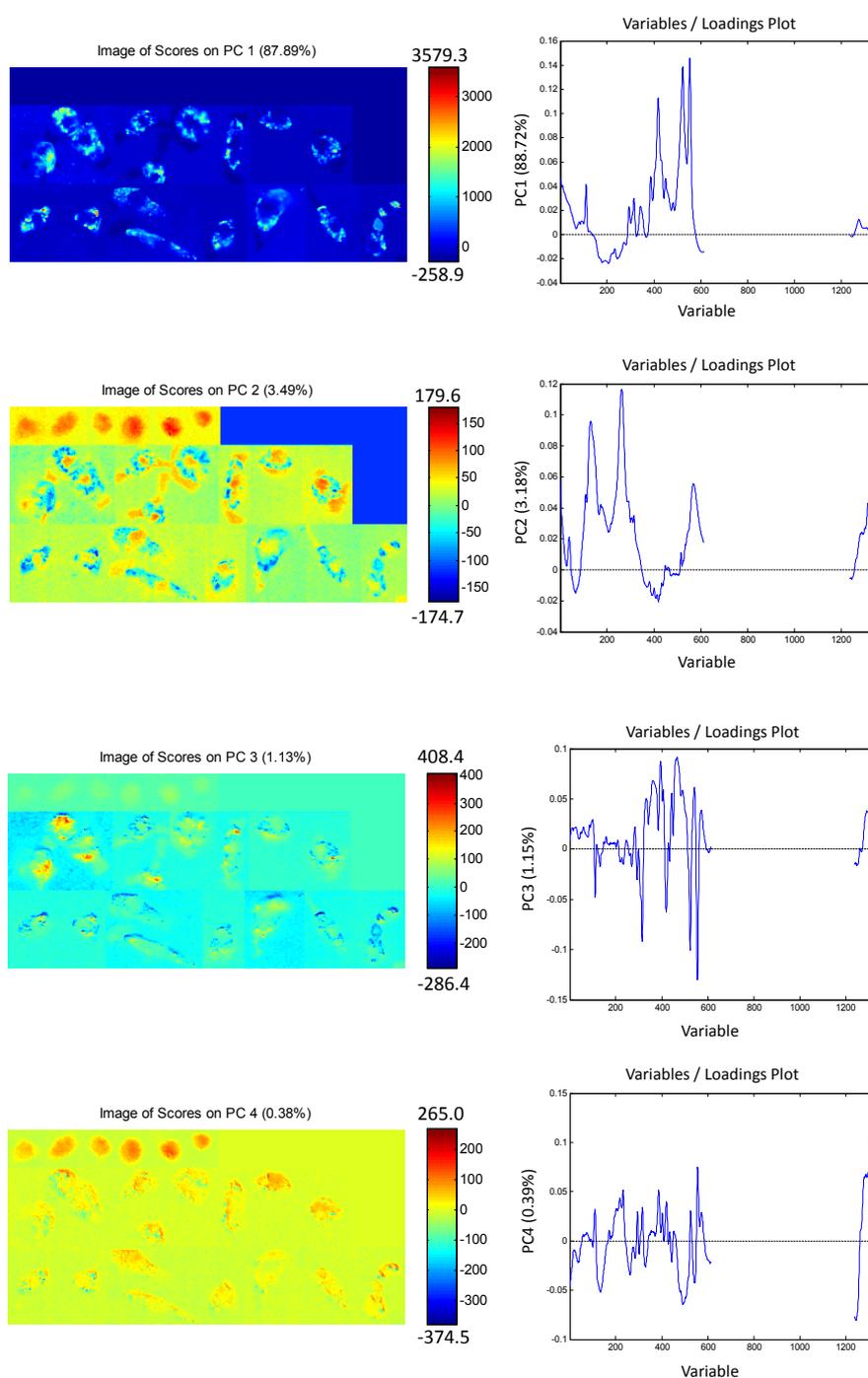
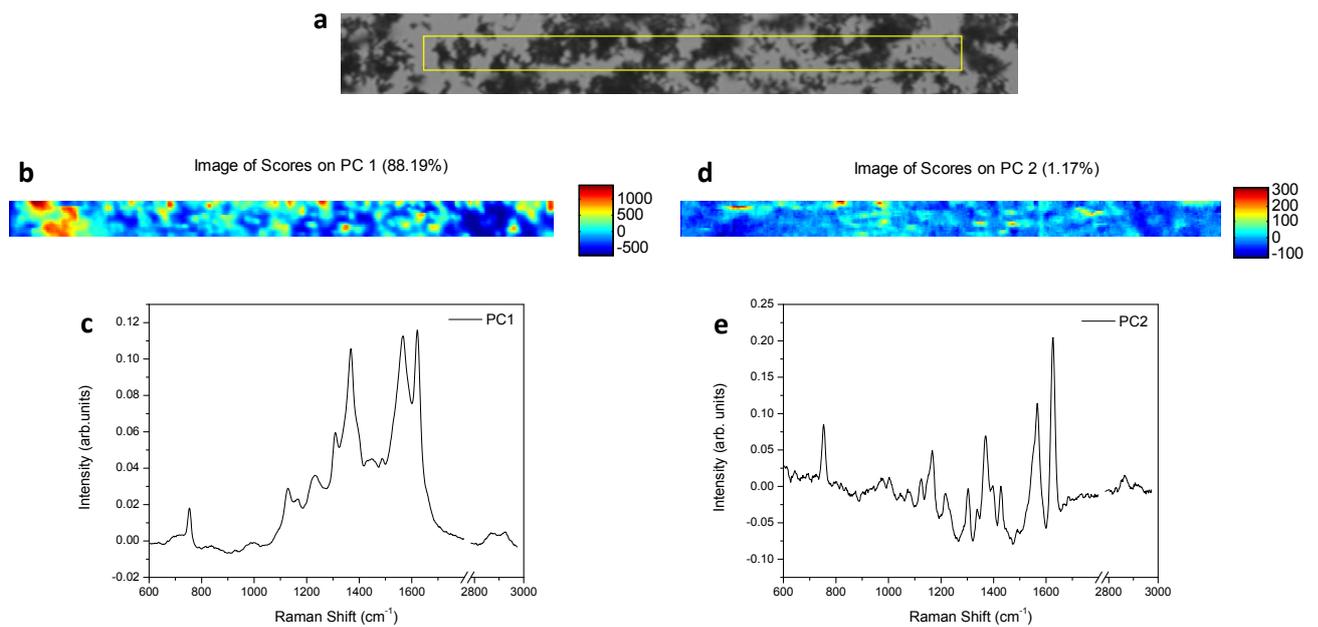


Supplementary Information

S1: Principal component analysis results for PC1 to PC4, for macrophage analysis. Individual principal component score plots are shown in the left-hand column and the corresponding loadings plots are shown in the right-hand column. In all of the scores plots control cells are positioned on the top row, cells with three hours exposure to hemozoin in the center row and cells with five hours exposure on the bottom row. Red regions in the scores plots correspond to the highest values of the loadings plots, while blue regions of the scores plots correspond to the lowest values of the loadings plots. Minimum and maximum values are shown at the top and bottom, respectively, of the graduated colour scale. These figures are summarized in Figures 3 and 4 in the main manuscript.



S2: Principal component analysis of a Raman image of synthetic hemozoin showing there are two spectral components contained within the hemozoin reference sample, and that these components have different spatial distributions. (a) white light image (area measured for Raman image is denoted by the yellow box with dimensions 135.2 x 8.7 μm), (b) scores image for PC1, (c) loading spectrum for PC1, (d) scores image for PC2, (e) loading spectrum for PC2. The loading spectrum for PC1 in this figure is very close to PC1 in the main manuscript Figure 3 while PC2 (S2) is a close match for PC3 negative (Manuscript Figure 3) indicating that the two hemozoin-based components in the macrophages are both present in the hemozoin itself.



S3: Spectra from hemozoin crystals in aqueous solution (PBS) at different pH values (adjusted using NaOH or HCl). Raman spectra were taken using a x50 objective, 15s collection time and approximately 80 mW at the sample. Spectra have been offset for clarity.

