

## The Simons Searchlight Gene List

The Simons Searchlight gene list contains 155 gene changes (orange) and 24 copy number variants (purple) that are known to be associated with autism and other neurodevelopmental disorders.

### Genetic Disorders We Study

1q21.1	ACTB	DDX3X	KMT5B	RIMS1
2p16.3 deletion	ACTL6B	DEAF1	MAOA	RORB
2q34 duplication	ADNP	DHCR7	MAOB	SCN1A
2q37 deletion	ADSL	DLG4	MBD5	SCN1B
2q37.3 deletion	AFF2	DNMT3A	MBOAT7	SCN2A
5p del	ALDH5A1	DSCAM	MED13	SETBP1
5q35	AHDC1	DYNC1H1	MED13L	SETD2
6q16 deletion	ANK2	DYRK1A	MEF2C	SETD5
7q11.23 duplication	ANK3	EBF3	MEIS2	SHANK2
9q34 duplication	ANKRD11	EHMT1	MYT1L	SIN3A
15q11.2 BP1-BP2 deletion	ARHGEF9	EIF3F	NAA15	SLC6A1
15q13.3 deletion	ARID1B	EP300	NBEA	SLC9A6
15q15 deletion	ARX	FOXP1	NCKAP1	SMARCA4
15q24 deletion	ASH1L	GIGYF1	NEXMIF	SMARCC2
16p11.2*	ASXL3	GNB1	NIPBL	SON
16p12.2 deletion**	ATRX	GRIN1	NLGN2	SOX5
16p13.11 deletion	AUTS2	GRIN2A	NLGN3	SPAST
16p13.3 deletion	BCKDK	GRIN2B	NLGN4X	SRCAP
17q11.2 dup	BCL11A	GRIN2D	NR3C2	STXBP1
17p13.3	BRSK2	HECW2	NR4A2	SYNCRIP
17q12	CACNA1C	HIVEP2	NRXN1	SYNGAP1
17q21.31	CAPRIN1	HNRNPC	NRXN2	TANC2
Xp11.22 duplication	CASK	HNRNPD	NSD1	TAOK1
Xq28 duplication	CASZ1	HNRNPH2	PACS1	TBR1
	CHAMP1	HNRNPK	PACS2	TCF20
	CHD2	HNRNPR	PHF21A	TCF7L2
	CHD3	HNRNPU	PHF3	TLK2
	CHD8	HNRNPUL2	PHIP	TRIO
	CIC	IQSEC2	POMGNT1	TRIP12
	CLCN4	IRF2BPL	PPP3CA	UPF3B
	CNOT3	KANSL1	PPP2R1A	USP9X
	CREBBP	KATNAL2	PPP2R5D	VPS13B
	CSDE1	KCNB1	PSMD12	WAC
	CSNK2A1	KDM3B	PTCHD1	WDFY3
	CSNK2B	KDM5B	RALGAPB	YY1
	CTBP1	KDM6B	RELN	ZBTB20
	CTCF	KMT2A	RERE	ZNF292
	CTNNB1	KMT2C	REST	ZNF462
	CUL3	KMT2E	RFX3	

\* Includes deletions and duplications that include at a minimum the BP4 - BP5 region (proximal) or BP2 - BP3 (distal) region

\*\* Formerly known as 16p12.1 deletion