Electronic Supplementary Information

Synchrotron Fourier Transform Infrared (FTIR) analysis of single living cells progressing through the cell cycle

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Fig. 1: PCA of cells in the G_1 , S and G_2 phases as in Fig. 3A with approximate age post mitosis shown.



Fig. 2: PCA Scores Plots for cells at timestamps M+5, M+7, and M+9.



Fig. 3: Loadings Plots for Scores Plots shown in Fig. 4. (A) PC1 for analysis of M+1, M+3, and M+5, (B) PC1 for analysis of M+9, M+11, and M+13, (C) PC2 for analysis of M+9, M+11, and M+13, (D) PC1 for analysis of M+13, M+15, and M+17, (E) PC2 for analysis of M+13, M+15, and M+17, (F) PC1 for analysis of M+17, M+19, and M+21.

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Fig. 4: A raw FTIR spectrum (blue) of a~20 averaged M+16 cell spectra which is representative of the baseline effects seen across the dataset. This spectrum is shown after rubberband correction (as used, black) as well as after cutting and RMieS-EMSC correction (red). Corresponding second derivatives demonstrating no band shifts shown below. Spectra were vector normalized for comparison.