

Manhattan plot showing  $-\log_{10}(p)$  values for 2,000 SNPs across 22 chromosomes. The y-axis represents  $-\log_{10}(p)$  and ranges from 0 to 20. The x-axis represents the chromosome number from 1 to 22. A red horizontal line indicates the significance threshold at  $-\log_{10}(p) \approx 5.5$ . Numerous points are labeled with gene names, including SNX27, NUP210, SST, ANKRD56, GDF9, ZNF197, IFNGR1, RINT1, OPN1SW, RMDN1, RECK, FAM108B, DPYSL4, EIF3F, PLM1, KIAA1549L, EEF2DL1, LRRK2, DLEU7, DLEU7, AS3, CDKL1, SYT17, BLOC1S6, GDFD1, MPP2, FICAP3, MEPA3, ZNF781, HSD11B1L, UMODL1, ADARB1, and MAP3K6.