

Manhattan plot showing  $-\log_{10}(p)$  values for SNPs across 22 chromosomes. The y-axis ranges from 0 to 20, and the x-axis shows chromosomes 1 to 22. A red horizontal line is at  $y=5.5$ . Numerous SNPs are labeled with gene names, including ZNF184, NUP210, PPAR9, GDF9, ZNF184, PEBP1, TRAF1, SLC25A13, TRMT12, SDR16C5, OR511, PPFIBP2, DPYSL4, ABMDY, PNPEP1, LRRK2, KIF21A, STXPL42, CDKL1, PTGDR, INSIG3A3, IPO4, L3K1, LMDH, NFKB1, NFKB2, PNF1, VAPA, LSR, XKR, UM0DL1, USP25, and MAFF.