

## S2 Methods Table. Variant filtering criteria for family 19 exomes

Analysis: **3MC**

Sample Table:

BarCode

UCLG367\_new.vcf

UCLG368\_new.vcf

UCLG369\_new.vcf

Name	Description	Subject	Status
19.1	Affected	UCLG367	CASE
19.3	Dad	UCLG368	CONTROL
19.4	Mum	UCLG369	CONTROL

**excluded** that are observed with an allele frequency greater than or equal to 0.01% of the genomes in the 1000 genomes project OR greater than or equal to 0.01% of the NHLBI ESP exomes (All) OR greater than or equal to 0.5% of the AFC Frequency OR greater than or equal to 0.01% of the ExAC Frequency

**kept** that are experimentally observed to be associated with a phenotype:  
Pathogenic, Possibly Pathogenic OR Frameshift, in-frame indel, or stop codon change OR Missense OR disrupt splice site up to 2.0 bases into intron

**kept** with call quality at least 20.0 in cases or at least 20.0 in controls

**kept** which are homozygous OR compound\_heterozygous AND occur in at least 1 of the case samples at the variant level in the Case samples AND not which are homozygous OR haploinsufficient OR hemizygous OR compound\_heterozygous AND occur in at least 1 of the control samples at the variant level in the Control Samples

**kept** that are within 2 hops upstream and that are known or predicted to affect: 3MC syndrome type 1, 3MC syndrome type 2, 3MC1, 3MC2 or diseases consistent with these phenotypes

Ingenuity Variant Analysis version 4.2.20170105

Content versions: CADD (v1.3), SIFT (2016-02-22), EVS (ESP6500SI-V2), Allele Frequency Community (2016-08-26), JASPAR (2013-11), Ingenuity Knowledge Base (Krikkit 170203.002), Vista Enhancer (2012-07), Clinical Trials (Krikkit 170203.002), BSIFT (2016-02-22), TCGA (2013-09-05), PolyPhen-2 (v2.2.2), 1000 Genome Frequency (phase3v5b), Clinvar (2016-09-01), COSMIC (v78), ExAC (0.3.1), HGMD (2016.3), PhyloP (2009-11), DbSNP (147), TargetScan (6.2)