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Definition of a multiple myeloma progenitor population in mice driven by enforced expression of XBP1s

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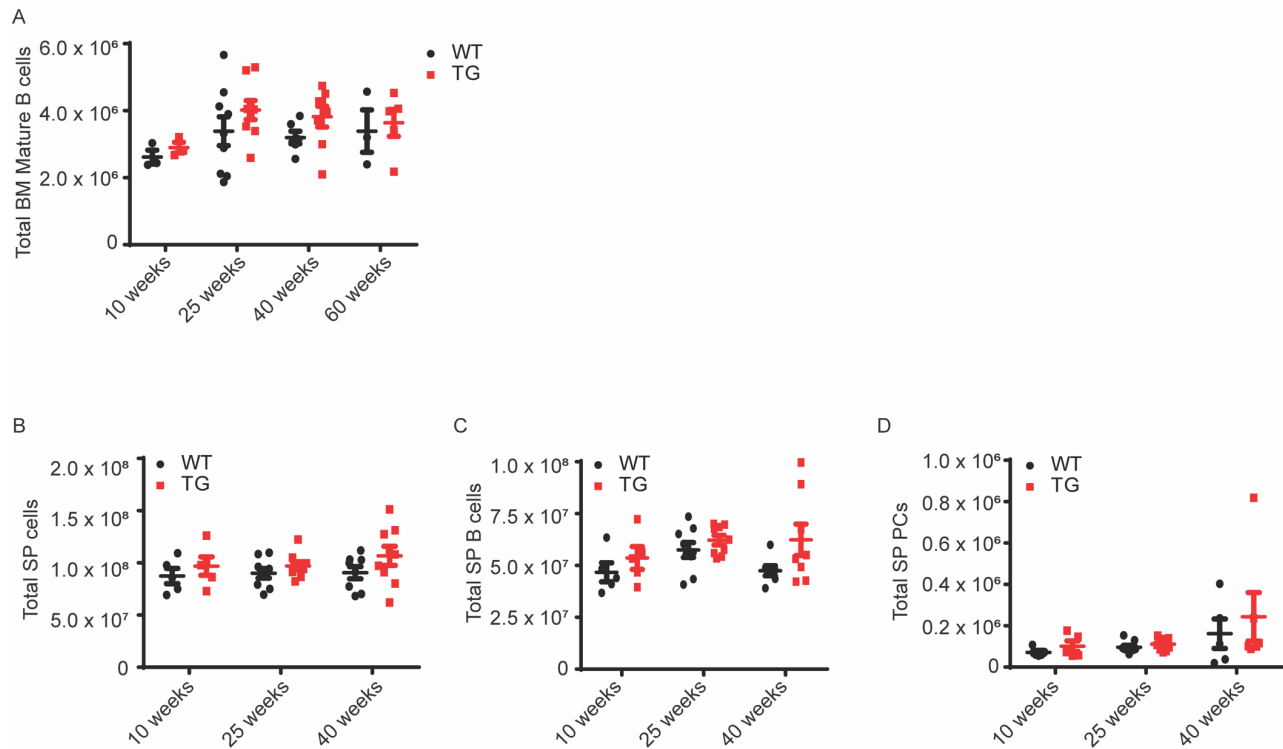
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SUPPLEMENTAL TABLE: 1

SUPPLEMENTAL FIGURES: 4

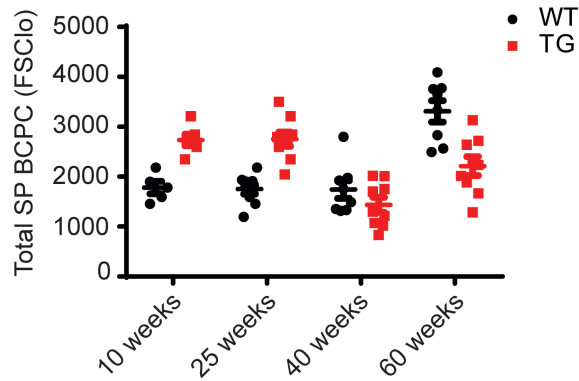
Supplemental Table 1. List of antibodies used.

ANTIBODY NAME	CONJUGATION	CLONE	COMPANY	CATALOG #
B220	AlexaFluor 700	RA3-6B2	BD Biosciences	557957
CD19	Qdot 650	6D5	Thermofisher	Q10379
CD19	APC-Cy7	6D5	Biologend	115530
IgM	Pe-Cy7	II/41	Thermofisher	25-5790-82
IgM	eFluor450	II/41	Thermofisher	48-5790-82
IgD	APC-eFluor780	11-26c (11-26)	Thermofisher	17-5993-82
IgD	eFluor450	11-26c (11-26)	Thermofisher	48-5993-82
CD138	PE	281-2	BD Biosciences	561070
CD138	APC	281-2	BD Biosciences	561705
CD80	PerCp-eFluor710	16-10A1	Thermofisher	46-0801-82
CD93 / AA4.1	PE	AA4.1	Thermofisher	12-5892-82
CD93 / AA4.1	PE-Cy7	AA4.1	Biologend	136506
surlgG	FITC	Poly4053	Biologend	405305
Blimp1	PE	5E7	Thermofisher	12-9850-82
XBP1s	PE	Q3-695	BD Biosciences	562642
Pax5	PE	1H9	Thermofisher	12-9918-80
Bcl6	V450	K112-91	BD Biosciences	562204
CD49d	FITC	R1-2	Thermofisher	11-0492-82
CD126	APC	D7715A7	Biologend	115812
CD130	APC	KGP130	Thermofisher	17-1302-82
CD117 (ckit)	APC	2B8	Thermofisher	17-1171-82
Notch1	APC	22E5	Thermofisher	17-5765-82

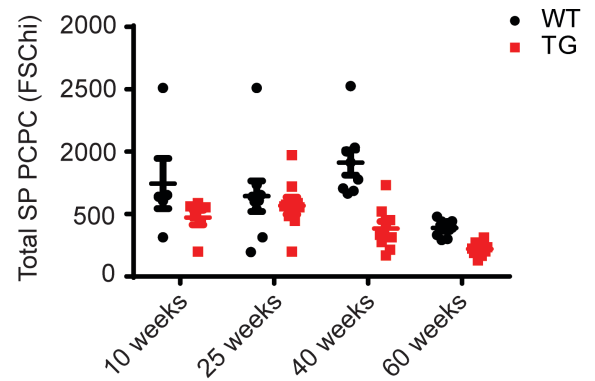


Supplemental Figure 1: Further analysis of the B cell compartment in WT and XBP1s-Transgenic (TG) mice. BM and SP were harvested from WT and TG mice and total nucleated cell counts were performed. **(A)** Total bone marrow mature B cells (B220⁺CD19⁺IgM⁺IgD⁺) in WT versus TG mice. **(B)** Total viable cells in spleen. **(C)** Total B cells (B220⁺CD19⁺) in spleen. **(D)** Total PCs in spleen of indicated mice. N=8. In all panels, error bars denote standard error of the mean.

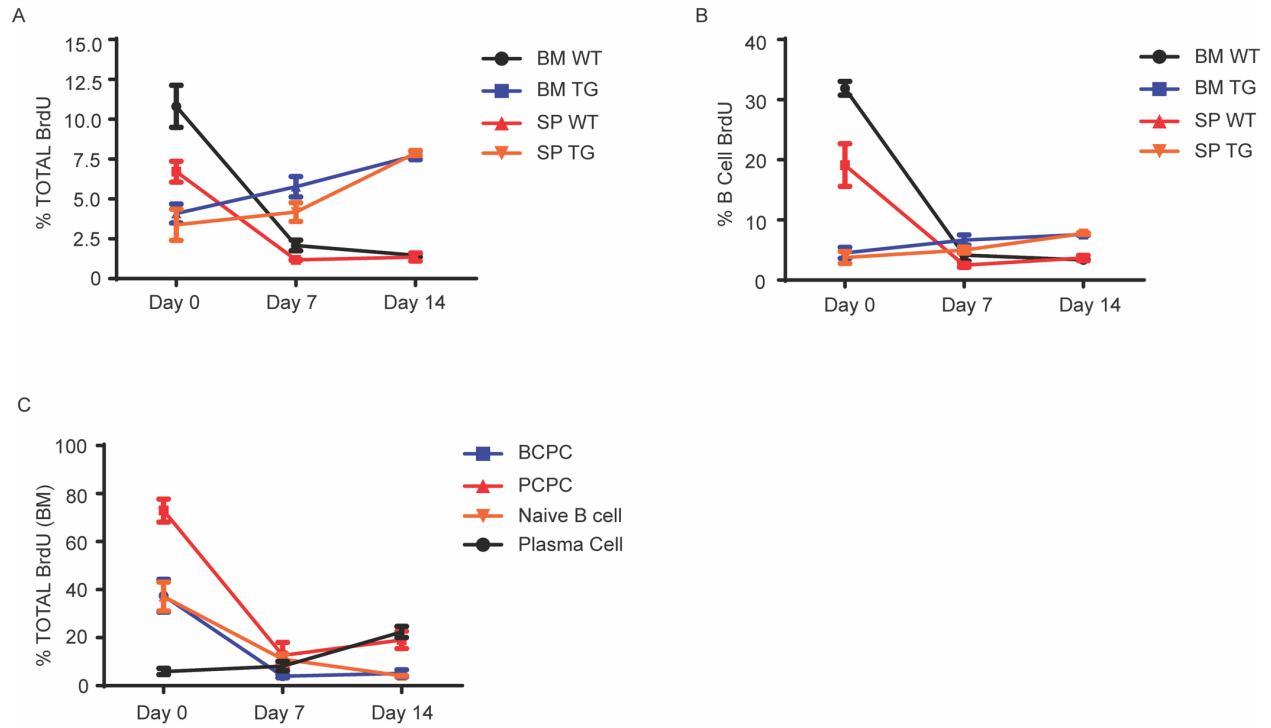
A



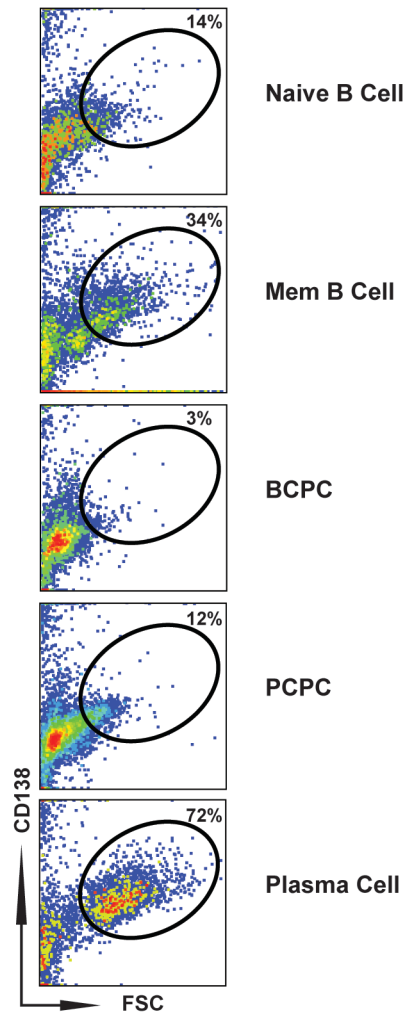
B



Supplemental Figure 2: Quantification of BCPCs and PCPCs in the spleens of WT and XBP1s-TG mice. Flow cytometry of populations within spleen of WT and TG mice. **(A)** Total B cell progenitor cells (BCPCs) in the Spleen of WT and TG mice. **(B)** Total plasma cell progenitor cells (PCPCs) in the Spleen of WT and TG mice. N=8. In all panels, error bars denote standard error of the mean.



Supplemental Figure 3: Comparison of the proliferation capacity of various populations of cells by BrdU uptake. WT and TG mice were given BrdU for seven days and then replaced with water without BrdU. Day 0 represents Day 7 of BrdU treatment. Day 7 and Day 14 are timepoints after Day 0. **(A)** Total percent BrdU in either the bone marrow or spleen of WT or TG mice. N=3. **(B)** Total percent B cell (B220⁺CD19⁺) BrdU in bone marrow or spleen of WT and TG mice. N=3. **(C)** Total percent BrdU in the bone marrow of BCPC, PCPC, Naïve B cells or Plasma Cells. N=6. In all panels, error bars denote standard error of mean.



Supplemental Figure 4: Representative flow phenotype of *in vitro* culture of sorted cell populations. Cell populations were sorted and placed into PC culture, as described in methods, containing IL-6 (50ng/ml), IL-21 (50 ng/ml) and IFN- α (500 U/ml) without antigen stimulation. Cells were harvested after seven days. Gating strategy was on forward side scatter and CD138 expression. Plasma cells were used as control for gating strategy.