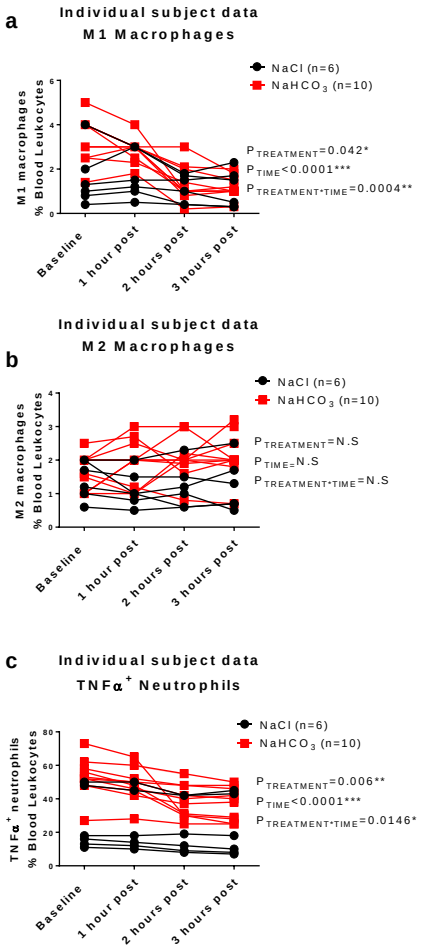
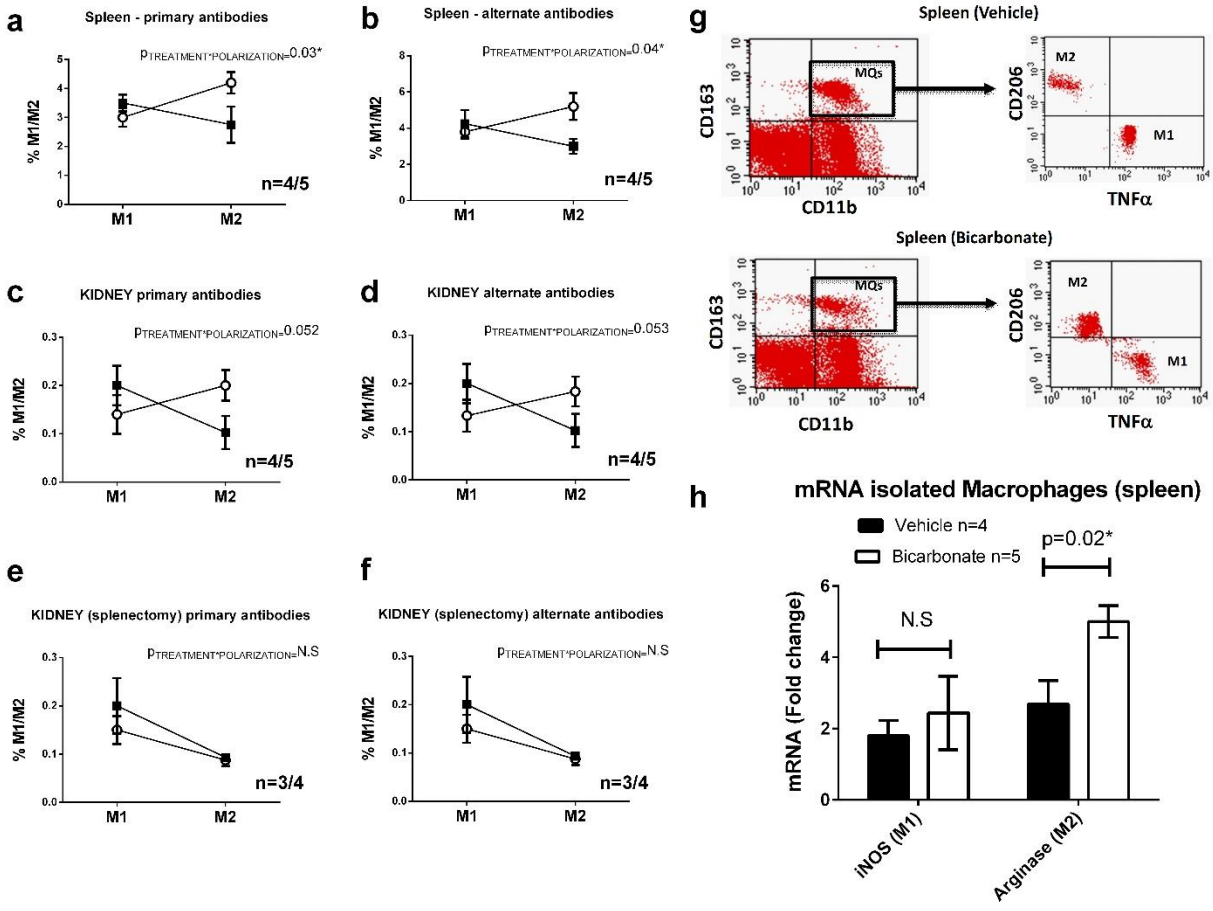
Supplemental Figure 1



Supplemental Figure 1Individual human subject data

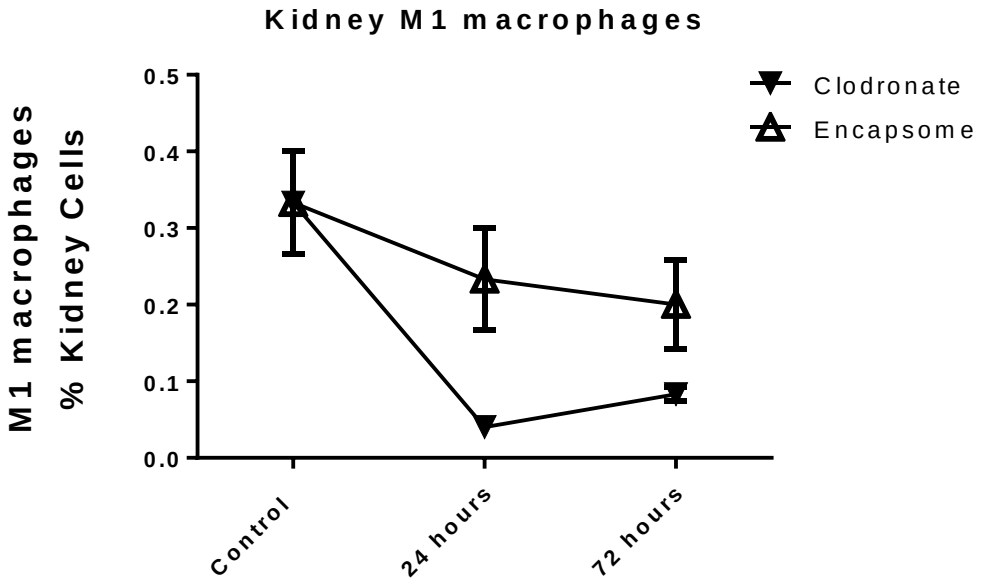
Panel a; Individual subject data. The percentage of total blood leukocytes identified as M1 macrophages (CD11b+/CD68+/TNFα+ cells) in vehicle (n=6; red filled squares) and bicarbonate (n=10; black filled circles) treated subjects. Panel b; Individual subject data. The percentage of total blood leukocytes identified as M2 macrophages (CD11b+, CD68+, CD206+ and IL-10+ cells) in vehicle (n=6; red filled squares) and bicarbonate (n=10; black filled circles) treated subjects. Panel c; Individual subject data. The percentage of total blood leukocytes identified as TNFα+ neutrophils (CD16+/TNFα+ cells) in vehicle (n=6; red filled squares) and bicarbonate (n=10; black filled circles) treated subjects.

Supplemental Figure 2



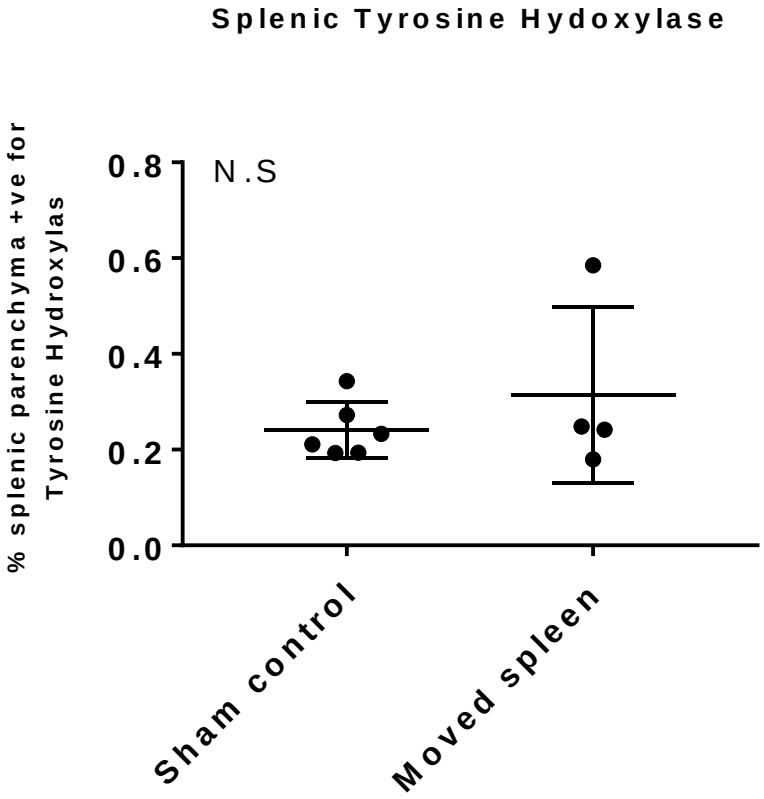
Validation of macrophage polarization in response to bicarbonate treatment in spleen and kidney. Data from flow cytometric analysis of macrophage polarization (M1/M2) of male Dahl SS rats drinking either 0.1M $NaHCO_3$ (bicarbonate; n=4-5) or equimolar NaCl (vehicle; n=3-5) in kidney and spleen are presented in S6 (a-f). All data are from rats that were placed on a HS diet (8%) for 14 days prior to tissue harvest. Panel a; Relative expression of M1 and M2 macrophages expressed as % total spleen cells in vehicle (n=4; closed squares) and bicarbonate (n=5; open circles) treated rats fed HS for 14 days prior to tissue harvest. M1 macrophages were defined as CD11b-c+/F4-80$^+$/TNFα^+ cells and M2 macrophages were defined asCD11b-c+/CD206+/IL-10+; these are the markers used throughout the manuscript. Panel b; To verify the specificity of the above markers for M1 vs. M2 macrophages, and alternative set of markers was used. Relative expression of M1 and M2 macrophages expressed as % total spleen cells from vehicle (n= 4; closed squares) and bicarbonate (n=5; open circles) treated rats fed HS for 14 days prior to tissue harvest. Alternative M1 makers wereCD68+/CD163+/CD206-/TNFα+ and alternative M2 markers were CD68+/CD163+/CD206+/IL-10+. Panel c; Relative expression of M1 and M2 macrophages expressed as % total kidney cells from Vehicle (n= 4; closed squares) and bicarbonate (n=5; open circles) treated rats fed HS for 14 days prior to tissue harvest. M1 macrophages were defined as CD11b-c+/F4-80$^+$/TNFα^+ cells and M2 macrophages were defined as CD11b-c+/CD206+/IL-10+; these are the markers used throughout the manuscript. Panel d; To verify the specificity of the above markers for M1 vs. M2 macrophages, and alternative set of markers was used. Relative expression of M1 and M2 macrophages expressed as % total kidney cells from Vehicle (n= 4; closed squares) and bicarbonate (n=5; open circles) treated rats fed HS for 14 days prior to tissue harvest. Alternative M1 makers were CD68+/CD163+/CD206-/TNFα+ and alternative M2 markers were CD68+/CD163+/CD206+/IL-10+. Panel e; Relative expression of M1 and M2 macrophages expressed as % total kidney cells from vehicle (n= 4; closed squares) and bicarbonate (n=5; open circles) treated rats in which the spleen was removed prior to 14 days HS treatment. M1 macrophages were defined as CD11b-c+/F4-80+/TNFα+ cells and M2 macrophages were defined as CD11b-c+/CD206+/IL-10+. Panel f; To verify the specificity of the above markers for M1 vs. M2 macrophages, and alternative set of markers was used. Relative expression of M1 and M2 macrophages expressed as % total kidney cells from vehicle (n= 4; closed squares) and bicarbonate (n=5; open circles) treated rats in which the spleen was removed prior to 14 days HS treatment. Alternative M1 makers were CD68/CD163/CD206/TNFα and alternative M2 markers were CD68/CD163/CD206/IL-10. Panel g. representative gating images from spleen of HS treated rats using alternative macrophage markers (CD68/CD163/CD206/TNFα: for M1 and CD68/CD163/CD206/IL-10: for M2). Panel h; mRNA expression in macrophages isolated from the spleen of vehicle (n=4; closed columns) and bicarbonate (n=5; open columns) treated rats. iNOS mRNA expression was measured to confirm M1 polarization and Arginase mRNA expression was measured to confirm M2 polarization.

SF3



Supplemental Figure 3

The percentage of total kidney cells identified as M1 macrophages cells (n=3 each time point) 24 and 72 hours following a single injection of clodronate liposomes (20mg/kg/i.v) or control liposomes (Encapsome).



Supplemental Figure 4

Tyrosine hydroxylase staining in the spleen of 12 week old male SS rats in which the spleen was left untouched (sham control) or was moved to midline (moved spleen) 28 days prior to tissue harvest. Tyrosine hydroxylase staining was quantified as % of total splenic parenchyma (area) staining positive by thresh holding using MetaMoprh imaging software.