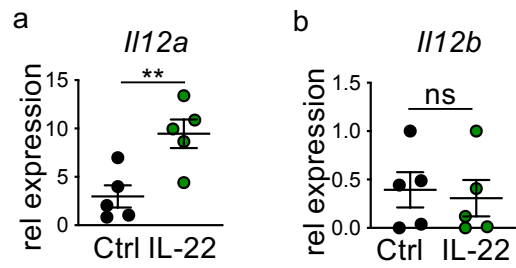
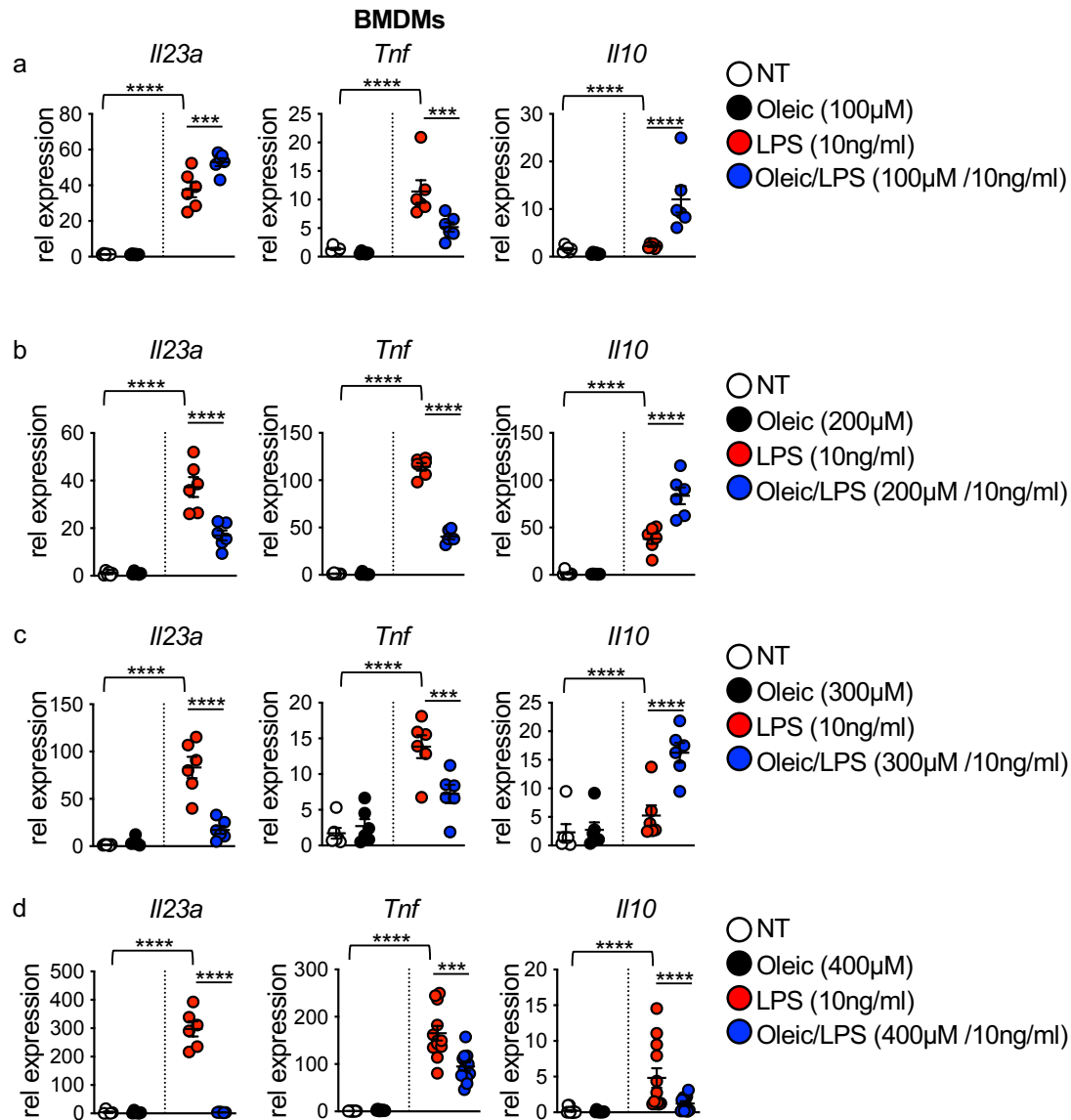


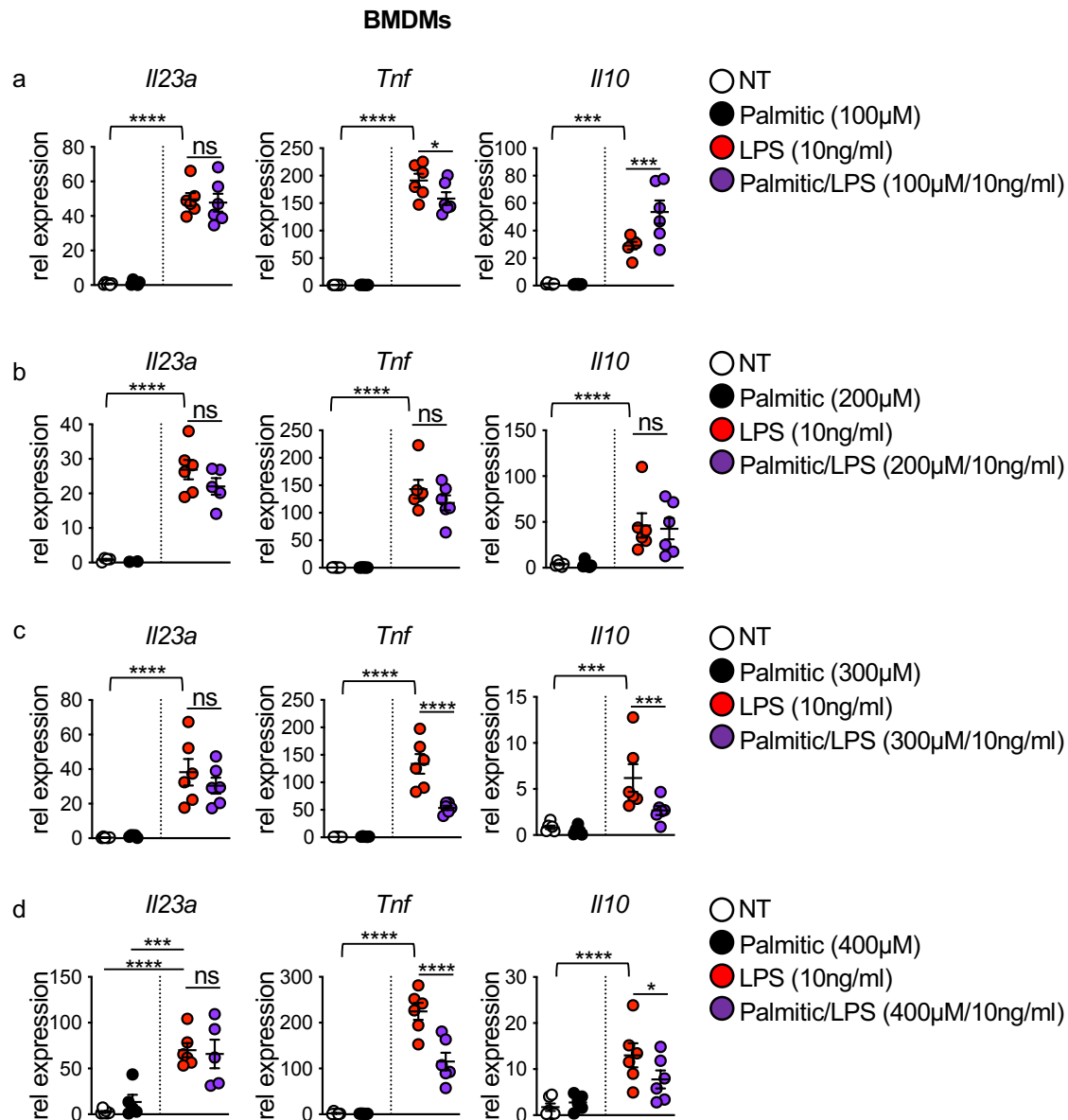
**Supplementary Figure S1.** Cecal gene expression in LFD and HFD non-treated and DSS mice. (a) *Il12a* (b) *Il12b*. Statistical comparisons were performed using One-way ANOVA with Bonferroni's multiple comparisons test.



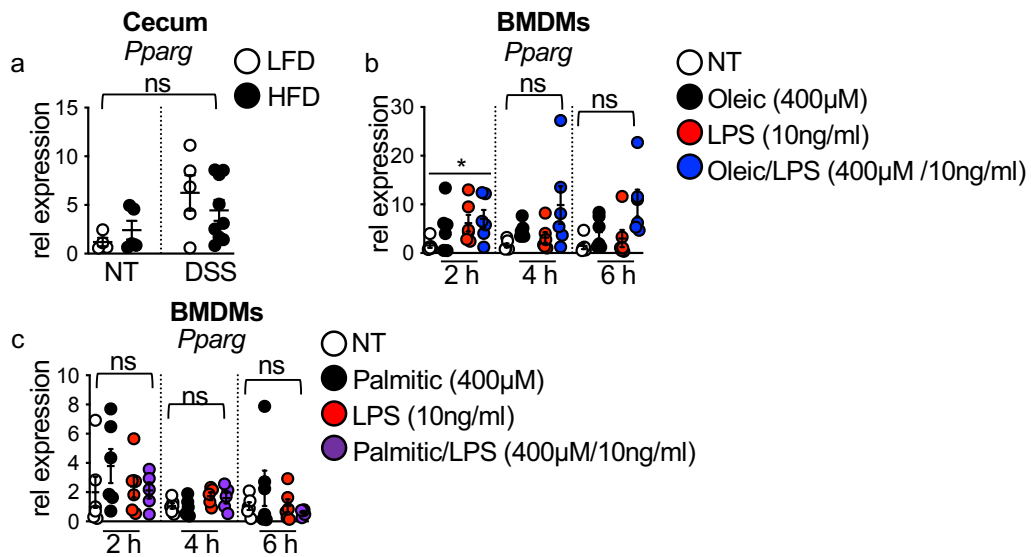
**Supplementary Figure S2.** Cecal gene expression in HFD DSS mice with hydrodynamic delivery of control or IL-22 expressing plasmid. **(a)** *IL12a* **(b)** *IL12b*. \*\* $P < 0.01$ . Statistical comparisons were performed using Student's *t* test and if not indicated, a comparison is not significant.



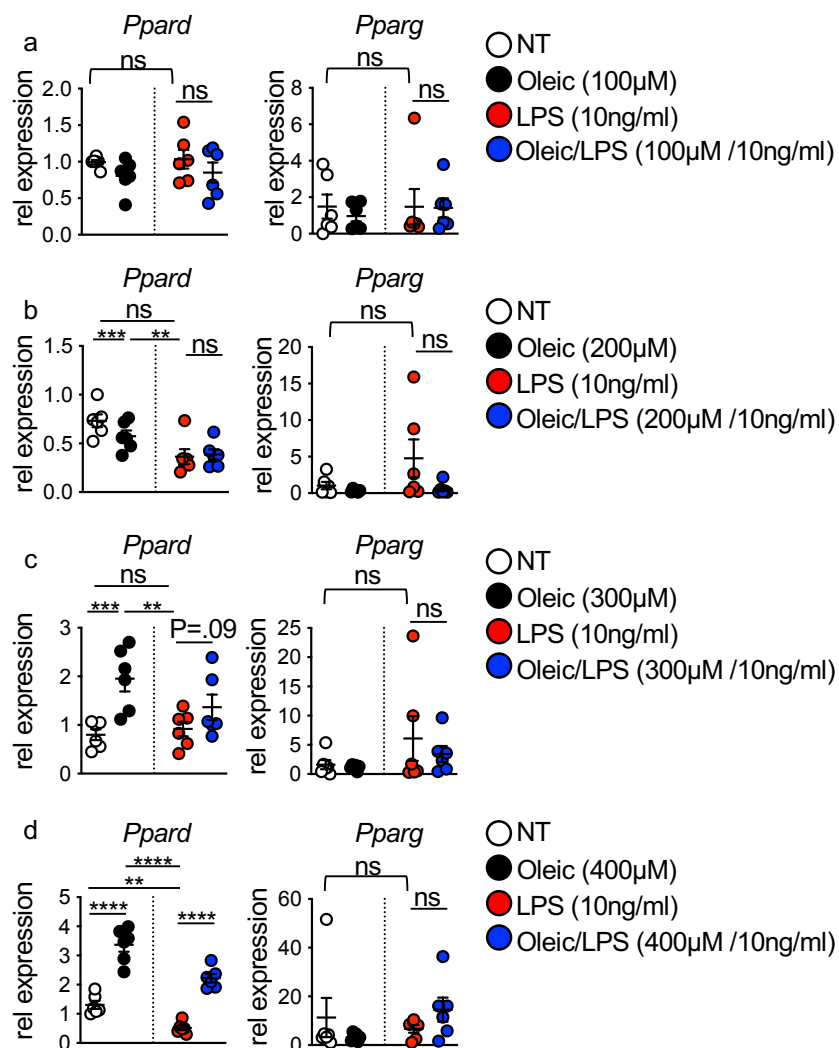
**Supplementary Figure S3. Oleic acid dose-dependent regulation of macrophage LPS response.** (a-d) *Il23a*, *Tnf*, and *Il10* gene expression in BMDMs left untreated or treated with oleic acid (100 - 400 μM) LPS (10ng), or oleic acid (100 - 400 μM) /LPS (10 ng) for 4 hours. Data are presented as mean ± SEM. \*\*\*P<.001, \*\*\*\*P<.0001. Statistical comparisons were performed using One-way ANOVA with multiple comparisons.



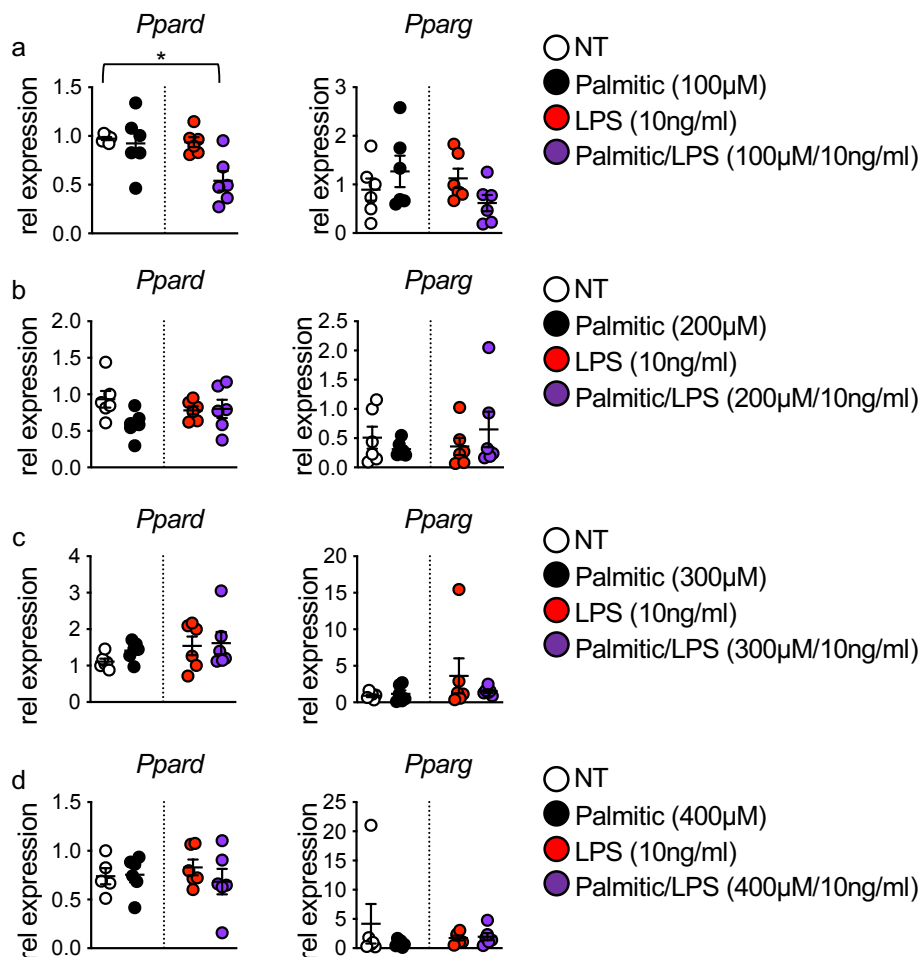
**Supplementary Figure S4. Palmitic acid dose-dependent regulation of macrophage LPS response.** (a-d) *Il23a*, *Tnf*, and *Il10* gene expression in BMDMs left untreated or treated with palmitic acid (100 - 400 μM) LPS (10ng), or palmitic acid (100 - 400 μM) /LPS (10 ng) for 4 hours. Data are presented as mean ± SEM. \*P<0.05, \*\*\*P<.001, \*\*\*\*P<.0001. Statistical comparisons were performed using One-way ANOVA with multiple comparisons.



**Supplementary Figure S5. Dietary lipid regulation of macrophages *Pparg* expression.** (a) Cecal *Pparg* gene expression in LFD and HFD no-treated and DSS mice. *Pparg* gene expression in BMDMs left untreated or treated with (b) oleic acid (400 μM), LPS (10 ng), or oleic acid (400 μM) /LPS (10 ng) or (c) palmitic acid (400 μM), LPS (10 ng), or palmitic (400 μM) /LPS (10 ng) for 4 h. \*P<0.05. Data are presented as mean ± SEM. Statistical comparisons were performed using One-way ANOVA with multiple comparisons.



**Supplementary Figure S6. Oleic acid dose-dependent regulation of macrophage *Ppard* and *Pparg* expression.** (a-d) *Ppard* and *Pparg* gene expression in BMDMs left untreated or treated with oleic acid (100 - 400 μM), LPS (10ng), or oleic acid (100 - 400 μM) /LPS (10 ng) for 4 hours. Data are presented as mean ± SEM. \*\*P<0.01, \*\*\*P<.001, \*\*\*\*P<.0001. Statistical comparisons were performed using One-way ANOVA with multiple comparisons.



**Supplementary Figure S6. Palmitic acid dose-dependent regulation of macrophage *Ppard* and *Pparg* expression.** (a-d) *Ppard* and *Pparg* gene expression in BMDMs left untreated or treated with palmitic acid (100 - 400 μM), LPS (10ng), or palmitic (100 - 400 μM) /LPS (10 ng) for 4 hours. Data are presented as mean ± SEM. \*\*P<0.01, \*\*\*P<.001, \*\*\*\*P<.0001. Statistical comparisons were performed using One-way ANOVA with multiple comparisons.