SUPPLEMENTARY DATA

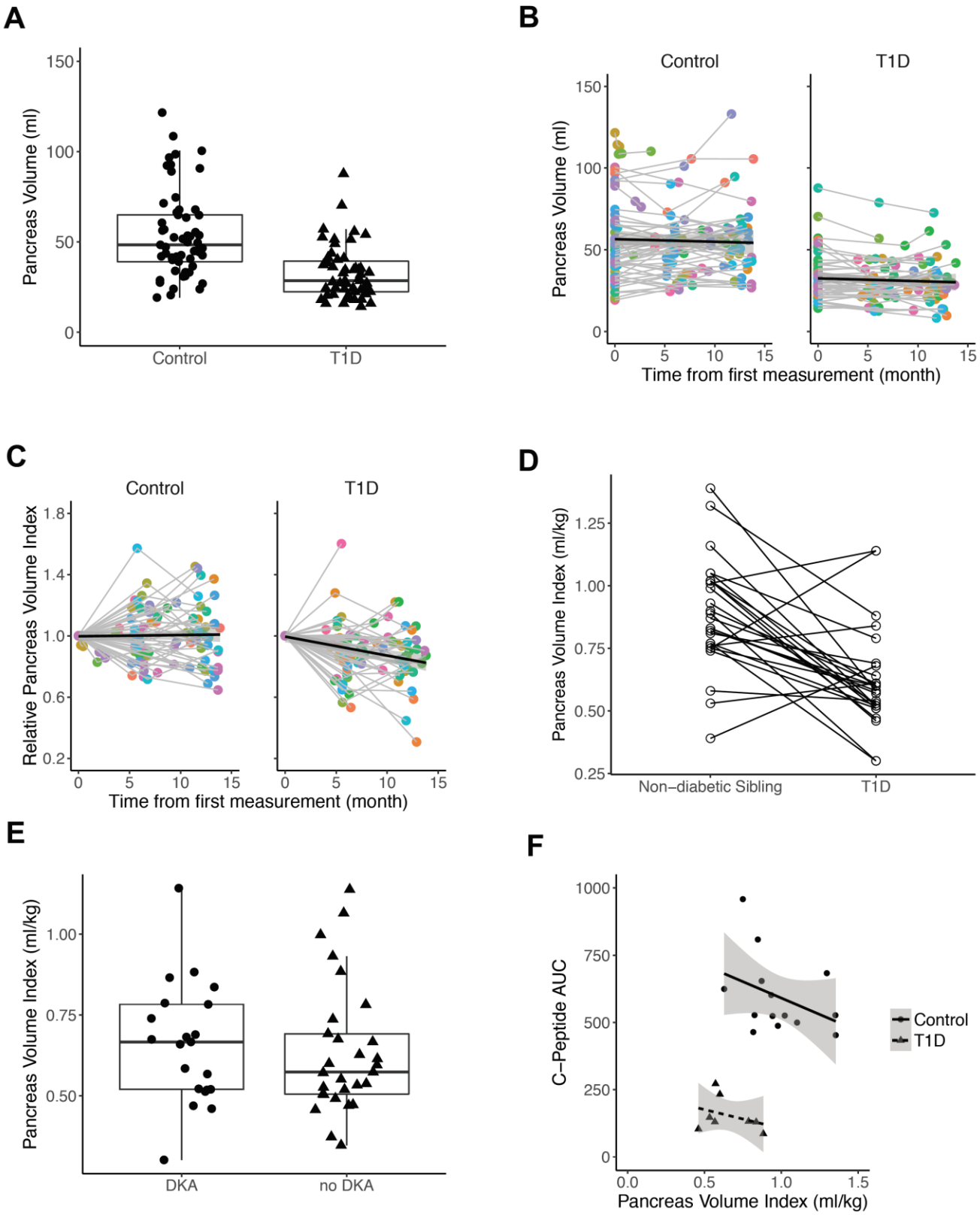
Supplementary Table 1. C-peptide, blood glucose (BG), and pancreatic volume index measurements in recent-onset T1D participants who underwent MMTT, along with the average values for controls who underwent MMTT.

C-peptide at diagnosis (ng/mL)	BG at diagnosis (mg/dL)	Panc volume index at diagnosis
0.7	287	0.93
0.4	243	0.88
0.2	315	0.52
0.3	341	0.67
0.4	247	0.58
0.2	330	1.14
0.6	389	0.47
0.4	306	1.00
0.2	145	0.79
0.4	201	0.74
0.6	259	0.46
0.6	400	0.67
0.4	238	0.84
0.3	450	0.78
0.4	158	0.66
0.4	411	0.52
0.9	221	0.35
1.4	391	0.68
0.4	250	0.30
0.1	338	0.51
T1D average		
0.5 ± 0.3	296 ± 86	0.68 ± 0.22
control average		
1.6 ± 0.5	93 ± 8	0.97 ± 0.22

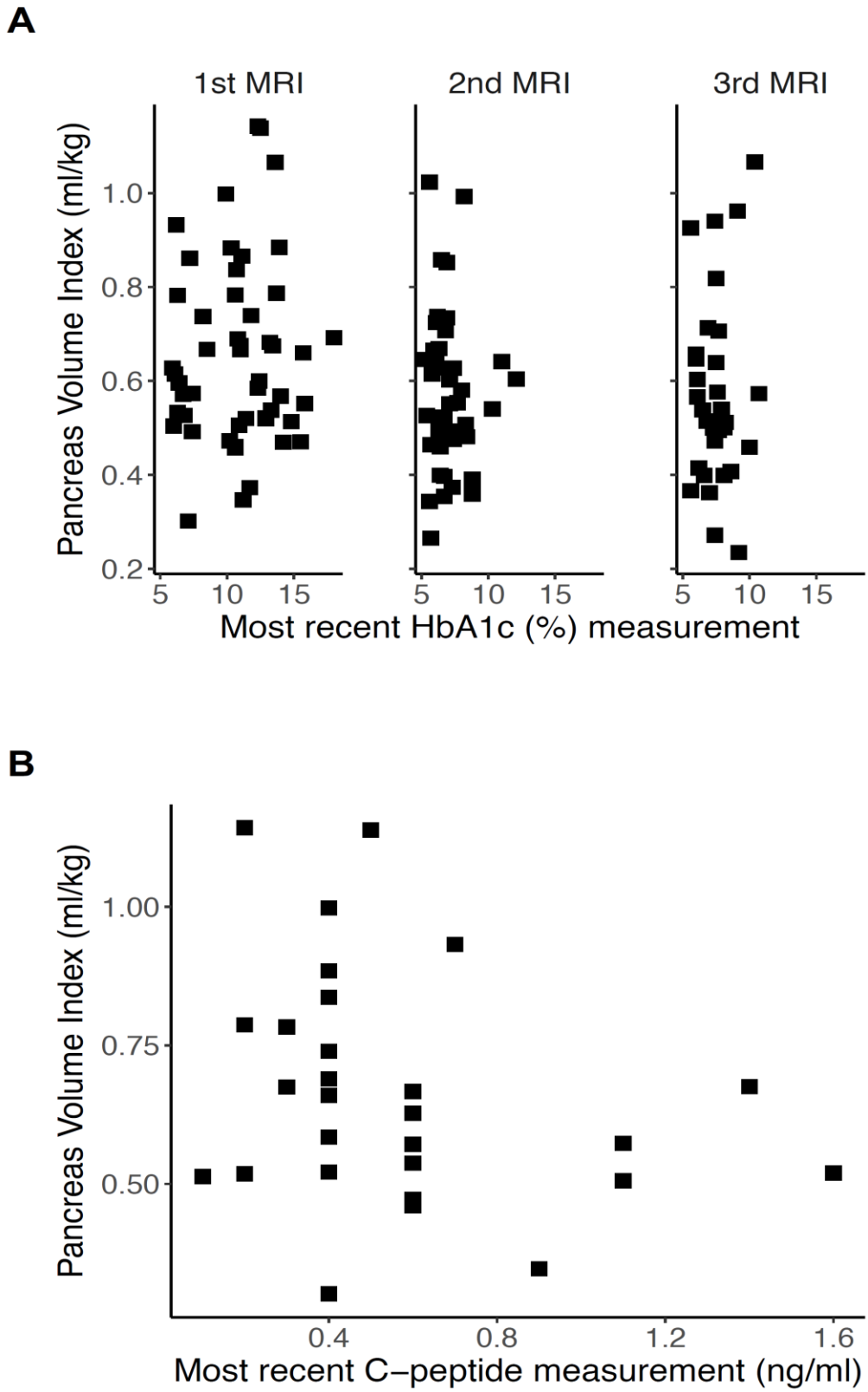
SUPPLEMENTARY DATA

Supplementary Figure 1. A) Pancreas volume is smaller in participants with recent-onset T1D than similarly-aged controls. B) Pancreas volume is stable in the control pancreas over a one-year period but declines in participants with T1D over the year after diagnosis. C) When normalized to the baseline measurement for each study participant, pancreas volume index is stable in the control population but declines in participants with T1D. D) Pancreas volume index is smaller in participants with T1D than their siblings who do not have T1D. Siblings are connected by lines. E) Pancreas volume index is similar at T1D onset whether or not diabetic ketoacidosis was present at diagnosis. F) Pancreas volume index does not correlate with insulin production in either the T1D or control cohorts, as assessed by mixed-meal tolerance testing. Shading indicates the 95% confidence interval in all figures.

SUPPLEMENTARY DATA

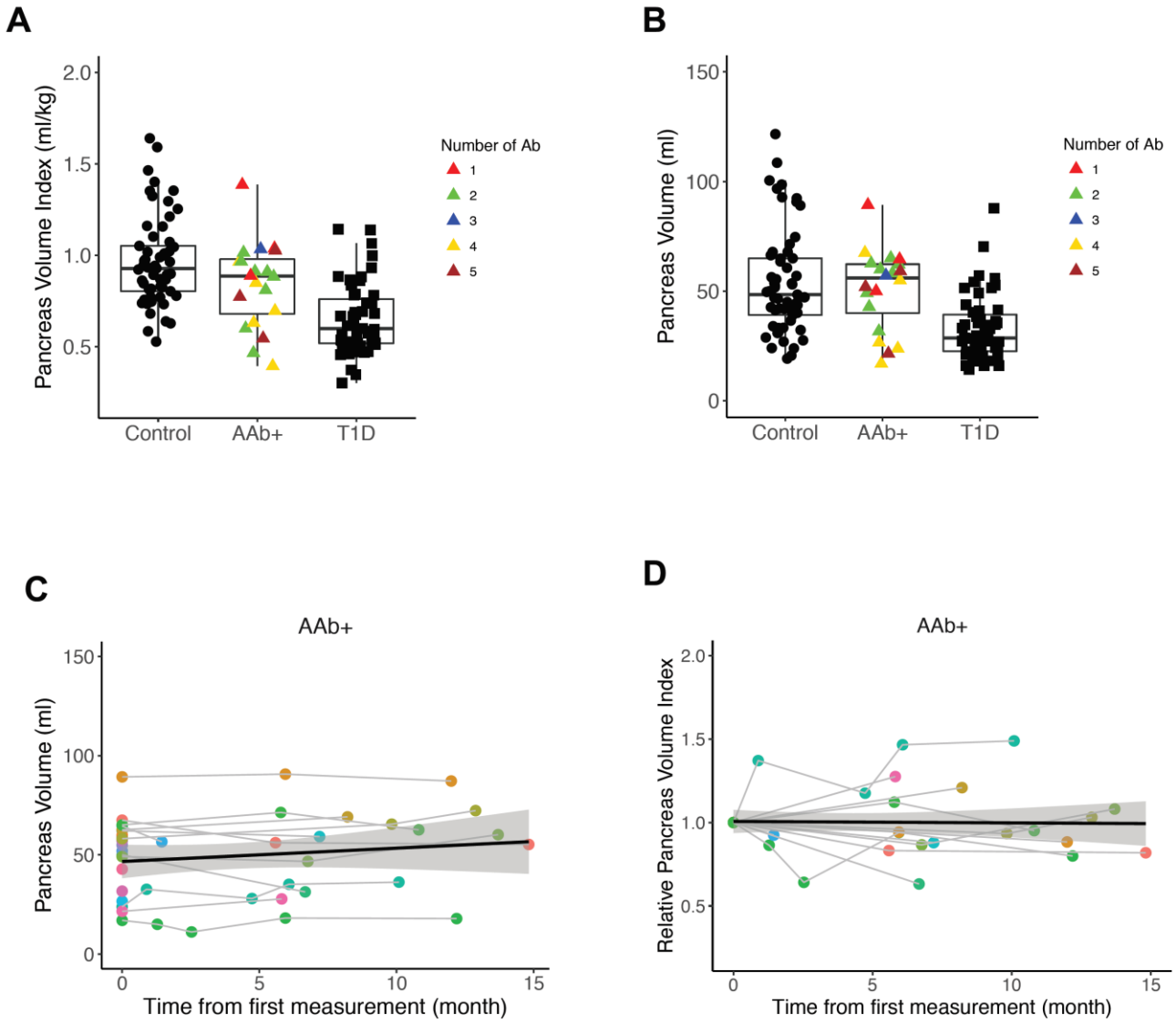


Supplementary Figure 2. A) Pancreas volume index does not correlate with A1c in participants with T1D at either the first MRI, the second MRI, or the third MRI. B) Pancreas volume index does not correlate with C-peptide production in participants with T1D at disease onset.



SUPPLEMENTARY DATA

Supplementary Figure 3. A) When including three participants with a single autoantibody present at the time of MRI, pancreas volume index in autoantibody-positive participants is similar to controls and larger than the pancreas in participants with recent-onset T1D. Autoantibody-positive participants are color coded according to the number of autoantibodies present at the time of the MRI scan. B) When including three participants with a single autoantibody present at the time of MRI, pancreas volume in the autoantibody-positive cohort is similar to controls and larger than the pancreas in participants with recent-onset T1D. C) In autoantibody-positive participants, pancreas volume measurements of the cohort do not indicate any significant trend. D) When normalized to the baseline measurement for each study participant, pancreas volume index displays no clear trend in the autoantibody-positive population. Shading indicates the 95% confidence interval in all figures.



SUPPLEMENTARY DATA

Supplementary Figure 4. A) The mean MTR of the pancreas is similar in controls, participants with T1D, and autoantibody-positive participants. Autoantibody-positive participants are color coded according to the number of autoantibodies present at the time of the MRI scan. B) The signal intensity ratio of the pancreas to the spleen on T1-weighted MRI is similar in controls, participants with T1D, and autoantibody-positive participants.