Supporting Information

Benchmarking bicontinuous nanospheres against polymersomes for *in vivo* biodistribution and dual intracellular delivery of lipophilic and water soluble payloads

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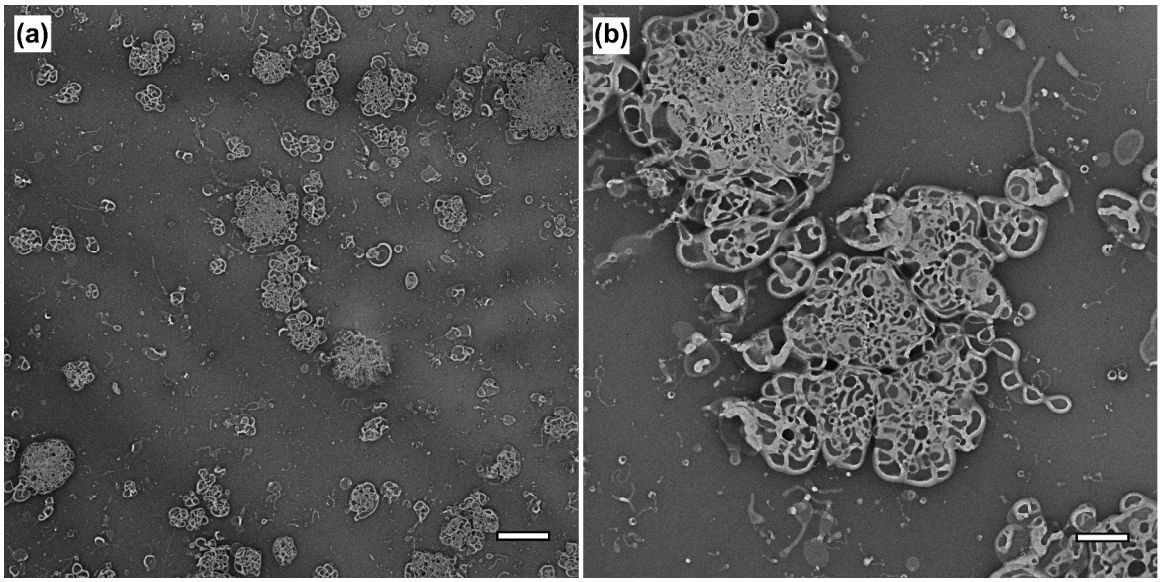
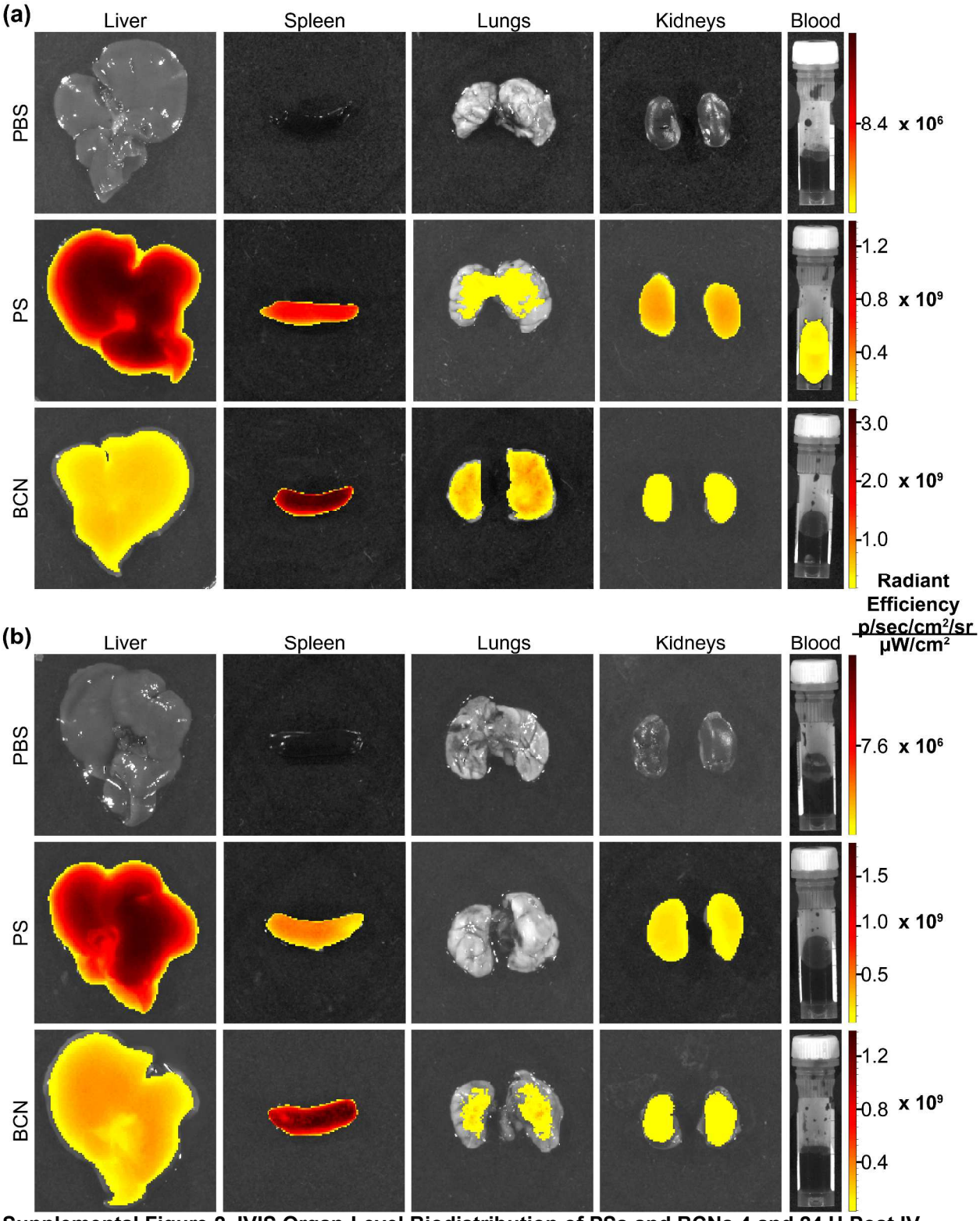
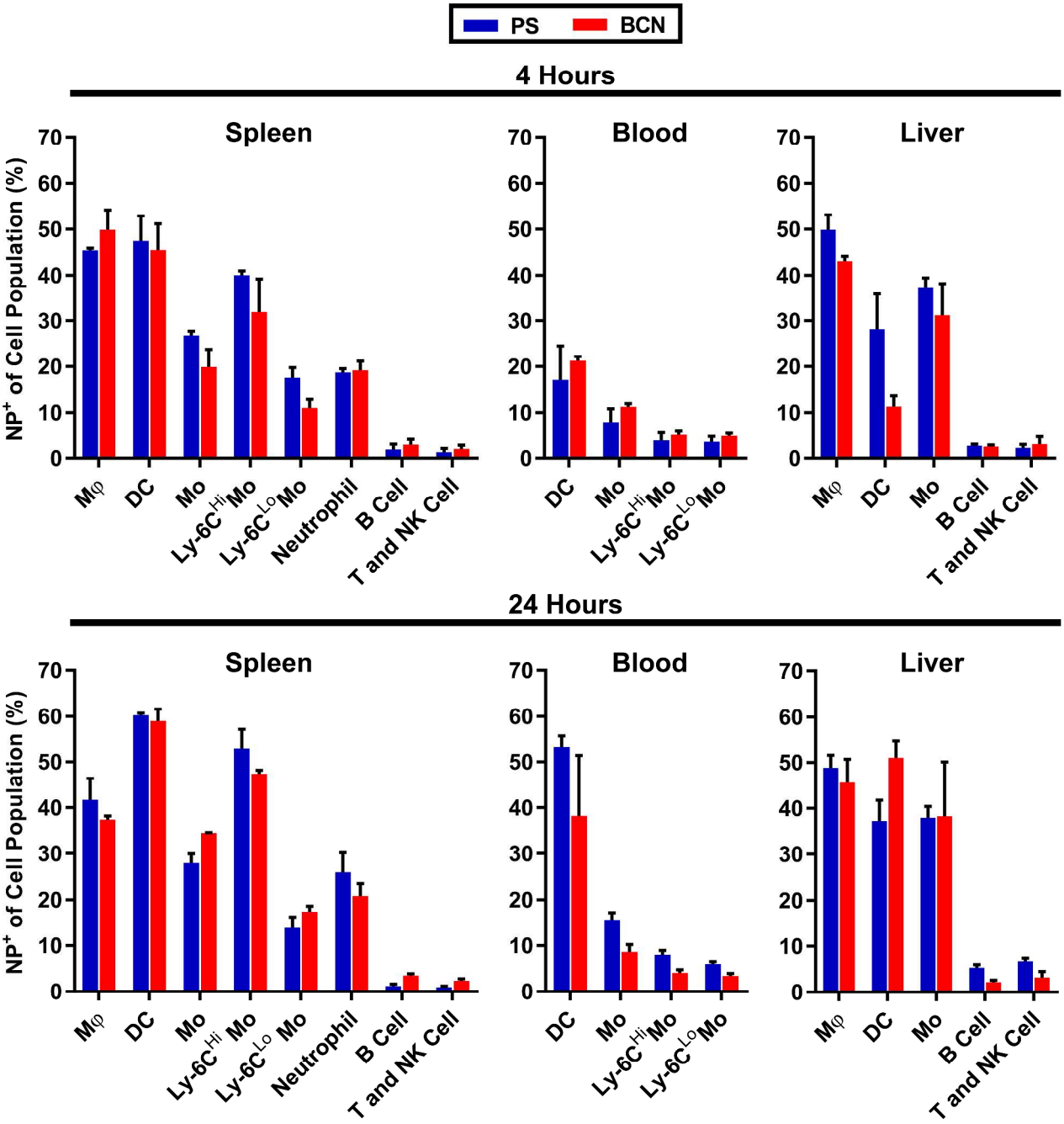


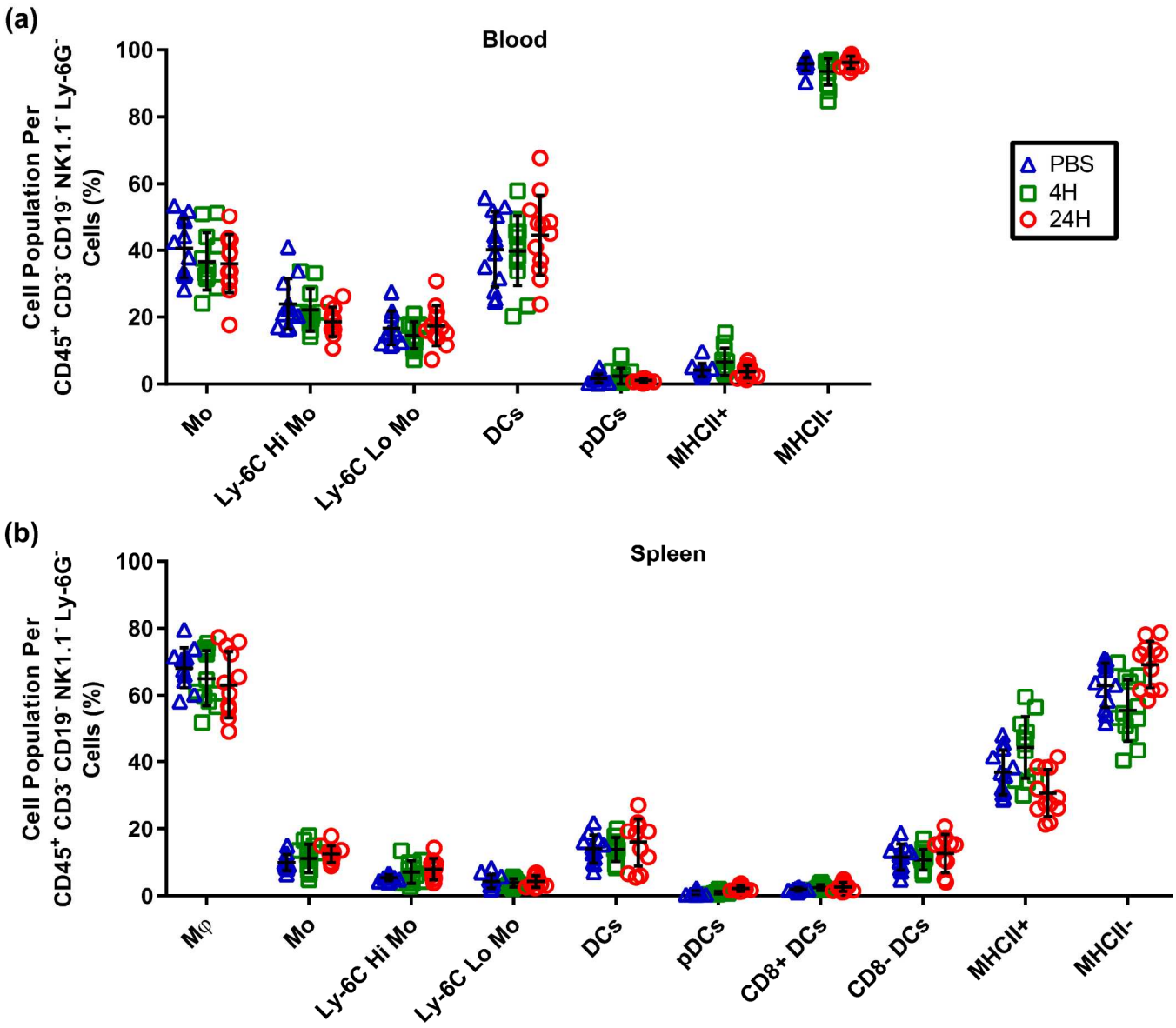
Supplemental Figure 1. Negative Stained TEM Images of BCNs. (a) Low and (b) high magnification TEM images of BCNs. Scale bar for (a) represents 2000 nm, scale bar for (b) represents 500 nm.



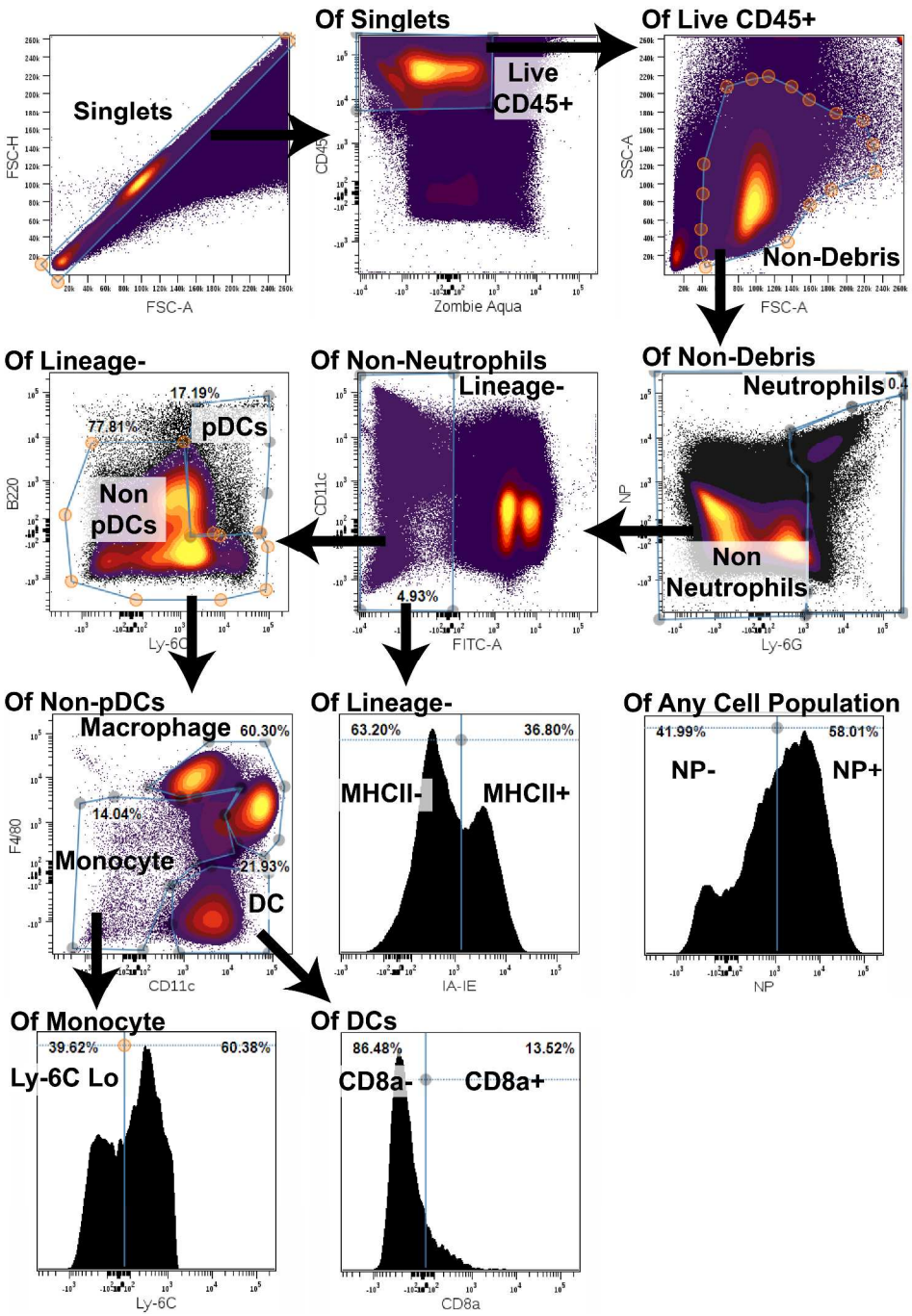
Supplemental Figure 2. IVIS Organ-Level Biodistribution of PSs and BCNs 4 and 24 H Post IV Injection. Representative IVIS images for organs harvested from a PBS, PS, or BCN treated mouse, (a) 4 h or (b) 24 h post IV injection. Each representative mouse is set to its own radiant efficiency scaling, displayed on the far right of each row.



Supplemental Figure 3. Flow Cytometric Assessment of Cell Population Uptake of PSs and BCNs 4 and 24 h Post IV Injection. Nanoparticle uptake of PSs and BCNs 4 and 24 h after IV injection in C57BL6J female mice, showing immune cell populations in the spleen, blood, and liver. N = 3, error bars = S.E.M. Mφ = macrophages ($CD45^+$ $CD3^-$ $CD19^-$ $NK1.1^-$ Ly-$6G^-$ $F4/80^+$), Mo = Monocytes ($CD45^+$ $CD3^-$ $CD19^-$ $NK1.1^-$ Ly-$6G^-$ $CD11b^+$ $CD11c^-$ Ly-$6C^{hi/lo}$), DCs = dendritic cells ($CD45^+$ $CD3^-$ $CD19^-$ $NK1.1^-$ Ly-$6G^-$ $F4/80^-$ $CD11c^+$ $CD8a^{+/-}$), neutrophils: $CD45^+$ $CD3^-$ $CD19^-$ $NK1.1^-$ Ly-$6G^+$, B cells: $CD45^+$ $CD19^+$, T and NK Cells: $CD45^+$ $CD19^-$ $NK1.1^{+/-}$ $CD3^{+/-}$.



Supplemental Figure 4. Flow Cytometric Quantification of Cell Populations With and Without Treatment. Comparison of cell populations in the (a) blood and (b) spleen, relative to all $CD45^+$ $CD3^-$ $CD19^-$ $NK1.1^-$ $Ly\text{-}6G^-$ cells for PBS-treated mice (both timepoints combined) and nanocarrier-treated mice (PS and BCN combined, timepoints separated). Error bars = S.D.



Supplemental Figure 5. Gating Strategy for Cell Populations in Flow Cytometry Studies. Representative contour plots are displayed from an example mouse spleen.