Supplemental Materials.

Study	Panel(s) focus	References
One Study/islet transplantation	Lineage, DC, B cells, NK cells, naïve/memory T cell subsets, Tregs, T cell activation, TCR	(1, 2)
AbATE (teplizumab, α CD3)	DC, monocytes, B cells, NK cells, naïve/memory T cell subset and exhaustion	(3-5)
ATG-GCSF	DC, monocytes, B cells, NK cells, naïve/memory T cell, helper subsets and exhaustion, Tregs	(6, 7)
T1DAL(alefacept, LFA3-lg)	Naïve/memory T cell subsets and exhaustion	(8)
Rapamycin/IL-2 combination therapy	NK cells, T helper cell subsets, Tregs, intracellular cytokine, pSTAT5	(9)
DILT1D (low dose IL-2)	NK cells, T cell subsets, Tregs, pSTAT5	(10)

Su	oplemental	Table 1. A	selection of	published o	vtometric	panels us	ed in T1D	studies
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Supplemental References

1. Streitz M, Miloud T, Kapinsky M, Reed M, Magari R, Geissler E, et al. Standardization of whole blood immune phenotype monitoring for clinical trials: panels and methods from the ONE study. Transplantation Research. 2013;2(1):17.

2. Jimenez Vera E, Chew Y, Nicholson L, Burns H, Anderson P, Chen H, et al. Standardisation of flow cytometry for whole blood immunophenotyping of islet transplant and transplant clinical trial recipients. PloS One. 2019;14(5):e0217163.

3. Long SA, Thorpe J, DeBerg HA, Gersuk V, Eddy J, Harris KM, et al. Partial exhaustion of CD8 T cells and clinical response to teplizumab in new-onset type 1 diabetes. Sci Immunol. 2016;1(5).

4. Long S, Thorpe J, Herold K, Ehlers M, Sanda S, Lim N, et al. Remodeling T cell compartments during anti-CD3 immunotherapy of type 1 diabetes. Cellular immunology. 2017;319:3-9.

5. Herold KC, Bundy BN, Long SA, Bluestone JA, DiMeglio LA, Dufort MJ, et al. An Anti-CD3 Antibody, Teplizumab, in Relatives at Risk for Type 1 Diabetes. New England Journal of Medicine. 2019;381(7):603-13.

6. Haller MJ, Gitelman SE, Gottlieb PA, Michels AW, Perry DJ, Schultz AR, et al. Antithymocyte Globulin Plus G-CSF Combination Therapy Leads to Sustained Immunomodulatory and Metabolic Effects in a Subset of Responders With Established Type 1 Diabetes. Diabetes. 2016;65(12):3765-75.

7. Haller MJ, Long SA, Blanchfield JL, Schatz DA, Skyler JS, Krischer JP, et al. Low-Dose Anti-Thymocyte Globulin Preserves C-Peptide, Reduces HbA1c, and Increases Regulatory to Conventional T-Cell Ratios in New-Onset Type 1 Diabetes: Two-Year Clinical Trial Data. Diabetes. 2019;68(6):1267-76.

8. Rigby MR, Harris KM, Pinckney A, DiMeglio LA, Rendell MS, Felner EI, et al. Alefacept provides sustained clinical and immunological effects in new-onset type 1 diabetes patients. J Clin Invest. 2015;125(8):3285-96.

9. Long SA, Rieck M, Sanda S, Bollyky JB, Samuels PL, Goland R, et al. Rapamycin/IL-2 Combination Therapy in Patients with Type 1 Diabetes Augments Tregs yet Transiently Impairs beta-Cell Function. Diabetes. 2012.

10. Todd JA, Evangelou M, Cutler AJ, Pekalski ML, Walker NM, Stevens HE, et al. Regulatory T Cell Responses in Participants with Type 1 Diabetes after a Single Dose of Interleukin-2: A Non-Randomised, Open Label, Adaptive Dose-Finding Trial. PLoS Med. 2016;13(10):e1002139.



Supplemental Figure 1. The effect of temperature on peripheral blood mononuclear cell (PBMC) quality, phenotype and function.

(A) Increased granulocyte contamination is observed in the PBMC layer upon density gradient separation when the blood samples were stored for 6 hours and transported below ambient/room temperature (18-22°C). Increased PBMC cell death estimated from reduced forward scatter (FSC) can also be observed. (B) Granulocyte can be eliminated by incubating peripheral blood samples using commercially available reagents, such as RosetteSep granulocyte depletion cocktail (Stemcell Technologies), prior to performing density gradient centrifugation, as assessed by gating on CD45+ cells then gating on high side scatter granulocytes and PBMC. (C) The production of various T cell cytokines upon 3 hours of PMA and ionomycin stimulation, such as GM-CSF and IL-2, in CD4⁺ T cells (similarly in other T cell subsets) is affected by low storage temperature, as assessed by intracellular staining using flow cytometry (n = 3 individuals).