



**Fig. S5** Correlation heat map between samples. On the right and below are the sample names, and on the left and above are the sample clusters, and Group A in orange, Group B in blue, Group C in green and Group D in red. Different colors represent the size of the correlation coefficient between samples, and the more red the color, the greater the correlation, and the bluer the color, the smaller the correlation. The value in the color block is the correlation coefficient.