Monitoring cellular responses upon fatty acid exposure by Fourier Transform infrared spectroscopy and Raman spectroscopy

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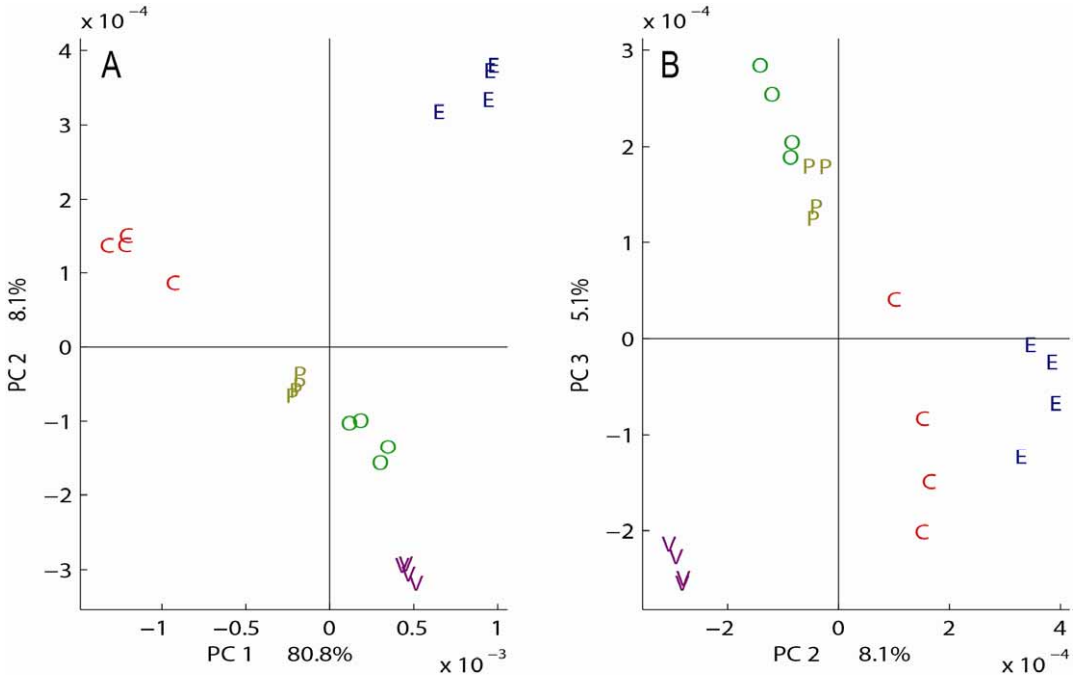

Fig. S1 Principal component analysis (PCA) of FTIR spectral data of HepG2-SF cells exposed to four different fatty acids: palmitic acid (16:0), oleic acid (18:1cis-9), elaidic acid (18:1trans-9) and vaccenic acid (18:1trans-11) and control medium. A) PCA score plot showing principal component (PC) 1 and 2, explaining 80.8% and 8.1 % of the sample variance, respectively. B) PCA score plot PC 2 and 3, with PC 3 explaining 5.1 % of the sample variance. The raw spectra are pre-processed using second derivative and Extended Multiplicative Signal Correction (EMSC). Second derivative minima are multiplied by -1. C: control, P: palmitic, O: oleic, E: elaidic, V: vaccenic.

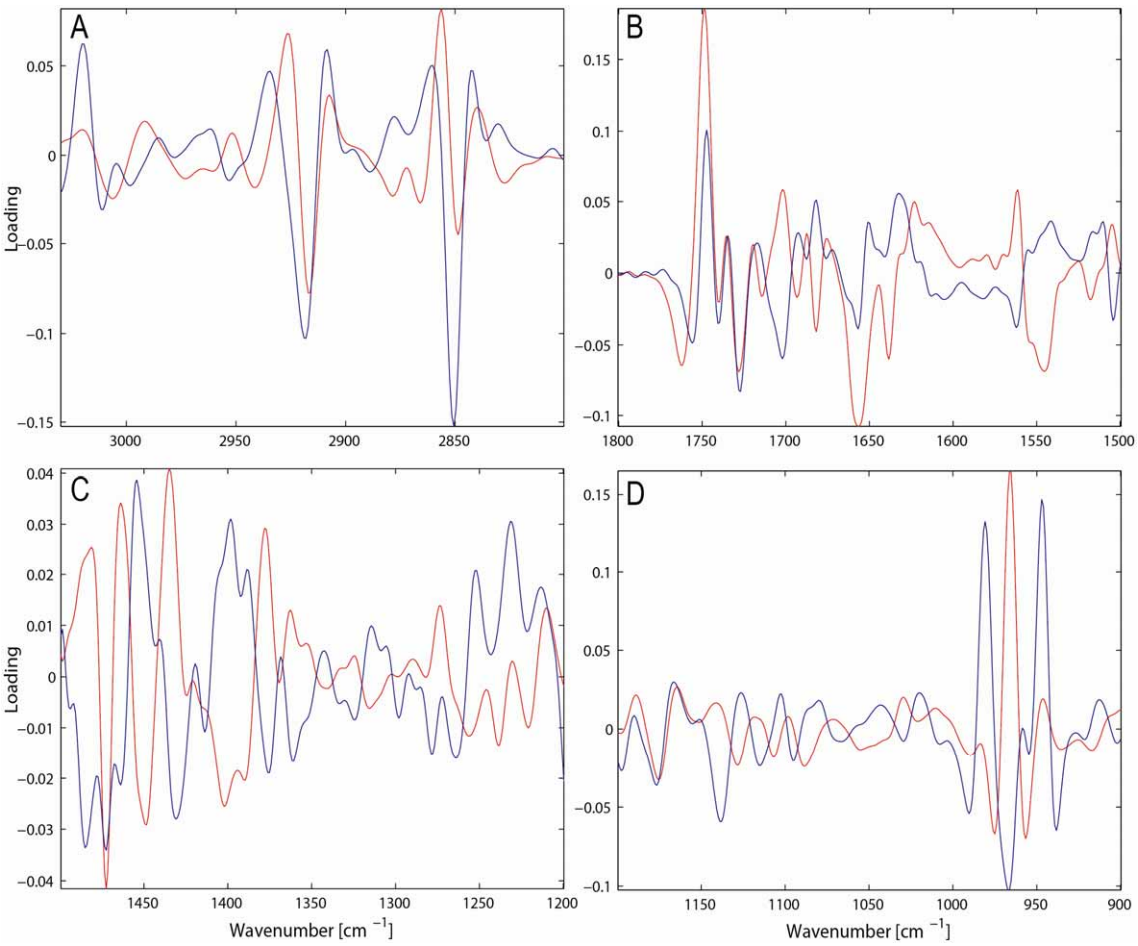

Fig. S2 Line plot of loadings from principal component analysis (PCA) of FTIR spectral data of HepG2-SF cells exposed in three days to four different fatty acids: palmitic acid (16:0), oleic acid (18:1, cis-9), elaidic acid (18:1, trans-9) and vaccenic acid (18:1 trans-11) showing PC1 (Red) and PC2 (Blue). The line plot is divided into four regions: 3050-2800 cm-1 (A), 1800-1500 cm-1 (B), 1500-1200 cm-1 (C), 1200-900 cm-1 (D).