# Maternal Western diet exposure increases periportal fibrosis beginning in utero in non-human primate offspring

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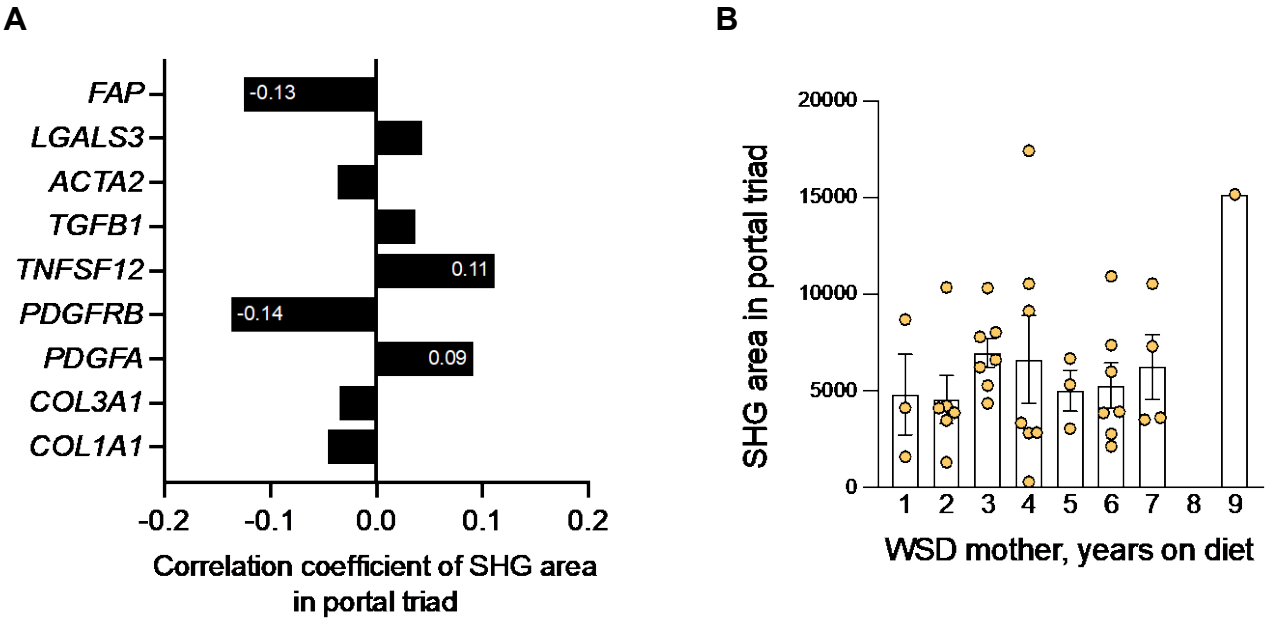
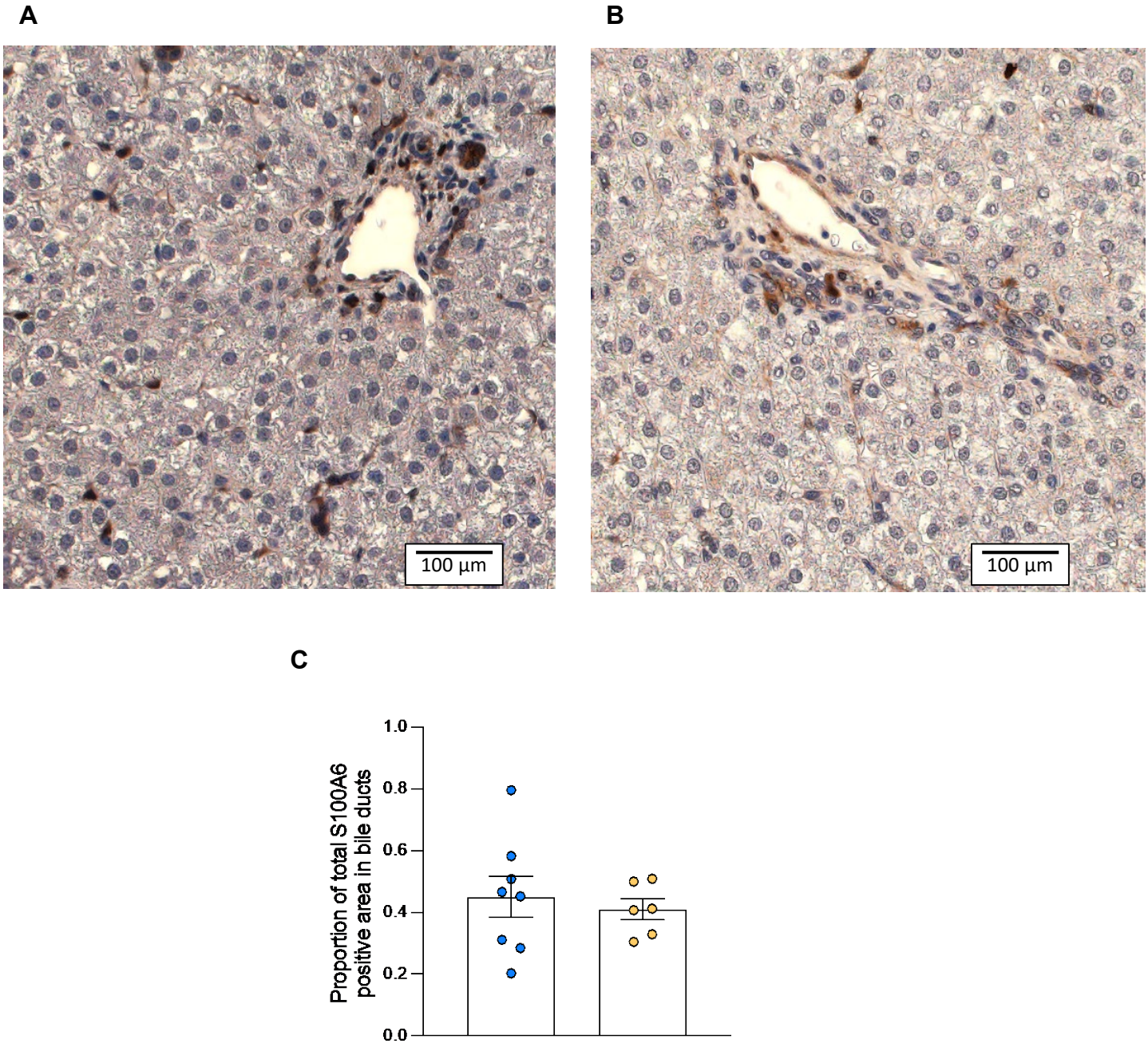
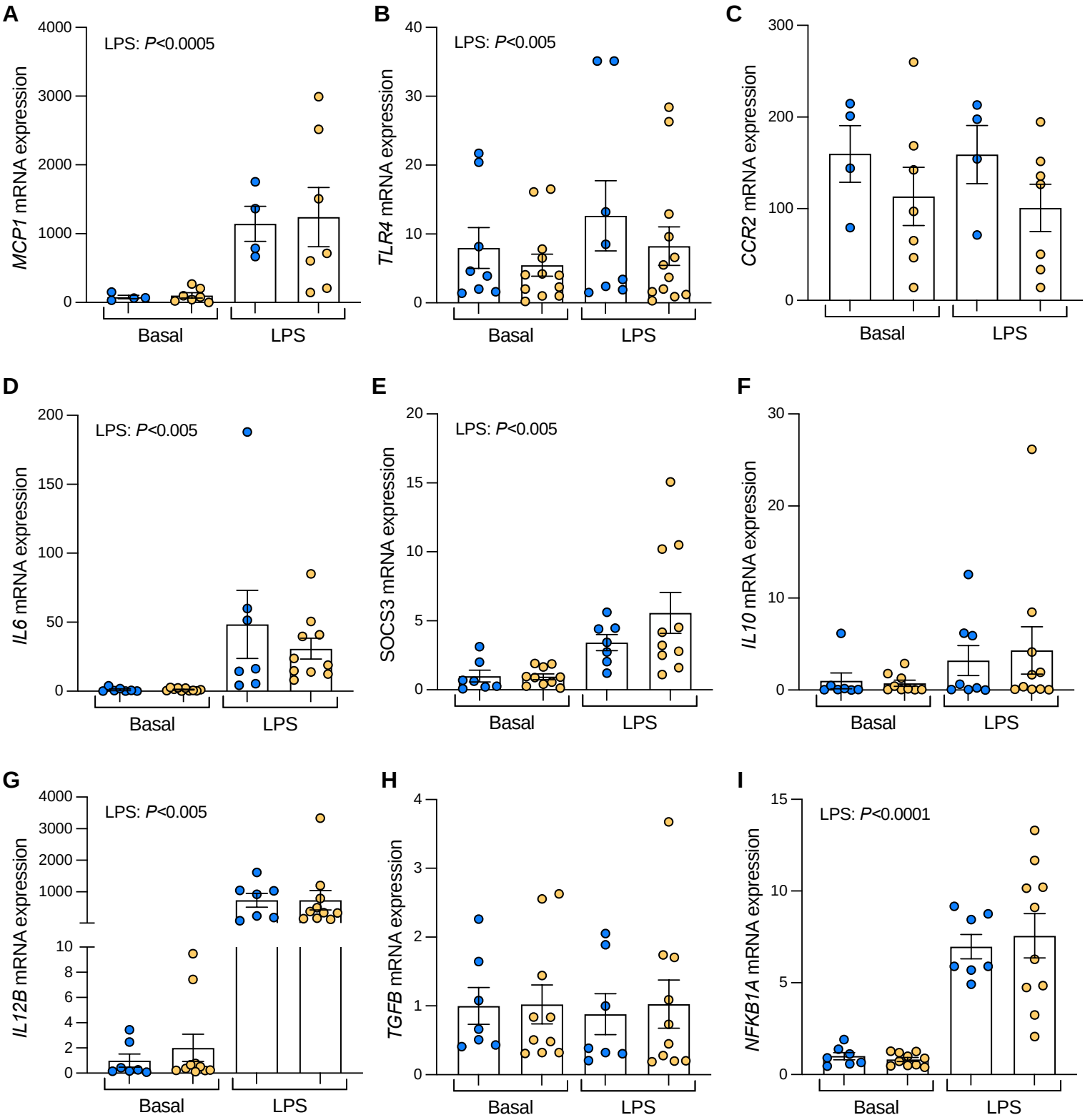


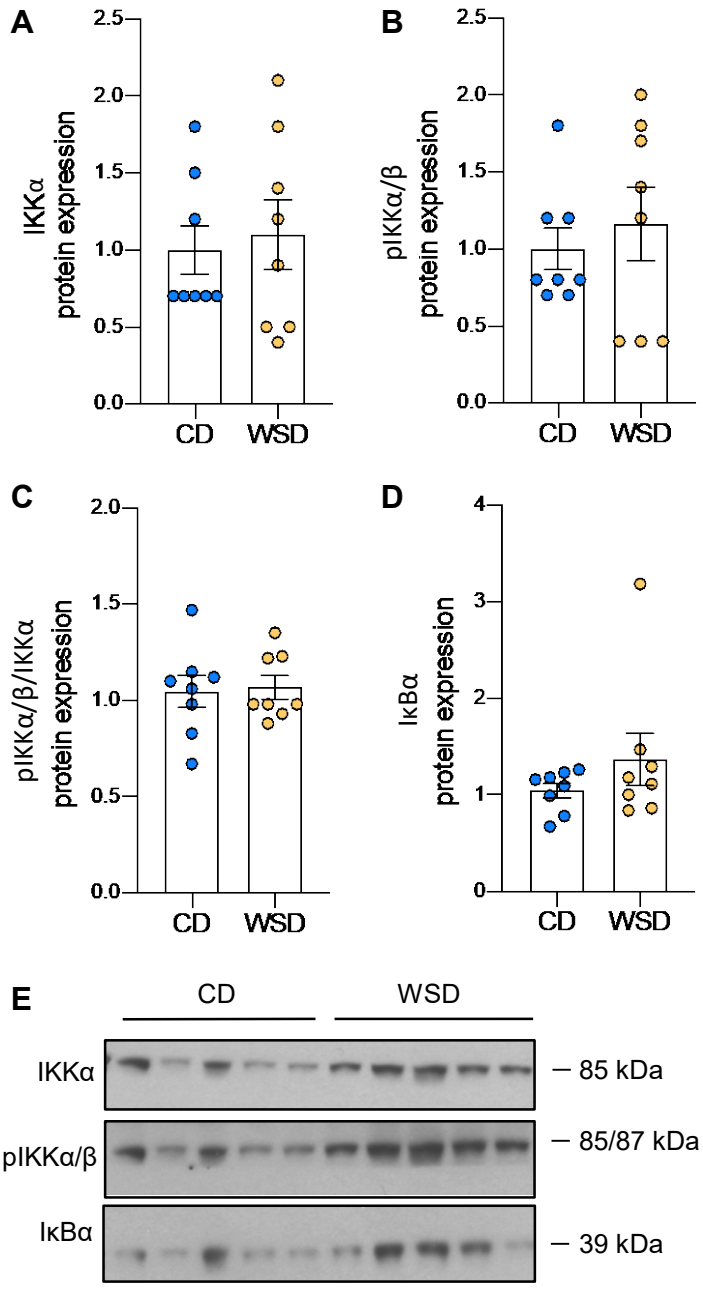

**Supplemental Figure S1. Correlations of SHG area vs. liver gene expression, and SHG area by length of time WSD dams were on the diet.** (**A**) Pearson's R values of SHG area with *FAP, LGALS3, ACTA2, TGFB1, TNFSF12, PDGFRB, PDGFA, COL3A1*, and *COL1A1; n* = 54 XY pairs, *n* = 19 CD; *n* = 35 WSD*;* all *P*>0.05. (**B**) SHG area organized by length of time (in years) the dams were on WSD.



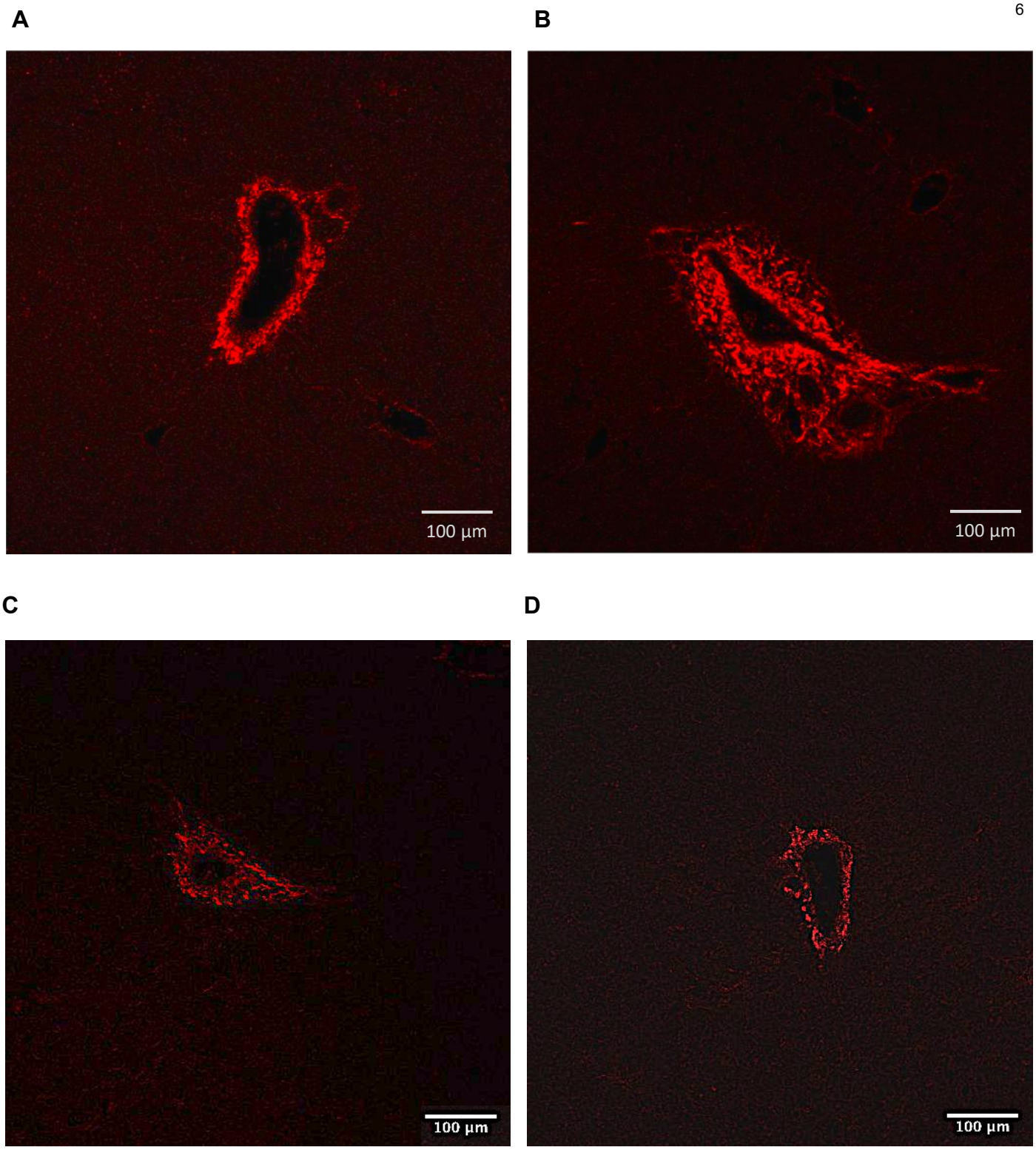

**Supplemental Figure S2. Representative images and quantification of S100A6-stained fetal liver sections.** Representative expression pattern of S100A6 in CD (**A**) and WSD (**B**) fetal livers. (**C**) Quantification of S100A6 staining in fetal liver bile ducts; *n* = 8 CD, *n* = 6 WSD.




**Supplemental Figure S3. Basal gene expression and LPS response of fetal liver macrophages.** Basal expression and LPS-induced expression of *MCP1* (**A**), *TLR4* (**B**), *CCR2* (**C**), *IL6* (**D**), *SOCS3* (**E**), *IL10* (**F**), *IL12B* (**G**), *TGFB* (**H**), and *NFKB1A* (**I**). *n* = 4-7 CD, *n* = 7-10 WSD. A mixed model 2-way ANOVA was used to test effect of maternal diet and LPS treatment. Treatment effect *P* values are shown.




**Supplemental Figure S4. Western blot data of NFκB signaling proteins.** Fetal liver protein expression of IKKα (**A**), phosphorylated IKKα/β (pIKKα/β) (**B**), pIKKα/β /total IKKα ratio (**C**), and IκBα (**D**). (**E**) Representative Western blot images of IKKα, pIKKα/β, and IκBα. *n* = 8 CD and WSD.




**Supplemental Figure S5. SHG portal triad images from NHP fetal livers.** Representative images of portal triad SHG signal from CD (**A**), WSD (**B**), DR (**C**). and RESV (**D**). CD and WSD images are reproduced from Fig. 1F for comparison.

Supplemental Table S1. Fetal liver collagen synthesis and HSC activation gene expression.

| | CD | WSD | DR | RESV | Maternal diet effect |
|---|---|---|---|---|---|
| *COL1A1* | 1.00 ± 0.16[a] | 1.81 ± 0.35[b] | 0.43 ± 0.11[a] | 0.44 ± 0.06[a] | *P*<0.05 |
| *COL3A1* | 1.00 ± 0.11[a] | 1.37 ± 0.17[a,b] | 1.43 ± 0.07[a,c] | 1.60 ± 0.06[a,c] | *P*<0.05 |
| *LGALS3* | 1.00 ± 0.05[a] | 1.17 ± 0.06[b] | 1.05 ± 0.12[a,b] | 1.09 ± 0.06[a,b] | *P*=0.09 |
| *FAP* | 1.00 ± 0.15[a] | 1.90 ± 0.41[b] | 0.47 ± 0.18[a,b] | 0.59 ± 0.18[a,b] | *P*=0.08 |
| *ACTA2* | 1.00 ± 0.13 | 1.18 ± 0.17 | 0.62 ± 0.18 | 0.44 ± 0.12 | ns |
| *TGFB1* | 1.00 ± 0.06 | 1.04 ± 0.05 | 0.67 ± 0.04 | 0.61 ± 0.04 | ns |
| *PDGFA* | 1.00 ± 0.07[a] | 1.12 ± 0.08[a] | 0.36 ± 0.03[b] | 0.38 ± 0.06[b] | *P*<0.005 |
| *PDGFRB* | 1.00 ± 0.06[a] | 1.00 ± 0.06[a] | 0.74 ± 0.03[b] | 0.76 ± 0.05[b] | *P*<0.05 |
| *TNFSF12* | 1.00 ± 0.07[a] | 1.08 ± 0.08[a,b] | 0.44 ± 0.04[a,c] | 0.43 ± 0.06[a,c] | *P*<0.05 |

Data represented as mean ± SEM.
1-way ANOVA with fixed effect for maternal diet is shown and when significant ($P < 0.1$), individual post-test comparisons are indicated. Numbers with different letters represent groups with significant ($P < 0.05$) differences from one another, and numbers sharing the same letter are not different from one another.

Supplemental Table S2. NHP 29-plex cytokine panel results in fetal serum.

| Animal ID | GROUP | Tube | FGF-basic | IL-1beta | G-CSF | IL-10 | IL-6 | IL-12 | RANTES | Eotaxin |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL |
| 31247 | CD | umb artery | 16.46 | <4.33 | <75.50 | <4.18 | <2.04 | 228.95 | 4,182.00 | 24.47 |
| 32183 | CD | umb artery | 14.41 | <4.33 | <75.50 | <4.18 | <2.04 | 305.79 | 3,967.00 | 18.38 |
| 32184 | CD | umb artery | 18.47 | <4.33 | <75.50 | <4.18 | <2.04 | 247.83 | 3,779.00 | 6.35 |
| 32231 | CD | umb artery | 16.46 | <4.33 | <75.50 | <4.18 | <2.04 | 266.95 | 3,285.00 | 15.72 |
| 32505 | CD | umb artery | 23.68 | <3.38 | <58.89 | <3.26 | <1.59 | 246.17 | 5,726.92 | 17.59 |
| 33312 | CD | umb artery | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 210.34 | 3,033.00 | 57.16 |
| 33403 | CD | umb artery | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 4,197.00 | 19.78 |
| 31926 | CD | umb artery | 16.46 | <4.33 | <75.50 | <4.18 | <2.04 | 174.02 | 3,690.00 | 38.94 |
| 33569 | CD | umb artery | 18.47 | <4.33 | <75.50 | <4.18 | <2.04 | 201.14 | 3,952.00 | 36.71 |
| 34212 | CD | umb artery | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 266.95 | 4,585.00 | 32.29 |
| 34270 | CD | umb artery | 8.00 | <4.33 | <75.50 | <4.18 | <2.04 | 122.44 | 3,852.00 | 10.30 |
| 32085 | WSD | umb artery | 27.53 | <3.81 | <66.44 | <3.68 | <1.80 | 239.02 | 4,314.77 | 13.52 |
| 33078 | WSD | umb artery | 20.43 | <4.33 | <75.50 | <4.18 | <2.04 | 305.79 | 4,186.00 | 10.30 |
| 33074 | WSD | umb artery | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 305.79 | 3,513.00 | 22.05 |
| 31003 | WSD | umb artery | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 466.91 | 5,250.00 | 34.43 |
| 31146 | WSD | umb artery | 14.41 | <4.33 | <75.50 | <4.18 | <2.04 | 266.95 | 4,577.00 | 13.97 |
| 31280 | WSD | umb artery | 47.32 | <4.33 | <75.50 | <4.18 | <2.04 | 210.34 | 3,502.00 | 54.87 |
| 32204 | WSD | umb artery | 9.09 | <4.33 | <75.50 | <4.18 | <2.04 | 156.39 | 4,919.00 | 16.94 |
| 33101 | WSD | umb artery | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 156.39 | 3,959.00 | 33.65 |
| 33138 | WSD | umb artery | 29.65 | <4.33 | <75.50 | <4.18 | <2.04 | 247.83 | 4,204.00 | 25.11 |
| 33263 | WSD | umb artery | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 247.83 | 3,366.00 | 17.66 |
| 33314 | WSD | umb artery | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 156.39 | 3,466.00 | 23.81 |
| 33334 | WSD | umb artery | 27.87 | <4.33 | <75.50 | <4.18 | <2.04 | 266.95 | 4,808.00 | 16.46 |
| 33351 | WSD | umb artery | 16.46 | <4.33 | <75.50 | <4.18 | <2.04 | 305.79 | 4,071.00 | 25.96 |
| 33498 | WSD | umb artery | 20.43 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 3,114.00 | 31.30 |
| 34292 | WSD | umb artery | 32.94 | <3.90 | <67.95 | <3.76 | <1.84 | 154.64 | 4,918.89 | 17.74 |
| 34293 | WSD | umb artery | 14.41 | <4.33 | <75.50 | <4.18 | <2.04 | 738.44 | 3,363.00 | 21.60 |
| 30959 | WSD | umb artery | 52.39 | <4.33 | <75.50 | <4.18 | <2.04 | 385.42 | 4,258.00 | 22.49 |
| 30871 | WSD | umb artery | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 508.15 | 4,229.00 | 17.90 |
| 30968 | WSD | umb artery | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 2,858.00 | 5.76 |
| 30969 | WSD | umb artery | 27.87 | <4.33 | <75.50 | <4.18 | <2.04 | 192.01 | 3,565.00 | 20.69 |
| 31247 | CD | umb vein | 15.44 | <4.33 | <75.50 | <4.18 | <2.04 | 247.83 | 4,251.00 | 21.60 |
| 32183 | CD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 365.31 | 4,062.00 | 27.23 |
| 32184 | CD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 247.83 | 4,654.00 | 9.75 |
| 32231 | CD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 210.34 | 2,748.00 | 14.98 |
| 32505 | CD | umb vein | 14.41 | <4.33 | <75.50 | <4.18 | <2.04 | 266.95 | 5,238.00 | 15.48 |
| 33312 | CD | umb vein | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 228.95 | 3,376.00 | 45.05 |
| 33403 | CD | umb vein | 13.37 | <4.33 | <75.50 | <4.18 | <2.04 | 345.33 | 4,329.00 | 26.81 |
| 31926 | CD | umb vein | 24.23 | <4.33 | <75.50 | <4.18 | <2.04 | 228.95 | 3,683.00 | 50.21 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 33569 | CD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 192.01 | 4,695.00 | 28.47 |
| 34212 | CD | umb vein | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 4,189.00 | 40.95 |
| 34270 | CD | umb vein | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 106.24 | 4,219.00 | 10.84 |
| 32085 | WSD | umb vein | 14.41 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 3,630.00 | 5.76 |
| 33078 | WSD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 238.36 | 4,108.00 | 9.20 |
| 33074 | WSD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 4,748.00 | 13.97 |
| 31003 | WSD | umb vein | 14.41 | <4.33 | <75.50 | <4.18 | <2.04 | 528.87 | 4,516.00 | 29.49 |
| 31146 | WSD | umb vein | 16.46 | <4.33 | <75.50 | <4.18 | <2.04 | 345.33 | 5,269.00 | 16.46 |
| 31280 | WSD | umb vein | 16.46 | <4.33 | <75.50 | <4.18 | <2.04 | 192.01 | 3,725.00 | 29.29 |
| 32204 | WSD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 192.01 | 4,477.00 | 11.37 |
| 33101 | WSD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 174.02 | 4,269.00 | 36.33 |
| 33138 | WSD | umb vein | 26.07 | <4.33 | <75.50 | <4.18 | <2.04 | 210.34 | 4,104.00 | 28.88 |
| 33263 | WSD | umb vein | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 305.79 | 4,032.00 | 20.69 |
| 33314 | WSD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 156.39 | 4,686.00 | 23.16 |
| 33334 | WSD | umb vein | 37.24 | <4.33 | <75.50 | <4.18 | <2.04 | 286.28 | 5,629.00 | 16.94 |
| 33351 | WSD | umb vein | 12.32 | <4.33 | <75.50 | <4.18 | <2.04 | 238.36 | 4,963.00 | 22.49 |
| 33498 | WSD | umb vein | 18.47 | <4.33 | <75.50 | <4.18 | <2.04 | 210.34 | 3,592.00 | 29.69 |
| 34292 | WSD | umb vein | 20.43 | <4.33 | <75.50 | <4.18 | <2.04 | 228.95 | 4,134.00 | 22.05 |
| 34293 | WSD | umb vein | 10.18 | <4.33 | <75.50 | <4.18 | <2.04 | 570.47 | 3,163.00 | 18.85 |

| IL-17 | MIP-1alpha | GM-CSF | MIP-1beta | MCP-1 | IL-15 | EGF | IL-5 | HGF | VEGF | IFN-gamma |
|---|---|---|---|---|---|---|---|---|---|---|
| pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL |
| <9.67 | <11.42 | <2.98 | 10.55 | 449.71 | <13.67 | 33.41 | <2.86 | 90.16 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 397.16 | <13.67 | 10.83 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 492.29 | <13.67 | 16.99 | <2.86 | 21.01 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 10.55 | 498.25 | <13.67 | 7.41 | <2.86 | <14.47 | <0.46 | <2.73 |
| <7.54 | <8.91 | <2.32 | 13.53 | 300.51 | <10.66 | 15.86 | <2.23 | 54.83 | <0.36 | 10.05 |
| <9.67 | <11.42 | <2.98 | 10.55 | 706.34 | <13.67 | 13.14 | <2.86 | <14.47 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 10.55 | 568.15 | <13.67 | 14.68 | <2.86 | 21.01 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 10.55 | 496.27 | <13.67 | 39.80 | <2.86 | 42.77 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 597.95 | <13.67 | 22.33 | <2.86 | <14.47 | <0.46 | 3.78 |
| <9.67 | <11.42 | <2.98 | <9.02 | 653.35 | <13.67 | 7.03 | <2.86 | <14.47 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 9.48 | 351.75 | <13.67 | 6.66 | <2.86 | <14.47 | <0.46 | <2.73 |
| <8.51 | 13.03 | <2.62 | 14.55 | 328.59 | <12.03 | 9.92 | <2.52 | 48.60 | 0.83 | 8.91 |
| <9.67 | <11.42 | <2.98 | 12.80 | 407.47 | <13.67 | 20.43 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 531.48 | <13.67 | 21.57 | <2.86 | 21.01 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 539.18 | <13.67 | 31.60 | <2.86 | 42.77 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 258.13 | <13.67 | 25.15 | <2.86 | 21.01 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 12.80 | 835.34 | <13.67 | 132.93 | <2.86 | 42.77 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 327.14 | <13.67 | 13.91 | <2.86 | 42.77 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 12.80 | 346.54 | <13.67 | 21.95 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 15.15 | 438.79 | <13.67 | 70.69 | <2.86 | 21.01 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | <9.02 | 329.52 | <13.67 | 9.30 | <2.86 | <14.47 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 440.88 | <13.67 | <1.01 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 367.17 | <13.67 | 64.53 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 500.72 | <13.67 | 32.33 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 469.17 | <13.67 | 40.50 | <2.86 | <14.47 | <0.46 | 5.03 |
| <8.70 | <10.28 | <2.68 | <8.12 | 340.64 | <12.30 | 19.73 | <2.57 | <13.02 | <0.41 | <2.46 |
| <9.67 | <11.42 | <2.98 | 10.55 | 649.77 | <13.67 | 19.29 | <2.86 | <14.47 | <0.46 | 29.42 |
| <9.67 | 11.47 | <2.98 | 12.80 | 696.29 | <13.67 | 34.85 | <2.86 | 42.77 | 0.78 | 5.03 |
| <9.67 | 14.24 | <2.98 | 12.80 | 733.67 | 50.02 | 7.41 | <2.86 | 78.05 | 3.76 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 244.69 | <13.67 | 22.52 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | 14.24 | <2.98 | 10.55 | 596.11 | <13.67 | 38.92 | <2.86 | 42.77 | 1.04 | 10.97 |
| <9.67 | <11.42 | <2.98 | 10.55 | 497.76 | <13.67 | 24.59 | <2.86 | 42.77 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 15.15 | 433.03 | <13.67 | 17.95 | <2.86 | <14.47 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 10.55 | 478.78 | <13.67 | 18.33 | <2.86 | 42.77 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 17.60 | 399.88 | <13.67 | 4.83 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 356.35 | <13.67 | 28.86 | <2.86 | 42.77 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | <9.02 | 626.78 | <13.67 | 14.49 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 714.62 | <13.67 | 15.07 | <2.86 | 66.07 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 12.80 | 556.35 | <13.67 | 56.91 | <2.86 | 66.07 | <0.46 | 7.84 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| <9.67 | <11.42 | <2.98 | <9.02 | 589.63 | <13.67 | 25.71 | <2.86 | 21.01 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | <9.02 | 701.10 | <13.67 | 5.01 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 325.35 | <13.67 | 7.78 | <2.86 | <14.47 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | 12.80 | 397.16 | <13.67 | 4.83 | <2.86 | 21.01 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 461.02 | <13.67 | 17.76 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 434.08 | <13.67 | 19.48 | <2.86 | 21.01 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 562.02 | <13.67 | 37.52 | <2.86 | 42.77 | <0.46 | 7.84 |
| <9.67 | <11.42 | <2.98 | 10.55 | 366.60 | <13.67 | 21.95 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 643.04 | <13.67 | 39.63 | <2.86 | 21.01 | <0.46 | 10.97 |
| <9.67 | <11.42 | <2.98 | 10.55 | 318.75 | <13.67 | 15.45 | <2.86 | 42.77 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 12.80 | 406.39 | <13.67 | 17.18 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 386.72 | <13.67 | 58.20 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 404.77 | <13.67 | 4.30 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 12.80 | 628.59 | <13.67 | 15.84 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 345.96 | <13.67 | 70.08 | <2.86 | 21.01 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 12.80 | 417.67 | <13.67 | 26.09 | <2.86 | <14.47 | <0.46 | 5.03 |
| <9.67 | <11.42 | <2.98 | 10.55 | 444.52 | <13.67 | 36.99 | <2.86 | 21.01 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | <9.02 | 432.50 | <13.67 | 28.49 | <2.86 | 21.01 | <0.46 | <2.73 |
| <9.67 | <11.42 | <2.98 | <9.02 | 605.78 | <13.67 | <1.01 | <2.86 | <14.47 | <0.46 | 25.48 |

| MDC | I-TAC | MIF | IL-1RA | TNF-alpha | IL-2 | IP-10 | MIG | IL-4 | IL-8 |
|---|---|---|---|---|---|---|---|---|---|
| pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL | pg/mL |
| 752.42 | 48.08 | >3,860.00 | 32.35 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 4.77 |
| 1,262.00 | 14.06 | 428.21 | 52.14 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 5.33 |
| 545.12 | 24.73 | 537.19 | 36.73 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 7.74 |
| 366.13 | <9.33 | 581.07 | 69.53 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 4.77 |
| 643.01 | 24.69 | 851.90 | 49.91 | <3.99 | <4.42 | <0.51 | <3.99 | <15.69 | <3.52 |
| 1,328.00 | 24.73 | 1,413.00 | 45.54 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 18.23 |
| 830.95 | 24.73 | 1,010.00 | 130.87 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 630.07 | 14.06 | 2,812.00 | 49.94 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 5.91 |
| 1,425.00 | 24.73 | 657.64 | 45.54 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,935.00 | 14.06 | 629.56 | 45.54 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 9.69 |
| 1,194.00 | <9.33 | 1,131.00 | 19.50 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 362.93 | 41.11 | 1,915.91 | 49.25 | <4.50 | <5.00 | <0.58 | 7.23 | <17.70 | 12.53 |
| 671.50 | 24.73 | 1,200.00 | 41.14 | <5.11 | <5.67 | <0.66 | 6.36 | <20.11 | <4.51 |
| 457.21 | 24.73 | 1,408.00 | 260.98 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,425.00 | 36.18 | 846.61 | 156.48 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 319.38 | 36.18 | 1,957.00 | 60.88 | <5.11 | 21.12 | 0.72 | <3.11 | <20.11 | <4.51 |
| 1,393.00 | 24.73 | >3,860.00 | 107.10 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 5.91 |
| 366.13 | 24.73 | 641.70 | 386.27 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 671.50 | 24.73 | 1,142.00 | 21.59 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 752.42 | 48.08 | 2,343.00 | 148.07 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 5.33 |
| 1,733.00 | 36.18 | 907.01 | 756.82 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 752.42 | 24.73 | 883.73 | 52.14 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,393.00 | 24.73 | 3,353.00 | 34.54 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 6.51 |
| 630.07 | 14.06 | 2,214.00 | 58.70 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,762.00 | 24.73 | 2,709.00 | 45.54 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 194.32 | <8.40 | 1,804.44 | 57.93 | <4.60 | <5.10 | <0.59 | <2.80 | <18.10 | <4.06 |
| 1,295.00 | 366.45 | 2,212.00 | 247.31 | <5.11 | <5.67 | 29.80 | 6.36 | <20.11 | <4.51 |
| 671.50 | 60.22 | >3,860.00 | 214.12 | <5.11 | <5.67 | 2.13 | 12.96 | <20.11 | 7.74 |
| 366.13 | 238.48 | 1,710.00 | 109.12 | <5.11 | 21.12 | 5.04 | 12.96 | <20.11 | <4.51 |
| 1,125.00 | 14.06 | 909.34 | 242.43 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 4.77 |
| 630.07 | 54.13 | 1,805.00 | 1,579.00 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 9.69 |
| 671.50 | 24.73 | 3,318.00 | 41.14 | <5.11 | 21.12 | <0.66 | <3.11 | <20.11 | 5.91 |
| 1,658.00 | 24.73 | 924.12 | 69.53 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 5.33 |
| 587.95 | 24.73 | 923.34 | 38.93 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 8.38 |
| 501.55 | 14.06 | 452.46 | 47.74 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 712.28 | 14.06 | 1,336.00 | 41.14 | <5.11 | 21.12 | <0.66 | <3.11 | <20.11 | 5.33 |
| 830.95 | 14.06 | 821.95 | 64.14 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 21.25 |
| 869.37 | 24.73 | 1,749.00 | 192.55 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 630.07 | 36.18 | >3,860.00 | 172.07 | <5.11 | 21.12 | <0.66 | <3.11 | <20.11 | 10.36 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,441.00 | 14.06 | 1,029.00 | 35.64 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,878.00 | 36.18 | 1,356.00 | 71.68 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 12.42 |
| 1,425.00 | 14.06 | 877.54 | 17.45 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 342.86 | 24.73 | 737.61 | 58.70 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 14.55 |
| 630.07 | 24.73 | 446.40 | 65.22 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 319.38 | 24.73 | 2,070.00 | 279.11 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 4.77 |
| 1,361.00 | 48.08 | 1,693.00 | 209.86 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 366.13 | 24.73 | 3,526.00 | 47.74 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 869.37 | 24.73 | 2,932.00 | 113.14 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 7.12 |
| 366.13 | 24.73 | 720.81 | 490.67 | <5.11 | 21.12 | <0.66 | <3.11 | <20.11 | <4.51 |
| 630.07 | 14.06 | 1,596.00 | 38.93 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,018.00 | 24.73 | 1,662.00 | 63.05 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,211.00 | 36.18 | 1,671.00 | 1,385.00 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 791.97 | 24.73 | 1,030.00 | 82.32 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,228.00 | 24.73 | >3,860.00 | 30.17 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | 6.51 |
| 587.95 | 24.73 | 1,939.00 | 54.33 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,878.00 | 14.06 | 1,555.00 | 54.33 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| <157.64 | <9.33 | 2,077.00 | 38.93 | <5.11 | <5.67 | <0.66 | <3.11 | <20.11 | <4.51 |
| 1,160.00 | 157.67 | 521.31 | 323.16 | <5.11 | <5.67 | 22.23 | 31.97 | <20.11 | <4.51 |

Supplemental Table S3. Antibodies.

| Antibody | Supplier | Catalog # or clone | Application |
|---|---|---|---|
| CD68 | Agilent | clone KP1 | IHC |
| S100A6 | Thermo Fisher Scientific | H00006277-M16 | IHC |
| NFκB | Cell Signaling | 8242 | WB |
| pNFκB | Cell Signaling | 3039 | WB |
| STAT3 | Cell Signaling | 4904 | WB |
| pSTAT3 | Cell Signaling | 9131 | WB |
| IκBα | Cell Signaling | 9242 | WB |
| IKKα | Cell Signaling | 2682 | WB |
| pIKKα/β | Cell Signaling | 2694 | WB |
| SIRT3 | Cell Signaling | 2627 | WB |
| JNK | Cell Signaling | 9252 | WB |
| pJNK | Cell Signaling | 9251 | WB |
| MnSOD | Enzo Life Sciences | ADI-SOD-110 | WB |
| Ac-MnSOD | Gift from Dr. Gius | clone K68 | WB |
| Ac-p53 | Cell Signaling | 2525 | WB |
| CD3 PE | BD Biosciences | 556612 | FC |
| CD20 BV510 | Biolegend | 302340 | FC |
| CD16 Pacific Blue | Biolegend | 302032 | FC |
| CD11c APC | Biolegend | 301614 | FC |
| CD14 Alexa Fluor 700 | Biolegend | 301822 | FC |
| CD123 PerCP/Cy5.5 | Biolegend | 306016 | FC |
| CD8a PE/Cy7 | Biolegend | 301012 | FC |
| HLA-DR APC/Cy7 | Biolegend | 307618 | FC |
| CD8b ECD | Beckman Coulter | 6607123 | FC |
| CD4 PerCP/Cy5.5 | Tonbo Biosciences | 65-0048 | FC |
| CD27 APC | Tonbo Biosciences | 20-0279 | FC |
| CCR7 PE/Cy7 | Biolegend | 353226 | FC |
| CD28 PE | Biolegend | 302908 | FC |
| CD95 Pacific Blue | Biolegend | 305619 | FC |
| IgD-biotin* | SouthernBiotech | 2030-08 | FC |

*Paired with Alexa Fluor 700 streptavidin (Thermo, catalog #S21383).
FC, flow cytometry; IHC, immunohistochemistry; WB, Western blot.

Supplemental Table S4. qPCR primer sequences.

| Gene | Forward Primer | Reverse Primer |
|---|---|---|
| *ACTA2* | GGCAAGTGATCACCATCGGA | GTGGTTTCATGGATGCCTGC |
| *AKAP12* | AAACGGCCAGGAGGAAGAAG | GTGACGTCTTGAACAACCGC |
| *B2M* | CGAGATGTCTCGCTCAGTGG | CATTCTCTGGTGGATGGCGT |
| *CCR2* | TTGACGTGAAGCAAATCGGG | CCAGCATGTTGCCCACAAAA |
| *CD11b (ITGAM)* | ACGCGCAGGCAGACGAAGAC | TCAGGCGCAGCACAATGGGG |
| *COL1A1* | AAGGACAAGAGGCACGTCTG | CAGGAAGGTCAGCTGGATGG |
| *COL3A1* | GGTCCAAAGGGTGACAAGGG | GGCCAGGAGGACCAATAGGA |
| *EZH2* | AGGATGTGGACACTCCTCCA | CCGTGGATGATCACAGGGTT |
| *FAP* | AGTTTCAGCGACTACGCCAA | TCTTGATCAGTGCGTCCGTC |
| *HMBS* | GCCCAGCTGCAGAGAAAGTT | GATGGCACTGAACTCCTGCT |
| *ICAM1* | AACCCTCCTCACCGTGTACT | GGCAGCGTAGGGTAAGGTTC |
| *IL10* | GACCTCCGAGATGCCTTCAG | CTCAGACAAGGCTTGGCAAC |
| *IL12B* | GCAGCTGGTCATCTCTTGGT | CACCATTTCTCCAGGGGCAT |
| *IL1B* | GCTCTCCACCTCCAGGGACAGG | TGAGGCCCAAGGCCACAGGT |
| *IL6* | TCCTCGACGGCATCTCAGCC | TGCCAGTGCCTCTTTGCTGCT |
| *LGALS3* | ACAATTCTGGGCACGGTGAA | CGTGGGTTAAAGTGGAAGGC |
| *MCP1 (CCL2)* | GCACTTCTGTGCCTGCTGCTCA | GCAGCAAGTGACGGGGGCAT |
| *NFKBIA* | CGGAGTTCACGGAGGATGAG | GTTCTTTCAGCCCCTTTGCG |
| *PDGFRB* | CTTCCATGAGGACGCTGAGG | CTGGGTGGCTCTCACTTAGC |
| *PGDFA* | CCTGCCCATTCGAAGGAAGA | CAGATCAGGAAGTTGGCGGA |
| *RPS15* | TTTCTGAGCATCCGGCAAGA | CATCAGCTGCTCGTAGGACAT |
| *SOCS3* | GGCTCAGCCCCAAGGACGGA | TGGAGCCAGCGTGGATCTGC |
| *TGFB1* | GAGCCCTGGACACCAACTAC | GAGGTCCTTGCGGAAGTCAA |
| *TLR4* | GCTTCCTCCGTTTTCCAGAACTGC | TGGAGAGGTGGCTTAGGCTCTGA |
| *TNF* | TCGAACCCCAAGTGACAAGCCT | GCCATTGGCCAGGAGGGCAT |
| *TNFSF12* | GTTCATCCACGACCTGGACA | GGGCTGGAGCTGTTGATTCT |
| *TREM2* | ATCTACAACCCCACGATGCG | CAGAGATCTCCAGCATCCCG |
| *VCAM1* | CTGTGCCCACAGAAAGGGAG | CATGGTCACAGAGCCACCTT |
| *VEGFA* | CCCACTGAGGAGTCCAACAT | CTCCTATGTGCTGGCCTTGG |
| *WWTR1* | GGCTGGGAGATGACCTTCAC | GGCTGATTCATCGCCTTCCT |