



**Figure 3-figure supplement 8 :** GWAS analysis of principal components, PC1 (a), PC2 (b), PC3 (c): Manhattan plots (left), and quantile-quantile plots (right): The blue horizontal line in the Manhattan plots indicates the suggestive threshold  $-\log_{10}(8.98E-7)$ . The red horizontal line indicates the significance threshold (Bonferroni correction)  $-\log_{10}(1.67E-8)$ .