SIMONS SEARCHLIGHT

Gene List

Updated June 2026

The Simons Searchlight gene list contains 164 genes (blue) and 23 copy number variants (orange) that are known to be associated with autism and other neurodevelopmental disorders.

Genetic Disorders We Study

- 1q21.1
- 2p16.3 deletion
- 2q37 deletion
- 5p deletion
- 5q35
- 6q16 deletion
- 7q11.23 duplication
- 9q34 duplication
- 9q34.3 deletion
- 15q11.2 BP1-BP2 deletion
- 15q13.3 deletion
- 15q15 deletion
- 15q24 deletion
- 16p11.2 (proximal and distal)
- 16p12.2 deletion
- 16p13.11 deletion
- 16p13.3 deletion
- 17p13.3 duplication
- 17q11.2 duplication
- 17q12
- 17q21.31
- Xp11.22 duplication
- Xq28 duplication

- ACTB
- ACTL6B
- ADNP
- ADSL
- AFF2
- AHDC1
- ANK2
- ANK3
- ANKRD11
- ARHGEF9
- ARID1B
- ARX
- ASH1L
- ASXL3
- ATRX
- AUTS2
- BCKDK
- BCL11A
- BRSK2
- CACNA1C
- CAPRIN1
- CASK
- CASZ1
- CHAMP1
- CHD2
- CHD3
- CHD8
- CIC
- CLCN4
- CNOT3
- CREBBP
- CSDE1
- CSNK2A1
- CSNK2B
- CTBP1
- CTCF
- CTNNB1
- CUL3
- DDX3X
- DEAF1
- DLG4
- DNMT3A
- DSCAM
- DYNC1H1
- DYRK1A
- EBF3
- EHMT1
- EIF3F
- EP300
- FBXO11
- FOXP1
- FOXP2
- GIGYF1
- GNB1
- GRIA1
- GRIA2
- GRIA3
- GRIK2
- GRIN1
- GRIN2A
- GRIN2B
- GRIN2D
- HECW2
- HIVEP2
- HNRNPC
- HNRNPD
- HNRNPH2
- HNRNPK
- HNRNPR
- HNRNPU
- HNRNPUL2
- IQSEC2
- IRF2BPL
- ITSN1
- JARID2
- KANSL1
- KCNB1
- KDM3B
- KDM5B
- KDM6B
- KMT2A
- KMT2C
- KMT2E
- KMT5B
- MAOA
- MAOB
- MBD5
- MBOAT7
- MED12
- MED13
- MED13L
- MEF2C
- MEIS2
- MYT1L
- NAA15
- NBEA
- NCKAP1
- NEXMIF
- NIPBL
- NLGN2
- NLGN3
- NLGN4X
- NR4A2
- NRXN1
- NRXN2
- NSD1
- PACS1
- PACS2
- PHF21A
- PHF3
- PHIP
- POGZ
- PPM1D
- PPP1R9A
- PPP2CA
- PPP2R1A
- PPP2R5C
- PPP2R5D
- PPP3CA
- PSMD12
- PTCHD1
- RALGAPB
- RELN
- RERE
- RFX3
- RNU4-2
- RORB
- SCN1A
- SCN1B
- SCN2A
- SETBP1
- SETD2
- SETD5
- SIN3A
- SLC6A1
- SLC9A6
- SMARCA4
- SMARCC2
- SNAP25
- SON
- SOX5
- SRCAP
- STXBP1
- SYNCRIP
- SYNGAP1
- TANC2
- TAOK1
- TBR1
- TCF20
- TCF7L2
- TLK2
- TRIO
- TRIP12
- UPF3B
- USP9X
- VAMP2,
- VPS13B
- WAC
- WDFY3
- YWHAG
- YY1
- ZBTB20
- ZNF292
- ZNF462