Table S1. Subgroup analyses of post SPK patients based on time after transplantation.

|                     | Post-SPK < 7 years | Post-SPK ≥ 7 years | P-value<sup>6</sup> |
|---------------------|--------------------|--------------------|---------------------|
| **n**               | 35                 | 37                 |                     |
| **Age (yrs)**       | 45.2±6.7           | 50.6±8.8           | 0.005               |
| **Male gender**     | 19 (54%)           | 22 (59%)           | 0.67                |
| **Married/living together**<sup>1</sup> | 29 (83%)          | 27 (73%)           | 0.42                |
| **Ethnicity (Non-Caucasian)** | 2 (6%)            | 5 (14%)            | 0.26                |
| **Age of diagnosis DM (yrs)** | 12.3±5.3       | 12.5±8.0           | 0.86                |
| **Duration of DM<sup>2</sup> (yrs)** | 29.6±6.9         | 27.9±8.4           | 0.37                |
| **Insulin use**     | 4 (11%)            | 0 (0%)             | 0.034               |
| **Dialysis**        | 1 (3%)             | 0 (0%)             | 0.49                |
| **Retinopathy<sup>3</sup>** | 33 (94%)         | 37 (100%)          | 0.14                |
| **Arterial vascular disease<sup>4</sup>** | 9 (26%)          | 19 (51%)           | 0.026               |
| **Amputation<sup>5</sup>** | 6 (17%)          | 7 (19%)            | 0.85                |
| **Malignancy**      | 0 (0%)             | 7 (18.9%)          | 0.007               |
| -Nonmelanoma skin cancer | 0 (0%)          | 7 (18.9%)          |                     |
| - Other cancers     | 1 (2.9%)           | 4 (10.8%)          |                     |
| **SF-36 ‘General Health’** | 49.0±22.3      | 45.5±24.1          | 0.53                |
| **SF-36 ‘Physical Function’** | 73.1±27.2      | 59.5±32.1          | 0.05                |
| **BSI total score** | 0.54±0.54         | 0.55±0.57          | 0.9                 |

SPK = simultaneous pancreas kidney. Values are reported as number (% of total in parentheses) for categorical data and mean±SD for quantitative data, unless otherwise indicated. Seven years was the median time after transplantation in the post SPK group. <sup>1</sup>Married or living together. <sup>2</sup>Time from diagnosis type 1 DM to pancreas transplant. <sup>3</sup>Retinopathy that required laser coagulation; <sup>4</sup>Arterial vascular disease (coronary, cerebral, peripheral) requiring either hospital admission or treatment; <sup>5</sup>Amputation indicates amputations performed on the lower extremity. <sup>6</sup>P-values by independent T-test or Chi-square tests.
Table S2. Psychological symptoms subscales (BSI).

|                     | Post-SPK | Pre-SPK | P-value post SPK vs pre SPK | T1D reference | Dutch population reference (18) |
|---------------------|----------|---------|----------------------------|----------------|---------------------------------|
| Somatization        | 0.68±0.66| 0.61±0.55| 0.55                       | 0.37±0.48      | 0.17±0.28                       |
| Obsessive-compulsive| 0.79±0.84| 0.54±0.59| 0.08                       | 0.55±0.60      | 0.35±0.42                       |
| Interpersonal Sensitivity | 0.56±0.72| 0.45±0.50| 0.36                       | 0.37±0.51      | 0.29±0.42                       |
| Depression          | 0.58±0.69| 0.48±0.65| 0.43                       | 0.38±0.48      | 0.20±0.34                       |
| Anxiety             | 0.50±0.75| 0.34±0.44| 0.19                       | 0.27±0.45      | 0.22±0.34                       |
| Hostility           | 0.46±0.47| 0.38±0.46| 0.36                       | 0.21±0.25      | 0.20±0.29                       |
| Phobic Anxiety      | 0.37±0.56| 0.27±0.48| 0.32                       | 0.21±0.32      | 0.11±0.23                       |
| Paranoid Ideation   | 0.43±0.61| 0.45±0.54| 0.86                       | 0.21±0.30      | 0.23±0.35                       |
| Psychoticism        | 0.34±0.54| 0.31±0.44| 0.75                       | 0.25±0.33      | 0.14±0.28                       |
| BSI total score     | 0.54±0.55| 0.45±0.42| 0.34                       | 0.32±0.33      | 0.21±0.25                       |

SPK = simultaneous pancreas kidney. T1D = Type 1 diabetes reference group. Values are reported as mean±SD. Higher values indicate more psychological symptoms.
|                                | Post-SPK  | Pre-SPK  | P-value post SPK vs pre SPK | T1D reference |
|--------------------------------|-----------|----------|-----------------------------|---------------|
| Physical function             | 66.1±30.4 | 64.3±27.3| 0.34                        | 88.5±16.5     |
| Social function               | 67.4±29.5 | 66.8±26.5| 0.91                        | 82.7±17.7     |
| Role physical                 | 45.8±42.4 | 37.2±35.7| 0.25                        | 72.0±41.0     |
| Role emotional                | 76.8±37.8 | 66.7±39.3| 0.16                        | 84.9±28.7     |
| Mental health                 | 75.5±19.7 | 75.1±16.5| 0.91                        | 79.1±12.7     |
| Vitality                      | 57.3±21.1 | 52.4±21.0| 0.22                        | 66.0±18.4     |
| Bodily pain                   | 71.0±28.5 | 72.9±28.1| 0.72                        | 85.4±17.2     |
| General health                | 47.2±23.1 | 37.5±18.1| 0.017                       | 60.6±22.3     |
| Sum Physical\(^1\)            | 240.2±101.6| 226.9±91.9| 0.47                        | 311.9±75.4    |
| Sum Mental\(^2\)              | 219.7±68.7 | 208.6±65.4| 0.38                        | 264.9±48.6    |
| Total score                   | 507.1±159.8| 473.0±142.0| 0.24                        | 637.4±124.7   |

SPK = simultaneous pancreas kidney. T1D = Type 1 diabetes reference group. Values are reported as mean±SD. \(^1\)Sum score of the following subscales: Bodily pain, Vitality, Physical Function, Role Physical. \(^2\)Sum score of the following subscales: Mental Health, Social Function, Role Emotional. Higher scores indicate better quality of life.
Table S4. Personality trait subscales (DAPP-sf).

| Trait                  | Post-SPK | Pre-SPK | P-value post SPK vs pre SPK | T1D reference | Dutch population reference (18) |
|------------------------|----------|---------|----------------------------|---------------|-------------------------------|
| Submissiveness         | 1.8±0.75 | 1.8±0.67| 1.0                        | 2.2±0.79      | 2.1±0.75                      |
| Cognitive Distortion   | 1.4±0.61 | 1.4±0.55| 1.0                        | 1.5±0.45      | 1.4±0.51                      |
| Identity Problems      | 1.8±0.79 | 1.7±0.73 | 0.49                       | 1.7±0.76      | 1.5±0.59                      |
| Affective Lability     | 2.3±0.84 | 2.1±0.85 | 0.21                       | 2.0±0.73      | 2.0±0.76                      |
| Stimulus Seeking       | 2.0±0.84 | 2.0±0.76 | 1.0                        | 1.8±0.54      | 2.0±0.72                      |
| Compulsivity           | 2.6±0.95 | 2.6±1.1  | 1.0                        | 2.7±0.78      | 2.5±0.77                      |
| Restricted Expression  | 2.5±0.74 | 2.5±0.76 | 1.0                        | 2.4±0.66      | 2.3±0.75                      |
| Oppositionality        | 1.7±0.50 | 1.7±0.57 | 1.0                        | 1.7±0.44      | 1.9±0.65                      |
| Callousness            | 2.0±0.80 | 2.1±0.63 | 0.47                       | 1.9±0.65      | 1.7±0.50                      |
| Intimacy Problems      | 2.3±0.82 | 2.4±0.80 | 0.51                       | 2.4±0.77      | 2.1±0.67                      |
| Rejection              | 2.3±0.69 | 2.4±0.90 | 0.50                       | 2.3±0.60      | 2.5±0.76                      |
| Anxiousness            | 2.0±0.84 | 1.9±0.80 | 0.52                       | 2.1±0.78      | 2.0±0.81                      |
| Conduct Problems       | 1.2±0.36 | 1.3±0.36 | 0.14                       | 1.2±0.22      | 1.3±0.37                      |
| Suspiciousness         | 1.5±0.56 | 1.5±0.67 | 1.0                        | 1.3±0.56      | 1.3±0.46                      |
| Social Avoidance       | 1.8±0.80 | 1.7±0.56 | 0.46                       | 1.8±0.72      | 1.8±0.73                      |
| Narcissism             | 1.7±0.63 | 1.8±0.77 | 0.44                       | 1.9±0.64      | 2.2±0.76                      |
| Insecure Attachment    | 2.0±0.97 | 2.0±1.0  | 1.0                        | 1.9±0.90      | 1.7±0.77                      |
| Self-Harm              | 1.2±0.49 | 1.1±0.40 | 0.25                       | 1.1±0.25      | 1.1±0.27                      |

Values are reported as mean±SD. Higher values indicate an increase in the personality trait.
Data S1: Additional models.

**Physical subscales correlation outcome**
SF-36 (physical sum score) = 481 – 79*(BSI total score) – 51*(dialysis) - 58* (retinopathy) – 46*(vascular event) – 48 *(malignancy(1)) – 89*(malignancy(2)) – 29*(if female) -1.5 *(age)

**BSI total score correlation outcome**
BSI total score = 0.14 + 0.28*(retinopathy) + 0.15*(male gender) + 0.27 *(non-caucasian ethnicity) – 0.36*(if low level of education)