

GENE	DISEASE NAME		VAR NAME
ABCA4	Stargardt disease 1 i Cone-rod dystrophy	_	NM_000350.3:c.6449G>A, NM_000350.3:c.6394G>T, NM_000350.3:c.6320G>A, NM_000350.3:c.6179T>G, NM_000350.3:c.618G>C, NM_000350.3:c.6179T>G, NM_000350.3:c.618G>C, NM_000350.3:c.618C>T, NM_000350.3:c.618E>T, NM_000350.3:c.5881G>A, NM_000350.3:c.5881G>A, NM_000350.3:c.5881G>A, NM_000350.3:c.5881G>A, NM_000350.3:c.5881G>A, NM_000350.3:c.5881G>A, NM_000350.3:c.581G>C, NM_000350.3:c.5912T>C, NM_000350.3:c.5714+5G>A, NM_000350.3:c.5714+5G>A, NM_000350.3:c.5793C>A, NM_000350.3:c.4459C>T, NM_000350.3:c.4793C>A, NM_000350.3:c.4459C>T, NM_000350.3:c.3546Q>A, NM_000350.3:c.3540_3555delGTCTAAGGGTTTCTCC, NM_000350.3:c.3346Q>A, NM_000350.3:c.3322C>T, NM_000350.3:c.3210_3211dupGT, NM_000350.3:c.3106G>A, NM_000350.3:c.3322C>T, NM_000350.3:c.2791G>C, NM_000350.3:c.2791
ACAD9	Mitochondrial comp deficiency	lex I	NM_014049.5:c.23delT, NM_014049.5:c.130T>A, NM_014049.5:c.358delT, NM_014049.5:c.453+1G>A, NM_014049.5:c.797G>A, NM_014049.5:c.976G>C, NM_014049.5:c.1240C>T, NM_014049.5:c.1249C>T, NM_014049.5:c.1594C>T
ACADM	Medium-chain acyl-0 dehydrogenase defid		NM_000016.6:c.127G>A, NM_000016.6:c.250C>T, NM_000016.6:c.287-2A>G, NM_000016.6:c.362C>T, NM_000016.6:c.446_449delTGAC, NM_000016.6:c.447G>A, NM_000016.6:c.447G>T, NM_000016.6:c.617G>A, NM_000016.6:c.683C>A, NM_000016.6:c.77, NM_000016.6:c.797A>G, NM_000016.6:c.79GSA, NM_000016.6:c.382CA, NM_000016.6:c.3827delTTGCAATGGGAGC, NM_000016.6:c.39BA>G, NM_00016.6:c.382CA, NM_000016.6:c.382CA, NM_00000
ACADS	Acyl-CoA dehydroge short-chain, deficien		NM_000017.4:c.136C>T, NM_000017.4:c.314T>A, NM_000017.4:c.319C>T, NM_000017.4:c.417G>C, NM_000017.4:c.551_568delCAATGCCT, NM_000017.4:c.561_568delCAATGCCT, NM_000017.4:c.566_5A, NM_000017.4:c.1095G>T, NM_000017.4:c.1108A>G, NM_000017.4:c.1147C>T
ACADSB	2-methylbutyrylglyci	nuria	NM_001609.4:c.303+1G>A, NM_001609.4:c.443C>T, NM_001609.4:c.621G>A, NM_001609.4:c.763C>T, NM_001609.4:c.1159G>A
ACADVL	Very long-chain acyldehydrogenase (VLC deficiency		NM_000018.4:c.478-1G>A, NM_000018.4:c.295_296delAC, NM_000018.4:c.343-1delG, NM_000018.4:c.400C>T, NM_000018.4:c.477+1G>C, NM_000018.4:c.520G>A, NM_000018.4:c.655C>T, NM_000018.4:c.329A>C, NM_000018.4:c.753-2A>C, NM_000018.4:c.39A>C, NM_000018.4:c.1096C>T, NM_000018.4:c.1099G>A, NM_00018.4:c.1099G>A, NM_00018.4:c.1099G>T, NM_00018.4:c.1099G>A, NM_00018.4:c.1096C>T, NM_00018.4:c.1182+1G>A, NM_00018.4:c.1357C>T, NM_000018.4:c.136G>A, NM_00018.4:c.1373_1374insC, NM_000018.4:c.1385_1386insG, NM_00018.4:c.1365C, NM_00018.4:c.1844G>A, NM_00018.4:c.1837C>T, NM_000018.4:c.1844G>A, NM_000018.4:c.1884delC
ACAT1	Beta-Ketothiolase De	eficiency	NM_000019.4:c.2T>A, NM_000019.4:c.409_416delTCTCAAAG, NM_000019.4:c.547G>A, NM_000019.4:c.622C>T, NM_000019.4:c.904dela, NM_000019.4:c.1031_1033delaAG, NM_000019.4:c.1082_1083insa, NM_000019.4:c.1136G>T, NM_000019.4:c.1138G>A
ACOX1	Acyl-CoA Oxidase I D	eficiency	NM_004035.7:c.832A>G, NM_004035.7:c.591delG, NM_004035.7:c.532G>T
ADA	Adenosine deaminas deficiency	se	NM_000022.4:c.986C>T, NM_000022.4:c.956_960delAAGAG, NM_000022.4:c.890C>A, NM_000022.4:c.872C>T, NM_000022.4:c.632G>A, NM_000022.4:c.320T>C, NM_000022.4:c.247G>A, NM_000022.4:c.226C>T
ADAMTS2	Ehlers-Danlos syndro	ome, type	NM_014244.5:c.2384G>A
AGA	Aspartylglucosaminu	ıria	NM_000027.4:c.904G>A, NM_000027.4:c.800dupT, NM_000027.4:c.755G>A, NM_000027.4:c.488G>C, NM_000027.4:c.302C>T, NM_000027.4:c.214T>C
AGL	Glycogen storage dis IIIa/IIIb (Cori or Forb disease)		NM_000642.3:c.17_18delAG, NM_000642.3:c.16C>T, NM_000642.3:c.112A>G, NM_000642.3:c.294-2A>T, NM_000642.3:c.122C>T, NM_000642.3:c.14816>A, NM_000642.3:c.1485delT, NM_000642.3:c.1783C>T, NM_000642.3:c.1999delC, NM_000642.3:c.293G>A, NM_000642.3:c.2590C>T, NM_000642.3:c.3214_3215delGA, NM_000642.3:c.3980G>A, NM_000642.3:c.4260-12A>G, NM_000642.3:c.4560-1G>T, NM_000642.3:c.4342G>C, NM_000642.3:c.4454delT, NM_000642.3:c.4528_4529insA
AGPS	Rhizomelic Chondro Punctata, Type 3	dysplasia	NM_003659.4:c.126C>T, NM_003659.4:c.1256G>A, NM_003659.4:c.1406T>C, NM_003659.4:c.1703C>T
AGXT	Hyperoxaluria, prima	ary, type 1	NM_000030.3:c.25_26insC, NM_000030.3:c.32C>A, NM_000030.3:c.121G>A, NM_000030.3:c.166-2A>G, NM_000030.3:c.248G>G, NM_000030.3:c.166-2A>G, NM_000030.3:c.248G>G, NM_000030.3:c.322T>C, NM_000030.3:c.2454T>A, NM_000030.3:c.466G>A, NM_000030.3:c.508G>A, NM_000030.3:c.509G>A, NM_000030.3:c.503T>C, NM_000030.3:c.509G>A, NM_000030.3:c.503T>C, NM_000030.3:c.503T>C, NM_000030.3:c.503T>C, NM_000030.3:c.503T>C, NM_000030.3:c.860G>A





GENE	DISEASE NAME	VAR NAME
ALDOB	Hereditary fructose Intolerance	NM_000035.4:c.1067C>A, NM_000035.4:c.1027T>C, NM_000035.4:c.1013C>T, NM_000035.4:c.1005C>G, NM_000035.4:c.720C>A, NM_000035.4:c.612T>A, NM_000035.4:c.524C>A, NM_000035.4:c.448G>C, NM_000035.4:c.442T>C, NM_000035.4:c.360_363delCAAA, NM_000035.4:c.178C>T, NM_000035.4:c.136A>T, NM_000035.4:c.113-1_115delGGTA, NM_000035.4:c.10C>T, NM_000035.4:c.2T>C
ALG6	Congenital Disorder Glycosylation, Type 1	1111_013333.4.c.433 307 G, 1111_013333.4.c.033_0330c11744, 1111_013333.4.c.33007 1,
ALMS1	Alstrom syndrome	NM_001378454.1:c.1571_1573delCTCInST, NM_001378454.1:c.161C>T, NM_001378454.1:c.1571_1573delCTCInST, NM_001378454.1:c.8161C>T, NM_001378454.1:c.3830C>T, NM_001378454.1:c.10772delC, NM_001378454.1:c.10576_10577delAT, NM_01378454.1:c.10772delC, NM_001378454.1:c.11311_11314delAGAG, NM_01378454.1:c.11446C>T, NM_01378454.1:c.11448_11449insA, NM_01378454.1:c.11607_11608delCT, NM_001378454.1:c.11613_11614delCT, NM_01378454.1:c.12436C>T, NM_001378454.1:c.12442C>T
ALPL	Hypophosphatasia, ii	
AMT	Glycine encephalopa related)	hthy (AMT- NM_000481.4:c.959G>A, NM_000481.4:c.826G>C, NM_000481.4:c.806G>A, NM_000481.4:c.574C>T, NM_000481.4:c.259-1G>C, NM_000481.4:c.139G>A, NM_000481.4:c.125A>G
AR	Androgen insensitivit syndrome, X-Linked	ty NM_000044.6:c.340C>T, NM_000044.6:c.1769-11T>A, NM_000044.6:c.1771A>T, NM_000044.6:c.1937C>A, NM_000044.6:c.2323C>T, NM_000044.6:c.2391G>A, NM_000044.6:c.2395C>G, NM_000044.6:c.2567G>A, NM_000044.6:c.2650A>T
ARG1	Argininemia	NM_000045.4:c.32T>C, NM_000045.4:c.61C>T, NM_000045.4:c.365G>A, NM_000045.4:c.413G>T, NM_000045.4:c.703G>C, NM_000045.4:c.869C>G, NM_000045.4:c.871C>T
ARSA	Metachromatic leukodystrophy	NM_000487.6:c.1408_1418delGCAGCTGTGAC, NM_000487.6:c.1401_1411delGTTAGACGCAG, NM_000487.6:c.1283C>T, NM_000487.6:c.1241delC, NM_000487.6:c.1232C>T, NM_000487.6:c.1210+1G>A, NM_000487.6:c.1215delCT, NM_000487.6:c.1174C>T, NM_000487.6:c.1150G>A, NM_000487.6:c.1125_1126delCT, NM_000487.6:c.1108-2A>G, NM_000487.6:c.991G>T NM_000487.6:c.986C>T, NM_000487.6:c.931G>A, NM_000487.6:c.991G>T NM_000487.6:c.937C>T, NM_000487.6:c.931G>A, NM_000487.6:c.899T>C, NM_000487.6:c.883G>A, NM_00487.6:c.896>T, NM_000487.6:c.899T>C, NM_000487.6:c.854+1G>A, NM_00487.6:c.852C>T, NM_000487.6:c.641C>T, NM_000487.6:c.739G>A, NM_000487.6:c.737G>A, NM_000487.6:c.641C>T, NM_000487.6:c.582delT, NM_00487.6:c.582delC, NM_00487.6:c.542dupT, NM_000487.6:c.542T>G, NM_000487.6:c.465+1G>A, NM_000487.6:c.346C>T, NM_000487.6:c.542C>G, NM_000487.6:c.455-T, NM_000487.6:c.542C>T, NM_000487.6:c.542C>G, NM_000487.6:c.455-T, NM_000487.6:c.542C>T, NM_000487.6:c.542C>G, NM_000487.6:c.455-T, NM_000487.6:c.545C>T, NM_000487.6:c.542C>C, NM_000487.6:c.455-T, NM_000487.6:c.545C>T, NM_000487.6:c.542C>C, NM_000487.6:c.455-T, NM_000487.6:c.554C>T, NM_000487.6:c.542C>C, NM_000487.6:c.455-T, NM_000487.6:c.554C>T, NM_000487.6:c.542C>C, NM_000487.6:c.365C, NM_000487.6:c.257G>A, NM_000487.6:c.542C>C, NM_000487.6:c.365C, NM_000487.6:c.257G>A, NM_000487.6:c.195delC, NM_000487.6:c.365C, NM_000487.6:c.257G>A, NM_000487.6:c.195delC, NM_000487.6:c.34delG
ARSB	Mucopolysaccharido VI (Maroteaux-Lamy)	1101_000040.5.c.121402A, NW_000040.5.c.1176A2C, NW_000040.5.c.1101uupC,
ASL	Argininosuccinic acid	
ASPA	Canavan disease	NM_000049.4:c.212G>A, NM_000049.4:c.433-2A>G, NM_000049.4:c.654C>A, NM_000049.4:c.693C>A, NM_000049.4:c.834A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A>C, NM_000049.4:c.854A
ASS1	Citrullinemia type I	NM_054012.4:c.40G>A, NM_054012.4:c.53C>T, NM_054012.4:c.256C>T, NM_054012.4:c.40G>A, NM_054012.4:c.257G>A, NM_054012.4:c.349G>A, NM_054012.4:c.380G>A, NM_054012.4:c.349G>A, NM_054012.4:c.380G>A, NM_054012.4:c.421-2A>G, NM_054012.4:c.470G>A, NM_054012.4:c.496-2A>G, NM_054012.4:c.535T>C, NM_054012.4:c.536G>A, NM_054012.4:c.536T>C,





GENE	DISEASE NAME	VAR NAME
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		NM_054012.4:c.970+5G>A, NM_054012.4:c.1085G>T, NM_054012.4:c.1087C>T, NM_054012.4:c.1086G>A, NM_054012.4:c.1194-1G>C
АТР7А	Menkes Syndrome, X-Linked	NM_000052.7:c.1639C>T, NM_000052.7:c.1972_1973insTGTT, NM_000052.7:c.2531G>A, NM_000052.7:c.2938C>T, NM_000052.7:c.2981C>T, NM_000052.7:c.3255_3256delAC, NM_000052.7:c.3294+2T>G, NM_000052.7:c.3911A>G, NM_000052.7:c.3914_3920delACTCCCC, NM_000052.7:c.3931A>G
АТР7В	Wilson disease	NM_000053.4:c.4301C>T, NM_000053.4:c.4135C>T, NM_000053.4:c.4088C>T, NM_000053.4:c.4058G>A, NM_000053.4:c.3990_3993delTTAT, NM_000053.4:c.3955C>T, NM_000053.4:c.390A>G, NM_000053.4:c.3796G>A, NM_000053.4:c.3694A>C, NM_000053.4:c.3688A>G, NM_000053.4:c.3395T>A, NM_000053.4:c.3207C>A, NM_000053.4:c.3101A>G, NM_000053.4:c.3395T>A, NM_000053.4:c.2975C>T, NM_000053.4:c.2972C>T, NM_000053.4:c.2972C>T, NM_000053.4:c.2972C>T, NM_000053.4:c.2975C>A, NM_00053.4:c.2972C>T, NM_00053.4:c.2972C>A, NM_00053.4:c.2972C>A, NM_00053.4:c.2804C>T, NM_000053.4:c.2755C>A, NM_00053.4:c.2755C>A, NM_00053.4:c.275
BCKDHA	Maple syrup urine disease, type la	NM_000709.4:c.14delT, NM_000709.4:c.632C>T, NM_000709.4:c.659C>T, NM_000709.4:c.740_741insT, NM_000709.4:c.761C>A, NM_000709.4:c.796delA, NM_000709.4:c.853G>C, NM_000709.4:c.868G>A, NM_000709.4:c.906_907delTG, NM_000709.4:c.905A>C, NM_000709.4:c.917delT, NM_000709.4:c.929C>G, NM_000709.4:c.964C>T, NM_000709.4:c.97G>A, NM_000709.4:c.1036C>T, NM_000709.4:c.1037G>A, NM_000709.4:c.1234G>A
BCKDHB	Maple syrup urine disease, type Ib	NM_18305.4:c.3026>A, NM_18305.4:c.342T>G, NM_18305.4:c.344-1G>A, NM_18305.4:c.356T>G, NM_18305.4:c.479T>G, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.508C>A, NM_18305.4:c.547C>T, NM_18305.4:c.547C>T, NM_18305.4:c.547C>T, NM_18305.4:c.552T>C, NM_1830
BCS1L	GRACILE syndrome	NM_001079866.2:c.103G>C, NM_001079866.2:c.133C>T, NM_001079866.2:c.148A>G, NM_001079866.2:c.148A>G, NM_001079866.2:c.546C>T, NM_001079866.2:c.54G>T, NM_001079866.2:c.54G>A, NM_001079866.2:c.54G>A, NM_001079866.2:c.59G>T, NM_001079866.2:c.59GelT, NM_001079866.2:c.59G>A, NM_001079866.2:c.50C>T, NM_001079866.2:c.59G>A, NM_001079866.2:c.50SG>A
BRIP1	Fanconi anemia, Group J	NM_032043.3:c.3209C>A, NM_032043.3:c.2990_2993delCAAA, NM_032043.3:c.2392C>T, NM_032043.3:c.2237_2240delTCAA, NM_032043.3:c.1702_1703delAA, NM_032043.3:c.1045G>C, NM_032043.3:c.502C>T, NM_032043.3:c.139C>G
BSND	Bartter syndrome, type 4a	NM_057176.3:c.1A>T, NM_057176.3:c.3G>A, NM_057176.3:c.10G>T, NM_057176.3:c.22C>T, NM_057176.3:c.23G>A, NM_057176.3:c.23G>T, NM_057176.3:c.35T>C, NM_057176.3:c.139G>A
BTD	Biotinidase Deficiency	NM_001370658.1:c.124G>A, NM_001370658.1:c.175C>T, NM_001370658.1:c.274G>C, NM_001370658.1:c.383G>A, NM_001370658.1:c.451G>A, NM_001370658.1:c.468G>T, NM_001370658.1:c.497G>A, NM_001370658.1:c.551G>A, NM_001370658.1:c.551G>A, NM_001370658.1:c.595A>G, NM_001370658.1:c.571C>T, NM_001370658.1:c.583C>T, NM_001370658.1:c.604G>A, NM_001370658.1:c.695A>G, NM_001370658.1:c.695A>G, NM_001370658.1:c.697C>T, NM_001370658.1:c.1046C>T, NM_001370658.1:c.373delT, NM_001370658.1:c.908A>G, NM_001370658.1:c.1046C>T, NM_001370658.1:c.1046C>T, NM_001370658.1:c.1046C>T, NM_001370658.1:c.1046C>T, NM_001370658.1:c.1046C>T, NM_001370658.1:c.1046C>T, NM_001370658.1:c.1047058.1:c.1047
CAPN3	Muscular dystrophy, limb- girdle, autosomal recessive 1	NM_000070.3:c.133G>A, NM_000070.3:c.220_221insT, NM_000070.3:c.246G>A, NM_000070.3:c.257C>T, NM_000070.3:c.328C>T, NM_000070.3:c.549delA, NM_000070.3:c.551C>T, NM_000070.3:c.580delT, NM_000070.3:c.559_611delGTTCTGGAGTGCTCT, NM_000070.3:c.662G>T, NM_000070.3:c.595_611delGTTCTGGAGTGCTCT, NM_000070.3:c.662G>T, NM_000070.3:c.576G>A, NM_000070.3:c.31319delG, NM_000070.3:c.1466G>A, NM_000070.3:c.1468C>T, NM_000070.3:c.1319delG, NM_000070.3:c.1599_1602delGAGC, NM_000070.3:c.1610A>G, NM_000070.3:c.1715G>A, NM_000070.3:c.1743_1745+1delTGAG, NM_000070.3:c.1788_1789insA, NM_000070.3:c.1337delA, NM_000070.3:c.2120A>G, NM_000070.3:c.2120>T, NM_000070.3:c.236G>A, NM_000070.3:c.2366_2363delAGinsTCATCT, NM_000070.3:c.2366_2363delAGinsTCATCT
CBS	Homocystinuria	NM_000071.3:c.1616T>C, NM_000071.3:c.1471C>T, NM_000071.3:c.1397C>T, NM_000071.3:c.1379C>T, NM_000071.3:c.1379C>T, NM_000071.3:c.1316G>A, NM_000071.3:c.1316G>A, NM_000071.3:c.1316G>A, NM_000071.3:c.1356S>A, NM_000071.3:c.341C>T, NM_000071.3:c.325T>C, NM_000071.3:c.341C>T, NM_000071.3:c.325T>C, NM_000071.3:c.344C>T, NM_000071.3:c.325T>C, NM_000071.3:c.304A>C, NM_000071.3:c.162G>A, NM_000071.3:c.146C>T





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
CDH23	Deafness, autosomal recessive	NM_022124.6:c.3293A>G, NM_022124.6:c.3515_3518delCATC, NM_022124.6:c.3579+2T>C, NM_022124.6:c.5237G>A, NM_022124.6:c.563T>C, NM_022124.6:c.6050-9G>A, NM_022124.6:c.6392delC, NM_022124.6:c.6442G>A, NM_022124.6:c.7660G>A, NM_022124.6:c.7823G>A,
CEP290	Ciliopathy	NM_022124.6:c.9319+1_9319+4delGTAA, NM_022124.6:c.9565C>T NM_025114.4:c.7394_7395delAG, NM_025114.4:c.7341dupA, NM_025114.4:c.7324G>T, NM_025114.4:c.6798G>A, NM_025114.4:c.6645+1G>A, NM_025114.4:c.6624delG, NM_025114.4:c.6448_6455delCAGTTGAA, NM_025114.4:c.5668G>T, NM_025114.4:c.5611_5614delCAAA, NM_025114.4:c.4962_4963delAA, NM_025114.4:c.4916C>A, NM_025114.4:c.4723A>T, NM_025114.4:c.4705-1G>T, NM_025114.4:c.4656delA, NM_025114.4:c.1681C>T, NM_025114.4:c.3185delT, NM_025114.4:c.249T>G, NM_025114.4:c.1681C>T, NM_025114.4:c.1665_1666delAA, NM_025114.4:c.1501G>T, NM_025114.4:c.1631C>T, NM_025114.4:c.384_387delTAGA, NM_025114.4:c.164_167delCTCA, NM_025114.4:c.165T
CERKL	Retinitis pigmentosa 26	NM_201548.5:c.1553_1569dupTTATCAGTCTTTATGGA, NM_201548.5:c.1012C>T, NM_201548.5:c.847C>T, NM_201548.5:c.780delT, NM_201548.5:c.769C>T, NM_201548.5:c.312delA
CFTR	Cystic fibrosis	NM_000924.ct_1364_NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1365-NM_000924.ct_1366-NM_000924.





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
		NM_000492.4:c.1089_1090delCT, NM_000492.4:c.1090T>C, NM_000492.4:c.1115delA, NM_000492.4:c.1116G>T,

NM_000924-c:1116-10-A, NM_00092-d:c:110907-C, NM_000924-c:1115delA, NM_000924-c:1116-0-T, NM_000924-c:1100-1-T, NM_000924-c:1100-1-T NM_000492.4c.2472_2473lnsAACG, NM_000492.4c.2476G-T, NM_000492.4c.2479G-T, NM_000492.4c.2490-1G-T, NM_000492.4c.2490-1G-T, NM_000492.4c.2490-1G-T, NM_000492.4c.2490-1G-T, NM_000492.4c.2490-1T-C, NM_000492.4c.2491-2AC-G, NM_000492.4c.2491-2AC-G, NM_000492.4c.2591-CAC-G, N





GENE	DISEASE NAME	VAR NAME
	-	
		NM_000492.4c.2909-157-G, NM_000492.4c.2909-5_2909-4inATAGGTGGGATICTTA, NM_000492.4c.2909-1deliG, NM_000492.4c.2909-5, NM_000492.4c.2909-6, NM_000492.4c.2909-6, NM_000492.4c.2909-6, NM_000492.4c.2909-6, NM_000492.4c.2001-6, NM_000492.4c.2001
CLN3	Neuronal ceroid-lipofuscinosis	NM_001042432.2:c.1272delG, NM_001042432.2:c.1210C>A, NM_001042432.2:c.883G>A, NM_001042432.2:c.62dupT, NM_001042432.2:c.597C>A
CLN5	Ceroid lipofuscinosis, neuronal, 5	NM_006493.4:c.188G>A, NM_006493.4:c.188G>C, NM_006493.4:c.230G>A, NM_006493.4:c.286C>T, NM_006493.4:c.37TT>G, NM_006493.4:c.377_378insA, NM_006493.4:c.418C>T, NM_006493.4:c.428A>G, NM_006493.4:c.446T>C, NM_006493.4:c.448C>T, NM_006493.4:c.466C>T, NM_006493.4:c.472T>C, NM_006493.4:c.472T>C, NM_006493.4:c.486C>T, NM_006493.4:c.52T_522insC, NM_006493.4:c.688G>A, NM_006493.4:c.771delA, NM_006493.4:c.775_776delAT, NM_006493.4:c.879C>A
CLN6	Ceroid Lipofuscinosis, Neuronal, 6	NM_017882.3:c.663C>G, NM_017882.3:c.307C>T, NM_017882.3:c.214G>T, NM_017882.3:c.214G>C, NM_017882.3:c.214G>C, NM_017882.3:c.139C>T





GENE	DISEASE NAME	VAR NAME
CLN8	Ceroid Lipofuscinosis, Neuronal, 8 (a.ka. No Epilepsy)	MM_010541.4.C.70507C
CLRN1	Usher syndrome, type	P 3A NM_174878.3:c.633dupT, NM_174878.3:c.433+1061A>T, NM_174878.3:c.189C>A, NM_174878.3:c.144T>G, NM_174878.3:c.118T>G, NM_174878.3:c.92C>T
CNGB3	Achromatopsia 3/Madegeneration, juvenil	CUIAT NM_019098.5:c.2048_2049delCA, NM_019098.5:c.2011G>T, NM_019098.5:c.1672G>T, NM_019098.5:c.1405T>G, NM_019098.5:c.1208G>A, NM_019098.5:c.1148delC, NM_019098.5:c.1083C>T, NM_019098.5:c.893_897delCAAAA, NM_019098.5:c.881_896delCTTCTACAAA, NM_019098.5:c.886_890delACTTC, NM_019098.5:c.819_826delCAGACTCC, NM_019098.5:c.446_447insT
COL4A3	Alport syndrome	NM_000091.5:c.343delG, NM_000091.5:c.346C>A, NM_000091.5:c.898G>A, NM_000091.5:c.2083G>A, NM_000091.5:c.2110delC, NM_000091.5:c.2954G>T, NM_000091.5:c.44411_4415delTTTTC, NM_000091.5:c.4421T>C, NM_000091.5:c.4441C>NM_000091.5:c.484A>G, NM_000091.5:c.4571C>G, NM_000091.5:c.5002_*6delAAAAGACACTGAAGCTAA
COL4A4	Alport Syndrome, CO Related	
COL7A1	Dystrophic Epidermol Bullosa, COL7A1-Rela	11111_000054.4.c.0440c/1, 1111_000054.4.c.05551/A, 1111_000054.4.c.0571c/1,
CPS1	Carbamoylphosphate synthetase I deficience	NM_001875.5:c.697C>T, NM_001875.5:c.1631C>T, NM_001875.5:c.1912C>T, NM_001875.5:c.3555delA
CPT1A	Carnitine palmitoyltra deficiency, hepatic, ty	1111_001070.4.c.12533071, 1111_001070.4.c.1301A70, 1111_001070.4.c.1241071,
CPT2	Carnitine palmitoyltra deficiency, hepatic, ty infantile,lethal neona	Ansferase NM_00098.3:c.149C>A, NM_00098.3:c.338C>T, NM_000098.3:c.359A>G, NM_000098.3:c.370C>T, NM_000098.3:c.452G>A, NM_000098.3:c.463_464insT, NM_000098.3:c.481C>T, NM_000098.3:c.520G>A, NM_000098.3:c.683A>G, NM_000098.3:c.686C>T, NM_000098.3:c.73_724delAC, NM_00098.3:c.886C>T,
CRB1	Leber congenital ama	
CTNS	Cystinosis, nephropat	hic NM_004937.3:c.124G>A, NM_004937.3:c.283G>T, NM_004937.3:c.329G>T, NM_004937.3:c.357_360delCAGC, NM_004937.3:c.397_398delAT, NM_004937.3:c.414G>A, NM_004937.3:c.416C>T, NM_004937.3:c.506G>A, NM_004937.3:c.588G>A, NM_004937.3:c.645_646insA, NM_004937.3:c.655_64C, NM_004937.3:c.1015G>A
CTSD	Ceroid Lipofuscinosis, Neuronal, 10 (CLN10	NM_001909.5:c.1149G>C, NM_001909.5:c.685T>A
CTSK	Pycnodysostosis	NM_000396.4:c.926T>C, NM_000396.4:c.721C>T, NM_000396.4:c.436G>C, NM_000396.4:c.236G>A, NM_000396.4:c.154A>T
CYP21A2	Adrenal hyperplasia, congenital/Hyperand nonclassic type due to hydroxylase deficience	NM_000500.9:c.293-13C/A>G, NM_000500.9:c.332_339del, NM_000500.9:c.518T>A, NM_000500.9:c.710T>A, NM_000500.9:c.713T>A, NM_000500.9:c.713T>A, NM_000500.9:c.923dup, NM_000500.9:c.955C>T, NM_000500.9:c.1069C>T, 30kb deleticating gene conversion





GENE	DISEASE NAME		VAR NAME
•			
DBT	Maple syrup urine di type II	sease,	NM_001918.5:c.1281+1G>A, NM_001918.5:c.939G>C, NM_001918.5:c.901C>T, NM_001918.5:c.871C>T, NM_001918.5:c.827T>G, NM_001918.5:c.772+1G>A, NM_001918.5:c.670G>T, NM_001918.5:c.581C>G, NM_001918.5:c.294C>G, NM_001918.5:c.272_275delCAGT, NM_001918.5:c.126T>G
DCLRE1C	Omenn syndrome/Se combined immunode Athabascan type		NM_001033855.3:c.1903dupA, NM_001033855.3:c.1639G>T, NM_001033855.3:c.1559dupA, NM_001033855.3:c.780+1delG, NM_001033855.3:c.597C>A, NM_001033855.3:c.457G>A, NM_001033855.3:c.2T>C
DDB2	Xeroderma Pigmento Group E	sum	NM_000107.3:c.730A>G, NM_000107.3:c.818G>A, NM_000107.3:c.919G>T, NM_000107.3:c.937C>T
DHCR7	Smith-Lemli-Opitz sy	ndrome	NM_001360.3:c.1342G>A, NM_001360.3:c.1337G>A, NM_001360.3:c.1228G>A, NM_001360.3:c.1210C>T, NM_001360.3:c.1055G>A, NM_001360.3:c.1054C>T, NM_001360.3:c.1031G>A, NM_001360.3:c.1055G>A, NM_001360.3:c.964-1G>C, NM_001360.3:c.97G>A, NM_001360.3:c.964-1G>C, NM_001360.3:c.97G>A, NM_001360.3:c.964-1G>C, NM_001360.3:c.964-1G>C, NM_001360.3:c.841G>A, NM_001360.3:c.894P>C, NM_001360.3:c.832-1G>C, NM_001360.3:c.841G>A, NM_001360.3:c.832-1G>C, NM_001360.3:c.724C>T, NM_001360.3:c.725G>A, NM_001360.3:c.506C>T, NM_001360.3:c.461C>G, NM_001360.3:c.453G>A, NM_001360.3:c.452G>A, NM_001360.3:c.556A>T, NM_0
DHDDS	Retinitis pigmentosa	59	NM_205861.3:c.124A>G, NM_205861.3:c.328delA, NM_205861.3:c.995C>G
DLD	Dihydrolipoamide dehydrogenase deficiency		NM_000108.5:c.105_106insA, NM_000108.5:c.913_923delACTTGTGATGT, NM_000108.5:c.1483A>G
DMD	Duchenne muscular	-	NM_004006.3:c.10453_10454delCT, NM_004006.3:c.10447_10448delTC, NM_004006.3:c.10141C>T, NM_004006.3:c.10086+1G>A, NM_004006.3:c.10033C>T, NM_004006.3:c.9854_9863delToAGACTGGA, NM_004006.3:c.9862G>T, NM_004006.3:c.9854_9863delToAGACTGGA, NM_004006.3:c.9862G>T, NM_004006.3:c.9851G>A, NM_004006.3:c.9650-2A>G, NM_004006.3:c.9568C>T, NM_004006.3:c.9564-1G>A, NM_004006.3:c.9380C>G, NM_004006.3:c.9361+1G>C, NM_004006.3:c.9561+1G>A, NM_004006.3:c.93346C>T, NM_004006.3:c.9361+1G>C, NM_004006.3:c.95164-1G>T, NM_004006.3:c.9346C>T, NM_004006.3:c.9361+1G>C, NM_004006.3:c.95164-1G>T, NM_004006.3:c.9346C>T, NM_004006.3:c.9364C>T, NM_004006.3:c.95164-1G>T, NM_004006.3:c.9586G>T, NM_004006.3:c.8713C>T, NM_004006.3:c.89164-1G>C, NM_004006.3:c.8944C>T, NM_004006.3:c.8713C>T, NM_004006.3:c.8656C>T, NM_004006.3:c.8652_8653delCT, NM_004006.3:c.8698C>T, NM_004006.3:c.8656C>T, NM_004006.3:c.8652_8653delCT, NM_004006.3:c.8698C>T, NM_004006.3:c.8656C>T, NM_004006.3:c.6986delC, NM_004006.3:c.8069T>G, NM_004006.3:c.8046_8055delTA, NM_004006.3:c.7922dela, NM_004006.3:c.7882G>T, NM_004006.3:c.7882G>A, NM_004006.3:c.7922dela, NM_004006.3:c.6932A>T, NM_004006.3:c.7882G>A, NM_004006.3:c.6986dupA, NM_004006.3:c.6932A>T, NM_004006.3:c.6986delG, NM_004006.3:c.6986dupA, NM_004006.3:c.69326del, NM_004006.3:c.6936G>A, NM_004006.3:c.6936_5T, NM_004006.3:c.69326del, NM_004006.3:c.6931_6392delCA, NM_004006.3:c.6931_6392delCA, NM_004006.3:c.69376C>T, NM_004006.3:c.6931_6392delCA, NM_004006.3:c.6931_6392delCA, NM_004006.3:c.69376CT, NM_004006.3:c.59376CST, NM_004006.3:c.5932+3G>C, NM_004006.3:c.59376CT, NM_004006.3:c.59376CST, NM_004006.3:c.5932+3G>C, NM_004006.3:c.59376CST, NM_004006.3:c.5932+3G>C, NM_004006.3:c.59376CST, NM_004006.3:c.5932+3G>C, NM_004006.3:c.59376CST, NM_004006.3:c.5932+3G>C, NM_004006.3:c.59376CST, NM_004006.3:c.5932-5T, NM_004006.3:c.5897CST, NM_004006.3:c.5897CST, NM_004006.3:c.39376ST, NM_004006.3:c.5897CST, NM_004006.3:c.39376S>T, NM_004006.3:c.4317C>T, NM_004006.3:c.59376CST, NM_004006.3:c.4375C>T, NM_004006.3:c.4317C>T, NM_004





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
		NM_004006.3:c.676_678delAAG, NM_004006.3:c.627delA, NM_004006.3:c.615T>A, NM_004006.3:c.583C>T, NM_004006.3:c.530+1delG, NM_004006.3:c.489G>A, NM_004006.3:c.4326-T, NM_004006.3:c.412_413delAA, NM_004006.3:c.20delC, NM_004006.3:c.204dupC, NM_004006.3:c.1967_162delCTC, NM_004006.3:c.137_138dupAT, NM_004006.3:c.137A>T, NM_004006.3:c.137_CT, CNV deletions/ duplications
DPYD	Dihydropyrimidine Dehydrogenase Defid	NM_000110.4:c.1905+1G>A, NM_000110.4:c.1679T>G, NM_000110.4:c.1109_1110delTA, NM_000110.4:c.775A>G, NM_000110.4:c.703C>T, NM_000110.4:c.299_302delTCAT, NM_000110.4:c.257C>T
DYSF	Muscular dystrophy, girdle, type 2B	•
EDA	Ectodermal dysplasia hypohidrotic, X-linke	MM_001399.5:c.467G>A, NM_001399.5:c.573_574insT, NM_001399.5:c.671G>C, NM_001399.5:c.826C>T, NM_001399.5:c.1045G>A
EIF2AK3	Wolcott-Rallison Syn	
EMD	Emery-Dreifuss Musc Dystrophy 1, X-Linked	
ERCC2	Xeroderma Pigmento Group D	NM_000400.4:c.1454T>C, NM_000400.4:c.1381C>G, NM_000400.4:c.1354C>T, NM_000400.4:c.1308-1G>A, NM_000400.4:c.1304T>G, NM_000400.4:c.950-2A>G, NM_000400.4:c.949+1G>A, NM_000400.4:c.719-1G>A, NM_000400.4:c.567G>A, NM_000400.4:c.183+2T>A
ERCC3	Xeroderma Pigmento Group B	NM_000122.2:c.1858delG, NM_000122.2:c.1757_1758delAG, NM_000122.2:c.1757delA, NM_000122.2:c.1633C>T, NM_000122.2:c.1273C>T, NM_000122.2:c.296T>C
ERCC4	Xeroderma Pigmento Group F	NM_005236.3:c.2T>C, NM_005236.3:c.49G>T, NM_005236.3:c.538_539delAG, NM_005236.3:c.706T>C, NM_05236.3:c.1461_1462insA, NM_005236.3:c.2280_2283delGTTT, NM_005236.3:c.2395C>T
ERCC5	Xeroderma pigmento group G/Cockayne sy	ndrome NM_000123.4:c.787C-T, NM_000123.4:c.2143_2144insA, NM_000123.4:c.2375C-T, NM_000123.4:c.2573T-C, NM_000123.4:c.2620G-A, NM_000123.4:c.2743delA
ERCC6	Cockayne syndrome	NM_000124.4:c.3862C>T, NM_000124.4:c.3591_3592dupGA, NM_000124.4:c.3284C>G, NM_000124.4:c.2587C>T, NM_000124.4:c.2203C>T, NM_000124.4:c.2047C>T, NM_000124.4:c.1550G>A, NM_000124.4:c.1357C>T, NM_000124.4:c.422+1G>A, NM_000124.4:c.207dupG, NM_000124.4:c.48_49delCT





GENE	DISEASE NAME	VAR NAME
ERCC8	Cockayne, type A	NM_000082.4:c.966C>A, NM_000082.4:c.618-1G>A, NM_000082.4:c.613G>C, NM_000082.4:c.593_594dupAT, NM_000082.4:c.37G>T
ESCO2	Roberts Syndrome	NM_001017420.3:c.291_292insGA, NM_001017420.3:c.306_307delAA, NM_001017420.3:c.505C>T, NM_001017420.3:c.604C>T, NM_001017420.3:c.874_877delGACA, NM_001017420.3:c.877_878delAG, NM_001017420.3:c.1269G>A, NM_001017420.3:c.1596_1597insT, NM_001017420.3:c.1615T>G
ETFA	Glutaric acidemia IIA	NM_000126.4:c.797C>T, NM_000126.4:c.470T>G
ETFB	Glutaric Acidemia, Typ	e 2B NM_001985.3:c.614_616delAGA, NM_001985.3:c.491G>A, NM_001985.3:c.490C>T, NM_001985.3:c.382G>A, NM_001985.3:c.278_279insG, NM_001985.3:c.61C>T, NM_001985.3:c.58-53_58-52insG
ETFDH	Glutaric aciduria type I	IIC NM_004453.4:c.27>C, NM_004453.4:c.250G>A, NM_004453.4:c.413T>G, NM_004453.4:c.508G>T, NM_004453.4:c.524G>T, NM_004453.4:c.1001T>C, NM_004453.4:c.524G>T, NM_004453.4:c.1351G>C, NM_004453.4:c.1367C>T, NM_004453.4:c.1568_1569delCT, NM_004453.4:c.1373_1774delAT, NM_004453.4:c.1822delG, NM_004453.4:c.1832G>A
ETHE1	Ethylmalonic Encephal	
EYS	Retinitis pigmentosa 2	5 NM_001142800.2:c.9405T>A, NM_001142800.2:c.9299_9302delCTCA, NM_001142800.2:c.9036delT, NM_001142800.2:c.8634_8655delCATGCAGA, NM_001142800.2:c.8629_8632dupACAG, NM_001142800.2:c.8569G-T, NM_001142800.2:c.8084upA, NM_001142800.2:c.8569G-T, NM_001142800.2:c.8084upA, NM_001142800.2:c.5859G-T, NM_001142800.2:c.5095T>G, NM_001142800.2:c.6170de NM_001142800.2:c.5857G>T, NM_001142800.2:c.5757dupT, NM_001142800.2:c.5944G-T, NM_001142800.2:c.55757dupT, NM_001142800.2:c.5044G-T, NM_001142800.2:c.55754dupT, NM_001142800.2:c.4045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3045C-T, NM_001142800.2:c.3121dupA, NM_001142800.2:c.3863-4_863-3insT, NM_001142800.2:c.571dupA, NM_001142800.2:c.409C>T, NM_001142800.2:c.32delT, NM_001142800.2:c.103C>T
F11	Factor XI deficiency, autosomal recessive	NM_000128.4:c.166T>C, NM_000128.4:c.403G>T, NM_000128.4:c.438C>A, NM_000128.4:c.594S>G, NM_000128.4:c.591T>C, NM_000128.4:c.731A>G, NM_000128.4:c.809A>T, NM_000128.4:c.901T>C, NM_000128.4:c.1211C>A, NM_000128.4:c.1613C>T, NM_000128.4:c.1693G>A
F8	Hemophilia A	Intron 22 inversion, NM_000132.4:c.7033_7040delTGCGAGGC, NM_000132.4:c.7031G>A, NM_000132.4:c.7031G>A, NM_000132.4:c.7031G>A, NM_000132.4:c.7031G>A, NM_000132.4:c.7031G>A, NM_000132.4:c.7031G>A, NM_000132.4:c.6996G>A, NM_000132.4:c.6995G>C, NM_000132.4:c.6986G>C, NM_000132.4:c.6998G>C, NM_000132.4:c.6998G>C, NM_000132.4:c.6998G>C, NM_000132.4:c.6998G>C, NM_000132.4:c.6919_6920delGA, NM_000132.4:c.6914_6918delATCAA, NM_000132.4:c.6915delT, NM_000132.4:c.6914_6918delATCAA, NM_000132.4:c.6915delT, NM_000132.4:c.69015PC, NM_000132.4:c.69015PC, NM_000132.4:c.69015PC, NM_000132.4:c.69015PC, NM_000132.4:c.6887delA, NM_000132.4:c.69015PC, NM_000132.4:c.6887delATGGCCATCAG, NM_000132.4:c.6869G>T, NM_000132.4:c.6887delA, NM_000132.4:c.6839T>C, NM_000132.4:c.6865S>T, NM_000132.4:c.6842T>C, NM_000132.4:c.6839T>C, NM_000132.4:c.6835T>C, NM_000132.4:c.6835T>C, NM_000132.4:c.6825T>A, NM_000132.4:c.6825T>A, NM_000132.4:c.6979felG, NM_000132.4:c.6979feA, NM_000132.4:c.6825T>A, NM_000132.4:c.6780_6788delAGGAGTAAC, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>A, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6796S>B, NM_000132.4:c.6797S>B, NM_000132.4:c.6797S>B, NM_000132.4:c.6797S>B, NM_000132.4:c.6797S>B, NM_000132.4:c.6797S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6597S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6593S>B, NM_000132.4:c.6497delG, NM_000132.4:c





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
		NM_000132.4:c.5953delC, NM_000132.4:c.5954G>C, NM_000132.4:c.5939A>C,
		NM_000132.4:c.5934T>G, NM_000132.4:c.5923dupA, NM_000132.4:c.5924T>A,
		NM_000132.4:c.5914_5915delAT, NM_000132.4:c.5894G>T, NM_000132.4:c.5891T>C
		NM_000132.4:c.5888T>C, NM_000132.4:c.5884T>G, NM_000132.4:c.5881T>A,
		NM_000132.4:c.5879G>T, NM_000132.4:c.5869C>T, NM_000132.4:c.5861_5866delCTCAGG, NM_000132.4:c.5853A>C,
		NM_000132.4:c.5831_3600delc1CAGG, NM_000132.4:c.5833A2C, NM_000132.4:c.5833A>G, NM_000132.4:c.5825G>T, NM_000132.4:c.5816C>T,
		NM_000132.4:c.5816C>A, NM_000132.4:c.5766C>A, NM_000132.4:c.5752delT,
		NM 000132.4:c.5721C>G, NM 000132.4:c.5719dupA, NM 000132.4:c.5719A>T,
		NM_000132.4:c.5712G>C, NM_000132.4:c.5697delC, NM_000132.4:c.5696dupT,
		NM 000132.4:c.5689 5690delCT, NM 000132.4:c.5686G>C, NM 000132.4:c.5680G>A
		NM_000132.4:c.5675dupT, NM_000132.4:c.5674G>A,
		NM_000132.4:c.5348_5357delGAGCAGAAGT, NM_000132.4:c.5345T>G,
		NM_000132.4:c.5343T>A, NM_000132.4:c.5339C>T, NM_000132.4:c.5337delG,
		NM_000132.4:c.5330T>C, NM_000132.4:c.5321A>T, NM_000132.4:c.5308G>A,
		NM_000132.4:c.5301C>A, NM_000132.4:c.5291A>G, NM_000132.4:c.5271delT,
		NM_000132.4:c.5269T>C, NM_000132.4:c.5254delG, NM_000132.4:c.5251A>T,
		NM_000132.4:c.5243delA, NM_000132.4:c.5227_5228delAG, NM_000132.4:c.5220-10
		NM_000132.4:c.5012G>A, NM_000132.4:c.5010delT, NM_000132.4:c.4999delC,
		NM_000132.4:c.4996C>T, NM_000132.4:c.4987A>T, NM_000132.4:c.4979C>T,
		NM_000132.4:c.4969C>T, NM_000132.4:c.4942C>T, NM_000132.4:c.4935G>A,
		NM_000132.4:c.4934G>A, NM_000132.4:c.4926delA, NM_000132.4:c.4925A>G,
		NM_000132.4:c.4922dupT, NM_000132.4:c.4918G>T, NM_000132.4:c.4899delT,
		NM_000132.4:c.4895dupT, NM_000132.4:c.4895delT, NM_000132.4:c.4864G>A,
		NM_000132.4:c.4858delC, NM_000132.4:c.4848delC, NM_000132.4:c.4841delA,
		NM_000132.4:c.4828G>T, NM_000132.4:c.4814C>A, NM_000132.4:c.4806delA,
		NM_000132.4:c.4805_4806delAA, NM_000132.4:c.4798A>T, NM_000132.4:c.4794G>
		NM_000132.4:c.4770T>A, NM_000132.4:c.4719_4729delTGCAAAGACTC,
		NM_000132.4:c.4720delG, NM_000132.4:c.4712_4715delAAAG, NM_000132.4:c.4697_4701dupTGAGA, NM_000132.4:c.4694_4697delTTCT,
		NM_000132.4:c.4687delG, NM_000132.4:c.4686delA,
		NM_000132.4:c.4672_4675delAACA, NM_000132.4:c.4662_4663delGA,
		NM 000132.4:c.4658delA, NM 000132.4:c.4619delT, NM 000132.4:c.4561C>T,
		NM_000132.4:c.4549_4550delGT, NM_000132.4:c.4543_4544delCCinsA,
		NM 000132.4:c.4542delT, NM 000132.4:c.4531G>A, NM 000132.4:c.4519delA,
		NM_000132.4:c.4512delG, NM_000132.4:c.4492_4496delGTTCT,
		NM 000132.4:c.4492 4493delGT, NM 000132.4:c.4492delG, NM 000132.4:c.4483de
		NM_000132.4:c.4483G>T, NM_000132.4:c.4474A>T, NM_000132.4:c.4473C>G,
		NM_000132.4:c.4473C>A, NM_000132.4:c.4460delA, NM_000132.4:c.4450delA,
		NM_000132.4:c.4446dupG, NM_000132.4:c.4430_4431delAG,
		NM_000132.4:c.4425_4426delAA, NM_000132.4:c.4423C>T, NM_000132.4:c.4408G>T
		NM_000132.4:c.4382_4383delAC, NM_000132.4:c.4363C>T, NM_000132.4:c.4345del
		NM_000132.4:c.4345G>T, NM_000132.4:c.4339delG, NM_000132.4:c.4339dupG,
		NM_000132.4:c.4318delT, NM_000132.4:c.4296_4300delTTCTC,
		NM_000132.4:c.4280delT, NM_000132.4:c.4272delC, NM_000132.4:c.4265_4266delA
		NM_000132.4:c.4242dupA, NM_000132.4:c.4241C>A, NM_000132.4:c.4201C>T,
		NM_000132.4:c.4199delC, NM_000132.4:c.4156C>T, NM_000132.4:c.4103delC,
		NM_000132.4:c.4094_4100delATTTGAC, NM_000132.4:c.4072C>T,
		NM_000132.4:c.4035delA, NM_000132.4:c.4006C>T, NM_000132.4:c.3994_3997delA
		NM_000132.4:c.3991_3992delAA, NM_000132.4:c.3984dupA, NM_000132.4:c.3982C: NM_000132.4:c.3967C>T, NM_000132.4:c.3964C>T, NM_000132.4:c.3940A>C,
		NM 000132.4:c.3922G>T, NM 000132.4:c.3913C>T,
		NM_000132.4:c.3907_3911delACCAA, NM_000132.4:c.3902delA,
		NM 000132.4:c.3887delT, NM 000132.4:c.3863dupC, NM 000132.4:c.3860delT,
		NM_000132.4:c.3851_3852delCA, NM_000132.4:c.3844A>T, NM_000132.4:c.3833del
		NM_000132.4:c.3830delC, NM_000132.4:c.3827C>G, NM_000132.4:c.3772delT,
		NM_000132.4:c.3766G>T, NM_000132.4:c.3756delG, NM_000132.4:c.3736delC,
		NM 000132.4:c.3735 3736delCCinsATTTCT, NM 000132.4:c.3710delC,
		NM_000132.4:c.3652delG, NM_000132.4:c.3651delA, NM_000132.4:c.3631A>T,
		NM_000132.4:c.3624delT, NM_000132.4:c.3607G>T, NM_000132.4:c.3565dupA,
		NM_000132.4:c.3548_3549delAA, NM_000132.4:c.3540delA, NM_000132.4:c.3505de
		NM_000132.4:c.3500dupA, NM_000132.4:c.3496A>T, NM_000132.4:c.3493G>T,
		NM_000132.4:c.3490delT, NM_000132.4:c.3421C>T, NM_000132.4:c.3417dupT,
		NM_000132.4:c.3416_3417delCT, NM_000132.4:c.3409_3410delCT,
		NM_000132.4:c.3402delG, NM_000132.4:c.3385delC, NM_000132.4:c.3371C>A,
		NM_000132.4:c.3344delT, NM_000132.4:c.3302_3303delAG, NM_000132.4:c.3300del
		NM_000132.4:c.3298A>T, NM_000132.4:c.3289C>T, NM_000132.4:c.3279G>A,
		NM_000132.4:c.3255_3258delTAAA, NM_000132.4:c.3251C>G, NM_000132.4:c.3224c
		NM_000132.4:c.3203_3204delGA, NM_000132.4:c.3196C>T,
		NM_000132.4:c.3168_3187delTGAGTTTAAAAAAGTGACAC, NM_000132.4:c.3152delT,
		NM_000132.4:c.3150_3151insTC, NM_000132.4:c.3053delA, NM_000132.4:c.3034G>C
		NM_000132.4:c.3031A>T, NM_000132.4:c.2462_2463delGG,
		NM_000132.4:c.2412_2421delCTCCTCTAGT, NM_000132.4:c.2419dupA,
		NM_000132.4:c.2409delT, NM_000132.4:c.2404C>T, NM_000132.4:c.2397delT,
		NM_000132.4:c.2384_2388delGAACA, NM_000132.4:c.2383A>G, NM_000132.4:c.2373dupG, NM_000132.4:c.2360delA, NM_000132.4:c.2338delA,
		NIA 000132 4:0 2103 210040TCCAA NIA 000132 4:0 2007C: A



NM_000132.4:c.2102_2106delTGGAA, NM_000132.4:c.2097G>A,



GENE	DISEASE NAME	VAR NAME
		NM_000132.4:c.2096T>A, NM_000132.4:c.2095A>T, NM_000132.4:c.2095A>G,
		NM_000132.4:c.2095A>C, NM_000132.4:c.2089_2090delGT, NM_000132.4:c.2090T>A
		NM_000132.4:c.2072C>T, NM_000132.4:c.2071C>A, NM_000132.4:c.2066T>G,
		NM_000132.4:c.2058_2059delAC, NM_000132.4:c.2060T>C, NM_000132.4:c.2057C>C NM_000132.4:c.2032A>T, NM_000132.4:c.2029T>C, NM_000132.4:c.2015_2017delTC
		NM 000132.4:c.2000delT, NM 000132.4:c.1996 1999delGACT,
		NM_000132.4:c.1996_1999dupGACT, NM_000132.4:c.1990_1991delCA,
		NM_000132.4:c.1991A>C, NM_000132.4:c.1988C>T, NM_000132.4:c.1985G>C,
		NM_000132.4:c.1952A>C, NM_000132.4:c.1947_1950delTTTG,
		NM_000132.4:c.1941_1944delAGTT, NM_000132.4:c.1934A>C, NM_000132.4:c.1925_1928delATAG, NM_000132.4:c.1913G>A, NM_000132.4:c.1912
		NM_000132.4:c.1904-1G>A, NM_000132.4:c.1904-37G>A, NM_000132.4:c.1752+5G>I
		NM_000132.4:c.1736A>T, NM_000132.4:c.1726G>T, NM_000132.4:c.1703G>T,
		NM_000132.4:c.1688C>G, NM_000132.4:c.1682A>C, NM_000132.4:c.1681G>A,
		NM_000132.4:c.1675G>T, NM_000132.4:c.1667T>A, NM_000132.4:c.1661G>A,
		NM_000132.4:c.1653T>G, NM_000132.4:c.1640G>A, NM_000132.4:c.1639T>C, NM_000132.4:c.1630G>A, NM_000132.4:c.1619C>G, NM_000132.4:c.1618C>A,
		NM_000132.4:c.1596dupG, NM_000132.4:c.1596G>A, NM_000132.4:c.1595G>A,
		NM_000132.4:c.1594T>G, NM_000132.4:c.1585A>G, NM_000132.4:c.1560delT,
		NM_000132.4:c.1538-1G>T, NM_000132.4:c.1538-2A>T, NM_000132.4:c.1477A>G,
		NM_000132.4:c.1467_1472dupCAGACC, NM_000132.4:c.1463C>T,
		NM_000132.4:c.1463C>G, NM_000132.4:c.1443+3A>C, NM_000132.4:c.1443+2T>C, NM_000132.4:c.1442_1443dupTG, NM_000132.4:c.1443+1G>A,
		NM 000132.4:c.1440 1441insA, NM 000132.4:c.1438 1439delCT,
		NM_000132.4:c.1432G>A, NM_000132.4:c.1420G>T, NM_000132.4:c.1410_1413delT
		NM_000132.4:c.1406G>C, NM_000132.4:c.1400T>G, NM_000132.4:c.1397G>A,
		NM_000132.4:c.1394C>G, NM_000132.4:c.1390G>T, NM_000132.4:c.1357G>T,
		NM_000132.4:c.1348T>G, NM_000132.4:c.1338delA, NM_000132.4:c.1336dupC, NM_000132.4:c.1337G>C, NM_000132.4:c.1337G>A, NM_000132.4:c.1331_1332delA
		NM 000132.4:c.1331A>C, NM 000132.4:c.1325A>G, NM 000132.4:c.1324T>C,
		NM_000132.4:c.1324T>A, NM_000132.4:c.1316G>A, NM_000132.4:c.1311delG,
		NM_000132.4:c.1301G>A, NM_000132.4:c.1293delG, NM_000132.4:c.1234T>C,
		NM_000132.4:c.1214T>G, NM_000132.4:c.1207C>G, NM_000132.4:c.1203G>A,
		NM_000132.4:c.1200_1201delTT, NM_000132.4:c.1202G>A, NM_000132.4:c.1189du NM_000132.4:c.1187A>T, NM_000132.4:c.1175C>G, NM_000132.4:c.1175C>A,
		NM_000132.4:c.1173G>C, NM_000132.4:c.1165delC, NM_000132.4:c.1090G>A,
		NM_000132.4:c.1086G>A, NM_000132.4:c.1077_1080delTGAA,
		NM_000132.4:c.1078_1079delGA, NM_000132.4:c.1042T>C, NM_000132.4:c.986G>T
		NM_000132.4:c.985dupT, NM_000132.4:c.985delT, NM_000132.4:c.986G>C,
		NM_000132.4:c.986G>A, NM_000132.4:c.974_975delTT, NM_000132.4:c.967G>A, NM_000132.4:c.948_951delAACA, NM_000132.4:c.943delG, NM_000132.4:c.941C>T,
		NM_000132.4:c.935delT, NM_000132.4:c.919delA, NM_000132.4:c.920T>G,
		NM_000132.4:c.912C>T, NM_000132.4:c.907delG, NM_000132.4:c.902G>C,
		NM_000132.4:c.899A>T, NM_000132.4:c.899A>C, NM_000132.4:c.889delG,
		NM_000132.4:c.886C>T, NM_000132.4:c.883T>C, NM_000132.4:c.872A>G, NM_000132.4:c.871G>T, NM_000132.4:c.850G>T, NM_000132.4:c.849delT,
		NM_000132.4:c.850G>A, NM_000132.4:c.836T>A, NM_000132.4:c.832G>A,
		NM_000132.4:c.824A>G, NM_000132.4:c.822G>A, NM_000132.4:c.820T>C,
		NM_000132.4:c.796G>T, NM_000132.4:c.788-1G>T, NM_000132.4:c.788-1G>C,
		NM_000132.4:c.788-1G>A, NM_000132.4:c.788-2A>T, NM_000132.4:c.787+2T>C,
		NM_000132.4:c.787G>C, NM_000132.4:c.779C>G, NM_000132.4:c.775A>T, NM_000132.4:c.770_771insCC, NM_000132.4:c.764G>A, NM_000132.4:c.760A>T,
		NM_000132.4:c.775C>A, NM_000132.4:c.729delT, NM_000132.4:c.709C>T,
		NM_000132.4:c.695_698delAGAA, NM_000132.4:c.688_689delGA,
		NM_000132.4:c.685_686delTC, NM_000132.4:c.680G>A, NM_000132.4:c.676A>T,
		NM_000132.4:c.589_591delGTA, NM_000132.4:c.577G>A, NM_000132.4:c.571C>T,
		NM_000132.4:c.566C>A, NM_000132.4:c.557_559delACT, NM_000132.4:c.560T>A, NM_000132.4:c.557A>G, NM_000132.4:c.556G>A, NM_000132.4:c.553A>G,
		NM_000132.4:c.545A>T, NM_000132.4:c.535T>C, NM_000132.4:c.532C>G,
		NM_000132.4:c.525C>A, NM_000132.4:c.519_523delTACCT,
		NM_000132.4:c.514_515insTCAAGATA, NM_000132.4:c.515G>A, NM_000132.4:c.514
		NM_000132.4:c.493C>T, NM_000132.4:c.489T>A, NM_000132.4:c.476T>C, NM_000132.4:c.472C>T, NM_000132.4:c.471G>A,
		NM_000132.4:c.44/2C>1, NM_000132.4:c.4/1G>A, NM_000132.4:c.440 448dupTCTTCCCTG, NM_000132.4:c.446delC,
		NM_000132.4:c.440T>A, NM_000132.4:c.435_436insTTT, NM_000132.4:c.433G>C,
		NM_000132.4:c.430G>T, NM_000132.4:c.421G>T, NM_000132.4:c.415C>T,
		NM_000132.4:c.407A>C, NM_000132.4:c.405T>A, NM_000132.4:c.404A>G,
		NM_000132.4:c.403G>A, NM_000132.4:c.265+1G>T, NM_000132.4:c.265G>A, NM_000132.4:c.255_257delACC, NM_000132.4:c.250_255delAGGCCA,
		NM_000132.4:c.255_25/deIACC, NM_000132.4:c.250_255deIAGGCCA, NM_000132.4:c.250A>G, NM_000132.4:c.230T>C, NM_000132.4:c.224deIA,
		NM_000132.4:c.235T>A, NM_000132.4:c.223G>T, NM_000132.4:c.217T>C,
		NM_000132.4:c.214G>A, NM_000132.4:c.209T>C, NM_000132.4:c.202_207delACTCT0
		NM_000132.4:c.201_202dupGA, NM_000132.4:c.203C>A, NM_000132.4:c.201G>T,
		NM_000132.4:c.199_200delAA, NM_000132.4:c.200A>C, NM_000132.4:c.199A>G,
		NM_000132.4:c.195C>A, NM_000132.4:c.185C>G, NM_000132.4:c.173delC, NM_000132.4:c.144-5C>G, NM_000132.4:c.144-11T>G, NM_000132.4:c.144-26A>T,
		NM_000132.4:c.144-5C>G, NM_000132.4:c.144-111>G, NM_000132.4:c.144-26A>1, NM_000132.4:c.143+1G>A, NM_000132.4:c.128dupT, NM_000132.4:c.120delC,





GENE	DISEASE NAME	VAR NAME
		NM_000132.4:c.98G>A, NM_000132.4:c.97T>G, NM_000132.4:c.88G>A, NM_000132.4:c.86T>G, NM_000132.4:c.77T>C, NM_000132.4:c.73delT, NM_000132.4:c.65G>C, NM_000132.4:c.1A>G
F9	Hemophilia B	NM_000133.4:c.19A>T, NM_000133.4:c.52T>C, NM_000133.4:c.79G>A, NM_000133.4:c.80A>T, NM_000133.4:c.82T>C, NM_000133.4:c.1031T>C, NM_000133.4:c.1136G>A, NM_000133.4:c.1150C>T
FAH	Tyrosinemia, type I	NM_000137.4:c.47A>T, NM_000137.4:c.103G>A, NM_000137.4:c.192G>T, NM_000137.4:c.401C>A, NM_000137.4:c.456G>A, NM_000137.4:c.554-1G>T, NM_000137.4:c.607-6T>G, NM_000137.4:c.707-1G>A, NM_000137.4:c.782C>T, NM_000137.4:c.786G>A, NM_000137.4:c.837+1G>A, NM_000137.4:c.938delC, NM_000137.4:c.982C>T, NM_000137.4:c.1009G>A, NM_000137.4:c.1021C>T, NM_000137.4:c.105G>T, NM_000137.4:c.1062+5G>A, NM_000137.4:c.1069G>T, NM_000137.4:c.1090G>T, NM_000137.4:c.1141A>G
FANCA	Fanconi anemia, complementation gro	NM_000135.4:c.4130C>G, NM_000135.4:c.3788_3790delTCT, NM_000135.4:c.3763G>T, NM_000135.4:c.3558dupG, NM_000135.4:c.2303T>C,
FANCC	Fanconi anemia, complementation gro	NM_000136.3:c.1642C>T, NM_000136.3:c.1487T>G, NM_000136.3:c.1103_1104delTG, NM_000136.3:c.1015delA, NM_000136.3:c.96+1G>T, NM_000136.3:c.416G>A,
FANCG	Fanconi anemia, complementation gro	NM_004629.2:c.1852_1853delAA, NM_004629.2:c.1795_1804delTGGATCCGTC, NM_004629.2:c.1480+1G>C, NM_004629.2:c.1077-2A>G, NM_004629.2:c.907_908dupC
FH	Fumarase Deficiency	NM_000143.4:c.1446_1449delAAAG, NM_000143.4:c.1431_1433dupAAA, NM_000143.4:c.1394A>G, NM_000143.4:c.1293delA, NM_000143.4:c.1255T>C, NM_000143.4:c.1236+1G>C, NM_000143.4:c.1200delT, NM_000143.4:c.1189G>A, NM_000143.4:c.1093A>G, NM_000143.4:c.106TT>A, NM_000143.4:c.901dupA, NM_000143.4:c.363CA, NM_000143.4:c.760C>T, NM_000143.4:c.698G>A, NM_000143.4:c.697C>T, NM_000143.4:c.521C>G, NM_000143.4:c.320A>C, NM_000143.4:c.40dupC
FKRP	Muscular dystrophy- dystroglycanopathy (girdle), type C, 5	NM_024301.5:c.160C>T, NM_024301.5:c.235G>A, NM_024301.5:c.1154C>A, NM_024301.5:c.1343C>T, NM_024301.5:c.1387A>G
FKTN	Muscular dystrophy- dystroglycanopathy (congenital with brain anomalies), type A, 4	•
FMR1	Fragile X syndrome	Premutation allele (CGG)n
G6PC1/ G6PC	Glycogen storage dise (von Gierke disease)	Pase Ia NM_000151.4:c.47C>G, NM_000151.4:c.113A>T, NM_000151.4:c.229T>C, NM_000151.4:c.230+1G>C, NM_000151.4:c.247C>T, NM_000151.4:c.248G>A, NM_000151.4:c.370G>A, NM_000151.4:c.376_377insTA, NM_000151.4:c.447-1G>A, NM_000151.4:c.497T>G, NM_000151.4:c.508C>T, NM_000151.4:c.551G>A, NM_000151.4:c.562G>C, NM_000151.4:c.626A>G, NM_000151.4:c.883C>T, NM_000151.4:c.1039C>T
GAA	Glycogen storage dise (Pompe disease)	
GALC	Krabbe disease	NM_000153.4:c.10567>c, NM_000153.4:c.1964delC, NM_000153.4:c.1814dupA, NM_000153.4:c.17967>G, NM_000153.4:c.1723_1724insT, NM_000153.4:c.1700A>C, NM_000153.4:c.15965delT, NM_000153.4:c.1592G>A, NM_000153.4:c.1591C>T, NM_000153.4:c.1586C>T, NM_000153.4:c.1593G>A, NM_000153.4:c.1593G>T, NM_000153.4:c.1489+2_1489+3delTG, NM_000153.4:c.1488_1489+2delTG, NM_000153.4:c.1472delA, NM_000153.4:c.1161+2T> NM_000153.4:c.1153G>T, NM_000153.4:c.1004A>G, NM_000153.4:c.1953C>G,





GENE	DISEASE NAME	VAR NAME
		NM_000153.4:c.658C>T, NM_000153.4:c.655C>T, NM_000153.4:c.628A>T, NM_000153.4:c.582+1G>A, NM_000153.4:c.453G>A, NM_000153.4:c.430delA, NM_000153.4:c.383G>A, NM_000153.4:c.334A>G, NM_000153.4:c.332G>A, NM_000153.4:c.236G>A, NM_000153.4:c.205C>T
GALT	Galactosemia	NM_000155.4:c.17delC, NM_000155.4:c.41delCinsTT, NM_000155.4:c.71_72insA, NM_000155.4:c.13delG, NM_000155.4:c.13delA, NM_000155.4:c.20deA, NM_000155.4:c.38deA, NM_000155.4:c.38deA, NM_000155.4:c.38deA, NM_000155.4:c.40deA, NM_000155.4:c.50deA, NM_0001
GAMT	Guanidinoacetate methyltransferase de	NM_000156.6:c.590T>C, NM_000156.6:c.506G>A
GBE1	Glycogen storage dise	Pease IV NM_000158.4:c.2052+1G>A, NM_000158.4:c.1883A>G, NM_000158.4:c.1774G>T, NM_000158.4:c.1604A>G, NM_000158.4:c.1571G>A, NM_000158.4:c.1570C>T, NM_000158.4:c.1543C>T, NM_000158.4:c.986A>G, NM_000158.4:c.986A>C, NM_000158.4:c.771T>A, NM_000158.4:c.466_470delCGTAT
GCDH	Glutaricaciduria, type	NM_000159.4:c.74C>A, NM_000159.4:c.271+1G>A, NM_000159.4:c.383G>A, NM_000159.4:c.416C>T, NM_000159.4:c.42G>A, NM_000159.4:c.542A>G, NM_000159.4:c.572T>C, NM_000159.4:c.636-1G>A, NM_000159.4:c.680G>C, NM_000159.4:c.743C>T, NM_000159.4:c.636-1G>A, NM_000159.4:c.680G>C, NM_000159.4:c.743C>T, NM_000159.4:c.751C>T, NM_000159.4:c.764C>T, NM_000159.4:c.769C>T, NM_000159.4:c.877G>A, NM_000159.4:c.883T>C, NM_000159.4:c.1012A>G, NM_000159.4:c.1001_1002delAG, NM_000159.4:c.1015A>G, NM_000159.4:c.1060G>A, NM_000159.4:c.1060G>C, NM_000159.4:c.103G>A, NM_000159.4:c.1148G>C, NM_000159.4:c.103G>A, NM_000159.4:c.1148G>C, NM_000159.4:c.103G>A, C, NM_000159.4:c.103G>
GENE	Disease name	varname
GFM1	Combined Oxidative Phosphorylation Defi	NM_024996.7:c.139C>T, NM_024996.7:c.521A>G, NM_024996.7:c.748C>T, NM_024996.7:c.1294_1297delACAG, NM_024996.7:c.1528_1529delAG
GJB2	Deafness, autosomal 1	PROCESSIVE NM_004004.6:c.617A>G, NM_004004.6:c.557C>T, NM_004004.6:c.551G>C, NM_004004.6:c.550C>T, NM_004004.6:c.516G>A, NM_004004.6:c.550C>T, NM_004004.6:c.439G>A, NM_004004.6:c.427C>T, NM_004004.6:c.416G>A, NM_004004.6:c.413G>A, NM_004004.6:c.402delG, NM_004004.6:c.380G>A, NM_004004.6:c.350_360delGAG, NM_004004.6:c.334_335delAA, NM_004004.6:c.313_326delAAGTTCATCAAGGG, NM_004004.6:c.313_323delAGGAAGTTCATCAA, NM_004004.6:c.299_300delAT, NM_004004.6:c.299A>T, NM_004004.6:c.209A>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250G>T, NM_004004.6:c.250T>C, NM_004004.6:c.250T>C, NM_004004.6:c.250T>C, NM_004004.6:c.250T>C, NM_004004.6:c.350G>T, NM_004004.6:c.350G>T
GJB3	Deafness, autosomal	recessive NM_024009.3:c.94C>T, NM_024009.3:c.529T>G, NM_024009.3:c.580G>A
GJB6	Deafness, autosomal	PECESSIVE NM_001110219.3:c.689dupA, NM_001110219.3:c.485dupA, NM_001110219.3:c.443delC, NM_001110219.3:c.383_384delTA, NM_001110219.3:c.161dupA, NM_001110219.3:c.169C>T, NM_001110219.3:c.14C>T, CNV deletions





GENE	DISEASE NAME	VAR NAME
•		NIM 000404 de 4773ASC NIM 000404 de 4555T NIM 000404 de 4557T de C
GLB1	GM1 gangliosidosis a mucopolysaccharidos	1111_000 10 11 110125 15 05 17 1111_000 10 11 11012 150_1 1000 up 0 0 1 0 01 11111 1711
GLDC	Glycine encephalopa (GLDC-related)	thy NM_00170.3:c.2405C>T, NM_000170.3:c.2284C>A, NM_000170.3:c.2216G>A, NM_000170.3:c.2113G>A, NM_000170.3:c.1705G>A, NM_000170.3:c.1691G>T, NM_000170.3:c.1545G>C, NM_000170.3:c.1229G>A, NM_000170.3:c.1166C>T, NM_000170.3:c.322G>T
GLE1	Lethal Congenital Co Syndrome 1	NM_001003722.2:c.2067_2070delCTTT
GNE	Inclusion body myop autosomal recessive	athy, NM_001128227.3:c.2228T>C, NM_001128227.3:c.2179G>T, NM_001128227.3:c.2179G>A, NM_001128227.3:c.2116T>C, NM_001128227.3:c.2086G>A, NM_001128227.3:c.1891G>A, NM_001128227.3:c.1891G>A, NM_001128227.3:c.1807G>T, NM_001128227.3:c.1801G>A, NM_001128227.3:c.880C>T, NM_001128227.3:c.880C>T, NM_001128227.3:c.766G>A, NM_001128227.3:c.766G^A, NM_001128227.3:c.766G^A, NM_001128227.3:c.766G^A, NM_001128227.3:c.766G^A, NM_001128227.3:c.766G^A, NM_00
GNPTAB	Mucolipidosis type II	and III NM_024312.5:c.3663delG, NM_024312.5:c.3598G>A, NM_024312.5:c.3565C>T, NM_024312.5:c.3560_3561delAG, NM_024312.5:c.3503_3504delTC, NM_024312.5:c.3410T>A, NM_024312.5:c.3326dupA, NM_024312.5:c.3173C>G, NM_024312.5:c.2896delA, NM_024312.5:c.2383delG, NM_024312.5:c.1931C>T, NM_024312.5:c.1906dupA, NM_024312.5:c.1759C>T, NM_024312.5:c.1196C>T, NM_024312.5:c.1000C>T, NM_024312.5:c.749dupA, NM_024312.5:c.732_733delAA, NM_024312.5:c.648_651delAGAA, NM_024312.5:c.616_619delACAG, NM_024312.5:c.99delC, NM_024312.5:c.25C>T
GNS	Mucopolysaccharido IIID (Sanfilippo D)	NM_002076.4:c.1226dupG, NM_002076.4:c.1169delA, NM_002076.4:c.1168C>T, NM_002076.4:c.1063C>T, NM_002076.4:c.413C>G
GRHPR	Primary Hyperoxalur	ia, Type 2 NM_012203.2:c.101delG, NM_012203.2:c.295C>T, NM_012203.2:c.435G>A, NM_012203.2:c.622C>T
GUCY2D	Leber congenital ama	NM_000180.4:c.456C>A, NM_000180.4:c.620delC, NM_000180.4:c.1694T>C, NM_000180.4:c.2734_2735delTT, NM_000180.4:c.2945-1delG
GUSB	Mucopolysaccharido VII	NM_000181.4:c.1881G>T, NM_000181.4:c.1856C>T, NM_000181.4:c.1831C>T, NM_000181.4:c.1830C>T, NM_000181.4:c.1530G>T, NM_000181.4:c.1531G>T, NM_000181.4:c.1521G>A, NM_000181.4:c.1521G>A, NM_000181.4:c.1618G>T, NM_000181.4:c.1338G>A, NM_000181.4:c.1337G>A, NM_000181.4:c.1244C>T, NM_000181.4:c.1244C>T, NM_00181.4:c.1222C>T, NM_00181.4:c.1219_1220insC, NM_00181.4:c.144C>T, NM_00181.4:c.1084G>A, NM_00181.4:c.10565+1G>T, NM_00181.4:c.1061C>T, NM_00181.4:c.1084G>A, NM_00181.4:c.1666S>A, NM_00181.4:c.161C>T, NM_00181.4:c.442C>T
HADHA	Long-chain 3-hydroxy dehydrogenase (LCH, deficiency	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
HADHB	Trifunctional protein deficiency	NM_000183.3:c.788A>G, NM_000183.3:c.1331G>A, NM_000183.3:c.1364T>G
HBA1/2	Thalassemia, alpha	MED ;SEA ;THAI ; - α3.7 ; - α4.2 ; - α20.5 ;FIL





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
НВВ	Thalassemias, beta	NM_00518.5c.*1126_NM_00518.5c.*126_NM_00518.5c.*126_NM_00518.5c.*1110_NM_00518.5c.*126_NM_00518.5c.*126_NM_00518.5c.*126_NM_00518.5c.*240_NM_0





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
		NM_000518.5:c.75T>A, NM_000518.5:c.71_73delTTG, NM_000518.5:c.70G>T, NM_000518.5:c.76G>T, NM_000518.5:c.67G>T, NM_000518.5:c.67G>T, NM_000518.5:c.67G>T, NM_000518.5:c.67G>T, NM_000518.5:c.67G>T, NM_000518.5:c.67G>T, NM_000518.5:c.65G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.55G>T, NM_000518.5:c.51d>T, NM_000518.5:c.51d>T, NM_000518.5:c.51d>T, NM_000518.5:c.51d>T, NM_000518.5:c.45d>T, NM_000518.5:c.36delT, NM_000518.5:c.37d>T, NM_000518.5:c.35d>T, NM_000518.5:c.37d>T, NM_000518.5:c.32G>T, NM_000518.5:c.32d>T, NM_000518.5:c.27d>T, NM_000518.5:c.27d>T, NM_000518.5:c.226d=IA, NM_000518.5:c.20d>T, NM_000518.5:c.226d=IA, NM_000518.5:c.20d>T, NM_000518.5:c.226d=IA, NM_000518.5:c.20d>T, NM_000518.5:c.20d>T, NM_000518.5:c.20d>T, NM_000518.5:c.20d>T, NM_000518.5:c.32G>T, NM_000518.5:c.332G>T, NM_000518.5:c.332GO>T, NM_000518.5:c.332GO>T, NM_000518.5:c.332GO>T, NM_000518.5:c.332GO>T, NM_000518.5:c.332GO
HEXA	Tay-Sachs disease	NM_000518.5:c142C>A NM_000520.6:c.1537C>T, NM_000520.6:c.1528C>T, NM_000520.6:c.1510delC, NM_000520.6:c.1511G>A, NM_000520.6:c.1510C>T, NM_000520.6:c.1499delT, NM_000520.6:c.1496G>A, NM_000520.6:c.1495C>T, NM_000520.6:c.1490A>G, NM_000520.6:c.1453T>C, NM_000520.6:c.1444G>A, NM_000520.6:c.1492G>C, NM_000520.6:c.1351C>G, NM_000520.6:c.1278_1281dupCTAT, NM_000520.6:c.1277_1278insTAT, NM_000520.6:c.1274_1277dupTATC, NM_000520.6:c.1260G>C, NM_000520.6:c.1274_1277dupTATC, NM_000520.6:c.1277_1278insTAT, NM_000520.6:c.1274_1277dupTATC, NM_000520.6:c.1260G>C, NM_000520.6:c.1176G>A, NM_000520.6:c.987G>A, NM_000520.6:c.986+3A>G, NM_000520.6:c.915_917delCTT, NM_000520.6:c.805+1G>C, NM_000520.6:c.805+1G>A, NM_000520.6:c.815_917delCTT, NM_000520.6:c.805+1G>C, NM_000520.6:c.759_774dupGCTTGCAGAGTTTGAC, NM_000520.6:c.772G>C, NM_000520.6:c.749G>A, NM_000520.6:c.73C>C, NM_000520.6:c.73G>T, NM_000520.6:c.533G>T, NM_000520.6:c.53G>A, NM_000520.6:c.533G>T, NM_000520.6:c.53G>A, NM_000520.6:c.533G>T, NM_000520.6:c.53G>C, NM_000520.6:c.531G>T, NM_000520.6:c.53G>C, NM_000520.6:c.531G>T, NM_000520.6:c.53G>C, NM_000520.6:c.531G>T, NM_000520.6:c.53G>C, NM_000520.6:c.531G>T, NM_000520.6:c.53G>C, NM_000520.6:c.531G>T, NM_000520.6:c.53G>C, NM_000520.6:c.531G>T, NM_000520.6:c.53G>C, NM_000520.6:c.53G>T, NM_00052
НЕХВ	Sandhoff disease, in juvenile, and adult fo	1111_000521.4.c.250dc1e, 1111_000521.4.c.50dc2 1, 1111_000521.4.c.757A2 G,
HFE	Hemochromatosis, T	ype 1 NM_000410.4:c.18G>C, NM_000410.4:c.193A>T, NM_000410.4:c.252G>A, NM_000410.4:c.277G>C, NM_000410.4:c.314T>C, NM_000410.4:c.829G>A, NM_000410.4:c.989G>T
HGD	Alkaptonuria	NM_000187.4:c.1189-2A>G, NM_000187.4:c.1111dupC, NM_000187.4:c.1102A>G, NM_000187.4:c.8985>A, NM_000187.4:c.8985>A, NM_000187.4:c.688C>T, NM_000187.4:c.673C>A, NM_000187.4:c.688C>T, NM_000187.4:c.676G>A, NM_000187.4:c.469+2T>C, NM_000187.4:c.324+1G>A, NM_000187.4:c.469+2T>C, NM_000187.4:c.324+1G>A, NM_000187.4:c.283-4C>T, NM_000187.4:c.175delA, NM_000187.4:c.172A>T, NM_000187.4:c.175delA, NM_000187.4:c.172A>T, NM_000187.4:c.175delA, NM_000187.4:c.1740C>T, NM_000187.4:c.175delA, NM_000187.4:c.1740C>T, NM_000187.4:c.175delA, NM_000187.4:c.1740C>T, NM_000187.4:c.16-1G>A
HGSNAT	Mucopolysaccharido IIIC (Sanfilippo C)/Re pigmentosa 73	sis type NM_152419.3:c.493+1G>A, NM_152419.3:c.607C>T, NM_152419.3:c.4848C>T, NM_152419.3:c.1030C>T, NM_152419.3:c.1250+1G>A, NM_152419.3:c.1378-1G>A,
HMGCL	HMG-CoA lyase defi	NM_000191.3:c.835G>A, NM_000191.3:c.698A>G, NM_000191.3:c.505_506delTC, NM_000191.3:c.230delT, NM_000191.3:c.206_207delCT, NM_000191.3:c.122G>A
HPD	Tyrosinemia, type III	NM_002150.3:c.1005C>G, NM_002150.3:c.987delA, NM_002150.3:c.774T>G,
HPS1	Hermansky-Pudlak S	yndrome NM_002150.3:c.600C>G NM_000195.5:c.1996G>T, NM_000195.5:c.1472_1487dupCCAGCAGGGGAGGCCC, NM_000195.5:c.972delC, NM_000195.5:c.398+5G>A, NM_000195.5:c.397G>T
HSD17B4	D-bifunctional prote deficiency	NM_000414.4:c.46G>A, NM_000414.4:c.317G>C, NM_000414.4:c.650A>G, NM_000414.4:c.972+1G>T, NM_000414.4:c.1369A>T





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GENE	DISEASE NAME	VAR NAME
HYLS1	Hydrolethalus Syndro	me NM_001134793.2:c.632A>G, NM_001134793.2:c.669G>A, NM_001134793.2:c.724C>T
IDS	Mucopolysaccharidos (Hunter Syndrome)	NM_000202.8:c.1508T>A, NM_000202.8:c.1505G>C, NM_000202.8:c.1466G>C, NM_000202.8:c.1464G>T, NM_000202.8:c.1484delC, NM_000202.8:c.122C>T, NM_000202.8:c.1464G>T, NM_000202.8:c.1484delC, NM_000202.8:c.598C>T, NM_000202.8:c.593TC>T, NM_000202.8:c.596_599delAACA, NM_000202.8:c.690_691insT, NM_000202.8:c.683C>T, NM_000202.8:c.596_599delAACA, NM_000202.8:c.597delA, NM_000202.8:c.587T>C, NM_000202.8:c.514C>T, NM_000202.8:c.596_599delAACA, NM_000202.8:c.596_599delAACA, NM_000202.8:c.597delA, NM_000202.8:c.388_389insG, NM_000202.8:c.314_317dupTCAA, NM_000202.8:c.288A>G, NM_000202.8:c.278delC, NM_000202.8:c.24041G>A, NM_000202.8:c.208dupC
IKBAP/ ELP1	Dysautonomia, famili	al NM_003640.5:c.3332delC, NM_003640.5:c.2741C>T, NM_003640.5:c.2328delT, NM_003640.5:c.2204+6T>C, NM_003640.5:c.2087G>C, NM_003640.5:c.2087G>A, NM_003640.5:c.1460+2T>C
IL11RA	Crigler-Najjar Syndro	me NM_001142784.3:c3327A>G
IL2RG	Severe Combined Immunodeficiency, X	NM_000206.3:c.854G>A, NM_000206.3:c.664C>T, NM_000206.3:c.454+1G>A, NM_000206.3:c.452T>C, NM_000206.3:c.355A>T, NM_000206.3:c.343T>C,
IVD	Isovaleric acidemia	NM_002225.5:c.81>G, NM_002225.5:c.125T>C, NM_002225.5:c.148C>T, NM_002225.5:c.149G>A, NM_002225.5:c.149G>C, NM_002225.5:c.349G>A, NM_002225.5:c.349G>C, NM_002225.5:c.349G>A, NM_002225.5:c.358G>A, NM_002225.5:c.358d=N, NM_002225.5:c.358d=N, NM_002225.5:c.356d=N, NM_002225.5:c.356d=N, NM_002225.5:c.356d=N, NM_002225.5:c.356d=N, NM_002225.5:c.356d=N, NM_002225.5:c.356d=N, NM_002225.5:c.350d=N, NM_002225.5:c.356d=N, NM_00225.5:c.356d=N, NM_00225.5:c.356d=N, NM_00225.5:c.356d=N, NM_00225.5:c.356d=N, NM_002
LAMA2	LAMA2-related Musc Dystrophy	
LAMA3	Epidermolysis bullosa junctional, Herlitz typ (LAMA3-related)	NM_198129.4:c.5160delG, NM_198129.4:c.6009delG, NM_198129.4:c.6808C>T, NM_198129.4:c.6943A>T, NM_198129.4:c.7489C>T, NM_198129.4:c.8177+2T>G,
LAMB3	Epidermolysis bullosa junctional, Herlitz typ (LAMB3-related)	1111_000220.5.c.1505c71, 1111_000220.5.c.1050d274, 1111_000220.5.c.1507_1500dc1AG,
LAMC2	Epidermolysis bullosa junctional, Herlitz typ (LAMC2-related)	1111_003302131012033071() 11111_003302131012702_270300100()
LIFR	Stuve-Wiedemann syndrome/Schwartz-J type 2 syndrome	NM_001127671.2:c.2503G>T, NM_001127671.2:c.2013dupT, NM_001127671.2:c.1789C>T, NM_001127671.2:c.1018_1022delAATTG, NM_001127671.2:c.653dupT, NM_001127671.2:c.171_174delTAAC
LOXHD1	Deafness, autosomal	PRICESSIVE NM_001384474.1:c.4714C>T, NM_001384474.1:c.4524_4525delAG, NM_001384474.1:c.4526G>A, NM_001384474.1:c.3874C>T, NM_001384474.1:c.208C>T, NM_001384474.1:c.512-1G>A, NM_001384474.1:c.457_461dupCGCCA, NM_01384474.1:c.2T>A
LRPPRC	Leigh Syndrome, Frer Canadian Type	
MAN2B1	Alpha-Mannosidosis	NM_000528.4:c.2686_2687delCTinsG, NM_000528.4:c.2436+2T>C, NM_000528.4:c.2426T>C, NM_000528.4:c.2426T>C, NM_000528.4:c.2401G>T, NM_000528.4:c.2398G>A,





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GENE	DISEASE NAME	VAR NAME
		NM_000528.4:c.2368C>T, NM_000528.4:c.2278C>T, NM_000528.4:c.2119C>T, NM_000528.4:c.2013delT, NM_000528.4:c.1929G>A, NM_000528.4:c.1915C>T, NM_000528.4:c.1830+1G>C, NM_000528.4:c.1780C>T, NM_000528.4:c.1259G>T, NM_000528.4:c.1067C>G, NM_000528.4:c.384G>A, NM_000528.4:c.215A>T,
MAT1A	Hypermethioninemia	NM_000528.4:c.1A>G
MCCC1	3-Methylcrotonyl-Co. carboxylase 1 deficie	NM_020166.5:c.2079delA, NM_020166.5:c.1942G>A, NM_020166.5:c.1930G>T, NM_020166.5:c.1905delA, NM_020166.5:c.1526delG, NM_020166.5:c.1380T>G,
MCCC2	3-Methylcrotonyl-Co. carboxylase 2 deficie	A NM_022132.5:c.295G>C, NM_022132.5:c.380C>G, NM_022132.5:c.464G>A, NM_022132.5:c.499T>C, NM_022132.5:c.515_516insT, NM_022132.5:c.639delG,
MCOLN1 MEFV	Mucolipidosis IV Familial Mediterrane	NM_020533.3:c.304C>T, NM_020533.3:c.964C>T, NM_020533.3:c.1084G>T, NM_020533.3:c.1207C>T
		NM_000243.3:c.2076_2078delA3T, NM_000243.3:c.2040G>C, NM_000243.3:c.2040G>A, NM_000243.3:c.2040G>A, NM_000243.3:c.2040G>A, NM_000243.3:c.1958G>A, NM_000243.3:c.1772T>C, NM_000243.3:c.1437C>G, NM_000243.3:c.123G>A, NM_000243.3:c.1141C>T, NM_000243.3:c.1016C>T, NM_000243.3:c.500C>T, NM_000243.3:c.588G>A, NM_000243.3:c.56dupG, NM_000243.3:c.501G>C, NM_000243.3:c.56dupA
MFSD8	Ceroid Lipofuscinosis Neuronal, 7	
MKKS	Bardet-Biedl Syndron	
MKS1	Bardet-Biedl syndron 13/Joubert syndrome 28/Meckel syndrome	NM_017777.4:c.1349T>C, NM_017777.4:c.1319G>C, NM_017777.4:c.1024+1G>A, NM_017777.4:c.857A>G, NM_017777.4:c.814G>C, NM_017777.4:c.508C>T
MLC1	Megalencephalic leukoencephalopathy subcortical cysts	NM_015166.4:c.839C>T, NM_015166.4:c.424-2A>C, NM_015166.4:c.423C>A, NM_015166.4:c.422A>G, NM_015166.4:c.274C>T,
MLYCD	Malonyl-CoA decarbo	oxylase NM_012213.3:c.560C>G, NM_012213.3:c.679_680insTGAAGC, NM_012213.3:c.755delT
MMAA	Methylmalonic Acidu MMAA-Related	ria, NM_172250.3:c.283C>T, NM_172250.3:c.387C>A, NM_172250.3:c.440G>A, NM_172250.3:c.447_448insG, NM_172250.3:c.451delC, NM_172250.3:c.503delC, NM_172250.3:c.586C>T, NM_172250.3:c.620A>G, NM_172250.3:c.811G>T, NM_172250.3:c.1032delT
MMAB	Methylmalonic Acidu MMAB-Related	
ММАСНС	Cobalamin C disease	NM_015506.3:c.270_271insA, NM_015506.3:c.331C>T, NM_015506.3:c.347T>C, NM_015506.3:c.382_384delTAC, NM_015506.3:c.388T>C, NM_015506.3:c.389A>G, NM_015506.3:c.394C>T, NM_015506.3:c.4406>C, NM_015506.3:c.481C>T, NM_015506.3:c.482G>A, NM_015506.3:c.482G>A, NM_015506.3:c.454_545delTG, NM_015506.3:c.686G>A, NM_015506.3:c.609G>A, NM_015506.3:c.615C>A, NM_015506.3:c.615C>G, NM_015506.3:c.616_617insG, NM_015506.3:c.616C>T, NM_015506.3:c.656_658delAGA, NM_015506.3:c.686C>T
MMADHC	Homocystinuria, cblD variant 1/Methylmal aciduria and homocy cblD type/Methylmal aciduria, cblD type, v	Onic NM_015702.3:c.478+1G>T, NM_015702.3:c.419dupA, NM_015702.3:c.57_64delCTCTTTAG stinuria, onic





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GENE	DISEASE NAME	VAR NAME
MMUT	Methylmalonic acidem	NM_000255.4:c.1871A>G, NM_000255.4:c.1867G>A, NM_000255.4:c.1924G>C, NM_000255.4:c.1871A>G, NM_000255.4:c.1867G>A, NM_000255.4:c.1741C>T, NM_000255.4:c.1658delT, NM_000255.4:c.12405-2A>G, NM_000255.4:c.1420C>T, NM_000255.4:c.1399C>T, NM_000255.4:c.1200C>T, NM_000255.4:c.139C>T, NM_000255.4:c.131T>A, NM_000255.4:c.130G>A, NM_000255.4:c.1914T>C, NM_000255.4:c.1066>A, NM_000255.4:c.1914T>C, NM_000255.4:c.1671_678dupAATTTATG, NM_000255.4:c.655A> NM_000255.4:c.6313T>C, NM_000255.4:c.607G>A, NM_000255.4:c.572C>A, NM_000255.4:c.313T>C, NM_000255.4:c.280G>A, NM_000255.4:c.278G>A, NM_000255.4:c.91C>T
MOCS1	Molybdenum cofactor deficiency A	····
MPI	Congenital disorder of glycosylation, type Ib	NM_002435.3:c.305C>T, NM_002435.3:c.413T>C, NM_002435.3:c.656G>A, NM_002435.3:c.884G>A, NM_002435.3:c.982C>T, NM_002435.3:c.1016_1019delACCC
MPV17	Mitochondrial DNA de syndrome	pletion NM_002437.5:c.498C>A, NM_002437.5:c.462-2A>C, NM_002437.5:c.359G>A, NM_002437.5:c.284dupG, NM_002437.5:c.263_265delAGA, NM_002437.5:c.263A>T, NM_002437.5:c.149G>A, NM_002437.5:c.148C>T, NM_002437.5:c.70G>T
MTHFR	Homocystinuria due to deficiency	D MTHFR NM_005957.5:c.1768delC, NM_005957.5:c.1743G>A, NM_005957.5:c.1129C>T, NM_005957.5:c.971A>G, NM_005957.5:c.968T>C, NM_005957.5:c.547C>T, NM_005957.5:c.439C>T, NM_005957.5:c.3G>A
MTM1	Myotubular Myopathy Linked	NM_000252.3:c.70C>T, NM_000252.3:c.420C>G, NM_000252.3:c.461T>G, NM_000252.3:c.594_598delCCCTG, NM_000252.3:c.570C>T, NM_000252.3:c.594_598delCCCTG, NM_000252.3:c.570C>T, NM_000252.3:c.721C>T, NM_000252.3:c.72625.3:c
MTTP	Abetalipoproteinemia	NM_001386140.1:c.703_704delAC, NM_001386140.1:c.1619G>A, NM_001386140.1:c.1769G>T, NM_001386140.1:c.1867+1G>A, NM_001386140.1:c.2030delC, NM_001386140.1:c.2593G>T
MYO15A	Deafness, autosomal r	PCESSIVE NM_016239.4:c.625G>T, NM_016239.4:c.754_755insA, NM_016239.4:c.3313G>T, NM_016239.4:c.3334delG, NM_016239.4:c.3385C>T, NM_016239.4:c.3354C>T, NM_016239.4:c.3756+1G>T, NM_016239.4:c.4351G>A, NM_016239.4:c.6750_4751insTC NM_016239.4:c.5326C>T, NM_016239.4:c.54351G>A, NM_016239.4:c.6003delG, NM_016239.4:c.6046+2T>G, NM_016239.4:c.6614C>T, NM_016239.4:c.6046+2T>G, NM_016239.4:c.6614C>T, NM_016239.4:c.8448C>T, NM_016239.4:c.8548C>T, NM_016239.4:c.8548C>T, NM_016239.4:c.8548C>T, NM_016239.4:c.8548C>T, NM_016239.4:c.9556_9559delCTGA, NM_016239.4:c.0573delCGAGCTGCGGGTCCT, NM_016239.4:c.8548C>T, NM_016239.4:c.9556_9559delCTGA, NM_016239.4:c.0573delCGAGCTGCCGGGTCCT, NM_016239.4:c.8548C>T, NM_016239.4:c.9556_9559delCTGA, NM_016239.4:c.0573delCGAGCTGCCTGAG, NM_016239.4:c.0573delCGAGCTGCTGAG, NM_016239.4:c.0573delCGAGCTGAGCTGCCGGGTCCTAGAGCTGCGGGTGCTGAGAGCTGCCGGGTCCTAGAGCTGCGGGTGCTGAGAGCTGCCGGGTGCTGAGAGCTGCCGGGTGCTGAGAGAGCTGCGAGAGAGA
МҮО7А	Usher syndrome, type	NIA 000000 4 00 4 NIA 000000 4 400 04 0 NIA 000000 4 4400 T
NAGS	N-acetylglutamate Syn Deficiency	NM_153006.3:c.916-2A>T, NM_153006.3:c.971G>A, NM_153006.3:c.1025delG, NM_153006.3:c.1289T>C, NM_153006.3:c.1299G>C, NM_153006.3:c.1306_1307insT
NDRG1	Charcot-Marie-Tooth I type 4D	NM_006096.4:c.928C>T, NM_006096.4:c.538-1G>A, NM_006096.4:c.442C>T, NM_006096.4:c.16C>T, NM_006096.4:c18-218-1delAG
NEB	Nemaline myopathy 2, autosomal recessive	NM_001164507.2:c.24665_24666delTT, NM_001164507.2:c.23989C>T, NM_001164507.2:c.23421_23422delAG, NM_001164507.2:c.21945+1G>A, NM_001164507.2:c.21076C>T, NM_001164507.2:c.19285_19286delGCinsAA, NM_001164507.2:c.12203_12204delTG, NM_001164507.2:c.8031_8041delAAATAAACGAG, NM_001164507.2:c.6105dupT, NM_001164507.2:c.5567G>A, NM_001164507.2:c.3191A>G, NM_001164507.2:c.2173G> NM_001164507.2:c.843T>G
NPC1	Niemann-Pick disease,	NM_000271.5:c.3662delT, NM_000271.5:c.3613_3614delTTAC, NM_000271.5:c.3467AN





GENE	DISEASE NAME		VAR NAME
NPC2	Niemann-pick diseas	e, type C2	NM_006432.5:c.441+1G>A, NM_006432.5:c.436C>T, NM_006432.5:c.358C>T, NM_006432.5:c.358C>T, NM_006432.5:c.352G>T, NM_006432.5:c.295T>C, NM_006432.5:c.190+5G>A, NM_006432.5:c.115G>A, NM_006432.5:c.27delG
NPHP1	Juvenile Nephronoph	nthisis	NM_001128178.3:c.1716+1G>T, NM_001128178.3:c.1016dupC, NM_001128178.3:c.771+58C>T, NM_001128178.3:c.555dupA, NM_001128178.3:c.455C>G, NM_001128178.3:c.80T>A, NM_001128178.3:c.1deIA
NPHS1	Nephrotic syndrome,	type 1	NM_004646.4:c.3478C>T, NM_004646.4:c.3325C>T, NM_004646.4:c.3109+1G>A, NM_004646.4:c.2928G>T, NM_004646.4:c.2746G>T, NM_004646.4:c.2491C>T, NM_004646.4:c.2464G>A, NM_004646.4:c.2456A>T, NM_004646.4:c.1715G>A, NM_004646.4:c.1481delC, NM_004646.4:c.1307_1308dupAC, NM_004646.4:c.121_122delCT, NM_004646.4:c.59-5C>G
NR2E3	Enhanced S-cone syn	drome	NM_014249.4:c.119-2A>C, NM_014249.4:c.226C>T, NM_014249.4:c.227G>A, NM_014249.4:c.297_298delGT, NM_014249.4:c.361G>A, NM_014249.4:c.932G>A, NM_014249.4:c.1034_1038delTGCAG
NTRK1	Insensitivity to pain, congenital, with anhi	drosis	NM_002529.4:c.1076A>G, NM_002529.4:c.1474G>A, NM_002529.4:c.1726delT, NM_002529.4:c.1729G>C, NM_002529.4:c.1759A>G, NM_002529.4:c.1870C>T, NM_002529.4:c.1960C>T, NM_002529.4:c.1870C>T, NM_002529.4:c.2984C>T, NM_002529.4:c.239G>C
OAT	Ornithine Aminotran Deficiency	sferase	NM_000274.4:c.1276C>T, NM_000274.4:c.1250C>T, NM_000274.4:c.1205T>C, NM_000274.4:c.1205T>C, NM_000274.4:c.952delG, NM_000274.4:c.952delG, NM_000274.4:c.952delG, NM_000274.4:c.952delG, NM_000274.4:c.952delG, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.824G>A, NM_000274.4:c.953G>C, NM_000274.4:c.953G>A, NM_000274.4:c.953G>A, NM_000274.4:c.954G>C, NM_000274.4:c.159delC
OCRL	Lowe syndrome, X-Li	nked	NM_000276.4:c.903_904delAG, NM_000276.4:c.1499G>A, NM_000276.4:c.2299C>T, NM_000276.4:c.2402_2403insA, NM_000276.4:c.2530C>T, NM_000276.4:c.2534delA
ОТС	Ornithine transcarba deficiency	mylase	NM_000531.6:c.17G>A, NM_000531.6:c.118C>T, NM_000531.6:c.119G>A, NM_000531.6:c.134T>C, NM_000531.6:c.148G>T, NM_000531.6:c.238A>G, NM_000531.6:c.258A>G, NM_000531.6:c.259G>A, NM_000531.6:c.259G>A, NM_000531.6:c.259G>A, NM_000531.6:c.350G>T, NM_000531.6:c.350G
РАН	Phenylalanine hydrox deficiency (including phenylketonuria)	kylase	NM_000277.3:c.1315+1G>A, NM_000277.3:c.1243G>A, NM_000277.3:c.1241A>G, NM_000277.3:c.1238G>C, NM_000277.3:c.122C>T, NM_000277.3:c.1217F>C, NM_000277.3:c.1217F>C, NM_000277.3:c.1217F>C, NM_000277.3:c.1217F>C, NM_000277.3:c.1199+1G>A, NM_000277.3:c.1199+1G>A, NM_000277.3:c.1199+1G>A, NM_000277.3:c.1169A>G, NM_000277.3:c.1169A>G, NM_000277.3:c.1166d=IC, NM_000277.3:c.1166G>A, NM_000277.3:c.1166d=IC, NM_000277.3:c.1066-3C>T, NM_000277.3:c.1066-1G>A, NM_000277.3:c.1066S>A, NM_000277.3:c.1066-1G>A, NM_000277.3:c.1033G>T, NM_000277.3:c.1033G>T, NM_000277.3:c.1033G>T, NM_000277.3:c.1033G>T, NM_000277.3:c.1033G>T, NM_000277.3:c.1033G>T, NM_000277.3:c.1033G>T, NM_000277.3:c.1030G>A, NM_000277.3:c.1042C>G, NM_000277.3:c.898G>T, NM_000277.3:c.896T>G, NM_000277.3:c.826C>T, NM_000277.3:c.888G>A, NM_000277.3:c.8296C>A, NM_000277.3:c.826C>T, NM_000277.3:c.888G>A, NM_000277.3:c.8296C>A, NM_000277.3:c.826C>T, NM_000277.3:c.73C>A, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.596T>C, NM_000277.3:c.442-5C>G, NM_000277.3:c.442-5C>A, NM_000277.3:c.442-5C>C, NM_000277.3
PANK2	Pantothenate Kinase Associated Neurodeg		NM_001386393.1:c.460C>T, NM_001386393.1:c.491_492delCT, NM_001386393.1:c.881A>T, NM_001386393.1:c.1231G>A, NM_001386393.1:c.1253C>T
PC	Pyruvate Carboxylase Deficiency	2	NM_001040716.2:c.1748G>T, NM_001040716.2:c.496G>A, NM_001040716.2:c.434T>C
PCCA	Propionic acidemia		NM_000282.4:c.229C>T, NM_000282.4:c.259_260insT, NM_000282.4:c.412G>A, NM_000282.4:c.600+1G>A, NM_000282.4:c.862A>T, NM_000282.4:c.1022_1023insT, NM_000282.4:c.1118T>A, NM_000282.4:c.1224_1225delTT, NM_000282.4:c.1284+1G>A, NM_000282.4:c.1594_1597delTTGT, NM_000282.4:c.1891G>C, NM_000282.4:c.1899+1_1899+4delGTAA





GENE	DISEASE NAME	VAR NAME
PCCB	Propionicacidemia	NM_000532.5:c.331C>T, NM_000532.5:c.337C>T, NM_000532.5:c.502G>A, NM_000532.5:c.562G>A, NM_000532.5:c.562G>A, NM_000532.5:c.562G>A, NM_000532.5:c.502G>A, NM_000532.5:c.502G>A, NM_000532.5:c.737G>T, NM_000532.5:c.3218.1231delGGGCATCATCCGGCinsTAGAGCACAGGA, NM_000532.5:c.1219_1224delGGCATCinsAA, NM_000532.5:c.1223_1226delTCAT, NM_000532.5:c.1228C>T, NM_000532.5:c.1228C>T, NM_000532.5:c.12506APAGCACAGGA, NM_000532.5:c.1283C>T, NM_000532.5:c.1283C>T, NM_000532.5:c.1283C>T, NM_000532.5:c.1537_1538insCCC, NM_000532.5:c.1606A>G
PCDH15	Usher syndrome, type 1F	NN_033056.4:c.5724_5755delACGCACAATGTTTCAGAACTTCAAACTATGT, NM_033056.4:c.5659A>T, NM_033056.4:c.4961_4962insTGAT, NM_033056.4:c.4937_4940dupTGAT, NM_033056.4:c.4864delA, NM_033056.4:c.4548_4551dupATCT, NM_01384140.1:c.3718-2A>G, NM_001384140.1:c.2645_2646delAT, NM_001384140.1:c.1940C>G, NM_001384140.1:c.1737C>G, NM_001384140.1:c.1583T>A, NM_001384140.1:c.1086del NM_001384140.1:c.1021C>T, NM_01384140.1:c.106C>T, NM_01384140.1:c.785G>A, NM_001384140.1:c.400C>T, NM_001384140.1:c.400C>G, NM_001384140.1:c.7C>T
PDHA1	Pyruvate Dehydrogenase Deficiency, X-Linked	NM_000284.4:c.262C>T, NM_000284.4:c.773A>C, NM_000284.4:c.787C>G, NM_000284.4:c.871G>A
PEX1	Peroxisome biogenesis disorder 1A (Zellweger)	NM_000466.3:c.3505_3517delCAGTTGTTTTCAC, NM_000466.3:c.2916delA, NM_000466.3:c.2528G>A, NM_000466.3:c.2097dupT, NM_000466.3:c.1991T>C, NM_000466.3:c.1952_1960dupCAGTGTGGA, NM_000466.3:c.1842delA, NM_000466.3:c.1239+1G5-T, NM_000466.3:c.87C>T
PEX12	Peroxisome Biogenesis Disorder 3A (Zellweger)	NM_000286.3:c.959C>T, NM_000286.3:c.894delC, NM_000286.3:c.888_889delCT, NM_000286.3:c.771delC, NM_000286.3:c.538C>T, NM_000286.3:c.455_459dupGGAAA
PEX2	Peroxisome biogenesis disorder 5A (Zellweger)	NM_000318.3:c.789_790delCT, NM_000318.3:c.163G>A
PEX7	Rhizomelic chondrodysplasia punctata type 1	NM_000288.4:c.532C>T, NM_000288.4:c.618G>A, NM_000288.4:c.649G>A, NM_000288.4:c.653C>T, NM_000288.4:c.654C>T, NM_000288.4:c.653C>T, NM_000288.4:c.875T>A, NM_000288.4:c.854A>G, NM_000288.4:c.875T>A, NM_000288.4:c.903+1G>C
PKHD1	Polycystic kidney disease, autosomal recessive	NM_138694.4:c.12027C>G, NM_138694.4:c.11611T>C, NM_138694.4:c.11363_11372delCTTCCCTGGA, NM_138694.4:c.11284C>A, NM_138694.4:c.10555G>C, NM_138694.4:c.10515C>A, NM_138694.4:c.10452dupT, NM_138694.4:c.10412T>G, NM_138694.4:c.10219C>T, NM_138694.4:c.10036T>C, NM_138694.4:c.9866G>T, NM_138694.4:c.9719G>A, NM_138694.4:c.9689delA, NM_138694.4:c.9870T>C, NM_138694.4:c.9710G>A, NM_138694.4:c.9107T>G, NM_138694.4:c.8870T>C, NM_138694.4:c.8824C>T, NM_138694.4:c.8518C>T, NM_138694.4:c.8870T>C, NM_138694.4:c.8840T>C, NM_138694.4:c.8518C>T, NM_138694.4:c.8854G>A, NM_138694.4:c.8407T>C, NM_138694.4:c.8518C>T, NM_138694.4:c.6854G>A, NM_138694.4:c.3525_5326delAG, NM_138694.4:c.5895dupA, NM_138694.4:c.4165C>A, NM_138694.4:c.3920C>T, NM_138694.4:c.3766delC, NM_138694.4:c.3761_3762delCCinsG, NM_138694.4:c.3367C>A, NM_138694.4:c.3276_2A>C, NM_138694.4:c.2747A>C, NM_138694.4:c.2827_2828delGA, NM_138694.4:c.2747A>C, NM_138694.4:c.2452C>T, NM_138694.4:c.2414C>T, NM_138694.4:c.2741C>T, NM_138694.4:c.245C>T, NM_138694.4:c.1409G>A, NM_138694.4:c.1342G>C, NM_138694.4:c.1486C>T, NM_138694.4:c.1409G>A, NM_138694.4:c.341C>T, NM_138694.4:c.1486C>T, NM_138694.4:c.1400G>A, NM_138694.4:c.341C>T, NM_138694.4:c.1486C>T, NM_138694.4:c.390delC, NM_138694.4:c.353delG, NM_138694.4:c.1486C>T, NM_138694.4:c.390delC, NM_138694.4:c.353delG, NM_138694.4:c.1486C>T, NM_138694.4:c.390delC, NM_138694.4:c.353delG, NM_138694.4:c.140.C>T, NM_138694.4:c.350delC, NM_138694.4:c.353delG, NM_138694.4:c.1486C>T, NM_138694.4:c.350delC, NM_138694.4:c.353delG, NM_138694.4:c.140.C>T, NM_138694.4:c.353delG, NM_138694.4:c.140.C>T, NM_138694.4:c.355delG, NM_138694.4:c.140.C)T, NM_138694.4:c.355delG, NM_138694.4:c.140.C.140.C)T, NM_138694.4:c.355delG, NM_13869
PLA2G6	Infantile neuroaxonal dystrophy 1	NM_003560.4:c.2370T>G, NM_003560.4:c.2239C>T, NM_003560.4:c.1903C>T, NM_003560.4:c.1884C>T, NM_003560.4:c.1634A>C, NM_003560.4:c.1612C>T, NM_003560.4:c.238G>A, NM_003560.4:c.109C>T
PMM2	Congenital disorder of glycosylation type Ia	NM_000303.3:c.26G>A, NM_000303.3:c.53C>G, NM_000303.3:c.95_96delTAinsGC, NM_000303.3:c.95T>G, NM_000303.3:c.95T>G, NM_000303.3:c.95T>G, NM_000303.3:c.95T>G, NM_000303.3:c.95C>T, NM_000303.3:c.109C>T, NM_000303.3:c.109G>T, NM_000303.3:c.109G>T, NM_000303.3:c.109G>T, NM_000303.3:c.109G>T, NM_000303.3:c.255+2T>C, NM_000303.3:c.255-1G>C, NM_000303.3:c.317A>T, NM_000303.3:c.255+2T>C, NM_000303.3:c.338C>T, NM_000303.3:c.349G>C, NM_000303.3:c.35TC>A, NM_000303.3:c.368G>A, NM_000303.3:c.355C>A, NM_000303.3:c.345G>A, NM_000303.3:c.42G>A, NM_000303.3:c.42G>A, NM_000303.3:c.42G>A, NM_000303.3:c.42G>A, NM_000303.3:c.42G>A, NM_000303.3:c.42G>C, NM_000303.3:c.42G>A, NM_000303.3:c.42GA, NM_000303.3:c.4
PNPO	Pyridoxal 5'-phosphate- dependent epilepsy	NM_018129.4:c.674G>A, NM_018129.4:c.685C>T
POLG	POLG-Related Disorders	NM_002693.3:c.3644-1G>A, NM_002693.3:c.3630dupC, NM_002693.3:c.3286C>T, NM_002693.3:c.3218C>T, NM_002693.3:c.3218C>T, NM_002693.3:c.2794C>T, NM_002693.3:c.2591A>G, NM_002693.3:c.2591A>G, NM_002693.3:c.2551A>G, NM_002693.3:c.2557C>T, NM_002693.3:c.2557C>T, NM_002693.3:c.2557C>T, NM_002693.3:c.2542C>A, NM_002693.3:c.257C>T, NM_002693.3:c.257C, NM





GENE	DISEASE NAME	VAR NAME
		NM_002693.3:c.1760C>T, NM_002693.3:c.1754G>A, NM_002693.3:c.1550G>T, NM_002693.3:c.1491G>C, NM_002693.3:c.1437C>G, NM_002693.3:c.1399G>A, NM_002693.3:c.1120C>T, NM_002693.3:c.911T>G, NM_002693.3:c.830A>T, NM_002693.3:c.803G>C, NM_002693.3:c.752C>T
POMGNT1	Muscle-Eye-Brain Dis POMGNT1-Related	
PPT1	Ceroid Lipofuscinosis Neuronal, 1	
PROP1	Combined Pituitary H Deficiency 2	NM_006261.5:c.469dupT, NM_006261.5:c.373C>T, NM_006261.5:c.358C>T, NM_006261.5:c.349T>A, NM_006261.5:c.310delC, NM_006261.5:c.301_302delAG, NM_006261.5:c.255C>T, NM_006261.5:c.257C>T, NM_006261.5:c.247C>T, NM_006261.5:c.218G>A, NM_006261.5:c.217C>T, NM_006261.5:c.150delA, NM_006261.5:c.150delA, NM_006261.5:c.150delA, NM_006261.5:c.37C>T, NM_006261.5:c.343-31C>G
PRPS1	Arts syndrome, X-Lin	ked NM_002764.4:c.193G>A, NM_002764.4:c.344T>C, NM_002764.4:c.398A>C, NM_002764.4:c.455T>C, NM_002764.4:c.869T>C, NM_002764.4:c.916G>A
PSAP	Metachromatic Leukodystrophy, PSA	NM_002778.4:c.1288C>T, NM_002778.4:c.1046T>C, NM_002778.4:c.643A>C, NM_002778.4:c.643A>C, NM_002778.4:c.643A>C
PYGM	McArdle disease	NM_005609.4:c.2392T>C, NM_005609.4:c.2262delA, NM_005609.4:c.2128_2130delTTC, NM_005609.4:c.206204.c.195609.4:c.195609.4:c.195609.4:c.195609.4:c.195609.4:c.195609.4:c.195609.4:c.195609.4:c.1768+1G>A, NM_005609.4:c.1768+1G>A, NM_005609.4:c.1762T>G, NM_005609.4:c.1628a>C, NM_005609.4:c.1628a>C, NM_005609.4:c.1628a>C, NM_005609.4:c.102009.4:c.1021637, NM_005609.4:c.104166C>G, NM_005609.4:c.1094C>T, NM_005609.4:c.393delG, NM_005609.4:c.280C>T, NM_005609.4:c.255C>A, NM_005609.4:c.255C>A, NM_005609.4:c.148C>T, NM_005609.4:c.13_14delCT, NM_005609.4:c.14>G
RAB23	Carpenter Syndrome	NM_016277.5:c.434T>A, NM_016277.5:c.407dupC
RAG1	Omenn syndrome / severe combined immunodeficiency	
RAG2	Omenn syndrome / severe combined immunodeficiency	T- B- NM_000536.4:c.1504A>G, NM_000536.4:c.1352G>C, NM_000536.4:c.686G>A, NM_000536.4:c.686C>A, NM_000536.4:c.
RAPSN	Myasthenic syndrom congenital, 11, associacetylcholine receptor deficiency	iated with NM_005055.5:c.416T>C, NM_005055.5:c.264C>A
RDH12	Leber congenital am	NM_152443.3:c.146C>T, NM_152443.3:c.152T>A, NM_152443.3:c.164C>T, NM_152443.3:c.184C>T, NM_152443.3:c.295C>A, NM_152443.3:c.37C>T, NM_152443.3:c.376C>T, NM_152443.3:c.376C>T, NM_152443.3:c.451C>A, NM_152443.3:c.451C>A, NM_152443.3:c.451C>A, NM_152443.3:c.451C>A, NM_152443.3:c.5451C>B, NM_152443.3:
RLBP1	Bothnia retinal dystrophy/Fundus albipunctatus/Retini punctata albescens	NM_000326.5:c.875C>T, NM_000326.5:c.700C>T, NM_000326.5:c.452G>A, NM_000326.5:c.333T>G
RPE65	Leber congenital am	NM_000329.3:c.1543C>T, NM_000329.3:c.1355T>G, NM_000329.3:c.1301C>T, NM_000329.3:c.1292A>G, NM_000329.3:c.1102T>C, NM_000329.3:c.1022T>C, NM_000329.3:c.102T>C, NM_000329.3:c.3024C>C, NM_000329.3:c.394G>A, NM_000329.3:c.272G>A, NM_000329.3:c.271C>T
RPGRIP1L	Ciliopathies, RPGRIP	LL-Related NM_015272.5:c.3706C>T, NM_015272.5:c.3634_3637delGAAA, NM_015272.5:c.3548C>G, NM_015272.5:c.2794_2795delTT, NM_015272.5:c.2614C>T, NM_015272.5:c.2413C>T, NM_015272.5:c.250C>T, NM_015272.5:c.2050C>T, NM_015272.5:c.1975T>C, NM_015272.5:c.1843A>C, NM_015272.5:c.1326_1329delAAAA, NM_015272.5:c.1329dupA, NM_015272.5:c.1776>A, NM_015272.5:c.766+1G>A,





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
		NM_015272.5:c.757C>T, NM_015272.5:c.697A>T, NM_015272.5:c.394A>T
SACS	Autosomal Recessive Spa Ataxia of Charlevoix-Sagu	NW_014303.0.C.10334C>A, NW_014303.0.C.10307G>A, NW_014303.0.C.8644dE11,
SBDS	Shwachman-Diamond syndrome	NM_016038.4:c.652C>T, NM_016038.4:c.505C>T, NM_016038.4:c.377G>C, NM_016038.4:c.258+2T>C, NM_016038.4:c.183_184delTAinsCT, NM_016038.4:c.184A>NM_016038.4:c.127G>T, NM_016038.4:c.120delG
SERPINA1	Alpha-1-antitrypsin defici	NM_000295.5:c.1177C>T, NM_000295.5:c.1093G>A, NM_000295.5:c.848A>T, NM_000295.5:c.839A>T, NM_000295.5:c.739C>T, NM_000295.5:c.514G>T, NM_000295.5:c.514G>T, NM_000295.5:c.514G>T, NM_000295.5:c.314G>T, NM_000295.5:c.316G>T, NM_000295.5:c.316G>T, NM_000295.5:c.316G>T, NM_000295.5:c.316T>T, NM_000295.5:c.316T>T
SGCA	Muscular dystrophy, limb girdle, autosomal recessiv	1111 000025.4.6.51617 C, 1111 000025.4.6.574071, 1111 000025.4.6.002674,
SGCB	Limb-Girdle Muscular Dystrophy, Type 2E	NM_000232.5:c.552T>G, NM_000232.5:c.452C>G, NM_000232.5:c.341C>T, NM_000232.5:c.323T>G, NM_000232.5:c.299T>A, NM_000232.5:c.272G>T, NM_000232.5:c.272G>C
SGCG	Muscular dystrophy, limb girdle, type 2C	NM_000231.3:c.88delG, NM_000231.3:c.195_195+3delAGTA, NM_000231.3:c.505+1G>, NM_000231.3:c.521delT, NM_000231.3:c.787G>A, NM_000231.3:c.848G>A
SGSH	Mucopolysaccharidisis ty IIIA (Sanfilippo A)	PE NM_000199.5:c.1380delT, NM_000199.5:c.1339G>A, NM_000199.5:c.1298G>A, NM_000199.5:c.1167C>A, NM_000199.5:c.892T>C, NM_000199.5:c.877C>T, NM_000199.5:c.757delG, NM_000199.5:c.875C, NM_000199.5:c.617G>C, NM_000199.5:c.466A>T, NM_000199.5:c.49G>A, NM_000199.5:c.416C>T, NM_000199.5:c.337_345delCAAGCTGGTinsGCACAGGTGAG, NM_000199.5:c.320delT, NM_000199.5:c.325A>C, NM_000199.5:c.220C>T, NM_000199.5:c.197C>G, NM_000199.5:c.130G>A
SLC12A6	Agenesis of the Corpus Callosum with Peripheral Neuropathy (Andermann Syndrome)	
SLC17A5	Sialic acid storage disorde infantile	NM_012434.5:c.1259+1G>A, NM_012434.5:c.918T>G, NM_012434.5:c.500T>C, NM_012434.5:c.406A>G, NM_012434.5:c.115C>T, NM_012434.5:c.43G>T
SLC25A13	Citrullinemia, Type II	NM_014251.3:c.1813C>T, NM_014251.3:c.1801G>T, NM_014251.3:c.1801G>A, NM_014251.3:c.1799dupA, NM_014251.3:c.1592G>A, NM_014251.3:c.1799dupA, NM_014251.3:c.1592G>A, NM_014251.3:c.1411_1412delCT NM_014251.3:c.1311+1G>A, NM_014251.3:c.1311+1G>A, NM_014251.3:c.1777+1G>A, NM_014251.3:c.1778C>T, NM_014251.3:c.852_855delTATG, NM_014251.3:c.674C>T, NM_014251.3:c.615+1G>C
SLC25A15	Ornithine translocase deficiency	NM_014252.4:c.44C>T, NM_014252.4:c.110T>G, NM_014252.4:c.212T>A, NM_014252.4:c.535C>T, NM_014252.4:c.538C>A, NM_014252.4:c.535C>T, NM_014252.4:c.566C>A, NM_014252.4:c.569C>A, NM_014252.4:c.656C>A, NM_014252.4:c.815C>T, NM_014252.4:c.824G>A
SLC26A2	Sulfate transporter-relate osteochondrodysplasias, includes achondrogenesis 1B, atelosteogenesis type diastrophic dysplasia, and recessive multiple epiphy dysplasia	NM_000112.4:c.496G>A, NM_000112.4:c.532C>T, NM_000112.4:c.767T>C, NM_000112.4:c.832delC, NM_000112.4:c.835C>T, NM_000112.4:c.1010_1012delTTG, NM_000112.4:c.1273A>G, NM_000112.4:c.1361A>C, NM_000112.4:c.1535C>A, NM_000112.4:c.1273delA, NM_000112.4:c.1878delG, NM_000112.4:c.1957T>A, NM_000112.4:c.2033G>T
SLC26A4	Pendred syndrome	NM_000441.2:c.269C>T, NM_000441.2:c.281C>T, NM_000441.2:c.412G>T, NM_000441.2:c.554G>C, NM_000441.2:c.553T>C, NM_000441.2:c.626G>T, NM_000441.2:c.707T>C, NM_000441.2:c.898A>C, NM_000441.2:c.915_916insG, NM_000441.2:c.915_916insG, NM_000441.2:c.915_916insG, NM_000441.2:c.915_976insT, NM_000441.2:c.915_7, NM_000441.2:c.915_7, NM_000441.2:c.1015_7, NM_000441.2:c.103T>C, NM_0





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GENE	DISEASE NAME VAR NAME	
		NM_000441.2:c.1263+1G>A, NM_000441.2:c.1334T>G, NM_000441.2:c.1454C>T, NM_000441.2:c.1468A>C, NM_000441.2:c.1489G>A, NM_000441.2:c.1634T>G, NM_000441.2:c.1707+5G>A, NM_000441.2:c.1790T>C, NM_000441.2:c.1826T>G, NM_000441.2:c.195G>C, NM_000441.2:c.048T>C, NM_000441.2:c.131G>A, NM_000441.2:c.2162C>T, NM_000441.2:c.2168A>G, NM_000441.2:c.2162C>T, NM_000441.2:c.2162C>T
SLC37A4	Glycogen storage disea	NA 004467 6 4040 T NA 004467 6 4050 T NA 004467 6 4040 4040 LIGT
SLC45A2	Oculocutaneous albinis Type 4	
SLC4A11	Corneal Dystrophy and Perceptive Deafness	NM_001174089.2:c.2558G>A, NM_001174089.2:c.2557C>T, NM_001174089.2:c.2518A>G NM_001174089.2:c.2480T>C, NM_001174089.2:c.2270C>T, NM_001174089.2:c.226G>A NM_001174089.2:c.2185_219240p17ATGACAC, NM_001174089.2:c.2176G>A, NM_001174089.2:c.1765C>T, NM_001174089.2:c.1418C>T, NM_001174089.2:c.1415G>A NM_001174089.2:c.1343G>A, NM_001174089.2:c.990_991insA, NM_001174089.2:c.589T>C, NM_001174089.2:c.577C>T, NM_001174089.2:c.425_432delGCTTCGCC
SMN1	Spinal Muscular Atroph	
SMPD1	Niemann-Pick disease, A/B	NM_000543.5:c.36G>A, NM_000543.5:c.100_116delGGCCTGGTGCTGGCGCT, NM_000543.5:c.103_107delCTGGT, NM_000543.5:c.103_118delCTGGTGCTGGCGCTGG, NM_000543.5:c.103_107delCTGGT, NM_000543.5:c.103_118delCTGGTGCTGGCGCTGG, NM_000543.5:c.105delG, NM_000543.5:c.551C>T, NM_000543.5:c.558_574delGCCCCCCAAACCCCCCTA, NM_000543.5:c.557C>T, NM_000543.5:c.558_59insC, NM_000543.5:c.559delC, NM_000543.5:c.573delT, NM_000543.5:c.588C>T, NM_000543.5:c.689G>A, NM_000543.5:c.730G>A, NM_000543.5:c.737delG, NM_000543.5:c.739G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.732G>A, NM_000543.5:c.381_803delAGCCTGTTGAGTGGGCTGGGCCC, NM_000543.5:c.788T>A, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.931T>C, NM_000543.5:c.131T>C, NM_000543.5:c.131T>
STAR	Lipoid Congenital Adrer Hyperplasia	NM_000349.3:c.772C>T, NM_000349.3:c.749G>A, NM_000349.3:c.577C>T, NM_000349.3:c.562C>T, NM_000349.3:c.559G>A, NM_000349.3:c.545G>T, NM_000349.3:c.545G>A
STRC	Deafness, autosomal re	Cessive NM_153700.2:c.5188C>T, NM_153700.2:c.5185C>T, NM_153700.2:c.5168_5171delTTCT, NM_153700.2:c.4545+1G>C, NM_153700.2:c.3556C>T
TAT	Tyrosinemia, Type II	NM_000353.3:c.1297C>T, NM_000353.3:c.1249C>T, NM_000353.3:c.668C>G, NM_000353.3:c.236-5A>G, NM_000353.3:c.169C>T
TCIRG1	Osteopetrosis, autoson recessive 1	
TFR2	Hemochromatosis, Typ TFR2-Related	P 3, NM_003227.4:c.2374G>A, NM_003227.4:c.2343G>A, NM_003227.4:c.2014C>T, NM_003227.4:c.1861_1872delGCCGTGGCCCAG, NM_003227.4:c.1665delC, NM_003227.4:c.1632_1633delGA, NM_003227.4:c.1473+1G>A, NM_003227.4:c.1469T>G NM_03227.4:c.1403G>A, NM_003227.4:c.1333G>A, NM_003227.4:c.1235_1237delACA, NM_003227.4:c.1346C>T, NM_003227.4:c.949C>T, NM_003227.4:c.840C>G, NM_003227.4:c.515T>A, NM_003227.4:c.313C>T
TH	Tyrosine hydroxylase deficiency	NM_000360.4:c.1388C>T, NM_000360.4:c.1141C>A, NM_000360.4:c.917G>A, NM_000360.4:c.733A>C, NM_000360.4:c.614T>C, NM_000360.4:c.605G>A
TMC1	Deafness, autosomal re	Cessive NM_138691.3:c.100C>T, NM_138691.3:c.425G>A, NM_138691.3:c.454-1G>C, NM_138691.3:c.1165C>T, NM_138691.3:c.1763+3A>G, NM_138691.3:c.1842G>A, NM_138691.3:c.1960A>G
TMEM216	Joubert syndrome 2	NM_001173990.3:c.78_81delGAAC, NM_001173990.3:c.218G>A, NM_001173990.3:c.218G>T, NM_001173990.3:c.230G>C, NM_001173990.3:c.253C>T, NM_001173990.3:c.341T>G
TPP1	Ceroid lipofuscinosis, neuronal, 2/Spinocereb ataxia, autosomal reces	
TREX1	Aicardi-Goutieres syndi	
TRIM32	Bardet-Biedl syndrome	





GENE	DISEASE NAME	VAR NAME
TRIM37	Mulibrey nanism syn	NM_015294.6:c.1037_1040tupAGAT, NM_015294.6:c.965G>T, NM_015294.6:c.2475C NM_015294.6:c.496_500delAGGAA, NM_015294.6:c.326G>C, NM_015294.6:c.227T>C
TSEN54	Pontocerebellar hypo	olasia NM_207346.3:c.670_671delAA, NM_207346.3:c.736C>T, NM_207346.3:c.887G>A, NM_207346.3:c.919G>T, NM_207346.3:c.1027C>T, NM_207346.3:c.1039A>T
TSFM	Combined Oxidative Phosphorylation Defi	NM_005726.6:c.1_2delAT, NM_005726.6:c.21_22delGC, NM_005726.6:c.517delC, NM_005726.6:c.856C>T
TSHB	Congenital hypothyro	dism NM_000549.5:c.94G>T, NM_000549.5:c.145G>A, NM_000549.5:c.205C>T
TSHR	Hypothyroidism, con nongoitrous, 1	enital, NM_000369.5:c.100G>A, NM_000369.5:c.122G>C, NM_000369.5:c.202C>T, NM_000369.5:c.326G>A, NM_000369.5:c.484C>G, NM_000369.5:c.500T>A, NM_000369.5:c.1170T>G, NM_000369.5:c.1741_1742insC
TTN	Familial dilated cardiomyopathy	NM_001267550.2:c.107889delA, NM_001267550.2:c.106070_106071delAT, NM_001267550.2:c.104092delC, NM_001267550.2:c.104092c>T, NM_001267550.2:c.1024092delC, NM_001267550.2:c.104092c>T, NM_001267550.2:c.102271C>T, NM_001267550.2:c.104092c>T, NM_001267550.2:c.102373_92379delTGAATTC, NM_001267550.2:c.59344C>G, NM_001267550.2:c.59344C>G, NM_001267550.2:c.593272delG, NM_001267550.2:c.56648-1G>A, NM_001267550.2:c.52372delG, NM_001267550.2:c.36648-1G>A, NM_001267550.2:c.47915dupT, NM_001267550.2:c.39082G>A, NM_001267550.2:c.32471-1G>A, NM_001267550.2:c.28300_28303delAGCA, NM_001267550.2:c.32471-1G>A, NM_001267550.2:c.1881C>A, NM_001267550.2:c.15796C>T, NM_001267550.2:c.4724_4728delTGAAA, NM_001267550.2:c.3165-1G>T
TTPA	Ataxia with Vitamin E Deficiency	NM_000370.3:c.744delA, NM_000370.3:c.661C>T, NM_000370.3:c.575G>A
TYR	Albinism, oculocutan type IA	OUS, NM_000372.5:c.1A>G, NM_000372.5:c.115T>G, NM_000372.5:c.140G>A, NM_000372.5:c.146G>A, NM_000372.5:c.265T>C, NM_000372.5:c.230G>A, NM_000372.5:c.285_286insA, NM_000372.5:c.25G>A, NM_000372.5:c.285_286insA, NM_000372.5:c.25G>A, NM_000372.5:c.35G>A, NM_000372.5:c.586delG, NM_000372.5:c.616G>A, NM_000372.5:c.656T>A, NM_000372.5:c.656G>A, NM_000372.5:c.616G>A, NM_000372.5:c.1012_1013insC, NM_000372.5:c.1111A>G, NM_000372.5:c.1118C>A, NM_000372.5:c.1114GO>A, NM_000372.5:c.1177delG, NM_000372.5:c.1255G>A, NM_000372.5:c.1255G>A, NM_000372.5:c.1265G>A, NM_000372.5:c.1336G>A, NM_000372.5:c.1342G>A, NM_000372.5:c.1500_1501insC
TYRP1	Oculocutaneous albii Type 3	
UGT1A1	Crigler-Najjar Syndro	NM_000463.3:c.44T>G, NM_000463.3:c.524T>A, NM_000463.3:c.674T>G
UGT1A8	Crigler-Najjar Syndro	NM_019076.5:c.1012C>T, NM_019076.5:c.1061A>G, NM_019076.5:c.1121G>T, NM_019076.5:c.1198C>T, NM_019076.5:c.1202T>C, NM_019076.5:c.1447T>G
USH1C	Usher syndrome, typ	
USH2A	Usher syndrome, typ	NM_206933.4:c.14442C>A, NM_206933.4:c.13709delG, NM_206933.4:c.12574C>T, NM_206933.4:c.12574C>T, NM_206933.4:c.12574C>T, NM_206933.4:c.12574C>T, NM_206933.4:c.12574C>T, NM_206933.4:c.12574C>T, NM_206933.4:c.10561T>C, NM_206933.4:c.10053C>A, NM_206933.4:c.0561T>C, NM_206933.4:c.10053C>A, NM_206933.4:c.0593C>A, NM_206933.4:c.0593C>A, NM_206933.4:c.0593C>A, NM_206933.4:c.0575C>A, NM_206933.4:c.0575C>A, NM_206933.4:c.0575C>A, NM_206933.4:c.0575C>A, NM_206933.4:c.0573C>A, NM_206933.4:c.050C>T, NM_206933.4:c.7975C>A, NM_206933.4:c.050C>T, NM_206933.4:c.7975C>A, NM_206933.4:c.050C>T, NM_206933.4:c.7975C>A, NM_206933.4:c.050C>T, NM_206933.4:c.7975C>A, NM_206933.4:c.050C>T, NM_206933.4:c.050C>T, NM_206933.4:c.7975C>A, NM_206933.4:c.050C>T, NM_206933.4:c.050C, NM_206933.4:c.050C, NM_206933.4:c.050C, NM_206933.4:c.050C, NM_206933.4:c.050C, NM_206933.4:c.050C, NM_206933.4:c.050C, NM_206933
VPS13A	Choreoacanthocytos	NM_033305.3:c.622C>T, NM_033305.3:c.2898T>G, NM_033305.3:c.3091delG, NM_033305.3:c.9109C>T, NM_033305.3:c.9275+1G>T
WAS	Wiskott-Aldrich synd	
WNT10A	Odontoonychodermadysplasia/Schopf-Sch Passarge syndrome/agenesis, selective, 4	NM_025216.3:c.321C>A, NM_025216.3:c.347T>C, NM_025216.3:c.383G>A, NM_025216.3:c.697G>T





PATIENT 3.1

GENE	DISEASE NAME	VAR NAME
XPA	Xeroderma pigmento Group A	DSUM NM_000380.4:c.731A>G, NM_000380.4:c.727C>T, NM_000380.4:c.619C>T, NM_000380.4:c.501delG, NM_000380.4:c.348T>A, NM_000380.4:c.323G>T
ZFYVE26	Spastic Paraplegia Ty	PPE 15 NM_015346.4:c.5485-1G>A, NM_015346.4:c.5422C>T, NM_015346.4:c.4936C>T, NM_015346.4:c.4312C>T, NM_015346.4:c.34812C>T, NM_015346.4:c.34812C>T, NM_015346.4:c.3482C>T, NM_015346.4:c.3482C>T, NM_015346.4:c.3482C>T, NM_015346.4:c.3482C>T, NM_015346.4:c.21440LP, NM_015346.4:c.21440LP, NM_015346.4:c.21440LP, NM_015346.4:c.3487C>T

