

SUPPLEMENTARY DATA

**Supplemental Table 1.** Cox regression analysis of the 41 type 1 diabetes risk loci on the risk of progression from multiple autoantibodies to type 1 diabetes. Cox model for each SNP was adjusted for age at multiple autoantibodies onset, HLA-DR-DQ genotype, sex, family history of T1D, type of first autoantibody and the top two principal components from the principal components analysis on TEDDY ImmunoChip data. The minor allele frequency (MAF) for the respective SNP was calculated from the study population.

| Chr            | SNP               | Gene of interest          | Minor allele | MAF         | HR (95% CI)              | p            |
|----------------|-------------------|---------------------------|--------------|-------------|--------------------------|--------------|
| 1p13.2         | rs2476601         | <i>PTPN22</i>             | A            | 0.18        | 1.21 (0.88, 1.65)        | 0.241        |
| 1p31.3         | rs2269241         | <i>PGM1</i>               | C            | 0.25        | 0.91 (0.70, 1.18)        | 0.472        |
| 1q31.2         | rs2816316         | <i>RGS1</i>               | C            | 0.18        | 0.88 (0.67, 1.16)        | 0.371        |
| 1q32.1         | rs3024505         | <i>IL10</i>               | A            | 0.16        | 1.06 (0.81, 1.41)        | 0.661        |
| <b>2p25.1</b>  | <b>rs1534422</b>  | <b>0</b>                  | <b>G</b>     | <b>0.47</b> | <b>1.39 (1.10, 1.76)</b> | <b>0.005</b> |
| 2q24.2         | rs1990760         | <i>IFIH1</i>              | C            | 0.38        | 1.02 (0.82, 1.28)        | 0.831        |
| 2q33.2         | rs3087243         | <i>CTLA4</i>              | A            | 0.38        | 1.16 (0.94, 1.44)        | 0.171        |
| 3p21.31        | rs11711054        | <i>CCR5</i>               | G            | 0.31        | 1.04 (0.82, 1.31)        | 0.772        |
| <b>4p15.2</b>  | <b>rs10517086</b> | <b>0</b>                  | <b>A</b>     | <b>0.33</b> | <b>1.31 (1.03, 1.66)</b> | <b>0.026</b> |
| 4q27           | rs4505848         | <i>IL2</i>                | G            | 0.39        | 1.19 (0.95, 1.49)        | 0.122        |
| 5p13.2         | rs6897932         | <i>IL7R</i>               | T            | 0.27        | 1.15 (0.89, 1.49)        | 0.284        |
| 6q22.32        | rs9388489         | <i>C6orf173</i>           | G            | 0.45        | 0.99 (0.78, 1.25)        | 0.926        |
| <b>6q23.3</b>  | <b>rs2327832</b>  | <b>TNFAIP3</b>            | <b>G</b>     | <b>0.20</b> | <b>1.37 (1.06, 1.78)</b> | <b>0.017</b> |
| 6q25.3         | rs1738074         | <i>TAGAP</i>              | T            | 0.40        | 1.12 (0.90, 1.41)        | 0.305        |
| 7p12.1         | rs4948088         | <i>COBL</i>               | A            | 0.03        | 1.11 (0.62, 1.99)        | 0.718        |
| 7p15.2         | rs7804356         | <i>SKAP2</i>              | C            | 0.20        | 1.21 (0.91, 1.62)        | 0.194        |
| 9p24.2         | rs7020673         | <i>GLIS3</i>              | C            | 0.48        | 0.95 (0.76, 1.17)        | 0.613        |
| 10p15.1        | rs11258747        | <i>PRKCQ</i>              | T            | 0.26        | 1.04 (0.82, 1.32)        | 0.749        |
| 10p15.1        | rs12251307        | <i>IL2RA</i>              | T            | 0.11        | 0.99 (0.71, 1.39)        | 0.957        |
| 10q23.31       | rs10509540        | <i>RNLS</i>               | C            | 0.25        | 1.04 (0.80, 1.34)        | 0.780        |
| <b>11p15.5</b> | <b>rs1004446</b>  | <b>INS</b>                | <b>A</b>     | <b>0.32</b> | <b>0.75 (0.59, 0.96)</b> | <b>0.021</b> |
| 11p15.5        | rs7111341         | <i>INS</i>                | T            | 0.23        | 0.88 (0.67, 1.17)        | 0.376        |
| 12p13.31       | rs4763879         | <i>CD69</i>               | A            | 0.40        | 1.04 (0.84, 1.29)        | 0.716        |
| 12q13.2        | rs2292239         | <i>ERBB3</i>              | T            | 0.39        | 1.05 (0.83, 1.33)        | 0.676        |
| 12q24.12       | rs3184504         | <i>SH2B3</i>              | T            | 0.52        | 0.97 (0.79, 1.20)        | 0.790        |
| 14q24.1        | rs1465788         | <i>ZFP36L1, C14orf181</i> | T            | 0.29        | 1.06 (0.84, 1.35)        | 0.627        |
| 14q32.2        | rs4900384         | <i>C14orf64</i>           | G            | 0.31        | 0.86 (0.67, 1.10)        | 0.219        |
| 15q25.1        | rs3825932         | <i>CTSH</i>               | T            | 0.32        | 0.81 (0.63, 1.04)        | 0.102        |
| 16p11.2        | rs4788084         | <i>IL27</i>               | T            | 0.44        | 1.07 (0.86, 1.34)        | 0.538        |
| 16p13.13       | rs12708716        | <i>CLEC16A</i>            | G            | 0.29        | 1.13 (0.90, 1.43)        | 0.287        |
| 16q23.1        | rs7202877         | <i>CTRB2</i>              | G            | 0.12        | 1.04 (0.74, 1.46)        | 0.832        |
| 17p13.1        | rs16956936        | <i>2 genes</i>            | T            | 0.13        | 1.02 (0.72, 1.44)        | 0.913        |
| 17q12          | rs2290400         | <i>ORMDL</i>              | T            | 0.48        | 0.97 (0.79, 1.20)        | 0.771        |
| 17q21.2        | rs7221109         | <i>CCR7</i>               | T            | 0.38        | 1.06 (0.85, 1.32)        | 0.620        |
| 18p11.21       | rs1893217         | <i>PTPN2</i>              | G            | 0.18        | 1.11 (0.82, 1.49)        | 0.517        |

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|          |            |                |   |      |                   |       |
|----------|------------|----------------|---|------|-------------------|-------|
| 18q22.2  | rs763361   | <i>CD226</i>   | T | 0.49 | 1.19 (0.95, 1.50) | 0.135 |
| 19q13.32 | rs425105   | <i>PRKD2</i>   | C | 0.15 | 0.92 (0.67, 1.26) | 0.601 |
| 20p13    | rs2281808  | <i>SIRPG</i>   | T | 0.31 | 1.15 (0.91, 1.46) | 0.232 |
| 21q22.3  | rs11203203 | <i>UBASH3A</i> | A | 0.38 | 1.04 (0.83, 1.30) | 0.732 |
| 22q12.2  | rs5753037  | <i>HORMAD2</i> | T | 0.37 | 1.17 (0.92, 1.49) | 0.202 |
| 22q13.1  | rs229541   | <i>C1QTNF6</i> | A | 0.43 | 1.05 (0.84, 1.31) | 0.664 |

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