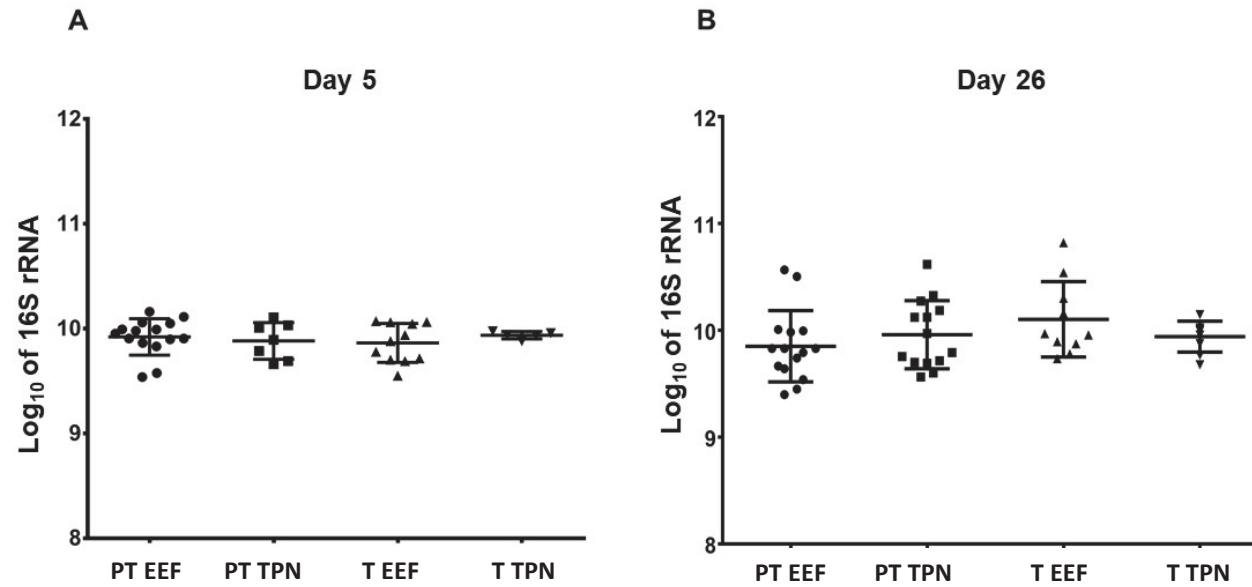
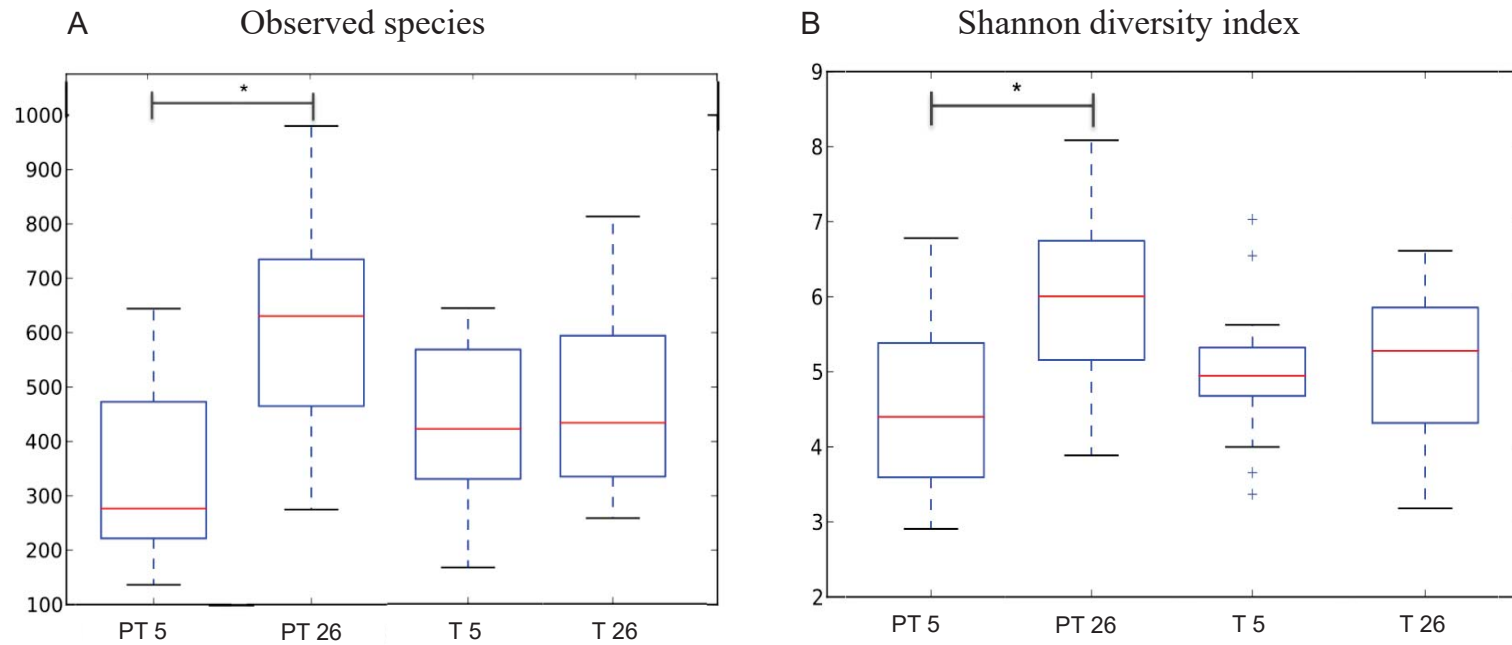


Supplementary Figure 1: Total bacterial load as determined by qPCR (16S rRNA gene copies/g colon sample) at (A) day 5 and (B) day 26 from piglets born either term (T) or preterm (PT) and administered either gradually increasing Early Enteral Feeding (EEF) or Total Parenteral Nutrition (TPN) for 5 days before being transferred to full enteral nutrition until day 26. Mean values (\pm std.dev.) of each group at day 5 (n = 5-15) and at day 26 (n = 9-15).



Supplementary Figure 2: Alpha diversity as determined by Number of observed species (A, C) and Shannon diversity index (B, D) of piglets born either preterm (PT) or term (T) and fed either Total Parenteral Nutrition (TPN) or gradually increasing Early Enteral Feeding (EEF) for 5 days followed by full enteral nutrition until day 26 days.



Supplementary Figure 3: Concentration of short chain fatty acids (SCFAs) (A) acetate, (B) propionate and (C) formate (D) butyrate, (E) iso-butyrate, (F) lactate, (G) succinate after 26 days (mean \pm SD; asterisks indicate statistical significant differences; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.0001$) in colon content from piglets born either term (T) or preterm (PT) and administered either gradually increasing Early Enteral Feeding (EEF) or Total Parenteral Nutrition (TPN) for 5 days before being transferred to full enteral nutrition until day 26, $n = 9-15$ per group.

