



Figure S1: Dysregulated extracellular metabolites between MCF-7 cells pre-and 24hr post-treatment with *E. coli* secretome. A) A Venn diagram represents the relation between significantly dysregulated extracellular ions in treated MCF-7 with *E. coli* secretome ($n=1948$) and non-treated cells ($n=3128$) at different time points (0, 1, 2, 6, 8, and 24 hr), B) An OPLS-DA model represents the separation between pre- and 24hr post-treatment samples based on selected 821 extracellular ions. The robustness of the created model was evaluated by the fitness of the model ($R^2Y= 0.999$) and predictive ability ($Q^2= 0.984$) values in a larger dataset ($n= 1000$). C) Volcano plot revealed 437 significantly dysregulated metabolites, where 159 (in red)

and 278 (in blue) ions were up- and down-regulated in 24hr post-treatment compared to control, respectively (Cut-off: $FDR \leq 0.05$, and $FC \geq 2$), D) Pathway analysis for the significant metabolites dysregulated that secreted in culture media after treating MCF-7 cells with *E. coli* secretome. 56 metabolites were ultimately identified as endogenous.