

The Simons Searchlight Gene List

The Simons Searchlight gene list contains 153 gene changes (orange) and 23 copy number variants (purple) that are known to be associated with autism and other neurodevelopmental disorders.

Genetic Changes We Study

1q21.1	ACTB	DDX3X	MED13	SCN2A
2p16.3 deletion	ACTL6B	DEAF1	MED13L	SCN8A
2q34 duplication	ADNP	DHCR7	MEF2C	SETBP1
2q37 deletion	ADSL	DLG4	MEIS2	SETD2
2q37.3 deletion	AFF2	DNMT3A	MYT1L	SETD5
5q35	ALDH5A1	DSCAM	NAA15	SHANK2
6q16 deletion	AHDC1	DYNC1H1	NBEA	SIN3A
7q11.23 duplication	ANK2	DYRK1A	NCKAP1	SLC6A1
9q34 duplication	ANK3	EBF3	NEXMIF	SLC9A6
15q11.2 BP1-BP2 deletion	ANKRD11	EHMT1	NIPBL	SMARCA4
15q13.3 deletion	ARHGEF9	EIF3F	NLGN2	SMARCC1
15q15 deletion	ARID1B	EP300	NLGN3	SMARCC2
15q24 deletion	ARX	FOXP1	NLGN4X	SON
16p11.2*	ASH1L	GIGYF1	NR3C2	SOX5
16p12.2 deletion**	ASXL3	GNB1	NR4A2	SPAST
16p13.11 deletion	ATRX	GRIN1	NRXN1	SRCAP
16p13.3 deletion	AUTS2	GRIN2A	NRXN2	STXBP1
17q11.2 dup	BCKDK	GRIN2B	NSD1	SYNCRIP
17p13.3	BCL11A	GRIN2D	PACS1	SYNGAP1
17q12	BRSK2	HECW2	PACS2	TANC2
17q21.3	CACNA1C	HIVEP2	PBRM1	TAOK1
Xp11.22 duplication	CAPRIN1	HNRNPH2	PHF21A	TBR1
Xq28 duplication	CASK	HNRNPU	PHF3	TCF20
	CASZ1	IQSEC2	PHIP	TCF7L2
	CHAMP1	IRF2BPL	POMGNT1	TLK2
	CHD2	KANSL1	PPP3CA	TRIO
	CHD3	KATNAL2	PPP2R1A	TRIP12
	CHD8	KCNB1	PPP2R5D	UPF3B
	CIC	KDM3B	PSMD12	USP9X
	CLCN4	KDM5B	PTCHD1	VPS13B
	CNOT3	KDM6B	RALGAPB	WAC
	CREBBP	KMT2A	RELN	WDFY3
	CSDE1	KMT2C	RERE	YY1
	CSNK2A1	KMT2E	REST	ZBTB20
	CSNK2B	KMT5B	RFX3	ZNF292
	CTBP1	MAOA	RIMS1	ZNF462
	CTCF	MAOB	RORB	
	CTNNB1	MBD5	SCN1A	
	CUL3	MBOAT7	SCN1B	

* 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