



**Supplementary Figure 2.** PCA with three indices. Factor1 and Factor2, the first two axes obtained from PCA, respectively; U, genes up-regulated (U1 to U5) in phenotype A samples; D, down-regulated genes (D1 to D5) in phenotype A samples; H, housekeeping genes (HK1 to HK3); E, ExtraGenes (ExtraGene1 to ExtraGene3); dots, unrelated genes (Unrelated1 to Unrelated500). **(a)** PCA with the new index. **(b)** PCA with an additively shifted logarithmic ratio. **(c)** PCA with a rank index. **(d-f)** Plots of only U, D, H, and E for panels **a-c**, respectively.