Supplementary Table captions

**Table e-1** List of rare variants in *SLITRK1*-6, and *HDC* identified in our cohorts of TS patients.

**Table e-2** Primer pairs used in this study.

**Table e-3** List of rare variants identified by exome sequencing in the 12 TS individuals with variants in *SLITRK1, SLITR3, SLITRK5, SLITRK6* and *HDC*.

**Table e-4** List of genes containing rare variants in at least two individuals of the 12 TS individuals analyzed by exome sequencing.

**Table e-5** List of CNVs and *de novo* variants identified in the 12 TS individuals with variants in *SLITRK1, SLITR3, SLITRK5, SLITRK6* and *HDC*.

**Table e-6** List of GO biological processes enriched in the 3,041 genes with rare variants in the 12 families analyzed by exome sequencing.

**Table e-7** List of GO biological processes enriched in the 424 genes with rare variants in at least two individuals of the 12 families analyzed by exome sequencing.

**Table e-8** List of genes preferentially expressed in in basal ganglia or substantia nigra (source: GTEX database)

**Table e-9** List of rare variants in genes preferentially expressed in basal ganglia or substantia nigra in the 12 TS individuals analyzed by exome sequencing.

**Table e-10** List of variants in *PCDH10, NTS, NTSR1, NTSR2, OPRK1* and *OPRM1* identified in the TS and control populations.

**Table e-11** List of rare variants in *PCDH10, NTS, NTSR1, NTSR2, OPRK1* and *OPRM1* present in individuals from the gnomAD database.

**Table e-12** Genotype frequencies of *OPRK1* Asn133Asp/Asn40Asp (rs1799971) in different populations present in gnomAD.