## SUPPLEMENTAL INFORMATION

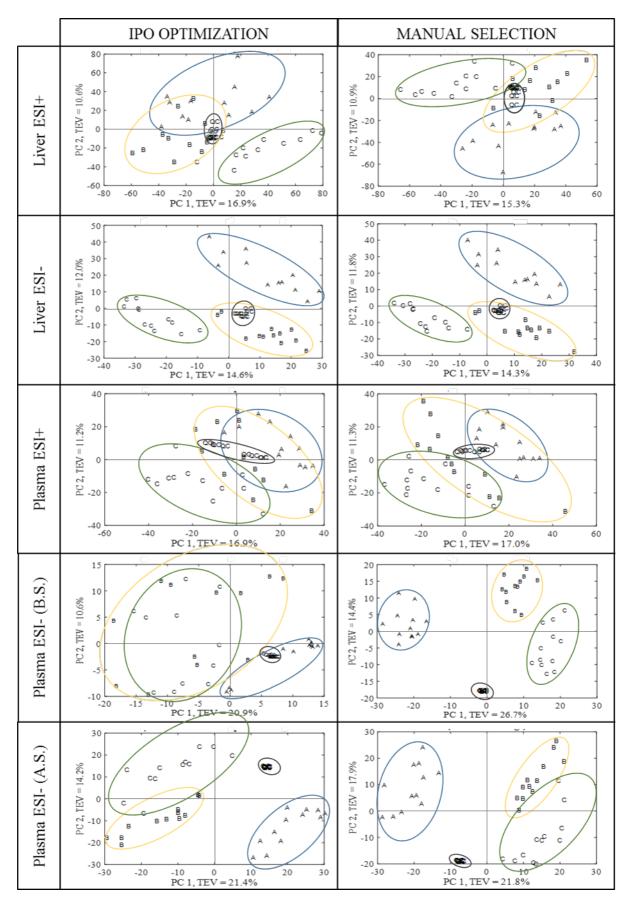


Figure S.1. PCA scores plot, before intensity drop correction and pertinent transformation obtained with IPO and manual parameters selection criteria for the all data sets (Liver ESI+, Liver ESI-, Plasma ESI+, Plasma ESI- B.S., and Plasma ESI- A.S.). Piglets groups: newborns (A), neonates (B) and infants (C).

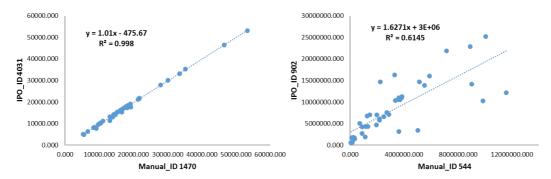


Figure S.2. Correlation graph between two features obtained by IPO and Manual selection criteria for Liver ESI+. The left graph a good correlation and same features are shown (IPO\_ID4031 = Manual\_ID1470), whereas the right graph shows the opposite situation (IPO\_ID902 \neq Manual\_ID544).

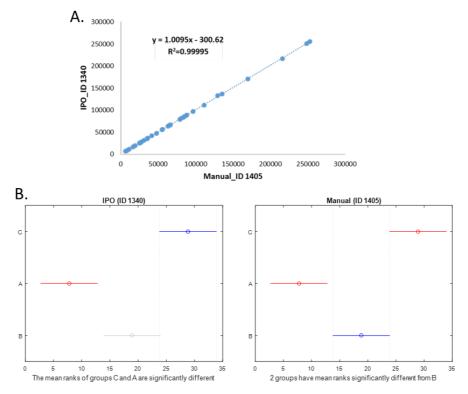


Figure S.3. Comparison between the significant feature obtained in Plasma ESI+ data set with manual approach (ID 1405) and the same feature found in the related IPO matrix (ID 1340) that were not significant. **A.** Correlation graph of IPO\_ID 1340 and Manual\_ID 1405 and **B.** Post-hoc Tukey HSD test. Left: difference between the three groups of piglets were not observed (IPO\_ID 1340). Right: The three group of piglets are perfectly differentiated (Manual\_ID 1405). Piglets groups: newborns (A), neonates (B) and infants (C).