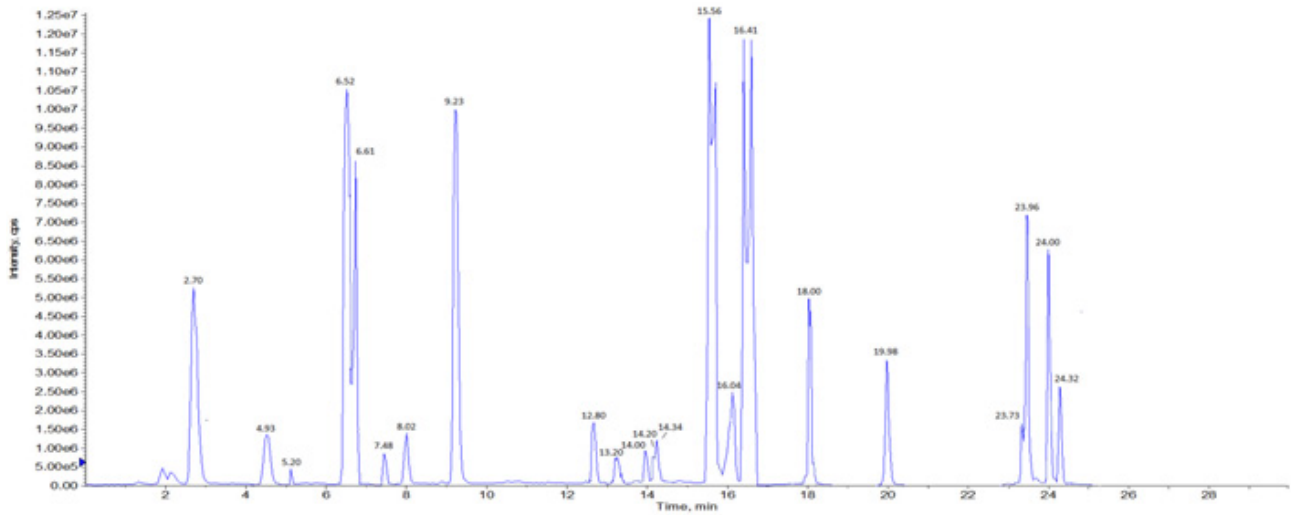


SUPPLEMENTARY FIGURE AND TABLES

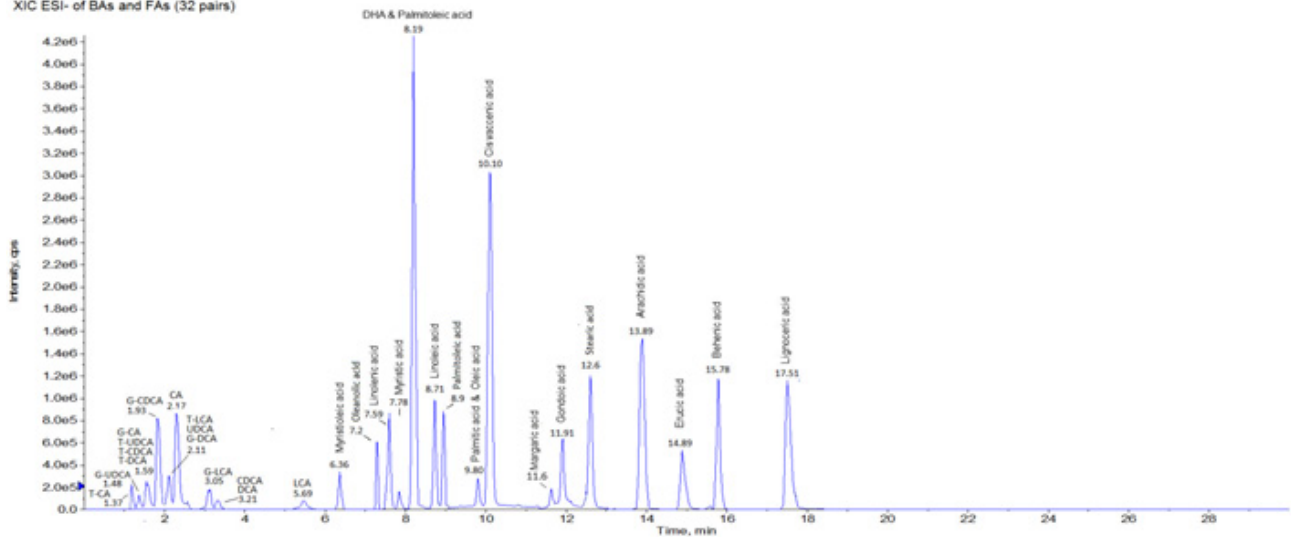
Panel A

XIC ESI+ of STL, SHI, PL, CAR (23 pairs)



Panel B

XIC ESI- of BAs and FAs (32 pairs)



Supplementary Figure S1: Extracted ion chromatogram (XIC) of ESI positive and negative mode from a QC serum sample, expressed as percent relative abundance versus time in minutes. MRM functions are reported for each metabolite and its relative internal standard.

**Supplementary Table S1: Medians (along with lower-upper quartiles) of metabolite levels ( $\mu\text{mol/L}$ ) in patients with pancreatic cancer and in healthy donor**

See supplementary Table 1

**Supplementary Table S2: Variable importance (VIMP) and relative VIMP ranking**

See supplementary Table 2

**Supplementary Table S3: Estimation of the Area Under the Curve (AUC) for each metabolite, along with 95% confidence interval (95%CI), and the cut-off which best jointly maximize sensitivity (SE) and specificity (SP).**

See supplementary Table 3

**Supplementary Table S4: List of the analytical standards used for the LC-MS/MS method setting, with relative molecular formula and Chemspider ID.**

See supplementary S4

**Supplementary Table S5: Linearity parameters (range, equation,  $R^2$ ) obtained by using lipids standards in water and serum extracts along with evaluation of the matrix effects measured as  $100\% \times (1 - \text{slope water} / \text{slope serum})$**

See supplementary S5

**Supplementary Table S6: Compound-specific instrumental parameters of the LC-ESI-MS/MS method for the analysis of lipids in serum samples. IS: isotope labeled internal standard, used for quantification**

See supplementary S6

**Supplementary Table S7: Method validation results for each quantified lipid by LC-ESI-MS/MS analysis**

See supplementary S7