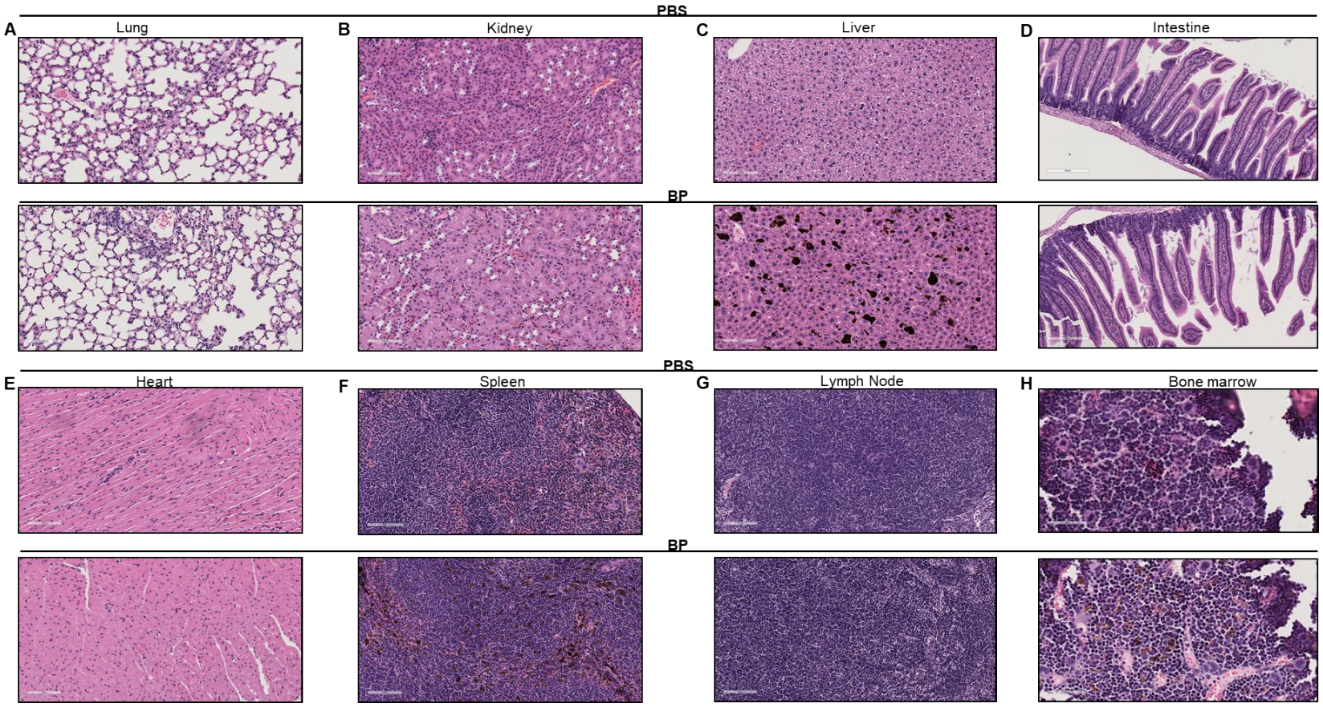
Table S1 - BP Nanoparticle physical characteristics

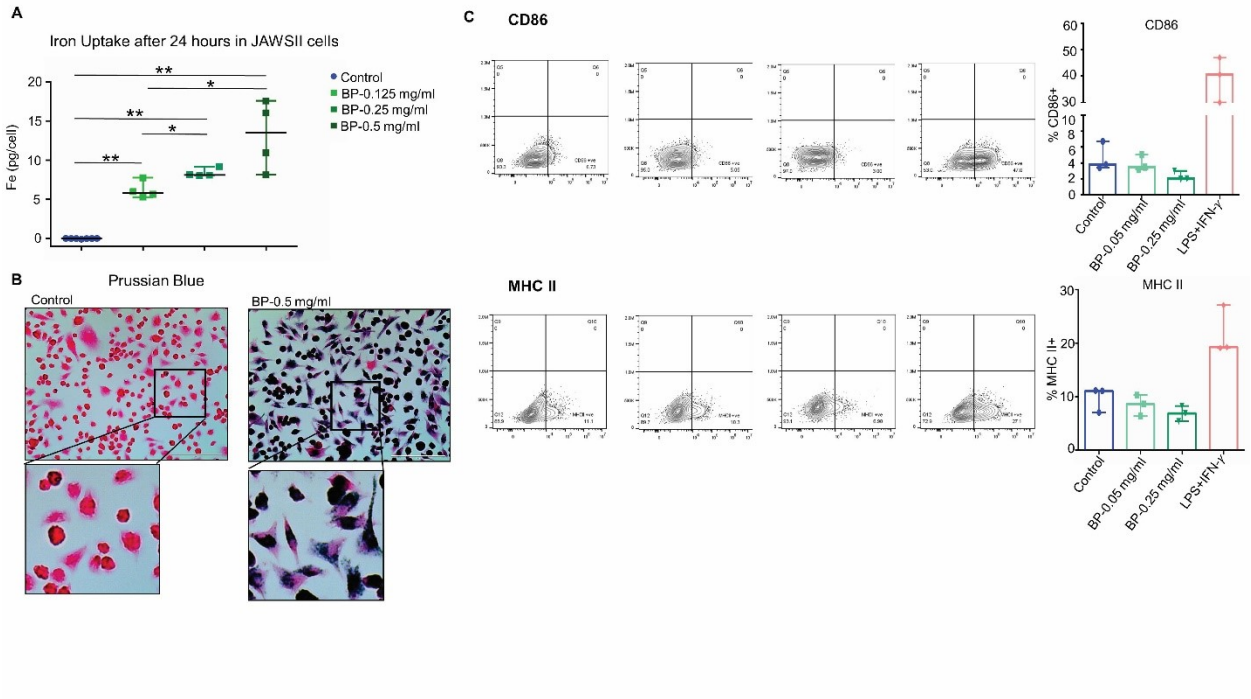
Particle type	Lot number	Diameter [nm]	PDI	ZP [mV]	Std [mV]
BNF-Starch-plain	0952110-03	104	0.063	-4.3	6.4
BNF-Starch-plain	0362210-01	107	0.101	-3.2	0.4
BNF-Starch-plain	0902210-01	100	0.045	-3.2	0.4
BNF-Starch-plain	0782310-01	108	0.037	-2.5	0.4
BNF-Starch-plain	1012310-01	110	0.104	-1.6	0.3
BNF-Starch-plain	0132410-01	105	0.094	-4.0	1.0
Average		106	0.074	-3.1	1.5

Table S2 – Expression of CD86 and MHC II in JAWS II cells grown with and without GM-CSF

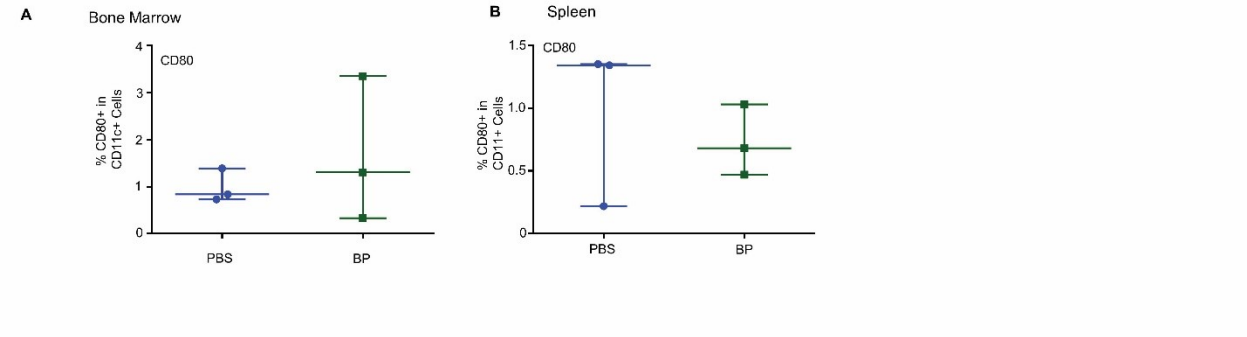
Marker	JAWS II (-) GM-CSF	JAWS II (+) GM-CSF
% cells expressing CD86	6.35 +/- 0.98	4.64 +/- 1.82
% cells expressing MHC II	6.40 +/- 0.46	9.79 +/- 2.36



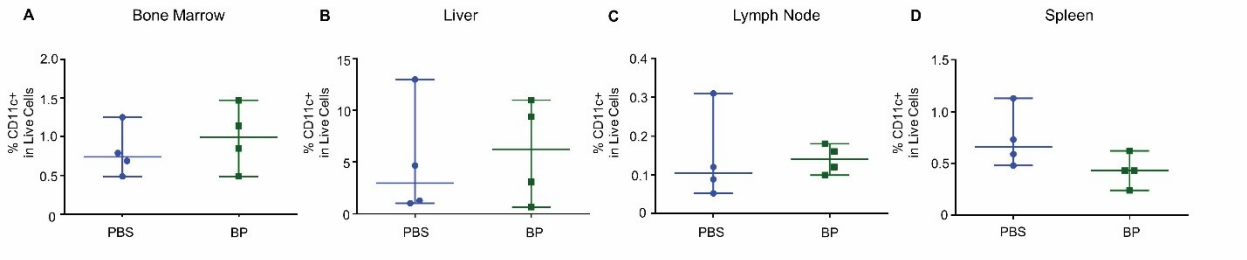
Supplementary Figure 1: Representative images of H&E stained slides from organs after repeated BP treatment showed no apparent changes. FVB/N mice were injected with either PBS or 5 mg BP each week for 5 weeks and sacrificed after the final dose. H&E staining revealed no differences between PBS and BP treated groups for the (A) lung, (B) kidney, (C) liver, (D) intestine, (E) heart, (F) spleen, (G) lymph nodes, (H) bone marrow.



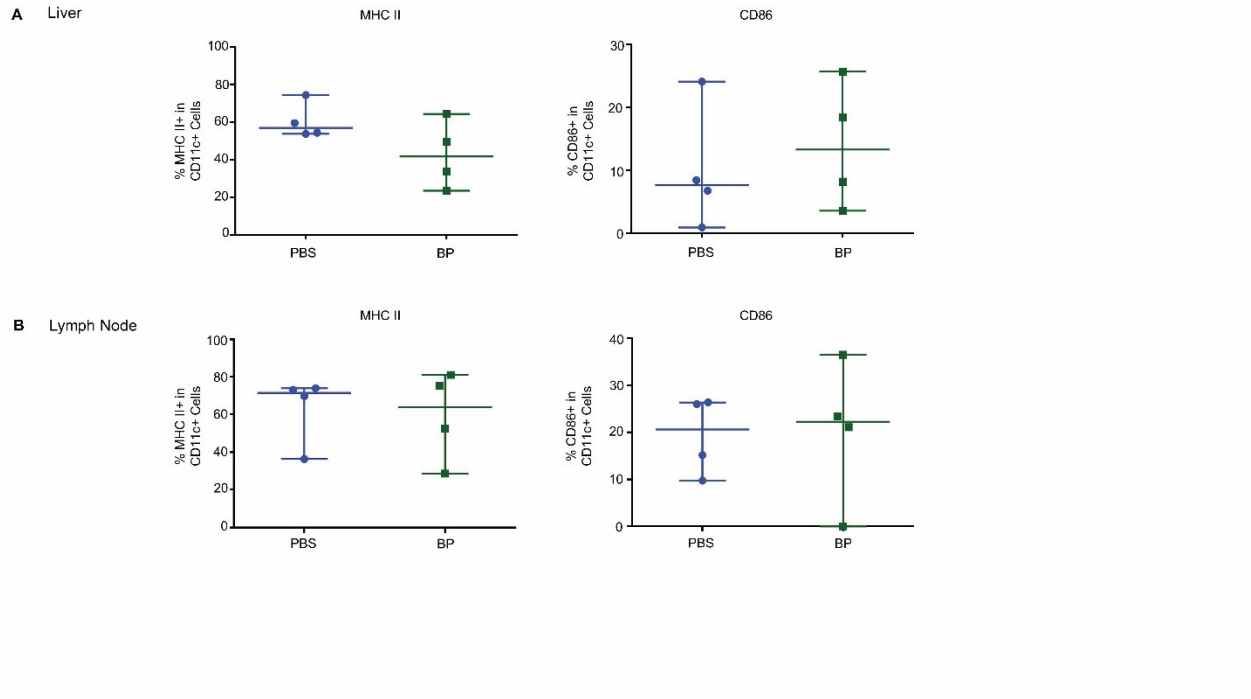
Supplementary Figure 2: JAWSII dendritic cells grown with GM-CSF internalized BP in a dose dependent manner. JAWSII dendritic cells grown with GM-CSF and were incubated with different BP concentrations to confirm similar phagocytic behavior as when they were grown without GM-CSF. (A) JAWSII dendritic cells showed dose dependent uptake, with the most being at 0.5 mg/ml BP. (B) Prussian blue staining confirms this observation with the iron particles being stained in blue within the cells. (C) Flow cytometry analysis revealed no apparent differences in CD86 and MHC II expression after 24 hours of incubation with BP. All data points from three or four independent experiments are shown in the figures with the median and range. *p≤0.05, **p≤0.01 – Mann Whitney Test.



Supplementary Figure 3: CD80 expression analysis on dendritic cells in-vivo. (A & B) Flow cytometry analysis of the bone marrow cells and spleen showed no significant change in CD80 expression for dendritic cells with BP treatment. All data points are shown in the figures with the median and range.



Supplementary Figure 4: Dendritic cell populations 24 hours after BP tail vein injection. Dendritic cells were gated as CD11c positive cells from live cell group. (A-D) There were no significant changes in total dendritic cell count from the bone marrow, liver, lymph node or spleen between groups. All data points are shown in the figures with the median and range.



Supplementary Figure 5: Liver and lymph node dendritic cells did not show significant upregulation of surface markers after BP injection. (A & B) There were no significant changes in the expression of MHC II or CD86 on dendritic cells residing in the liver and lymph node after 24 hours of BP treatment. All data points are shown in the figures with the median and range.