TNF-α and IL-6 showed significant increases after LPS administration, with IL-6 peaking earlier than TNF-α. Caffeine and AMPD1 treatments led to lower cytokine levels compared to Placebo, especially for IL-6. IL-10 and IL1-RA levels also increased, but to a lesser extent compared to TNF-α and IL-6. The graphs indicate statistical significance (P<0.0001) for all treatments compared to Placebo at various time points after LPS administration.