## D'ROZARIO ET AL.

## **1** Supplementary figure legends

2 Supplementary figure 1: Fibroblastic reticular cell depletion leads to a reduction in innate cell 3 populations. A. CCL19-DTR mice, or DTR-expressing Cre-negative littermate controls were treated with 4 diphtheria toxin, and brachial lymph nodes were harvested and analysed by flow cytometry at 2, 8 or 22 days 5 after treatment ceased. Gating strategy for FRCs, monocytes and macrophages is shown. B. FAP-DTR and non-6 transgenic littermate control mice were each given 25ng/g diphtheria toxin (DTx) on alternate days for 6 days 7 prior to harvest. On day 6, lymph nodes were harvested and digested according to previous protocols and 8 analysed via flow cytometry. Timeline of DTx administration and harvest. C. The flow cytometry gating strategy 9 for lymph node FRCs, monocytes, macrophages and neutrophils is shown **D**. Cell counts for lymph node FRCs, 10 macrophages, monocytes and neutrophils. Mean + SEM, n = 4 mice from one experiment. \*P<0.05, \*\* P<0.01, 11 T-test.

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13 Supplementary figure 2: Single cell transcriptomic analysis of isolated EYFP+ reticular cells from murine 14 lymph node stromal subsets during inflamed and resting states. EYFP+ reticular cells were isolated from 15 brachial lymph nodes from Ccl19 Cre R26R-EYFP mice, which were either treatment-naïve, or immunised with 16 OVA/LPS. scRNA-seq was performed on EYFP<sup>+</sup> cells. UMAP of EYFP<sup>+</sup> lymph node reticular cell subsets, 17 categorised into 8 subsets, with or without treatment. A, B: Histograms of isolated EYFP+ reticular clusters 18 showing A. Absolute and B. relative abundance of LPS treated and naïve analysed cells per reticular cell cluster. 19 C. Heatmap of curated marker gene expression for identified reticular subsets. D. KEGG pathway analysis of 20 genes upregulated with LPS treatment (P<0.05 depicted with dotted line, FDR and Benjamini-Hochberg <0.05). 21 E. Violin plots showing expression of Ccl2 by FRC subsets in treated or naïve mice. F. Human lymph node or 22 tonsil FRCs from 3 donors were cultured in vitro and stimulated with 1µg/ml of LPS for 24h, with CCL2 protein 23 measured using Luminex Bead technology. Fold-change from untreated cells is depicted. Mean + SEM shown, 24 n = 3 individual human donors from 2 independent experiments. Mean + SEM shown, n = 3 individual human 25 donors from 2 independent experiments. \* p<0.05, one-way ANOVA with Tukey's multiple comparison test, 26 comparing to untreated. PI3Kinh = PI3K inhibitor; TLR4inh = TLR4 inhibitor.

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28 Supplementary figure 3: Fibroblastic reticular cells support monocyte differentiation via CSF1R 29 signalling. 1x10<sup>6</sup> mouse bone marrow cells, as a source of macrophage precursors, were co-cultured with 30 2x10<sup>5</sup> mouse FRCs under various conditions. Cells were harvested and quantified after 3 days, and assessed 31 using flow cytometry. A. Monocyte and macrophage gating strategy for flow cytometry. B. Macrophage numbers 32 after 3 days of co- culture with or without recombinant CSF1 and CSF1 blocking antibody, performed in triplicate, 33 from one experiment. \*\*\*\* P<0.0001, one-way ANOVA with Tukey's post-test. **C.** 4x10<sup>5</sup> human peripheral 34 blood mononuclear cells (PBMCs) were phenotyped immediately after isolation (0H) or incubated with or without 35 LPS, CSF1R blocking antibody, isotype control antibody, or 2x10<sup>4</sup> human tonsil-derived FRCs. After 72 hours 36 of culture, cells were quantified and analysed via flow cytometry. The gating strategy is shown for M1 and M2 37 macrophages, and classical and non-classical monocytes, related to data from Figure 4C-H.

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