

SUPPLEMENTARY DATA

Supplementary Table 1. Type 1 Diabetes TrialNet Study Group participants

Steering Committee: Carla J. Greenbaum (Benaroya Research Institute), Mark A. Atkinson (University of Florida), David A. Baidal (University of Miami), Manuela Battaglia (San Raffaele University), Dorothy Becker (University of Pittsburgh), Penelope Bingley (University of Bristol), Emanuele Bosi (San Raffaele University), Jane Buckner (Benaroya Research Institute), Mark Clements (The Children's Mercy Hospital), Peter G. Colman (Walter & Eliza Hall Institute of Medical Research), Linda DiMeglio (Indiana University), Carmella Evans-Molina (Indiana University), Stephen E. Gitelman (University of California, San Francisco), Robin Goland (Columbia University), Peter Gottlieb (Barbara Davis Center for Childhood Diabetes), Kevan Herold (Yale University), Mikael Knip (University of Helsinki), Jeffrey P. Krischer (University of South Florida), Ake Lernmark (Skane University Hospital), Wayne Moore (The Children's Mercy Hospital), Antoinette Moran (University of Minnesota), Andrew Muir (Emory Children's Center), Jerry Palmer (University of Washington), Mark Peakman (King's College), Louis Philipson (University of Chicago), Philip Raskin (University of Texas Southwestern), Maria Redondo (Baylor College of Medicine), Henry Rodriguez (University of South Florida Diabetes and Endocrinology Center), William Russell (Vanderbilt Eskind Diabetes Clinic), Desmond A. Schatz (University of Florida), Jay M. Sosenko (University of Miami), Lisa Spain (National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK]), John Wentworth (Walter & Eliza Hall Institute of Medical Research), Diane Wherrett (University of Toronto), Darrell M. Wilson (Stanford University), William Winter (University of Florida), Anette Ziegler (Technical University Munich).

Past Members: Mark Anderson (University of California, San Francisco), Peter Antinozzi (Wake Forest University), Richard Insel (Juvenile Diabetes Research Foundation [JDRF]), Thomas Kay (St. Vincent's Institute of Medical Research), Jennifer B. Marks (University of Miami), Alberto Pugliese (University of Miami), Bart Roep (Leiden University Medical Center), Jay S. Skyler (University of Miami), Jorma Toppari (Hospital District of Southwest Finland).

Executive Committee: Carla J. Greenbaum (Benaroya Research Institute), Jeffrey P. Krischer (University of South Florida), Ellen Leschek (National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK]), Lisa Spain (National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK]).

Past Members: Katarzyna Bourcier (National Institute of Allergy and Infectious Diseases [NIAID]), Richard Insel (Juvenile Diabetes Research Foundation [JDRF]), John Ridge (National Institute of Allergy and Infectious Disease [NIAID]), Jay S. Skyler (University of Miami).

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Yale University, New Haven, Connecticut: Kevan C. Herold, Laurie Feldman, Robert Sherwin, William V. Tamborlane, Stuart A. Weinzimer.

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Supplementary Table 2. Baseline BMI percentile summarized and compared by subgroups

Groups	N	BMI% median	BMI% IQR	p-value*
<i>Age at Ab+</i>				
<9 years	315	58.1	83.8 – 32.3	0.12
9+ years	391	65.2	86.2 – 39.3	
<i>Age at Ab+</i>				
<12 years	461	58.0	84.0 – 32.4	0.03
12+ years	245	68.2	86.6 – 45.0	
<i>Sex</i>				
Female	359	64.6	86.1 – 37.8	0.31
Male	347	60.6	83.0 – 33.7	
<i>Race/Ethnicity group</i>				
NHW	512	58.9	82.3 – 34.3	0.0004
Non-Hisp. non-	76	62.2	85.2 – 37.0	
White	118	75.8	95.6 – 44.8	
Hispanic				
<i>Ab type</i>				
GADA+	460	60.0	84.4 – 31.2	0.087
mIAA+	213	65.5	83.7 – 41.6	
IA-2A+	33	70.2	86.6 – 54.2	

*Wilcoxon rank sum test comparing continuous BMI% as a measure between two groups, or Kruskal-Wallis test between more than two groups. Abbreviations: Ab+: Autoantibody positivity; NHW: Non-Hispanic White; Hisp: Hispanic

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Supplementary Table 3.

A. ceBMI increased risk of progression to multiple autoantibody positivity in children ≥ 9 years old.

Age	ceBMI	n	HR (95% CI)	p value
<9 years	<0	228	Ref	0.40
	≥ 0	87	0.81 (0.50 – 1.32)	
≥ 9 years	<0	289	Ref	0.018
	≥ 0	102	1.92 (1.12 – 3.29)	

B. ceBMI did not increase risk of progression to multiple autoantibody positivity in the overall group regardless of the presence or absence of high risk HLA types.

HLA haplotype	ceBMI	n	HR (95% CI)	p value
Neither DR3 nor DR4-DQ8 (i.e. DR3- and DR4-)	<0	151	Ref	0.31
	≥ 0	54	1.51 (0.68 – 3.34)	
DR3 and/or DR4-DQ8	<0	364	Ref	0.46
	≥ 0	135	1.16 (0.78 – 1.74)	

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Supplementary Figure 1. Consort diagram for subjects with single Ab+ included in the analysis

