Supplemental Online Content

Lugar M, Eugster A Achenbach P, et al. SARS-CoV-2 infection and development of islet autoimmunity in early childhood. *JAMA*. doi:10.1001/jama.2023.16348

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Age and Period of Follow-up Visits in 885 Children of Study

Visit No.	Visit Age, Months (Median, IQR)	Visit Date (Median, Range, Month/Year)	Total Period (n, Children)	After June 2020 (n, Children)
2	8.0 (7.3 – 8.5)	4/2020 (4/2018 to 6/2021)	885	333
3	10.0 (9.2 – 10.4)	6/2020 (6/2018 to 8/2021)	885	391
4	13.9 (13.2 – 14.4)	9/2020 (10/2018 to 11/2021)	885	536
5	18.0 (17.9 – 18.2)	1/2021 (1/2019 to 5/2022)	881	637
6	24.0 (23.8 – 24.2)	6/2021 (7/2019 to 6/2022)	765	624

eTable 2. Characteristics of Children Included in Follow-up SARS-CoV-2 Antibody Measurements

	Total Study Period **n = 885**	**After June 2020** **n = 747**
Sex, Girls/Boys	441/444	364/383
T1D First Degree Relative	477	384
Country		
- Germany	407	306
- Poland	216	187
- Sweden	160	153
- Belgium	71	71
- United Kingdom	31	30
HLA DR3/DR4-DQ8	478	416

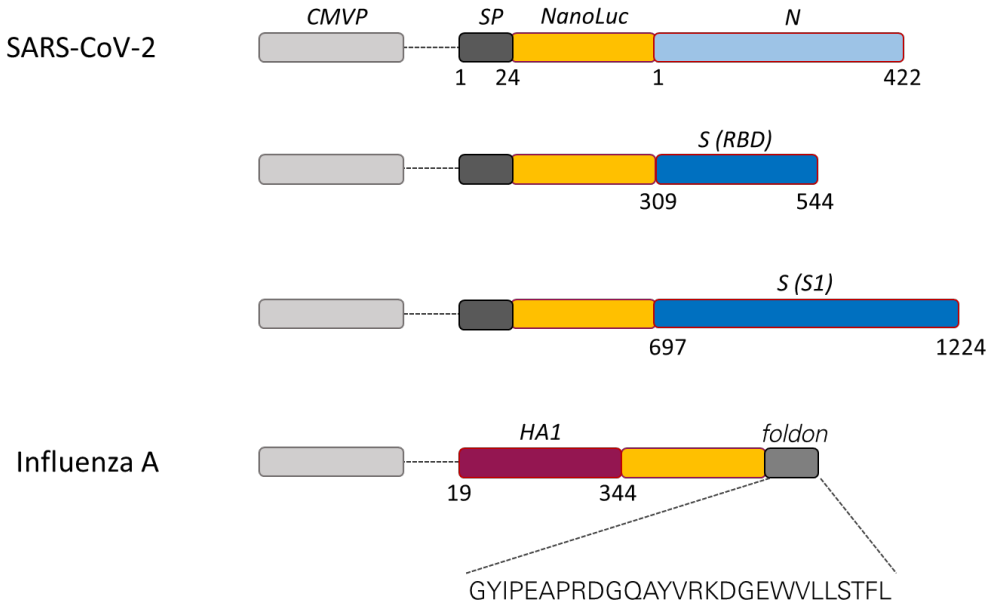
eTable3. Temporal Development of Islet Autoantibodies in Relation to SARS-CoV-2 Antibodies at Age 12 to 16 months.

SARS-CoV-2 Antibody Development at Age 12 to 16 mo (visit 4)	Islet Autoantibody Positive at 12-16 mo (visit 4) Cases No./Total (%)	Islet Autoantibody Positive at 18 mo (visit 5) Cases No./Total (%)
Pre-pandemic (Until June 2020)		
- SARS-CoV-2 Ab Negative	8/341 (2.3%)	5/333 (1.5%)
Pandemic (From July 2020)		
- SARS-CoV-2 Ab Negative	7/480 (1.5%)	4/422 (0.9%)
- SARS-CoV-2 Ab Positive	4/19 (21.1%)[a]	2/15 (13.3%)[b]

[a] *P*<.001 vs SARS-CoV-2 antibody negative in pandemic period; *P*=.001 vs SARS-CoV-2 antibody negative in whole period.

[b] *P*=.02 vs SARS-CoV-2 antibody negative in pandemic period; *P*=.02 vs SARS-CoV-2 antibody negative in whole period.

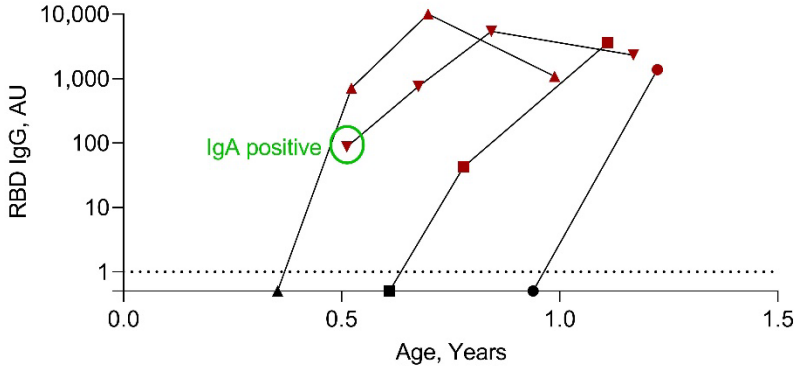
eFigure 1. Linear Schematic of Constructs Encoding Antigens Fused to Nanoluc Used in the Luciferase Immunoprecipation System (LIPS) Assay



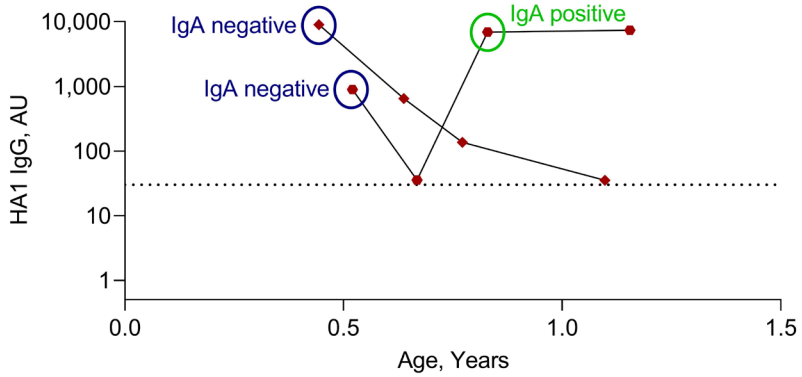
Linear schematic of constructs encoding recombinant SARS-COV-2 and Influenza A antigens fused to NanoLuc. All constructs are driven by the CMV-promotor. *SP*: *IL6 s*ignal peptide; *N*: Nucleocapsid gene; *S*: Spike gene; *RBD*: receptor binding domain; *S1*: S1 part of spike gene; *HA1*: HA1 part of hemaglutinin; *foldon*: bacteriophage T4 fibritin foldon domain (encoded amino acids are shown). Numbers correspond to amino acids encoded.

eFigure 2. Examples of SARS-CoV-2 (A) and H1N1 Antibody Titres (B,C) Over Time in Children

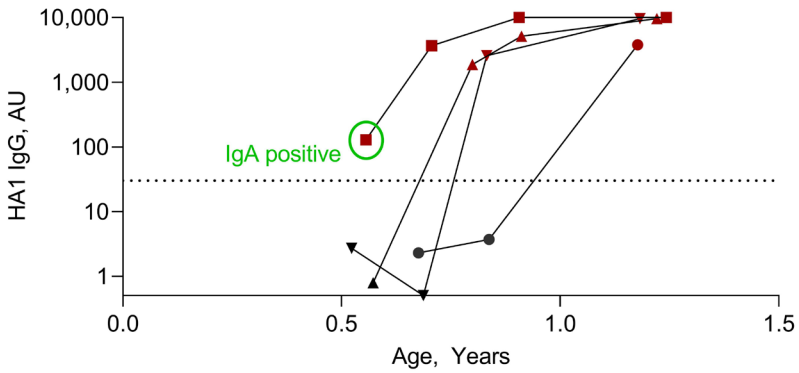
A



B

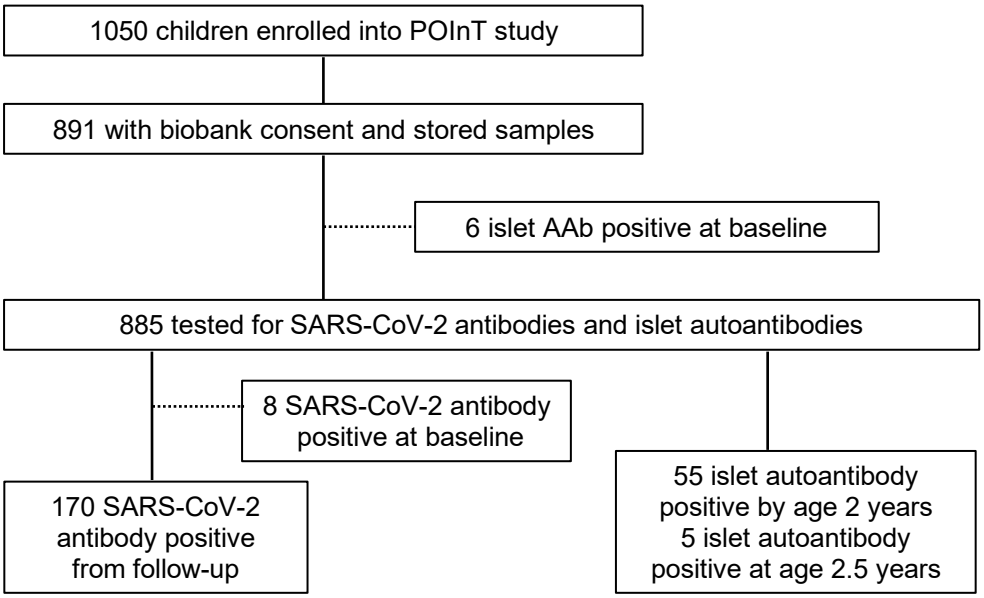


C



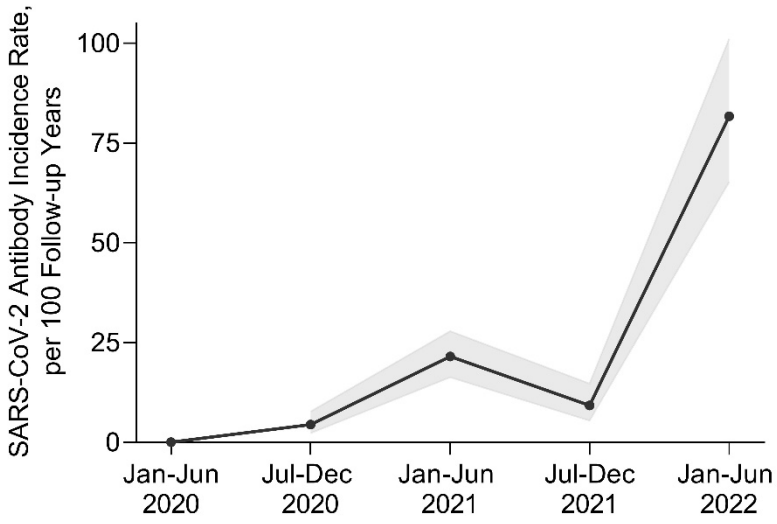
Dots connected with a line represent a set of samples of an individual child. Dashed lines show the threshold for antibody-positivity. Some samples were tested for IgA antibodies to distinguish the child's antibodies from the maternal ones (circled dot, green is IgA positive, blue is IgA negative).

eFigure 3. Children in POInT Study Tested in the Ancillary Study



eFigure 4. Incidence of SARS-CoV-2 Antibodies during the Pandemic Period (A) at Different Study Sites (B)

A



B