

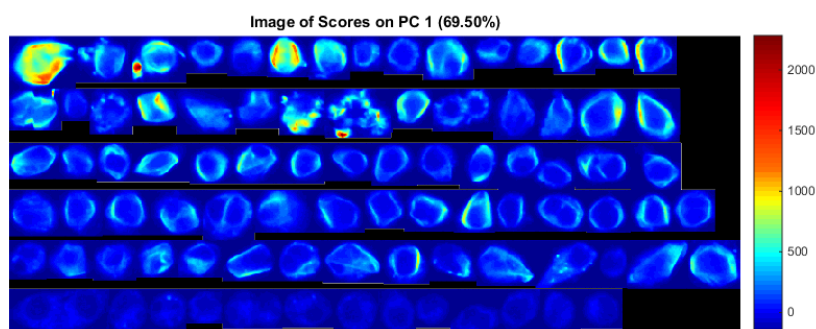
Figure S1

	Number of cells tested at each condition					
	0 mM	25 mM	50 mM	100 mM	200 mM	400 mM
Palmitic	30	30	27	30	20	20
Stearic	30	26	37	22	16	15
Oleic	30	27	36	23	25	n/a
Linoleic	30	16	24	38	n/a	n/a

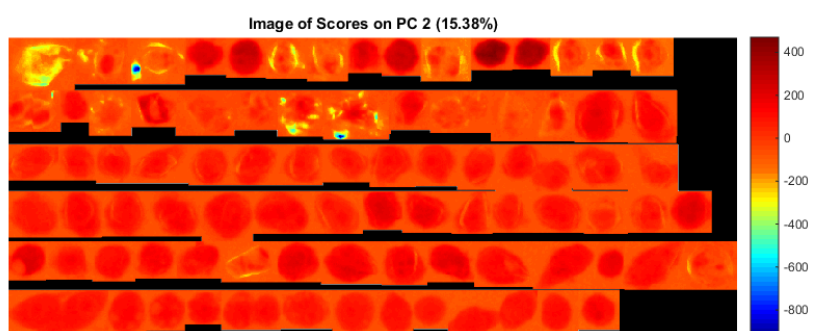
Figure S1: The number of Raw264.7 cells measured for each fatty acid and concentration.

Figure S2

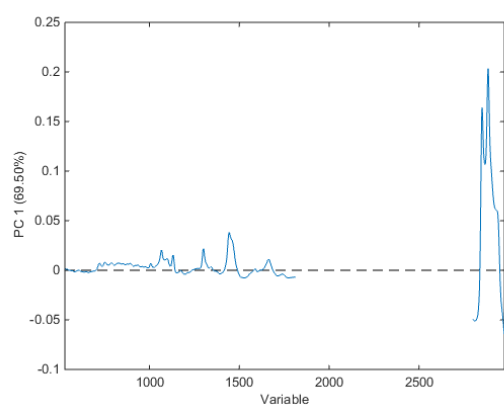
(a)



(b)



(c)



(d)

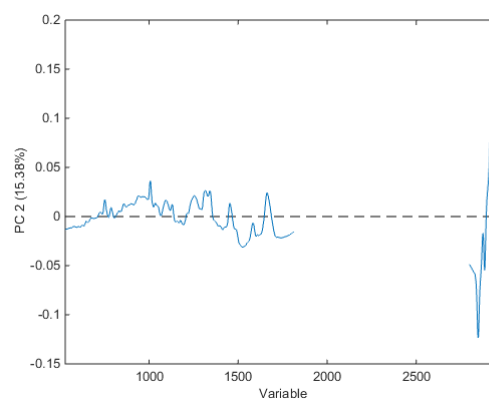


Figure S2: PCA scores and loadings for 15 cells (chosen at random from the 30 measured) exposed to palmitic acid at all concentrations studied. (a) Scores on PC1 and (b) PC2 (concentrations for each line are 400, 200, 100, 50, 25 and 0 μ M in descending order). Loadings for (c) PC1 and (d) PC2 show little difference to those seen for a smaller number of cells (see Figure 1 for comparison) suggesting the choice of cells does not significantly affect the overall analysis.

Figure S3

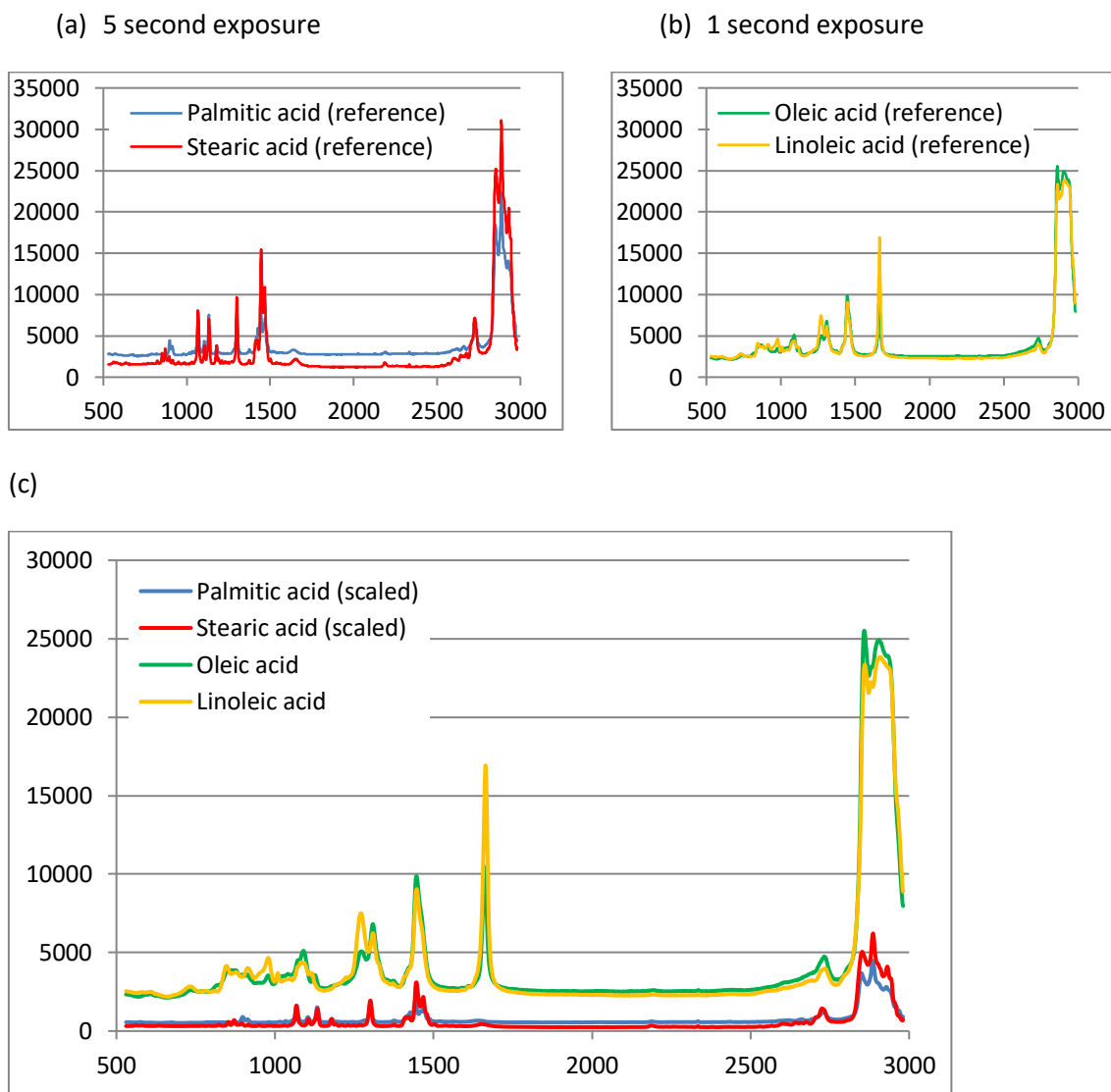


Figure S3: Reference Raman spectra for (a) saturated fatty acids (samples solid at room temperature, 5 second exposure used for Raman spectra collection) and (b) unsaturated fatty acids (samples liquid at room temperature, 1 second exposure used for Raman spectra collection). Spectra shown are an average of three recorded spectra. No other pre-processing steps have been applied. (c) Reference Raman spectra of all four fatty acids, where palmitic and stearic acid have been scaled (intensity divided by five) in order to account for the difference in exposure time used to record the reference spectra.