

Supplemental Legends

Figure 1 Supplemental Data: *Flowchart of women and biological samples used in this study.* Abbreviations: IAI: intra-amniotic inflammation; CRL: control; IHC: immunohistochemistry; HCA: histological chorioamnionitis; ROM: rupture of membranes.

Figure 2 Supplemental Data: *Fetal membranes explant culture system.* The LPS dose was chosen based on a dose response experiment (5, 50, 500 ng/mL LPS) where we determined that the peak of IL-6 and MMP-9 release in the explants medium. The peak of MMP-9 and IL-6 release was seen following stimulation with 50 ng/mL LPS. The figure shows dose-response curves of LPS on IL-6 and MMP-9 release from amniochorion explants (n=4) after 24 hours challenge. Means with different superscripts are different at P<0.05.

Figure 3 Supplemental Data: *Transcriptional regulation of IL-6R and gp130 in human placenta.* Relative mRNA expression of IL-6R (A) and gp130 (B) in placental villous tissue from preterm (PT) women and term (T, n=9) women. Preterm women were grouped by presence or absence of intra-amniotic inflammation (IAI: no IAI, n=5, yes IAI, n=15). Data presented as mean and standard error.