabetes? Please select yes/no from drop down list         | Yes                                            | No                  | No                         | No                             | No                      | No                                             |
| <b>If Yes, complete the next two lines if this information is available</b> |                                                |                     |                            |                                |                         |                                                |
| Diabetes duration (years)                                                   | Unknown                                        |                     |                            |                                |                         |                                                |
| Glucose-lowering therapy at time of death                                   | Unknown                                        |                     |                            |                                |                         |                                                |
| <b>RECOMMENDED INFORMATION</b>                                              |                                                |                     |                            |                                |                         |                                                |
| Donor cause of death                                                        |                                                |                     |                            |                                |                         |                                                |
| Warm ischaemia time (h)                                                     |                                                |                     |                            |                                |                         |                                                |
| Cold ischaemia time (h)                                                     |                                                |                     |                            |                                |                         |                                                |
| Estimated purity (%)                                                        |                                                |                     |                            |                                |                         |                                                |
| Estimated viability (%)                                                     |                                                |                     |                            |                                |                         |                                                |
| Total culture time (h) <sup>d</sup>                                         |                                                |                     |                            |                                |                         |                                                |
| Glucose-stimulated insulin                                                  |                                                |                     |                            |                                |                         |                                                |

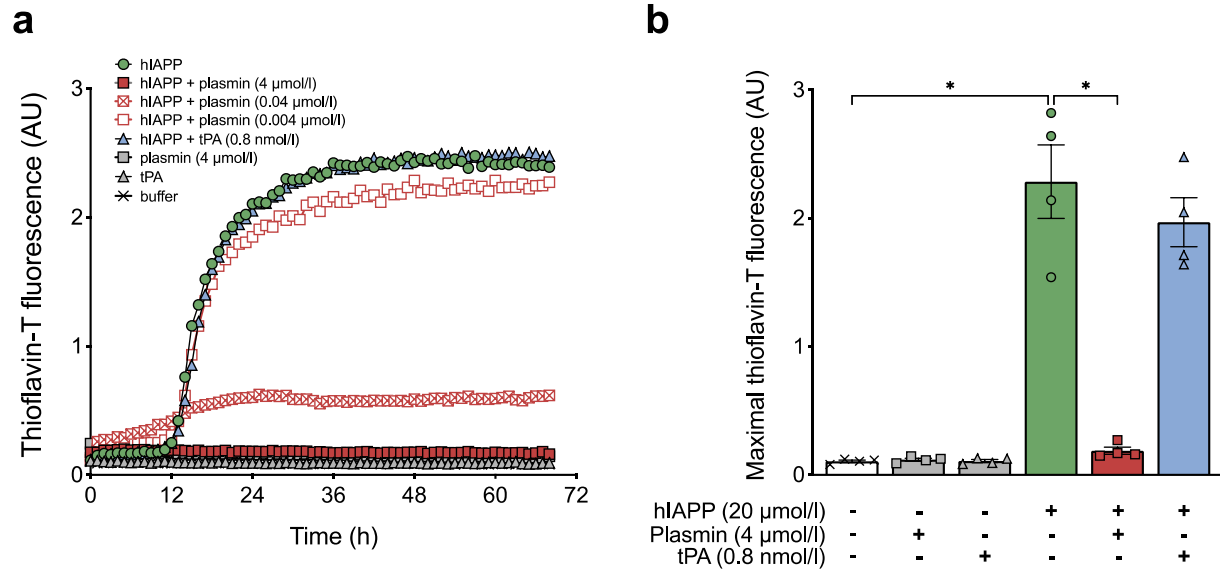
|                                                                |  |  |  |  |  |  |
|----------------------------------------------------------------|--|--|--|--|--|--|
| secretion or other functional measurement                      |  |  |  |  |  |  |
| Handpicked to purity? Please select yes/no from drop down list |  |  |  |  |  |  |
| Additional notes                                               |  |  |  |  |  |  |

| Islet preparation                                                           | 7                                              | 8                                              | 9                                              | 10                                             | 11                                             |
|-----------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| <b>MANDATORY INFORMATION</b>                                                |                                                |                                                |                                                |                                                |                                                |
| Unique identifier                                                           | SAMN09644089                                   | SAMN09844981                                   | SAMN10372788                                   | SAMN11606052                                   | SAMN11791244                                   |
| Donor age (years)                                                           | 27                                             | 56                                             | 50                                             | 58                                             | 47                                             |
| Donor sex (M/F)                                                             | M                                              | M                                              | F                                              | F                                              | M                                              |
| Donor BMI (kg/m <sup>2</sup> )                                              | 32.9                                           | 29.3                                           | 35.4                                           | 34.8                                           | 36.1                                           |
| Donor HbA <sub>1c</sub> or other measure of blood glucose control           | 6%                                             | 7.6%                                           | 9.9%                                           | 10.1%                                          | 5.7%                                           |
| Origin/source of islets                                                     | IIDP                                           | IIDP                                           | IIDP                                           | IIDP                                           | IIDP                                           |
| Islet isolation centre                                                      | Southern California Islet Cell Resource Center | Southern California Islet Cell Resource Center | Southern California Islet Cell Resource Center | Southern California Islet Cell Resource Center | Southern California Islet Cell Resource Center |
| Donor history of diabetes? Please select yes/no from drop down list         | No                                             | Yes                                            | Yes                                            | Yes                                            | No                                             |
| <b>If Yes, complete the next two lines if this information is available</b> |                                                |                                                |                                                |                                                |                                                |
| Diabetes duration (years)                                                   |                                                | >10 years                                      | > 10 years                                     | 0-5 years                                      |                                                |
| Glucose-lowering therapy at time of death                                   |                                                | Insulin                                        | Insulin                                        | Unknown                                        |                                                |
| <b>RECOMMENDED INFORMATION</b>                                              |                                                |                                                |                                                |                                                |                                                |
| Donor cause of death                                                        |                                                |                                                |                                                |                                                |                                                |

|                                                                      |  |  |  |  |  |
|----------------------------------------------------------------------|--|--|--|--|--|
| Warm ischaemia time (h)                                              |  |  |  |  |  |
| Cold ischaemia time (h)                                              |  |  |  |  |  |
| Estimated purity (%)                                                 |  |  |  |  |  |
| Estimated viability (%)                                              |  |  |  |  |  |
| Total culture time (h) <sup>d</sup>                                  |  |  |  |  |  |
| Glucose-stimulated insulin secretion or other functional measurement |  |  |  |  |  |
| Handpicked to purity? Please select yes/no from drop down list       |  |  |  |  |  |
| Additional notes                                                     |  |  |  |  |  |

**ESM Table 2. TaqMan Probes for gene expression analysis**

| <b>Gene Name</b> | <b>Species</b> | <b>TaqMan Probe Number</b> |
|------------------|----------------|----------------------------|
| Plat             | Mouse          | Mm00476931_m1              |
|                  | Rat            | Rn01482578_m1              |
|                  | Human          | Hs00263492_m1              |
| Plau             | Mouse          | Mm00447054_m1              |
| Serpine1         | Mouse          | Mm00435858_m1              |
|                  | Human          | Hs00167155_m1              |
| Adgre1           | Mouse          | Mm00802529_m1              |
| Itgam            | Mouse          | Mm00434455_m1              |
| Ppib             | Mouse          | Mm00478295_m1              |
|                  | Rat            | Rn03302274_m1              |
| 18S rRNA         | Human          | HS99999901_s1              |



**ESM Figure 1. Plasmin, but not tPA, inhibits hIAPP fibril formation in a dose-dependent manner.** (a) Representative aggregation of hIAPP (20  $\mu\text{mol/l}$ ) carried out in the absence or presence of increasing amounts of plasmin (0.004 to 4  $\mu\text{mol/l}$ ) or tPA (0.8 nmol/l) and monitored for 72 hours by thioflavin-T fluorescence in a cell-free system. AU, arbitrary units. (b) Quantification of maximal hIAPP aggregation with or without plasmin or tPA.  $n=4$ ;  $*p\leq 0.05$