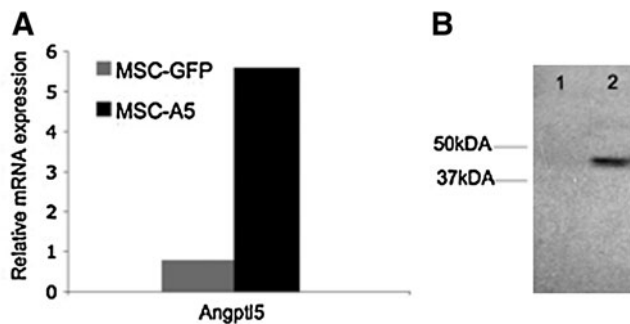


Supplementary Data

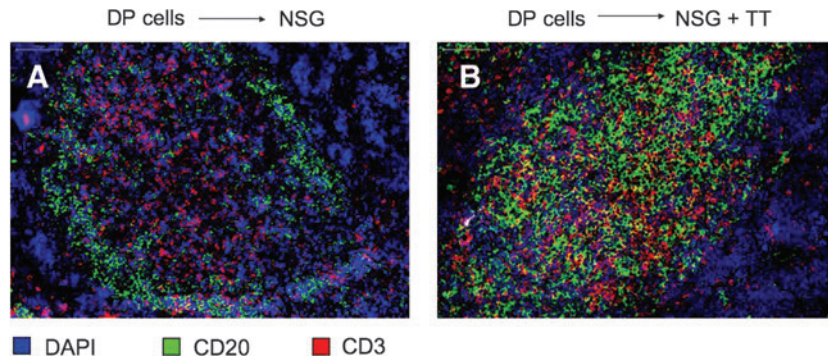
SUPPLEMENTARY TABLE S1. UMBILICAL CORD BLOOD EXPANSION CHARACTERISTICS

Cord blood #	% of purity post-selection	FCF		MSC-GFP		MSC-A5	
		Fold increase total cell	Fold increase CD34+CD133+	Fold increase total cell	Fold increase CD34+CD133+	Fold increase total cell	Fold increase CD34+CD133+
1	98	100	20	174	31	220	66
2	95	140	26	163	37	210	62
3	97	95	19.2	145	29	198	58
4	98	89	16	128	22	167	46
mean	97	106	20.3	152.5	29.75	198.75	58
SD	1.4	23.1	4.2	20.2	6.2	23.0	8.6
P value		0.0006	0.0001	0.012	0.0009		

Purity of the starting cultured cells after isolation, fold increase of total hematopoietic cells, and fold increase of CD34⁺ CD133⁺ double-positive cells at day 11 of the different conditions are shown. The MSC-A5 condition is the reference group for *P* values. MSCs, mesenchymal stem cells.



SUPPLEMENTARY FIG. S1. Detection of the expression of the Angptl5 by quantitative PCR and Western blotting. **(A)** Total RNA extracted from transduced MSCs was reverse transcribed. The levels of 18S RNA and Angptl5 transcript were quantified by quantitative PCR. The relative Angptl5 transcript was obtained using the comparative Ct method. The samples were first normalized to the endogenous 18S RNA reference, and the expression of the Angptl5 transcript was calculated as the difference between normalized Ct values of transduced cells versus untransduced cells. Values are expressed as the fold increase in specific transcript level as obtained using the formula $2^{-(\Delta\Delta Ct)}$. **(B)** Western blotting analysis of the supernatant of MSCs transduced with the lentivirus vector expressing Angptl5 (lane 2) or GFP alone (lane 1) using an antibody against human Angptl5 (Abcam). MSCs, mesenchymal stem cells; Angptl5, angiopoietin-like-5.



SUPPLEMENTARY FIG. S2. Comparison of the human T- and B-cell pattern in the spleen of reconstituted NSG mice vaccinated or not with the tetanus toxoid. **(A)** A distinct cluster of CD3⁺ cells were present at a central area of the follicle, whereas the marginal zone was occupied mostly by the CD20⁺ cells. In contrast, only a very small number of CD3⁺ or CD20⁺ cells were found outside the follicle regions. **(B)** In the spleen section of humanized mice immunized with the TT vaccine, the rearrangement of the two cell populations is mixed, suggesting possible interaction between T and B Cells. DP, double-positive; TT, tetanus toxoid.